

Robert B. Greifinger *Editor*

Public Health Behind Bars

From Prisons to Communities

Second Edition

 Springer

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Foreword by David Satcher

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Foreword

America's healthcare system is failing those who are incarcerated. As Assistant Secretary for Health and the United States Surgeon General from 1998 to 2002, I had the opportunity to lead in the development of Healthy People 2010, a comprehensive, nationwide health promotion and disease prevention agenda to improve the health of all people in the United States during the first decade of the twenty-first century. Healthy People 2010's overarching goals are to increase the quality and years of healthy life and eliminate racial and ethnic health disparities. In America, we have gained over 30 years in life expectancy in the last century, from 47 years in 1900 to 77.6 years in 2003. Yet as we move closer to the year 2010, major disparities in health status and health outcomes still exist between African Americans and other racial and ethnic minorities when compared to Whites.

There are factors called determinants of health that affect whether people are healthy or not. They include the social and economic environment, the physical environment, individual behavior and genetics, gender, policies and interventions, and access to quality health care. Health conditions, both mental and physical, are exacerbated by lifestyle. Many people (more men than women, more Blacks than Whites) who are poor, uneducated, and unemployed find themselves caught up in the criminal justice system and incarcerated. African-American men and other men of color have been incarcerated at rates disproportionate to their representation in the general population.

During my tenure as director of the Centers for Disease Control and Prevention (1993–1998), there was a concerted and major focus on correctional health care. This resulted in corrections-specific studies and recommendations for a variety of conditions prevalent among inmates. Correctional health care is now recognized as an important part of public health care. There are standards for correctional facilities and facilities can become accredited for meeting these standards. Correctional healthcare standards represent basic minimum standards. Correctional health professionals can become certified on these standards. However, there are still too many jails, prisons, and juvenile confinement facilities that do not meet these standards. They operate under their own set of rules.

Indeed, the current system is not serving people very well when they are in jails and prisons. The current system does far too little to ensure that people return to mainstream society in good health. Too often, health problems that remain unaddressed during confinement lead people back to jail after release. We all know that America's prison health system is in need of correction!

This book, *Public Health Behind Bars: From Prisons to Communities*, takes a comprehensive look at factors that impact correctional health care and the related implications for public health and public health policy. It discusses the impact of public policy on correctional populations. Keeping in mind that the United States of America leads the world in the percentage of its population that is incarcerated, the book grapples with whether crime in our communities is diminished by incarcerating more and more people and whether health care behind bars could improve the health status of our communities. Special concerns arise when there are prisoners with physical or mental disabilities and others who are simply growing old. Basic oral health care has its own unique set of implications.

Inmates have a high prevalence of communicable and chronic diseases. Infection rates with hepatitis and HIV are more than ten times those found in the general population. This book discusses the prevention and early detection of communicable and chronic diseases and how to reduce transmission in the communities to which these prisoners return.

Far too many people enter our criminal justice system due to an untreated or under-treated mental illness. Too often, we find our prison system substituting for the mental health care once provided in mental hospitals and other medical settings. It is estimated that one in six people in the correctional system lives with a serious mental illness. Compounding the problem is the co-occurrence of mental illness and substance abuse. *Public Health Behind Bars: From Prisons to Communities* leaves no stone unturned in its presentation and analysis of problems in correctional health.

Many of us have blinders on when it comes to the criminal justice system and those who “commit crimes.” We just want these people out of our neighborhoods and communities. The belief is that once they are “put away” we will not have to worry about them anymore and our communities will be more secure, if not safe. Many people are not aware of, or have not thought about, incarceration in the context of what it means to their health and the health of their families.

The reality is that most inmates get out of jails and prisons and return to their communities. In fact, more than 95 percent of people living in prison will be released. Releasing people back into the community, without adequate identification and treatment of communicable diseases and mental disorders, and without a plan for follow-up and continued treatment, has a tremendous detrimental impact on communities, families, and individuals. So, ensuring they are healthy upon release will benefit all of us.

In the part Thinking Forward to Reentry—Reducing Barriers and Building Community Linkages, the authors discuss both the opportunities and challenges of making the transition from incarceration back to communities successful, for both the ex-inmate and the community to which the inmate returns.

Inmates and ex-inmates are part of the communities we live in. What happens to them is vital to the health of the community and to the public health. For all of these reasons and more, the public health implications of criminal justice policy are significant to our nation. We must never forget that regardless of reasons for incarceration, we are still dealing with fellow human beings.

For those of you who are unfamiliar or vaguely familiar with the challenges faced by the correctional healthcare system, *Public Health Behind Bars: From Prisons to Communities* provides an excellent introduction. It identifies problems; asks the hard questions; and offers viable solutions. The book puts a human face on people who are incarcerated and begs us to consider that they are still a part of us and our communities. Knowing this, we must persist in our efforts to improve the health of the incarcerated as we strive to improve the health of all Americans. *Public Health Behind Bars: From Prisons to Communities* is a must-read for those who care and want to make a difference. It should educate, motivate, and mobilize everyone who reads it.

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Endorsement

In 2007, when Robert B. Greifinger first compiled a trove of information about the distressing intersection of public health and incarceration, it was, he says, like a textbook for a class that didn't exist. Since then the physical and mental health care crisis in our prisons and jails has aroused a national sense of urgency, and this extensively updated collection of solutions-based essays could not be more timely. It is an invaluable resource for policy-makers, educators, reform activists – and journalists.

–Bill Keller, *Founding Editor, The Marshall Project, New York, NY, USA*

Preface

This is a book of *what ifs*. What if we discovered a vast and untapped resource, a resource that could yield improved population health status and lower social costs? What if we could harness the energy in this mine toward public health benefit? What if this lode was right before our eyes and easier to tap than nutrition, exercise, air quality, and global climate change? This book is a map to the mother lode of correctional health care.

Although it hasn't been kept as a secret, this mother lode has been hidden from public consciousness. What does it take to unlock the gates and find the rich veins of potential public health benefits? I have spent more than thirty years on this quest. Communication is an ongoing challenge in public health and medical care. To my knowledge, there has been no other book written about the nexus of public health and criminal justice, until this one.

Twelve years ago, in a fit of introspection, I began to think of how to leave a legacy. I asked myself how I could catalogue the public health opportunities that can be seized through medical care behind bars. "Would it make any difference?" I thought. "Of course, it would make a difference," I said. All I had to do was to find the right prism through which others could see how to make this difference.

As a result of my internal dialogue, I took yet another turn in my professional direction. I enhanced my voice in public policy discussions, published more articles in journals, joined the faculty at John Jay College of Criminal Justice, and focused on trying to find a few novitiates in correctional medicine to mentor. Next, I got a call from Springer in the spring of 2006 asking me if I might be interested in editing a text at the nexus of criminal justice and public health. It took me about 10 seconds to decide. I thought about the *what ifs* and was awestruck with the possibilities.

Who would be the audience for such a work? Public policy makers? Correctional administrators? Correctional healthcare practitioners? Inmate and patient advocates? Lawyers? Educators? Students? Public health scholars and practitioners? Journalists? The answer was "yes" to each of these.

And now, 12 years later, notwithstanding deeply partisan politics, there is widespread interest in reversing the culture of mass incarceration, because it has not only failed, it also has caused substantial harm. This harm is manifest by its negative social and economic consequences. More recently, with the arrival of SARS CoV-2 and the associated COVID-19, the deleterious effects of mass incarceration on public health has emerged more clearly than ever.

Mass incarceration has been punitive to all, but especially to disadvantaged poor minority males from impoverished neighborhoods.

This text is the product of thinking about the *what ifs* and *for whom*. It is intended to be a guide to the mother lode of resources, resources that are untapped because of ignorance, attitudinal bias, and misallocated public resources. Through the prism of public health and public policy, this book explores prevention opportunities in the criminal justice system and reentry process.

I hope the readers find answers to the following question: *as a rational society, what can we do for public benefit through attention to our captive population, a population that is disproportionately minority, under-educated, with a high burden of risk and illness?* Most of this burden of risk and illness is amenable to amelioration or remedy, if not cure. The book is about how we identify opportunities and how we can craft remedies that work toward improving the health of our free-world communities, the communities to which most prisoners return.

Alas, this book is broad in scope, too broad for me to have written it myself. And why should I try, with so many experts who were eager to write a chapter within their expertise? We included the traditional categorical attention to communicable disease, and we attend more broadly to prevention in a population at risk for, or with extant, dental, mental, addiction, age, and gender-related illness. And this population is a captive one. The book addresses information technology, international comparisons, innovative programs, research opportunities, and the use of the law to promote prisoner health care.

But the book is incomplete, published without hubris. There is a paucity of research on efficacy with captive populations. The next edition of this book should have sections on preventing transmission of skin infections, performance measurement, outcome studies, cost-effectiveness, analyses of the effects of regulation, and more: How do we teach states and counties to specify intended outcomes for their correctional health programs? How do we measure and report health outcomes of interventions behind bars? How can we learn from our botches and mishaps? What are the pitfalls of various interventions? What do we need to know and how do we develop the resources to find out? Perhaps we will address these topics in a subsequent edition.

As in other human work, there must be errors and omissions in ours. I apologize, in advance; I invite constructive criticism to make subsequent editions more provocative and helpful.

So many people inspired me toward my work behind bars, some of them unknowingly. My mentors include some notables in public health and criminal justice. I am especially honored that David Satcher agreed to write the original foreword. If I may borrow from the 2007 vernacular of youth, I *so appreciate* my editor at Springer, Janet Kim, for giving me opportunity, guidance, and latitude. More than fifty authors contributed to this book, without pecuniary compensation. They did the most work and I applaud them foremost. I appreciate the thoughtfulness, provocative analysis, and responsiveness of the academic authors. The practitioners among the authors, those who work behind bars, labored the hardest. Although less experienced as writers,

their voice is critical because of their exposure over time to the real world of medicine behind bars.

I've had substantial support from my wide range of clients and colleagues in correctional medicine. While they go un-named, they are each appreciated, individually. You know who you are. Never wavering, my strongest support and inspiration comes from my nuclear family and my children's children, Wilder, Zadie, Lauren, and Baby Livingston soon-to-be born.

New York, NY, USA
August 25, 2020

Robert B. Greifinger

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About the Editor

Robert B. Greifinger, MD is a healthcare policy and quality management consultant. His work focuses on design, management, and quality improvement in correctional healthcare systems. He has extensive experience in the development and management of complex community and institutional healthcare programs, and strengths in the bridging of clinical and public policy interests.

Dr. Greifinger has published extensively in the area of correctional health care. He has been a frequent speaker on public policy, communicable disease control, and quality management in corrections. Dr. Greifinger was the principal investigator for the Report to Congress on Seizing Public Health Opportunities through Correctional Health Care, published in 2002. He was co-editor of the *International Journal of Prisoner Health* from 2010 to 2016. Dr. Greifinger is the editor of *Public Health Behind Bars: From Prisons to Communities* (1st Edition, 2007; 2nd Edition, 2022), Springer, New York. He currently serves as the Federal Court-appointed medical monitor for the jails in Miami, Florida; New Orleans, Louisiana; and Albuquerque, New Mexico.



More Than 40 Years Since *Estelle v. Gamble*: Looking Forward, Not Wayward

1

Robert B. Greifinger

It is the first summer since the appearance of SARS-CoV-2 on the planet. By the end of August 2020, the once-in-a-century COVID-19 pandemic has already killed more than 800,000 people worldwide, on a trajectory toward millions before an effective vaccine is developed, distributed and administered (New York Times, 2020). To no thinking person's surprise, prisons, jails, and detention facilities are raging hotspots: dangerous for inmates and staff, incubators of infection, and amplifiers of transmission. With little ability for mitigation and poor readiness for containment, these institutions have experienced large outbreaks, especially in the United States, where an absence of both leadership and a unified national strategy has led to many preventable deaths. By the end of August 2020, with very little mass testing, there have been more than 100,000 reported cases in US correctional facilities, including 898 deaths (COVID Prison Project, 2020).

Like floodwaters exploiting the cracks in criminal justice policy, we are already looking back at the nexus of mass incarceration, lack of preparedness, and the pandemic. We may gain no new insights, but perhaps the look back will lead to more progressive and needed policy changes. Perhaps a focus on social justice, reintegration of populations of color from penal institutions returning to communities, acknowledgement of the injustices of the journey of enslaved people, and the strengths derived from multiculturalism can speed us to significant improvements.

The interim, until we reach a more just society, is a time for both reflection and action on the next steps toward humanizing criminal justice, in the interest of public health and public safety. Be it bail reform, sentencing reform, addiction treatment, eschewal of custodial segregation, or reentry continuity, it will be driven by reducing disparities in health and health care, increasing diversity of the workforce, raising the public's regard for correctional reform, and reversing a punitive culture, steeped in cynicism and stereotyping.

In the first edition of this book, we asked a series of questions, still relevant to thoughts of the future: How far have we come in the 44 years since the Supreme Court issued its landmark decision in *Estelle v. Gamble* (Estelle, 1976)? And how much will correctional health care develop in the upcoming decades? For all of these years, correctional health care has been isolated from public health and isolated further from community health care; two systems that are already remote from each other. How do we make the argument that medical care interventions behind bars have so much

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to do with the health of the communities to which the inmates return? How do we make the argument that public health is a significant piece of public safety? How easy is it to identify the barriers that prevent the application of public health and community health approaches to correctional medicine? How easy is it to break down these barriers and build bridges to enable timely access to reasonable and humane health care? Where exactly is the low-hanging fruit?

There are additional questions that need thought and analysis: how can we understand and empower correctional professionals? How can we link correctional health care with public health and community health providers? How can we increase the health literacy of public policy makers and correctional administrators?

The purpose of this book is to tackle these questions. The intent is to help develop a persuasive rationale to direct public policy toward seizing the public health opportunities that present themselves in a captive population, one that is beset by an extraordinary burden of illness. Much of this burden derives from poverty and drug abuse. This book is:

- An exploration of the next evolutionary steps in public health practice from the perspective of the criminal justice system.
- About the implications on public health when prevention opportunities are seized behind bars.
- About reentry and the public health impact of the cycle of incarceration.

The chapters of this book are authored by some of the foremost experts in correctional health care, public health, criminal justice and civil rights law. The objective is to outline the elements of an infrastructure for improving the health of the community through attention to prisoners' medical care. If we want to protect the public health, the time is ripe to develop public policy that takes advantage of the period of incarceration. In this introductory chapter, I will describe current prominent topics in public policy and correctional health care:

1. Constitutional requirements to provide access to medical care.
2. Changes in population dynamics.
3. The burden of underlying illness in correctional populations and the profound effects of the novel corona virus pandemic, COVID-19.
4. The effects of *Estelle*.
5. Eight conundrums of public policy, medical care, and public health behind bars.

Constitutional Standard: No Deliberate Indifference to Serious Medical Needs

In the United States, the legal foundation for reasonable medical care behind bars is the case of *Estelle v. Gamble*, decided by the Supreme Court in 1976. For the first time in almost 200 years, the Court codified what it called “the evolving standard of decency” for health care behind bars. The Eighth Amendment constitutional standard prohibiting cruel and unusual punishment was applied to the personal medical services provided to prisoners. Because they were deprived of their liberty, the Court ruled that it was unconstitutional to deny medically necessary care to a prisoner. The Court concluded that “deliberate indifference to serious medical needs” was the “unnecessary and wanton infliction of pain,” and thereby a violation of the Eighth Amendment. In *Estelle*, the Court ruled that prisoners were entitled to:

1. Access to care for diagnosis and treatment.
2. A professional medical judgment.
3. Administration of the treatment prescribed by the physician.

The same standards apply to pretrial detainees and juveniles in detention, through the due process clause in the Fourteenth Amendment (Bell, 1979).

In court, the plaintiff must first establish that a “serious medical need” was present. A good working definition for corrections should be consistent with the definition used by managed care organizations as part of their process to consider whether to approve diagnostic tests and treatments. In effect, this is a community standard. A good working definition for this objective test is as follows:

A serious medical need is defined as a valid health condition that, without timely intervention, will result in unnecessary pain, measurable deterioration in function (including organ function), death or substantial risk to the public health. (Greifinger, 2006).

“Deliberate indifference” is a trickier phrase. Nevertheless, it is a term we are stuck with. In 1994, the Supreme Court helped define the meaning of this oxymoron. The Court ruled that, although defendants did not necessarily have to show malicious intent to do harm, the plaintiff must demonstrate that the defendants knew of and disregarded the risk to the prisoner (Farmer, 1994). This is a subjective test that follows the objective test of establishing that there is a serious medical need.

Changes in Population Dynamics

The incarceration rate in the United States had an historical zenith in the late 2000s (Sentencing Project, 2019), straining corrections systems resources, particularly in health care (Federal Bureau of Prisons, 2006). Since that time, there has been increasing public policy attention to the cost of mass incarceration, both fiscally and (to some extent) socially. Incarceration rates are down as a result of bail reform and sentencing reform. The incarceration rate has declined 18% since 2009, and in 2016 was at its lowest rate since 1996. The number of prisoners under state or federal jurisdiction decreased by 18,700 (down 1.2%), from 1,508,100 at year-end 2016 to 1,489,400 at year-end 2017 (all from Kaeble & Cowhig, 2018). The jail incarceration rate declined from 259 inmates per 100,000 US residents at midyear 2007 to 229 per 100,000 at midyear 2017, a 12% decrease. In 2017, males were incarcerated in jail at a rate (394 per 100,000 male US residents) 5.7 times that of females (69 per 100,000 female US residents). In 2017, jails reported 10.6 million admissions, a 19% decline from 2007 (Zeng, 2019).

These declines are positive, but not substantial enough to achieve rates comparable to those in other western democracies for many decades. In focused areas, there have been tremendous improvements. For example, the AIDS-related mortality rate for state prisoners decreased from 23/100,000 prisoners in 2001 to 3/100,000 in 2016, all due to advances in medication for what is now a chronic disease (Carson & Cowhig, 2020).

The highest number of mortalities occurred among prisoners age 55 or older, as their numbers tripled between 2001 and 2016. Suicide, homicide, and deaths from all causes among state prisoners between 2001 and 2016 tell another sad story.

- Suicide rates increased by 50% (from 14 to 21/100,000).
- Homicide rates increased by 260% (from 3/100,000 to 8/100,000).
- Deaths from all causes increased by 25% (from 242 to 303/100,000).
- Deaths from alcohol/drug intoxication increased by 25% (from 3 to 8/100,000).
- Mortality rates for black prisoners increased by 25% (from 234 to 293,000).
- Mortality rates for white prisoners increased by 55% (from 345 to 535/100,000) (Carson & Cowhig, 2020).

These data help focus on the current prevention challenges in correctional health care, that is, older prisoners’ chronic disease, violence, suicide, drug overdoses, and racial disparities.

Burden of Illness

As a result of poverty and drug abuse, prisoners have a uniquely high prevalence of communicable disease, including HIV/AIDS, tuberculosis, sexually transmitted diseases, and viral hepatitis B and C (NCCHC, 2002) owing in part to their drug abuse. As a result of their poverty, inmates have high rates of mental illness and chronic diseases, such as asthma, diabetes, and hypertension. Drug addiction, poor access to health care, poverty, substandard nutrition, poor housing conditions, and homelessness contribute to increased morbidity from these and other debilitating conditions.

Close to 80% of chronically ill inmates have not received routine medical care prior to incarceration and are likely to have used hospital emergency rooms as their source of primary care (Conklin et al., 1998; Davis & Pacchiana, 2004; Hammett, 1998). As a group, inmates report more disabling conditions, have poorer perceptions of their health status, and have lower utilization of primary health-care services than the general population. While the focus of correctional health care is often on the people behind bars, correctional health-care interventions benefit custody staff, their families, prisoner families, and the communities to which inmates return. Correctional facilities are linked to our nation's communities through population dynamics. Virtually all return to their communities and families (Corrections, 2003; Roberts et al., 2004).

In early 2020, as this volume is being prepared for publication, SARS-CoV-2 emerged worldwide causing a deadly pandemic of COVID-19. Transmitted primarily through respiratory secretions, with a high degree of contagion, people are most at risk through prolonged contact in confined spaces. Just like nursing homes and other institutions, jails, prisons, and detention centers are the foci for amplification and accelerated transmission (Barnert et al., 2020). In other words, the virus circulates like wildfire within the walls of the institutions. In addition, it spreads to communities through recycling; in other words, staff and prisoners are at risk of acquiring infection, bringing it back to their families and communities, and then cycling a return of the infection to the correctional facilities (Reinhart & Chen, 2020). Vulnerability increases with serious underlying illness. It is yet to be seen whether this once-in-a-century pandemic will shape the culture of mass incarceration in a positive way. The potential is here to wholly rethink the nature of the system for justice-involved persons.

The Effects of *Estelle*

The consequence of *Estelle* and ensuing decisions on medical care for inmates has been considerable. In large part, driven by litigation based on *Estelle* and other related Court decisions, we have witnessed improvements in health care behind bars since 1976:

- Standards have evolved, such as those promulgated by the National Commission on Correctional Health Care, the Joint Commission on Accreditation of Healthcare Organizations, the American Correctional Association, and the American Public Health Association.
- Policies and practices have improved.
- There is more professionalism in correctional health care.
- Timely access to care is more the rule than the exception.
- Staff are better qualified and have better training and supervision.
- There is better continuity and coordination of care.
- Performance measurement and quality management programs have improved with increasing self-criticism.
- Oversight has increased somewhat.

In 1996, Congress passed the Prison Litigation Reform Act (PLRA, 1995), a law that restricted some of the legal remedies that had been available to prisoners through class-action litigation for injunctive relief and individual complaints for damages. But Congress opened another avenue for litigation to improve health care behind bars with the Americans with Disabilities Act (ADA, 1990), passed in 1990. In 1998, the US Supreme Court ruled that the ADA applies in the prison context. Prisoners are entitled to reasonable accommodations for their disabilities under Title II of the ADA (Pennsylvania, 1998). The latter decision became a new avenue for prisoners to seek redress through the Courts.

Conundrums¹ Behind Bars

The list of improvements (above) in correctional health care is not to say that our correctional health-care systems are uniformly excellent. Too often, correctional health care is compromised by strained resources, professional isolation, and pressures to conform to the punitive aspects of command-control environments. Too often, correctional health professionals begin to stereotype their patients and thereby distrust them. This stereotyping results in cynicism that is destructive to therapeutic relationships. And too often, there are inadequate linkages to community health-care providers and public health authorities.

Isolation of Correctional Health Professional from Mainstream Medicine

We have a triple-tiered system (better described as a nonsystem) of medical care in the United States: care for the affluent in private offices and group practices; care for the poor in community health centers and hospital clinics; and care for prisoners behind bars. But at least 95% of these prisoners will return to their communities (Hughes & Wilson, 2003). The first conundrum for public policy makers to solve is how to coalesce these diverse medical care systems for better communication of medical information, access to specialty care and hospitals, and linkages for continuity of care on release.

Nexus of Correctional Medical Care with Public Health

A second conundrum is how to address the nexus of personal medical care and public health. We have learned lessons at the interface of public health and criminal justice. In the 1980s, we learned about HIV and the disproportionate percentage of infected people who were behind bars. In the 1990s, we learned about the prevalence and incidence of tuberculosis and the high risk of transmission in correctional facilities. In the first decade of the twenty-first century, we learned about viral hepatitis C and community-acquired methicillin-resistant *Staphylococcus aureus* (MRSA). In this third decade of the twenty-first century, we are learning about the profound failure of the public health infrastructure of the United States. We are learning of the tens of thousands of excess and unnecessary deaths caused by inadequate funding and diabolical leadership, tossed with hyperpartisanship. All are victims, but the concentration of victims falls to the mostly minority poor.

Every inmate who leaves a correctional facility with untreated sexually transmitted disease, viral hepatitis, HIV, tuberculosis, or COVID-19 might be a source of transmission in the community. These

¹In this section of the chapter, I use the term *conundrum* instead of *challenge*, *obstacle*, *barrier*, or *hurdle*. To me, these are puzzles that can be solved with rational analysis. Once the puzzles are solved, the barriers fall to the wayside.

are diseases typically addressed by public health authorities, agencies that because of their categorical funding may not have the resources to join efforts with correctional agencies. Every inmate who is treated for communicable disease behind bars reduces the risk to the public health. The community also benefits from treatment of chronic disease and mental illness behind bars through the savings from early intervention (Freudenberg et al., 2005).

Episodic Versus Primary Models of Care

A third conundrum is the archaic model of medical care in most prison and jail systems. Most facilities use what they call a “sick call” system. This episodic care is appropriate for acute illness, but it has no place in the care and treatment of patients with chronic disease and mental illness. There are nationally accepted guidelines, each with an evidence basis, for a wide variety of chronic conditions. If patients are treated according to these guidelines, including treatment plans for prisoners with special needs, there will be reduced morbidity and mortality. The reduction in morbidity is a substantial cost saving for the communities to which inmates return because of their dependence on public resources for access to care in the community.

Integration of Care for Patients with Coexisting Illness

The fourth conundrum is the artificial walls between treatment for drug abuse and mental illness behind bars. For a variety of reasons, correctional systems typically provide medical care and drug treatment through parallel but unrelated programs. And there is not enough drug treatment behind bars to help reduce recidivism. Despite strong evidence of effectiveness, there is far too little medication-assisted treatment for persons with drug addiction. These are barriers to recovery for patients with coexisting illness.

Transfer of Medical Information

The fifth conundrum is the challenge of transfer of medical information between community and correctional providers. It is a cumbersome process, even with recent widespread use of electronic medical records in correctional facilities. As a consequence, it happens infrequently. This interferes with continuity and coordination of care, putting incoming and outgoing prisoners at risk of harm.

Quality Management Systems

The sixth conundrum is the development of meaningful self-critical analysis, a process called quality management or quality improvement in community health-care facilities. Very few correctional agencies have incorporated valid and reliable performance measurement into their medical care programs. As a consequence, they are unable to measure their problems and then reduce barriers to improved outcomes of care. Performance measurement with quantitative and qualitative analysis of data is an opportune way to improve care and reduce risk of harm and costly litigation. This has been amply demonstrated in the community. There is no reason why the same approach cannot be used behind bars.

Command-Control Versus Collaboration

The seventh conundrum is the apparent contradiction of the command-control organizational model, so essential for safety, and the collaborative-autonomy model used in health care. For example, there are challenges to provide meaningful diagnosis and treatment for inmates who are confined in isolation for breaking facility rules, typically with disruptive behavior. Many inmates are disruptive because of mental illness. Segregation for 23 hours per day is not an effective treatment for mental illness. To the contrary, isolation is contraindicated for serious mental illness, yet correctional agencies often rely on deprivation as a putative way to reduce disruptive behavior. This is but one of the ongoing challenges between the command-control model of correctional facility operations and a public health model of care.

Command-control is critical to safety behind bars. It requires rigorous adherence to rules and does not easily tolerate uncertainty. Even in their most scientific modes, medicine and public health are filled with uncertainty, more uncertainty than is often tolerated in command-control environments. Physicians and other health professionals are used to managing with much more uncertainty than is often tolerated by custody staff. This creates a natural tension, even when the leadership of correctional facilities works hard both to keep a facility safe and to provide good medical care through autonomous health professionals.

Reentry—Seven Tasks

The eighth conundrum is reentry. Until recently, the responsibility of correctional agencies stopped at the gate. Recent public attention to reentry offers correctional and public health professionals the finest opportunity to make a difference for the prisoners themselves and for the communities to which they return. But it requires a revised scope of responsibility for correctional agencies. A revised scope often means a revised budget. With increasing attention to reentry among public policy makers and correctional system leaders, social conditions are favorable for personal health care and public health practitioners to make a real difference here. This is a time and place where their advantage to our communities can shine. It is a place where correctional and public health practitioners can honor their moral duty to provide continuity of care for their patients (AMA, 2001).

Among many other risks, recently released inmates are at higher risk of death after release than people in the community, matched for age, sex, and race (Binswanger et al., 2007). The reentry process contributes to excess mortality relative to incarceration itself, which might have a small protective effect, especially among blacks (Mumola, 2007). In the Binswanger study, conducted in the State of Washington, the relative risk of death within 2 weeks of release was 12.7 times expected and the overall risk of death in the several years following release was 3.5 times expected, and higher among women. In the studied cohort, the most frequent causes of death were overdose, cardiovascular disease, homicide, suicide, cancer, motor vehicle accidents, and liver disease. Surely, some of this risk could be reduced by thoughtful reentry planning.

From a medical perspective, a successful reentry program has seven tasks (Mellow & Greifinger, 2006):

1. *Define the target population.* This includes patients with incompletely treated communicable disease and patients with acute medical conditions. There are other questions for correctional programs:

- Will the program target patients at risk of serious illness?
 - Will the program target patients with well-compensated chronic mental illness or any mental illness being treated with medication?
 - How about patients with severe chronic diseases? Or all patients with chronic diseases?
 - For a larger target, could facilities target patients with nonemergent dental disease, or a history of substance abuse?
 - What are the limitations on distributing certain medications at the time of release, for example, antipsychotics, narcotics, benzodiazepines, and TB meds?
2. *Develop formal linkages with commonly accessed community providers including public health departments, community health centers, and hospitals.*
 3. *Determine an individual patient's risk and eligibility for reentry services as early as the intake process.*
 4. *Summarize essential information for the patient and the subsequent provider of care.*
 5. *Provide medication or a combination of medication and written prescriptions.*
 6. *Enable access to care on release with community providers, including an appointment and information for access to community-based organizations.*
 7. *Designate staff with a clearly defined discharge planning function.*

Improving Public Health Through Correctional Health Care

With our high rates of incarceration and high burden of illness, there are social policy conundrums that go beyond the authority of correctional administrators and correctional health practitioners. Public policy makers will be dealing with increasing costs for medical care, not just because of health care inflation, but because the inmate population is aging. What is the effect of our current policies on communities? Inmates are returning to their home communities without treatment, education, skills, housing, jobs, and self-confidence. Each of these topics is covered in this book. How do we make the expense of incarceration into an investment in our communities? Who do we lock up and who can we safely divert, perhaps in a more constructive manner? How to think about the potential effect of reentry for healthier communities? And, how do we improve the health literacy of public policy makers so as to improve the public health?

Inmates are beacons of public health opportunity. It is my hope that this book will provide a sound basis for a public health perspective on criminal justice policy and operations. It should provide information for policy analysis and direction for correctional medical care programs. Beyond the introductory materials, the book is divided into five sections. Within a section, each chapter is intended to provide both scholarly analysis and practical advice for public health interventions through the criminal justice system. Although I did distinguish communicable disease prevention with its own section, readers may note that I did not separate the psychiatric chapters in their own sectional cocoon. I did this to make the point that we need to reduce the barriers created by mind-body distinctions. Illness is illness. Illness can cause functional disabilities, whether it is somatic or psychiatric.

Part I of this book is about the impact of law and public policy on correctional populations, addressing the following questions: What is the impact of criminal justice policies on communities? What are inmates' constitutional rights to timely and appropriate medical care and how has litigation driven the standard of care? What are the rights of disabled inmates and who are disabled? How do we compare to other countries, especially with public health policies and programs to minimize harm? What are the special needs of aging inmates and has anyone considered the cost of reasonable accommodation for a rapidly aging prison population? How does the medicalization of lethal injection contribute to a moral dilemma for physicians and pain and suffering for the condemned inmates? And with regard to

contracted (or directly provided, for that matter) services, how do we improve accountability toward timely access to an appropriate level of care?

Part II is about categorical public health. From a prevention point of view, we address how to reduce morbidity, mortality, and transmission of diseases that are highly prevalent in inmate populations: tuberculosis, viral hepatitis, HIV, and sexually transmitted disease. We also address, in rudimentary terms because of the recent onset of the pandemic, matters relating to intramural transmission of COVID-19.

Part III is about primary and secondary prevention. How can we use root cause analysis to improve services? What are exemplary nursing practices? How can attention to environmental health reduce risk of intramural transmission of disease? What can we do to prevent disease in the first place and how can we devise programs for early detection (screening) and treatment, using evidence-based protocols? How do we prevent suicides? How can we improve the diagnosis of mental illness? How do we work to prevent prisoners from being punished for behaviors that are outside their control? Why is oral health care important? How are women's health issues different from men's health issues? How are youth different from adults behind bars?

Part IV is about tertiary prevention and access to appropriate care. Care for transgender patients, use and misuse of segregation, and European models for independent monitoring of prisons are timely topics for discussion and thought. How do we use medication-assisted therapy to its best effect?

Finally, Part V is about developing a better infrastructure for reentry. How can we improve communication, especially with electronic information systems and written information for our patients? What research needs to be done? And, how can we manage reentering patients with chronic disease and mental illness so as to provide smooth continuity and coordination of care?

Public Health Behind Bars: From Prisons to Communities, Second Edition, should be a provocative guide to developing the next evolutionary steps in public policy and clinical practices for a better future for our communities.

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Part I

**Impact of Law and Public Policy on
Correctional Populations**



Impact of Incarceration on Community Public Safety and Public Health

2

Todd R. Clear and Chase L. Montagnet

The Growth in Incarceration Rates

In 1971, there were about 200,000 prisoners in the daily US headcount. Since then, we have added approximately 1.3 million people to the daily population of those in prison, with 2016 year-end counts totaling 1,505,400. Counting all forms of incarceration, more than 2.1 million Americans are behind bars on any given day in the United States. These numbers are even more dramatic when one considers the entire correctional population. For example, at year-end 2016, about 2.6% of all US individuals aged 18 or older were under some form of correctional supervision (e.g., prison, jail, probation, and parole). Given these astonishingly high numbers, it is hard to imagine there was a time they were even higher. Yet, in 2007, counting probationers and parolees as people *at risk* of incarceration, there were over 7.3 million people for whom jail or prison time was a reality or a direct threat—an astonishing 2.4% of the adult population (Kaeble & Cowhig, 2018). As contrast, just over 4% of Americans will report a potentially lethal form of cancer each year (US Cancer Statistics Working Group, 2019).

After peaking in 2007, the US total correctional population has declined annually, with 6,613,500 individuals under the purview of the correctional system at the end of 2016. This represents an average annual decrease of 1.2% for the total correctional population, and an average annual decrease of 0.7% in the incarceration population (Kaeble & Cowhig, 2018). Despite these decreases in the past decade, the incarceration rate in the United States is globally unprecedented. Our current incarceration rate of 655 per 100,000 is the highest in the world, approached only by El Salvador (604), Turkmenistan (552), US Virgin Islands (542), and Thailand (526). Among Western democracies, we are an order of magnitude higher in the use of confinement: England (140), Australia (172), Canada (114), Germany (75), and France (100) all use prison at a rate that is a fraction of ours. Compared to third-world countries, we are at the top of a list that, among those making the most use of imprisonment, might not make us feel so progressive: compare our rate to the totalitarian states of Cuba (510)

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and China (118). Even with regard to some of the world's more despotic governments, we still lead the pack.¹ Knowing nothing else about the United States than our rate of imprisonment, an unbiased observer would be more likely to think we are an economically underdeveloped dictatorship rather than the self-proclaimed "leading voice for freedom in the world."

The United States has achieved its distinctive incarceration rate through a range of policies that have grown the penal system with little relationship to crime. The general picture is as follows: In the 1970s, the growing prison population closely mirrored increases in rates of felony crime; contrary to many predictions, the increase in imprisonment did not drive down the rate of crime. In the 1980s, property crime first fell precipitously, then rose at a roughly equivalent rate, ending the decade about where it started. Violent crime also fell during the early 1980s, but then rose steeply, ending the decade at a rate of 666.9/100,000 compared to 596.6 in 1980. Prison populations grew annually during these shifts in crime, largely as a consequence of a reduction in the use of probation as a sentence for felony crime. By the end of the decade, sentences to confinement outnumbered sentences to probation by a ratio of 2:1. In the early 1990s, after a peak in property crime in 1991, and a peak in violent crime in 1992, crime rates began to fall, and did so for more than a decade. Because of declining crime, the annual number of new felony commitments to prison *also* declined. Prison populations grew, nonetheless, because the amount of time served by those going to prison increased as much as 50%. [For a discussion of these three time periods, see Blumstein & Beck, (2005).]

At the turn of the century, apart from a rise in violent crime between 2004 and 2006 and again between 2014 and 2016, crime rates have continued to decrease. However, despite this downward trend in crime, the nation's incarceration population only began decreasing in 2007. In fact, high incarceration rates have not been driven primarily by crime rates, but largely result from sentencing and correctional policies (Bushway, 2011; see also, Blumstein & Beck, 1999; Pfaff, 2008; Spelman, 2009). It is not surprising then that, in addition to decreasing crime rates, changes in sentencing and corrections laws have also led to the declining incarceration population we have seen in the past decade. These policy changes included drug reforms, pretrial reforms, and community supervision practices (Gelb & Stevenson, 2017). While these changes have provided welcomed reductions in the astronomically high incarceration rates, they are only a starting point. For example, despite drug reform policies, individuals incarcerated for drug offenses still dominate the federal system. Similarly, jail incarceration rates are predominately driven by pretrial detention, specifically bail practices (Sawyer & Wagner, 2019). Thus, even in the face of a decreasing incarceration population, today, we still have a prison population about seven times larger than it was in 1971; an incarceration rate seven times larger, yet a lower crime rate—marginally lower for violent crime and substantially lower for property crime (Bureau of Justice Statistics, 1982; Kaeble & Cowhig, 2018). The current rate of decline in imprisonment is sufficiently slow that unless it accelerates, it will take another 72 years to cut the peak incarceration by half (Ghandnoosh, 2019).

It is important to emphasize how unique the prison system is in the United States, and to accept how ingrained the prison system is in our sociopolitical psyche. Prisons grew in all areas of the country, under Democrat and Republican leadership, during good economic times and bad, while we were at war and during peacetime, before welfare reform and after, during the baby-boom years, and after they had ended. No other nation has this pattern of prison use. It is a peculiarly American idea to use the prison as the first-choice reaction to crime.

¹Incarceration rate comparisons taken from Walmsley (2018).

Impact on Human and Social Capital in Poor Communities

The growth in imprisonment is not a random social phenomenon. Rather, it concentrates itself within society in four important ways: age, gender, race, and place.²

Age Confinement is disproportionately a young person's experience. Americans aged 18–44 are about two-fifths of the US population, but they are more than three-quarters of the people behind bars. Young people end up in prison largely because crime is more prominent among the young. The peak age of arrest is the late teens. People rarely go to prison as a consequence of their first arrest, so it is a few years later when subsequent arrest leads to prison. For state prisoners released in 2016, the average time served was 2.6 years, while the median time served is 1.3 years (Kaeble, 2018). In 2006, Irwin and Austin calculated that the typical person who ends up behind bars went to prison for the first time at the age of 25, and, by the end of his sentence, will have spent a meaningful portion of his young adulthood behind bars.

Additionally, these same individuals are likely contributing to the aging prison population (Porter et al., 2016). Between 1993 and 2013, the number of state prisoners aged 55 or older increased by 400% (Carson & Sabol, 2016). While the increasing age of the prison population is often attributed to period effects (e.g., punitive sentencing reforms in the 1980s and 1990s that have led to a larger proportion of individuals serving longer sentences), research also suggests that cohort effects are causing the aging prison population (Carson & Sabol, 2016; Shen et al., 2020). In contrast to period effects that impact all birth cohorts during a specific period, cohort effects impact a specific birth cohort over their entire age (Shen et al., 2020). In their study, Porter et al. (2016) found greater support for cohort effects than period effects. Specifically, they found that individuals born in the 1960s, who came of age in the 1980s, are driving the increasing age of the prison population due to their increased probability of incarceration (Porter et al., 2016). Other research also confirms these findings (see King, 2019; Luallen & Kling, 2014; Shen et al., 2020). For example, Shen et al. (2020) found that birth cohorts who reached the prime age of crime during the 1980s and 1990s have a higher likelihood of incarceration throughout their life course than those who did not come of age during the crime wave.

Gender Adult men are slightly less than half of the general population, but they account for approximately 93% of the prison population. In 2017, the imprisonment rates for men were 829 per 100,000 US male residents compared to 63 per 100,000 US female residents (Bronson & Carson, 2019). Similarly, in 2017, males were incarcerated in jail at a rate that was six times that females (394 vs. 69 per 100,000 male/female US residents, see Zeng, 2019). In fact, males are more prevalent in all aspects of the criminal justice system. In 2017, males represented 71% of all juvenile arrests (see Puzanchera, 2019), and in 2018, males represented 73% of all adult arrests (see Federal Bureau of Investigation, 2018). Men end up in behind bars in part for the same reason young people do: they are more likely than others to be criminally active. At year-end 2017, 1.1% of adult males were serving a sentence of more than 1 year (Bronson & Carson, 2019). Although males are a defining feature of the incarceration population, the proportion of the prison population that is women has grown in recent years. For example, the female jail population grew by 20% between 2000 and 2017 (Zeng, 2019). Furthermore, even though the female prison population decreased between 2007 and 2017, it decreased at a lower rate than males, 13.2% versus 8% (Bronson & Carson, 2019).

²Unless otherwise cited, data for this section are taken from various federal reports of prison population demographics (especially Bonczar, 2003), justice processing statistics, and the US census.

Race/Ethnicity The large racial and ethnic disparities characteristic of US prisons has been declining. Between 2007 and 2017, the black-white incarceration gap dropped by 20%. As noted above, while the total incarcerated population declined during this time, the decline was greater for black inmates (20%) than white inmates (13%). The Hispanic white incarceration gap also decreased during this time, with 100,000 more white than Hispanic inmates at year-end 2017 compared to 169,400 at year-end 2007 (Gramlich, 2019). Despite these decreases, the racial and ethnic composition of the prison population is still drastically different from the racial and ethnic composition of the United States. For example, in 2017, whites accounted for 64% of the US adult population, but only 30% of prisoners. On the other hand, blacks only represented 12% of the adult population, yet 33% of the prison population. Finally, Hispanics accounted for 16% of the adult population but 23% of the prison population (Gramlich, 2019). Thus, taken together, both blacks and Hispanics are disproportionality overrepresented in the prison population.

The imprisonment rate in the United States also highlights these racial and ethnic differences. For example, blacks are six times more likely to go to prison than whites (1,549 per 100,000 black US adult residents compared to 272 per 100,000 white adult US residents), and almost twice as likely as Hispanics (823 per 100,000 Hispanic adult US residents; Bronson & Carson, 2019). Unlike age and gender data, the prominence of blacks among those who break the law is less clear. For example, blacks in high school are slightly *less* likely to report illicit drug use than whites (see Beckett et al., 2006; Western, 2006). Nonetheless, black defendants are overrepresented at each stage in the justice system (Johnson, 2015; see also, Wooldredge et al., 2015; Spohn, 2015; Schlesinger, 2015), and almost one in three black men will be incarcerated in their lifetime (Wildeman & Wang, 2017).

Place Poor people go to prison at rates much greater than the nonpoor. In his epic study of the role of prisons in inequality, Princeton sociologist Bruce Western (2006) shows how those who enter prison are predominantly those with low human capital: undereducated, underemployed, and under-skilled. Due to racial and economic segregation, those who are incarcerated tend to come in concentrated numbers from impoverished neighborhoods. In fact, as noted by Western and Muller (2013), the growth of the US prison population has been concentrated among blacks and the poor (see also, Wacquant, 2009). For example, black men under 35, who dropped out of high school, have a higher chance of being incarcerated than finding a job (Western & Muller, 2013; Western & Pettit, 2010). Similarly, among unemployed 30-year-old men, approximately one-third has been—or is currently—incarcerated (Looney & Turner, 2018). Thus, some deeply poor neighborhoods in major cities have a significant percentage of their adult male residents behind bars on any given day. Of course, they cycle in and out at fairly high rates, so that over time, almost every family in some locations currently has or recently had a member in prison.

Poverty also has long-term consequences for the likelihood of incarceration. For example, a recent report by the Brookings Institute (2018) found that boys who grew up in households at bottom 10% of the US household income distribution were 20 times more likely to be in prison in their early 30s than boys who grew up in wealthy families, that is, those in the top 10% of the US household income distribution (Looney & Turner, 2018). Similarly, other research highlights the benefits of moving from high-poverty communities. For example, the Moving to Opportunities experiment found that relocating from high-poverty neighborhoods to low-poverty neighborhoods reduces arrest rates for men in the short term, and women in both the short and long term (Kling et al., 2005; Sciandra et al., 2013; see also, Looney & Turner, 2018).

The collective effect of these four types of concentration is that certain subgroups of Americans bear the brunt of US prison growth. Young black males who come from impoverished places and develop limited human capital are more likely to go to prison in their lifetimes (see Western, 2006;

Western & Muller, 2013). This has substantial impact on social networks, social capital, and informal social control (Clear, 2008).

Social Networks The array of personal relationships people find themselves involved in comprises their “social network.” It is upon one’s social network that one relies on for social support: when a problem arises, this is the set of relationships upon which a person can call for help; when opportunities are sought, the network is the cast of people whose real-world relationships are the foundation for those opportunities. Volumes have been written on social networks, much more than can be adequately reviewed here. But a few points are important to make concerning incarceration and social networks.

First, poor people—people who are likely to go to prison—have lower levels of social capital than nonpoor people (Warr, 2005). According to Field (2003), social capital is fostered through shared social norms, interactions, and networks that connect individuals (Warr, 2005). In general, individuals with diverse social networks have a stronger likelihood of developing social capital (Warr, 2005; see also, Erickson, 1996; Field, 2003; Granovetter, 1973). Unfortunately, poor people tend to have social networks that are diminished in several respects. Their networks are dominated by what is called “strong ties,” that is, ties that are reciprocal, to people whose networks include roughly the same array of relationships (Field, 2003; see also, Kunitz, 2001; McDonald, 1999; Portes, 1998). Family members, for example, are often strong ties. Furthermore, poor people tend to have fewer “weak ties,” or relationships with people whose networks include a far different cast of relationships. We develop weak ties with many of those at our workplaces. As the name suggests, weak ties are not as strong as strong ties; however, they are valuable in that they can provide individuals with access to a range of new relationships, opportunities, and resources (Warr, 2005; see also, Aguilera, 2002; Erickson, 1996; Granovetter, 1973). For example, through an important weak tie to someone in a person’s network, access is given to many people in the contact’s network but not in that person’s network. This exposure can connect individuals to other, additional resources and broaden their social experience.

Second, poor people’s social networks tend not to span outside of their local residential area, except for family ties. Thus, when a poor person is in need of some form of social support, poor people tend to be limited to relationships in physical proximity to where they live, which often stifles their access to anything more than impoverished resources and can lead to social isolation (Cohen et al., 2003; Tigges et al., 1998).

Third, young men play crucial relationship-building roles in social networks—they are referred to as “entrepreneurs.” They take jobs that generate employment-related social ties, they leave their local neighborhood to work and socialize, bringing outsiders into their networks, and, by contact to others, they generate valuable weak ties. Yet, when young, poor black men go to prison, those who are in their social networks, especially family members, are affected in important—but largely invisible—ways (Clear, 2007; Clear et al., 2001; Morenoff & Harding, 2014). First, many family members maintain contact with a young male who has gone to prison, especially when he goes for the first time and if the sentence is expected to be short. This means that the energy of those who remain behind, which could have been devoted to expanding and strengthening a social network, is spent maintaining the network with the person behind bars. Since these networks were thin to begin with, the effect of the imprisonment is to further weaken them. Studies of networks find that incarceration has a small destabilizing effect, reducing the size of already depleted networks (for a discussion, see Rengifo, 2007; Rengifo & Waring, 2005). The size of the network may be only part of the problem. Because young men should be contributing dynamically to the networks of those associated with them, men who are in prison constitute missing “entrepreneurs” whose absence invisibly diminishes the networks of others, not because of what they do but because of what missing men *cannot* do.

Social Capital As briefly mentioned above, social capital is the capacity a person has to obtain “goods” (support, resources, assistance, and materials) through relationships with others. Classic examples are the way parents can deal with the problems of sick children and college entrance applications. Adults with good social capital rely on friends to identify the best available medical care, or they use friendships to bring their children’s applications into a positive light. Thus, social networks are the foundation for social capital. That is why weak ties are so much more valuable than strong ties—weak ties add new layers of relationships to a network that can serve as potential sources of social capital when inevitable problems come along. One way of looking at the intersection of social networks and social capital is that when a person’s human capital—his or her own personal skills and abilities—and wealth are insufficient to deal with a problem in life, the resources available to one’s social networks are activated through the mechanism of interpersonal relationships, and the dormant capacity of those networks is a person’s social capital.

By definition, social capital is lacking in poor neighborhoods. People who live in poor places do not have many personal resources to call upon for social support, other than their immediate family and their personal capabilities. They tend to go to state-supported services for help when they are in need, making use of public welfare, free counseling, and drop-in health clinics. If these services are not adequate, they often do without help. And, as research suggests, the services in poor neighborhoods are often not adequate (Cohen et al., 2003).

The weakening of social networks that results from incarceration of young adults, especially men, has profound implications for social capital. This begins as social networks are affected in the way described above. This small deterioration in social networks adds up, when there is an entire community of people who are similarly affected. Each small diminishment in capacity is multiplied across family units and related networks. Most people whose social networks took a temporary “hit” would compensate by turning to others, but this is not possible in communities where networks were weak to begin with; on top of which, virtually *every* network is damaged by incarceration in much the same way. The impact of incarceration becomes multiplied when it becomes ubiquitous because the usual compensations are unavailable. The result is that state-sponsored and volunteer services grow in importance for places with limited social capital, simply as a result of the ever diminishing set of options (see Clear, 2007; Clear, 2008; Morenoff & Harding, 2014; Rose & Clear, 1998).

Informal Social Control Hunter (1985) has defined three levels of social control: public, parochial, and private. Public controls are operated by the state: police, courts, and prisons on the one hand; schools, welfare, and social services on the other. Parochial social controls are community-level groups that stabilize a place’s community life; for example, the barbershop has historically played this role in black communities and religious institutions do the same. Private social control includes intimate interpersonal relations, most characteristically the family (for an expanded discussion, see Bursik & Grasmick [1993]). Two important points can be made from this classification. First, these levels of social control can operate independently, but they typically are in interplay with each other to provide public safety. Second, of the three, the public safety importance of public social control pales in comparison to private and parochial levels of social control.

If private social controls are effective, there is little pressure on parochial or public social controls. When private controls fail, parochial controls can be strained, and public controls attempt to enter the breach. Without the benefit of viable private and parochial controls, public social control is challenged to provide safety for communities.

The incarceration of large numbers of adults from particular communities affects both parochial and private controls (Garland, 2019; Morenoff & Harding, 2014; Sabol & Lynch, 2003). Parochial controls require enough adults to be around to participate in them. Participation is made more difficult when the adult population has limited long-term commitment to a residential area. For example,

places with high levels of outward mobility do not sustain the long-term relationships that are the foundation for parochial control (Shaw & McKay, 1942). Instead, in these places a degree of isolation develops that keeps people from interacting with one another (Skogan, 1990), which in turn undermines the creation of social networks, community organizations, and thus, informal social control (Morenoff & Harding, 2014; Sabol & Lynch, 2003; Sampson et al., 1997, 1999).

Places with large numbers of adults going to prison are also places that have many single-parent families (Sabol & Lynch, 2003). The rate of adult incarceration is an indicator of the rate of deterioration in informal social control. (For a detailed discussion of American's over reliance on public social control and its resulting impact on informal social control, see Garland, 2019.)

In this regard, the incarceration of women, although occurring in smaller numbers than men, may have impact exceeding the sheer question of numbers. Women play crucial roles in poor, especially black, communities. They provide the stability that makes parochial social control possible (in particular, churches and religious institutions) and they are the main providers of child socialization and childcare (Glaze & Maruschak, 2008). Their ability to perform functions of informal social control is impeded when men are absent because they have to focus their energies on filling in the missing functions men might have performed. Thus, the incarceration of men also produces consequences for women who are connected to them (see Braman, 2004; Comfort, 2008; Turney & Wildeman, 2018). Furthermore, research suggests that this is not a marginal number of women as approximately 50% of black women have a family member behind bars (Wildeman & Wang, 2017). Even worse, women are unable to provide any social control when they themselves are behind bars. (See below for a brief discussion of the consequences of paternal and maternal incarceration.)

Public Safety and Public Health Outcomes

There are good reasons, then, to believe that high rates of incarceration, concentrated in impoverished residential areas, will have negative impact on the health and safety of those areas. Studies of this question are mixed, but tend to bear this out.

Health outcomes include the direct effect that incarceration has on an incarcerated individual, as well as the indirect effect it has on the community, families of incarcerated individuals, and children of incarcerated parents.

Health Outcomes for the Incarcerated Individual Several studies have investigated the relationship between incarceration and health. Compared to the general population, those incarcerated have higher rates of sexually transmitted infections (STIs), HIV, hepatitis C, hypertension, diabetes, and asthma, as well as substance use and mental health disorders (Wildeman & Wang, 2017; see also, Fazel & Danesh, 2002; Wilper et al., 2009). On the other hand, for some population groups, incarceration may have health benefits. For example, black male prisoners have lower rate of mortality than nonincarcerated black males. Although the mechanisms for this decreased mortality rate are debated, some research highlights that incarceration decreases the risk of violence, reduces a person's access to substances, and provides increased access to health care. While the decreased risk of mortality does not extend beyond black males, many individuals behind bars are receiving their first access to preventive and chronic health care; yet, access to health care does not guarantee high-quality medical care (Wildeman & Wang, 2017; see also, Patterson, 2010; Rosen et al., 2011; Spaulding et al., 2011). Moreover, even for individuals whose health improved or remained stable while incarceration, there is often a disruption in their health care following release from prison or jail (Kulkarni et al., 2010). Thus, when viewed in the aggregate, incarceration worsens an individual's physical and mental health (Wildeman, 2016; Wildeman & Wang, 2017).

Health Outcomes for the Community In addition to the direct effect incarceration has on an incarcerated individual, high rates of incarceration in certain communities increases the likelihood of HIV and STIs, as well as teenage pregnancies (Dumont et al., 2013; see also, Johnson & Raphael, 2009; Thomas & Torrone, 2006; Thomas et al., 2007). Research has postulated that these increases are caused by the disruption social structures and social networks (e.g., gender ratios and stable relationships) in these communities (Dumont et al., 2013; Thomas et al., 2007; Thomas & Torrone, 2006). For example, given that males are incarcerated at higher rates than women, communities with high rates of incarceration have less men than women, which increases the likelihood of concurrent sexual partnerships (Johnson & Raphael, 2009; Thomas et al., 2007). And, as research suggests, concurrent partnerships facilitate the spread of STIs and the number of unwanted teenage pregnancies (Dumont et al., 2013; Thomas et al., 2007; Thomas & Torrone, 2006).

Moreover, it is well known that new—consensual and nonconsensual—partnerships are formed in prison. While the likelihood of HIV transmission behind bars is a result of the prevalence of HIV in the prison population, if HIV or another STI is acquired during a person's incarceration, it is likely to spread within the community after release. For example, in their ethnographic interviews, Thomas et al. (2007) found that formerly incarcerated individuals expressed a strong desire for sex upon return to the community, yet a disinterest in monogamous relationships. These concurrent sexual partnerships—coupled with research suggesting that men released from prison are unlikely to disclose an infection, less likely to use a condom, and likely to have experienced a disruption in medical treatment—increase the likelihood of HIV and/or STI transmission (see Baillargeon et al., 2009; Johnson & Raphael, 2005; Stephenson et al., 2006; Thomas & Gaffield, 2003; Thomas & Sampson, 2005).

Health Outcomes for the Family Research has also documented the deleterious outcomes associated with incarceration for families. In general, incarceration alters family structures by fracturing intact families and/or reducing the marital prospects for formerly incarcerated individuals or those in the communities to which they return, with research suggesting that women view formerly incarcerated men as less desirable (Apel, 2016; see also, Edin, 2000; Wakefield & Uggen, 2010). In fact, as found by Apel (2016), even short incarceration stints have detrimental effects on residential partnerships and long-term marriage formation. These findings confirm a handful of other research (see Massoglia et al., 2014; Western et al., 2004). For example, Western et al. (2004) found that men who have been to prison are less likely to marry after incarceration, than men of the same background who have never gone to prison. They cohabit, even in long-term relationships, but they tend not to marry (Western et al., 2004). It is no surprise, then, that places with high rates of incarceration have high rates of single-parent families (Sabol & Lynch, 2003). Moreover, given that research highlights that men who go to prison earn less money for the rest of their lives, and have declining employment prospectus (Apel & Sweeten, 2010; Western, 2006; Western & Pettit, 2005), they provide less economic support to the families with whom they cohabit. There is a pattern of mutually reinforcing problems here: places that produce lots of people going to prison are always places with very low economic resources; and the people who leave prison to return to these places will themselves face diminished earning capacity. The result is a cycle of diminished family health and well-being.

Health Outcomes for Children of Incarcerated Parents The incarceration of a parent is associated with a range of problems, such as truancy, academic underperformance, depression, anxiety, and violent acting out (Wakefield & Montagnet, 2019; see also, Andersen, 2016; Christian, 2009; Comfort et al., 2011; Foster & Hagan, 2007; Hairston, 2007; Murray et al., 2014; Poehlmann, 2005; Turney & Haskins, 2014; Wakefield & Wildeman, 2011, 2013). And, given the vast number of individuals incarcerated in the United States, these negative outcomes impact a handful of minor children. Although

the exact number of children with a parent incarcerated is unknown (Wakefield & Montagnet, 2019), a recent survey estimated that 7% of all children will have experienced parental incarceration at least once during their childhood (Murphey & Cooper, 2015; Wakefield & Apel, 2017). Furthermore, the incarceration of a parent not only leads to the fracturing of a parent and child bond but it also can cause reduced social capital, economic deprivation, dysfunctional parenting practices, and an increased risk for intergenerational crime and incarceration (Andersen, 2016; Wakefield & Apel, 2017). Regarding intergenerational crime, research has postulated that children learn criminality through interaction with their parents (Wakefield & Apel, 2017; see also, Akers, 1973; Sutherland & Cressey, 1978). Overall, although the quality of studies on parental incarceration varies, as do the findings (for more detail on data problems, see Kirk & Wakefield, 2018), the fact remains that parental incarceration impacts a child's well-being in a heterogeneous manner.

Incarcerated women are more likely than men to have lived with their child prior to incarceration (Arditti, 2015; Turney & Wildeman, 2015, 2018). While this would appear to suggest that children are impacted by the discontinuity of care that results from their mother's incarceration, more so than their father's incarceration, this is not always the case (Arditti, 2015). Instead, research suggests that maternal incarceration is associated with extreme disadvantage, more so than paternal incarceration; thus, children whose mother is incarcerated likely experienced heightened disadvantage long before their mother's incarceration. In fact, research suggests that mothers in the criminal justice system are some of the most vulnerable women in the United States (Arditti, 2015). This could explain the inconsistent findings for the effects of maternal incarceration on children. For example, as noted by (Wildeman and colleagues 2013), on average, it is unclear whether maternal incarceration improves, diminishes, or has no effect on child well-being (see also Cho, 2009a, 2009b, 2011). The complexity of the impact of a mother's incarceration contrasts with research on paternal incarceration, with the bulk of the evidence suggesting a negative or nonsignificant impact on child well-being (Wildeman, 2009; Wildeman et al., 2013).

Safety Outcomes The original argument that very high rates of imprisonment would lead to higher rates of crime was first made by Rose and Clear (1998). They argued that there would likely be a "tipping point" after which the deterrence and incapacitation benefits of imprisonment would be outweighed by the way it destabilized the neighborhood's capacity for informal (parochial and private) social control. In a later paper (Clear et al., 2003), they found strong evidence in support of the tipping point thesis, analyzing crime and incarceration data in Tallahassee, Florida. They show that neighborhoods with low levels of incarceration in 1 year experience less crime in the following year; however, neighborhoods with the highest levels of incarceration experience increases in crime rather than decreases in the following year. Similar effects have been found in Portland, Oregon, Columbus, Ohio, and Chicago [see Chap. 7 of Clear, 2007].

The "tipping point" thesis and the evidence in support of it are controversial because the exact relationship is difficult to model. Crime and incarceration are reciprocally related; that is, incarceration is undoubtedly a result of crime because with only the rarest of exceptions, people do not get locked up unless crimes have been committed. Yet the model also posits a complicated relationship in the opposite direction: up to a point, incarceration will reduce crime; after a point, it will increase it. The available data and math to statistically model this sort of effect are not very satisfactory.

For example, Lynch and Sabol (2004) analyzing data in Baltimore and Cleveland found a similar kind of pattern to incarceration and crime as Clear and his colleagues when they replicated that modeling method. However, when they used a different statistical technique (instrumental variables), not only did the nature of the impact change but also it reversed itself, suggesting that higher rates of incarceration *decrease* crime (though it also increased fear of crime and had other problematic effects). They conclude that the tipping point models of crime and incarceration are inconclusive, at best, and potentially wrong.

Taylor et al. (2006) entered this debate by investigating the impact of adult incarceration on serious juvenile crime. They argue that using juvenile crime is a solution to this problem because it breaks the reciprocity of the crime-incarceration relationship: it is irrational to argue that juvenile crime “causes” adult incarceration. When they investigate incarceration and juvenile crime (arrest) rates in Philadelphia neighborhoods, they find support for the tipping point thesis: high adult incarceration rates in 1 year lead to increasing juvenile crime rates in the years that follow.

In a review of this and other work on the topic, Clear (2007) argues that the weight of the evidence supports the tipping point thesis. The argument is simple. To argue in favor of the tipping point thesis is to argue that incarceration, at high rates of concentration, clearly destabilizes families, weakens bonds between parents and children, decreases economic well-being, diminishes the capacity of social networks, reduces long-term job market viability, increases serious juvenile delinquency, and *increases crime*. The opposite argument is that concentrated incarceration has all of these same negative effects, each of which might be expected to increase crime, *yet it does not increase crime*.

In recent years, additional studies have investigated the relationship between incarceration and crime. For example, in their 2010 study of Chicago, Sampson and Loeffler explored community-level incarceration rates between 1990 and 2006. While they mainly focused on investigating the impact of incarceration across different neighborhoods, their study also explored the relationship between incarceration and crime. Sampson and Loeffler (2010) argued that if incarceration deterred crime then decreases in crime rates should follow incarceration; yet, neither increases nor decreases in crime were found in their study. However, as discussed at the beginning of this chapter, the crime drop of the early 1990s was associated with a steep rise in incarceration. In other words, as crime decreased, incarceration increased—signifying a negative relationship. Despite these findings, Sampson and Loeffler (2010) echo the sentiments of other studies, arguing that the relationship between incarceration and crime is too complex to make causal claims. Overall, although the assertion that incarceration at the highest levels increases crimes has not been definitively proven, the evidence to support that conclusion is strong.

Incarceration, Public Health, and Public Safety

If the arguments of this chapter are correct, then what is to be done?

It goes without saying that to stop locking people up from certain communities, just because that neighborhood has reached a “tipping point,” is untenable. There are all kinds of people convicted of crimes in these places, some of whom would seem dangerous to any eye. Likewise, it seems implausible to segment a certain stratum of crime, say drug sales, and treat residents of this location differently than others when convicted of this crime merely because of where they live. There is no obvious way to treat residents here differently, in terms of punishment, and not raise basic objections of equity and justice.

There are at least two possible routes, however: sentencing reform and justice reinvestment.

Sentencing Reform The prison population is fully determined by two numbers: how many people go in and how long they stay. To reduce the prison population, either number (or both) must be changed.

It is possible to reduce the prison population proportionately by reducing (average) length of stay. It is difficult to see how public safety will be affected much, if at all, by releasing people a few months earlier than we do now. Almost everyone who goes into prison comes out. The length of stay in prison has little or no effect on recidivism (if there is an effect, it is that longer stays lead to higher rates of failure). If the general population experienced a 3-month, across-the-board reduction in stay, it would make people’s return to the streets more rapid in the marginal sense, and would have potentially sig-

nificant impact on the number of people behind bars. One group of criminologists estimated that a 3-month reduction in length of stay for felony offenders, and a 6-month reduction for arrested parole violators, would result in a reduction in the average daily prison population by over 200,000 prisoners (Irwin & Austin, 2006).

In general, additional research has supported this argument. For example, Mears, Cochran, Bales, and Bhati (2016) found that the effects of incarceration differed by the amount of time served. Specifically, Mears et al. (2016) identified three differences: (1) for sentences of 1 year or less, incarceration increases recidivism; (2) for sentences between 13 and 24 months, time served decreases recidivism; and (3) for sentences between 25 and 60 months, time served did not impact recidivism. Taken together, Mears et al. (2016) argue that there is not one single effect of incarceration on recidivism. However, most importantly from a policy perspective, the results of their study indicate that lengthier prison sentences do not reduce recidivism; instead, lengthy prison sentences may increase recidivism. For example, sentencing an individual to a year of incarceration, rather than a month, may result in a 10% increase in recidivism. Mears et al. (2016) note that their study is not an argument against lengthy prison sentences; instead, their findings should spark policy considerations for the use of shorter sentences, as doing so does not appear to reduce public safety through increased recidivism. Similarly, a recent study conducted by Rhodes, Gaes, Kling, and Cutler (2018) echoes these findings. Specifically, Rhodes et al. (2018) found that a 7.5-month reduction in an individual's prison sentence does not impact recidivism rates; thus, arguing that prison sentences can be reduced with a negligible effect on recidivism rates and public safety.

Justice Reinvestment There are two “good news” items in this story. First, the number of areas in our major cities that are negatively affected by high incarceration rates is not large; usually, it is only a handful of places—less than three or four neighborhoods in most large cities. It means that the target of change is not jurisdiction wide but much more targeted. The small number of affected places opens the possibility for targeted strategies that focus their efforts in those places.

Second, there is already a great deal of money being spent on the public safety problem. In 2016, state and local governments spent about \$187 billion on police and corrections (Urban-Brookings Tax Policy Center Data Query System, 2019). *This is a large amount of money, especially at a time of declining budgets, which has caused policy makers to question whether extensive reliance on incarceration is an effective approach* (Harvell, Welsh-Loveman, Love, & La Vigne, 2016; see also, Ho et al., 2013). In fact, at the turn of the century, scholars have called attention to the potential benefits of community justice models that are focused on heavily affected communities and divert existing resources in a strategy called “justice reinvestment” (Tucker & Cadora, 2003).

Justice reinvestment, which relies on data-driven evidence, has two broad goals. First, it aims to reduce the size of the prison population and, thus, reduce criminal justice expenditures by reforming sentencing and revocation policies. Second, the money saved is reinvested in communities that are negatively affected by criminal justice (Clear, 2011; Harvell et al., 2016). The intended result of justice reinvestment is win-win: the community is improved through targeted efforts, and the effects of incarceration are ameliorated because the projects both replace incarceration and target the negative consequences of incarceration, such as substandard housing, school failure, and economic decay.

Although the Council of State Governments Justice Center experimented with the idea of justice reinvestment in the early 2000s, the Justice Reinvestment Initiative (JRI) formally began in 2010 through a partnership between The Pew Charitable Trusts and the Bureau of Justice Assistance. Through the work of various technical assistance providers, JRI was implemented in various states around the country. While the approaches vary across states, policies generally attempted to reduce the number of people incarcerated, limit the time spent incarcerated, and strengthen community programming. States have evaluated their progress on reducing prison population, strengthening com-

munity programs, cost savings, and the reinvestment of these savings (Harvell et al., 2016). In their evaluation of the first 6 years of JRI, the Urban Institute found that the initiative generated a greater reliance on data-driven, evidence-based corrections practices in the 28 participating states (Harvell et al., 2016). In terms of savings and reinvestment, for the most part, states have reduced prison costs and managed to reinvest this money into evidence-based public safety strategies within communities hit the hardest by incarceration. For example, in 2016, JRI participating states saved more than \$1.1 billion and reinvested more than \$450 million into various community reform strategies (Harvell et al., 2016).

Despite these promising findings, other independent reviews of JRI are both limited and critical (Sabol & Baumann, 2020; see also, Austin et al., 2016; Brown et al., 2016; Fox et al., 2013). One of the major criticisms of justice reinvestment was its inability to specify how large reductions in prison populations could be reached without more radical sentencing approaches. For example, some scholars have argued that to achieve substantial reductions in prison populations, sentencing reforms need to reclassify some crimes as misdemeanors, reduce arrests for drug crimes, shorten length of stays, expand early release policies, and eliminate mandatory minimums and life sentences for certain crimes (Sabol & Baumann, 2020; see also, Austin, 2011; Austin et al., 2013). An additional criticism of justice investment was its assumption that money from prison population reductions could—and would—be redirected into the communities, rather than used to tackle other needs (Sabol & Baumann, 2020; see also, Tonry, 2011). Finally, even if the savings were reinvested into the community, the cost savings were overstated (Sabol & Baumann, 2020, see also Pfaff, 2016; Tonry, 2011). For example, as noted above, although cost savings have been achieved through JRI, these savings are insignificant to the insurmountable amount of money spent on corrections.

Taken together, although JRI accelerated sentencing reforms and the adoption of evidence-based practices, JRI has not yet brought about the promised substantial change (Sabol & Baumann, 2020). For example, evidence on its ability to reduce prison populations, achieve cost savings, and redirect these savings into impacted communities has been limited. It is clear that JRI, as the policy mechanism to carry our justice reinvestment, has been disappointing. Yet, the promise of the strategy—to deal with criminal victimization more effectively by spending funds differently—remains a compelling idea in the policy arena that has yet to be fully tested.

Conclusion

This chapter has linked incarceration to the health and safety problems of certain subgroups of the US population, and it has shown how concentrated incarceration within those subgroups has had deleterious effects on the neighborhoods within which they live. Research demonstrating the negative impact of high rates of incarceration on public health and public safety has been summarized, with attention to both settled matters of empirical fact and controversial matters currently under debate. The chapter concludes with some suggested ways of addressing this problem.

There is a moral imperative that has not yet been stressed. The penal apparatus in the United States is meant to be an instrument of public safety and institutional justice. To the degree that people who break the law should not be allowed to do so without consequences that symbolize the wrongfulness of that conduct, the criminal justice system is an essential instrument of social order. Yet in the United States, the system has grown to the point that it no longer can claim the high moral ground. In some places, the punitive apparatus of the penal system is now one of the proximate causes of declining public safety. For the children who grow up in those areas, the criminal justice system is now a source of social injustice that robs them of life chances and places a low ceiling on their lifelong prospects.

Although recent policy changes have resulted in reductions in the incarcerated population, this is only a starting point. For example, as argued by Shen et al. (2020), policy changes such as reductions in mandatory minimums can only do so much; instead, policy efforts should focus on how a person's prior criminal history affects their sentence, as this is one of the reasons for the aging prison population. Yet, as Shen et al. (2020) also note, given that these individuals are aging out of the criminal justice system, the incarcerated population may continue to drop even without policy changes. However, our prison population has grown too large—and is associated with far too many social costs—to merely wait for individuals to age out of the system. We need to change our overreliance on imprisonment; for, as the research in this chapter suggests, it is an ineffective public safety strategy with far-reaching collateral consequences. It is also a strategy that, much evidence suggests, has outgrown its usefulness.

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Litigating for Improved Medical Care

3

Rhonda Brownstein and Laura Rovner

Introduction

In 1976, the Supreme Court first recognized that people in prison have a constitutional right to health care for serious medical needs (*Estelle v. Gamble*, 1976). In the decades that followed, both the incarceration rate and the cost of health care have skyrocketed, increasing incentives for resource-conscious institutions to restrict care in ways that harm incarcerated people and the public health. Litigation can provide an important check on the worst of those abuses at both individual and systemic levels, though in the decades since *Estelle* was decided, judicial decisions, legislation, and correctional policy have raised significant obstacles to ensuring the right to constitutionally adequate health care is realized.

In this chapter, we discuss the parameters of the Eighth Amendment right to adequate health care and provide an overview of correctional medical care litigation. After unpacking the legal standards courts use in assessing claims of constitutionally inadequate care, we review how those standards have been applied to different types of healthcare issues. We then turn our focus on institutional reform litigation, exploring how large class-action lawsuits may be used to address systemic deficiencies in correctional medical care.

Overview of Correctional Medical Care Litigation

Medical care litigation is among the four most common areas of prison litigation in federal court, along with lawsuits challenging violence, due process violations relating to disciplinary sanctions, and inadequate living conditions (Schlanger, 2003). Lawsuits over medical care are typically either filed as class actions seeking broad, injunctive relief designed to improve medical care for an entire group of prisoners or as individual cases seeking money damages for the particular inmate's untreated

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or mistreated medical problem. Both governmental entities and private contractors are legally responsible for ensuring that the care provided meets constitutional standards (*Ancata v. Prison Health Services*, 1985).

The US Department of Justice (DOJ) can also bring litigation on behalf of the federal government against state or local entities for violating the civil rights of persons institutionalized in publicly operated facilities—including the rights of prisoners to adequate medical care. The DOJ’s broad authority under the Civil Rights of Institutionalized Persons Act (CRIPA) is a powerful tool for obtaining systemic changes in facilities as a whole and entire correctional systems; CRIPA does not apply to private facilities or to specific individual cases. Since the enactment of CRIPA in 1980, the DOJ has investigated hundreds of facilities, issued “findings letters” (finding unconstitutional conditions of confinement and demanding improvements), and filed suit in dozens of cases.

In 2019, the DOJ had open CRIPA matters pending in more than half the states. Since 2009, 21 out of the Department’s 26 cases have involved deficient medical or mental health care (US Department of Justice, 2019).

Medical care litigation is typically based on allegations that the medical care provided falls below constitutionally required standards. The Eighth Amendment to the US Constitution, which prohibits cruel and unusual punishment, gives prisoners the right to receive adequate medical care.¹ The US Supreme Court first recognized this right in 1976, in *Estelle v. Gamble*. Justice Thurgood Marshall, writing for the Court, explained why: An “inmate must rely on prison authorities to treat his medical needs; if the authorities fail to do so, those needs will not be met. In the worst cases, such a failure may actually produce physical ‘torture or a lingering death.’” In less serious cases, denial of medical care could result in pain and suffering “which no one suggests would serve any penological purpose” (*Estelle v. Gamble*, 1976).

Estelle and the cases that followed over the next 45 years established the following rule: Prison and jail officials violate the Eighth Amendment when they act with *deliberate indifference* to a prisoner’s *serious medical needs*. The rest of this chapter will explore the meaning of that rule, that is, what is a “serious medical need” and what does it mean to be “deliberately indifferent” to it?

Elements of Medical Care Lawsuits

Serious Medical Needs

The Eighth Amendment requires only that prison officials provide care for “serious medical needs” (*Estelle*, 1976). In interpreting that standard, most courts have held that a serious medical need is “one that has been diagnosed by a physician as mandating treatment or one that is so obvious that even a lay person would easily recognize the necessity of a doctor’s attention” (*Hayes v. Snyder*, 2008). Because the Supreme Court has held that the Eighth Amendment also prohibits the “unnecessary and wanton infliction of pain” (*Estelle*, 1976), many courts have also found that pain—especially when it is severe or protracted—constitutes a serious medical need, even where no permanent injury results from a failure or delay in providing treatment (*Al-Turki v. Robinson*, 2014). Incorporating all of these standards, one court has held that factors to consider in determining whether a medical need is “seri-

¹The Due Process Clause of the Fifth Amendment gives the same right to federal prisoners, and the Fourteenth Amendment protects pretrial detainees. Courts apply the same legal standards in medical care cases brought under the Eighth, Fifth, and Fourteenth Amendments. In addition, the Americans with Disabilities Act, which is discussed in a separate chapter, mandates that prisoners with disabilities be fully accommodated in correctional settings (Americans with Disabilities Act of 1990).

ous” include “(1) whether a reasonable doctor or patient would perceive the medical need in question as ‘important and worthy of comment or treatment,’ (2) whether the medical condition significantly affects daily activities, and (3) ‘the existence of chronic and substantial pain’” (Brock v. Wright, 2003).

Examples of conditions that courts have found to rise to the level of “serious medical needs” include: kidney stones, severe chest pain, HIV, hepatitis, diabetes and its complications, severe arthritis, severe back pain, self-inflicted burns, seizure disorders, hemorrhoids requiring surgery, and complications of pregnancy. On the other hand, courts have held that the following conditions are not sufficiently serious to violate the Eighth Amendment: mild asthma, a broken jaw, acne, slight visual impairment causing mild headaches, tinnitus, seasonal allergies, fractured teeth without pain, eczema, and scabies. That said, some courts have recognized a “serious cumulative effect” from repeated denials of care for even minor medical needs.

The seriousness of the medical need cannot be judged with the benefit of hindsight; what matters are the facts known at the time of the incident (*Al-Turki*, 2014). Prison officials will not be held liable for conditions that appeared innocuous but turned out to be serious. Finally, the harm to health does not need to have already occurred; exposure to a risk that may cause harm in the future may also be actionable (*Helling v. McKinney*, 1993).

Mental Illness

Mental health needs, if sufficiently serious, are also protected by the Eighth Amendment.² In the context of individual claims, courts have used a variety of tests to assess whether a condition is a serious mental illness, including “one that has caused significant disruption in an inmate’s everyday life and which prevents his functioning in the general population without disturbing or endangering others or himself” (*Tillery v. Owens*, 1990). As for specific conditions, courts have held that bipolar disorder, schizophrenia, schizoaffective disorder, major depressive disorder, certain mood disorders, immediate psychological trauma, suicide attempts, and posttraumatic stress disorder are conditions warranting constitutional protection³ (*Braggs v. Dunn*, 2017).

That said, particularly in individual (as opposed to systemic) litigation, courts tend to conduct an individualized assessment to determine whether a person’s mental health condition is sufficiently serious rather than concluding that a given diagnosis is or is not protected by the Eighth Amendment. For example, some courts have held that claims about depression or bipolar disorder do not meet the standard while others have found that they do. To the extent that a condition of confinement exacerbates a mental health condition, this too may be actionable: for example, courts have held that solitary confinement violates the Eighth Amendment where it causes or exacerbates serious mental illness (*Braggs*, 2017).

²A different standard applies to people who have been found incompetent to stand trial or not guilty by reason of insanity, or who have been civilly committed as sex offenders after their criminal sentence is finished. Their rights are also protected by the Due Process Clause, but the standard governing their treatment is whether it is sufficiently related to the purpose of their confinement (*Oregon Advocacy Center v. Mink*, 2003). Additionally, the Americans with Disabilities Act and Section 504 of the Rehabilitation Act also may confer additional rights to people with mental illness.

³Simply because a condition is defined in the Diagnostic and Statistical Manual of Mental Disorders as a “major mental illness,” does not necessarily mean that courts will deem it to be sufficiently serious for Eighth Amendment purposes.

Other Conditions

Dental Needs

As with other health needs, deliberate indifference to serious dental needs violates the Eighth Amendment. Whether a dental need is serious may be based on various factors, such as the extent of pain, the deterioration of the teeth due to a lack of treatment, or the inability to engage in normal activities (*Chance v. Armstrong*, 1998). Courts have held that serious needs include dentures (where necessary to eat properly), untreated cavities, dental pain, bleeding, swelling, and painful broken teeth. Significant delays in providing care, particularly if the condition is painful or debilitating, can also violate the Eighth Amendment.

Hearing and Visual Impairments

Depending on the nature of the person's hearing or visual impairment and the treatment sought, the legal obligation to provide care may be governed by the Eighth Amendment, the federal disability rights statutes (the Americans with Disabilities Act and the Rehabilitation Act), or both. While accommodations such as sign language interpreters for deaf prisoners or talking books for people with vision impairments tend to be covered by the disability rights statutes, courts have analyzed requests for procedures such as cochlear implants and cataract surgery under the Constitution. Courts have recognized both Eighth Amendment and disability discrimination claims for items such as hearing aids and glasses.

Pregnancy, Childbirth, and Abortion

Generally, when pregnant women are suffering from egregious complications such as obvious miscarriages, leaking amniotic fluid, or hemorrhaging, courts have held that they have a serious medical need. But courts have been less willing to classify other pregnancy-related needs as objectively serious—including prenatal care and breast pumping. Several courts have held that the Eighth Amendment prohibits shackling of pregnant women during labor or in the third trimester of pregnancy, and a number of states have enacted legislation prohibiting the practice as well. A woman's right to abortion has been deemed protected both as a matter of privacy and under the Eighth Amendment's right to medical care, and courts have held that corrections officials must provide for abortions regardless of the incarcerated person's ability to pay (although one court held that elective, nontherapeutic abortions do not constitute a serious medical need [*Roe v. Crawford*, 2008]).

Developing Areas

Gender Dysphoria

Most courts to consider the issue have recognized that gender dysphoria is a sufficiently serious medical need to implicate the Eighth Amendment. Whether a failure to provide a particular type of treatment constitutes deliberate indifference, however, is a separate question. (The deliberate indifference standard is discussed below.) That said, we note here that while courts have held that medical care decisions in correctional contexts are fact specific, a number of courts have required prisons to provide hormone therapy. And as of 2020, at least one court has held that correctional officials' refusal to provide gender conforming surgery (GCS) violated the Eighth Amendment (*Edmo v. Corizon*, 2019), though other courts faced with different facts held that the plaintiff had not demonstrated that GCS was medically necessary.

Hepatitis C (HCV)

With the development and increasing use of direct-acting antiviral (DAA) drugs beginning in 2013, the issue for most courts considering Eighth Amendment claims for failure to treat HCV is not whether it is a serious medical need, but whether and to what extent cost may factor into the determination of whether antiviral treatment is required (*Coleman-Bey v. United States*, 2007; *Hoffer v. Jones*, 2017). Because of the cost of direct antiviral medications, some prison systems have sought to implement protocols that prioritize people for DAA treatment based on the progression of the disease (*Smith v. Corizon, Inc.*, 2015). Because that puts those in even the early stages of the disease at “substantial risk of serious harm”—that is, developing HCV-related complications—some courts have found the refusal to provide antiviral treatment violates the Eighth Amendment (*Abu-Jamal v. Wetzel*, 2017), though others have held that prioritization structures are “practical strategies for HCV care when resources are limited” (*Atkins v. Parker*, 2019).

Opioid Use Disorders

In the midst of the opioid epidemic, more and more people are entering correctional facilities with opioid use disorders. Blanket policies or practices that deny or delay continuing opioid agonist therapy (also known as medication-assisted treatment, or MAT) have been held to violate the Eighth Amendment (*Foelker v. Outagamie County*, 2005); they are also vulnerable to challenges under the federal disability rights statutes (*Smith v. Aroostook Cty.*, 2019).

Deliberate Indifference

For inadequate medical care to rise to the level of a constitutional violation, it is not enough that the medical problem is a “serious medical need” that went untreated or mistreated. Over time, the courts have made clear that an Eighth Amendment medical claim turns on the *mental culpability* of individual prison or health-care workers. A prisoner must show that a prison official acted or failed to act with “deliberate indifference” to the serious medical need of the prisoner (*Farmer v. Brennan*, 1994; *Wilson v. Seiter*, 1991). This is because the Eighth Amendment only applies to “punishments” and the general conditions under which a prisoner is confined do not constitute part of the punishment. “If the pain inflicted is not formally meted out as punishment by the statute or the sentencing judge, some mental element must be attributed to the inflicting officer before it can qualify” (*Wilson v. Seiter*, 1991).

Deliberate indifference has two elements. First, a prisoner must show that a prison official (which includes medical staff) *knows* about a serious danger to the prisoner (the “deliberateness” part of the inquiry). Second, the prison official must *fail to reasonably respond* by providing adequate treatment (the “indifference” part of the inquiry).

The Supreme Court explained the deliberate indifference standard in the 1994 landmark case of *Farmer v. Brennan*. Dee Farmer, a transgender woman, was incarcerated in a federal prison with the general male population. She was repeatedly raped and beaten by the other inmates and became HIV positive as a result. Farmer sued, claiming that the prison administration failed to protect her and should have known that she was particularly vulnerable to sexual violence. The Court agreed, holding that “a prison official may be held liable under the Eighth Amendment for denying humane conditions of confinement only if he knows that inmates face a substantial risk of serious harm and disregards that risk by failing to take reasonable measures to abate it” (*Farmer*, 1994).

In a Seventh Circuit Court of Appeals decision, the court used the metaphor of a cobra to explain deliberate indifference: “If [prison officials] place a prisoner in a cell that has a cobra, but they do

not know that there is a cobra there (or even that there is a high probability that there is a cobra there), they are not guilty of deliberate indifference even if they should have known about the risk, that is, even if they were negligent—even grossly negligent or even reckless in the tort sense—in failing to know. But if they know that there is a cobra there or at least that there is a high probability of a cobra there, and do nothing, that is deliberate indifference” (*Billman v. Indiana Department of Corrections*, 1995).

Actual Knowledge of a Serious Medical Need

A prisoner bringing a medical care lawsuit cannot merely show that the prison officials *should have known* about the serious risk of harm from his or her medical problem. Rather, the prisoner must demonstrate that prison officials *actually knew* about the risk. A prisoner can establish this knowledge through a variety of methods—for example, sick call requests, grievances, and medical records. He or she may also establish that prison officials “knew of a substantial risk from the very fact that it was obvious.” Risks of harm are obvious when the challenged conditions are “longstanding, pervasive, well-documented, or expressly noted” by officials in the past (e.g., in internal reports, audits, and the like) (*Farmer v. Brennan*, 1994).

Failure to Reasonably Respond

The second part of the deliberate indifference requirement is that, despite the prison official’s knowledge of a serious risk of harm, the official did not *reasonably respond* to the risk. Courts evaluate the reasonableness of the response by considering the information the official possessed, any practical limitations, and alternative courses of action that would have been apparent to an official in his or her position.

Adequate medical care is extremely expensive and is often a significant drain on state and local coffers. But officials may not refuse to respond to a substantial risk of serious harm by arguing that it is too expensive to address “because prison officials may be compelled to expand the pool of existing resources in order to remedy continuing Eighth Amendment violations” (*Peralta v. Dillard*, 2014).

Courts have found that prison officials did not reasonably respond to a serious risk of medical harm when they deny or delay access to medical care, provide grossly inadequate treatment, or interfere with prescribed treatment (*Estelle v. Gamble*, 1976).

Denial or Delay of Medical Care

Denials of medical care are the most straightforward claims—these are claims that prison officials knew of a prisoner’s serious medical needs but did nothing, and the prisoner was harmed as a result. Nonmedical personnel often play the role of gatekeepers in deciding who will be seen by medical personnel and who will not, sometimes leading to serious consequences. Likewise, correctional officers and medical personnel without the necessary training are often called upon to determine whether a prisoner should see a doctor or a specialist.

An unjustified delay in providing medical care that results in harm can also amount to deliberate indifference. In determining whether the length of a prison official’s delay in treating an inmate’s serious medical need violates the Eighth Amendment, courts consider the seriousness of the medical need, whether the delay worsened the medical condition, and the reason for the delay (*Hill v. Dekalb Regional Youth Detention Center*, 1994).

Inadequate Medical Care

The Constitution does not require that the provided medical care be “perfect” or the “best obtainable.” Rather, deliberate indifference is established only if the medical care is “so grossly incompetent, inadequate, or excessive as to shock the conscience or to be intolerable to fundamental fairness” (Rhinehart v. Scutt, 2018). This can be difficult to establish. Courts will rarely second-guess the judgments of medical personnel, even if those judgments violate the standards of care of their professions. It is important to note that mere medical malpractice does not violate the Constitution; deliberate indifference requires a higher state of mind than negligence. And it is not enough to show that a different medical professional would have ordered a different course of treatment. But if the medical care provided is *grossly inadequate* or is knowingly less effective than a different course of treatment in order to save money, medical personnel may be found to be deliberately indifferent (Arnett v. Webster, 2011). And “medical care which is so cursory as to amount to no treatment at all may amount to deliberate indifference” (Terrance v. Northville Regional Psychiatric Hospital, 2002).

Interference with Prescribed Treatment

Deliberate indifference is established when prison officials interfere with or fail to carry out treatment that was prescribed by a doctor or other medical personnel (Estelle v. Gamble, 1976). In other words, prison officials may not substitute their own judgment for that of medical professionals. Likewise, a medical professional who is a generalist may not substitute his or her own judgment for that of a specialist (Jones v. Simek, 1999).

Systemic Issues

Large class-action lawsuits seeking broad, systemic changes to the provision of medical care have generally been more successful than individual monetary damages cases, particularly if they have the backing of advocacy groups and are part of a broader effort to seek legislative change and bring media attention to issues. Evidence of systemic deficiencies can establish deliberate indifference “by proving that there are such systemic and gross deficiencies in staffing, facilities, equipment, or procedures that the inmate population is effectively denied access to adequate medical care” (Ramos v. Lamm, 1980). Some of the systemic issues that apply to correctional medical care include the following.

Medical Staffing

Correctional facilities are constitutionally obligated to provide “ready access to competent medical staff” (Coleman v. Wilson, 1995). This means that widespread deficiencies in medical or mental health staffing that make unnecessary suffering inevitable may violate the Eighth Amendment (Braggs v. Dunn, 2017). It also means that those providing medical care must be competent to do so; medical staff such as nurses or physician’s assistants may not be assigned tasks beyond their training and must be adequately supervised.

Correctional Staffing

If inadequate correctional staffing hinders the delivery of medical and mental health care such that it creates a substantial risk of serious harm, this too may be unconstitutional (Braggs, 2017). Impacts of

insufficient correctional staff include cancelation and delays of medical appointments due to a lack of available staff to transport prisoners and the inability of staff to check on prisoners who are isolated from the rest of the population and whose medical or mental health conditions may be deteriorating.

Healthcare Screening

Corrections systems must screen incoming prisoners for serious medical and mental health conditions such as infectious diseases, mental illness, substance abuse, and suicide risk⁴ (Braggs v. Dunn, 2017; Jolly v. Coughlin, 1996). Prisoners may be required to submit to examinations for communicable diseases such as tuberculosis.

Sick Call and Access to Emergency Treatment

Incarcerated people must have a way to make their medical problems known to medical staff, and the failure to provide a sick call system that can effectively handle emergencies can violate the Eighth Amendment (Hoptowit v. Ray, 1982; *Thomas v. Cook Cty. Sheriff's Dept.*, 2009). Additionally, prison officials may be liable if they fail to provide correctional staff with at least minimal training in recognizing and dealing with medical emergencies (*Morrison v. Washington Cty.*, 1983).

Chronic Care

Given the increasing number of older adults who are incarcerated, many prisons house significant numbers of people with chronic conditions requiring ongoing care. As part of their obligation to provide constitutionally adequate care for serious medical needs, prisons must ensure that people with chronic conditions are tracked and seen by a health-care provider at clinically appropriate intervals.

Adequate Facilities and Records

Prisons and jails are required to have adequate facilities for medical examinations and treatment. There must be an organized system of medical records that include screening forms, sick call requests, treatment records, etc.

Access to Specialists and Hospital-Level Care

Denial of access to medical specialists and to hospital-level care can create a substantial risk of serious harm to prisoners in violation of the Eighth Amendment. This is an area that is frequently litigated in class-action systemic cases, given the expenses associated with referring and transporting prisoners to specialists and for hospital care and surgeries.

⁴Federal prisons are required to conduct health screenings of new prisoners within 24 hours of their arrival. 28 C.F.R. § 522.20 (2016).

Infectious Disease Control

Knowingly exposing prisoners to an infectious disease may violate the Eighth Amendment (Butler v. Fletcher, 2006). Given the high rates of infectious diseases in correctional facilities, prisons and jails should have infectious disease policies that include the identification and, when appropriate, the isolation of prisoners with infectious diseases, effective treatment protocols, measures to prevent the spread of the diseases, and educational materials for inmates and staff. With the beginning of COVID-19 in 2020, there has been a proliferation of litigation challenging the failure to adequately protect prisoners from exposure to the virus and failure to provide timely access to vaccines.

Medication

Decisions about which kinds of medication to prescribe are generally “medical judgments” that are outside the scrutiny of the Eighth Amendment. But when medical providers prioritize medication costs over patients’ clinical needs, a constitutional violation may be established.

Forced Medication

Although prisoners retain some right to refuse medical care, that right is severely circumscribed as compared with the rights of “free world” patients. Prisoners may not refuse testing or treatment for a condition that would threaten the health and safety of the prison community. Prisoners may also be forced to accept treatment that is necessary to protect their health from permanent injury. Regarding involuntary psychiatric treatment, the Supreme Court has held that a prisoner may be forcibly medicated without a court hearing, so long as the decision was made by medical professionals (Washington v. Harper, 1990).

Roadblocks to Litigation

Lawsuits challenging prison medical care are notoriously difficult to bring. Proving that one has a “serious medical need” and that the failure to treat that medical need has led to harm requires expensive medical experts to which most prisoners lack access. Over the years, Congress and the courts have erected numerous procedural hurdles, most notably the Prison Litigation Reform Act of 1995 (known as the PLRA). The PLRA, enacted in 1996, required that prisoners exhaust grievance procedures, even when those procedures could not possibly result in the requested relief. It also increased prisoner lawsuit filing fees, reduced attorneys’ fees (thereby deterring lawyers from filing prisoners’ cases), limited monetary damages, made it more difficult to settle injunctive relief cases, and more. The law has had its desired effect of curbing inmate litigation—federal prisoner civil rights litigation had dropped from 23.3 filings per 1000 prisoners in 1996 to 10.2 filings per 1000 prisoners in 2012 (Schlanger, 2015).

Even if prisoners overcome these hurdles, they often face unsympathetic judges and juries, who either do not believe them or just do not care. In addition, most individual cases are brought *pro se* (without an attorney) and are overwhelmingly dismissed by the courts before trial because the plaintiffs are unskilled in the law and lack medical experts to establish their case. It is no wonder that, according to the latest study on the topic, prisoners only prevailed in litigation (including settlements, pretrial litigation victories, and trial victories) about 11% of the time. (Schlanger, 2015).

Litigation as a Vehicle for Systemic Reform

Despite being expensive, time consuming, and complex, impact litigation can be an effective—and sometimes necessary—vehicle for reform of correctional healthcare systems. We close this chapter by highlighting three class-action cases that resulted in significant institutional reforms.

In 2014, the lack of medical and mental health care in the Alabama Department of Corrections (ADOC) was so grave that incarcerated people would go for months or years without treatment, causing them pain, loss of function, injury, and death. With only 15 doctors for a population of 25,000 people—a direct result of ADOC’s bid process for its medical services contract—the Department routinely failed to provide treatment for conditions from cancer to diabetes to hepatitis. People were placed under “do not resuscitate” orders without their knowledge or consent. Mental health care was nearly nonexistent and people with mental illness were routinely housed in solitary confinement. Unsurprisingly, ADOC had the highest suicide rate in the nation.

Advocates filed a class-action lawsuit asserting that these and other conditions violated the Constitution and federal disability rights statutes (in addition to the failure to provide medical and mental health care, ADOC also deprived prisoners with disabilities of necessary accommodations such as functioning wheelchairs and sign language interpreters). In 2016, ADOC settled the disability discrimination claims; a year later, the court found that the significant and pervasive failures of ADOC’s mental health-care system were “horrendously inadequate” and violated the Constitution, and the court issued a series of remedial orders to fix those failures (Braggs, 2017). As of this writing, the medical care claims are in ongoing litigation.

A second example of institutional reform litigation is the class-action lawsuit challenging the Federal Bureau of Prisons’ failure to provide adequate mental health care for the men at its supermax prison (ADX) in Colorado (Cunningham v. Bureau of Prisons, 2016). Because ADX houses people in solitary confinement, BOP policy was supposed to preclude people with serious mental illnesses from being housed there. But by 2012 it was apparent that many gravely ill people were in ADX and were not receiving constitutionally adequate care, resulting in men who would “interminably wail, scream and bang on the walls of their cells, . . . mutilate their bodies with razors, shards of glass, writing utensils and whatever other objects they can obtain, . . . swallow razor blades, nail clippers, parts of radios and televisions, broken glass and other dangerous objects,” and “spread feces and other human waste” on their bodies. Many attempted suicide; some were successful.

The lawsuit asserted Eighth Amendment violations for the failure to diagnose and provide adequate mental health treatment for the men housed at ADX. After 4 years of litigation, the case was settled with the court approving a set of reforms that included new policies for the screening and diagnosis of mental illness, the provision of mental health care, suicide prevention, and conditions of confinement; the development and activation of three high-security mental health treatment units; increased out-of-cell time for men who remained at ADX; and other initiatives. The court also appointed monitors to periodically review the prison’s compliance with those initiatives.

Finally, a pair of cases—*Coleman v. Brown* and *Plata v. Brown*—challenged grossly inadequate mental health care and medical care in the California Department of Corrections. *Coleman* was filed in 1990 by a prisoner with serious mental illness at Pelican Bay, where a single psychologist was assigned to treat the mental health needs of 3500 people (Coleman, 1995). A decade later, the *Plata* class action was filed, alleging medical care so inadequate that “an inmate in one of California’s prisons needlessly dies every six to seven days due to constitutional deficiencies in the [State’s] medical delivery system” (Plata v. Schwarzenegger, 2005). Despite an extensive set of court orders specifying goals and methods of improving medical and mental health care, the growing prison population made it impossible for California to comply with the orders.

Invoking for the first time a provision authorizing courts to order a population reduction where necessary to alleviate constitutional violations, the court did just that, requiring California to shrink its population over a 2-year period. In 2011, the Supreme Court upheld that decision in *Brown v. Plata*, finding the medical and mental health care in California’s prisons to be so constitutionally inadequate that it “creates a certain and unacceptable risk of continuing violations of the rights of sick and mentally ill prisoners, with the result that many more will die or needlessly suffer.” (*Brown v. Plata*, 2011). Following the Court’s decision, California adopted a “realignment” policy that attempts to relieve overcrowding by shifting people from prisons to local jails. While this and other reforms have reduced the prison population somewhat, problems with overcrowding and inadequate health care persist.

As these and other cases show, it is critical to ensure that the resolution of systemic reform cases includes provisions for monitoring the progress of a prison system’s compliance with remedial orders, and the ability to return to court for additional orders or sanctions where a correctional system has failed to address deficiencies.

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Prisoners with Disabilities: Law and Policy

4

Margo Schlanger

Introduction

Disability rights are far from a niche issue in jail and prison. In fact, most people incarcerated in American jails and prisons have at least one disability. Table 4.1 summarizes some of the data.

Some have even claimed that the massive run-up from the 1970s to the 1990s in prison and jail population was largely the result of “transinstitutionalization”—the effect of housing people with

Table 4.1 Disability in prisons and jails^a

	Prisons			Jails		
	All	Men	Women	All	Men	Women
Vision	7.1%	7.1%	6.4%	7.3%	7.6%	5.1%
Hearing	6.2%	6.2%	5.3%	6.5%	6.6%	6.0%
Ambulatory	10.1%	9.9%	12.1%	9.5%	8.9%	13.5%
Chronic condition	41%			40%		
Age 65+	2.3%	2.3%	1.2%	NA		
Intellectual or developmental disability	4–10%			NA		
Mental illness symptoms: All	49%	48%	62%	60%	59%	70%
Mania	43%			54%		
Major depression	23%			30%		
Psychotic disorder	15%			24%		

^aSources: vision, hearing, and ambulatory (Bronson et al., 2015 at tables 4 & 5. The data in this survey are self-reported in response to the following questions: “Hearing—Are you deaf or do you have serious difficulty hearing? Vision—Are you blind or do you have serious difficulty seeing even when wearing glasses? Ambulatory—Do you have serious difficulty walking or climbing stairs?”); chronic condition and age 65+ (Carson, 2015 app. Tbl. 3); intellectual disability (Petersilia, 2000 at 1); mental illness (James & Glaze, 2006 at 1, 4)

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mental illness in jails and prisons rather than mental hospitals (Kim, 2016). This is likely only partially true—Raphael and Stoll demonstrate persuasively that deinstitutionalization has made only a “relatively small contribution to the prison population growth overall” (they estimate 4% to 7% of the growth). But as they note, it is certainly the case that “in years past,” “a sizable portion of the mentally ill behind bars would not have been” jailed (Raphael & Stoll, 2013).

In any event, choices relating to disability are central to the operation of US incarcerative facilities. This chapter begins by discussing the difference disability may make in jail and prison—how disability affects prisoners’ lives and institutional operations. It next presents applicable law, focusing on disability antidiscrimination statutes and their implementing regulations.

Why Is Disability a Challenge?

Incarceration is not easy for anyone. But sharply limited control over one’s own routines and arrangements make life behind bars particularly difficult for prisoners with disabilities. Prisoners with mobility impairments, for example, “cannot readily climb stairs, haul themselves to the top bunk, or walk long distances to meals or the pill line” (Human Rights Watch, 2012 at 4). Prisoners who are old may “suffer from thin mattresses and winter’s cold” (id.) but often cannot obtain a more comfortable bed or an extra blanket. Prisoners who are deaf may not hear, and prisoners with intellectual disabilities may not understand, the orders they must obey under threat of disciplinary consequences, including extension of their term of incarceration. As well, prisoners with intellectual disabilities may be unable to access medical care or other resources and services if officials require written requests and they are illiterate (Human Rights Watch, 2015).

Moreover, many prisoners with mental or physical disabilities face grave safety threats. They may be vulnerable to extortion, exploitation, threats, and physical and sexual abuse by other prisoners. Prisoners with mental disabilities in particular may be “manipulated by other prisoners into doing things that get them into deep trouble” (Human Rights Watch, 2003 at 57, quoting Kupers, 1999). As Hans Toch has summarized, prisoners with mental illness can be “disturbed and disruptive,” and “very troubled and extremely troublesome” (quoted in Human Rights Watch, 2015). They are far more likely to be injured in a fight, and to be disciplined for assault (Id.). In the words of prisoners’ rights advocate Jamie Fellner (Human Rights Watch, 2015), they may:

engage in symptomatic behavior that corrections staff find annoying, frightening, and provocative, or which, in some cases, can be dangerous. For example, they may refuse to follow orders to sit down, to come out of a cell, to stop screaming, to change their clothes, to take a shower, or to return a food tray. They may smear feces on themselves or engage in serious self-injury—slicing their arms, necks, bodies; swallowing razor blades, inserting pencils, paper clips, or other objects into their penises. Sometimes prisoners refuse to follow orders because hallucinations and delusions have impaired their connection with reality. An inmate may resist being taken from his cell because, for example, he thinks the officers want to harvest his organs or because she cannot distinguish the officer’s commands from what other voices in her head are telling her.

Solitary confinement is a particular concern. Across the country, constitutional litigation has led to orders excluding prisoners with serious mental illness from solitary confinement. (For a compilation of extant orders, see Civil Rights Litigation Clearinghouse, 2020a.) Nevertheless, people with mental disabilities remain substantially overrepresented in prison and jail restrictive housing units (Association of State Correctional Administrators & Arthur Liman Program at Yale Law School, 2018 at 48–49; Beck, 2015 at 6–7) because they are frequently difficult to manage in general population and they often decompensate once in solitary and commit further disciplinary infractions. Twenty-five years ago, US District Judge Thelton Henderson emphasized the toxic effects of solitary confinement for inmates with mental illness. In *Madrid v. Gomez*, a case about California’s Pelican Bay prison, Judge

Henderson wrote that isolated conditions in the Special Housing Unit, or SHU, while not amounting to cruel and unusual punishment for all prisoners, were unconstitutional for those “at a particularly high risk for suffering very serious or severe injury to their mental health, including overt paranoia, psychotic breaks with reality, or massive exacerbations of existing mental illness” (*Madrid v. Gomez*, 1995 at 1265). Vulnerable prisoners included those with preexisting mental illness, intellectual disabilities, and brain damage. Judge Henderson concluded that “[f]or these inmates, placing them in the SHU is the mental equivalent of putting an asthmatic in a place with little air to breathe.” Their resilience is compromised by their disability and the jail’s or prison’s unaccommodating response to it; prisoners with mental illness face a much higher risk for suicide both in and out of solitary confinement (Human Rights Watch, 2003 at 178).

Sometimes officials affirmatively discriminate against prisoners with disabilities—bar them from programs or jobs, lock them down in their cells, or isolate them in an infirmary or administrative segregation housing, even deny them parole as a matter of policy (Seevers, 2016 at 28, 31, 35; Bebbler, 2016 at 14, 17; ACLU, 2017 at 6). For example, in *Armstrong v. Brown*, US District Judge Claudia Wilken held that the state was “regularly housing [prisoners with mobility impairments] in administrative segregation due to lack of accessible housing” (*Armstrong v. Brown*, 2015). Physical barriers—steps, inaccessible cell features, and the like—frequently exclude prisoners with disabilities from programs and resources (Seevers, 2016 at 19, 29, 32, 34). But physical barriers are just the most visible example of the key general problem: When the ordinary rules and ways of incarceration hit prisoners with disabilities harder than others, prisons and jails fail to accommodate their needs.

This chapter discusses both constitutional and statutory requirements, along with several reform proposals for integrative steps that would assist prisoners with disabilities.

What Does the Law Require?

The welfare of prisoners with disabilities is governed by both the Constitution and the two principal federal disability antidiscrimination statutes, the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA).

Constitutional Law

People with disabilities do not receive special antidiscrimination protection under the Equal Protection Clause (*City of Cleburne, Texas v. Cleburne Living Center*, 1985). Absent other constitutional harm, the Constitution often allows officials to discriminate against people with disabilities, “so long as their actions toward such individuals are rational” (*Bd. of Trustees of the Univ. of Alabama v. Garrett*, 2001). Of course, discrimination aside, other constitutional harm can frequently occur—for example, if government officials fail to “respond [] reasonably to . . . risk[s]” to prisoners, where those risks threaten the “minimal civilized measure of life’s necessities” (*Farmer v. Brennan*, 1994 at 834). Such harm violates the Eighth Amendment’s Cruel and Unusual Punishments Clause, applicable against state and local officials via the Fourteenth Amendment. The same logic compels the same result for pretrial detainees’ conditions claims under the Due Process Clause (*Bell v. Wolfish*, 1979; *Kingsley v. Hendrickson*, 2015). Constitutional conditions claims may address, for example, nutrition, sanitation, large-muscle exercise, and protection from harm by other prisoners.

So, if some overarching prison policy or practice, applicable to prisoners with and without disabilities alike, poses an obstacle to a prisoner with a disability getting enough food, or living in sanitary conditions, or avoiding assaults by other prisoners, modification of that policy is required under the

Constitution (*United States v. Georgia*, 2006 at 157). Perhaps most importantly, people with disabilities frequently have chronic and serious medical/mental health treatment needs. Jails and prisons are constitutionally required to meet those needs (*Estelle v. Gamble*, 1976). This requirement extends not only to treatment in jail and prison (including prompt medical and mental health assessment and management) but also to the period of time postrelease before a released prisoner can reasonably obtain external treatment.¹

The Americans with Disabilities Act and the Rehabilitation Act

The ADA and the Rehabilitation Act reach more broadly. Section 504 of the 1973 Rehabilitation Act provides, in relevant part, 29 U.S.C. § 794(a):

No otherwise qualified individual with a disability . . . shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance or under any program or activity conducted by any [Federal] Executive agency.

And Title II of the 1990 ADA, 42 U.S.C. § 12,132, provides, in relevant part,

[N]o qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity.

Together, these prohibit discrimination on the basis of disability in federally conducted or supported services, and state and local government services, respectively. The Supreme Court has held specifically that ADA Title II's reference to "services, programs, or activities" encompasses the operations of prisons and jails (*Pa. Dep't of Corr. v. Yeskey*, 1998). Between the two statutes, every American prison and jail are covered.²

So, the first issue: What is a disability? Under both the ADA and the Rehabilitation Act, a person has a disability if: (i) a physical or mental impairment substantially limits one or more of his or her major life activities; (ii) he or she has a record of such an impairment; or (iii) he or she is regarded as having such an impairment (29 U.S.C. § 705(20)(B); 42 U.S.C. § 12,102(1)).

Particularly relevant here, "mental" impairments are expressly included if they substantially limit major life activities. The ADA regulations on the definition of disability (28 C.F.R. § 35.108) are quite capacious. Moreover, in the ADA Amendments Act of 2008, Congress clarified and substantially broadened the definition. Under the Amendments Act, a person has a covered disability even if his or her impairment is episodic or in remission, and if it would substantially limit at least one major life activity if active; "without regard to the ameliorative effects of mitigating measures" such as medication, prosthetics, etc., whenever someone subjects the person to prohibited action because of an actual

¹See *Wakefield v. Thompson*, 1999 at 1164 ("[T]he state must provide an outgoing prisoner who is receiving and continues to require medication with a supply sufficient to ensure that he has that medication available during the period of time reasonably necessary to permit him to consult a doctor and obtain a new supply."); *Lugo v. Senkowski*, 2000 at 115 ("The State has a duty to provide medical services for an outgoing prisoner who is receiving continuing treatment at the time of his release for the period of time reasonably necessary for him to obtain treatment on his own behalf."); see also *Brad H. v. City of New York*, 2000 (similar outcome under state law).

²The ADA's Title II covers all nonfederal jails and prisons—its definition of "public entity" includes state and local government agencies, without respect to federal support (42 U.S.C. § 12,131(1)). The Rehabilitation Act also covers most state and local prisons and jails because they receive federal financial assistance (29 U.S.C. § 794(b)(1)(A), defining "program or activity" as "a department, agency, special purpose district, or other instrumentality of a State or of a local government" (See US Department of Justice, 2015).

or perceived physical or mental impairment. Anyone with a significant chronic medical condition is classified as disabled because the Amendments Act counts as “major life activity” not just activities such as “caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, . . . , learning, . . . communicating” but also “major bodily function[s], including . . . of the immune system, normal cell growth, digestive . . . functions” (42 U.S.C. § 12,102).

And the second issue: what counts as discrimination? As quoted above, both statutes protect from exclusion or discrimination of prisoners with disabilities who are “qualified” to participate in the relevant program. The Rehabilitation Act does not define “qualified individual with a disability,” but the ADA does. That definition (42 U.S.C. § 12,131(2)) is as follows:

an individual with a disability who, with or without reasonable modifications to rules, policies, or practices, the removal of architectural, communication, or transportation barriers, or the provision of auxiliary aids and services, meets the essential eligibility requirements for the receipt of services or the participation in programs or activities provided by a public entity.

Prior to the ADA’s enactment, the US Supreme Court explained that the Rehabilitation Act guarantees “meaningful access” to qualified individuals with a disability to each federally conducted or supported program, service, or activity (Alexander v. Choate, 1985 at 301). To figure out what “meaningful access” means, both the ADA and Rehabilitation Act regulations are key.³

There are five chief theories of liability under the ADA/Rehabilitation Act: physical access, disparate treatment, reasonable modification, effective communication, and integration mandate. This chapter does not further treat the physical access rules governing jails and prisons, which are essentially the same as those governing all other government programs.⁴ It takes the other four in turn.

Disparate Treatment

Most simply, discriminating against prisoners “by reason of” their physical disability, serious mental illness, or intellectual disability, violates the statutory bans, as quoted above, against disparate treatment. The ADA regulations explain that public entities must afford qualified people with disabilities the same opportunity as nondisabled people to benefit from the entity’s services. This means a prison or jail may not, because of an inmate’s disability, deny the inmate the “opportunity to participate” in a service offered to other inmates, may not provide an alternative service “that is not equal to that afforded others,” and must provide aids, benefits, or services that would enable the inmate to “gain the same benefit, or to reach the same level of achievement as that provided to others” (28 C.F.R. § 35.130(b)(1)). A prison violates this regulation, for example, if simply because of their disability, it excludes prisoners with disabilities from a program or assigns prisoners with disabilities to segregation cells—where prisoners are denied most prison privileges, programs, activities, and services.

The reach of this requirement is hotly contested in case law. For example, in *Wagoner v. Lemmon*, 2015 at 593, a case in which the prisoner-plaintiff was transported “in a vehicle not equipped for

³Congress itself ratified the Rehabilitation regulations in the ADA, requiring the Department of Justice to adopt them as a baseline. See 42 U.S.C. § 12,201(a) (“nothing in this chapter shall be construed to apply a lesser standard than the standards applied under title V of the Rehabilitation Act of 1973 (29 U.S.C. §§ 790 et seq.) or the regulations issued by Federal agencies pursuant to such title”); 42 U.S.C. § 12,134(b) (“regulations . . . shall be consistent with . . . the coordination regulations under part 41 of title 28, Code of Federal Regulations (as promulgated by the Department of Health, Education, and Welfare on Jan. 13, 1978), applicable to recipients of Federal financial assistance under section 794 of Title 29”).

⁴The physical access rules require that “new” (i.e., post-January 1992) construction be “readily accessible and usable by individuals with disabilities,” as specified by detailed design standards (28 C.F.R. § 35.151). Old construction must provide “program accessibility” (28 C.F.R. § 35.150).

wheelchairs—a shortcoming that led once to [his] catheter becoming dislodged and that forced him to crawl on the van’s floor in order to get out of the vehicle,” the Court of Appeals affirmed summary judgment for the defendants, noting:

Wagoner has not asserted . . . that he was ‘denied all access to some programs and activities, and his access to others was severely limited.’ Wagoner says only that he was inconvenienced with longer waits and humiliation, as when he had to crawl off the regular van because it did not accommodate his wheelchair. These disconcerting allegations do not amount to a denial of services within the meaning of either statute [the ADA and the Rehabilitation Act].

That said, many cases are more generous in applying the rule (Goren et al., 2000, catalogs cases). Even if a prisoner-plaintiff is successful at demonstrating discrimination, however, that is not the end of the matter; the statutes allow defenses. Prison and jail officials can exclude a prisoner with a disability from a program, service, or activity if the exclusion is “necessary for the safe operation of its services, programs, or activities” (28 C.F.R. § 35.130(h)). Safety requirements must, however, be “based on actual risks, not on mere speculation, stereotypes, or generalizations about individuals with disabilities.” (Id.) Similarly, government officials may exclude prisoners with disabilities from programs “when that individual poses a direct threat to the health or safety of others” (28 C.F.R. § 35.139(a)). But the Supreme Court has emphasized that under the ADA, “direct threat defense[s] must be ‘based on a reasonable medical judgment that relies on the most current medical knowledge and/or the best available objective evidence’” (Chevron U.S.A. v. Echazabal, 2002 at 86; see also Bragdon v. Abbott, 1998 at 649 (“[T]he risk assessment must be based on medical or other objective evidence”). And correspondingly, the regulation (28 C.F.R. § 35.139(b)) again requires substantial individuation:

In determining whether an individual poses a direct threat to the health or safety of others, a public entity must make an individualized assessment, based on reasonable judgment that relies on current medical knowledge or on the best available objective evidence, to ascertain: the nature, duration, and severity of the risk; the probability that the potential injury will actually occur; and whether reasonable modifications of policies, practices, or procedures or the provision of auxiliary aids or services will mitigate the risk.

Thus, the ADA’s general ban on disparate treatment has a safety valve—but the safety valve is not satisfied by generalized concern about the abilities or risks of prisoners with disabilities. Disparate treatment is lawful only where participation in a particular program by a particular prisoner with disabilities raises particular—individualized, and proven rather than assumed—safety risks to others, and only where those risks cannot be mitigated by some kind of tailored modification of the program’s policies, practices, or procedures.

This kind of individualization does not come easily to prisons and jails. Rules behind bars tend to be inflexible. Prisons and jails are mass institutions, and it is easier for them to implement simple rules, without either case-by-case or more formalized exceptions. Officials occasionally emphasize that special treatment can provoke hard feelings and even violence by other prisoners. But inflexibility is often an automatic rather than thoughtful response to a request. In any event, prisons and jails are not left to their own preferences with respect to the general choice of how much individualization is appropriate. Courts frequently defer to prison officials’ assessment of risk. But overall, the ADA pushes toward a high degree of particularization.

Reasonable Modification

The Rehabilitation Act and the ADA require even more individuation under the conceptual category of “reasonable modification”—the ADA Title II’s (and Title III’s) equivalent of the more familiar “reasonable accommodation” requirement in Title I of the ADA, which addresses employment discrimination (42 U.S.C. § 12,111(8)–(9); *Wright v. N.Y. XE "Wright v. N.Y." State Dep’t of Corr., 2016* at 78 [“Title II of the ADA, therefore, requires that once a disabled prisoner requests a non-

frivolous accommodation, the accommodation should not be denied without an individualized inquiry into its reasonableness.”)]. The Title II ADA regulation (28 C.F.R. § 35.130(b)(7)(i)) states:

A public entity shall make reasonable modifications in policies, practices, or procedures when the modifications are necessary to avoid discrimination on the basis of disability, unless the public entity can demonstrate that making the modifications would fundamentally alter the nature of the service, program, or activity.

The separate requirement of program accessibility has a similar defense that no “fundamental alteration in the nature of the service, program or activity or . . . undue financial or administrative burdens” are required (28 C.F.R. § 35.150(a)(3)). (In addition, the “direct threat” defense described above applies to reasonable modification claims as well as disparate treatment claims.)

A failure to implement a reasonable modification needed by a person with a disability is a type of discrimination; under the ADA, a prison must “take certain pro-active measures to avoid the discrimination proscribed by Title II” (Chisolm v. McManimon, 2001 at 324–25; see also Tennessee v. Lane, 2004 at 529, describing the reasonable modification requirement as prophylactic).

Federal case law has emphasized that the application of disability rights law in the prison setting must take account of “[s]ecurity concerns, safety concerns, and administrative exigencies” (Love v. Westville Corr. Center, 1996 at 561). As Judge Richard Posner put it in a frequently cited opinion, “[t]erms like ‘reasonable’ and ‘undue’ are relative to circumstances, and the circumstances of a prison are different from those of a school, an office, or a factory” (Crawford v. Indiana Dep’t of Corr., 1997 at 487). Even so, both reasonable modification and effective communication have sometimes been read as robust and broadly relevant requirements. Consider a list of potential problems and ADA-required solutions:

- A prisoner with a mobility impairment cannot walk quickly enough to get to meals in time. Potential modifications: house the prisoner closer to the chow hall; allow additional time for movement and/or meals; if the prisoner uses a wheelchair, provide an aide to push it.
- In a prison that provides indigent prisoners with paper and stamps for letters home, a prisoner with an intellectual disability cannot write such letters because he is illiterate. Potential modifications: allow (and equally subsidize) communication by voice recordings or phone; provide a writer/reader (of his choice) to assist him.
- Successful completion of substance abuse programming is persuasive evidence of rehabilitation in parole hearings and requires academic-type coursework that a prisoner with a learning disability cannot manage. Potential modifications: provide tutoring or one-on-one instruction.
- Announcements are made over an audio intercom that deaf and hard-of-hearing prisoners cannot understand. Potential modifications: a nonauditory alert system (vibrating pager or strobe lights); housing a mildly hearing-impaired prisoner in a quiet unit, where ambient noise poses less of an obstacle.
- Prison jobs are either required or offer prisoners compensation, but many of the jobs include tasks that a prisoner with a mobility impairment cannot perform. Potential modification: adjust job tasks or provide adaptive equipment to allow the prisoner to do the job.

Experts on disability law outside of prison would likely consider these run-of-the-mill accommodations. Similar individualizing responses to disability are regularly sought from, and granted by, employers and nonincarcerating government agencies. And yet, three decades after the ADA’s passage, when prisoners seek these kinds of reasonable modifications, prison and jail officials frequently deny the request simply by pointing to the general rule.

The all-encompassing nature of criminal confinement may amplify ADA/Rehabilitation Act obligations past what is required on the outside. For example, the ADA and Rehabilitation Act do not

require most government entities to provide medical care. But there is a plausible argument that in prison and jail, where medical and mental health care are among the services provided (Pa. Dep't of Corr. v. Yeskey, 1998 at 210), denial of particular treatments needed by people with disabilities also constitutes actionable discrimination (see, e.g., Anderson v. Colorado, Plaintiff's Response, 2011, Plaintiff's Trial Brief, 2012). The court denied these claims not on the law but on the facts, Anderson v. Colorado, 2012 at 1146–48. After all, a prisoner who needs but does not have a hearing aid (i.e., who has been denied audiology services) may face disciplinary consequences for noncompliance with directives he cannot hear—and will certainly be unable to benefit from many programs. The latter is also true for a prisoner whose abilities are compromised by an untreated chronic illness.

Likewise, required accommodations may be somewhat unique to the jail/prison context. Using solitary confinement litigation as an example, in recent cases, many advocates have argued and some courts have agreed that the ADA's reasonable modification requirement compels individualization with respect to disciplinary and restrictive housing policy. Antidiscrimination theories described below—seeking to narrow the route in, soften the conditions, and widen the route out of solitary—have been incorporated in the dozen or so major solitary confinement settlements in recent years. The claims have also gotten some, albeit limited, support in federal district court opinions:

Reasonable Modifications Relating to the Route into Solitary Confinement

Recent advocacy has pressed the claim that the ADA's reasonable modification mandate, properly understood, compels jail and prison officials to take account of mental illness or intellectual disability in making housing decisions, which often assign disabled prisoners to double cells in which conflict and violence are likely. Similarly, advocates have argued that the ADA forbids use of solitary confinement as a routine management technique to cope with the difficulties presented by prisoners with disabilities (US Dep't of Justice, 2013). And several courts have agreed that disciplinary and classification procedures must accommodate disability-related behavior (Scherer v. Pa. Dep't of Corr., 2007 at *44; Purcell v. Pa. Dep't of Corr., 2006 at *13; Biselli v. Cty. of Ventura, 2012 at *44–45). There have been some settlements that implement the theory that the ADA requires jails and prisons to treat behavior that manifests serious mental illness or intellectual disability as a mental health or habilitation matter, rather than as an occasion for force or discipline (Disability Advocates, Inc. v. N.Y. State Office of Mental Health 2007, at 12; Disability Rights Network of Pa. v. Wetzel, 2015, at 16).

More broadly, advocates have claimed that it violates the ADA for a prison system to provide inadequate mental health care more generally, including by interposing a variety of obstacles to obtaining treatment, because without treatment, prisoners with mental illness are more likely to run into trouble of various kinds, leading them to solitary confinement—which acts as a disciplinary or administrative exclusion from facility programs, services, and activities (Rasho v. Baldwin, 2013 at 3–4; Anderson v. Colorado, Plaintiff's Response, 2011; Anderson v. Colorado, Plaintiff's Trial Brief, 2012).

Reasonable Modifications Relating to Conditions in Solitary Confinement

There is less case law, but advocates have also pressed claims relating to conditions *in* solitary confinement. The DOJ has found, for example, for those prisoners whose disabilities mean they simply cannot be safely managed in general population, prisons retain the “obligation to provide the prisoners with the opportunity to participate in and benefit from mental health services and activities, and other services, programs, and activities to which prisoners without disabilities have access” (US Dep't of Justice, 2013 at 37, citing 28 C.F.R. § 35.130(b)). Even if a prison has a safety interest in substantial physical isolation, that should not mean that prisoners with disabilities are denied phone calls, books, education, rehabilitative programming, exercise, and the like (for an account of a litigation making this point, see Glidden & Rovner, 2012).

In addition, inside solitary confinement (as outside), the eligibility criteria for various kinds of in-unit programming or services—visits, phone calls, various property privileges, group therapy, etc.—should also be adjusted so those criteria do not deprive prisoners with disabilities the opportunity to participate in and benefit from those programs. Otherwise, such criteria unlawfully “screen out” prisoners with disabilities from “fully and equally enjoying” such programs or make it difficult for them to “obtain the same result [or] gain the same benefit” from these programs (28 C.F.R. § 35.130(b)(8) & (1)(iii)).

Finally, litigation has pursued the theory that prisons should also accommodate disabled prisoners’ particular, disability-related vulnerability to the conditions of isolated confinement by softening those conditions (*Disability Advocates, Inc. v. N.Y. State Office of Mental Health*, 2002). Prisoners with mental illness and intellectual disabilities are less resilient to the absence of social interaction and the enforced idleness of solitary confinement. Consequently, advocates suggest these features should be modified for them; they could, for example, receive controlled programming, increased recreation hours, and expanded access to educational materials and similar accommodations (*Peoples v. Fischer*, Settlement Agreement, 2015). This applies even to disabled prisoners whose path into solitary was unconnected to their disability (*Parsons v. Ryan Stipulation*, 2014 at 8).

Reasonable Modifications Relating to the Route out of Solitary Confinement

Finally, the ADA may require modifications to the *route out of solitary*—that is, to eligibility and step-down-type requirements for prisoners in solitary confinement or other high-security housing, where those requirements are ill suited or even impossible for prisoners with disabilities (*Anderson v. Colo.*, July 21, 2011; *Sardakowski v. Clements* July 1, 2013; Dec. 26, 2013; Feb. 25, 2014). Indeed, the same theory could reach denials of opportunities for a route out of prison altogether, if parole is denied on the basis of a solitary stint, or on lack of completion of rehabilitative programming that is unavailable to those in solitary.

A recent district court opinion accepted a reasonable modification argument seeking greater access for prisoners with disabilities to a solitary confinement “step-down” program (*Sardakowski v. Clements*, 2013 at *9 [rejecting a motion to dismiss for failure to state a claim given plaintiff’s argument “that he has been unable to complete the requirements of the leveling-out program successfully because of his mental impairment and because CDOC officials have prevented him from obtaining adequate treatment and accommodation so that he may progress out of solitary confinement”]; see also *Sardakowski v. Clements* 2014 at 41 [rejecting defendants’ motion for summary judgment on the same claim]).

Notwithstanding the litigation and case law just described, implementation of this kind of individualized approach to housing and discipline remains rare. I do not think that jails’ and prisons’ reluctance to embrace individualizing approaches to housing and discipline, or to operations more generally, can be justified doctrinally. But recall that the requested modification is not required if it would “fundamentally alter” the policy, practice, or procedure, or pose “undue financial and administrative burdens.” The nature of the requested change matters. As in many situations, whether it is considered “fundamental” turns in part on the level of generality used to describe the program and its “essential” aspects. See, for example, *Alexander v. Choate*, 1985 at 300. Is the essence of solitary confinement its restrictive nature, or that it adequately safeguards safety and security? Is the essence of prison discipline that it punishes misconduct, or that it punishes culpable misconduct? And so on. The answer to these questions determines what aspects of the policy, practice, or procedure are deemed “fundamental”—and the analysis is very much contested in the cases.

What is clear, however, is that the ADA pushes toward individualization and flexibility. The very idea that some aspects of a program or policy are fundamental—but others are not—means that prisoner restrictions that have been treated as irrevocably bound together are conceptually untied. And the assertion of the defense—that a particular change to a prison policy or practice a prisoner with a dis-

ability seeks is a fundamental alteration that a prison is not required to undertake, rather than a reasonable modification that it must—puts the onus on the jail or prison to justify why it cannot make a requested change, if not for everyone, than for this particular disabled prisoner. As Brittany Glidden and Laura Rovner summarized the point, “Because the accommodations should be specific and individualized, prison officials must demonstrate why in each case the particular prisoner cannot receive the requested services. As a result, it becomes more difficult for the prison to rely on generalized assertions of ‘safety’ to support the deprivations and instead forces an articulation of the reason for the particular condition” (Glidden & Rovner, 2012 at 69). Sometimes, but not always, courts agree, with the disagreement framed in terms of the degree of deference owed.

Effective Communication

Prisons are difficult auditory environments—they are noisy, and many encounters are high stakes. Failure to obey an order or respond to an auditory cue can have very bad consequences. Both the Rehabilitation Act’s and the ADA’s regulations detail more precise, and quite muscular, obligations for program participants who have communications-related disabilities—for example, blindness or low vision, deafness or low hearing, and speech impediments. For communication, what is required is not merely “meaningful” access, but equality: “A public entity shall take appropriate steps to ensure that communications with ... participants ... are as effective as communications with others” (28 C.F.R. § 35.160(a)(1); 28 C.F.R. § 42.503(e)). The effective communication mandate cashes out as a requirement for provision of “auxiliary aids and services” (28 C.F.R. § 35.160(b)(1))—interpreters on-site or through video remote interpreting services, real-time computer-aided transcription services, assistive listening systems, open and closed captioning, various telephonic communications devices for the deaf, videophones, visual and other nonauditory alert systems, and more (See 28 C.F.R. § 35.104 [defining “auxiliary aids and services”]).

The effective communication/auxiliary aid requirements are crucial for safe incarceration of people with communications disabilities. They raise two key questions: Which communications are covered? And how hard does the prison have to work in meeting the auxiliary aid requirement?

The regulations themselves answer the first question: “communications with .. participants.” There is no limit to, say, formal communication or communication about particularly important topics. The effective communication requirement covers announcements such as an audio alert for count or pill call, as well as disciplinary hearings or doctor’s appointments. On the other hand, the method of compliance may well vary across these types of communications:

The type of auxiliary aid or service necessary to ensure effective communication will vary in accordance with the method of communication used by the individual; the nature, length, and complexity of the communication involved; and the context in which the communication is taking place. In determining what types of auxiliary aids and services are necessary, a public entity shall give primary consideration to the requests of individuals with disabilities. In order to be effective, auxiliary aids and services must be provided in accessible formats, in a timely manner, and in such a way as to protect the privacy and independence of the individual with a disability

(28 C.F.R. § 35.160(b)(2)).

For an announcement that it is time for count, perhaps a flashing light provides effective communication. But for a doctor’s visit or an Alcoholics Anonymous meeting, a live sign-language interpreter might be needed, both because of the high stakes and because of the operational setting (McBride v. Michigan Dep’t of Corr., 2018 at 214).

Prisons sometimes argue that their obligations are merely to provide *some* means of communication—but the regulation and the case law clearly require that the communication be “as effective as communications with others” (28 C.F.R. § 35.160(a)(1)). As technology changes and improves, the necessary auxiliary aids likewise change. For example, there was a time when the preferred telecom-

munications device for deaf telephone access was a “teletypewriter”—a TTY. This 1970s technology allows transmittal of typed text across a standard phone line; a “relay” service provides a (live, human) communication assistant who can read the text to someone on the other end of the line, and type whatever that person says to be read by the TTY user. TTYs function like a limited instant messaging system and read across a 20-character display. They are outdated technologically.⁵ They are also inaccessible to people not proficient in written English—which includes many deaf individuals whose primary language is ASL (American Sign Language). Disability is highly individual, and so too are the auxiliary aids needed for effective communication. Using modern technology, additional—and for most prisoners, much better—options for telephonic auxiliary aids include videophones (and relay) for prisoners who sign, and captioned telephones⁶ for prisoners who can read and speak but cannot hear (*McBride v. Michigan Dept. of Corr.*, 2018).

Like telephonic equipment, other auxiliary aids depend both on the setting and the needs of the individual prisoner (*Adams v. Kentucky* 2016 to 2020).

The Integration Mandate

The ADA regulations include a provision, usually termed the “integration mandate,” that directs “A public entity shall administer services, programs, and activities in the most integrated setting appropriate to the needs of qualified individuals with disabilities” (28 C.F.R. § 35.130(d)). The regulation that deals specially with program access in prisons and jails (28 C.F.R. § 35.152) adds some detail to this general mandate. It provides, in pertinent part:

- (b)(2) Public entities shall ensure that inmates or detainees with disabilities are housed in the most integrated setting appropriate to the needs of the individuals. Unless it is appropriate to make an exception, a public entity—
 - (i) Shall not place inmates or detainees with disabilities in inappropriate security classifications because no accessible cells or beds are available;
 - (ii) Shall not place inmates or detainees with disabilities in designated medical areas unless they are actually receiving medical care or treatment; [and]
 - (iii) Shall not place inmates or detainees with disabilities in facilities that do not offer the same programs as the facilities where they would otherwise be housed.

Prisons often house prisoners with disabilities in various kinds of special housing that are, if not quite solitary confinement, at least close to it; they impose far more locked-down time than ordinary housing, restrict access to property, limit various privileges, etc. This kind of dedicated housing for people with disabilities (as well as infirmary assignments for prisoners not actually in need of in-patient medical care) violates the plain dictates of the ADA’s regulations if the housing area is not “the most integrated setting appropriate” to the prisoners’ needs (28 C.F.R. § 35.130(d); *Henderson v. Thomas*, 2012). As the DOJ further explained in a brief filed in 2013, “[P]risoners with disabilities cannot be automatically placed in restrictive housing for mere convenience ... [T]he individualized assessment should, at a minimum, include a determination of whether the individual with a disability continues to pose a risk, whether any risk is eliminated after mental health treatment, and whether the segregation is medically indicated” (*Coleman v. Brown*, Response of the United States, 2013 at 4).

⁵See 81 Fed. Reg. 33,170 (proposing regulatory amendments “to facilitate a transition from outdated text telephone (TTY) technology to a reliable and interoperable means of providing real-time text (RTT) communication for people who are deaf, hard of hearing, speech disabled, and deaf-blind over Internet Protocol (IP) enabled networks and services.”); 47 C.F.R. part 67 (new rules).

⁶See Federal Comm. Comm’n 2016 (“CTS [captioned telephone service] allows a person with hearing loss but who can use his or her own voice and has some residual hearing, to speak directly to the called party and then listen, to the extent possible, to the other party and simultaneously read captions of what the other party is saying.”).

It is plausible to conclude that a prison violates the ADA regulation if, for example, all the mental health housing is high security, so that prisoners who would otherwise have access to gentler conditions in minimum or medium security are forced into harsher environments in order to get treatment. This argument was made in some detail by the plaintiffs in the pioneering case *Disability Advocates, Inc. v. N.Y. State Office of Mental Health* 2007. And as described above, in the *Armstrong* litigation, the US District Court for the Northern District of California found that the plaintiff prisoners, who had mobility impairments, were being housed in solitary confinement simply because there were no accessible cells available elsewhere. This, the District Court held, violated the clear terms of the provisions quoted above (*Armstrong v. Brown*, Order Granting Motion for Further Enforcement, 2015).

More commonly, though, confinement of prisoners with disabilities in restrictive housing is not because of a shortage of accessible cells elsewhere, but rather because prisons choose to manage difficult, disability-related behavior with solitary confinement rather than less harsh housing assignments and services. In *Olmstead v. L.C.*, the Supreme Court required states to deinstitutionalize people with disabilities who had been unjustifiably assigned to receive various state-provided services in segregated mental health/intellectual disability institutions rather than in the community. (For more on *Olmstead* and its implementation, see U.S. Dep't of Justice, 2011.) In prison or jail, when solitary confinement is triggered by a prisoner's disability (and resulting conduct), it means that prison services are provided in a setting that lessens the prisoner's contact with other, nondisabled prisoners. This is "segregated" not only in the way the term is used in prison but, at least arguably, also in the way the term is used in the *Olmstead* opinion (*Olmstead v. L.C.*, 1999 at 598) to describe civil institutionalization, which the Court held can be a form of unlawful discrimination.

The ADA's integration mandate can be understood to presume that such segregation is harmful. That is, the regulation itself bans an underjustified decision to isolate people with disabilities from other, nondisabled people; plaintiffs need not demonstrate how that decision hurts them. In addition, a decade of litigation under *Olmstead* in other settings has established that the solution for violations of the integration mandate is the provision of services in integrated settings that avoid the need to segregate (Bagenstos, 2012). For example, in *United States v. Delaware*, an *Olmstead* settlement between the DOJ and the state of Delaware required statewide crisis services to "[p]rovide timely and accessible support to individuals with mental illness experiencing a behavioral health crisis, including a crisis due to substance abuse."

The settlement detailed numerous items that would form a "continuum of support services intended to meet the varying needs of individuals with mental illness." This included Assertive Community Treatment teams—multidisciplinary groups "including a psychiatrist, a nurse, a psychologist, a social worker, a substance abuse specialist, a vocational rehabilitation specialist and a peer specialist"—to "deliver comprehensive, individualized, and flexible support, services, and rehabilitation to individuals in their homes and communities," and various kinds of case management. And it provided for "an array of supportive services that vary according to people's changing needs and promote housing stability" and "integrated opportunities for people to earn a living or to develop academic or functional skills" (*United States v. Delaware*, Settlement Agreement, 2011 at 3, 5–6, 7–8). Other *Olmstead* decrees contain similar provisions (Civil Rights Litigation Clearinghouse, 2020b).

The *Delaware* and other *Olmstead* cases provide one model for how prisons could comply with the integration mandate, managing the needs of prisoners with disabilities to keep them out of the segregated solitary confinement setting. The possibilities are broad: provision of coaching and mental health treatment and other supports, perhaps assignment to a one-person cell to minimize intracell conflict, and many more. But so far, this is all very much a doctrine in development.

Implementation Processes

As I have already argued, individualization and integration do not come naturally to jails and prisons—total institutions prefer standardized to singular treatment. It may be helpful, then, to explore briefly four implementation components that assist jail or prisons to maximize their compliance with the above requirements: interaction with the prisoner, notice to the prisoner of available services and accommodations, structured consideration, and concentrated development of expertise and responsibility.

Because disability-related needs are so varied, disability rights statutes often require what is often called an “interactive process” for the development of accommodations. The ADA’s Title I (employment) regulation urges that an “informal, interactive process” “may be necessary” to “identify the precise limitations resulting from the disability and potential reasonable accommodations that could overcome those limitations” (29 C.F.R. § 1630.2(o)(3)). The EEOC’s guidance explains that the procedure should be “flexible [and] interactive” and should “involve [] both the employer and the [employee] with a disability” (29 C.F.R. pt. 1630, App). And, as one federal appellate court has explained, this approach is not “especially burdensome.” The idea is simply to:

meet with the employee who requests an accommodation, request information about the condition and what limitations the employee has, ask the employee what he or she specifically wants, show some sign of having considered employee’s request, and offer and discuss available alternatives when the request is too burdensome (Taylor v. Phoenixville Sch. Dist., 1999 at 162).

Similarly, the Individuals with Disabilities Education Act (IDEA) requires that a child’s individualized education program be developed in a process that is calculated to understand the child’s needs and goals and that it includes his or her parents (20 U.S.C. § 1414(d)(1)(B)). Particularly under the IDEA, part of the process is providing information to the parent on rights and available services and accommodations (Weber, 2015 § 5.2, citing 34 C.F.R. §§ 300.343(c)(iii), 300.346(a)(1)(i), 300.346(b)).

ADA Title II’s regulations do not include “interactive process” language but courts have nonetheless imported the approach, which is sensibly geared toward assessing individualized needs and solutions (Vinson v. Thomas, 2002 at 1154). In a prison or a jail, an interactive process has two advantages. First, it involves the prisoner, who is best equipped to know his own needs and circumstances. Second, it structures a focused consideration of the disability issues—the situation, the potential solutions, and their pros and cons.

It is useful for facilities to designate who, as well as what, the process includes. Disability accommodation requires knowledge of what the law requires—the content of the sections preceding this one. Equally important, it requires knowledge of multiple technologies and techniques. Take a relatively easy question already discussed above: What can be done to provide access to telephone communication to a prisoner who is too hard of hearing to use a regular phone but who does not sign? To answer requires awareness of the range of devices available—for example, amplifiers (including their interaction with hearing aids) or devices such as captioned telephones.

In correctional facilities, there are added complications. What kinds of amplifiers are sturdy enough for congregate facilities and capable of use with (usually low-tech and analog signal) prison pay phones? How can a captioned telephone be linked to the prison phone-billing system? And so on. In a case in which I served as a court-appointed monitor, a variety of obstacles to the state’s first installation of a captioned telephone took several months to solve. The point is, it is essential for each facility to designate a disability or ADA coordinator who can develop the requisite regulatory and practical expertise. The ADA Title II regulations require designation of a “responsible employee” at the agency level, but few prisons or jails have anyone playing this role (28 C.F.R. § 35.107(a)). On what an effective ADA coordinator needs to know and be empowered to do, see US Department of Justice (2006).

Policy/Law Reform: Bridging the Prison Walls

Turning from the ADA/Rehabilitation Act to policy or potential law reform, abundant evidence demonstrates that prisoners' successful reentry—their transition to productive and prosocial lives in their communities after release from jail and prison—is aided by programs that bridge the walls that separate prison from the outside world. We know that effective reentry planning “starts on the inside and continues upon release” (Robert Wood Johnson Foundation, 2009 at 2). Among the most effective bridging methods is when “[t]he same re-entry planner or case manager works with the detainee on the inside and on the outside and serves as an advocate for his successful re-entry” (Id). Mentor programs often use a similar strategy; mentors begin working with prisoners prerelease and continue through a reentry period (Bauldry et al., 2009 at 7 tbl.2; Johnson & Larson, 2008 at 16).

This broad insight has specific application to prisoners with disabilities and their medical and mental health care. To improve care, and the lives and prospects of prisoners with disabilities, wall-bridging techniques addressing record keeping, personnel, and finances are useful. The idea is not complicated. If jail and prison health care could be integrated with community health care in these three arenas, the result would not be merely improved health behind bars but improved community health.

Health Records

Transitions are a dangerous time for health services. At hospitals, the most dangerous hours of the day are the shift changes. For prisoners with acute health needs, one dangerous time is arrival at a new facility—when medication is often confiscated, skipped, or lost; health histories can be hazardously incomplete; and (particularly in jail) the prisoner is often in crisis. Another dangerous time is release—when prisoners usually leave with only a few days' worth, if that, of any medication, without a doctor's appointment to get a refill, and often far from their families without transportation home (e.g., Baillargeon et al., 2009 at 855).

An integrated system of health records shared between community and jail health providers would not altogether solve the problem, but it can help. For example, when medications are needed right away on incarceration, an existing prescription record could be an enormous help. More generally, to quote the talking points from one innovative county's presentation on their implementation of such a system, integrated (and digitized) records “improve access to timely and appropriate health care information during clinical encounters” and “improve the overall clinical care of the client by the connection with community providers” (SAMHSA-HRSA Ctr. for Integrated Health Solutions, 2013). The program described is for the Multnomah County Health Department (Butler, 2013 offers a case study of this and several other projects).

Personnel

In medical and mental health care as in other areas, people are the best bridges. There are a variety of models (See, e.g., Patel et al., 2014). In both New York City and Washtenaw County, Michigan, for example, mental health care in the jail is provided by the same agency, and sometimes the same people, as mental health care outside (Butler, 2013 at 14; Washtenaw County Community Mental Health, 2015). In two Rhode Island programs for HIV-infected inmates, the personnel who stay constant are not the treating professionals but case managers (Patel et al., 2014 at 469–70). In another Michigan county program, a “medical navigator” and community health workers begin meeting with prisoners

months prior to their release, and continue with case management services postrelease (US Department of Health and Human Services, 2009).

Community service providers are useful for three reasons: continuity of care, expertise in available community services, and nonprison attitude. The first two are self-explanatory. The third is equally important. Correctional facility doctors and nurses can be expert and compassionate providers. But sometimes prisons and jails become the employers of last resort for subpar clinicians. A number of states have a practice of granting “restricted licenses” to doctors who work in prisons but do not meet the requirements for full licensure (Gibbons & Katzenbach, 2006 at 443–44). And in some states, doctors whose disciplinary records make them unattractive employees elsewhere find jobs in the prison system (Chang, 2012). Even when clinicians have unrestricted licenses and clean records, research establishes that prison doctors and nurses tend to be more jaded and less empathetic toward their patients when compared with their civilian counterparts (Dhawan et al., 2007 at 264 (“[C]orrectional physicians describe a developmental course in which they become increasingly able to empathize with inmates during a period of years of working in a correctional setting.”); Shields & de Moya, 1997 at 37). As Greifinger has summarized: “There is far too much cynicism regarding inmates among correctional health care professionals, who work in environments of constant tension. Too often these professionals are skeptical about inmates’ concerns and complaints, believing that the inmates (who do often exaggerate) are malingering for secondary gain. Correctional health care staff also frequently incorporate the custody staff’s fear that humane responsiveness is coddling that can lead to anarchy” (Greifinger, 2006 at 262).

When medical and mental health personnel work both in and out of correctional facilities, that counteracts both the tendency toward lower hiring standards and lower levels of compassion toward the patients. Even if in a particular setting it makes sense to hire people who work only in a correctional facility, it is helpful in terms of hiring, supervision, and mindset if their employing organization is focused on community as well as correctional care.

Finances and Discharge Planning

Finally, there is simply no justification for the current law and practices governing the financing of inmate health care. As so often in health law, this issue is technically complicated. Since its inception, Medicaid has excluded “inmates of public institutions” from “federal financial participation”—which is to say, coverage (42 C.F.R. § 435.1009(a)(1)). That exclusion has never affected inmate eligibility to enroll, just their actual receipt of Medicaid benefits (Stanton, 2004). Nonetheless, even prisoners who were eligible, because of age or disability, have most often had their Medicaid enrollment terminated rather than merely suspended during their time in jail and prison. The result was months of delay for former inmates to be reapproved for Medicaid on release from incarceration (Nat’l Ass’n of Cts., 2014; 42 C.F.R. § 435.912, capping Medicaid eligibility determinations based on disability at 90 days and other applications at 45 days).

In the past, the use of Medicaid termination rather than suspension did not affect most prisoners, however, because they were not Medicaid eligible in any event. As adults without dependent children and without a Social Security Administration-recognized disability, they did not meet their states’ eligibility criteria notwithstanding their low income. The Affordable Care Act (ACA) changed that part of the picture when it allowed states to expand Medicaid coverage to everyone who earns up to 138% of the federal poverty level and is under 65 (people 65 and older are covered under Medicare) (42 U.S.C. § 1396a). As of January 2020, 36 states and the District of Columbia have signed up for the ACA’s Medicaid expansion funding (Kaiser Family Foundation, 2020). The result is that nearly all prisoners in those states are now Medicaid eligible. Enrollment comes with two benefits for them and

their jailers: First, Medicaid will cover a large portion of the cost of care delivered outside the institution—at a hospital, for example—when the prisoner has been admitted to that hospital for 24 hours or more. Second, Medicaid enrollment greatly smooths the transition to community health care on release. To realize these benefits, however, states need to enroll their prisoners—and to suspend rather than terminate prisoner participation in the program while they are housed in jail or prison (Centers for Medicare and Medicaid Services, 2016). States have been making real, though not complete, progress on these fronts (Bandara et al., 2015; Families USA, 2016; Kaiser Family Foundation, 2019).

Much more broadly (and admittedly unrealistically in the current political climate), to my mind, the exclusion of prisoners from Medicaid makes no sense at all. If the federal government is going to be responsible for health-care costs for poor people, why exclude prisoners? There’s an argument that since the states and local governments are constitutionally required to pay for medical care, Medicaid coverage would not increase access to care, but merely shift the payer (of course, if that is the logic, the exclusion from the exclusion for hospital stays is an oddity). But even if Medicaid continues to exclude prisoners, there is no reason at all that prisoners should not be enrolled to facilitate coverage for them when they leave. The absence of Medicaid coverage is one of the reasons that the death rate for released prisoners is several times higher than for others of similar age, race, and sex (Binswanger et al., 2007). The availability of insurance makes discharge planning possible: case managers can connect inmates heading toward release with providers in their community and can even schedule necessary postrelease appointments.

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Growing Older: Challenges of Prison and Reentry for the Aging Population

5

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Introduction

The United States is experiencing an aging crisis in its criminal justice system. Despite a modest decline in individuals confined to US jails and prisons in recent years (Bronson & Carson, 2019), the number of incarcerated older adults continues to rise. Since 1990 the overall prison population has doubled, while at the same time, the number of older adults in prison has increased by more than 500% (Ahalt et al., 2013; Carson & Sabol, 2016). Correctional facilities are generally ill-equipped to manage the complex healthcare needs of an aging population, and the financial resources needed to do so in a humane manner are often not available.

In 1981, there were 8853 persons over 55 incarcerated in the United States. By 2012, this number rose to approximately 250,000 and experts predict that given current trends the numbers of older adults confined to prison will reach over 400,000 by 2030, making up approximately one-third of all incarcerated persons (Chettiar et al., 2012; Osborne Association, 2018). The states with the greatest number of older inmates are California, Texas, and Florida, reflecting the overall size of these state prison systems and their longer prison sentences (Bronson & Carson, 2019). The aging of the prison population is not limited to the United States. An expansion in the aging inmate population is also described in England and Wales (Crawley & Sparks, 2006) and Japan, where the numbers of incarcerated persons over the age of 65 rose from 5.5% in 2000 to almost 20% in 2015 (France-Presse, 2017).

In the community, geriatrics is the discipline of medicine specializing in the care of older persons, defined as people age 65 years and older. Incarcerated populations have been shown to experience the impact of chronic medical comorbidities, geriatric syndromes, and functional impairment at rates that

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are similar to populations outside of prison who are 10–15 years older (Binswanger et al., 2009; Williams et al., 2006). This phenomenon is known as “accelerated aging” and is the result of multiple life factors including socioeconomic stressors, limited access to quality health care over lifespan, increased life stressors, lower literacy and education levels, as well as increased rates of mental illness, substance use disorder, and greater exposure to trauma than the general population (Aday, 2003; Bedard, Metzger, & Williams, 2016; Maschi et al., 2011; Williams et al., 2012). To account for accelerated aging, many state correctional departments now define incarcerated as “geriatric” when they are in their 50s, usually over age 50 or 55 (Fazel, Hope, O’Donnell, & Jacoby, 2001; Mitka, 2004; Voelker, 2004).

Outside of prison, people often encounter new physical, psychological, and social challenges as they age. In prison, an environment designed for younger inhabitants, aging introduces additional challenges in safety, functional ability, and health. As older adults reenter their communities after decades of incarceration, they may face additional challenges beyond the already substantial challenges of reentry, including loss of family and community connections, lack of access to safe housing options, unfamiliarity with technology, limited employment opportunities, the burden of multiple medical conditions with limited access to medical care, and leaving the familiarity of the place they have lived in for decades.

In this chapter, we describe some of the factors leading to the special challenges experienced by incarcerated older adults and provide some strategies to overcoming these barriers. Despite the public health and economic implications of the surging geriatric prison population, limited research has been conducted with this population (Ahalt et al., 2015; Ahalt, Haney, et al., 2018).

Contributing Factors

In the United States, the factors contributing to the dramatic aging of the incarcerated population are multifactorial and have changed over time. During the period between 1980 and 2020, the number of people incarcerated in the United States (including state and federal prisons, local jails, and detention facilities) rose from 220 to 698 per 100,000 resulting in the imprisonment of more citizens per 100,000 than any other country in the world (Sawyer & Wagner, 2020). Causes for the massive increase in incarceration rates include the increased use of mandatory minimum sentencing, life sentences including three-strike legislation, stricter sentencing for drug-related crimes, loss of judicial discretion, increased prosecutorial power to demand harsher sentences, and decreased community-based services for the mentally ill (Anno et al., 2004; Hill et al., 2006; Mitka, 2004).

The rise in the overall number of incarcerated persons—as well as the aging of the US population—has contributed in part to an increased number of older adults involved in the criminal justice system. Indeed, between 2003 and 2013, the largest prison population growth occurred for older adults, and the percentage of incarcerated people age 55 or older increased from 3% of the total prison population in 1993 to 10% in 2013 (Carson & Sabol, 2016). In addition to higher rates of incarceration and longer sentences in the United States overall, more older adults are being admitted to prison than before; over four times as many adults age 55 or older were admitted to prison in 2013 than in 1993 (Carson & Sabol, 2016). Further, some sources suggest that fewer qualify for release, thus tipping the balance of sentencing and release (Osborne Association, 2018).

More research needs to be done to better understand the reasons behind the rising admission age but several factors have been hypothesized (Luallen & Kling, 2014; Porter et al., 2016). These include reduction in community-based social supports for the elderly and age-related illnesses such as dementia that may contribute to aberrant behavior, along with an overreliance on criminal justice rather than public health solutions. In addition, older persons may have had more time to accrue a history of

criminal activity and thus may be more likely to receive a prison sentence rather than a community-based corrective solution, and prison sentences may be enhanced as a result of prior convictions. With respect to decreased outflow, according to the Sentencing Project, the number of people serving life sentences has more than quadrupled since 1984 (Nellis, 2017). In 2017, it was reported that the number of individuals in the United States receiving life sentences or a sentence so lengthy that it exceeded a normal lifespan (“virtual life sentence”) was 1 in 7 or 13.9% of the US prison population (Nellis, 2017). While some recent policy reforms and exoneration efforts have released people who would otherwise spend their lives in prison, the vast majority of people will age, develop complex medical needs, and eventually die while incarcerated.

The majority (but not all) of people who are serving a life sentence have been convicted of a violent crime, and many were sentenced as young adults. Most criminal justice reforms in the last decade have focused on relief for those convicted of nonviolent crimes, and these reforms do not impact older persons convicted of remote violent crimes despite strong evidence that these are the individuals least likely to pose a risk to public safety. After decades of incarceration, rehabilitative programming, and the decreased impulsivity that comes from aging, older adults have the lowest recidivism rates of any cohort in US prisons. Indeed, research continually demonstrates that older age is a key protective factor against recidivism, while overall recidivism nationwide is 43.3% within 3 years, the rates for those 50–64 are 7% and those over 65 only 4% (Chettiar et al., 2012; Pew Center, 2011). This holds true for those convicted of violent crimes as well.

Similarly, most states have programs that allow for early medical (“compassionate”) release or parole for the elderly, frail, or terminally ill. Unfortunately, policies vary widely by state, and such programs rarely result in release of older adults due to logistical challenges and limitations based on commitment offense (Holland et al., 2018; Williams et al., 2006). The numbers released through such programs nationwide have not increased despite continually growing numbers of people who qualify medically. In New York, the number of people granted medical parole between 1992 when the program was initiated and 2014 has not grown, despite a significant rise in the numbers of older, medically complex individuals who meet the medical criteria for consideration (Osborne Association, 2018).

Given these synergistic forces, current trends toward the progressive aging of the prison population are not likely to be reversed without significant judicial or legislative changes. Some changes have begun, such as the California’s Supreme Court’s 2008 ruling that parole boards must take into consideration an individual’s rehabilitative progress as well as their current threat to public safety and not deny parole solely because of the circumstances of the original crime (Cotton, 2008). Reforms that provide a feasible pathway to release for older individuals who are parole eligible must be implemented if the downward trend in mass incarceration is going to include the most medically vulnerable individuals within our criminal justice system.

Cost of Care

The obligation to provide adequate medical care for people imprisoned by the state is not only an ethical imperative but also a legal obligation backed by case law. In 1976, the US Supreme Court ruled that a failure to provide needed medical care to incarcerated people constituted “cruel and unusual punishment” and thereby violated the eighth amendment; following this ruling, subsequent case law has established the right to a “community standard” of health care (*Estelle v. Gamble*, 1976). Providing a community standard of care requires adequate funding, but the increased burden of illness, disability, and special needs among incarcerated older adults is particularly costly. The financial burden of providing a constitutionally required level of care weighs heavily on state and federal budgets: since

this ruling, total prison spending has increased over tenfold (Ahalt et al., 2013) and the US Office of the Inspector General reported that the Federal Bureau of Prisons spent \$881 million to incarcerate individuals age 50 and older in 2013 (Office of Inspector General, 2015).

As in the community, older age is among the strongest predictors of morbidity and medical care utilization in correctional facilities (Faiver, 1998; Lindquist & Lindquist, 1999; Maschi et al., 2012; McKillop & Boucher, 2018), in part explaining why the cost of incarcerating an older person is up to 9 times that of their younger counterparts (Ahalt et al., 2013). This high cost is the result of increased healthcare expenses due to hospitalization, off-site specialty services, medications, diagnostic tests, and skilled nursing care, in addition to the substantial custodial costs associated with off-site health care (Hill et al., 2006). In California prisons, for example, people aged 55 and older represent approximately 5% of the population, but account for 22% of the off-site hospital admission costs; the state's off-site hospital costs are 35% higher for persons ages 55 or older than for younger adults (Hill et al., 2006). In 2015, the state of Virginia spent 27% of its entire prison healthcare budget on off-site hospital care (Huh et al., 2018).

Given the aging of the incarcerated population and associated high costs of medical care, significant portions of state and federal correctional healthcare budgets will continue to be directed toward geriatric care barring significant reassessment of the costs and benefits of such practices.

Special Challenges for Incarcerated Older Adults

Those aging in prison face many of the same challenges as those aging in the community. This section describes some additional difficulties affecting incarcerated older adults as they navigate age-related physical decline and illness within the context of incarceration. The experience of chronic disease, loss of liberty, geriatric syndromes, functional decline, serious acute illness, psychosocial concerns, end-of-life care, and struggles with mental illness are all complicated by limitations and restrictions inherent in the correctional setting. Older adults whose health is deteriorating must also cope with the increasing reality that they may not achieve the near universally held goal of dying outside of prison.

Chronic Disease Management

On average, incarcerated older adults have a chronic disease burden similar to those in the community who are 10–15 years older (Binswanger et al., 2009; Greene et al., 2018; Williams et al., 2006). Two studies from the United Kingdom show that between 83% and 95% of incarcerated older adults have a disability or chronic illness (Fazel, Hope, O'Donnell, & Jacoby, 2001; Hayes et al., 2012). The patterns of disease are similar to those found in the US older adult population and include chronic obstructive pulmonary disease, arthritis, diabetes, cancer, and heart disease. Incarcerated older adults also struggle with conditions that have a higher prevalence in prison, including paraplegia secondary to gunshot wounds, advanced liver disease from viral hepatitis or alcohol use, and end-stage renal disease from injection drug use and/or HIV. Over 50% of incarcerated adults meet criteria for substance use disorder (Mumola & Karberg, 2006) and continued use may lead to risk of drug overdose and infections including endocarditis, osteomyelitis, epidural abscess, and soft tissue infection. Adding to this complexity, 40% to 60% of incarcerated persons over the age of 50 experience mental illness or cognitive impairment (James & Glaze, 2006).

In recent decades, primary care in the community has focused on a model of patient-centered care. Compelling evidence suggests that continuity and a “primary care home” are related to better outcomes (Grant & Greene, 2012). Many of the essential elements of this model are challenging to

achieve in a correctional setting. Historically, correctional systems have provided health care through a system of “sick call” (care is requested when an individual is ill, but there is minimal to no process for chronic disease management or disease prevention). Many facilities also provide medical care based on an individual’s housing unit. As a result, housing changes for custodial reasons can result in a change in medical provider and a loss of continuity of care. This is particularly challenging when caring for older adults who have more complex medical needs and for whom an understanding of their “baseline” condition and functional status is essential. In addition, due to a history of inadequate medical care in the correctional setting, developing trust over time is essential in caring for patients with complex medical, palliative care, or end-of-life care needs.

Having more than one chronic medical condition is common among incarcerated older adults. This, in turn, puts these patients at risk for “polypharmacy” which is the inappropriate use of multiple medications. In the United States, polypharmacy accounts for up to 27% of annual hospitalizations (Landefeld et al., 2004). Older adults are at particular risk for adverse medication reactions due to age-related changes in the metabolism, clearance, and delivery of many medications (Landefeld et al., 2004). Few prisons have geriatric specialists who are trained to consider the challenges associated with polypharmacy and altered drug metabolism in older adults. The potential lack of trust in health-care professionals among incarcerated patients may also lead to patients being less willing to agree to “deprescribing” even when indicated.

Loss of Liberty Versus Autonomy

Although those who are incarcerated have lost their liberty, international human rights law makes it clear that incarcerated persons should maintain all other human rights including their autonomy when it comes to medical decision-making (Andorno et al., 2015). Assuming a patient has the medical and cognitive capacity to make their own medical decisions, he or she has a right to accept or reject the treatment recommendations of their healthcare team. The circumstances of incarceration at times may lead to a decision that goes against the values of the patient’s medical team, but these wishes should be respected (e.g., patient declining chemotherapy that would likely lead to a cure due to a sentence of life without parole). Similarly, prison administrators have an ethical obligation to honor an incarcerated person’s wishes regarding their resuscitation “code” status and cannot resuscitate based on institutional policy or preferences that incarcerated persons die outside of the correctional facility. As in the community, autonomy does not give patients the right to demand treatments that are not medically necessary.

Geriatric Syndromes

Complex problems that primarily affect older adults are referred to as “geriatric syndromes.” These include vision and hearing loss, falls, cognitive impairment, and urinary incontinence. Geriatric syndromes are common among older incarcerated men and women and put them at risk for adverse events while in prison (Aday, 2003; Fazel, Hope, O’Donnell, Piper, & Jacoby, 2001; Hill et al., 2006; Williams et al., 2006).

Vision and Hearing Impairment

Vision and hearing problems are common among older people. Common causes of visual impairment include presbyopia, cataracts, macular degeneration, glaucoma, and diabetic retinopathy. Vision

impairment can greatly decrease independence and is associated with falls, social isolation, depression, and physical disability (Landefeld et al., 2004; Reuben & Leonard, 2020)

While the exact prevalence of hearing loss varies depending on the definition used, it affects approximately one-third of adults between 61 and 70 years and over three-quarters of those over 80 years (Walling & Dickson, 2012). Adult hearing impairment is similarly associated with social isolation, clinical depression, and limited activity (Bogardus Jr. et al., 2003).

In a correctional facility, the consequences of sensory impairment can be further exacerbated by environmental conditions. For example, cell-based housing and dormitory living can be cluttered and poorly lit, increasing the fall risk (Hill et al., 2006). Frequent changes in housing may require a visually or hearing-impaired individual to have to relearn basic navigation skills due to the new environment. Prison is inherently isolating and the numbers of older adults with baseline mental illnesses surpass the rates in the community, placing the visually or hearing-impaired incarcerated adults at even higher risk of social isolation and depression.

Sensory impairment in prison can also affect an older adults' safety by putting her at risk of victimization. A hearing-impaired person is more likely to have a communication breakdown leading to potential conflict with another person, and a visually impaired person is at risk of having their property taken by others. In addition, sensory impairment may put older adults at risk for rules violations. For example, a person may be seen as ignoring a direct order should he not hear and respond to direction given by staff (Hill et al., 2006; Lemieux et al., 2002).

Falls

Falls increase in frequency with advancing age and are associated with serious injury, loss of function, increased healthcare usage, nursing home placement, and mortality (Brown & Norris, 2006). Approximately, 30% of community-living US adults aged 65 and older fall each year (Marshall et al., 2005). In contrast, a study in California found that 51% of incarcerated women aged 55 or older reported a fall in the past year (Williams et al., 2006). Further, falls are the most common cause of hip fracture and contribute to high geriatric healthcare costs (Hill et al., 2006). The total annual direct medical costs associated with all hip fractures in the non-incarcerated US population is \$50,508 per patient, resulting in a yearly estimate of \$5.96 billion to the US healthcare system (Adeyemi & Delhougne, 2019).

Cognitive Impairment

Cognitive impairment in older adults includes a spectrum of neurologic changes from normal age-related changes to severe dementia. Normal age-related neurologic changes include slower reaction times and slower performance on timed tasks (Landefeld et al., 2004). Dementia, the most severe form of cognitive impairment, leads to significant morbidity and mortality. The diagnosis of dementia includes memory impairment and the presence of at least one other impairment including language deficits, apraxia (inability to perform previously learned tasks), visuospatial deficits, and/or decreased executive functioning such as poor abstraction, planning, or judgment (Landefeld et al., 2004).

Approximately, 15% of men and 11% of women aged 65 and older in the United States have dementia. The prevalence of dementia doubles every 5 years after age 60, and by age 85 the prevalence is 25–45% (Landefeld et al., 2004). Dementia is one of the most expensive illnesses in older adults, as nearly 90% of patients are eventually institutionalized in long-term care facilities (Landefeld et al., 2004). A 2015 study found that the average cost of dementia care in the 5 years prior to death was \$287,038 per patient (Kelley et al., 2015).

As the prison population ages, correctional officers and clinical staff will encounter more inmates with memory impairment. Some older adults may enter prison already having cognitive impairment, while others will develop it once incarcerated. One study of incarcerated people over age 60 found

that nearly 15% had organic brain disorders (Aday, 2003), and court liaison referrals for older adults have found rates of dementia ranging from 19% to 30% (Aday, 2003). These cognitively impaired older adults are vulnerable to victimization if proper measures are not taken to ensure their safety. Those with mild cognitive impairment may go unrecognized for some time due to the regimented lifestyle of prison and the lack of close interpersonal contacts who are often the first to identify signs of dementia in the community and bring them to the attention of a medical provider.

In addition, if a person with dementia is unable to understand the rules or potential consequences of rules violations, she may accumulate additional disciplinary actions. People with dementia may become emotionally volatile and, when triggered by the stressors of the prison environment, may engage in behaviors that can be misunderstood as intentional rules infractions (Maschi et al., 2012). If an older adult with mild dementia wanders into an “out of bounds” area, this could result in a rules violation. Similarly, if a bed-bound patient with dementia were to inappropriately grab a nurse, he might receive a rules violation for assault, whereas in a community nursing home this same occurrence would trigger a behavioral care plan. Such disciplinary actions can accumulate and ultimately lead to severe punitive actions such as solitary confinement or an increased length of sentence (Ahalat, Stijacic-Cenzer et al., 2018b; Hill et al., 2006).

Urinary Incontinence

Urinary incontinence is not a normal part of aging; it has numerous pathophysiologic causes including obstructive overflow incontinence due to prostatic hypertrophy, neurogenic bladder due to diabetes, medication side effects, and functional and cognitive impairment. In the United States, among adults aged 65 or older, urinary incontinence affects 15–30% of women and 5–10% of men (Williams et al., 2011). After age 85, men and women are equally likely to be affected (Williams et al., 2011). Incontinence is also common in prison; one study found that 13.9% of inmates aged 50–59 and 37.8% of inmates aged 60 and older reported urinary incontinence (Colsher et al., 1992).

In prison, urinary incontinence poses special challenges for older adults. Prisons do not always carry supplies such as incontinence briefs; when they do, people are sometimes charged a co-payment for them (Hill et al., 2006). Access to showers is limited and in many cases does not occur daily. In this environment, incontinence may lead to further self-isolation among older adults, as close living quarters provide little privacy for dealing with issues of incontinence, and odors can lead to ridicule or becoming a target of violence.

Functional Impairment/Environmental Mismatch

Central to geriatric care and assessment is functional ability. Functional ability reflects the extent to which an older person is independent, measured by assessing an individual’s need for help with their activities of daily living (ADLs), including bathing, dressing, eating, transferring, and toileting. The prevalence of ADL dependence increases with advancing age; 15–25% of persons aged 65 or older and 50% of persons aged 85 or older need help in performing one or more ADL (Williams et al., 2011).

Functional impairment is common among incarcerated adults and is associated with high health-care costs, future functional decline, and mortality (Carey et al., 2004; Reuben et al., 2004). A meta-analysis of studies in US prisons found that up to one-fifth of incarcerated older adults experience difficulty with ADLs (Skarupski et al., 2018) and in the United Kingdom, 10% of incarcerated older men aged 60 or older reported disability in one or more ADL (Fazel, Hope, O’Donnell, & Jacoby, 2001). In California, 16% of incarcerated women aged 55 or older needed help in one or more ADL (Williams et al., 2006). Moderate levels of functional impairment in the community are often assessed

with Instrumental ADLs (“IADLs”—using telephone, shopping, preparing meals, housekeeping, doing laundry, using public transportation or driving, taking medications, handling finances). IADLs are not commonly required during incarceration; as a result, these potential red flags for decline may not trigger an evaluation as they would in the community.

Independence is also affected by mobility. Mobility impairment is defined as requiring aids such as canes, walkers, or wheelchairs or needing assistance during ambulation. Some incarcerated people who would have no mobility difficulties outside of prison may face ambulation difficulties while in prison. For example, mobility aids may be difficult to acquire, or people may be reluctant to use such aids in prison for fear of appearing weak or vulnerable. Even older adults without mobility impairment might need protective housing and supervision or assistance in certain circumstances, such as walking while handcuffed, as this can cause unsteadiness and put them at increased risk for falls (Hill et al., 2006).

It is difficult to accurately assess an older person’s functional ability without accounting for the environment in which they live and the daily activities that are required to maintain independence. Incarceration introduces daily physical activities necessary to independent functioning that are unique to prison life. For this reason, assessment of functional ability in prison should take into account the unique daily activities faced by residents. One study termed such prison-specific activities “prison activities of daily living” (ADL-P) (Williams et al., 2006), wherein ADL-P include dropping to the floor for alarms, standing for head count, getting to the dining hall for meals, hearing orders from staff, and climbing on and off the top bunk. When ADL-P were measured, functional impairment was much more common than measures of standard ADL would indicate; 69% of older women reported an impairment in daily activities of prison life, whereas only 16% of women would be identified as functionally impaired based on traditional measures of ADL (Williams et al., 2006). A study of incarcerated men in a northwestern state produced similar findings, wherein 40% of participants age 55 or older had difficulties with at least one PADL (Filinson, 2014). Thus, people who are independent in the community might be impaired in prison. In addition, many older Americans are able to retire in their older years allowing them to adjust their daily lives in ways that better meet their current abilities, while most correctional systems do not have age-based retirement and many older incarcerated adults who no longer have connections to outside communities have no other source of income if they were to stop working.

An older person’s functional impairment and their environment’s functional requirements are frequently mismatched (Filinson, 2014; Gill et al., 1999). The extent of this mismatch is intensified in prison. Prisons, which are generally designed for young, healthy persons without functional limitations (Mara, 2003), raise the physical level at which older adults must function by requiring physically challenging activities such as climbing onto a top bunk or dropping to the floor for alarms. Adaptive devices that can help older adults maintain independence such as bathroom handrails, nonslip surfaces, and doorknobs that can easily be turned even with arthritic hands are frequently unavailable in prison.

Other environmental concerns include air quality (despite restrictions surreptitious tobacco use is common and facility ventilation may be poor), space confinement (average cell size is six by eight feet and may house two individuals at a time), and inadequate heating and cooling systems. Many institutions in the southwestern United States can reach excessive daytime temperatures in the absence of cooling systems putting older individuals, especially those with mental illness, at risk for heatstroke and in some cases death.

Finally, rigid schedules of prison life may not allow for the additional time older adults need to complete daily activities. For example, when following standard policy, older people with mobility impairment may not be released from their housing unit with sufficient time to get to medical appointments or other programs resulting in reduced access to care. Showering times may be insufficient, and limited time for meals may pose challenges for older adults with dental or swallowing challenges (DiTomas & Williams, 2020).

Experiencing Serious Illness and Dying in Prison

According to the Bureau of Justice Statistics, a total of 5188 people died while incarcerated in the United States in 2016, 4117 within state or federal prisons (Carson & Cowhig, 2020a) and 1071 in local jails (Carson & Cowhig, 2020b). Between 2006 and 2016, the total number of incarcerated people decreased by 5%, but the number of deaths during the same time period increased by 15%. Given that one in seven incarcerated persons is currently serving a possible life sentence, this number is expected to continue to rise, as will the number of incarcerated people experiencing serious illness in the years prior to death.

Challenges with chronic disease management are only some issues facing incarcerated older adults. There are additional considerations for those suffering from serious acute illness (e.g., sepsis, respiratory failure, stroke, myocardial infarction). Healthcare facilities within most prisons are often unable to provide the needed level of care, and patients are typically transported to outside facilities. The majority of US correctional systems require shackling of the hands and feet during transportation and the use of chains to attach patients to their hospital beds at all times. But it is well established that restraints put older adults at significant risk for falls, skin tears, bruising, and even delirium. This practice goes against international standards that “instruments of restraint are to be imposed only when no lesser form of control would be effective to address the risks posed by unrestricted movement” (DiTomas et al., 2019; McCall-Smith, 2016). Due to these restrictive practices, it is not uncommon for those with serious illness to decline transportation to a higher level of care or to sign out of the hospital against medical advice due to the indignity and suffering associated with such practices (Courtwright et al., 2008).

Another challenge for those hospitalized with serious or life-threatening illness is the lack of access to family for assistance with complex care or end-of-life decisions. Most jurisdictions do not allow family communications during hospitalization for security reasons. Decisions to undergo a potentially life-threatening surgery or deferring chemotherapy for hospice care often require family input and needed care can thus be delayed if such communications are not facilitated.

Incarcerated older adults may also come to need palliative care, or specialized medical care for people living with serious illness, in order to provide relief from the symptoms and stress of serious illness (Center for Advance Palliative Care, 2020). Incarcerated people with serious life-limiting illness in need of palliative care may lack access to healthcare staff who have adequate training in this specialty. Although there are approximately 76 prison-based hospices in the United States, these programs can only meet the needs of a few. Correctional systems are designed to provide for safety and security, and, as such, operate under strict security policies that may cause discomfort or even dehumanization for incarcerated patients. In contrast, palliative care focuses on giving control back to patients and their families by providing support to achieve end-of-life goals. There is an inherent tension between the goals of custody and the needs of those who wish to die with dignity in the correctional setting (DiTomas & Williams, 2020).

Mental Health Issues and Aging

Major depression is experienced by approximately 1–2% of community-dwelling older adults (Williams et al., 2011). The prevalence of depression rises among permanently institutionalized nursing home elders; 43% have been found to have major depression (Williams et al., 2011). One study found that the prevalence of major depression was 50 times higher among incarcerated older men compared to community-dwelling men. The study also found that generalized anxiety disorders were prevalent and that, overall, 54% of the incarcerated older adults met criteria for psychiatric disorders

(Koenig et al., 1995). Another study showed that older incarcerated women more frequently experience social isolation than do older incarcerated men (Kratcoski & Babb, 1990).

In 2005, it was estimated that over half of all incarcerated adults in the United States suffered from mental illness (James & Glaze, 2006). While not all older inmates have serious mental health diagnoses, many experience stress and psychological trauma related to incarceration (Crawley & Sparks, 2006). In the United Kingdom, a study of older male inmates investigated the psychological impact of incarceration. Elderly “first-timers” were frequently found to be anxious, depressed, and to experience incarceration as a form of psychological trauma (Crawley & Sparks, 2006). After a lengthy incarceration, older adults may also lose contact with social networks in the community and become “institutionalized,” leading to significant anxiety about the possibility of release (Aday, 2003; Crawley & Sparks, 2006).

Strategies to Address Challenges

Pre-incarceration

While more studies are needed to understand all of the factors driving rising incarceration rates among older adults, it is apparent that social, legal, and medical factors all contribute. A shrinking social safety net along with greater numbers of older citizens mean there are fewer resources available to help older adults struggling with poverty, homelessness, mental illness, and substance use disorder (Estes, 2011; McCloud & Dwyer, 2017). Upstream social services are more cost-effective than incarceration and can improve public safety by reducing crime. For those over age 50 who are detained pre-trial, increasing the utilization of geriatric assessments to identify those with underlying illness contributing to the crimes would allow for alternatives to incarceration when appropriate (Osborne Association, 2018; Silber et al., 2018).

As the community population ages, police officers increasingly come into contact with older adults requiring law enforcement assistance or intervention (Brown et al., 2014). Special training programs providing education around the needs and challenges of older adults have been shown to improve officers’ interactions with older adults, particularly those with cognitive impairment or dementia. These trainings provide knowledge about why an older adult may be displaying certain problematic behaviors, allowing for first-line diversion out of jail or other criminal justice system pathways. Instead, officers can identify the individual’s needs and connect them with social services to mitigate or resolve the existing issue rather than resort to incarceration.

Similarly, problem-solving courts (e.g., mental health, veteran, and drug courts) have been shown to reduce cost as well as recidivism (Marlowe et al., 2016). Such programs link defendants to social services to allow the courts alternatives to incarceration when sentencing and prevent future involvement in the criminal legal system. Similar programs focused on older people whose crimes may have been influenced by correctable social determinants should be considered (Luskin & Ray, 2015).

During Incarceration

Chronic Disease Management

It is important to view all patients as whole persons rather than as individual medical conditions, and this is especially true when it comes to the geriatric population. All patients should be assigned to a primary care team to ensure continuity of care. Given the high incidence of multimorbidity and polypharmacy in older adults, correctional health facilities should optimize continuity of care. Healthcare

professionals should receive special training in caring for older adults, and population-based systems should be put in place to allow for tracking of chronic disease measures, prevention/screening, and polypharmacy.

In the California Department of Corrections and Rehabilitation, a robust patient registry has been developed that identifies all patients at high risk due to medical complexity or age. Chronic diseases such as diabetes, asthma, advanced liver disease, and hepatitis C are tracked, and needed laboratory testing, screening, and medications are flagged. Patients on greater than 10 medications are identified and placed in a polypharmacy sub-registry that identifies drug–drug interactions, duplicate classes of medications, anticholinergics, drugs that cause QT prolongation, and any medications that should be avoided or are contraindicated under the “Beers Criteria” list (Fick et al., 2003). Primary care teams and pharmacists are alerted to potentially high-risk medication prescribing practices so that review and discussion with patients can occur with a goal toward deprescribing. The registry also alerts the primary care team when screening tests for preventive care (e.g., cancer screening) or vaccines are potentially indicated, and high-risk patients who do not have a current documented code status are identified. For older adults, additional alerts might include prompts for periodic screening of hearing, vision, fall risk, incontinence, depression, and cognitive impairment.

Preventive Services

Preventive health care can decrease the incidence of both chronic disease and disability. Although screening and preventive services are covered elsewhere in this book, the approach to cancer screening for geriatric patients differs slightly from that for younger patients.

Selecting which cancer screening tests are appropriate for an individual older person requires consideration of his or her life expectancy (Williams et al., 2011). For example, a healthy older person with a favorable life expectancy should be offered cancer screening tests such as colonoscopy or mammography. In contrast, an unhealthy older person with a limited life expectancy will be more likely to suffer the immediate harms of cancer screening, such as the workup of false-negative test results, without having the time to accrue the benefits of screening (Walter & Covinsky, 2001). Thus, in geriatrics, preventive care follows a model of shared decision-making between patient and provider in which the focus is on discussing the risks and benefits of each test based on the patient’s life expectancy and individual goals (Williams et al., 2011).

This rationale holds true for preventive medications as well and can support a reduction in polypharmacy and the associated risks. For example, a patient with a life expectancy of less than 2–3 years will not likely benefit from tight blood pressure control to prevent future stroke or myocardial infarction nor will a patient with a life expectancy of less than a year likely benefit from lipid-lowering medications (Kutner et al., 2015).

Addressing Geriatric Syndromes and Functional Impairment

Given the frequency of sensory impairment, falls, cognitive decline, and incontinence in older adults, correctional healthcare systems must train staff to identify patients with these conditions. Moreover, unaddressed geriatric syndromes can lead to increased social isolation and depression in older adults (Cahoon, 2012). Housing officers, given the day-to-day contact with those on their units, are often in the best position to identify changes in function, mental status, or overall health. Officers working with older adults should receive training on the significance of such changes including red flags for serious illness as well as a “vocabulary of aging,” and clear pathways for communicating concerns to healthcare staff should be identified (Sterns et al., 2008; Williams et al., 2009). Correctional healthcare systems also should provide geriatric training for all clinicians. Such training should include evaluation and treatment of geriatric syndromes in older patients and in the use of appropriate screen-

ing tools to identify patients who require additional services to reduce associated morbidity and mortality (Reuben & Leonard, 2020).

Although there is some controversy regarding routine vision screening with an eye specialist, the American Academy of Ophthalmology recommends comprehensive eye examinations in those from 55 to 64 years without risk factors for eye disease every 1–3 years and every 1–2 years for those over 64 years (Feder et al., 2016). During routine appointments, primary care providers can screen for vision impairment using basic screening questions such as “Do you have difficulty watching television, reading or doing any of your daily activities because of your eyesight, even when wearing your glasses?” (Moore & Siu, 1996). A vision exam should be performed on any older inmate who falls (Reuben & Leonard, 2020). For those with uncorrectable visual impairment rising to the level of legal blindness, correctional systems must make accommodations to ensure access to services and programs. Such accommodations may include specialty trained incarcerated peer caregivers to provide support and assistance, orientation and mobility training, housing safety evaluations, or supportive housing accommodations if needed.

Audiology screening tests include whispered voice, finger rub, and use of a portable audiometer. Although the portable audiometer is the most reliable and accurate method, another practical approach is to administer a self-assessment questionnaire to patients (Williams et al., 2011). These questionnaires, such as the Hearing Handicap Inventory for the Elderly Screening Version (HHIE-S), are reliable and valid methods for identifying patients with hearing loss who should be referred for further evaluation with an audiologist (McCabe, 2019). Incarcerated older adults should be screened periodically for hearing loss and, when indicated, offered hearing aids. People with significant hearing impairment who receive hearing aids have improved communication, social function, and emotional well-being (Bedard et al., 2017).

Screening for falls should occur at each appointment with simple questions such as “Have you fallen and hurt yourself since your last doctor’s visit?” In the community, 44% of falls are associated with environmental factors including poor lighting, loose rugs, and lack of handrails (Brown & Norris, 2006). In prison, there are additional environmental stressors that might contribute to falls such as strenuous work assignments, cluttered living environments, quickly moving younger adults, requirements for wrist and ankle restraints, steep stairs, irregular terrain, and top bunk assignments (Hill et al., 2006; Mara, 2002; Williams et al., 2006).

Incarcerated persons with disabilities are protected by the American Disabilities Act (ADA) of 1990, which requires correctional facilities to provide accommodations that allow for equal access to all programs, facilities, and services. Additional requirements include accessible cells, adequate floor space, and grab bars for transferring to bed and toilet. Visually impaired individuals should be provided assistance with reading and writing, and those who are hearing impaired must be provided hearing aids or a sign language interpreter if that is their primary means of communication (ACLU, 2020). Correctional facilities vary in their degree of compliance with the ADA, and lawsuits related to violations are common. Additionally, adaptive devices that allow older adults to maintain independence such as nonslip surfaces, devices to assist with independent bathing or dressing, are considered accommodations for the disabled and included under the ADA requirements. Overall, correctional healthcare systems must recognize the unique environmental demands of the prison setting in order to prevent premature loss of independence of their aging population.

Some jurisdictions have developed systems to provide those with vision, hearing, or mobility impairment vests (Cash, 2013). This allows correctional staff to easily identify those who may require additional time to get to programs or respond to alarms, those who may not hear a direct order, or those who may erroneously enter an unauthorized area due to not seeing signage. Such identifiers must be balanced with systems that protect these vulnerable individuals from potential victimization.

Although some environmental/functional mismatches require physical plant modifications (e.g., ramps, wheelchair-accessible doorways and rooms, or temperature control systems), some can be addressed with personal caregivers. According to the National Commission on Correctional Health Care (National Commission on Correctional Health Care, 2014), “inmate workers or volunteers may be used to perform certain tasks, but they are not a substitute for professional health staff” (NCCHC, 2014 p. 47). Such caregivers must be trained by staff to safely assist with self-care and ADLs such as transferring, dressing, and wheelchair movement. They can accompany older adults to programs or meals, provide companionship, or support with paperwork or communications with family, but should not take the place of licensed healthcare workers nor should they work in situations that would compromise the safety, privacy, or dignity of the individual in need. Such programs have been shown to provide support to the infirm and also allow those who are providing the support meaningful and fulfilling work—something that is often in short supply in the prison setting (Berry et al., 2016). Given the high risk for both victimization and rules violations for those with cognitive impairment, all older incarcerated adults should be screened for dementia. The Mini-Cog is an easy to administer tool that involves a three-item recall and drawing of a clock and has been shown to have a sensitivity of 76–99% and a specificity of 54–85% for identifying patients with dementia (Lin et al., 2013, p. 601). This tool appears to have little educational or language bias but may miss those with only mild cognitive impairment (Borson et al., 2003). Those who screen positive should be further evaluated so that cases of dementia can be identified, and any necessary care plans and protections can be put in place. For example, when a patient identified as having mental illness is involved in a rules violation, some jurisdictions include a mental health evaluation as part of the investigation to determine if the mental illness may have played a role in the violation and if it should be considered a mitigating factor. Similarly, those who have a diagnosis of dementia should have healthcare input into the role that the disease may have played in the violation and consideration for a behavioral care plan implemented rather than punitive measures.

Screening for urinary incontinence is essential as many patients believe this to be a normal part of aging or are embarrassed to bring the subject up to their medical providers unless specifically asked. Since the majority of patients with urinary incontinence will improve with treatment (Landefeld et al., 2004), asking patients about it, identifying the etiology, and treating it are of great importance. For those whose incontinence cannot be corrected, facilities should have systems in place to provide incontinence supplies. Officers should be trained to use common sense and allow additional showers, toilet paper, clothing, or bedding if an individual has signs of incontinence. If the issue is ongoing, custodial staff should notify the patient’s medical team.

Specialized Geriatric Units

There is debate over whether incarcerated older adults should be placed in specialized, segregated housing units rather than in general population (Wangmo et al., 2017). The relationship between older and younger adults in prison is complex. Older adults often report a fear of victimization by younger persons (Aday, 2003; Williams et al., 2006). This fear is especially prevalent among older adults who are new to prison (Aday, 2003). Chronic illness may also contribute to the sense of vulnerability (Aday, 2003). In one study, 65% of older adults stated that if their health declined, they would feel more comfortable in a segregated unit (Marquart et al., 2000). Specialized housing units can also offer more adaptive aids such as ramps, grab bars, and nonslip surfaces.

However, those opposed to segregating older adults in prison point to the stabilizing force of elders in the prison community, and that separate housing would eliminate this positive influence (Mara, 2003). Some older adults report that they find meaning in providing mentorship and positive advice to the younger generation, and studies indicate that older adults frequently attain prestige and respect from younger peers (Lemieux et al., 2002). In addition, there is often an informal caregiving system

in which younger persons provide support to older adults, and some elders report that, as a result, integration in the general population enhances their independence (Crawley & Sparks, 2006; Mara, 2003; Williams et al., 2006). Finally, many older adults have biological family members or friends in the general prison population and segregation could compromise these social ties.

Some state prisons have geriatric care programs. One such program is the Northern Nevada Correctional Center's "True Grit" program which provides a structured living program for older adults that address emotional, mental, spiritual, and physical needs. Activities include group counseling, music, dog therapy, art, theater, and more (Harrison & Benedetti, 2009).

Long-Term and Skilled Nursing Care

Long-term and skilled nursing care describes the care provided in assisted living facilities or nursing homes to adults with limitations in independence. Such limitations are usually due to functional dependence or severe cognitive impairment such as dementia. Community-living older adults move into skilled nursing facilities when they cannot function independently and have no one to give them adequate assistance. In the United States, 52% of adults reaching age 65 will require long-term care (Favreault & Dey, 2016).

When a person who is incarcerated is no longer independent, the options for long-term care vary widely across facilities. In some jurisdictions without other options, individuals may stay in the general population despite multiple needs or may be moved to special housing, an infirmary, a prison hospital, or a specialized long-term-care/skilled nursing prison (Mara, 2003). In recent years, more prisons are building nursing-home-type environments in which to house older, functionally dependent inmates (Aday, 2003). Both New York State and California have developed units specifically designed to meet the needs of those with dementia.

The restrictive nature of the correctional setting can make caring for demented or frail older adults challenging even within a medical unit. Collaboration with custody to allow for flexibility with regard to policy is essential. For example, policy may dictate that cell doors are locked at night with only officers having access to keys. In cases where a patient is a fall risk, such a practice may not allow sufficient time for nursing staff to attend to the patient and prevent the fall. Accommodations, which can be made based on the patient's risk profile, may include providing nursing staff with keys, leaving the door unlocked, using bed alarms, or housing such patients in a dorm setting with a caregiver assigned to the area.

Release and Parole of Older Inmates

Citing the low recidivism rates of this population (Chettiar et al., 2012; Turley, 2003), and in order to relieve overcrowding in prison and the rising cost of incarcerating older adults, some have called for the early release of older adults. Proposed alternatives to incarceration have included house arrest or community release with an electronic bracelet (Aday, 2003; Strupp & Willmott, 2005), expansion of the compassionate release programs to include people who are permanently disabled, cognitively impaired, or mentally incapacitated (Ahalt, Stijacic-Cenzer et al., 2018a; Strupp & Willmott, 2005), and early parole with more frequent intervals for parole review (Aday, 2003). In January 2018, California implemented an "Elderly Parole Program" which applies to those who are 50 or older who have been incarcerated for at least 20 consecutive years. Under this program, the Parole Board is instructed to consider whether age, time served, and diminished physical condition have reduced the individual's risk for future violence (SB 445, 2021).

In addition, processes known as medical parole or compassionate release allow for consideration of early release for those who are medically incapacitated or terminally ill. Despite having such programs in virtually every state in the United States, the number of individuals who are ultimately released remains low (Price, 2018). Criteria for consideration vary widely with some states requiring

a prognosis of only 30 to 60 days, while others will consider those with a prognosis of less than 18 months. Barriers include challenges of accurate prognostication, logistical barriers that result in the majority of petitioners dying before the process can be completed, and lack of legal expertise in navigating such cases in a manner that provides the court the needed medical information to make a fully informed decision about an individual's threat to public safety. Between 2013 and 2017, less than 6 percent of the 5400 requests for compassionate release received by the Federal Bureau of Prisons were approved (Thompson, 2018) although numbers are expected to increase with the passage of the First Step act.

Prognostication and Advance Care Planning

Similar to older adults in the community, "older inmates in poor health are more likely to think frequently about death" (Aday, 2003, p. 128), and the probability of dying in prison is a significant stressor (Crawley & Sparks, 2006; Loeb et al., 2014). This fear is grounded in reality; with the aging of the prison population and strict release policies, more and more people are dying while incarcerated (Linder et al., 2002). At Angola State Prison in Louisiana, 97% of inmates die in prison (Fields, 2005). The ethical and legal obligation to provide a community standard of care also applies to those at the end of life and, in order to do this, caregivers must be skilled in identifying those in need of palliative and end-of-life care. Medical staff working within a correctional facility should be provided adequate training in hospice and palliative medicine including the use of prognostication tools to identify those with limited life expectancy and how to facilitate advanced care planning discussions (Glare & Sinclair, 2008).

Advance care planning (ACP) is a process that supports adults at any age or stage of health in understanding and sharing their personal values, life goals, and preference regarding future medical care (Sudore et al., 2017). Special considerations when having ACP discussions with an incarcerated adult include the need to ensure confidentiality, building trust, and ensuring that the patient is aware that treatment decisions are theirs to make and that they will be honored (assuming that they have decision-making capacity). Identifying a surrogate decision-maker can be challenging if patients have lost contact with family over years of confinement, but a social worker or chaplain can often assist in connecting with loved ones. In many cases, early identification of family members allows for goals of closure, reconciliation, and forgiveness to be achieved prior to the end of life in addition to ensuring that caregivers will know who to turn to should the patient lose capacity.

Hospice

Given the challenges in securing compassionate release, it is incumbent on correctional institutions to provide hospice services to those nearing the end of life. In 2000, the first clear standards of practice for palliative care in the correctional setting were put forth by the Guiding Responsive Action for Corrections in End-of-Life (GRACE) Project (GRACE Project, 2000.) These standards require that palliative care services be available to all incarcerated persons with a terminal diagnosis and in 2009 the National Hospice and Palliative Care Organization (NHPCO) developed Quality Guidelines for Hospice and End-of-Life Care in Correctional Setting (NHPCO, 2009) and include clinical excellence for all, safety, ethical behavior, and advocating for patient rights as well as patient- and family-centered care.

Ideally, these services are provided in a dedicated space with staff who have specialized training in hospice and palliative medicine. At least 76 prison-based hospice programs have been established throughout the United States. Such programs provide not only dignity and comfort at the end of life but also significant cost savings by avoiding expensive, unnecessary, and undesired hospitalization at the end of life (DiTomas & Williams, 2020; Enders et al., 2005; Linder et al., 2002).

Eligibility criteria for hospice admission generally follow community standards. Patients typically have a terminal diagnosis with a prognosis of less than 6–12 months and have freely chosen to forego curative treatment for a more comfort-based approach. If an individual does not have decision-making capacity, then a surrogate decision-maker should be included and in cases when no surrogate has been identified referral to an institution or hospital-based ethics committee can be useful in determining the best interests of the patient. Most patients entering hospice have signed a request to not be intubated or resuscitated (DNI/DNR), but this should not be an absolute requirement. Given a long history of inadequate medical care in the correctional setting, patients may have fears that a “no code” status might mean “no care” (DiTomas & Williams, 2020). Some patients may feel conflicted about do not resuscitate orders because they fear dying in prison. This is not so much a denial of impending death as it is a “struggle to come to terms with dying in prison. Many inmates cannot surrender the hope that, somehow, they can die free people” (Boyle, 2002). This should not be a barrier to accessing needed hospice services if the patient’s end-of-life goals are otherwise consistent with a hospice philosophy of care.

The interdisciplinary team model is a cornerstone of community hospice care and is reflected in national guidelines for prison hospices as well. For example, the GRACE Project Guidelines recommend that at a minimum the team include a clinician, nurse, mental health provider, and a chaplain (GRACE, 2000.) With careful selection and training, incarcerated peer caregivers can be critical resources to a successful prison hospice program. These volunteers or workers provide companionship and support to the dying often forming deep bonds and healthcare staff benefit from the additional support provided by caregiver programs. Peer caregivers should not perform medical duties such as checking vitals, passing medications, or wound care (DiTomas & Williams, 2020; Linder et al., 2002). Caregivers benefit from an opportunity for meaningful work, a sense of “giving back,” and the development of caregiver skills which can be used in the community upon release (Cloyes et al., 2014; Depner et al., 2018; Loeb et al., 2013). In many prison hospice programs, one of the most critical roles of the peer caregivers is to sit with patients continuously as they near death so that no one dies alone.

Close collaboration between medical and custodial administrators when developing correctional hospice programs is essential in order to allow patients to die with dignity and comfort. Clear policies and procedures are required to ensure that pain and other controlled medications are available whenever needed and stored in a manner that preserves security. Flexibility with dietary restrictions and peer caregiver hours, access to diverse spiritual resources, family phone calls, and visits are also critical to success (Penrod et al., 2014).

The development of relationships with community-based hospice programs can provide additional educational and training resources for both staff and peer caregivers. Such partnerships can additionally allow for consultative support, and community placement should a patient achieve compassionate release or parole.

Release and Reentry Following Incarceration

As the prison population ages, so does the parole population. Because of harsher sentencing laws, older ages at admission for the newly incarcerated, and the reversal or commutation of life without parole sentences, an increasing number of older adults are released onto community supervision. Between 1993 and 2003, the percentage of new parolees aged 55 and older increased from 1.5% to 2.1% of the total US parolee population, and the number of state prisoners aged 55 or older leaving custody on parole nearly doubled from approximately 5000 in 1990 to approximately 9000 in 1999 (Hughes & Wilson, 2003). Further, between 1993 and 2013, the percentage of older

adults who were paroled after serving 10 or more years in prison more than doubled (Carson, 2014). Despite these changing demographics, little research has been done on the care and well-being of formerly incarcerated older adults.

Aging and Reentry Issues

Reentry is a stressful process at any age, but formerly incarcerated older adults face unique challenges following release from prison. These challenges are both socioeconomic and medical, including frailty and potential victimhood in an unsafe and now unfamiliar neighborhood; concerns about employability as an older person with a criminal record; multiple chronic illnesses with functional limitations; and/or lack of medical insurance or prescription drug benefits. In addition, serious mental illness and the psychological syndrome of institutionalization cannot be underestimated as challenges to formerly incarcerated people who served lengthy sentences. With long-term incarcerations, older adults may have additional barriers to employment and reintegration, including lower levels of formal educational attainment, low levels of employment experience relevant to today's economy, and weakened family relationships or other social ties (Aday, 2003). Despite this, the Bureau of Justice reports that geriatric parolees have lower recidivism rates during their parole terms, and increasing age is one of the most reliable predictors of low recidivism as older adults are the least likely to return to prison (Hunt & Easley, 2017; Turley, 2003).

A series of interviews with incarcerated older men aged 65 to 84 in England, and Wales revealed many concerns about release. These concerns were predominantly social and medical and centered on discharge planning. They included where they would live, how they would get there, and with whom they would be living. They were also fearful for their personal safety and about where they would get medical care (Crawley & Sparks, 2006).

Socioeconomic Factors

Formerly incarcerated persons usually reenter communities that are similar to those from which they came (Pogorzelski et al., 2005); however, after many years in prison, these areas have likely changed significantly and may now be unfamiliar, or even unrecognizable. Formerly incarcerated people may also return to areas that are characterized by high rates of crime and poverty or in areas with gang activity (which can be unsafe for older adults with prior gang affiliations from their youth or for those that dropped out of their gang while incarcerated). In contrast to when they were young, older adults may be less physically fit and less able to defend themselves if they are threatened or become victimized.

Many older adults have lost contact with relatives and other social networks, while they were incarcerated, and for many, family and friends remain in prison (Aday, 2003; Crawley & Sparks, 2006); as a result, there may be no one to turn to for financial, physical, emotional, or economic support. Research shows that the emotional support provided by non-material social interaction is as (if not even more) important during reentry as other forms of material support (Sugie & Augustine, 2020), serving as a buffer against recidivism as well as against negative health outcomes (Cobb, 1982; Cochran, 2014). However, without social support, fulfilling material needs such as housing, transportation, and food become much more difficult, particularly when employment is scarce.

There are a multitude of barriers to finding employment during reentry, and formerly incarcerated people are four to six times more likely to be unemployed than those without a history of incarceration (Couloute & Kopf, 2018). But finding work can be especially difficult for older adults due to their age,

especially if they used to work in physically demanding fields such as construction, warehousing/manufacturing, or other forms of manual labor. Age discrimination is common in employer hiring decisions, but employer unwillingness to hire older adults is further compounded by the stigma associated with a criminal record or prior incarceration (Pager, 2003; Sugie et al., 2020). In addition, job prospects may be further limited by disparities in educational attainment for incarcerated populations. Men with less than a high school education are over five times as likely to be incarcerated than the general population (Pettit, 2012), and studies show that fewer older people on community corrections have completed high school or a General Educational Development test than their younger counterparts (Aday, 2003).

Medical and Psychological Factors

Older formerly incarcerated persons frequently have multiple medical conditions and may encounter several obstacles in optimizing their medical care. While older adults are often on several medications at the time of release, many are discharged with little or no medication, resulting in gaps in medication coverage until the person sees a new medical provider or a lack of medication access entirely (Hornung et al., 2002). Insufficient health-related discharge planning may lead to release without a scheduled healthcare appointment or designated provider. Reinstating Medicare and/or Medicaid can take many weeks to months, so the only healthcare option for many older adults with chronic healthcare needs may be to use high-cost emergency services for routine care or after medical decompensation (Hornung et al., 2002). In addition, some older adults require discharge to a nursing home or other long-term care facility. This entails a special discharge coordination effort to find an acceptable location and enrollment in Medicaid to obtain the funds necessary to pay for the care (Terhune et al., 1999).

Older person transitioning into the community may also have new healthcare providers who do not know of their incarceration history. This can pose a significant problem as formerly incarcerated people are at particularly high risk for certain diseases such as sexually transmitted infections, hepatitis, and HIV (Hunt & Saab, 2009; Khan et al., 2011). Although all older adults should be screened for these diseases, they often are not because healthcare providers rarely consider older adults at risk (Skiest & Keiser, 1997). Thus, without knowledge of a history of incarceration, many healthcare providers might fail to screen them for STDs or infectious diseases.

Older adults are also at higher risk for adverse psychological reactions to prison release. They display high rates of anxiety about release (Crawley & Sparks, 2006) and are also at increased risk for post-release suicide (Pratt et al., 2006). Parole officers and healthcare providers should be familiar with these increased risks so that mental health crises can be avoided or identified early. In addition, older adults with dementia could violate parole by missing their parole meetings, or might intentionally violate parole hoping to be returned to prison due to their inability to function on the outside (Terhune et al., 1999). For these reasons, parole officers should consider any age- or health-related factors that may have caused the person on parole to violate a condition and consider therapeutic rather than punitive responses, as applicable.

Preventive Measures That Can Be Taken Before Release

Steps can be taken before prison release to facilitate reentry into the community. Discharge planning for incarcerated older adults should address healthcare continuity, housing, economic support, employment, community service providers, and mental health and/or substance use services if needed. Any of these needs that cannot be addressed prior to release should be addressed immediately by parole following the person's release.

It is imperative that older adults have a transition plan that includes healthcare and medication access. Facilities should supply the released person with, at a minimum, a 30-day supply of any medications they are taking prior to release. Ideally, the facility would also provide a summary of the individual's medical problems to their post-release physician. In addition, classes in healthcare promotion and, for those who have a chronic disease, education about their illness and disease self-management can be valuable. Discharge planning should also assist people preparing for release with enrolment in Medicaid, Medicare, or Social Security Disability Insurance. If the person has a record of military service, they should be connected with local Veteran's Affairs services. To further insulate people from economic distress after release, discharge planners should provide resources to nutritional benefits (e.g., Supplemental Nutrition Assistance Program), economic benefits (e.g., General Assistance), and other resources for obtaining telephones or other necessities.

After being in prison for many years and possibly for the majority of their lives, older adults may have acquired very few independent living skills such as cooking, shopping, and balancing a checkbook and would benefit from a "community placement orientation" before release (Aday, 2003; Crawley & Sparks, 2006; Terhune et al., 1999). Further, it is plausible that incarcerated people, especially older adults who were convicted at young ages, have little or no experience with today's rapidly evolving technology. Thus, any "community placement orientations" or reentry skills trainings should include mobile phone and computer literacy to aid people with navigating these devices that are central to every aspect of modern daily life.

Given older adults' higher risk of adverse psychological reactions after release, discharge planning should include referrals to mental health care and resources for crisis support. These psychological challenges may also result in increased potential for stress-related relapse for people with a history of substance use; discharge planning should include resources like SAMHSA's national helpline, overdose prevention education, or other related services.

Release to homelessness is always problematic but is especially dangerous for older adults who are more vulnerable to issues that may accompany homelessness (e.g., extreme temperatures, managing existing healthcare issues, exposure to new infections, theft, and violence). Discharge planning should include plans for adequate housing, ideally with additional supports for the unique needs of older adults. If the person is not being released to housing with a relative, any group housing should provide healthcare access, either with services provided at the facility or by providing transportation to/from healthcare providers in the community.

Conclusion

The exponential growth of the incarcerated older adult population has broad-reaching public policy, economic, and community health consequences both within prison and throughout the reentry process. The fundamental principle in caring for any older adult is to maintain independence and functional ability. In order to do so, attention must be paid to physical and mental health through chronic disease management, environmental modification, and social support. While this approach to geriatric care may be used to promote the health and safety of older adults who are incarcerated, the special challenges facing older adults in the prison environment and during community reentry need to be addressed as well. These challenges must be met with innovative collaboration between many different disciplines including correctional staff, parole officers, community organizations, and healthcare providers. Improved coordination between these groups coupled with training in geriatric issues could lead to policies that will promote the health and safety of geriatric inmates and of the communities to which they return.

Importantly, steps must be taken to decrease the current prison population and to reverse trends toward mass incarceration (including both in prisons and in jail facilities). The current incarceration rate is neither fiscally nor ethically sustainable, and it becomes less so as our prison population continues to age (Ahalt et al., 2013). There are numerous ways to reduce the number of older adults in prison, to better care for them during their incarceration, and to ensure continuity of care following their release.

The path to incarceration begins at the encounter with the police, thus police officers should receive training and education about the unique challenges and needs of older adults. If brought into police custody, it is essential to increase the use of diversion programs and specialized courts to reduce reliance on incarceration in place of therapeutic or social services. One such possibility would be the creation of geriatric courts that focus on the unique challenges of older adults (e.g., dementia or other cognitive impairments that may have resulted in nonviolent criminogenic behaviors) and respond to those needs in the community rather than with incarceration.

For incarcerated older adults, correctional facilities should employ healthcare staff trained in geriatric care, advance care planning, and end-of-life care. Efforts should also be made toward prison depopulation through the expansion of compassionate and medical parole opportunities for older adults for whom risk of reoffending has been dramatically mitigated by age. For those granted parole, rather than holding off reentry planning until the last months before release, planning should begin early in the prison sentence.

Discharge planning and parole should work together to directly address or connect formerly incarcerated people to community services that can do the following: plan for medical care, including identifying a provider and emergency resources for crises; provide people with at least 30 days of medications and connect them to their healthcare provider; identify suitable housing for older adult residents; and enroll people in nutritional assistance, economic support services, and veterans' benefits. Either prior to or as part of their parole, formerly incarcerated people should receive life skills training and technology literacy education to minimize the confusion and trauma associated with reentry, especially after serving long sentences. Lastly, parole officers should be trained in the unique challenges and needs of older adults so they can connect their clients to relevant community services. In the event the parolee violates the conditions of their parole for reasons related to psychological distress associated with reentry or cognitive issues related to aging, the parole officer will be equipped to address these issues therapeutically rather than with a return to incarceration.

Key Points

- Incarcerated adults are often considered “geriatric” at age 55.
- Consider the aging of the population when planning health and safety interventions.
- Project physical plant and staffing needs for a population with increased illness and disability.
- When projecting future medical care costs, consider that incarcerated older adults generate far higher costs than younger adults.
- Monitor the use of potentially risky medications in older adults.
- Design a geriatrics clinic for incarcerated older adults with chronic disease and/or disability.
- When using screening tests, discuss the risks and benefits and consider life expectancy and individual goals.
- Assess physical and mental health status and risk by focusing on common geriatric syndromes.
- Develop approaches to address behavior infractions among people who are incarcerated with cognitive impairment in a non-punitive, treatment-oriented fashion.
- Adapt the prison environment to mitigate physically challenging tasks.
- Remember that people who are independent in the community might be impaired in prison.
- Upon reentry, provide bridge medications, post-discharge medical appointments, summarized health records, and community agency referrals.

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Public Health Practice Behind Bars

6

Michael H. Levy and Daniel Mogg

Introduction

The development of the prison as the unchallenged institution of punishment is relatively recent compared to other social institutions, such as the asylum, the workhouse, and the hospital (Morris & Rothman, 1995). In contrast to these other institutions, prisons have continued to grow. The Institute for Criminal Policy Research (University of London) estimates that three in four jurisdictions throughout the world are currently expanding their prison systems (Institute for Criminal Policy Research, 2018a).

In this situation, and with the downgrading of other institutions, the modern prison is taking on functions previously carried by others, such as the mental asylum (mental illness) (Rosen, 2006) and the poorhouse (welfare and accommodation). Such circumstances lend support to what has become known as Penrose's Law: the inverse relationship between the size of a nation's prison population and its mental health facility population (Penrose, 1939; Kalapos, 2016).

Incarceration is an institution of "unequal power," between the dominant social structure and the individual who is contained within. By its nature, a coercive institution, operating under the auspices of the state, framed in a paramilitary mold, the modern prison should function within a human rights and international legal framework. There is a rich body of international human rights instruments which direct signatory states to implement minimum standards for the care of persons deprived of their liberty. Of note, there are now 115 signatories to the United Nations' Optional Protocol to the UN Convention against Torture (OPCAT) (Association for the Prevention of Torture, 2020).

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Human rights frameworks demand of governments that minimum standards are adhered to consistently. The principle of “due diligence” requires that when states know, or ought to know, about abuses of human rights, and fail to take appropriate steps to prevent violations, then the State bears responsibility for the consequences. Exercising due diligence includes steps to prevent abuses, including to investigate them when they occur, prosecute the alleged perpetrators and bring them to justice in fair proceedings, and ensure adequate reparation for the victims, including rehabilitation and redress.

Steps to prevent violence can be legal, educational, or practical (Amnesty International, 2004).

Apart from the ethical and philosophical issues implicit in this “relationship,” the health consequences of incarceration can be extreme, not only on the individual, but also on the community from which the prisoner comes and will return (Heard, 2019; Kamarulzaman et al., 2019).

The medical profession, primarily through the World Medical Association, has enunciated standards of professional conduct for medical practitioners working in prisons (World Medical Association, 2017). While primarily directed toward ethical conduct, the principles also have relevance for public health practice.

Harm Minimization

Harm minimization is an approach to risks and hazards that takes into consideration the actual harms associated with the specific exposure. This approach weighs the range of potential harms of a particular risk and how these harms can be minimized or reduced. It recognizes that risk behaviors are, and will continue to be, a part of our society irrespective of the harms associated with their use (Harm Reduction International, 2019).

The United Nations has specifically recommended the implementation of harm reduction strategies as part of health protection efforts within prisons through the World Health Organization’s *Madrid Recommendation: Health protection in prisons as an essential part of public health* (World Health Organization, 2010).

Harm minimization, in the context of prisoner health, has led to improved cooperation between the health, social, justice, and law enforcement services.

For example, needle syringe programs provide sterile equipment, information, and referral to other services, for people who use illegal drugs. These strategies are also effective in attracting drug users who may otherwise never have had contact with other drug treatment services, medical, legal, or social services. Extension of injecting equipment exchange programs into prisons has been implemented in only a number of a number of countries (Armenia, Canada, Germany, Kyrgyzstan, Luxembourg, Macedonia, Moldova, Spain, Switzerland, and Tajikistan) and in most of the cases, only in a small number of prisons within these countries (Stone & Shirley-Beavan, 2018). While the number of countries implementing this strategy is increasing, the coverage on a world scale is minimal, and still considered controversial—or not considered at all!

Drug and Alcohol Use

The convergence of drug and alcohol problems and the prisoner population is well described, because a crime may be commissioned while under the influence of a drug or alcohol and because some forms of drug use are criminalized in most countries. Additionally, harmful use of alcohol is disproportionately associated with community disorder, serious accidents, physical violence, and driving-related offences.

Coexistence of mental illness and drug and alcohol health problems is noted—either being a precipitator or because of self-medication in otherwise poorly compliant mentally ill individuals (Franke et al., 2019).

Much of the burgeoning in prison populations around the world is directly connected to the criminalization of drug use. As an important aspect of public health practice is regulatory, the issue of drug laws has direct relevance to examining incarceration through a public health lens.

Given so many prisoners are directly or indirectly incarcerated because of drug-related crimes, legalization of personal drug use has the potential of drastically decreasing prisoner populations and the associated health consequences of such. Drug law reform has been pursued most aggressively in Portugal and Spain, where decriminalization of personal drug use is complete and absolute (Gonçalves et al., 2015).

In the context of drug misuse and dependence, harm minimization encourages a change in attitudes toward people who use drugs, including those who are physically and psychologically dependent on drugs, such as heroin and cocaine. This approach moves away from stereotyping drug users as antisocial, requiring a criminal justice response, towards providing treatment services. The more complex relationships between the individual, their community, the drug, and the environment and circumstances in which they are using it, are considered. Rather than seeking to “treat” or “cure,” this approach considers other problems associated with the person’s harmful drug use, such as the availability of the drug in the community, the prevalence of their use, and how much is known about the drug and its effects and harms in the community. Harm minimization highlights that a range of physical and chemical exposures has the potential to cause harm, not just the illegal drugs. This is especially important when we consider that legal drugs, such as tobacco and alcohol, are responsible for the greatest social and economic harms.

Harm minimization works to reduce the harmful consequences of drug use through a variety of strategies: reducing the demand for drugs; the supply of drug; and the harms associated with drugs. Demand-reduction strategies work to discourage people from starting to use drugs and encourage those who do use drugs to use less or to stop. Evidence supports a combination of information and education, along with regulatory controls and financial penalties, to help to make drug use less attractive (European Monitoring Centre for Drugs and Drug Addiction).

Health workers can offer clients a range of options for their desired treatment outcomes, which encourages more people to participate in treatment and prevention programs. The harms associated with a client’s drug use can be reduced or minimized simply by their participation in targeted treatment programs. It is instructive to reflect on the lack of control that prisoners have over-informed choices. As they relate to health risks, knowledge is far from sufficient—it has been said that prisoners are the most informed group in the population when it comes to risk assessment—but their capacity to respond appropriately is seriously impeded by the lack of options available to them.

Supply control strategies involve legislation, regulatory controls, and law enforcement. Supply reduction has received disproportionate support from custodial authorities, be it in boundary surveillance or interception of staff and visitors—generally with little proven effect (Australian National Council on Drugs, 2004).

Harm-reduction strategies have received little favor within the correctional environment—with some notable exceptions. Providing injecting drug users with access to clean equipment through needle syringe programs is a community standard in many countries but remains a rarity within prisons internationally. By reducing the risk of bloodborne infections such as hepatitis C, hepatitis B, and HIV being transmitted, the risks could be reduced for the individual prisoner, prison workers, and the community as a whole (Lazarus et al., 2018).

Tobacco Reduction

Prisoners tend to smoke tobacco at higher rates than the general population. For example, in 2015, almost three-quarters of Australian prisoners were current smokers, more than four times the rate in the general population (Australian Institute of Health and Welfare, 2015; Australian Institute of Health and Welfare, 2014). In an attempt to reduce tobacco smoking among prisoners, many jurisdictions have introduced smoking bans. Smoking bans can promote the development of a tobacco black market, leading to the usual problems associated with prohibition and require extra resources by authorities to eliminate that market (Butler et al., 2007; Butler & Yap, 2015). Some have even questioned the utility of such bans after finding 76% of prisoners continued to smoke in prisons where a ban was in place (Cropsey & Kristeller, 2005).

A review of policies across the United States (US), Australia, and Europe concluded that comprehensive policies that restrict where inmates can smoke, provide smoking cessation support to inmates and staff, and offer specialized training for health staff are needed to address smoking in prisons (Ritter et al., 2011). A more recent review of smoking bans in US prisons found that although their implementation was rarely associated with increased violence, bans should be accompanied by comprehensive support to assist smoking cessation (Kennedy et al., 2014).

Tools to help reduce or cease smoking include pharmacotherapies and Nicotine Replacement Therapy (NRT). All commercially available forms of NRTs have been found to increase the chance of success in those attempting to quit compared with those not using NRT (Stead et al., 2012). With respect to pharmacotherapies, a Cochrane review found high-quality evidence that bupropion increased long-term cessation, and moderate-quality evidence that nortriptyline increased long-term cessation when compared with not using either drug. In addition, both appear equally effective and of similar efficacy to NRTs. Some evidence shows that varenicline may be more effective than bupropion (Hughes).

There is limited evidence available on the use of pharmacotherapies or NRTs in prisons and longer term cessation of tobacco use. However, one systemic review found that cessation programs can increase the likelihood of quitting tobacco smoking in prisons and remaining abstinent post-release (de Andrade & Kinner, 2017).

Bloodborne Viruses

The high prevalence of bloodborne viruses in prisoner populations has been well documented in a number of countries (Kamarulzaman et al., 2016). Treatment opportunities benefit the individual prisoner, while public health concerns are focused on prevention, through education, and in isolated

prison systems through the provision of the means of prevention—condoms for protected male sexual activity, dental dams for protected female sexual activity, liquid bleach for the cleaning of injecting equipment, or sanctioned tattooing.

Notwithstanding the benefits of treating prisoners for bloodborne viruses, there is a debate as to how testing regimes are implemented with respect to consent. That is, testing programs can be opt-in or opt-out, which are both distinct from a mandatory testing approach. A review by Rumble et al. (2015) found reasonable rates of uptake for testing in opt-in programs and even more so in opt-out programs. The current community standard is that consent is sought non-coercively; no testing is performed without consent. Francis-Graham et al. (2019) note that opt-out programs have been used in the community elsewhere (e.g., organ donation). However, they caution that implementation needs to be carefully delivered by trained staff to ensure that such a testing regime does not become a quasi-mandatory program given the vulnerable state of many prisoners, particularly upon admission to prison, and the power imbalance they may experience within the prison system.

HIV

The World Health Organization has provided a framework for the response to HIV in prisons (World Health Organization and UNAIDS, 2006). The framework stresses a human rights approach to the diagnosis, care, and management of HIV in the prison setting, identifying issues such as stigma, discrimination, intersectoral work (i.e., health services working both beyond health while in prison and beyond the prison with the community), and workforce training (both health and custodial).

The prevalence of HIV among prisoners is typically four to five times that in the general community. Prison has a profound impact on the lived experience of too many persons living with HIV/AIDS: It has been reported that almost 17% of all HIV-positive individuals in the United States pass through a jail every year, although the estimate is higher when considering only racial minorities (Spaulding et al., 2009).

The public health risks that prisons pose have been highlighted by a number of epidemiological studies of HIV transmission (Dolan & Wodak, 1999; Goldberg et al., 1998; Jürgens et al., 2009; Perrett & Waite, 2019). The single documented case of HIV transmission to a prison guard has attracted much attention as an issue of occupational safety, and consequent vehement, yet unsubstantiated, denial of harm minimization measures (Jones, 1991).

Despite specific recommendations from the United Nations on interventions to be implemented (United Nations Office on Drugs and Crime et al., 2013), the responses of prison systems to HIV vary greatly (Resch et al., 2005; Rumble et al., 2015). Some systems have proven resistant to external pressures not to further discriminate against prisoners infected with HIV—western European and Scandinavian prisons operate under community standards of diagnosis, treatment, care, and respect for the confidentiality of inmates. Some countries have taken a different approach—including non-consented compulsory testing, and linkage to community HIV registers (Estonia), and segregation of known HIV-positive prisoners (Singapore and Cuba).

Hepatitis C

The strong associations between illicit drug use, injecting with contaminated equipment, the criminalization of drug use in most jurisdictions throughout the world, and incarceration lead to a collision between the dual “epidemics” of incarceration and hepatitis C. In countries that have assessed the prevalence of hepatitis C virus among their prisoner populations, in excess of 50% are infected.

More disturbing, for the public health, is that the incidence of infection is also extremely high. Prisons have been referred to as the “powerhouses” of the hepatitis C epidemic.

The management, treatment, and care of prisoners infected with hepatitis C virus (HCV) have seen unprecedented changes over the last 5 years. In 2014, a new group of drugs, called “direct-acting antivirals” (DAA), were licensed for the treatment of HCV. These medications are safe, expressing minimal side effects, and achieved cure rates in real-life trials in excess of 95%, irrespective of the virus genotype. Disease progression merely influences the *duration* of treatment (Jakobsen et al., 2017).

For the individual prisoner, the greatest facilitator, or obstacle, to receiving DAA treatment has been the custodial center’s policy regarding access to these very expensive medications. Two general approaches to treatment access are described for prisoner patients:

1. Universal access for all with a confirmed active infection (Papaluca et al., 2019).
2. Disease-progression determined access, where the degree of hepatic cirrhosis determines the threshold for treatment initiation.

The universal access model acknowledges the public health and human rights imperatives for treatment. Persons infected with HCV can transmit the infection to others. In the absence of prison-based harm minimization programs (e.g., needle exchange, tattooing), the risks of transmission within prison are higher than in the general community. Human rights principles assert that prisoners should have the same access to life-saving treatments, as their community counterparts (Bielen et al., 2018).

The treating environment while in custody offers several important opportunities to the total societal effort to reduce the burden of infection of HCV. Treatments can be supervised by custodial health staff—usually an appreciated health intervention given the enormous cost of DAA treatments. Once-daily dosing is easily linked to opiate-replacement therapy, which is supervised concurrently. Side effects, which are rare and usually of a minor nature, are easily assessed. Most prisoners experience a period of regulation and safety while in prison—allowing for time-limited programs (8, 12, or 16 weeks) to be completed. Determination of eligibility for treatment (i.e., current infection and assessment of cirrhosis) can usually be completed with just two visits to the prison health center—for health education and initial pathology “take” at the first, and receipt of pathology results, decision about treatment choices, and initiation of treatment at the second.

Prison-based treatment programs have reported remarkable progress in reducing the burden of infection. However, a number of health services have reported reinfections with HCV following successful completion of treatment (Harkness et al., 2017). This should trigger a repeat treatment cycle. However, because of the cost of treatments, this may be more restricted in some prison health services.

Liver biopsy is no longer required—transient elastography and FibroScan® (EchoSens, Paris) have found a limited ancillary role in prison treatment programs.

Patients with pre-treatment cirrhosis must be enrolled in lifetime hepatic-cell carcinoma surveillance. Other patients require a single assessment for ongoing infection (i.e., treatment success or very rarely failure) 12 weeks after the completion of treatment—they can then be discharged from care, as they have demonstrated “cure” (Kim et al., 2018).

Evidence-Based Interventions

A range of initiatives aimed at minimizing the risks of transmission of bloodborne viruses have been introduced across the world, in response to the range of risk activities experienced in prisons:

Injecting drug use in prisons—there is a mounting body of evidence that injecting drug use continues within prisons (Griffin, 1994; Small et al., 2005; Seamark & Gaughwin, 1994; O’Sullivan et al., 2003). The response of different prison systems has been polarized to two relatively extreme positions—denial and acceptance, with introduction of injecting equipment exchange. The latter response has been implemented in Armenia, Canada, Germany, Kyrgyzstan, Luxembourg, Macedonia, Moldova, Spain, Switzerland, and Tajikistan, and even then, in only a few prisons in many of these countries (Stone & Shirley-Beavan, 2018; Jacob & Stover, 2000).

Health education—to address knowledge deficits and misconceptions, and to provide skills for peer education, of benefit during incarceration, and possibly once released into the community (Squires, 1996; Freudenberg & Heller, 2016). However, to advise/educate prisoners on the means to protect their health and the health of their fellow prisoners, and then not provide the means for protection could be considered “double jeopardy”!

Violence minimization—to minimize the harms of incarceration; not merely the physical injury, but also the normalization of antisocial behaviours (Rocheleau, 2013).

Pharmacotherapies—particularly useful for opiate dependence and addiction. Methadone has been utilized for more than 20 years in the prison environment; other pharmacotherapies include buprenorphine and naltrexone (Bi-Mohammed et al., 2017). Treatments for other drug dependencies are less well tested.

Conjugal visits—virtually no evidence supports intimate family visits as a measure to minimize harms associated with bloodborne viruses; however, a human rights focus would be strongly supportive (Carlson & Cervera, 1991; Albertie et al., 2017). A similar approach may apply to the issue of children in prisons—in some jurisdictions, children are allowed to stay with their mother, providing the mother is compliant with regulations (e.g., “drug free”). This dispensation is various for 12 months (e.g., Thailand) of school-entry age (Australia). Only one jurisdiction (Nepal) is known to allow male children to live with their fathers while imprisoned. In some South American prisons, entire families encamp within the prison perimeter. The inter-generational impacts of incarceration are intense, of public health interest (Quilty et al., 2004), and poorly addressed throughout the world.

Body piercing and tattooing—are highly prevalent, albeit risky activities in prisons (Arain et al., 2014; Tran et al., 2018). A tattoo parlor pilot was established in six federal Canadian prisons in 2005.

Canada

The Canadian federal prison system has trailed sanctioned tattooing over an 18-month period in 2005–2006. In six prisons, prisoner-artists are taught in detail the infection control skills necessary for safe tattooing. Prison authorities register the artwork. There are restrictions on types of tattoos that can be applied (e.g., gang symbols, hate symbols are prohibited). The infection control standards set for the prison pilots exceed those currently in the community. At this time, there is no skin piercing done officially in any prisons, worldwide.

Mental Illness

The links between institutions of mass incarceration and those for the mentally ill are diverse (Fazel et al., 2016; Fazel & Seewald, 2012).

Persons incarcerated can manifest mental illness at any stage of the criminal proceedings.

- On entry, the first connect, reconnect, to health services may reveal emerging or established (but neglected) mental illness.
- The stress associated with arrest and detention may “unmask” mental illness.
- Mental illness may be provoked by the stresses associated with social isolation of incarceration.
- Mental illness may be considered the critical element in the commissioning of a crime, with the person considered “criminally insane.”

Regrettably, with the deinstitutionalization of mental asylums in the 1980s, secure accommodation for the mentally ill decreased, without a coincident increase in community-based housing. The prevalence of mental illness among prisoners exceeds that of the community (Baillargeon et al., 2009; Fazel et al., 2008). The links between prisoners, ex-prisoners, and persons in unstable accommodation have been convincingly made (Kushel et al., 2005).

Many jurisdictions have mental health legislation that recognizes differing levels of accountability for people with mental illness committing crimes—to the extreme position of “criminal insanity” where the commission of the crime is not admissible to the court.

Women

Overwhelmingly, the rate of male incarceration exceeds that for females. Typically, women account for 2–9% of the prisoner estate; in Hong Kong, over 20% of prisoners are female. However, the female prisoner population is increasing at a faster rate compared with male prisoners (Institute for Criminal Policy Research, 2017). In Australia, the number of incarcerated women has doubled in the last 10 years; from a low base, the proportion of elderly women (>45 years of age) has increased the highest; the crimes often relate to credit card fraud and gambling debts—they are rarely violent. Where violence is involved, too often it is an act of desperation within an abusive and violent relationship.

The public health issue beyond the disproportionate criminological issue is that mothers and grandmothers are the long-term carers of children of prisoners; conversely, fathers isolated from their partners by incarceration rarely act as long-term carers for affected children.

Female prisoners are consistently reported to be even more socially disadvantaged than their male counterparts. Compared with their male counterparts, they are more likely to have experienced physical and sexual violence and less likely to have had contact with a health service prior to imprisonment. In addition, they are also more likely to experience mental health and drug and alcohol issues, including injecting drugs as well self-harm and suicide while in prison (van den Bergh et al., 2011).

Women tend to receive shorter sentences but have higher reincarceration rates than males. The consequences for health service delivery are profound. Treatments tend to be more opportunistic and less successful when longer term compliance is demanded.

Prisoners from Sexual and Gender Minorities

There are little data available on the rates of incarceration of lesbian, gay, bisexual, transgender, intersex, and queer (LGBTIQ) prisoners. A study in the United States found that the incarceration rate for self-identified gay, lesbian, and bisexual prisoners was more than three times that of the general population. In addition, they found that these inmates were more likely to experience sexual victimization, solitary confinement, and current psychological distress compared with their heterosexual counterparts (Meyer et al., 2012).

Members of the LGBTIQ community are more likely to consider or attempt suicide, engage in self-harm, or experience a mental health condition compared with their heterosexual, cis-gender counterparts (National LGBTI Health Alliance, 2016). There is no reason to believe that members of this community within prison are any better off. In fact, this intersectionality is likely to mean their health outcomes are worse. Given the higher rates of incarceration among sexual and gender minorities and their disproportionate levels of health issues, it is essential that prison healthcare services operate in a way that is sensitive to the needs of these individuals.

The WHO's Global Health Workforce Alliance launched the Agenda for Zero Discrimination in Healthcare in 2016. Although developed with a focus of those who are HIV+ or at risk of such, the agenda calls on countries to set standards for, build the evidence base around, increase funding for and monitor, and evaluate discrimination-free health care for all vulnerable populations (Joint United Nations Programme on HIV/AIDS, 2016). The health care provided within prisons should also be subject to the same appeals.

Public Health and Corrections

Public health is the art and science of preventing disease and injury, prolonging life, and promoting health through the organized efforts of society. This approach is closely aligned to the World Health Organization's (1946) definition of health which is "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity". Public health practice informs and empowers individuals and communities, and creates healthy environments through the use of evidence-based strategies and accountability mechanisms. The balance of health risks and health gains is the essential issue in considering the public health impacts of prisons (Glaser & Greifinger, 1993).

Loss of liberty carries with it diminished ability to control one's health. Prisons are crowded. Airborne, foodborne, and waterborne diseases have enhanced opportunities to be propagated; the prisoner (and to a lesser extent the prison worker) has little ability to control initial exposure and subsequent propagation of a range of diseases of public health importance. In the seventeenth century, typhus (also called "gaol fever"), along with smallpox, posed dangers to prison inmates, jailers, and court officers. In more recent times, the spread of tuberculosis from within former Russian prisons and its spread into the general community have been well described (Spradling et al., 2002), as has been the transmission of multi-drug-resistant tuberculosis between prisoners and prison guards (Valway et al., 1994). The propagation of hepatitis C within prisons has been substantiated (Stone et al., 2017), although the propagation into the community is yet to be elucidated.

Recognizing that the health of the broader community is directly linked to the health of its prison population, the World Health Organization (2007) developed its *Health In Prisons* guide for prison authorities on steps that can be taken to reduce the health risks associated with compulsory detention, care for prisoners, and promote good health among prisoners and prison staff.

The systematic management of risks in the correctional setting associated with air, food, and water, through the science of environmental health, has been poorly developed (Levy & Mogg, 2009).

Crowding within prisons is almost normative with prisoner numbers exceeding official prison capacity in at least 115 countries (Institute of Criminal Policy Research, 2018b). Overcrowding and the associated extreme lack of privacy are associated with increased physical violence, mental health problems, self-harm, suicide and compromises rehabilitation, educational, vocational, and recreational activities (Penal Reform International, 2018). Few countries limit the occupancy of their prisons to the actual bed capacity of their facilities. Norway and the Netherlands, notably, do not exceed their capacity, delaying entry to prison once a person is sentenced until there is adequate space for them (MacDonald, 2018).

Some prison systems are underpinned by complex transport systems for moving prisoners between prisons and between prisons and courthouses; this provides further conduits for disease transmission and propagation (Levy et al., 2003).

A key consideration for public health in correctional settings is adjusting to the demographic shift that has seen an increase in the number of older prisoners, commensurate with the ageing of the population in developed countries. Indeed, older prisoners are now making up the fastest growing demographic within a number of prison systems (Skarupski et al., 2018; Nowotny et al., 2018). This group is made up of those who were convicted young and “grown old” in prison, those who are repeat offenders into their old age, and those convicted for the first time as an older adult. Older prisoners are more likely to experience chronic health conditions such as diabetes and heart disease, more likely to experience mental health and substance use problems and also more likely to experience difficulties performing activities of daily living (Skarupski et al., 2018; Haesen et al., 2019; Fazel et al., 2001). This will all place increasing and different challenges on the healthcare system within prisons.

Models of Health Care

All prison services would state that they provide some level of health care for their prisoners. The actual service delivery will depend on the legislative framework governing the correctional service, but rarely also the laws regulating the health service. Western European countries, additionally, apply a human rights framework to their prisons, and by extension, to the health services provided to prisoners. Internationally, in 1955, the United Nations published the Standard Minimum Rules for the Treatment of Prisoners (now known as “the Nelson Mandela Rules”) which included basic requirements for the services provided in prison facilities (United Nations, 2015). Now, the United Nations Office on Drugs and Crime and the World Health Organization have advocated for the proper governance of prisoner health services (World Health Organization, 2013).

Five models of prisoner health care are identifiable:

1. The prison health authority is directly related to the custodial authority. In this model, the custodial authority employs the healthcare staff. In some prison systems, the trade union affiliation of custodial and health staff may be the same; in some systems, the same paramilitary structure applies to custodial and health staff. This is the most common model for the delivery of prisoner health services, worldwide.
2. A prison health authority is the primary healthcare provider. This service is either the community health service or a dedicated health authority for prisoners.
3. The prison health authority is a public or private entity that has been tendered by a central custodial/health authority.
4. Custodial officers or prisoners themselves are the health service provider. In this circumstance, former health workers who have subsequently been incarcerated are utilized as auxiliary health workers [this is observed in Myanmar (Burma)].

5. No health entity [inmates have to seek their own care, or there simply is no health care for prisoners (this has been observed in some prisons in Papua New Guinea)]; when nongovernment or missionary organizations may temporarily fill a “void”, but usually there is no sustained care.

How Do Models of Care Impact on Public Health Practice Behind Bars?

The competent prison healthcare service needs to do much more than simply provide health care to persons in custody. If the health impacts of incarceration are to be minimized, it is essential that the prison healthcare service also assumes the additional roles:

- As the independent advocate for the health of prisoners (and their families) and.
- As the advocate for the public health.

The models of care adopted by the health service must consider the needs of different groups of detainees and the needs of the community.

Earlier in the incarceration process, the immediate health needs of prisoners will dominate. Newly received prisoners typically will have a burden of unmet health needs, as lack of compliance with treatment is a predictor of being arrested—particularly where drug misuse and mental illness are concerned. This is a time to offer resource-low and high-impact interventions, such as hepatitis B immunization, cervical screening, and vision testing.

As the stay in prisons extends, the health needs of a more chronic nature assume more importance, interspersed with prison-induced illness, and trauma.

Whether prisoner health services should be based on the principle of “equivalence” or “equity” (Levy, 1997) has been debated. Equivalence would require that inputs to the prisoner health service be on the same level as those provided in the community. The argument for “equity” states that the outputs, or health outcomes, of the service be the same. Noting that the health of prisoners is worse than a comparable group of free citizens, the inputs required for the same outcome to be achieved for prisoners would be greater than those allocated for the community.

Implementing Public Health Practice Behind Bars

The minimum principles for a prison health service are that it is an Independent Health Authority, with independent oversight (inspection) (Council of Europe, 2010), and has links to academic health organizations, with avenues open to teaching and research (Raimer & Stobo, 2004).

Applying a stronger evidence base to modern prisons could enhance the health of prisoners and the community through:

- Strengthening the independence of prisoner health services.
- Strengthening standards setting and independent review of the health service.
- Supporting diversion programs from the criminal justice system, using health-related criteria.
- Strengthening both prisoner and community health service provision, on entry to prison, in anticipation of the return, and on returning to the community.

- Applying all community standards for health protection to prison.
- Identifying opportunities for whole of community health improvement by targeting prisoner populations.

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Contracting Health Care: Getting What You Pay For in a CQI Environment

7

Mary E. Earley and Susan W. McCampbell

This chapter provides guidance for correctional administrators, fiscal authorities, and elected officials who contract for inmate medical and mental health care or are considering the opportunities contracting might provide. The obligation of the entity contracting for these services includes, but is not limited to, the execution of a document that explicitly delineates the specific requirements of the care; establishes measurable, objective, and benchmarks; and defines the monitoring and dispute resolution process. Meaningful contract oversight, based on contract language, is essential to successful partnerships. While the qualifications of individuals hired to oversee contract performance are important, just as vital are the oversight *processes*. Even if a correctional system does not contract for services, the ideas in this chapter may assist in self-monitoring performance. Providing timely access to appropriate care for incarcerated individuals is an imperative and substantial contribution to the local community's public health and public safety.

Oversight of the correctional system's medical and mental health care must be grounded in the organization's overall commitment to accountability-based, data-driven, management, and processes. Inmate medical care is a vital element of a facility's daily functioning. Effective oversight cannot happen in a vacuum. For example, without a robust and credible inmate grievance process, or an incident reporting system, data, and analyses needed to evaluate and improve any outcome are suspect. Integration of contract monitoring or assessments of internally provided care are not supplementary activities; rather, they are part of a quality management philosophy.

The Decision to Contract for Inmate Medical/Mental Health Services

There are a variety of reasons why jurisdictions contract for all, or part, of inmate medical and mental health care. This chapter does not deliberate the pros and cons of contracting services but rather seeks to highlight how those who use this option can assure that they get what they pay for, and more impor-

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tantly, what they pay for includes objective measurable levels of inmate care. If a jurisdiction's own employees provide care, ongoing evaluation of the effectiveness of these services remains an important goal. Implicit to this process is having adequate oversight staff and a relevant performance measurement system (Schaenman et al., 2013).

Getting What You Pay for Begins with the RFP and Contract Document

Ideally, the inmate medical contract¹ (with the Request for Proposal (RFP) as the foundation) is the tool in which the specific required care is defined (e.g., emergent, chronic, discharge planning), responsibilities of each party enumerated, quantitative benchmarks set, oversight specified, staffing established, liaison and problem-solving delineated, and administrative duties assigned. Included within the contract, as examples, are means of payment, incentives, penalties, liability coverages, extraordinary medical expenses, and other terms as required by law or ordinance. Hence, the level and expected quality of care must be defined in an enforceable contract, with the identification of specific expectations for both scope of services (e.g., do we cover amalgam dental fillings, crowns, dentures?) and for quality of care. Quality measures can be specified in terms of timely access and standards (e.g., following nationally accepted clinical guidelines for chronic disease, adapted for corrections). Such well-defined expectations increase contractor accountability between the parties.

Jurisdictional leaders, including their correctional administrators, are often inexperienced, or lack proficiency in developing RFPs to solicit healthcare proposals nor are they experts in evaluating the responses, aligning “apples to apples.” This is because the process is a complicated, challenging convergence of administrative rules, clinical requirements, correctional and security practices identifying relevant measures of performance, and associated quality assurance requirements. Each party, no matter the extent of contracted services, has objectives it wishes to achieve, often appearing at odds, such as potential cost savings for governments and profits for medical provider companies. As noted in the introduction, even a jurisdiction using its own employees can benefit from the approaches described here.

It is important to communicate performance expectations to bidders. Yet less than a third of the jail health RFPs examined outlined performance requirements and penalties. This is a missed opportunity for counties to ensure that the jail provides high-value care. Without including such performance standards in the RFP and resulting contract, the county has little recourse for poor performance outside of terminating the contract. (Huh et al., 2018)

“Counties risk receiving bids that fail to meet their needs if they do not disclose basic historical data on health care usage and needs. As a result, providers may overbid to reduce the risk of inadequate payment to cover the needed care, especially if the county has decided on a payment model that puts risk for hospitalization and other costly services on the vendor. But the absence of good information can also lead to underbidding by providers. If the demand for care is greater than the county contracted for, this could result in costly emergency department visits and other [non-covered] expenditures. In the worst-case scenario, a jail that contracts for too little care could see an increase in its mortality rate from incorrectly diagnosed or treated conditions—a potentially costly situation if litigation results.” (Huh et al., 2018)

¹For the purposes of this chapter, “medical care” includes mental health care, dental care, and specialty care. An organization may include, or not, these elements in its contracts.

This chapter does not offer specifics about developing the RFP nor guide the contracting process, except to identify these actions as the core of a jurisdiction's ability to get what it needs in inmate medical care. An Internet search will yield many RFPs and contract examples; these can be instructional in beginning the process. Caution should be taken in evaluating such RFPs and contracts, as the source is unknown (e.g., another jurisdiction, a potential vendor?), nor are state/local administrative and contracting rules ever the same. The nature of the correctional facilities (e.g., a jail, a prison, level of inmate security levels, experiences with health care, and architecture) are different. A “cut-and-paste” approach to developing an RFP or contract is not the best. Assistance by the jurisdiction's public health providers will help navigate the jargon and specialized language of both universes—the medical and correctional environments.²

Correctional professionals, as well as credible providers, understand that medicine behind bars is decidedly specialized. It requires a high level of insight from medical providers working in the corrections command–control environment often alien from other healthcare environments. Incarcerated populations typically come from medically underserved communities, with a high prevalence of mental illness. This is a vulnerable population and, in the case of jails, quite transient.

A correction organization can choose to contract all care, or specialty services or pharmacy services. In a study of RFPs issued for jail health services in 81 counties from 28 states, 72% of the requests combined medical, dental, and mental health services. Fourteen percent of the RFPs were for just medical and dental, 7% for medical and mental health, and 6% requested only medical services (Huh et al., 2018). Just over half of the inmate population in the United States is served through the employee model, where the agency runs its own medical department.

Counties balance several factors when deciding whether to provide care through contractors. On one hand, such a move transfers some responsibility to vendors, even though counties retain accountability for providing a constitutional standard of care. The risk inherent in this arrangement can be compounded if cost-saving incentives are not balanced by a contract that clearly specifies all performance expectations and provides for oversight and performance-improvement procedures. (Huh et al., 2018)

This narrative highlights the importance of contract management and oversight of inmate medical and mental health care. No matter if all health and mental health care is performed by contracted or just specialized services, there is an obligation on the part of the governmental agency to assure contract provisions are followed and corrective actions are put in place when there are shortfalls. This process must proceed in a collegial and professional manner, as the “consumers” of these services are inmates who must rely on the integrity of the parties for their safety.

Delivery Models of Inmate Health/Mental Health

There are a variety of options for correctional authorities in providing inmate medical and mental health care for a correctional facility or system. There is also flexibility in providing services, using multiple methodologies. Among the options are as follows:

- Employee model: healthcare providers are employees of the [agency].
- Fee-for-service model: healthcare providers are independent contractors who bill fees to the contracting jurisdiction for each unit of service.
- Pre-negotiated fee-for-services: payment by the contracting jurisdiction to providers for specific healthcare services (e.g., dental, prenatal, orthopedic), most times at Medicare rates.

²Resources are provided at the conclusion of this chapter.

- Flat fee rate for specific services model: payment, in advance, for contracted services such as dental or ambulatory care. Payments are [often] based on the volume or number of inmates and may also be a prefixed sum.
- Global flat fee rates model: a fixed per-day fee is set for inmates for all [contracted] healthcare services.
- Cost plus: reimbursement paid to a medical/mental health provider by a correctional organization for actual costs, plus a negotiated percentage to the contractor for profit and overhead (Adapted from Redemske, 2018).

These distinctions illustrate the nuances inherent in contract oversight. The complex interrelationships of the medical care and custody systems require well-developed techniques for accountability. For example, if correctional staff are unable to move inmates to medical clinic appointments for whatever reason(s), who is then responsible for the contractor not meeting their performance measures? In this example, there are potential lapses in operational performance for both parties, yet how the matter is resolved is the essential element falling to the person responsible for contract management.

Learning from the Experiences of Others

No doubt inmate medical and mental health care is the most litigated domain of correctional systems. While not attempting to identify, or summarize, the outcomes of litigation, there are lessons to be learned.

- The liability for failure to provide adequate inmate health care remains with the government, regardless of whether services are provided through contracted or in-house staff (Schaenman, 2013).
- Audits of medical care which document deficiencies require implemented corrective action plans that demonstrate achievable and timely progress toward resolving shortcoming.
- The contracting entity needs a hands-on approach to oversight (Kutscher, 2013).
- While accreditation of medical care by national organizations is not a guarantee of quality care, it is an indication of the agency's commitment (Fiscella et al., 2017; Huh et al., 2018; State of California, 2012).
- Oversight needs to be more than "checking boxes," with auditors verifying adequate care through medical record reviews, staff and inmate interviews, and observations (OIG, 2016).
- Auditors need to be trained to perform their duties (State of California, 2012).
- Audit findings (positive and negative) can be linked to incentives and penalties for the contractor, as specified in the contract (State of California, 2012).
- Performance measures must be meaningful to the delivery of health care.
- Oversight must be integrated within the organization's overall quality management philosophy and approach.

Reactive management, based on actual or threatened litigation, is not effective leadership. Thoughtful consideration of how to develop a credible medical program for inmates includes a contract management and oversight component.

Internal Structure for Effective Contract Oversight

As noted in the Introduction, the inmate medical care contract oversight processes must be grounded in the organization's overall continuous quality improvement (CQI) management initiatives: to collect credible and accurate data, gage and assess it, review compliance with written directives, assure adequate training, and develop, implement, and evaluate the effectiveness of corrective actions. The contract monitoring process cannot be perceived as, nor be, a stand-alone, isolated process detached from the daily review of all operations. If this disconnect occurs, the necessary integration of oversight and operational improvements are jeopardized.

Hence, oversight more broadly requires organizational commitment, policy statements, and written directives to steer the processes. The organizational placement of medical care contract oversight activities may be defined in the written directive system, as well as the required collaboration with external stakeholders and with the leaders of internal operations.

The purpose of continuous quality improvement programs is to improve health care by identifying problems, implementing and monitoring corrective action, and studying its effectiveness. A CQI process study examines the effectiveness of the healthcare delivery process. A CQI outcome study examines whether expected outcomes of patient care were achieved (NCCCHC, 2018). The role of the contract management process is to improve operations consistent with medical care contract provisions. CQI may result in monitoring on a regular schedule, not in a point-in-time snapshot, allowing for tracking both continuous operations and the quality of the results of services (Huh et al., 2017). Monitoring performs focused reviews of the timeliness and quality of care on a regular basis, using pre-established criteria (Greifinger, 2012; Hoge et al., 2009).

A CQI committee comprised of stakeholders may assist in the contract monitoring processes. Annually, a QI Committee, with the participation of the contract monitor, may propose a CQI activity schedule. If, for example, during a random review of intake assessments, the monitor finds two incomplete medication verifications resulting in discontinuity of medication (i.e., missed medication), the monitor may require a study to document the extent of the problem, to analyze causation, and from that to develop corrective actions. If contractor performance falls below a required threshold, the data are further analyzed both quantitatively and qualitatively to develop corrective actions.

Performance is tracked and trended over time. The individuals responsible for monitoring must have knowledge of the purpose of each study, be involved in the process, and act as part of the review committee that develops corrective action plans.

A purpose of CQI is to identify barriers to quality of care. Therefore, the collegial interface of correctional medicine and the custody and security operations of the facility is critical. Each rely on the other to perform their duties. Without collaboration, the data will not be available to correctly assess the barriers, nor all solutions identified. For example, if inmates are late, or "no-shows" for clinic appointments, various options may be available, including both correctional and medical care staffing adjustments, appointment time changes to less busy times of the day, or moving services to inmate housing.

Focused studies examine efficiency (timely access, productivity) and effectiveness (clinical performance). Most nursing protocols and clinical guidelines for practitioners have a workflow that includes steps necessary to ensure appropriate care, as do correctional operations. No matter the potential solution, the input and goodwill of all parties are required.

How the organization wishes to structure the oversight process and related staffing may take many forms depending on the agency's mission and the nature (e.g., pre-trial, long-term sentenced, special-

ized) and size of the inmate population. The necessary ingredients are knowledge about medical care and correctional operations as well as internal culture, accountability, and supervision. For example, in larger organizations, the monitoring entity may include a board or panel of experts employed by a state agency. Smaller facilities might seek an individual with sufficient background and training.

Among considerations in establishing the oversight function include, but are not limited to the following:

- Establishing the purpose and objective goals of oversight
- Identifying the scope of work to be performed, including any supervisory responsibilities
- Points of integration with related organization functions (e.g., other contract management processes)
- Decision-making authority
- Fiscal responsibilities and authority (e.g., authorizing invoice payments, inclusion of penalties or incentives)
- Authority and responsibility to oversee orientation and in-service training for contract personnel
- Organizational placement and reporting structure
- External stakeholder collaboration
- Responsibilities for intervening in complaints about medical care, or provision of care from inmates, families, stakeholders, agency employees, and others
- Role and responsibilities for RFP and/or contract language development or amendment
- Required skills, knowledge, and abilities of the person or persons performing the job

Defining the *processes* and expected outcomes are critical before determining “who” will perform the functions.

Skills, Knowledge, and Abilities to Develop a Job Description

Inmate contractor monitoring requires individuals with an understanding of correctional systems and their unique internal organizational cultures. Jails and prisons are different systems with distinct responsibilities reflective in the provision of inmate care. Ideas for a basic job description are included in Box 7.1.

Box 7.1 Opportunities—Medical Contract Monitor Job Duties

- Consult in the process to develop Requests for Proposals (RFP)
- Serve as liaison between the contracting entity and the contractor
- Consult on contract terms and provisions, including amendments or addendums
- Develop and manage requirement for compliance oversight and related written directives
- Audit and report on administrative and clinical services through on-site audits and review of medical records, including compliance with contract, regulatory, and accreditation standards. Read and interpret invoices and reports for accuracy
- Provide suggestions for resolution of contract issues

- Develop, revise, and monitor procedures to increase efficiency and effectiveness of inmate health care
- Assist in the development of corrective action plans
- Develop recommendations for improvement of non-compliant findings and verify the impact of corrective measures
- Compile, evaluate, analyze, and report regarding outcome measures
- Identify best practices and submit recommendations for implementation
- Analyze and recommend service utilization and cost data
- Analyze and recommend contract provisions and requirements to achieve organizational objectives
- Establish and maintain community partnerships to enhance custody and post-release care for inmate
- Assist with internal reviews of incidents
- Participate in root cause analyses of events
- Develop and recommend reporting systems for monitoring
- Submit annual budget requests for medical contract, general expenses, equipment, and other items as indicated
- Review all required financial and statistical reports that are provided

The minimum requirements for contract monitors may include a professional healthcare degree, for example, B.S. Registered Nurse, or ANRP, to allow accurate interpretation of clinical performance. The agency may opt for a team to oversee care that can include individuals with education such as public health, public administration, risk management, business administration, or healthcare administration. Persons with related work experience is a benefit, to assess care, knowledge of the correctional system, budget analysis, quality management, staffing evaluation, and contract management. Knowledge of relevant national standards is helpful, along with federal, state and local laws, and regulations.

While it is important for the contract monitor to understand their roles and job duties, the agency's employees need to understand the work as well. A successful contract monitor will be able to leverage the opportunities to quickly identify emerging issues and galvanize stakeholders to action. This requires not only professional competence but the ability to build and maintain trust, communicate effectively, and collaboratively problem-solve.

Evaluating Performance—Count What Matters

The foundations of a contract monitor's assessment are specific clinical performance measurements. This article does not attempt to delineate these measures but provides resources as well as highlighting the importance of the work. Even if these are identified in the contract, they may require a collaborative process between the parties to drill down as to the specific data to be collected. This work may include the contract monitor's focused review of areas where the most serious harm is likely to result for inmates if they are not properly screened, evaluated, and treated, addressing high-volume/

high-risk situations where good performance reduces risk to patients and reduces liability for facilities and staff (Greifinger, 2012; Hoge et al., 2009).³

The scope of the agency's contract monitoring responsibilities, as defined in the contract, agency policies, and procedures, and the job duties may include, but are not limited to, assessment of the following:

- Inmate access to care
- Contractor staffing
- Meeting agendas, attendance, and documentation
- Data maintenance and analysis
- Review and comment regarding site-specific vendor policies and procedures
- Intake screening and health assessments
- Continuity of care
- Medication administration processes, pharmaceuticals, and formulary
- Quality improvement program, including clinical performance measurement
- Peer review
- Emergency plans
- Infection control, tuberculosis testing, biohazardous waste, ectoparasite control
- Laboratory services

This list is not meant to be inclusive, and reviewing the table of contents for relevant national standards provides the other topics that may be part of a vendor's contract, and subject to assessment by the organization.

A staffing plan to accomplish the vendor's duties is an integral part of the contract. Healthcare staffing is a challenge due to periodic nationwide shortages of healthcare workers. Correctional healthcare careers are sometimes invisible to the field and generally misunderstood. The work environment and geographic locations of institutions present obstacles in recruiting and retention. To assure staffing, without the responsibility to recruit, screen, and retain are often reasons that organizations contract healthcare services. The contractor's written job descriptions (including the qualifications for each position), a specific staffing plan/matrix, hours to be worked, minimum staffing requirements, and shifts coverage offer the basis for this contract oversight. Contract monitoring confirms that vendor healthcare staff practice within the scope of their licenses and assure that the requisite requirements of licensure and training for each position are maintained.

The contracted healthcare provider is required to perform tasks within specified timelines using specific protocols/procedures for each of these vital categories. For each task required and performed, the contract monitor establishes a method for tracking compliance. Each category is evaluated and tracked based on its structural components, process measures, and/or outcome measures.

Importantly, in addition to vendor-provided data, the statistics regarding overall facility or system issues need to be integrated into contract monitoring to be able to make appropriate assessments. The contract can require the contractor to provide reports on intake assessments, dental exams, off-site service expenses, staffing, including offsets for vacancy savings, pharmacy utilization, and other reports as agreed. The impacts of the vendor's work on custody operations requires evaluation, for example, the length of time newly arrived arrests wait for healthcare assessments, or results of facility security sweeps and recovered medication. Linking inmate grievance data and outcomes to care,

³This reference provides excellent guidance regarding clinical performance measures. Ensuring vendor compliance with timelines and healthy baselines are steps in the right direction toward maintaining a tight contract.

review of medical care stemming from uses of force or inmate/inmate altercations are other important elements of monitoring to improve facility safety and vendor performance.

The critical role of a healthcare contract monitor may be seen in the inevitable link of the impact of the delivery of healthcare services to custody and security operations. This includes, for example, the formulary and medication administration. If medication is recovered in facility searches and shakedowns, this contraband poses a threat to the safety of inmates and staff. If infection control procedures are not followed, the community is in increased danger. Failure to conduct credible reviews of care, including morbidity and mortality reviews, increases the likelihood of an error being repeated.

Another example of the demand for integration of contract monitoring and custody operations is the availability of security staff to escort inmates to clinics and other medical appointments in a timely fashion, and just as important to assure healthcare staff are safe and that they feel safe. Most likely, the assignment of custody staff will not be within the authority of a contract monitor; yet failing to problem-solve, which is generally within the scope of the monitor's duties, may potentially derail healthcare services. The impact of unanticipated facility lockdowns and conflicts in schedules (e.g., court movement or attorney-client visiting in a jail setting) also fall to the contract monitor to help problem-solve.

The responsibilities of the contract monitor may include processing of billing and payments, including details of provided services. Tying the invoice process to monthly reporting requirements ensures prompt delivery of reports. Missing or incomplete documentation from the contractor may also result in imposition of agreed-upon fines or accepted delays in payment processing. Verification of incentives and actions per the contract are also part of the job duties of the monitor.

Training

Contracted healthcare staff must be trained to not only perform their specific job duties but to know and follow security procedures. Minimally, emergency procedures, safe practices, medication administration, and the requirements of the Prison Rape Elimination Act require orientation before a healthcare worker begins their duties. Whether the contractor monitor trains, arranges the training, or evaluates the outcomes, documentation is essential. Training requirements may be in the contract and are certainly within the organization's policies and practices. Scheduling, problem-solving, and coordination are critical parts of the contract monitor's role.

Managing Conflict and Complaints

One vital element of successful contractor monitoring is assuring a professional relationship with all partners in inmate health care. Perhaps difficult to quantify in a job interview, the talent to balance the requirements of the contract, to address the on-the-ground daily challenges of facility operations, and to gain the trust of both medical and custody staff is crucial. The contract monitor can ill afford to be captured by the facility's default internal culture that may result in cynical, or ineffective decisions, or permits or fuels unresolved conflict. Professional integrity may be a struggle to establish and maintain in this potentially contentious work environment, but once lost, jeopardizes effective contract management.

An important element of monitoring inmate medical services is paying attention to complaints, potentially an early-warning system for emerging issues or evidence that interim action plans did not yield desired results. These complaints may be from inmates, families of inmates, contractors, employees, criminal justice partners, external community stakeholders, litigants, or the media. All

complaints and grievances must be taken seriously and thoroughly reviewed. The role and responsibilities of the contract monitor may vary, depending on the organization. The involvement of the contract monitor may be to assess the timeliness of responses and, importantly, the quality of the responses.

Inmates may write request forms, grievances, or letters to solicit help resolving their medical issues. The monitor must be included in the review and, if necessary, acting to promptly resolve issues. Other communications may be via telephone, e-mail, letters, or in person. No matter the source, the organization, the contract monitor, and the medical providers need to commit to assessing and responding to the complaints. For inmate complaints or grievances, the health service provider must answer medical grievances within stipulated timelines. Data regarding complaints and grievances should be maintained and analyzed as indicators of needed corrective actions. For example, complaints or grievances from inmates may highlight the need for better communication and education by providers at the time of a clinic visit.

How the organization responds to complainants establishes trust and credibility with the involved parties. Responding as candidly as possible, given legal guidelines, improves cooperation necessary for healthcare delivery. While not all issues may be resolved to the satisfaction of the complainant, in many instances individuals just wish to be heard regarding health care.

Stakeholder Engagement

Now, more than ever, effective inmate medical and mental health care requires collaboration with external stakeholders, whether this collaboration is for a jail to provide released inmates with bridge medications or referrals and appointments to a mental health clinic; or in a larger state institutional setting, faced with an aging and more medically needy population. The contract monitoring process should also seek to link the services the vendor is needed to provide with community resources to maximize impact.

Did It Work?

Organizations should routinely assess if their contract oversight processes for inmate medical care have sufficient return on investment. This is a different assessment from the outcomes of the performance of the vendor; this is the performance of the process and the effectiveness of the contract monitor. Establishing, at least annually, the objective measures of success for contract management aid this process. Did the contract monitoring process improve the delivery and quality of healthcare services and proactively anticipate and avoid conflict? Is there evidence of collaboration with both internal and external stakeholders? Were processes improved? Were credible data maintained and analyzed? Did the contracting oversight process at a minimum:

1. Identify and analyze pertinent risks
2. Develop or improve metrics to measure vendor performance
3. Track and report on vendor performance
4. Make informed management decisions (O'Rourke & Girgenti, 2018)

There is considerable value added to inmate health care because of effective contract management. The significance of effective contract management improves processes and enhances collaboration

with security operations, as well as assuring there is positive fiscal impact through review of expenditures and outcomes.

Conclusion

Regardless if a correctional administrator contracts for medical and mental health care, or uses agency employees, they should employ a proactive approach to assuring that care is adequate. This means developing measures of performance, clinical, staffing, training, and collaboration. Oversight of medical care should be part of the organization's commitment to total quality management in all operations, not singling out medical. Contract monitoring processes and the staff assigned can provide the supervision and documentation necessary to improve the risks inherent in contracting medical services and in effective medical and mental health care generally. Correctional organizations are accountable for performance and are subject to the public's watchful eye.

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Additional Information

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- American Civil Liberties Union. <https://www.aclu.org>
- American College of Correctional Physicians. <https://www.acponline.org>
- American Correctional Health Services Association. <http://www.achsa.org>
- American Public Health Association. <https://www.apha.org> centers
- Center for Disease Control. <https://www.cdc.gov>
- Health and Human Services/Substance Abuse and Mental Health Services Administration. <https://www.samhsa.gov>
- Human Rights Watch. <https://www.hrw.org/>
- National Commission on Correctional Health Care. <https://www.ncchc.org>
- Prison Policy Initiative. <https://www.prisonpolicy.org>
- Southern Poverty Law Center. <https://www.splcenter.org>
- The Center for Prisoners Health and Human Rights. <https://www.prisonerhealth.org>
- The Pew Charitable Trusts. <https://www.pewtrusts.org/en> southern
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Part II

Communicable Disease



HIV and Hepatitis C in Corrections: A Public Health Opportunity

8

Joseph Bick

Introduction

The United States has both the highest incarceration rate and the largest number of prisoners in the world, with approximately 2.3 million people incarcerated, 4.4 million on probation or parole, and more than 11 million people spending time in a jail or prison annually (Sawyer & Wagner, 2019). Inmates are disproportionately impacted by chronic and often poorly controlled medical conditions, mental illness, substance use disorder, and communicable diseases including HIV and hepatitis C (HCV) (Hammett et al., 2002; BOJ Statistics, 2002). In the United States, approximately 14% of those infected with HIV and 28–33% of those infected with HCV are incarcerated in any given year. As a result, effective clinical interventions in jails and prisons can significantly benefit both the health of inmates and the communities to which they will one day be released (Zack et al., 2000; Varan et al., 2014).

There are many obstacles to the delivery of timely and effective health care within the correctional setting. Jails and prisons often lack adequate clinical infrastructure. Frequent and often abrupt transfers of inmates can result in disruptions in treatment. Lack of trust can lead to inmates being reluctant to cooperate with correctional staff. Some clinical diagnoses can result in restrictions on housing, work assignment, visitation, and other conditions of confinement. As a result, inmates may not divulge important clinical information or consent to diagnostic testing. Lack of access to proven harm reduction measures such as HIV pre-exposure prophylaxis, condoms, and needle exchange increases the probability that infectious diseases will be transmitted from one inmate to another (Bick, 2007).

Published guidelines for the diagnosis and treatment of HIV and HCV do not always adequately address the unique challenges of providing care within jail and prisons. Correctional facilities may lack up-to-date information technology. Linkages between jurisdictions and agencies responsible for the care of inmates and parolees can be poorly developed, and inmates are often released to the community without an effective plan for housing and clinical care. These factors contribute to lost opportunities for diagnosis, treatment, education, and prevention. Consequences include the development

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Table 8.1 Specific recommendations for an HIV treatment program within jails and prisons

Implement routine opt-out HIV testing during intake medical evaluation to identify new infections among inmates whose HIV status is unknown or has been negative on previous tests.
Perform routine confirmatory HIV testing during intake medical evaluation for inmates who report that they are infected.
Offer voluntary HIV testing throughout incarceration
Implement routine opt-out HIV testing prior to release
Provide confidential notification of all HIV test results.
Provide care to HIV-infected inmates according to current Department of Health and Human Services Guidelines, including baseline lab work, immunizations, prophylactic medications, and antiretroviral therapy.
Promptly refer all HIV-infected persons to an HIV specialist. Consultation can be provided within the correctional facility, in a community clinic, or via telemedicine.
Provide substance use disorder treatment to all of those who might benefit from it.
Make available proven harm reduction measures including education and condom distribution.
Develop partnerships among health departments, correctional facilities, and community-based organizations (CBOs) to facilitate linkage to care, treatment, and prevention services in correctional facilities and in the community.

of preventable complications of untreated illness and missed opportunities for interrupting transmission of infection to the larger community.

This chapter will review the epidemiology of HIV and HCV in jails and prisons and provide recommendations for the prevention, diagnosis, and treatment of HIV and HCV within correctional settings (Table 8.1).

Human Immunodeficiency Virus (HIV)

Background and Epidemiology

In 2015, the prevalence of HIV infection in state and federal prisons was estimated to be 1.3%, the lowest rate since data were first comprehensively reported in 1991. In spite of a 75% increase in the number of state and federal prisoners over this time period, the total number of HIV-infected inmates in 2015 was at a 25-year low (BOJ statistics, 2017). Prior to the development of effective antiretroviral therapy (ART), HIV infection almost inevitably led to profound immunodeficiency, opportunistic infections and malignancies, and death. Due to earlier diagnosis and increased utilization of ART, both AIDS rates and AIDS-related mortality continue to decline among all age and racial/ethnic groups. Although HIV/AIDS was previously one of the most common causes of death among inmates, it no longer ranks among the top ten causes of mortality in either correctional facilities or the general population (BOJ Statistics, 2017). In spite of these improvements, prisons remain high prevalence settings for HIV, with rates 4 times higher than those seen in the US general population. Most of this can be attributed to the high prevalence of HIV risk factors among inmates including substance use disorder, injection drug use, poverty, homelessness, untreated mental illness, and commercial sex work (Springer & Altice, 2005). HIV rates among inmates vary from state to state, with New York, Louisiana, and Florida having the highest prevalence ($\geq 3.0\%$) (BOJ Statistics, 2017). HIV prevalence

also varies markedly by race, with rates among incarcerated African Americans being more than three times the national average.

Intravenous drug use (IDU) is a major risk factor for HIV infection, and the nation's "war on drugs" contributed to the concentration of those with substance use disorders in US jails and prisons. An estimated 56% of state prisoners and 53% of jail inmates met the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) criteria for drug dependence or abuse (James & Glaze, 2006; Karberg & James, 2005). In addition, 42% of state prisoners and 37% of jail inmates self-reported the use of illegal drugs at the time of the offense for which they were currently incarcerated (National HIV Curriculum, n.d.). Many inmates continue to abuse illegal drugs during their incarceration. In spite of this tremendous burden of substance abuse among the incarcerated, no US correctional systems provide needle exchange, and most do not offer medication-assisted treatment for opioid addiction. Just 26% of prisoners and 19% of jail inmates who met (DSM-IV) criteria for drug dependence or abuse participated in a drug treatment program since admission and very few of these were provided medication-assisted therapy (BOJ Statistics, 2017).

HIV Testing

HIV-testing programs in jails and prisons play an important role in prevention. Identification of HIV-infected persons can prompt partner counseling and referral services, prompting others to be tested for HIV and potentially hindering the spread of the virus. Nonincarcerated individuals reduce their frequency of risk behaviors following HIV diagnosis (Weinhardt, 2005; Marks et al., 2001; Eaton & Kalichman, 2009). Inmates who are aware of their HIV-infected status may similarly reduce HIV transmission behaviors both in prison and upon returning to their communities. ART minimizes infectiousness by reducing viral load in blood and genital secretions, reducing the risk of transmission (Chakraborty et al., 2001; Quinn et al., 2000). HIV-infected persons who adhere to ART and achieve an undetectable HIV viral load are unable to transmit HIV sexually to their partners (Eisinger et al., 2018). An undetectable HIV viral load also significantly decreases the risk for transmission via IDU (Kirk et al., 2011; Solomon et al., 2016; Nolan et al., 2011).

Prior to routine screening for HIV, many individuals were not diagnosed until late in the course of their infection, with testing being prompted by the development of an opportunistic infection or malignancy (Neal & Fleming, 2002; CDC, 2003b). At diagnosis, up to 40% of patients had advanced immunodeficiency with CD4 cell counts of <200 cells/mm³. Because of this, up to 40% of individuals died within a year of being diagnosed with HIV (Klein et al., 2003). In an attempt to diagnose patients earlier, in 2005 the U.S. Preventive Services Task Force (USPSTF) recommended routine HIV counseling and screening for all persons who reported risk factors for HIV infection (USPHSTF, 2005). Unfortunately, HIV testing driven solely by risk factor assessment missed many of those who were HIV-infected. Approximately, 25% of HIV-infected persons in the United States report no HIV risk factors (Klein et al., 2003; Alpert et al., 1996; Liddicoat et al., 2004; Jenkins et al., 2006; Chen et al., 1998).

In 2006, the CDC recommended that voluntary opt-out testing for HIV be integrated into the routine health care of all Americans (CDC, 2006a). Key points of the new recommendations included routine voluntary opt-out HIV screening of all patients aged 13–64, followed by annual retesting of all those at high risk. People who inject drugs (PWID) and their sex partners, persons who exchange sex for money or drugs, sex partners of HIV-infected persons, MSM, and persons who themselves or whose sex partners have had more than one sex partner since their most recent HIV test are defined to be at high risk. The CDC recommends that HIV screening be provided free from coercion upon entry into prison, periodically during incarceration, and again before release.

The CDC recommends informing patients verbally or in writing that HIV testing will be performed unless they decline (opt-out screening) and educating patients in their primary language about HIV and the meaning of positive and negative test results. Patients should be offered an opportunity to ask questions and to decline testing. Consent for HIV screening should be incorporated into the patient's general informed consent for medical care, and a separate consent form for HIV testing is not recommended (NCCHC, *n.d.*).

A study within the California Department of Corrections and Rehabilitation demonstrated that offering brief routine one-to-one HIV counseling to all incoming inmates doubled the acceptance of voluntary HIV testing (Baham et al., 2004). A significant percentage of high-risk individuals in this study had never previously tested for HIV, and offering multiple testing modalities (blood, urine, and oral fluid) increased the number of individuals who chose to test.

Routine HIV screening followed by ART has been found to be as cost-effective as other established screening programs for chronic diseases (hypertension, colon cancer, and breast cancer) in settings where the prevalence of HIV is as low as 0.1% (Sanders et al., 2005; Paltiel et al., 2005). A 20-year-old HIV-infected adult who initiates ART has a life expectancy into his 70s, approaching that seen in the general population (Samji et al., 2013). The cost of ART per quality-adjusted year of life saved compares favorably with treatment of high blood pressure and is more cost-effective than treating high cholesterol or breast cancer (Freedberg et al., 2001). The cost of ART is more than offset by savings associated with decreased opportunistic infections, cancers, and hospitalizations (Ruane et al., 1997; Torres & Barr, 1997). A study in a non-correctional setting found that annual healthcare expenditures for HIV-infected patients with advanced disease (CD4 counts <50 cells/mm³) were 2.63 times greater than those for patients with CD4 counts >350/mm³. Improvement in clinical status associated with increases in CD4+ cell count led to a reduction in healthcare expenditures (Chen et al., 2006). In the correctional setting, expenditures attributable to hospitalization are significantly higher than among nonincarcerated persons because of associated guarding costs. Therefore, the savings associated with earlier treatment are even more pronounced in jails and prisons than in the free world.

Owing in part to the incorporation of routine screening into clinical practice, the percentage of those who are unaware that they are HIV infected in the US nonincarcerated population has fallen over the past 15 years from 40% to 14%. Knowledge of HIV serostatus varies by age, with 29% of those aged 25–34 and 44% of those 13–24 being unaware that they are infected (Wolitski & Fecik, 2017). An estimated 22% of HIV-seropositive individuals are unaware they have HIV infection at the time that they enter jails or prisons (BOJ Statistics, 2017).

In spite of the CDC recommendation for routine testing in correctional settings, a survey in 2015 revealed that only 32 of 47 responding state prison systems routinely tested incoming inmates for HIV. Seventeen states provided routine opt-out testing as recommended by the CDC, while 15 conducted mandatory testing. The remaining systems are tested by patient request either based upon risk factors or based upon signs/symptoms (BOJ Statistics, 2017).

Mandatory HIV testing is commonly used in US prisons. Mandatory HIV testing has been denounced by the American Public Health Association, the World Health Organization, and the American Civil Liberties Union (WHO, 2006a, 2006b; Lange, 2003). Critics cite the difficulties inherent in preserving confidentiality in prison and the discrimination and stigmatization that HIV-infected prisoners have historically endured, particularly as a result of segregation. In the correctional setting, HIV-infected inmates may face disparate treatment based on their HIV status. Examples include restrictions on job assignments, limitations on potential housing sites, decreased educational opportunities, prohibitions against conjugal visiting, enhanced punishments for in-custody infractions (those who are known to be HIV-infected may be subject to harsher punishments if they are found guilty of being involved in the willful exchange of body fluids), and prolonged sentences (in some states, inmates who work earn time off their sentence for each day worked; if less job opportunities

exist for those who are HIV-infected, HIV-infected inmates may in fact end up serving longer sentences).

HIV Prevention

Although the overwhelming majority of HIV-infected inmates acquired their infection prior to being incarcerated, transmission of HIV does take place within correctional facilities. Sexual activity that places inmates at high risk for HIV transmission while incarcerated has been well documented. In a report of HIV transmission in Georgia prisons, 54 of 68 (79%) inmates who seroconverted during incarceration reported engaging in male-to-male sex while incarcerated. Most (72%) reported having had consensual sex, while only 30% of these reported using condoms or improvising barrier protection (CDC, 2006a). Condoms are highly effective at preventing the transmission of HIV and other STDs (NIAID, 2001). The CDC has recommended that condoms be made available in correctional settings, but resistance to implementation of this simple, cost-effective measure is widespread (CDC, 2003a; Dolan et al., 2004). In the United States, only three state prison systems (Vermont, Mississippi, and California) and five local jail systems (Philadelphia, Los Angeles, New York, San Francisco, and Washington, DC) make condoms available to inmates (Wohl, 2006). Consensual sex between inmates is illegal in most correctional systems in the United States. Unsubstantiated concerns that providing condoms would encourage sexual activity or that they could be used to either throw body fluids at employees or to secrete contraband have served to limit their distribution.

Daily pre-exposure prophylaxis (PrEP) with a fixed-dose pill containing tenofovir disoproxil fumarate (TDF) 300 mg and emtricitabine (FTC) 200 mg has been shown to be well tolerated, safe, and effective in decreasing the risk for acquiring HIV both sexually and via injection drug use. PrEP is recommended for sexually active adult men who have sex with men (MSM), HIV-negative sex partners in sero-discordant relationships, commercial sex workers, and PWID. PrEP should be considered as part of a comprehensive harm reduction strategy for inmates who remain at high risk for HIV due to ongoing in-custody risk behaviors. Tenofovir has been associated with nephrotoxicity, and therefore renal function should be assessed at baseline and then every 6 months while receiving PrEP (CDC, 2017).

HIV Treatment

Testing is just one important step in addressing the ongoing HIV epidemic. Those who are found to be HIV-infected must be provided prompt access to physicians who have training and experience in the treatment of HIV-infected patients. The HIV Medicine Association defines an HIV specialist as someone who has had primary responsibility for the care of at least 25 HIV-infected patients during the course of a year. This definition is based upon published data demonstrating improved outcomes for patients cared for by clinicians who have at least this number of HIV-infected patients (Kitahata et al., 1996; Volberding et al., 2006). Unfortunately, many HIV-infected inmates have not had ready access to HIV specialists. In a survey of correctional healthcare providers, only 43% reported that an HIV specialist was “often” available to see patients and 38% stated that a specialist was never available (Bernard et al., 2006). The use of inexperienced providers increases the risk for the development of resistant HIV, opportunistic infections, and malignancies, and shortens the survival of HIV-infected patients. Telemedicine can help address the lack of onsite specialists and produces outcomes similar to those achieved with onsite specialty care.

The initial evaluation should begin as soon as the patient is found to be HIV infected, prior to the patient being seen by an HIV specialist. Primary care providers (PCP) should refer to current recommendations from the Department of Health and Human Services (DHHS) for guidance regarding initial staging lab work (Table 8.2) (DHHS, 2019a). At a minimum, the PCP should order a CD4 count and an HIV viral load. If the CD4 count is <200 cells/mm³, the PCP should promptly consult with an HIV specialist to determine if there is an immediate indication to provide prophylaxis against opportunistic infections such as pneumocystis jirovecii. Additional key baseline lab studies include a complete blood count with differential, complete metabolic panel, urinalysis, and serology for hepatitis B and C. Because of the significant rate of transmitted resistance to different antiretroviral medications, all treatment naïve patients should undergo resistance testing with an HIV genotype assay. Genotype results should be available when the patient is seen by the HIV specialist can refer to it when selecting an initial regimen. Patients who are adhering to ARV but have a detectable HIV viral load will also need resistance testing to facilitate the selection of an effective salvage regimen. In this setting, the choice of resistance assay should be discussed with the specialist prior to obtaining it.

PCPs should refer to current guidelines for the immunization of HIV-infected persons and offer appropriate vaccinations (Table 8.3) (CDC, 2019). Nonimmune patients should be immunized for pneumococcus, meningococcus, hepatitis B, MMR, influenza, Tdap, SARS-CoV-2, and varicella. Eligibility for immunizations is determined by the patient's prior vaccination history and the degree of the immunodeficiency as determined by the CD4 count. To date, data do not suggest that HIV-infected persons are at higher risk for life-threatening COVID-19, the illness caused by the virus known as SARS-CoV-2. HIV-infected persons who have COVID-19 have an excellent prognosis, and

Table 8.2 Essential baseline laboratory studies for HIV-infected persons

HIV antibody test
CD4 T-lymphocyte cell count, HIV viral load
Urinalysis
HIV genotype resistance testing
Complete blood count and metabolic panel, urinalysis
Pregnancy test
Syphilis, chlamydia, and gonorrhea screening
Hepatitis B core antibody, surface antibody, and surface antigen; hepatitis C antibody
Varicella-zoster IgG, toxoplasmosis antibody
TB skin test or QuantiFERON blood test
G6PD, HLA-B*5701

Table 8.3 Immunizations for HIV-infected persons (refer to DHHS guidelines for specific details)

Tetanus, diphtheria, pertussis (Tdap)
Measles, mumps, rubella (MMR)
Hepatitis B
Influenza
Meningococcus ACWY
Pneumococcus PCV 13 and PPSV 23
Varicella
Zoster
Human papilloma virus (HPV)
<i>Haemophilus influenzae</i> type b (Hib)

Source: Recommended Adult Immunization Schedule by Medical Condition and Other Indications, United States, 2020. Retrieved from: <https://www.cdc.gov/vaccines/schedules/hcp/imz/adult-conditions.html> (CDC, 2020)

they should be clinically managed the same as those without HIV when making medical care triage determinations (DHHS, 2020).

ART is recommended for all HIV-infected persons, regardless of CD4 count, and should be initiated as soon as possible after HIV diagnosis. ART results in maximal and durable suppression of HIV viremia, thereby reducing HIV-related morbidity and mortality and decreasing the likelihood of HIV transmission both sexually and through IDU. Prompt initiation of ART decreases the chance that the patient will be lost to follow-up. Prior to initiating ART, all patients should be educated regarding the benefits of ART and the importance of optimizing adherence to prevent the selection of drug-resistant mutation. Patients should be informed that treatment is not a cure, and that treatment interruption will result in rebound HIV viremia, worsened immune function, and increased risk for opportunistic infections, malignancies, and death.

Current regimens for patients who are treatment naïve typically include two nucleoside reverse transcriptase inhibitors (NRTIs) paired with a third medication from one of three classes: an integrase strand inhibitor (INSTI), a non-nucleoside reverse transcriptase inhibitor (NNRTI), or a protease inhibitor coupled with a booster medication. There are numerous well-tolerated and highly effective regimens available that consist of one or two pills once daily. Initial and subsequent regimens should be selected by an HIV specialist taking into account each patient's treatment history, potential for drug–drug interactions, resistance patterns, and comorbidities. HIV cannot currently be cured, and treatment must continue without interruption indefinitely. Suboptimal adherence will result in recurrence of HIV viremia, immune deterioration, and the risk of development of resistance mutations that can complicate future treatment options. Management of HIV-infected inmates should be consistent with the most current guidelines as maintained by the US Department of Health and Human Services (DHHS, 2019a, 2019b).

HIV Education

The CDC recommends that HIV prevention efforts in prisons address common HIV risk behaviors such as male–male sex, injection drug use, and nonsterile tattooing (Wohl, 2006). HIV prevention programs must acknowledge that risky behavior occurs in correctional settings, and encourage inmates to engage in safer sex and avoid sharing needles both while they are incarcerated *and* after release from prison. Peer-led HIV risk reduction educational programs are well suited to the correctional environment. Culturally tailored HIV risk reduction activities can be more effective at sensitizing target populations to HIV/AIDS concerns and increasing the likelihood that targeted individuals are tested for HIV and discuss HIV/AIDS with friends (Rucker-Whitaker et al., 2006).

Although ART results in an undetectable HIV viral load in most inmates, release from prison is often associated with a deleterious effect on virologic and immunological outcomes (Stephenson et al., 2005). A study comparing incarcerated and reincarcerated HIV-infected patients on ART found that the majority of reincarcerated patients did not adhere to their medication on release from prison. A Texas study found that only 30% of HIV-infected prisoners filled a prescription for ART within 60 days of (Baillargeon et al., 2009).

Linkage to the Community

Planning for the transition of inmates to the community is essential for the successful reintegration of incarcerated persons and is associated with lower rates of recidivism during the first-year post-discharge (Trupin et al., 2004). Discharge planning programs may prevent treatment interruptions, facili-

tate housing and clinical care in the community, decrease the likelihood of reincarceration, and assist inmates to access job training, educational programs, and substance abuse treatment programs (Myers et al., 2005). When released, inmates should receive at least a 30-day supply of medications and an appointment with a community provider to minimize the likelihood of treatment interruption (Springer et al., 2004; Meyer et al., 2014; Wohl et al., 2016).

Because of the link between HIV infection and drug use, access to drug treatment programs is an essential component of correctional HIV care and planning for release into the community. HIV-infected persons who have substance use disorder have better HIV treatment outcomes if they are provided either opiate agonist therapy or extended-release naltrexone in a community HIV clinic after release from prison (Springer et al., 2012, 2018).

Conclusions

Correctional facilities provide a unique opportunity for HIV diagnosis, treatment, prevention, and harm reduction education. Successful interventions in jails and prisons improve the health of the incarcerated and are also key to interrupting the further spread of HIV in the outside community. Early diagnosis of HIV-infected persons followed by initiation of ART and prophylactic medications improves the health of patients, decreases HIV-associated deaths, prevents new infections, and is cost-effective.

Hepatitis C Virus (HCV)

Background and Epidemiology

An estimated 2.4 million people in the United States are chronically infected with hepatitis C virus (HCV), representing approximately 1% of all adults (Hofmeiste et al., 2019; Denniston et al., 2012). Prior to the discovery of HCV in 1989 and the subsequent implementation of both routine screening of blood products and effective disinfection practices, most infections were acquired during routine medical procedures. Currently, injection drug use (IDU) is the most common risk factor (Denniston et al., 2012). The CDC estimates that there were 41,200 new cases of HCV in 2016. The number of new cases more than tripled between 2010 and 2015, fueled in part by the ongoing nationwide opioid epidemic. Rates among young adults aged 20–39 increased rapidly between 2009 and 2017, due primarily to IDU (Gomes et al., 2018). Without diagnosis and treatment, HCV-infected individuals are at risk for progression to end-stage liver disease, liver cancer, and death. Those who are unaware of their infection can unknowingly transmit the virus to others.

In the 1990s, studies among the incarcerated found HCV seroprevalences of up to 40% (Ruiz et al., 1999; Alter et al., 1999; Vlahov et al., 1993; Spaulding et al., 1999). More recently, the national state prisoner seroprevalence of HCV infection was estimated to be 17.4–23.1% (Varan et al., 2014; Edlin et al., 2015). HCV prevalence among inmates varies significantly by state, ranging from 9.6% to 41% (Varan et al., 2014). Inmates represented an estimated 28.5–32.8% of the total US HCV cases in 2006, a decrease from 39% in 2003 (Varan et al., 2014).

Currently, there are over six million persons in jail, prison, or on probation or parole in the United States (Zeng, 2018). This represents 2.4% of all adults 18 years of age or older (Kaeble & Cowhig, 2018). Each year, over 11 million individuals pass through a jail or prison in this country. Over 90% of inmates are eventually released and re-enter the general population (Macalino et al., 2004) (Rich et al., 2014). Many if not most HCV-infected inmates have not been tested and are therefore unaware of their infection. (Spaulding & Thomas, 2012). An estimated one million persons with undiagnosed

HCV infection spend time in a jail or prison each year (Spaulding & Thomas, 2012; Rich et al., 2014). The high prevalence of HCV infection among the incarcerated population has enormous implications for the ongoing transmission of HCV both within correctional systems and in the communities to which inmates will one day return.

The primary mechanism for transmission is direct percutaneous exposure to infectious blood. Screening of blood products, deferral of donation from those who are infected, the routine use of HCV inactivation procedures in donated blood products, and improved infection control practices have led to a significant decline in HIV incidence in this country. People who inject drugs (PWIDs) continue to comprise the group with the highest incidence and prevalence of HCV in this country. Most PWIDs become infected with HCV within 2 years of first sharing needles and other injection materials (CDC, 2017a, 2017b; Murrill et al., 2002; Lorvick et al., 2001). There is no vaccine for the prevention of HCV infection.

During 2007–2009, approximately 58% of state prisoners and 63% of sentenced jail inmates met the DSM-IV criteria for drug dependence or abuse for one or more drugs (Bronson et al., 2017). This is approximately 12 times higher than the rate in the adult nonincarcerated general population (5%). Only 28% of prisoners and 22% of jail inmates who met the DSM-IV criteria for drug dependence or abuse reported that they received drug treatment or participated in a program while incarcerated. Among adults in the general population who met the DSM-IV criteria for drug dependence or abuse, 11% participated in a drug treatment program in the 12 months prior to being interviewed (Bronson et al., 2017). Most correctional systems do not provide comprehensive harm reduction programs. No US correctional facility participates in needle exchange, and proven drug treatment strategies such as methadone maintenance and buprenorphine are not available to the majority of inmates who might benefit from them. As a result, inmates remain at risk for HCV infection while incarcerated and post-release. An integrated approach to treatment of substance use disorders including medication-assisted therapy, facilitation of harm reduction strategies such as syringe exchange, and provision of treatment for HCV has the potential to interrupt the cycle of HCV transmission among PWID.

Sexual transmission of viral hepatitis can occur, although the risk is considered to be very low (Terrault et al., 2013). In spite of the fact that consensual and nonconsensual sex are illegal in all correctional systems, up to 30% of inmates admit to having been sexually active while incarcerated (Gaiter & Doll, 1996; Nacci & Kane, 1983; Tewksbury, 1989; Saum et al., 1995). Condoms are effective in preventing the transmission of sexually transmitted infections (NIAID 2001). Although the CDC recommends that condoms be provided in correctional settings, only three state prison systems (California, Mississippi, and Vermont) and five local jail systems (Philadelphia, Los Angeles, New York, San Francisco, and Washington, DC) make them available to inmates (CDC, 2003a; Wohl, 2006). Percutaneous exposures to blood during tattooing are common in correctional facilities. Receiving a tattoo in jail or prison is associated with HCV infection, even among those without traditional HCV risk factors such as IDU and blood transfusion prior to 1992 (Carney et al., 2013).

Prior to 1987 receipt of clotting factors for treatment of hemophilia was a recognized risk for HCV. Before the initiation of universal HCV screening in 1992, receiving a blood transfusion or a transplanted organ was also a significant risk. Currently, these risks are negligible in countries where routine screening of blood, clotting factors, and organ donors takes place.

Pathogenesis

HCV can be found in the blood 2–14 days after initial infection. Most primary infections are asymptomatic, with only 20–30% of newly infected persons experiencing signs or symptoms attributable to HCV. As a result, many of those with chronic HCV are not aware of being infected (Hoofnagle, 1997).

When acute symptoms do occur, they usually develop within 1–3 months after infection and last 2–12 weeks (Orland et al., 2001; Marcellin, 1999).

Symptoms attributable to primary HCV infection are usually mild and may include fatigue, myalgia, abdominal pain, anorexia, and jaundice (Orland et al., 2001; Marcellin, 1999; Hoofnagle, 1997). Approximately, one-quarter of patients will spontaneously clear the virus, usually within the first 6 months (Micallef et al., 2006). These individuals are left with a positive HCV antibody test, but no detectable HCV. They are not contagious and will not develop chronic sequelae of HCV infection (Liang, 2000; Thomas & Seeff, 2005). Although spontaneous clearance of HCV does not appear to prevent reinfection, it may provide some protection against persistent HCV reinfection (Grebely et al., 2012).

Approximately, three-fourths of infected persons develop chronic infection with persistent viremia (Liang, 2000, Thomas & Seeff, 2005). Most individuals who are chronically infected remain either asymptomatic or have non-specific symptoms such as fatigue, cognitive problems, or depression. This asymptomatic stage can last years or decades. During chronic infection, HCV enters hepatocytes. In response, the body mounts an immune response against the virus which results in the death of hepatocytes and the formation of fibrosis. In the absence of treatment, extensive fibrosis can develop, resulting in impaired blood flow through the liver and diminished liver function. Over time, these scarred fibrotic areas can merge, leading to an advanced stage of fibrosis referred to as cirrhosis. Untreated, up to one-third of those who have chronic HCV will progress to cirrhosis, end-stage liver disease, and premature death. Once cirrhosis develops, 1–5% of patients per year will develop liver cancer, while 3–6% per year progress to an advanced state of irreversible liver damage referred to as end-stage liver disease or decompensated cirrhosis (Liang, 2000; Thomas & Seeff, 2005; Westbrook & Dusheiko, 2014). Patients who develop decompensated cirrhosis can experience life-threatening complications such as bleeding esophageal varices, ascites, spontaneous bacterial peritonitis, hepatorenal or hepatopulmonary syndrome, and/or hepatic encephalopathy (Strader & Seeff, 1996; Seeff & Hoofnagle, 2002; Fattovich et al., 1997).

It is usually not possible to predict which patients will progress to more severe liver disease. Factors that have been associated with increased likelihood of progression include age >40, male gender, coinfection with hepatitis B and/or HIV, fatty liver, and/or daily intake of more than 4–5 units of alcohol.

Between 2005 and 2014, the number of HCV-associated hospitalizations in the United States increased by 190%. During this time, baby boomers (those born between 1946 and 1964) experienced a 67% increase in HCV-related hospitalizations. In US adults, end-stage liver disease due to chronic HCV is currently the most common indication for a liver transplant. In 2014, an all-time high 19,659 HCV-related deaths were reported in the United States, a 66% increase from the 11,849 deaths reported in 2005. In 2013, mortality due to HCV exceeded the total number of deaths from 60 other infectious diseases reported including tuberculosis, HIV, pneumococcal disease, and hepatitis A and B (Ngo-Metzger et al., 2017).

Liver disease has for the past 15 years consistently ranked as the third most common cause of death in corrections, behind only cancer and heart disease, and is responsible for approximately 10% of all in-custody deaths (Noonan, 2016). HCV-associated liver disease has surpassed HIV as cause of death among inmates (Spaulding et al., 2011, 2015). In the California Department of Corrections and Rehabilitation (CDCR), 32% of those who died in 2017 were HCV infected, and end-stage liver disease including liver cancer was responsible for 10.6% of all deaths (Imai, 2018). This compares to 1.8% of deaths among all American males during 2017 (CDC, 2017a, 2017b). Based upon a review of CDCR in-custody deaths, liver disease and liver cancer were the most common cause of potentially preventable death in 2017. Liver disease is a common cause of both hospitalizations and potentially preventable hospitalizations within the CDCR.

HCV Testing

Optional testing can be risk-based or routine, and either opt-in or opt-out. In risk-based testing, patients are screened for risk factors (for example, a reported history of injection drug use) and then only offered testing if they admit to having a risk factor. Risk-based testing misses up to 75% of those who are infected with HCV (Kuncio et al., 2015). With opt-in testing, all patients are offered testing regardless of risk factors, but the test is only performed if the patient responds affirmatively. Although opt-in testing identifies more cases than does risk-based testing, many actual infections remain undiagnosed. The most sensitive optional method for identifying those who are chronically infected with HCV is opt-out testing, in which all patients are informed that they will be tested for HCV unless they specifically decline. The Federal Bureau of Prisons has recommended opt-out HCV testing of all prisoners since October 2016. This approach is also recommended by the American Association for the Study of Liver Diseases (AASLD), the Infectious Diseases Society of America (IDSA), the US Preventive Services Task Force, and the World Health Organization (WHO, 2006a, 2006b; Moyer, 2013). Routine opt-out testing followed by HCV treatment has been shown to be cost-effective in terms of quality-adjusted life year (QALY) analysis, and to reduce HCV transmission, the development of advanced liver disease, and HCV-related death (He et al., 2016; Morris et al., 2017; Weiner & Linas, 2018; Assoumou et al., 2020). A modeling study concluded that routine HCV testing in prisons would lead to the diagnosis of up to 122,700 new HCV infections over the next 30 years, prevent as many as 12,700 new HCV infections, and result in 11,700 less deaths due to liver disease (He et al., 2016).

Although most jails and prisons do offer HCV screening, strategies vary across the country. In 2014, the American Correctional Association (ACA) and the Coalition of Correctional Authorities (CCHA) Research and Health Outcomes working group surveyed correctional health authorities from all 50 states, the nation's six largest jail systems, and the Federal Bureau of Prisons regarding HCV diagnosis and treatment. Responses were received from 41 prison systems, 3 jails, and 7 combined jail/prison systems. Ten percent reported that they did not test for HCV, 16% conducted mandatory screening of all inmates at intake, 69% screened based upon risk factors, and 69% tested based upon inmate request (Maurer & Gondels, 2015). In a separate 2015 nationwide survey of directors of the departments of corrections, 17 states reported offering routine opt-out HCV testing to all inmates. Of those without routine opt-out HCV testing, testing was offered based upon abnormal lab results, the presence of HIV infection, or a diagnosis of substance use disorder (Beckman et al., 2016).

HCV is diagnosed by a blood test for the presence of antibodies to HCV. A positive test for HCV antibodies represents either current or past infection with HCV, but by itself does not identify those who have active disease (Thomas & Seeff, 2005). In order to determine who has a chronic active infection, a second test is performed to identify hepatitis C viral RNA in the blood. Patients who have a positive HCV viral load 6 months or more after becoming infected have chronic infection and should therefore be evaluated for treatment. The most efficient strategy for diagnosing chronic HCV is to perform reflex testing in which an HCV viral load assay is automatically performed on the original blood sample if the antibody test is positive (AASLD). Reflex testing eliminates one additional clinical encounter and a second blood draw. Reflex testing also decreases the likelihood that patients will be lost to follow-up, a major contributor to failure to initiate treatment (Yehia et al., 2014).

In 2017, there were 10.6 million admissions to US jails (BOJ, 2017). The average length of stay in jail was 26 days, with a weekly turnover of 54%. This rapid turnover of patients in jails results in lost opportunities for the diagnosis of HCV, infrequent jail-based HCV treatment, and an increased likelihood of ongoing HCV transmission in the community (Rich et al., 2014). Although short stays may prevent most jail inmates from completing HCV treatment while incarcerated, routine opt-out testing

in jails followed by effective linkage to treatment in the community has the potential to significantly impact the epidemic. Studies in numerous states have shown that jail-based testing followed by community-based treatment can be highly effective (Schoenbachler et al., 2016; Akiyama et al., 2016; de la Flor et al., 2017; Beckwith et al., 2016; MacDonald et al., 2017).

HCV Education

All inmates should be educated regarding HCV, ideally through the use of complementary methods such as inmate to inmate peer training, clinician-provided education, and written informational pamphlets. In-house cable television systems have been used in jails and prisons with some success. Topics should include viral transmission, avoiding needle and drug paraphernalia sharing, and the routine use of barrier methods such as condoms during sex (CDC, 1998). Specific recommendations for those who are HCV-infected include not sharing toothbrushes or shaving equipment, covering bleeding wounds, and abstaining from the donation of blood, semen, body organs, and other tissues. Patients should also be educated concerning how to prevent further liver damage. Progression to cirrhosis and end-stage liver disease is more common in those who drink alcohol (more than 10 g/day for women and 20 g/day for men), those who are obese or have substantial hepatic steatosis, and those with HIV coinfection (Benhamou et al., 1999; Poynard et al., 1997; Harris et al., 2001; Koff & Dienstag, 1995; Di Martino et al., 2001). Concurrent hepatitis A virus (HAV or hepatitis B virus (HBV) infection in those who are chronically infected with HCV can lead to fulminant life-threatening disease. Therefore, nonimmune patients should be vaccinated for HAV and HBV. Some substances can potentiate liver disease, so patients should be advised to limit ingestion of nonessential medications and supplements. Inmates who have substance use disorder should be referred for treatment.

HCV Treatment

From 1997 to 2013, the only treatment available for HCV was subcutaneous interferon plus oral ribavirin for a duration of 24–48 weeks. This regimen resulted in a sustained virologic response rate (SVR) in less than 50% of patients and frequently caused serious side effects including severe flu-like symptoms, depression, and life-threatening anemia. In 2011, the first Direct-Acting Antiviral Drugs (DAAs) were approved for the treatment of HCV. These DAAs target specific HCV proteins essential for viral replication. The combination of DAA with interferon and ribavirin increased the SVR rate to 70%. Because of limited efficacy and significant side effects, it was common practice to defer treatment with interferon-containing regimens except for those with advanced disease who were at greatest risk for developing decompensated cirrhosis. Various staging systems were developed that used blood tests, liver scans, and/or liver biopsy to identify the patients for whom the risk–benefit ratio indicated that treatment was most appropriate.

A major development took place in 2013, with the approval of once-daily all-oral DAA treatment regimens that did not require interferon or ribavirin and resulted in SVR rates greater than 90%. Subsequently, compounds have been developed that are even more effective and extremely well tolerated. Currently, 8–12 weeks of treatment achieve cure in 95% of patients regardless of HCV genotype. As a result, national consensus guidelines currently recommend that all chronically infected patients receive treatment unless there is a major medical contraindication such as a very short life expectancy due to a non-liver-related illness (AASLD, n.d.).

Patients who achieve and maintain an SVR for at least 12 weeks after completion of therapy are considered to be cured of HCV. These individuals will continue to have HCV antibodies in their blood

but no detectable hepatitis C virus. Eradication of HCV results in an improvement in liver histology and function, a resolution of symptoms, a >70% reduction in the risk of liver cancer, a 90% reduction in the risk of both liver transplant and liver-related death, and a reduction in all-cause mortality. Patients who are treated earlier in the course of their disease are more likely to achieve an SVR and less likely to experience HCV-related liver cancer, ascites, jaundice, bleeding, encephalopathy, and death (Morgan et al., 2013; Van der Meer et al., 2012; Veldt et al., 2007). Patients who achieve an SVR are no longer contagious. Therefore, early treatment of HCV decreases the likelihood of transmission. IDU is responsible for most new infections in this country. As a result, rendering PWIDs noncontagious can significantly alter the course of the HCV epidemic. Patients with recent or ongoing IDU can be successfully treated and cured of HCV with comparable results to those who are not injecting drugs (Grebely et al., 2016; Dore et al., 2016; Grebely et al., 2012). Combining HCV treatment with needle exchange and medication-assisted treatment for opiate use disorder can be a highly effective method for both eradicating HCV and addressing the opiate epidemic. HCV-infected pregnant women are at significant risk for transmitting the virus to their unborn children. Curing women of childbearing age of HCV can eliminate the risk of maternal to fetal transmission.

Approximately, 25% of HIV-infected persons in the United States have chronic HCV, and up to 10% of those with chronic HCV may be HIV-coinfected (Alter et al., 1999; Sherman et al., 2002). As treatments for HIV have improved, liver disease has become an increasingly common cause of significant illness and death among those who are infected with HIV (Baham et al., 2002; Bica et al., 2001; Monga et al., 2001). Because of the high prevalence of HIV/HCV coinfection and because the management of each infection can differ in coinfecting persons, all HIV-infected persons should be tested for HCV, and all HCV-infected persons should be tested for HIV. HCV-infected persons who are coinfecting with HIV are at increased risk for liver fibrosis, cirrhosis, and death due to liver disease compared to those who are HIV-negative, and therefore benefit tremendously from HCV treatment (Bonacini & Puoti, 2000; Sulkowski, 2001; Serfaty et al., 2001; Ragni et al., 2003). Patients who are infected with both HCV and HIV should be managed in consultation with specialists knowledgeable in the treatment of coinfecting persons.

A 2014 national survey of correctional facilities discovered that although HCV treatment was available in 90% of prisons, most inmates did not receive it (Maurer & Gondels, 2015). A second national survey in 2014 revealed that of 106,266 HCV-infected prisoners in 41 states, only 0.89% received any HCV treatment (Beckman et al., 2016). All settings used some form of prioritization strategy based upon factors such as available funding, extent of liver fibrosis, presence or absence of cirrhosis, length of sentence, comorbidities, and/or ongoing HCV risk factors such as IDU. More recently, some systems have been more actively screening and treating inmates for HCV. In 2017, the California Correctional Health Care Services (CCHCS) of the CDCR implemented routine opt-out screening for HCV of all prisoners at reception centers and offering treatment with DAAs to all of those with chronic active HCV. In the CCHCS, a positive HCV antibody test triggers reflex hepatitis C viral load testing. Approximately, one-third of inmates in the CDCR are HCV antibody positive, while 10–20% are chronically infected as demonstrated by a positive HCV viral load. All HCV-infected patients within the CDCR are eligible for treatment regardless of the extent of liver damage or stage of fibrosis, history of substance use disorder, prior declination of HCV treatment, tattoo history, and presence of mental illness.

The CCHCS HCV Care Guide is based upon national guidelines established by the AASLD. Because of the large pool of HCV-infected inmates in the CDCR (approximately 18,000), it was initially necessary to prioritize treatment based upon risk for adverse outcomes related to delayed treatment. Patients with significant hepatic dysfunction and/or factors that made them more likely to develop cirrhosis and end-stage liver disease were offered treatment first. Those with minimal or no liver fibrosis were able to safely wait for treatment until the higher risk patients were treated.

Of the six different HCV genotypes, patients with genotype 3 tend to progress to advanced liver disease more rapidly and were initially prioritized for treatment. Each patient's age, liver enzyme test results, and blood platelet test results were used to calculate the FIB4 score, an estimate of the amount of liver fibrosis. FIB4 scores of less than 1.45 indicate minimal fibrosis and lowest initial risk for progression, while scores greater than 3.25 correlate with significant scar tissue/fibrosis and a high risk for advanced disease. FIB4 scores between 1.45 and 3.25 require additional testing with a fibroscan, a noninvasive ultrasound test that measures liver fibrosis. In addition to degree of fibrosis, other factors that contribute to risk group assignment include diabetes, obesity, coinfection with HBV and/or HIV, renal insufficiency, presence of HCV genotype 3, and extrahepatic manifestations of HCV such as vasculitis, glomerulonephritis, or cryoglobulinemia. Algorithms that rely solely on blood tests (such as the FIB4 or the aspartate aminotransferase: platelet ratio index, or APRI) are not sufficiently sensitive and therefore result in missing a significant number of patients who have advanced fibrosis. Accurate prioritization requires that additional testing such as the FibroScan be incorporated into the algorithm (Chou & Wasson, 2013).

Using this strategy, between July 1, 2017, and June 30, 2019, almost 8000 HCV-infected patients within the CDCR received treatment with over 95% being cured. The CDCR experience demonstrates that prisons can safely and effectively provide HCV treatment to many patients over a short period of time. Preliminary data have already demonstrated a decrease in HCV-related hospitalizations and deaths that can be attributed to routine screening and HCV treatment. Studies outside the correctional setting have demonstrated that routine screening and treatment are cost-effective and fall well within the generally accepted value of \$100,000 per quality-adjusted life year (QALY) (Weiner & Linas, 2018).

Currently, HCV treatment in the CDCR is provided by either onsite primary care providers who have received additional training in the treatment of HCV-infected patients or by headquarters-based telemedicine consultants. Although telemedicine results in similar outcomes as compared to in-person specialty care, many states are not yet using it (Maruschak et al., 2016). CDCR clinicians follow statewide care guides to evaluate HCV-infected patients at predetermined intervals and utilize standardized chart note templates and order sets to obtain the data necessary to make treatment decisions. A headquarters-based HCV oversight team selects the appropriate DAA regimen for each patient. All HCV medication is nurse-administered dose by dose to optimize adherence and ensure accurate documentation. Because the evaluation and treatment process is algorithmic and standardized, it lends itself to involvement by other clinical disciplines such as nurses or pharmacists. The CCHCS is in the process of launching an HCV treatment model utilizing nurse care managers working under protocols for the follow-up appointments. This and other innovative models of HCV treatment have the potential to vastly increase the number of incarcerated HCV-infected persons who receive lifesaving DAA treatment in a short period of time.

Due to the ongoing rapid evolution of HCV treatment, clinicians should refer to AASLD/IDSA consensus guidelines when selecting the most appropriate treatment regimen (AASLD, n.d.). Numerous HCV treatment regimens are currently available which are all oral, have a low pill burden and short treatment duration, and are safe, tolerable, and highly effective. High cure rates have been achieved in all patient cohorts including those who have HIV coinfection, substance use disorder, cirrhosis, end-stage renal disease, and patients who have failed prior HCV regimens. Treatment is simple, and for most patients specialist consultation is not necessary.

Pre-treatment evaluation remains important in order to identify those patients who have cirrhosis. The presence of cirrhosis impacts the selection of antiviral regimen, duration of treatment, and the need for ongoing clinical screening for varices and hepatocellular carcinoma. Pre-treatment assessment for degree of fibrosis is now most commonly performed noninvasively, utilizing a combination

of blood tests and elastography. HCV genotype can impact the selection treatment regimen, although pan-genotypic regimens are available for most patients.

Prior treatment with DAA can result in resistance mutations, and therefore resistance testing should be performed in treatment-experienced patients to help guide regimen selection. Drug–drug interactions can impact the selection of HCV regimen, especially in patients who are receiving opioid substitution therapy, antirejection medications, anticonvulsants, proton pump inhibitors, statins, antimicrobials, and antiretroviral agents. Careful review for potential interactions is essential prior to initiating therapy. The presence of advanced renal impairment can also influence the choice of HCV regimen, as can the presence of chronic active hepatitis B infection.

Some HCV-infected inmates will not complete treatment prior to being released. These individuals remain at risk for HCV-induced morbidity and mortality and have the potential for transmitting HCV both within the correctional setting and to community members after they are released. Therefore, it is essential that resources be dedicated to linking HCV-infected persons with PWID to community providers at the time of release.

Conclusions

Jails and prisons are high prevalence settings for chronic HCV infection, and inmates are disproportionately impacted by end-stage liver disease and hepatocellular carcinoma secondary to HCV. Safe, tolerable, and highly effective oral regimens are available that will cure most HCV-infected persons within 12 weeks. The national consensus standard is to provide opt-out HCV screening to all at-risk individuals, including inmates of jails and prisons, and to then offer treatment with DAAs to all those who have chronic HCV. Once cured, the risks for progressive liver diseases, cirrhosis, end-stage liver disease, liver cancer, and liver transplant are all eliminated and people are rendered noncontagious (AASLD, *n.d.*).

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Best Practices to Assuage COVID-19 Risk in Jails and Prisons

9

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Introduction

The 2019 novel coronavirus (SARS-CoV-2, which causes the disease COVID-19), has thus far (August 6, 2020) infected nearly 4.4 million people across the United States (CDC Covid Data Tracker, 2020). Approximately, 81,000 of those people are incarcerated in prisons (Covid Prison Project, 2020). Correctional settings and their residents have been disparately impacted by the virus, with a recent study from Johns Hopkins University indicating that infection rates are 5.5 times higher, and death rates 3 times higher, in prison facilities than in the general population (Saloner et al., 2020). Outbreaks are on the rise, as, according to the Covid Prison Project, 90 of the 100 largest clusters of COVID-19 in the United States can be found in prison and jail facilities (Covid Prison Project, 2020). Many of those incarcerated in prison facilities suffer from a conditions that increase the likelihood of severe illness and death due to COVID-19. Meanwhile, the facilities' built environments and poor sanitation practices inhibit residents from practicing social distancing and adhering to other precautionary and preventive measures recommended by the Centers for Disease Control and Prevention (CDC) (Kajstura & Landon, 2020). In order to stop the rapid, deadly spread of COVID-19 throughout prisons, efforts must be made to decarcerate via compassionate release and the elimination of cash bail. At the very least, mass testing, humane methods for medical quarantine and isolation, and vaccination, when available, must be instituted in prisons. Evolving policy and procedural changes must also be critically examined.

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Disproportionate Burden of Chronic Illness and an Aging Population

Many residents of prisons and jails have a higher burden of poor health outcomes, putting them at great risk for severe COVID-19 morbidity and mortality. Disparities in social and structural determinants of health disproportionately impact racial minorities, those experiencing homelessness, and persons with substance use disorders or mental illness, all of whom are more likely to be incarcerated due to mass incarceration's roots in racial inequities and discriminatory practices. People who are incarcerated also have a higher burden of poor health outcomes making them more likely to suffer severely from COVID-19 (García & Sharif, 2015). According to the Bureau of Justice Statistics, 43.9% of people detained in federal and state correctional facilities have experienced a chronic medical condition, compared to 31% of the general population (Maruschak et al., 2016). Specific conditions that disparately impact people in prisons and jails and pose an increased risk of severe illness in conjunction with COVID-19 include asthma, diabetes, hypertension, and human immunodeficiency virus (Saloner et al., 2020; Maruschak et al., 2016). Disparities in social and structural determinants of health disproportionately impact racial and ethnic minorities, those experiencing homelessness, and persons with substance use disorders or mental illness, all of whom are more likely to be incarcerated due to mass incarceration's roots in racial inequities and discriminatory practices (García & Sharif, 2015; Akiyama et al., 2020). People who are incarcerated also have a higher burden of poor health outcomes making them more likely to suffer severely from COVID-19 (Binswanger et al., 2012).

In addition, much of the US prison population is aging due to harsh sentencing policies. Specifically, 11% of those who are incarcerated (approximately 165,000 people) in US prisons are over the age of 55 (Li & Lewis, 2020). Meanwhile, eight out of ten COVID-19-related deaths in the United States have been of people over the age of 65 (Freed et al., 2020). This is all compounded by the reality that people may age faster in prison than in outside communities due to both histories of poor health and poor healthcare access as well as the psychological and physiological stress of carceral settings (Greene et al., 2018).

Built Environment Amplifies COVID-19 Risk

Essential to efforts to curb the spread of COVID-19 is the practice of social distancing. Unfortunately, social distancing is nearly impossible in prison and jail facilities, many of which are often overcrowded. In 2014, 18 states reported that they were operating correctional facilities overcapacity (McCarthy, 2018). This is unsurprising, as the US incarceration rate has grown by 500% over the past 40 years ("Criminal Justice Facts", 2020). Many residents of prisons also live in dormitory-style housing, sleeping, and using the restroom less than 6 feet apart from one another. The Centers for Disease Control and Prevention has advised that in order to prevent the spread of COVID-19 to this at-risk population, social distancing, quarantining, and medical isolation are necessary (Centers for Disease Control, 2020). Occupancy levels based on 2017 estimates place the US prison system at 99.8% of official capacity on average (World Prison Brief: USA, 2017; Kajstura & Landon, 2020). For example, lawsuits have been filed against California men's facility that was built to hold 80 people but was housing 129 in narrowly spaced bunk beds (Vansickle, 2020).

Correctional Setting Best Practices

Decarceration

To curb the spread of COVID-19 among those who are incarcerated, the number of people housed in correctional facilities must be reduced. Population reduction combats strain on the resources and space required to keep people who are incarcerated free from infection. This could be achieved through early, compassionate release of those already incarcerated or detained as well as through the elimination of the practice of cash bail.

Compassionate Release

Across the country, a variety of stakeholders are calling for their community members to be released from correctional facilities in light of COVID-19. Many have rightfully argued that being incarcerated during a global pandemic has become a form of the death penalty or equivalent to a death sentence (Eisen & Sangree, 2020). Activists in Miami Dade county called for the release of all people in jail who are incarcerated pretrial on bondable offenses or who have fewer than 60 days of their sentence remaining as well as for the issuance of a moratorium on new bookings and incarceratory sentences (Dream Defenders, 2020). Researchers are calling for the release or parole individuals who have a residential placement option in the community and are within 1–2 years of their release, or who have served the vast majority of their sentence (Dream Defenders, 2020).

Many states have already adopted policies to reduce the populations of their correctional facilities in light of COVID-19 (“Criminal justice responses to the coronavirus pandemic”, 2020). Specifically, 23, or 45%, of states have adopted some type of policy focused on expedited or early release (Covid Prison Project, 2020). In California, all residents of state prisons who are serving time for nonviolent offenses and who have less than 180 days remaining to serve are now eligible for supervised release. In addition, people who are scheduled to return to the community in the near term and who are medically vulnerable are also being considered for early release (“Criminal justice responses to the coronavirus pandemic”, 2020). Legislators and organizers in New Jersey are working to pass groundbreaking legislation that would reduce sentences by 4 months for each month served (up to 8 months) during public health emergencies (“Criminal justice responses to the coronavirus pandemic”, 2020).

However, many policies have not been carried out as promised. For example, in Louisiana, 1100 people were scheduled to be considered for release. The panel reviewing these cases was only operational for approximately 2 months, during which time only 600 people had their cases reviewed and only 63 people were released (“Criminal justice responses to the coronavirus pandemic”, 2020). In Pennsylvania, as of April 2020, 1800 people were expected to be impacted by new release policies related to COVID-19. In reality, only 150 people have been released as a result of these policies (“Criminal justice responses to the coronavirus pandemic”, 2020).

Early releases have also been plagued by racial disparities. In Illinois, during the first 3 months of the coronavirus pandemic, 43% of people who were released early were white, while only 32% of the prison population is white. In contrast, 46% of people who were released early were Black, while 54% of the prison population is Black (Rivera, 2020). Such disparities have also been present in the release of youth from juvenile facilities. A report by the Annie E. Casey Foundation revealed that, prior to the coronavirus pandemic, white youth were released from juvenile facilities at a rate 7% greater than Black youth. As of May 2020, white youth were released from juvenile facilities at a rate 17% greater

than Black youth (“Youth Detention Admissions Remain Low, But Releases Stall Despite COVID-19”, 2020). Compassionate release must be equitable.

While early release policies have sparked criticism and concern about the safety of surrounding communities, early data demonstrate otherwise. As of early July 2020, out of 1400 people who were released early due to coronavirus in New York, only 50 returned to jail, a recidivism rate of approximately 4%. Meanwhile, the average recidivism rate between 2001 and 2008 was 53% (Wells, 2020). In Illinois, 1000 people were released from Kane County Jail in response to COVID-19. Only 28 returned to jail, a recidivism rate of approximately 2%. Prior to the pandemic, Kane County Jail boasted recidivism rates close to 60% (Wells, 2020).

Ending Cash Bail

Common bail procedures currently discriminately punish those in poverty. The median felony bail bond amount is \$10,000, or the equivalent of 8 months’ income (Sawyer & Wagner, 2020). In addition, as detainment on cash bail can last anywhere from hours to months, the practice contributes to jail churn (the cycling of individuals in and out of correctional facilities) (Sawyer & Wagner, 2020). Jail churn, in turn, increases the risk that COVID-19 will be transmitted between correctional facilities and communities.

Baughman found that an additional 25% percent of defendants could be released pretrial without any increases to pretrial crime (Baughman, 2011). The study revealed that many counties could safely release older defendants, defendants with clean records, and defendants charged with fraud and public order offenses, all without threatening public safety (Baughman, 2011). Many police departments have also adopted “cite and release” policies for offenses that would have previously resulted in a jail booking (Surprenant, 2020). Cities across the country, including Baltimore, Los Angeles, Nashville, Philadelphia, and Portland, have issued statements indicating that they will no longer arrest, nor prosecute people for low-level offenses to limit population increases in correctional facilities (Miron & Partin, 2020).

Testing

Given that decarceration does not happen quickly, more widespread testing must be implemented rigorously within prisons and jails. Thus far, COVID-19 testing within prisons and jails has fallen into two broad categories: mitigation and surveillance. Mitigation strategies include robust testing efforts such as testing all new entrants and/or universal testing of all people who are incarcerated and staff. Surveillance strategies include public health surveillance (repeat testing for those at high risk due to exposure or health complications) or passive methods such as wastewater testing. For example, California has taken a public health surveillance approach, indicating that they are testing a representative sample that includes those at increased risk of both exposure and severe health complications from COVID-19 (i.e., elderly individuals), as well as engaging in repeat testing over time. Overall, California has administered 598 tests per 1000 incarcerated people (Covid Prison Project, 2020). Neither of these strategies is a panacea. While both mitigation and surveillance strategies are important, universal testing without repeat testing may miss outbreaks as they develop, and public health surveillance testing may miss asymptomatic carriers. Thus, it is important for facilities to conduct continual, comprehensive testing that includes both surveillance and mitigation strategies. To do this, states should partner with departments of health, political leaders, and policymakers to prioritize targeted and efficient administration of testing and contact tracing, as indicated by medical and public health professionals (Williams et al., 2020).

As of August 6, 2020, 10 states had yet to report any testing information regarding their correctional institutions (Covid Prison Project, 2020). Another 10 prison systems that have released testing information are testing fewer incarcerated people per 1000 than in their general populations (i.e., the “no testing” strategy). For example, Hawaii has tested only 63 incarcerated people, resulting in a testing prevalence of 15/1000. Other states in this category include Alabama, Illinois, Indiana, Louisiana, Mississippi, New Hampshire, New York, South Dakota, and Utah. (Covid Prison Project, 2020). These data are critical for understanding the prevalence of COVID-19. If states are testing very few incarcerated people, it is impossible to know the true impact of the virus on correctional facilities. Testing in these states must be improved upon.

Many states have started mass testing. 20 states (Alaska, Arkansas, California, Florida, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New Mexico, North Carolina, Rhode Island, Tennessee, Texas, Vermont, West Virginia, and Wisconsin) have administered more than 500 COVID-19 tests per 1000 incarcerated people. In these states, testing prevalence in correctional facilities surpasses that in the general population. Over the last few months, Maryland, Massachusetts, Michigan, Minnesota, New Mexico, Texas, Vermont, and Wisconsin have administered over one test per incarcerated person, indicating universal testing. However, some states claim to have expanded testing to all incarcerated people but, in reality, such expansion has been delayed or slowed. In Ohio, for instance, mass testing has been expanded in certain correctional facilities but not systematically throughout the state. Similarly inconsistent strategies have been implemented in Arizona and Florida. Arizona has administered more than one test per incarcerated person at its Phoenix and Safford facilities but few tests at many others (Covid Prison Project, 2020).

Ultimately, many correctional systems, even those that have not engaged in mass testing, have a testing prevalence per 1000 that exceeds that of the general population (Covid Prison Project, 2020). However, given that prison settings are congregant and have proven to be susceptible to outbreaks, testing rates must both increase and be continuous. Even in states that have been sites of devastating correctional outbreaks, testing remains inadequate.

In addition, even if testing has been scaled up for those who are incarcerated, information and policies regarding staff testing remain insufficient. Many states do not report staff testing or allow staff to self-report testing on a voluntary basis (Covid Prison Project, 2020). All long-term testing strategies must include testing of staff who move in and out of facilities and have community exposures to COVID-19 that they could transmit behind the walls of prisons and jails. With facilities closed to visitations, staff are the primary mode of entry into prisons and jails for COVID-19.

Medical Isolation and Quarantine

In the general population, both medical isolation and quarantine are recommended in certain circumstances to slow the transmission of COVID-19. In the context of correctional settings, medical isolation refers to isolating incarcerated people from the rest of the prison population when they show symptoms of or test positive for COVID-19. Quarantine refers to the separation or restriction of the movement of those that may have been exposed to COVID-19 until the results of tests confirm their COVID-19 status (Cloud et al., 2020). Unfortunately, in many correctional facilities, solitary confinement has been used as a mechanism through which to medically isolate and/or quarantine people who are incarcerated. The utilization of solitary confinement isolates individuals from their peers while simultaneously imposing penalties such as major restrictions on visitation, phone/video calls, recreation and outdoor time, and access to personal property.

Moreover, public health experts have argued that the use of solitary confinement as medical isolation and/or quarantine may actually worsen the spread of COVID-19 in prison facilities. Many people who are incarcerated may fear that if they show symptoms of the virus they will be placed in solitary confinement and thus choose not report feeling unwell. The use of solitary confinement and excessive lockdown also lessens the amount of time incarcerated people interact with prison staff, ultimately reducing the likelihood of symptoms being detected (Cloud et al., 2020). In addition, research has found that any exposure to solitary confinement is associated with an increased risk of death post-release, underscoring that it should only be used limitedly (Brinkley-Rubinstein et al., 2019).

In contrast to solitary confinement, it is recommended that those who are put in medical isolation as a result of COVID-19 be closely monitored by medical staff, have access to personal items and the telephone, be permitted to receive mental health services, and be advised exactly how long they will be isolated for (Centers for Disease Control and Prevention, 2020). It should be noted that the cells most often used for new COVID-19 medical isolation are the same cells that are commonly used to punish people and may still cause substantial psychological trauma and distress (Cloud et al., 2020). The collateral physical and mental health consequences of medical isolation, quarantine and lockdowns should be carefully considered and addressed. Clear delineation between solitary confinement and medical isolation will ensure that those who contract COVID-19 while incarcerated are not further punished, both mentally and physically, for circumstances beyond their control.

Vaccines

As the race to create and deploy vaccines to combat COVID-19 continues, people who are incarcerated and those who work in correctional facilities must not be forgotten. Decision-makers have discussed who ought to be prioritized during vaccine distribution. Conversations have thus far focused on a variety of groups, including healthcare providers, first responders, and pregnant people (Cohen, 2020). The comorbidities faced by people who are incarcerated, the built environment of correctional facilities, and the outbreaks that have thus far occurred in prisons and jails across the country suggest that those who are incarcerated should be prioritized in vaccine distribution.

Other Safety Measures

Per CDC guidance, best practices include reassigning and rearranging bunks to provide more space between individuals. The number of individuals housed in the same room should be minimized as much as possible. Ideally, there should be 6 feet or more between individuals in all directions. Bunks may be arranged so that individuals sleep head to foot to increase the distance between their faces. Facilities can also adjust scheduled movements to minimize the mixing of individuals from different housing areas (Centers for Disease Control and Prevention, 2020). The medical evaluation of individuals with COVID-19 symptoms should occur in a designated room near each housing unit so that they do not need to move through the facility in order to receive treatment. Additionally, there should be dedicated spaces within correctional facilities for the isolation of persons with confirmed or suspected COVID-19 who are not ill enough to warrant hospital transfer (Wurcel et al., 2020). If this is not feasible, facilities should consider staggering individuals' sick call visits (Centers for Disease Control and Prevention, 2020).

Policy Update

According to an evaluation conducted by the Covid Prison Project, there have been various policy and procedural responses from state departments of correction in an effort to curb the spread of COVID-19 and to provide relief to those who are incarcerated.

Some states have suspended medical co-pays for those who are incarcerated who are presenting flu-like symptoms (Covid Prison Project, 2020). Many facilities have publicly announced that they have curbed medical procedures and community health visits in an effort to prevent the spread of COVID-19, leaving prisons and jails to serve as the primary providers of health services for those who are incarcerated. However, many correctional facilities lack the medical supplies needed to treat people who get seriously ill from COVID-19, such as oxygen tanks, nasal cannulae, and oxygen face masks (Williams et al., 2020). Under these conditions, widespread community transmission of COVID-19 within a correctional institution is likely to result in a disproportionately high COVID-19 mortality rates.

Nearly all correctional facilities across the country suspended in-person visitation for incarcerated people in March of 2020 (Covid Prison Project, 2020). Many have also limited access to programming and various privileges. Some facilities have responded to this lack of connection with family, friends and legal counsel by instituting new technologies and supplementing costs. For example, correctional facilities have provided incarcerated individuals with a set amount of free phone calls and/or a set amount of free video calls (Covid Prison Project, 2020).

It should be noted that the success of implementing COVID-19 mitigation policies in correctional facilities is directly tied to access and availability of resources and labor. For example, many states require that all individuals who are incarcerated wear masks. However, as of April 2020, only 34 states reported providing masks to individuals who are incarcerated (Covid Prison Project, 2020). According to the Covid Prison Project, 34 states have reported bolstering their hygiene procedures, i.e., increasing access to hand sanitizer and/or soap (Covid Prison Project, 2020). However, some states have not done so, maintaining that those who are incarcerated should not have access to hand sanitizer due to its alcohol content (Tolan, 2020). In addition, many correctional facilities report instituting procedural changes, but use the substantially underpaid or unpaid labor of those who are incarcerated to enact such changes. For example, in many prisons, incarcerated individuals have been made to mass-produce masks (Covid Prison Project, 2020).

Finally, with employees acting as the bridge from correctional facilities to surrounding communities, it is essential to monitor staff health. Many facilities require monitoring employee symptoms, but different methods have varying levels of accuracy. 37 states require temperature checks as a screening precaution for staff (Covid Prison Project, 2020). Other employee policies range from general self-report, administration of screeners for symptoms, or, as previously noted, official routine testing (Covid Prison Project, 2020).

Conclusion

The issues of hyperincarceration and pandemic response, specifically COVID-19 response, have become increasingly interconnected. COVID-19 cases are highly concentrated in prisons and jails. Despite this, those who live and work in correctional facilities have received little attention and limited support, resulting in outbreaks, severe illness, and death. Progressive criminal legal system reform focused on decarceration methods, such as compassionate release and the elimination of cash bail, is necessary (Nowotny et al., 2020). Simultaneously, mitigation practices such as rigorous testing, social

distancing, humane medical isolation, and vaccination are critical to both determining the true prevalence of COVID-19 within prisons and jails and stopping its rapid spread. In addition, the COVID-19 pandemic has shed light on the relationship between prisons and jails and their surrounding communities. The virus is transmitted to prisons and jails through both staff and jail churn and, upon release, those who have been incarcerated return to communities that have been disproportionately impacted by COVID-19. Ultimately, COVID-19 poses a unique opportunity to revisit the issue of hyperincarceration in the United States, as decision-makers are forced to question the presumed health and safety of correctional facilities.

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Integrating HIV, Hepatitis, STI Prevention with Drug Education and Overdose Prevention for Incarcerated Populations: A Field Report

Barry Zack, Katie Kramer, Katie Kuenzle, and Nina Harawa

Introduction

Prevention works. Comprehensive health education and access to prevention tools can increase the likelihood that people will engage in healthy behaviors (Avert, 2019). Given that most prevention efforts require lower levels of effort and resources than treatment and care, they are also cost-effective. Prevention efforts for people who are incarcerated reach a population with an increased burden of disease and who are at increased risk of acquiring viral hepatitis, HIV, sexually transmitted infection (STIs), and tuberculosis (TB) while incarcerated and when they return home.

The increased burden of hepatitis, HIV, STIs, and TB among incarcerated populations has been well documented (Beyrer et al., 2016). As historic minimum sentencing policies are actualized within our criminal justice system, the prison population is aging with an increased burden of hypertension, heart disease, and diabetes, which further compounds HIV disease management for people living with HIV (PLWH) (Wang et al., 2017). Because most people in prison and jail have histories of substance use disorders and/or mental illness, addressing HIV and other medical comorbidities becomes even more complex (Al-Rousan et al., 2017).

In well-run systems, people in US prisons have universal access to medical care with minimal barriers to access (e.g., no co-pays or safety or privacy concerns). Their medical appointments are generally proximate to their housing, with easy access to clinical encounters and almost no self-initiated effort. Furthermore, medication doses are delivered or otherwise managed for patients. While efficient, these processes offer individuals little opportunity to develop agency over managing care and

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treatment for their own chronic conditions – skills they will need to manage their conditions post reentry (Harawa et al., 2017).

Community-based prevention and education efforts often fail to reach those at risk for incarceration, who are also among the people most at-risk for communicable diseases, substance use disorders, and overdose (Rubenstein et al., 2016). Even in communities that have invested heavily in prevention education about HIV/STIs, many people still require basic information, especially to address the various myths that still guide their perception of risk and modes of transmission. As incarcerated people often lack basic knowledge and may believe in myths about HIV, hepatitis, and STI transmission and treatment, knowledge-building education is a necessary precedent to behavioral skill-building and successful care engagement.

The vast majority of incarcerated people are released back to the community. Yet, too often, people are released from prison and jail with few, if any, resources. The immediate hours and days after release from custody can be chaotic and risky. Access to housing, income, medical, and social services often require a valid government-issued photo identification that many returning citizens no longer have. Discharge policies for those on medications while incarcerated vary across jurisdictions. People may be released with only a paper prescription, while others may be released with a 1- to 4-week supply of medication and others will be released with, at maximum, whatever medication was left in their blister pack on the day of their release. The federal “inmate exclusion” provision also means that many people are released without the Medicaid coverage they had at entry.

Finally, the risk of overdose and death is significantly increased for people within the first 2 weeks of their release (Binswanger et al., 2007). In this study conducted in the State of Washington, the overall risk of death for people within 2 weeks of release from prison was 12.7 times that of the free-world population of the same age, gender, and race. The risk of death specifically from overdose was 129 times that of similar residents.

Given the high level of risk for incarcerated people, the increased burden of disease within criminal justice systems, and the chaos of community reentry, providing a comprehensive health prevention program that integrates HIV, STI, and hepatitis prevention with drug and overdose prevention is in the best interest of both correctional and public health.

Providing Integrated Prevention Programs Within Correctional Facilities

Though most correctional facilities were not built for educational purposes (for one, space is a premium), prisons and jails are high-priority settings for comprehensive prevention programs that address myriad health topics about which this population has had limited exposure. From the basics of disease modes of transmission to the high risk of overdose upon release, prevention education can change behavior and save lives. In addition, education and prevention tools, such as naloxone (Narcan) upon release, support for treatment and medication management for those who are affected, and post-release linkages to community treatment and services are critical.

Many health topics warrant attention, including managing substance use and mental health disorders (including overdose prevention), sexual health, hepatitis, HIV, STIs, TB, and chronic conditions such as diabetes and hypertension, and medication management. Using a harm-reduction approach in concert with comprehensive screening and treatment, as appropriate, is most successful (Avert, 2019). This two-pronged strategy promotes early detection and reduces the likelihood of secondary disease transmission. Furthermore, there is no evidence that harm-reduction interventions contribute to increased drug use, unprotected sexual activity, or issues with jail or prison management and safety (McCuller & Harawa, 2015; IOM, 2006).

It is also critical that racial, ethnic, cultural, and gender identity be prioritized in all prevention education delivery. Given the disproportionate number of Black, Latinx, and Indigenous People of Color (BIPOC) and the overrepresentation of sexual and gender minorities within the US criminal justice system, cultural awareness and competency must be foundational for delivering all prevention education programming within correctional facilities.

Comprehensive hepatitis/HIV/STI prevention education addresses modes of transmission, prevention, access to treatment for newly identified cases, and vaccinations (when available) for those at risk. Prevention education should include information regarding safer sex, injection, and other drug use practices, pre- and post-exposure prophylaxis (PrEP and PEP), hepatitis/HIV/STI testing, and treatment options and benefits, including treatment as prevention. Pre- and post-release linkages should provide options for continuing care, treatment, screening, and social services both within the correctional facility and in the community after release. Finally, immediate-release planning that addresses competing life priorities is key during the period after release; services such as those outlined below help round out a comprehensive and integrated prevention program (Zack & Kramer, 2017; Bracken et al., 2015):

- Housing
- Income
- Official government-issued photo identification
- Overdose prevention/syringe services programs, including Narcan access
- Reconnecting with family and other social networks
- Conditions of probation and parole
- Mental health and substance use disorder treatment
- Male and female condoms

Methods to Inform Recommendations

The authors conducted a nationwide convenience sample survey of correctional facilities. Representatives from 11 jails, six departments of corrections (representing 23 prisons), and one unified jail/prison system responded to an online questionnaire and/or an oral interview. The respondents represented large, medium, and small correctional systems from a regionally diverse mix of locations, including six sites in the South, four sites in the West, four sites in the Northeast, and three sites in the Midwest. They represented programs in reception centers, general population, facility educational programs, pre-release units, and for people housed in various security levels. Some programs were available for people in the general prison/jail population, while other programs were tailored toward specific populations, such as people with opioid use disorders or PLWH.

The purpose of this information-gathering was twofold: (1) to learn what health education programs these jurisdictions were currently implementing, and (2) to gather aspirational information about what types of programs that jurisdictions would ideally implement by asking: “If resources, money and facility support weren’t an issue, what would you be doing for pre-release sex and drug use health education and prevention?” Gathering this information helped to provide a cross section of current practices to inform and build upon previous recommendations.

A summary of responses indicates that most programs offered educational programs addressing hepatitis, HIV, substance use disorders, overdose prevention, and post-release service linkages. Some programs implemented evidence-based multi-session interventions, others provided one-time educational sessions, while others distributed approved written educational materials. A small number of facilities

made condoms available throughout the facility, in special housing units, or upon release, and some provided Naloxone training during the prerelease time period. The authors also are aware of a small number of programs that make Naloxone available on release. Many facilities had specialized linkage-to-care programs for PLWH or for people on medication for opioid use disorder (MOAD), formally known as medication-assisted treatment (MAT), focusing on continuity of care. Of particular note, multiple programs have added new strategies for addressing opioid use through education on MOAD, Naloxone, and overdose prevention, highlighting a critical response to the current opioid epidemic.

Few programs were facilitated by peer educators, even though peer-based programs have demonstrated evidence of success in correctional settings (Kamarulzaman et al., 2016). Peers are able to deliver the necessary information in the language and culture of their peer group, meaning the information is understood and has cultural resonance. Instead, interventions generally were delivered by professional health educators or medical personnel.

Recommendations for Integrated Prevention Education in Correctional Facilities

Based on the information gathered, a literature review conducted to inform previous recommendations, and the authors' collective 80+ years of field practice and behavioral research in correctional settings, a set of recommendations were identified and categorized into four service domains: (1) Integrated Prevention Education; (2) Integrated Counseling and Testing; (3) Treatment as Prevention; and (4) Pre-release Planning and Linkages to Community Services Upon Release.

1. Integrated Prevention Education

- Provide comprehensive and integrated prevention education, including behavioral interventions that are made available to all incarcerated people.
- Incorporate health education into existing programs throughout a person's incarceration, for example, on entry, at facility transfer, during the course of incarceration, and during the critical period of prerelease preparation.
- Integrate information on infectious diseases, sex education, and overdose prevention into all prevention education efforts.
- Include information about pre- and post-exposure prophylaxis (PrEP and PEP) in all HIV prevention education.
- Utilize a peer-based system (where peers are formally trained, supported, and compensated) to provide education, training, and support that address knowledge, beliefs, and behaviors in a manner that is more trusted and credible than education provided by medical or custody staff or volunteers.
- Provide integrated prevention education, especially on sex and drug use communication for custody and medical staff, including information on the benefits of harm reduction approaches.
- Provide education to all staff (administrative, medical, and custody) and to those incarcerated on Prison Rape Elimination Act (PREA) policies and practices on an ongoing basis.
- Incorporate information on both stigma and trauma into all prevention education efforts.
- Use a harm reduction and sex-positive approach that is LGBTQ inclusive and gender-affirming, with all prevention education messaging.
- Adopt policies that prioritize public health for preventive practices such as condom availability, syringe services, Naloxone, and distribution of tattoo equipment cleaning materials.

2. *Hepatitis, HIV, and STI Counseling and Testing*

- Offer universal testing for HIV that is voluntary. Ensure that basic information on HIV and clear, transparent information about the ramifications of testing results (either positive or negative) within the correctional system is provided prior to testing. Ensure comprehensive post-test counseling for all who test HIV-antibody positive. While the CDC recommends universal opt-out HIV testing, we stop short of that because routine opt-out testing could be perceived as compulsory in many correctional settings.
- Collaborate with facility medical staff to provide unified messaging that encourages HIV, hepatitis, STI screening, and vaccinations (when available), delivering consistent general health messaging on drugs and sexual health.
- Implement universal screening for chlamydia, gonorrhea, and trichomonas for all women 35 years of age and younger and chlamydia for men younger than age 30. Implement cervical cancer screening for all women per US Preventive Services Task Force guidelines (Escobar & Plugge, 2020).
- Encourage medical staff to be involved in counseling and testing, using sex-positive health promotion messages that are LGBTQ inclusive and gender-affirming.
- Include information about drug and overdose prevention during HIV/hepatitis/STI counseling and testing.

3. *Treatment as Prevention*

- Provide comprehensive treatment for hepatitis/HIV/STI infections that includes ongoing monitoring of health status for all affected incarcerated people.
- Provide post-exposure prophylaxis (PEP) when medically indicated.
- Address stigma as it relates to treatment by increasing awareness through effective educational initiatives.
- Incorporate medication management education into all treatment plans, regardless of medication distribution practices within the correctional facility.
- Integrate treatment for substance use and mental health disorders into HIV/hepatitis/STI treatment plans as indicated.

4. *Prerelease Planning and Linkages to Community Supports Upon Release*

- Facilitate comprehensive prerelease prevention planning that includes assessment and case planning for competing life priorities such as housing, employment, personal identification, family connections, and managing conditions of probation or parole.
- Engage community case managers or systems navigators to work with individuals to develop comprehensive reentry plans that include proactive links to services prior to release and follow-up with people after release to ensure linkages to community services and supports as needed.
- Integrate established treatment plans for mental health, substance use disorders, and HIV or hepatitis, including MOAD and PrEP, into comprehensive reentry plans.
- Utilize a harm-reduction approach that emphasizes overdose prevention and includes training and distribution of Naloxone kits and condoms at the time of release for all individuals leaving correctional facilities.
- Hire and train peers to serve as community case managers, systems navigators, outreach workers, or mentors as much as possible (Woznica, 2021).
- Pre-screen community service and treatment providers for their capacity to work with people releasing from correctional facilities regarding eligibility criteria, insurance requirements, conditions of probation and parole, and other site-specific criteria prior to making reentry linkage referrals.

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Addendum

Nearly every State prison system (including local jails and the Federal Bureau of Prisons) has seen COVID-19 infection rates significantly higher than the communities around them. In facilities run by the federal Bureau of Prisons, one of every five incarcerated persons has had coronavirus. Twenty-four state prison systems have had even higher rates. From the earliest days of the pandemic, public health experts called for widespread prison releases as the best way to curb COVID-19 transmission behind bars. In October, the National Academies of Sciences, Engineering, and Medicine released a report urging states to release people from their prisons of anyone who were medically vulnerable, nearing the end of their sentence or of low risk to public safety (Wang et al., 2020).

Both the COVID-19 pandemic and the well-documented deleterious impacts of mass incarceration demonstrate that incarceration must reduce the numbers of people who circulate through these systems and to address the health risks faced by those housed in them. The same structural inequities that contribute to disparities in incarceration contribute to disparities in the health of those in custody. Addressing those health concerns is a moral imperative.

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Prevention and Control of Tuberculosis in Correctional Facilities

11

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Introduction

Tuberculosis (TB) is a contagious infectious disease caused by *Mycobacterium tuberculosis* and is a leading source of preventable morbidity and mortality worldwide (Maher & Raviglione, 2005). In 1993, the World Health Organization declared TB a global health emergency. Nearly two decades later, despite TB control efforts, TB remains a global health concern. An estimated two billion people, or one-quarter of the world's population, are believed to be infected with *M. tuberculosis* and are at risk for developing active TB disease during their lifetime. Annually, worldwide, approximately ten million people develop active TB and 1.4 million die from the disease. The ongoing human immunodeficiency virus (HIV) epidemic and the emergence of multidrug-resistant and extensively drug-resistant TB contribute greatly to the global burden of TB disease (CDC, 2006b, 2007).

TB is a major public health concern in correctional facilities throughout the world. Incarcerated populations are at disproportionately high risk for developing TB infection and disease compared to general populations (MacNeil et al., 2005; Hammett et al., 2002). Numerous TB outbreaks have occurred in correctional facilities, and transmission of TB from inmates to persons within such facilities has been well documented (MacIntyre et al., 1999; Jones et al., 1999; Valway, et al., 1994b; CDC, 2004b). Each year, over ten million ex-offenders are released from US prisons and jails, presenting significant public health challenges to the communities into which they are released (Prison Policy Initiative, 2019; Jones et al., 2003; Bur et al., 2003; Re-Entry Policy Council, 2003). This chapter is intended to provide an overview of current strategies and recommendations for the prevention and control of TB in correctional facilities, with an emphasis on discharge planning for soon-to-be-released inmates. The strengthening of TB prevention and control efforts worldwide is imperative if transmission of TB is to be prevented and elimination of TB is to be achieved (CDC, 1999a).

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Background

Etiology of Tuberculosis

M. tuberculosis is a member of the *Mycobacterium tuberculosis* complex, which also includes *M. bovis*, *M. africanum*, *M. microti*, and *M. canettii*. Each member of the complex can cause TB disease; however, *M. tuberculosis* is the most prevalent human pathogen of this group. *M. tuberculosis* is a slow-growing, intracellular, acid-fast bacillus (AFB), identified by nucleic acid amplification testing and culture. Though considered an obligate aerobe, *M. tuberculosis* can exist in anaerobic environments within its host (Barclay & Wheeler, 1989).

Transmission of Tuberculosis

M. tuberculosis is spread via airborne transmission. It is passed from person to person via airborne particles called droplet nuclei. When an individual with pulmonary or laryngeal TB coughs, sneezes, shouts, speaks, or sings, *M. tuberculosis* (tubercle) bacilli, located within these droplet nuclei, are expelled into the air. The droplet nucleus forms after the droplet is expelled and most of its water evaporates. Larger, heavier droplets (>5 µm in diameter) quickly settle out of the air, usually within 3 ft of the source. However, smaller droplets (1–5 µm in diameter) are lighter and can remain suspended, and infectious, in the air for hours or days and may be dispersed by air currents or ventilation systems. In healthcare settings, these infectious droplet nuclei can also be generated during aerosolizing procedures such as sputum induction, bronchoscopy, suctioning, irrigation, and autopsy (CDC, 2005a).

Transmission of *M. tuberculosis* occurs when air contaminated with infectious droplet nuclei is inhaled. Infection may occur, in a susceptible host, if inhaled bacilli within the nuclei reach the alveoli of the lungs. Fewer than ten tubercle bacilli may initiate a pulmonary infection (Sherris & Plorde, 1990). A single cough, talking for 5 minutes, or singing for 1 minute can generate 3000 infectious droplets; one sneeze can generate tens of thousands of such droplets (Todar, 2005). Persons at risk of exposure to and infection with *M. tuberculosis* include: close contacts of persons with TB disease; persons living with HIV or other immunosuppressive conditions; non-US-born persons from areas with a high incidence or prevalence of TB disease (i.e., any country other than the United States, Canada, Australia, New Zealand, or a country in Western or Northern Europe) or those who reside or travel (≥1 month consecutively) in such areas; and residents and employees of high-risk congregate

Table 11.1 Factors associated with high risk for tuberculosis infection or progression to active tuberculosis disease

High risk for tuberculosis infection (LTBI)	High risk for progression to tuberculosis (TB) disease
Close contact to a person diagnosed with infectious TB disease	Close contact to a person diagnosed with infectious TB disease
Born in a country with a high TB incidence ^a	Conversion of test for TB infection result ^c
Traveled or resided in a high TB incidence area ^a for 1 month or more consecutively	Immunosuppression
Live or work in settings where TB exposure may be possible: Healthcare facilities ^b Correctional facilities Homeless shelters Mycobacteriology laboratories	Human immunodeficiency virus infection
	Immunosuppressive therapy ^d Prolonged corticosteroid use (equivalent to prednisone ≥15 mg/day for ≥1 month) Use of other immunosuppressive medications (e.g., tumor necrosis factor-alpha inhibitors, Janus kinase inhibitors, interleukin receptor antagonists, chemotherapy, organ transplant medications)
	Some cancers (e.g., leukemias, lymphomas, head, neck, or lung cancers)

Table 11.1 (continued)

High risk for tuberculosis infection (LTBI)	High risk for progression to tuberculosis (TB) disease
Infants, children, and adolescents at risk (as above)	Previous tuberculosis disease
	Evidence of old, healed tuberculosis lesions on chest radiograph
	History of untreated or inadequately treated tuberculosis disease
	Certain clinical conditions or procedures
	Silicosis
	Diabetes mellitus
	End-stage renal disease
	Low body weight (10% or more below ideal body weight) or body mass index less than 18.5 kg/m ²
	Organ transplantation
	Gastrectomy
	Chronic malabsorption syndromes
	Jejunioileal bypass
	Substance use (i.e., injecting illicit drugs or smoking tobacco products)
	Infants and children younger than 5 years of age with a positive test for TB infection

Source: Modified from Centers for Disease Control and Prevention (2005d)

^aAny country other than the United States, Canada, Australia, New Zealand, or outside Western or Northern Europe, is considered a high TB incidence area

^bIncludes hospitals, long-term care facilities, and drug treatment centers

^cEither by history or evidence of conversion of TB test result (change from negative to positive interferon gamma release assay (IGRA) result or an increase of 10 mm or more in size of tuberculin skin test (TST) reaction) within a 2-year period

^dPersons with medical conditions which may require immunosuppressive therapy (e.g., rheumatoid arthritis, Crohn's disease, ulcerative colitis, ankylosing spondylitis, psoriasis) should receive a screening test for TB infection prior to initiation of the immunosuppressant agent(s)

settings including correctional facilities, long-term care facilities, and homeless shelters (CDC, 2005a) (Table 11.1).

The probability of TB transmission depends on three factors: the infectiousness of the person with TB, the environment in which exposure occurs, and the duration of exposure (Golub et al., 2001). Infectiousness of a person with TB is inferred from microscopic examination of sputum. Persons with TB disease who have large concentrations of tubercle bacilli in their sputum (i.e., if sputum is smear-positive) are more infectious than persons with smear-negative sputum. However, evidence of TB transmission from persons who are smear- or even culture-negative has been documented (CDC, 2005b). The environment in which exposure occurs plays an important role—crowded living or recreational spaces and inadequate ventilation can facilitate TB transmission. Likelihood of transmission after exposure to an infectious person is increased with greater frequency and duration of exposure; however, TB transmission after brief or casual encounters with infectious persons has also been documented, albeit rarely (Richeldi et al., 2004; Golub et al., 2001). In general, TB transmission is most likely to occur from persons with pulmonary or laryngeal TB who either are undiagnosed, are not on effective anti-TB therapy, or are not placed in respiratory isolation (CDC, 2005b).

Pathogenesis of Tuberculosis

There are three stages of TB: primary or initial infection with *M. tuberculosis*, latent or dormant *M. tuberculosis* infection, and reactivation or TB disease. The first stage, primary infection, occurs in a

susceptible person if inhaled tubercle bacilli reach the alveoli of the lungs and are engulfed by macrophages. Bacilli may survive initial attempts by the macrophages to destroy them and remain viable. These bacilli are transported by the macrophages to regional lymph nodes and, if not able to be contained, enter the bloodstream and widespread dissemination can occur. The most common site where the tubercle bacilli establish an infection is the upper portion of the lungs, but any organ system may also be involved.

The second stage, latent *M. tuberculosis* infection (LTBI), begins within 2–12 weeks of the primary infection. The tubercle bacilli multiply within the macrophages until they reach 10^3 – 10^4 in number, eliciting a cell-mediated immune response (American Thoracic Society, 2000). Macrophages and other immune cells are activated, creating granulomas and preventing further multiplication and spread of the bacilli. Though contained, the bacilli remain alive and dormant for long periods of time, maintaining the ability to reactivate at any time and cause TB disease (Wayne & Hayes, 1996). Persons with LTBI are asymptomatic and noncontagious; the only evidence of TB infection may be a positive interferon gamma release assay (IGRA) or tuberculin skin test (TST) (Table 11.2).

The third stage, TB disease, can occur at any time after infection. Primary infection can progress to TB disease without any intervening latent period, particularly in immunocompromised persons. Among persons with LTBI, disease occurs when latent bacilli reactivate and produce active symptomatic disease. The most common site of this reactivation is the upper portion of the lungs; however, any

Table 11.2 Differentiating between latent tuberculosis infection and active tuberculosis disease

Feature	Latent tuberculosis infection (LTBI)	Active tuberculosis (TB) disease
Infectious	No	Yes—persons with pulmonary or laryngeal TB
Symptoms/physical findings	None—does not feel sick	Usually has symptoms that may include: <ul style="list-style-type: none"> Cough that lasts 3 weeks or longer Chest pain Coughing up blood or sputum Weakness or fatigue Weight loss Decreased appetite Chills Fever Night sweats
IGRA or TST result	Usually positive ^a	Usually positive ^a
Chest radiography	Usually has a normal chest radiograph or evidence of previous healed infection	Usually has an abnormal chest radiograph with evidence of acute disease ^b
Respiratory specimens	Generally not obtained ^c	Usually positive; negative test does not rule out active TB ^d

Source: Centers for Disease Control and Prevention (2020a). <https://www.cdc.gov/tb/topic/basics/tbinfectiondisease.htm>

IGRA interferon gamma release assay, LTBI latent tuberculosis infection, TB tuberculosis, TST Mantoux tuberculin skin test

^aMay be nonreactive or negative in anyone, but especially persons with human immunodeficiency virus (HIV) or other immunosuppressive conditions and select conditions such as chronic renal failure

^bChest radiography may be normal in persons with advanced immunosuppression or extrapulmonary disease

^cRespiratory specimens are obtained only if ruling out active TB based on clinical suspicion, symptoms, or abnormal chest X-ray. If respiratory specimens are obtained and they are smear- and culture-negative, then LTBI diagnosis is considered

^dSputum smear or culture may be negative in persons with extrapulmonary disease or minimal or early pulmonary disease

previously infected site in the body can become involved. Persons with pulmonary TB disease usually are symptomatic, contagious, and have positive radiographic (e.g., chest radiograph) or diagnostic test (e.g., sputum culture) findings. However, absence of such findings does not exclude the diagnosis of TB disease and, particularly for extrapulmonary TB, a high index of suspicion must be maintained.

TB disease develops in individuals whose immune system does not successfully contain their primary infection. Certain factors are associated with increased risk of LTBI progressing to TB disease (Table 11.1). In general, persons with LTBI have approximately a 10% likelihood of developing TB disease during their lifetime; the risk is highest during the first 2 years after primary infection (American Thoracic Society, 2000). The greatest risk for progression is being immunocompromised; persons who are coinfecting with *M. tuberculosis* and HIV have an estimated 8–10% risk *per year* for developing TB disease (CDC, 1994, 1998, 2004a). Persons who use tobacco or inject illicit drugs may also have a higher risk for progression to TB disease (CDC, 2005a).

Progression from LTBI to TB disease can be reduced by up to 90% with completion of preventive antimicrobial therapy (Committee on Prophylaxis, International Union Against Tuberculosis, 1982). Once TB disease has developed, prolonged consistent multidrug therapy is required to achieve a cure. In the absence of effective treatment for TB disease, death can occur in up to two-thirds of cases (Dye & Floyd, 2006).

TB in Correctional Facilities

Worldwide, on any given day, an estimated 11 million persons are incarcerated in correctional facilities (Coninx et al., 2000; Walmsley, 2018). In the United States alone, the number of incarcerated persons has quadrupled over the past two decades to a census of over two million (Bureau of Justice Statistics, 2005; U.S. Department of Justice, 2004). Incarcerated populations are at disproportionately high risk for LTBI and TB disease compared to general populations (MacNeil et al., 2005). LTBI is present in 12–60% of inmate populations surveyed worldwide (Abrahamo et al., 2006; Saunders et al., 2001; Adib et al., 1999). TB disease (case) rates in correctional facilities can be up to 50 times the reported national rate (Laniado-Laborin, 2001); prison TB case rates in excess of 2000 cases per 100,000 persons have been reported throughout the world in countries such as Moldova, Malawi, Azerbaijan, Georgia, and Ivory Coast (Coninx et al., 2000). In the United States, the prevalence of TB disease is estimated to be at least 4–17 times greater in correctional populations than in general populations (Hammett et al., 2002). While TB case rates in the general US population have remained at <10 cases per 100,000 persons since 1993, rates as high as 184 cases per 100,000 persons have been reported in jails and prisons (CDC, 2006a). In some large US cities, 20–46% of persons with TB disease are ex-inmates of a jail (Jones & Schaffner, 2001; Hammett et al., 2002). In addition to high TB rates, there is considerable evidence of TB transmission within correctional facilities. Numerous outbreaks of TB, including multidrug resistant (MDR) TB, have been documented in jails and prisons worldwide (Coninx et al., 1998; Valway et al., 1994b; CDC, 1992b, 2003a). Limited surveillance for TB disease, delayed diagnosis and isolation, and high turnover of those with unrecognized TB have led to inmates transmitting TB to other inmates and correctional staff, as well as to persons in the community postrelease (MacIntyre et al., 1999; Jones et al., 1999, 2003; Valway, et al., 1994b; Bur et al., 2003; CDC, 2004b).

Several factors contribute to the high rate and transmission of TB among correctional populations. The physical environment of correctional facilities, such as crowded shared living and recreational spaces with inadequate ventilation, can facilitate TB transmission (Jones et al., 1999; Koo et al., 1997; MacIntyre et al., 1997; White et al., 2001). Duration of incarceration also plays a role; longer lengths of incarceration increase the risk of inmates acquiring TB infection (Bellin et al., 1993; Carbonara

et al., 2005; CDC, 2003a). Frequent inter- or intra-facility movement of inmates, common in most correctional facilities, may hinder completion of TB treatment and contribute to treatment failure, drug resistance, and transmission of TB (Cummings et al., 1998; Laniado-Laborin, 2001). Many incarcerated persons are at high risk for TB secondary to factors such as impaired immune status from HIV infection or therapy with immunosuppressive agents, malnourishment, tobacco use, or substance abuse (CDC, 1999b, 2000a; Laniado-Laborin, 2001). Persons with these factors may be more likely to acquire TB infection if exposed to someone with TB disease. In addition, incarcerated persons with TB who are undiagnosed prior to incarceration can transmit TB to other inmates, correctional employees, or members of the community if not diagnosed and properly treated within the correctional setting (CDC, 2006a).

Prevention and Control of TB in Correctional Facilities

The continued transmission of TB in jails and prisons throughout the world signifies a need for improvement in TB control efforts focused on correctional populations, both during incarceration and postrelease (Laniado-Laborin, 2001). For many incarcerated persons, the correctional setting may be the primary source of health information, intervention, and promotion. As such, correctional facilities have a unique opportunity and responsibility to address TB.

The prevention and control of TB in correctional facilities requires the implementation of a TB control program that ensures prompt disease detection, isolation, management, and release planning for infectious inmates. Effective programs include assigned personnel responsible for the program, a written TB control plan, periodic facility-specific TB risk assessments, continuing staff education, and collaborations with public health and community partners (Table 11.3). In addition, fundamental TB

Table 11.3 Characteristics of an effective tuberculosis (TB) control program

I. Assignment of responsibility
A. Assign responsibility for the TB infection-control program to qualified person(s)
B. Ensure that persons with expertise in infection control, occupational health, and engineering are identified and included
II. Risk assessment, TB infection-control plan, and periodic reassessment
A. Initial risk assessments
1. Obtain information concerning TB in the community
2. Evaluate data concerning TB patients in the facility
3. Evaluate data concerning interferon gamma release assay (IGRA) or tuberculin skin test (TST) conversions among staff in the facility
4. Evaluate data for evidence of person-to-person transmission
B. Written TB infection-control program
1. Select initial risk protocol(s)
2. Develop written TB infection control protocols
C. Repeat risk assessment at appropriate intervals
1. Review current community and facility surveillance data and IGRA or TST results
2. Review records of TB patients
3. Observe staff infection control practices
4. Evaluate maintenance of engineering controls
III. Identification, evaluation, and treatment of patients who have TB
A. Screen patients for signs and symptoms of active TB
1. On initial encounter in new admission/intake area
2. Before or at the time of admission

Table 11.3 (continued)

B. Perform radiologic and bacteriologic evaluation of patients who have signs and symptoms suggestive of TB
C. Promptly initiate treatment
IV. Managing persons who have possible infectious TB
A. Promptly initiate TB precautions
B. Place patients in separate waiting areas or TB isolation rooms
C. Give patients a surgical mask, a box of tissues, and instructions regarding the use of these items
V. Managing inpatients who have possible infectious TB
A. Promptly isolate patients who have suspected or known infectious TB
B. Monitor the response to treatment
C. Follow appropriate criteria for discontinuing isolation
VI. Engineering recommendations
A. Design local exhaust and general ventilation in collaboration with persons who have expertise in ventilation engineering
B. Use a single-pass air system or air recirculation after high-efficiency particulate air (HEPA) filtration in areas where infectious TB patients receive care
C. Use additional measures, if needed, in areas where TB patients may receive care
D. Design TB isolation rooms in facilities to achieve greater than or equal to 6 air changes per hour (ACH) for existing facilities and greater than or equal to 12 ACH for new or renovated facilities
E. Regularly monitor and maintain engineering controls
F. TB isolation rooms that are being used should be monitored daily to ensure they maintain negative pressure relative to the hallway and all surrounding areas
G. Exhaust TB isolation room air to outside or, if absolutely unavoidable, recirculate after HEPA filtration
VII. Respiratory protection
A. Respiratory protective devices should meet recommended performance criteria
B. Respiratory protection should be used by persons entering rooms in which patients with known or suspected infectious TB are being isolated, by staff when performing cough-inducing or aerosol-generating procedures on such patients, and by persons in other settings where administrative and engineering controls are not likely to protect them from inhaling infectious airborne droplet nuclei
C. A respiratory protection program is required at all facilities in which respiratory protection is used
VIII. Cough-inducing procedures
A. Do not perform such procedures on TB patients unless necessary
B. Perform such procedures in areas that have local exhaust ventilation devices (e.g., booths or special enclosures) or, if this is not feasible, in a room that meets the ventilation requirements for TB isolation
C. After completion of procedures, TB patients should remain in the booth or special enclosure until their coughing subsides
IX. Staff TB training and education
A. All staff should receive periodic TB education appropriate for their work responsibilities and duties
B. Training should include the epidemiology of TB in the facility
C. TB education should emphasize concepts of the pathogenesis of and occupational risk for TB
D. Training should describe work practices that reduce the likelihood of transmitting <i>M. tuberculosis</i>
X. Staff counseling and screening
A. Counsel all staff regarding TB infection and disease
B. Counsel all staff about the increased risk to immunocompromised persons for developing active TB
C. Perform IGRAs or TSTs on staff at the beginning of their employment, and repeat at periodic intervals
D. Evaluate symptomatic staff for active TB
XI. Evaluate staff IGRA or TST conversions and possible transmission of <i>M. tuberculosis</i>
XII. Coordinate efforts with public health department(s) and community partners

Modified from: Centers for Disease Control and Prevention (1994)

prevention and control activities in correctional facilities can be categorized as: (1) prevention of TB transmission using administrative controls, environmental controls, and a respiratory protection program; (2) screening for TB disease and LTBI; (3) treatment of persons with TB disease and LTBI; (4) collaboration between correction, public health, and community partners; (5) release planning; and (6) program evaluation (CDC, 2006a).

Preventing TB Transmission

Prevention of TB transmission in correctional facilities requires a strong infection control program that includes administrative controls, environmental controls, and a respiratory protection program (CDC, 2006a).

Administrative Controls

Administrative controls are measures designed to reduce the risk of exposure to persons with infectious TB disease and include the following: (1) assigning responsibilities for TB infection control to qualified persons; (2) conducting facility TB risk assessments; (3) developing and updating a written TB infection control plan for each facility; (4) implementing and evaluating effective work practices for managing persons with suspected or confirmed infectious TB; and (5) providing ongoing staff education and training (CDC, 2006a) (Table 11.3). Detailed guidance has been previously published (CDC, 2003b, 2005a, 2006a).

Environmental Controls

Exposure to *M. tuberculosis* within correctional facilities can be reduced through consistent and effective use of environmental controls, including: (1) general and local exhaust ventilation; (2) air cleaning methods; (3) airborne infection isolation (AII); and (4) environmental control maintenance (CDC, 2006a). These environmental controls are detailed in published guidelines for the prevention of TB in healthcare settings and for environmental infection control in healthcare facilities and can be used to educate staff and inform policies and procedures in correctional settings (CDC, 2003b, 2005a).

General and Local Exhaust Ventilation

General ventilation maintains air quality by two processes: (1) dilution and removal of airborne contaminants, and (2) control of the airflow direction and pattern within a facility (CDC, 2006a). Uncontaminated air is supplied into an area where the air is contaminated and the mixed air and contaminants are subsequently removed from the area by an exhaust system. The amount of ventilation in an area is expressed by the number of air changes per hour (ACH). Air within a correctional facility should flow to minimize exposure of others within the building to airborne contaminants and should comply with minimum outdoor air supply, ACH, and ventilation design guidance for correctional facilities (American Society of Heating, Refrigerating, and Air-Conditioning Engineers, 2003; CDC, 2006a) (Table 11.4). General ventilation that exhausts air directly to the outside is the most protective ventilation design and should preferentially be used in areas likely to contain infectious aerosols (CDC, 2006a).

Table 11.4 Ventilation recommendations for selected areas in correctional settings

Correctional area	Minimum total air changes per hour	Air movement relative to adjacent areas	All air exhausted directly outdoors ^a
Cell or dormitory housing unit	6	In	No
Airborne infection isolation (AII) cells	12	In	Yes
Anteroom to AII cell	10	Out/In ^b	Yes
Day rooms	6	Out ^c	No
Intake, holding, or processing area	12	In	Yes
Kitchen or food preparation area	6–10	In	Yes ^d
Laundry	10–12	In	Yes ^d
Visitation area	6	Out ^c	No
Courtrooms	6	Out ^c	No

Source: Modified from Centers for Disease Control and Prevention (2006a)

^aSingle-pass ventilation that directly exhausts air to the outside is the most protective ventilation design approach and should be used for areas likely to contain infectious aerosols

^bAnteroom pressurization should be designed to minimize cross-contamination between patient areas and adjacent areas and should comply with local fire smoke management regulations

^cThis determination should be made on the basis of the risk assessment conducted at each facility and whether a single-pass ventilation design can be used

^dExhausting all air from kitchens and laundry rooms to the outdoors is recommended for contaminant (not TB) and odor control

Although general ventilation dilutes the concentration of airborne particles, it does not contain them. Local exhaust ventilation (e.g., hoods, tents, booths) is a preferred source-control technique and is used to contain and remove airborne contaminants at their source and prevent their dispersion into the air. Local exhaust ventilation is often used during aerosol-generating procedures such as sputum induction and bronchoscopy. Such ventilation devices typically use hoods, which are of either exterior or enclosing types. Exterior devices are those in which the infectious source is near, but outside, the hood. Enclosing devices, the preferred type, are those in which the hood either partially or fully encloses the infectious source. Enclosing devices such as tents or booths should have sufficient air-flow to remove 99% of airborne particles during the interval between the departure of one patient and the arrival of the next (CDC, 2006a). The time interval required to achieve proper level of airborne contaminant removal from enclosing devices varies, in part, according to the ACH. The higher the number of ACH, the shorter the amount of time that is required for removal of contaminated air (Table 11.5). Air from hoods, booths, or tents may either be exhausted directly to the outside or released back into the room where the device is located. If air is not released directly to the outside, a high-efficiency particulate air (HEPA) filter should be used at the discharge duct or vent of the exhaust device to remove airborne particulates before the air is recirculated into the room (CDC, 1994).

Air Cleaning Methods

Air cleaning technologies are useful adjuncts to general and local exhaust ventilation and include mechanical air filtration (e.g., HEPA filters) to reduce the concentration of airborne contaminants and ultraviolet germicidal irradiation (UVGI) to kill or inactivate microorganisms so that they no longer pose a risk for infection (CDC, 2006a). Air removed from areas likely to contain infectious aerosols should be preferentially exhausted directly to the outdoors. If direct exhaust is not feasible, HEPA

Table 11.5 Air changes per hour (ACH) and time required for removal of airborne contaminants, by efficiency percentage

Air changes per hour	Minutes required for removal ^a	
	99.0% efficiency	99.9% efficiency
2	138	207
4	69	104
6	46	69
12	23	35
15	18	28
20	14	21
50	6	8

Source: Modified from Centers for Disease Control and Prevention (2006a)

Values apply to a room or enclosure in which: (1) the generation of aerosols has ceased (e.g., the infectious inmate is no longer present in the room), or (2) the aerosol procedure has been completed and the room or booth is no longer occupied. The times provided assume perfect mixing of the air in the space; removal times will be longer in areas with imperfect mixing or air stagnation. Caution should be exercised in applying the table to such situations, and expertise from a qualified engineer or industrial hygienist should be obtained

^aMinutes required for removal of airborne contaminants from the time that generation of infectious aerosols has ceased

filters should be used to clean the air before returning it to the general ventilation system. Whenever possible, such air should be recirculated into the same general area from which it originated. UVGI may also be used as a supplement to direct exhaust or HEPA filtration. UVGI can be used inside the ductwork of existing heating, ventilating, and air-conditioning systems or in the upper area of the room to be treated to ensure that organisms are inactivated. The effectiveness of UVGI depends on the UVGI lamp placement and intensity, air flow patterns and mixing, and relative humidity. Appropriate installation, maintenance, and monitoring of HEPA filters and UVGI equipment are essential. Additionally, staff and inmates should be educated about potential adverse effects of UVGI exposure such as skin erythema and photokeratoconjunctivitis (inflammation of the eye) (CDC, 2005a).

Airborne Infection Isolation

Inmates known or suspected of having TB disease should be placed in an AII room or cell that meets the design and specifications of an isolation room. AII rooms should have all three of the following characteristics: (1) negative pressure, such that the direction of the air flow is from the outside adjacent space (e.g., the corridor) into the room; (2) numerous ACH (12 ACH for new construction as of 2001; 6 ACH for construction before 2001); and (3) air that is directly exhausted to the outside, or recirculated through a HEPA filter (CDC, 1994). The use of personal respiratory protection is indicated for persons entering these rooms when caring for TB patients. Facilities without an AII room should refer inmates with suspected or confirmed TB to a facility that is able to provide such isolation and evaluate TB patients. If transfer to an alternative facility with an AII room is not available, the inmate should be temporarily housed in a room that has been modified to prevent the escape of infectious aerosols. Inmates may be discontinued from AII when infectious TB disease is considered unlikely and either: (1) another diagnosis is made that explains the clinical syndrome, or (2) the patient has three negative AFB sputum-smear results. Sputum samples should be collected 8–24 h apart with at least one being an early morning specimen. Inmates for whom suspicion of TB remains despite three negative AFB sputum-smear results should not be removed from AII room until they are on standard anti-TB treatment and are clinically improving. Inmates with confirmed TB disease should remain in AII until they have had three consecutive negative AFB sputum-smear results; have

received standard multidrug TB treatment for 2 weeks; and have demonstrated clinical improvement. Because transmission of drug-resistant TB can have dire consequences, facilities may choose to keep suspected or confirmed multidrug-resistant (MDR) TB cases in AII rooms until both negative smear and culture results are received (CDC, 2006a).

Environmental Control Maintenance

Environmental controls will fail if they are not appropriately operated and maintained. Improperly maintained AII rooms have been associated with transmission of TB within healthcare facilities (Ikeda et al., 1995; Kenyon et al., 1997). Correctional facilities should work with ventilation engineers and infection control personnel to ensure the proper design and ongoing maintenance of environmental controls. In addition, correctional facilities should schedule routine preventive maintenance that covers all components of the ventilation system, including air cleaning devices, to verify that environmental controls are operating as designed. Records of preventive maintenance and repairs should be carefully maintained (CDC, 2006a).

Respiratory Protection

All correctional facilities should develop, implement, and maintain a respiratory protection program. The program should include respiratory protection fit testing and training of all correctional employees who may potentially have contact with infectious or potentially infectious inmates. All staff working with infectious patients should be given respiratory protection to wear and be instructed on proper use. For most circumstances in correctional facilities, National Institute for Occupational Health and Safety-approved respirators (e.g., N95 or higher) should provide adequate staff protection (CDC, 2005a). Detailed guidance on respiratory protection has been published (CDC, 1999c; Garner, 1996). Personal respiratory protection is indicated for all persons who: (1) enter AII rooms, (2) transport infectious inmates, or (3) participate in aerosol-generating procedures (e.g., suctioning, sputum induction). Drivers or other persons who are transporting patients with suspected or confirmed TB disease in an enclosed vehicle should also wear N95 respirators. If the inmate has signs or symptoms of TB, consideration should be given to having the inmate wear a surgical mask during transport, in waiting areas, or when others are present (CDC, 2006a).

Screening for TB Disease and LTBI

Early identification, isolation, and treatment of persons with TB disease remain the most effective means of preventing TB disease transmission. Inmates with undiagnosed TB disease can expose other inmates and correctional staff, and, when released, can infect persons living in surrounding communities (Bur et al., 2003; Frieden et al., 1995; Jones et al., 1999, 2003; Mohle-Boetani et al., 2002; Stead, 1978). The primary goal of screening in a correctional facility is to detect TB disease and prevent transmission. The secondary benefit of TB screening is to find inmates with LTBI who are at higher risk of progressing to TB disease and could benefit from treatment (CDC, 2006a).

The type of screening recommended for a facility is determined by an assessment of the TB transmission risk within that facility. CDC guidelines define a facility's risk as being minimal or nonminimal (CDC, 2006a). A facility has minimal TB risk if: (1) no cases of TB disease occurred in the facility in the previous year; (2) it does not house substantial numbers of inmates with TB risk factors

(e.g., HIV infection); (3) it does not have significant numbers of inmates from areas of the world with high TB rates; and (4) employees of the facility are not otherwise at risk for TB. Any facility that does not meet these criteria should be categorized as a nonminimal TB risk facility. TB risk should be assessed at least annually, with assistance from the local or state health department (CDC, 2006a). A multipronged approach to TB screening is needed and, based on the context and inmate characteristics, includes TB history, symptom review, diagnostic testing (e.g., IGRA, TST, sputum smear and culture), chest radiograph, and a high index of suspicion.

TB History and Symptom Screening

All correctional facilities, regardless of TB risk level, should obtain a TB history from and conduct a symptom screening of all newly incarcerated inmates on intake. Inmates should be asked about history of and treatment for LTBI or TB disease (CDC, 2006a). In addition, all inmates should be asked about the presence of TB symptoms. Inmate issues such as acute drug withdrawal, mental illness, and fatigue at time of intake, as well as language or cultural barriers, may hinder obtaining a thorough history and symptom screening and should be addressed (Saunders et al., 2001).

Early symptoms of TB resemble other infectious respiratory illnesses such as influenza, acute bronchitis, or pneumonia. Symptoms include low-grade fever, chills, night sweats, fatigue, loss of appetite, weakness, or unintentional weight loss. In pulmonary TB, the most common form of disease, symptoms often include a prolonged cough (i.e., one lasting 3 weeks or more), production of sputum, hemoptysis (i.e., coughing up blood or blood-tinged sputum), or chest pain. Physical exam may include rales or signs of lung consolidation. In laryngeal TB, hoarseness or sore throat may be present. TB disease in the respiratory tract is associated with a high degree of infectiousness. Extrapulmonary TB, usually noncontagious, can involve virtually any organ system in the body.

Newly incarcerated inmates should not be housed with other inmates in general population until they have been adequately screened for TB disease. Inmates with symptoms suggestive of TB disease or with history of inadequate treatment for TB disease should be placed in an AII room until they receive a thorough medical evaluation (CDC, 2006a). AII rooms, formerly known as negative pressure isolation rooms, are single-occupancy rooms used for the isolation of persons infected with organisms spread via airborne droplet nuclei $<5 \mu\text{m}$ in diameter. If the facility does not have an AII room, the inmate should be transferred to a location that has one. The absence of physical findings does not exclude active TB disease and a high index of suspicion should be maintained. Evaluation for TB disease among those in whom it is suspected should include a test for infection (e.g., IGRA or Mantoux TST), a chest radiograph, and sputum examination for microscopy and culture for mycobacteria.

Interferon Gamma Release Assays

For nearly 100 years, the TST has been the only diagnostic tool available for the detection of TB infection in persons who have no symptoms or findings of TB (Pai 2005; Pai et al., 2005; Pai et al., 2006). Recently, IGRAs have been developed as an alternative and are now the preferred test for TB infection for all persons of ages 2 years and older, particularly in settings where the return rates for TST reading are suboptimal (Mazurek et al., 2010; American Academy of Pediatrics, 2018). IGRAs are a new class of diagnostic assays that measure interferon gamma released by T-cells after stimulation by selected antigens. For *M. tuberculosis*, these antigens include early secreted antigenic target (ESAT)-6 and

culture filtrate protein (CFP)-10, which are present in *M. tuberculosis* but absent from all bacille Calmette-Guérin (BCG) strains and most other non-TB mycobacteria (with the exception of *M. kansasii*, *M. marinum*, *M. szulgai*, and *M. goodii*) (Pai et al., 2004; Pai et al., 2006). Available data suggest that IGRAs have a higher specificity than TST and are at least as sensitive as TST for detection of TB disease (Pai et al., 2006). Laboratory-based test results are reported as: (1) positive (*M. tuberculosis* infection likely); (2) negative (*M. tuberculosis* infection unlikely but cannot be excluded); or (3) indeterminate, invalid, or borderline (depending on the specific IGRA). Advantages of IGRAs include: (1) only a single visit is required to obtain results; (2) result is unaffected by prior BCG vaccination; and (3) there is no boosting effect on future IGRA testing.

In correctional settings, IGRAs have a major advantage over the TST since IGRA results are laboratory-based and thus available even if inmates are released before receiving the results; inmates can request their IGRA results from the correctional facility at any time postincarceration. Additionally, in the event of recidivism, an inmate's IGRA result will be available at the correctional facility, precluding the need for redundant testing. Limitations of IGRAs include: (1) the need for phlebotomy; and (2) relatively high direct cost per test compared to the TST. However, correctional settings may find IGRAs to have operational benefits over the TST (Katyal et al., 2018). Comparisons of TST versus IGRAs have been extensively reviewed (Pai et al., 2005).

Two IGRAs are now commercially available worldwide: (1) QuantiFERON®-TB Gold Plus Test (QFT-Plus) (Cellestis Ltd, Carnegie, Australia) and (2) the T-SPOT™.TB (Oxford Immunotech Ltd, Oxford, UK). The QFT-Plus and T-SPOT™.TB can be used in all circumstances in which TST is currently being used (CDC, 2005c, 2010). A positive IGRA result suggests that infection with *M. tuberculosis* is likely; further evaluation is needed to rule out TB disease (e.g., chest radiography and other diagnostic tests as clinically indicated). Once TB disease is ruled out, a diagnosis of LTBI can be made and treatment options considered. As with a negative TST result, a negative QFT-Plus or T-SPOT™.TB result alone should not exclude the possibility of TB infection or disease and should be supplemented with medical history and other diagnostic tests as clinically indicated. An IGRA conversion is defined as a change from a negative to positive IGRA result within a 2 year period.

QFT-Plus

QFT-Plus results are reported as either “positive,” “negative,” or “indeterminate.” Quantitative data are reported for TB Antigen Tube 1 antigens (TB1; ESAT-6, CFP-10), TB Antigen Tube 2 antigens (TB2; ESAT-6, CFP-10, additional peptides), positive (Mitogen) control, and negative (Nil) control values. Both TB1 and TB2 antigen tubes contain the *M. tuberculosis* antigens ESAT-6 and CFP-10. The TB1 tube

contains peptides from ESAT-6 and CFP-10 that are designed to elicit cell-mediated immune responses from CD4+ T-helper lymphocytes. The TB2 tube contains additional peptides targeted toward cell-mediated immune responses from CD8+ cytotoxic T-cells, which have been shown to be more frequently detected in persons with active TB disease versus LTBI and may be associated with recent *M. tuberculosis* exposure.

A QFT-Plus result is positive if the Nil value is ≤ 8.0 IU/ml and either TB antigen tube minus Nil is ≥ 0.35 IU/ml and $\geq 25\%$ of the Nil value. A negative QFT-Plus result requires both antigen tubes minus Nil to be < 0.35 IU/ml, or ≥ 0.35 and $< 25\%$ of Nil value, and the mitogen minus Nil to be ≥ 0.5 IU/ml. Some QFT-Plus results may be indeterminate due to processing errors or the patient's inability to respond to either control. If the results of the QFT-Plus are indeterminate, repeat the QFT-Plus. If two different QFT-Plus specimens yield indeterminate results, clinical judgment is used to determine if the patient has likely TB infection (Table 11.6).

Table 11.6 Interpretation of QuantiFERON-TB Gold Plus (QFT-Plus)

Nil (IU/ml)	TB1 minus Nil (IU/ml)	TB2 minus Nil (IU/ml)	Mitogen minus Nil (IU/ml) ^a	QFT-Plus result	Report/interpretation
≤8.0	≥0.35 and ≥25% of Nil value	Any	Any	Positive ^b	<i>M. tuberculosis</i> infection likely
	Any	≥0.35 and ≥25% of Nil value			
	<0.35 or ≥0.35 and <25% of Nil value	<0.35 or ≥0.35 and <25% of Nil value	≥0.5	Negative	<i>M. tuberculosis</i> infection NOT likely
	<0.35 or ≥0.35 and <25% of Nil value	<0.35 or ≥0.35 and <25% of Nil value	<0.5	Indeterminate ^c	Likelihood of <i>M. tuberculosis</i> infection cannot be determined
>8.0 ^d	Any				

Source: Modified from Food and Drug Administration (2019)

Abbreviations used: *IU* international units, *ml* milliliters, *M. tuberculosis* *Mycobacterium tuberculosis*, *TB* tuberculosis

^aResponses to the mitogen positive control (and occasionally TB Antigens) can be outside the range of the microplate reader. This has no impact on test results. Values >10 IU/ml are reported by the QFT-Plus software as >10 IU/ml

^bWhere *M. tuberculosis* infection is not suspected, initially positive results can be confirmed by retesting the original plasma samples in duplicate in the QFT-Plus ELISA. If repeat testing of one or both replicates is positive, the test result is considered positive

^cRefer to package insert for possible causes (QuantiFERON-TB Gold Plus (QFT-Plus) Elisa [package insert]. Germantown, MD: Qiagen; 2017)

^dIn clinical studies, less than 0.25% of subjects had interferon gamma levels of >8.0 IU/ml for the Nil value

T-SPOT™.TB

T-Spot results are reported as “positive,” “negative,” “borderline,” or “invalid.” Quantitative data are reported for the Panel A (ESAT-6) and Panel B (CFP-10) TB antigens, positive (Mitogen) control, and negative (Nil) control spot counts. Results are interpreted by subtracting the spot count in the Nil control from the spot count in Panel A and Panel B. For a valid test, the Nil control has ≤10 spots; if Panel A or B minus Nil has ≤4 spots, then the mitogen must also have ≥20 spots for a valid result. T-Spot is the only IGRA test that gives a borderline result. T-Spot results may be invalid due to inappropriate blood storage conditions, delay in sample transport, patient specific conditions, or laboratory error. In the case of borderline or invalid results, repeat the T-Spot test. If two different T-Spot specimens yield borderline or invalid results, clinical judgment is used to determine if the patient has likely TB infection (Table 11.7).

Mantoux TST Screening

Historically, the TST has been the most common method for detection of TB infection. The Mantoux TST involves the intradermal injection of 0.1 ml of 5 tuberculin units (TU) of purified protein derivative (PPD) on the volar surface of the forearm. Multiple puncture tests (e.g., the tine test) and PPD strengths of 1 TU and 250 TU are not sufficiently accurate and should not be used (CDC, 2000b). In addition, energy testing, in conjunction with TST, is no longer recommended in the United States (CDC, 1996a, 1996b). The TST is read within 48–72 h after administration, and the transverse diameter of induration, not redness, is recorded in millimeters (mm). Based on the sensitivity and specific-

Table 11.7 Interpretation of T-SPOT.TB test results

Nil (spots)	Panel A minus Nil (spots)	Panel B minus Nil	Mitogen (spots)	T-SPOT.TB result	Comment
≤10	≥8	≥8	Any	Positive	8 spots or more in either Panel A-Nil or Panel B-Nil (Panel A-Nil or Panel B-Nil)
	5, 6, or 7	5, 6, or 7	Any	Borderline ^{a, b}	5, 6, or 7 spots (highest of Panel A-Nil or Panel B-Nil)
	≤4	≤4	≥20	Negative	Mitogen control has 20 spots or more and both Panel A-Nil and Panel B-Nil have 4 spots or fewer
			<20	Invalid ^{a, c}	Mitogen control has fewer than 20 spots and both Panel A-Nil and Panel B-Nil have 4 spots or fewer
>10	Any	Any	Any	Invalid ^{a, c}	Nil control has more than 10 spots

Source: Modified from Food and Drug Administration (2008)

^aRefer to package insert for possible causes (T-Spot.TB [package insert]. Marlborough, MA: Oxford Immunotec; 2012)

^bResults where the highest of the Panel A or Panel B spot count is such that the (Panel minus Nil) spot count is 5, 6, or 7 spots should be considered borderline (equivocal) and retesting by collecting another patient specimen is recommended (T-Spot.TB [package insert]. Marlborough, MA: Oxford Immunotec; 2012)

^cInvalid results should be reported as “invalid,” and it is recommended to collect another sample and retest the individual

Table 11.8 Criteria for determination of a positive tuberculin skin test result

≥5 mm	Persons who: Have had recent contact to someone with infectious TB disease Have HIV infection or other immunosuppressive conditions Have fibrotic changes on chest radiograph consistent with old TB disease Are currently taking certain medications that can cause immunosuppression, such as: Anti-TNF- α inhibitor treatment (e.g., infliximab, etanercept), JAK inhibitors, Interleukin receptor antagonists Medications after organ transplantation Steroids (equivalent to ≥15 mg of prednisone per day for ≥1 month)
≥10 mm	Persons who: Were born in OR traveled/resided ≥1 month consecutively in a country with a high TB incidence rate ^a Live or work in institutional settings where exposure to TB may be possible ^b (e.g., healthcare facilities, correctional facilities, homeless shelters, mycobacteriology laboratories) Have medical conditions associated with increased risk of progression to active TB disease, including: Silicosis Diabetes mellitus End-stage renal disease Gastrectomy Jejunioileal bypass Certain hematologic disorders (e.g., leukemias or lymphomas) Specific malignancies (e.g., carcinoma of the head, neck, or lung) Are younger than 5 years of age Inject illicit drugs
≥15 mm	Persons: At low risk for TB disease and for whom testing is not generally indicated

Source: Centers for Disease Control and Prevention (2020b). <https://www.cdc.gov/tb/publications/factsheets/testing/skintesting.pdf>

Abbreviations used: *HIV* human immunodeficiency virus, *JAK* Janus kinase, *mm* millimeters, *M. tuberculosis* *Mycobacterium tuberculosis*, *TB* tuberculosis, *TNF* tumor necrosis factor

^aCountries with high TB incidence rates include any country other than the United States, Canada, Australia, New Zealand, or a country in Western or Northern Europe

^bAs defined by local epidemiological risk and/or regulations. Healthcare facilities include hospitals, long-term care facilities, and drug treatment centers

ity of the TST and the prevalence of TB in different groups, three cut points have been recommended for determining a positive tuberculin reaction (Table 11.8). In the majority of cases, a TST result of 10 mm induration is considered a positive result for inmates and correctional facility staff (CDC,

2006a). However, an induration of 5 mm is a positive result for the following persons: persons living with HIV; recent contacts of a person with TB disease; chest radiograph consistent with prior TB disease; organ transplant recipients; persons receiving prolonged immunosuppressive therapy; and those with findings raising a high suspicion of TB disease. A positive TST result suggests that infection with *M. tuberculosis* is likely; further evaluation is needed to rule out TB disease (e.g., chest radiography and other diagnostic tests as clinically indicated). A negative TST result alone should not exclude the possibility of TB infection or disease and should be supplemented with medical history and other diagnostic tests as clinically indicated. A TST conversion is defined as an increase of 10 mm or more within a 2-year period (CDC, 2000b).

Persons who have a documented history of a positive TST or IGRA result or TB disease, or a reported history of severe necrotic reaction to tuberculin, should be exempt from a routine TST (CDC, 2006a). Pregnancy, lactation, or prior BCG vaccination is not a contraindication to receiving the TST. The same criteria for interpretation of TST results are used for BCG-vaccinated persons.

The TST is not particularly sensitive for TB disease and is highly nonspecific; its sensitivity ranges from 75% to 90% (CDC, 2006a) and may be lower in some populations. Asymptomatic persons who have a positive TST reaction should have a chest radiograph performed within 72 h after skin test is read (CDC, 2006a). Persons with either TB symptoms or history of TB exposure and a positive TST reaction should be promptly placed in an AII room for a diagnostic work-up and evaluated immediately.

Two-step testing can reduce the number of positive TSTs that would otherwise be misclassified as recent conversions and should be considered in persons who are likely to undergo future periodic screenings. Certain persons who were infected with *M. tuberculosis* years earlier exhibit waning delayed-type hypersensitivity to tuberculin. When they receive a TST years later, they may have a false negative result, though they are truly infected; however, this test stimulates the body's ability to react to future TSTs and result in a "boosted" reaction. When a TST is repeated and is positive, the results may be misinterpreted as a new infection (e.g., recent conversion). In two-step testing, persons whose baseline TST yields a negative result are retested 1–3 weeks after the initial test. If the second test is negative, they are considered not infected. If the second test result is positive, they are classified as having previous TB infection. Two-step testing may not be practical in jails, given the high turnover rates, but may be useful in prisons or as part of a correctional employee health program if IGRAs are not available.

Chest Radiograph Screening

Chest radiographs are essential in the evaluation of TB. Persons with LTBI may have chest radiograph findings that are normal or that suggest healed infection, such as granulomas or calcification. Persons with TB disease will commonly have lesions in the apical or posterior segments of the upper lobes, or in the superior segment of the lower lobes, of the lungs. Pulmonary cavities, atelectasis, or fibrotic scarring may also be evident. Rarely, chest radiographs may be normal in the presence of pulmonary TB, particularly in patients living with HIV and those with isolated laryngeal TB. Miliary TB will appear as diffuse, finely nodular lesions (~2 mm in size) on chest radiograph. Unilateral, or rarely bilateral, pleural effusion may be the only abnormality evident for pleural TB. Imaging techniques such as computed tomography or magnetic resonance imaging may assist in defining nodules, cavities, cysts, calcifications, or other lesions that are observed on chest radiograph.

Chest radiographs should be obtained for persons with TB symptoms or positive IGRA or TST results. Persons living with HIV, or those who are at risk for HIV but whose status is unknown, should receive a chest radiograph, regardless of IGRA or TST results, as these might be falsely negative. In facilities with on-site radiographic screening, the chest radiograph should be performed as part of intake and preferably be read by a physician within 24 h (CDC, 2006a). Inmates with chest radiographs consistent with TB disease should be promptly placed in an AII room and evaluated, regardless of IGRA or TST results.

Screening with chest radiographs can be an effective means of detecting new cases of TB disease at admission to a correctional facility, particularly in facilities with short lengths of stay or high-risk populations (e.g., HIV, intravenous drug use). Screening inmates with chest radiographs has been shown to increase the TB case-finding rate and enable quicker isolation of suspected TB cases when compared with TST or symptom screening (Jones & Schaffner, 2001; Layton et al., 1997; Puisis et al., 1996). However, universal chest radiography at one detention center was no more sensitive in the detection of active TB cases than routine symptom screen and TST; in addition, it led to an eight-fold increase in TB-related work-ups without detecting additional cases of TB (Saunders et al., 2001). Moreover, chest radiography screening does not assist in the detection of LTBI. The decision to implement universal chest radiography for TB screening is facility specific and should consider the following factors: local and facility TB epidemiology, suspected frequency of cutaneous anergy to skin testing among incarcerated population, lengths of stay, and cost-effectiveness (Saunders et al., 2001).

Initial TB Screening of Inmates

The following procedures are recommended for initial TB screening of inmates in all correctional facilities (CDC, 2006a). All inmates admitted to correctional facilities (minimal or nonminimal TB risk) should be evaluated on entry for symptoms of TB, preferably by healthcare staff. In facilities where custody staff conduct intake health screenings, trainings should be periodically provided on obtaining medical histories, identifying and referring inmates with TB signs and symptoms, and maintaining patient confidentiality. Any inmate with symptoms suggestive of TB should be promptly placed in an AII room and evaluated for TB disease. If the facility does not have an AII room, the inmate should be transferred to a facility that has one. All inmates admitted to a minimal TB risk facility should be evaluated for clinical conditions that increase the risk for TB infection or the risk for progressing to TB disease if infected (Table 11.2); persons with any of these conditions should undergo further screening with an IGRA, TST, or chest radiograph within 7 days of admission (CDC, 2006a). All inmates admitted to nonminimal TB risk facilities require screening with IGRA, TST, or chest radiograph within 7 days of admission (CDC, 2006a). Inmates with HIV or risk factors for HIV but whose status is unknown, regardless of IGRA or TST result, should receive a chest radiograph at admission to the facility.

If an inmate tests positive for TB infection by IGRA or TST, the provider must conduct further clinical and radiologic evaluation and rule out active TB disease before an LTBI diagnosis can be established or LTBI treatment can be initiated (Table 11.9). All persons who have a positive test for TB infection should be examined by a clinical provider and receive a medical history and physical examination, chest radiograph, and relevant laboratory testing if clinically indicated. In some instances, persons with a negative IGRA or TST should also receive a medical evaluation if TB disease is suspected.

Table 11.9 Recommended clinical evaluation based on test for tuberculosis infection results

Negative IGRA or TST	No further evaluation is needed unless indicated by clinical judgment (e.g., clinical suspicion of active TB, immunosuppression, new TB risk factor, live or work in high-risk setting)
Positive IGRA or TST	Rule out active TB disease with clinical evaluation, chest radiograph, and other diagnostics as clinically indicated
Indeterminate ^a or invalid ^b IGRA	Result could be due to error in specimen collection or laboratory processing or to the patient's reduced immune response to the TB antigens (i.e., anergy) Repeat the IGRA. If 2 separate specimens from a patient yield indeterminate or invalid results, do not repeat IGRA; consider medical evaluation and chest radiograph to rule out active TB
Borderline IGRA ^b	Indicates an uncertain likelihood of <i>M. tuberculosis</i> infection Repeat IGRA. If 2 separate specimens from a patient yield borderline results, do not repeat IGRA; consider medical evaluation and chest radiograph to rule out active TB

Abbreviations used: *IGRA* interferon gamma release assay, *M. tuberculosis* *Mycobacterium tuberculosis*, *TB* tuberculosis, *TST* tuberculin skin test

^aQFT-TB Gold Plus only

^bT-SPOT.TB only

Initial TB Screening of Correctional Employees

Correctional employees, such as officers or medical personnel, are at risk for occupational exposure to TB (Steenland et al., 1997). Correctional facilities should have an employee health program, or component of the overall TB control program, dedicated to prevention of TB among its staff. All new employees should have: (1) a medical history and physical exam; (2) IGRA or TST; (3) a chest radiograph if indicated; and (4) consideration for LTBI or TB disease treatment if indicated. Additionally, all regular visitors of nonminimal TB risk facilities, including volunteers or service providers, should be considered for TB screening (CDC, 2006a).

Periodic TB Screening

Two-step TST or single-step IGRA should be considered for the initial testing of all inmates and employees who will receive repeated testing as part of a periodic TB screening program (CDC, 2006a). Correctional facilities should strongly consider using two-step TST for long-term inmates, if TST is used. Routine screening of long-term inmates and correctional facility staff (e.g., custody and medical) should be incorporated into the TB control program (National Commission on Correctional Health Care, 2003a, b). Long-term inmates and all employees who have a negative baseline IGRA or TST result should have a follow-up evaluation at least annually, per facility, local, or state regulations. Inmates or employees with a history of positive IGRA or TST result should be screened for symptoms of TB disease; annual chest radiographs are not necessary for routine follow-up evaluations of infected persons (CDC, 2006a).

Treatment of LTBI and TB Disease

Treatment of TB and LTBI is a critical component of TB containment, both in correctional facilities and in the larger community. An untreated person with TB disease is estimated to infect 10–15 persons per year. Treatment of persons with TB and LTBI, particularly those with LTBI who are at high risk for progression to disease, can prevent secondary transmission to other inmates, correctional staff, or members of the community upon the inmates' release from the correctional facility.

Effective anti-TB treatment markedly reduces infectivity. Completion of an effective treatment regimen for TB disease is nearly always curative; without proper treatment, TB is often fatal. A completed regimen of treatment for LTBI can reduce the risk of progression from LTBI to TB disease by 90% (Committee on Prophylaxis, International Union Against Tuberculosis, 1982; Institute of Medicine, 2000).

The effectiveness of TB treatment is primarily determined by adherence to and completion of the treatment regimen (American Thoracic Society, 2003). Interrupted or incomplete treatment increases the risk of treatment failure, relapse of disease, and emergence of drug-resistant TB. Patients who often move residences or are residing in correctional facilities have a higher likelihood of defaulting on treatment (Cummings et al., 1998; MacNeil et al., 2005). The most effective method of monitoring treatment compliance is to use directly observed therapy (DOT). DOT involves watching as the patient swallows the medication. DOT can help diminish infectiousness, reduce risk for relapse, and help prevent the development of drug resistance (American Thoracic Society, 2003). DOT is the preferred treatment strategy for all persons with: (1) TB disease; (2) LTBI who are on intermittent therapy or are at high risk for progression to disease; and (3) recent contact of infectious persons with pulmonary TB.

All persons receiving treatment for TB disease or LTBI should: (1) undergo clinical monitoring at least monthly to screen for nausea, vomiting, abdominal pain, jaundice, or discolored urine; and (2) be educated about potential adverse effects of the drug(s) and the need to promptly discontinue treatment and seek medical evaluation if adverse effects occur. Certain populations, including individuals living with HIV infection, pregnant or postpartum females, persons with history of liver disease (or at risk for chronic liver disease), and regular users of alcohol (CDC, 2000b), initiating TB or LTBI treatment, should also receive baseline and subsequent periodic laboratory testing (e.g., measurement of serum transaminases).

Treatment of LTBI

Once TB disease is ruled out, LTBI can be diagnosed and treatment options can be considered. Updated treatment guidelines for LTBI have been recently published (Sterling et al., 2020). Short-course (3 or 4 month) rifamycin-based regimens are preferred over the longer (6 or 9 month) isoniazid monotherapy for treatment of LTBI due to higher treatment completion rates and lower risk of hepatotoxicity. Preferred LTBI treatment regimens include weekly isoniazid and rifapentine for 12 weeks, daily rifampin for 4 months, or daily isoniazid and rifampin for 3 months (Sterling et al., 2020) (Table 11.10). Two alternative treatment regimens for LTBI include 6 or 9 months of daily isoniazid monotherapy if rifamycin-based regimens cannot be used; isoniazid therapy, while efficacious, has higher toxicity and lower treatment completion rates than shorter rifamycin-based regimens (CDC, 2000b; Sterling et al., 2020) (Table 11.10). In HIV-positive individuals, the 6-month course of isoniazid should be offered only if the other regimens cannot be given. In addition, substitution of rifabutin for rifampin may be indicated in HIV-positive persons taking certain antiviral medications due to less frequent drug–drug interactions when rifabutin is used. LTBI treatment regimens must be modified if there is concern that the source of TB infection has drug-resistant TB disease. The appropriate treatment regimen should then be based on drug susceptibility results of the presumed source case (if known), coexisting medical conditions (e.g., HIV), and potential for drug–drug interactions. Consultation with a TB expert is advised if the known source of TB infection has drug-resistant TB. Combination therapy with rifampin and pyrazinamide had previously been recommended for treatment of LTBI; however, this regimen is no longer recommended due to subsequent reports of severe hepatotoxicity and death (CDC, 2003c).

Table 11.10 Common drug regimens for treatment of latent tuberculosis infection

	Adult dosage	Pediatric dosage	Interval, duration, administration, and completion criteria	Indications
Rifampin (RIF)	10 mg/kg (600 mg maximum)	15–20 mg/kg (600 mg maximum)	Daily for 4 months Self-administration <i>Completion:</i> 120 doses within 6 months	Preferred for persons of all ages May be used in persons living with HIV who are not taking antiretroviral therapy (ART) or who are taking ART with acceptable drug–drug interactions with RIF
Isoniazid (INH) and rifapentine (RPT)	<i>INH</i> Age 12 years and older: 15 mg/kg rounded up to nearest 50 or 100 mg (900 mg maximum)	<i>INH</i> Age 2–11 years: 25 mg/kg rounded up to nearest 50 or 100 mg (900 mg maximum)	Weekly for 12 weeks Directly observed therapy (DOT) preferred, but self-administration is acceptable <i>Completion:</i> 12 scheduled doses within a 16-week period	Can be used for persons aged 2 years and older May be used in persons living with HIV who are not taking ART or are taking ART with acceptable drug–drug interactions with RPT
	<i>RPT (based on person's weight)</i> 10.0–14.0 kg: 300 mg 14.1–25.0 kg: 450 mg 25.1–32.0 kg: 600 mg 32.1–49.9 kg: 750 mg ≥50.0 kg: 900 mg max			
Isoniazid (INH)	5 mg/kg (300 mg maximum)	10–20 mg/kg (300 mg maximum)	Daily for 6 months Self-administration <i>Completion:</i> 180 doses within 9 months	May be used for persons of all ages, but no longer a preferred regimen May be used if RIF or INH/RPT are contraindicated
			Daily for 9 months Self-administration <i>Completion:</i> 270 doses within 12 months	
	15 mg/kg (900 mg maximum)	20–40 mg/kg (900 mg maximum)	Twice weekly for 6 months Directly observed therapy (DOT) is required <i>Completion:</i> 52 doses within 9 months	
			Twice weekly for 9 months Directly observed therapy (DOT) is required <i>Completion:</i> 76 doses within 12 months	

Source: Modified from Sterling et al. (2020)

Visit aidsinfo.nih.gov for the latest guidelines and complete list of contraindicated medications

Treatment for TB Disease

Treatment regimens for TB disease must consider all clinical, radiographic, and laboratory results, including drug susceptibility testing. Treatment should be implemented in collaboration with local TB experts to select the appropriate regimen based on diagnostic results (American Thoracic Society, 2003). For most persons with TB disease, the preferred treatment regimen is an initial 2-month phase of rifampin, isoniazid, pyrazinamide, and ethambutol, followed by a continuation phase of isoniazid and rifampin for 4 or more months after drug resistance is excluded (Table 11.11). Persons living with HIV infection may require use of rifabutin rather than rifampin and may need more frequent dosing than HIV-negative persons.

Treatment for TB disease should use DOT until completion. Decision to stop treatment should be made in collaboration with TB experts from local or state public health departments and be based on clinical, bacteriological, and radiographic improvement and total number of anti-TB medication doses taken within a maximum period (American Thoracic Society, 2003).

Case Reporting

In the United States, all states require designated healthcare professionals, including those from correctional facilities, to report suspected or confirmed TB cases to their local or state health department. Suspected or confirmed cases among both inmates and correctional staff should be reported. This reporting is mandatory and should be conducted regardless of treatment status, even if an inmate has already been released or transferred from the facility (CDC, 2006a).

Table 11.11 Intensive and continuation phase drug regimens for culture-positive pulmonary tuberculosis (TB) caused by drug-susceptible organisms

Intensive phase		Continuation phase ^{1,2,3}		Comment
Drugs	Interval and duration	Drugs	Interval and duration	
Isoniazid Rifampin Pyrazinamide Ethambutol	7 days/week for 56 doses (8 weeks)	Isoniazid Rifampin	7 days/week for 126 doses (18 weeks) --- or --- 3 days/week for 54 doses (18 weeks with DOT) ⁴	Standard regimen for drug-susceptible TB disease
Isoniazid Rifampin ^b Ethambutol ^c	7 days/week for 56 doses (8 weeks)	Isoniazid Rifampin	7 days/week for 217 doses (31 weeks) ³ --- or --- 3 days/week for 93 doses (31 weeks with DOT) ^{3,4}	The continuation phase is extended to 7 months when PZA is excluded from the intensive phase for a total of 9 months of treatment This is the appropriate regimen for pregnant patients unless multidrug-resistant TB is suspected

Source: Adapted from Nahid et al. (2016), by permission of Oxford University Press on behalf of the Infectious Diseases Society of America. Please visit: <https://www.idsociety.org/practice-guideline/treatment-of-drug-susceptible-tb/>

¹Biweekly treatment regimens during the continuation phase are not recommended due to high rates of relapse

²For missed doses, extend treatment to make up the doses

³Patients with a positive culture at 2 months of treatment should receive a 7-month continuation phase regimen (31 weeks; either 217 doses daily or 93 doses 3 times per week)

⁴Not recommended for patients with HIV infection

Contact Investigations

The identification of a potentially infectious case of TB in a correctional facility should trigger a prompt public health response because of the potential for widespread TB transmission. TB contact investigations are initiated on a case-by-case basis with the goal of interrupting the transmission of *M. tuberculosis*. TB transmission is prevented by: (1) promptly isolating and treating persons with TB disease; and (2) identifying infected contacts of such persons and providing them with treatment for LTBI. Decisions involved in initiating, planning, and prioritizing contact investigations are complex; a multidisciplinary team of trained professionals, including infection control, medical, nursing, custody, and local or state public health staff, should be convened to plan and conduct the investigations (CDC, 2006a).

Contact investigations should be initiated for the following conditions: (1) suspected or confirmed pulmonary, laryngeal, or pleural TB with cavitary disease on chest radiograph or positive AFB smears (on sputum or other respiratory specimens); and (2) suspected or confirmed pulmonary or pleural TB with negative AFB smears and a decision has been made to initiate TB treatment. Contact investigations generally are not indicated for extrapulmonary TB (excluding laryngeal and pleural TB) unless pulmonary involvement is also diagnosed.

The following steps should be used for contact investigations. Once an inmate with suspected or confirmed TB disease (source patient) is identified, local public health authorities and correctional management officials should be notified. The source patient should be interviewed and medical records should be reviewed to collect information on: (1) TB exposure history and symptoms; (2) date of illness onset; (3) results of diagnostic testing for TB; (4) dates and location of housing, employment, and education within the facilities; and (5) names of contacts (both in the correctional facilities and community). The infectious period for the source patient should be determined. The infectious period is typically defined as 12 weeks before the TB diagnosis was made or the onset of TB symptoms (whichever is longer). The presumptive infectious period can be reduced to 4 weeks preceding the date of diagnosis if the source patient is asymptomatic, is AFB smear negative, and has a noncavitary chest radiograph (CDC, 2006a). All living, working, and recreation areas of the source patient within the facilities should be toured to characterize the ventilation system and airflow direction. Contact lists should be developed, grouped according to location (e.g., incarcerated, released, transferred), and prioritized according to duration and intensity of exposure to the source patient (e.g., high, medium, low priority); local public health staff can assist in the prioritization of contacts (CDC, 2005b).

Contact investigations should focus on identifying the contacts at highest risk for TB transmission, screening them completely, and providing them with a complete course of LTBI treatment if they are infected. Persons with the most exposure to the source patient and HIV-positive or immunocompromised persons (regardless of duration of exposure) are of the highest priority. Medical charts should be reviewed for all high-priority contacts to determine TB-exposure history and symptoms. Baseline IGRA or TST should be performed on all eligible contacts (e.g., excluding those with prior positive tests or those who were tested after 1–3 months of exposure). All HIV-positive contacts should be evaluated for TB disease and LTBI regardless of IGRA or TST result; LTBI therapy should be initiated once TB disease has been excluded (CDC, 2005b). Public health authorities should be notified about contacts who have been transferred to another correctional facility or released to the community so that they can be screened. Follow-up IGRA tests or TSTs should be performed 8–10 weeks after exposure to the source patient has ended. Decision to expand the contact investigation beyond the high- and medium-priority contacts should be based on calculated infection rates (e.g., total number of inmates whose IGRA or TST has converted from negative baseline to positive should be divided by the total number of inmates with an IGRA performed and TST placed and read) and should be com-

pared with infection rates among nonexposed inmates. The contact investigation team should analyze infection rates both at baseline and follow-up to determine the need for expanding the investigation. Once the contact investigation is completed, the investigation team should prepare a summary report of the methods, results, and follow-up plans of the investigation. Reports should be shared with correctional and public health authorities. Detailed guidelines for conducting contact investigations have been published (CDC, 2005b).

Drug Susceptibility Testing

Initial isolates from persons with positive smears or cultures for *M. tuberculosis* should be tested for susceptibility to anti-TB drugs (CDC, 1992c). Drug susceptibility testing is imperative for choosing effective TB treatment regimens. Delays in susceptibility testing result in a longer duration of ineffective treatment and prolonged infectiousness. Susceptibility testing should be repeated if positive sputum smears or cultures persist despite 3 months of anti-TB drug therapy or develop after a period of negative sputum test results. Drug resistance should be reported to the TB control program at the local or state health department, and consultations with TB experts should be made to select a treatment regimen for drug-resistant TB.

MDR TB, defined as resistance to at least isoniazid and rifampin, emerged globally over the past three decades, creating a major challenge to TB management, including in correctional facilities (CDC, 1992a, 2006b; Valway et al., 1994a). MDR TB outbreaks in prisons have been documented worldwide and have resulted in the spread of MDR TB beyond the confines of correctional facilities into the community (Coninx et al., 1998; Valway et al., 1994a). Treatment of MDR TB requires the use of second-line drugs that are less effective, more toxic, and costlier than first-line isoniazid- and rifampin-based regimens (American Thoracic Society, 2003).

Ineffective treatment of persons with TB disease (e.g., insufficient quality, quantity, or duration of medications) may lead to the progressive development of drug resistance, including extensively drug-resistant (XDR) TB. XDR TB has recently emerged as a worldwide threat to TB control and is characterized by a predilection for immunocompromised persons, high mortality, and limited treatment options (World Health Organization, 2006). XDR TB is defined as resistance to isoniazid and rifampin (MDR TB), plus resistance to any fluoroquinolone and at least one of three injectable drugs (i.e., amikacin, kanamycin, or capreomycin). In the United States, approximately 4% of MDR TB is XDR TB (CDC, 2006b). In the industrialized nations of Australia, Belgium, Canada, France, Germany, Ireland, Japan, Portugal, Spain, Britain, and the United States, XDR TB increased from 3% of drug-resistant TB cases in 2000 to 11% in 2004 (CDC, 2006b). During 1993–2002, patients with XDR TB in the United States were 64% more likely to die during treatment than patients with MDR TB (CDC, 2006b). Ensuring appropriate, uninterrupted continuity of directly observed TB treatment both within and outside of correctional facilities is of utmost importance in the prevention of drug resistance.

Comprehensive Release Planning

Comprehensive release planning for soon-to-be-released inmates, or reentrants, with TB infection or disease is an essential component of TB control efforts, both within correctional facilities and in the communities to which inmates return (Hammett et al., 1998). Comprehensive release planning includes: (1) medical discharge planning; (2) transitional planning related to the social determinants of health; and (3) security-related release planning. Effective release planning facilitates improved postrelease utilization of medical services (Frieden et al., 1995) and reduced recidivism (Flanigan

et al., 1996). In addition, continuity of care postrelease is imperative for reducing secondary TB transmission and preventing the development of drug resistance (Glaser & Greifinger, 1993). Failure to complete a diagnostic evaluation for TB disease can result in undiagnosed reentrants exposing their families, friends, and community members to TB. Treatment interruptions or cessation before completion can also have serious consequences. Individuals with LTBI who do not complete their treatment are at risk for developing TB disease, particularly if they are coinfecting with HIV or have other risk factors for progression. Inmates with TB disease who are unable to complete their treatment regimen are at risk for developing drug resistance and relapsing to symptomatic and infectious disease. Recidivists with incompletely diagnosed or untreated TB disease can reintroduce TB into a correctional facility upon admission and place other inmates and correctional staff at risk. Thus, case management and release planning efforts must be made to ensure timely completion of TB diagnostic evaluation and treatment both during and after incarceration, to prevent potential health risks to both reentrants and the larger community.

Correctional facilities should conduct prerelease case management and release planning for all inmates with suspected or confirmed TB disease and those with LTBI who are at high risk for progression to TB disease (CDC, 2006a). For inmates with LTBI who are at low risk for progression to TB disease, correctional facilities should collaborate with appropriate public health agencies to develop feasible release planning policies. Regardless of risk of progression, all inmates with LTBI who are started on TB preventive therapy during incarceration should receive discharge and transitional care planning to ensure uninterrupted treatment after release.

Correctional facilities should have designated staff assigned to conduct TB-related release planning and to notify the appropriate public health agency of inmates with suspected or confirmed TB disease and inmates receiving treatment for LTBI or TB disease (CDC, 2006a). Designated staff may be correction personnel, medical or administrative staff working in the facility, or public health department staff that work on-site. Such personnel should also be responsible for communication with other correctional facilities or community service providers if inmates are transferred or released mid-TB evaluation or treatment. Correction and medical staff within correctional facilities should work with the designated release planning staff to develop timely and thorough release plans. Planning should address TB diagnosis and treatment efforts begun in jails or prisons and provide for their continuation postrelease. Correctional facilities should ensure that their release planning process is comprehensive, is tailored to the needs of the individual, and is conducted in collaboration with public health and community partners.

Collaboration Between Correction, Public Health, and Community Partners

Both effective TB case management and release planning require and benefit from collaboration between correction, public health, and community partners (Lobato et al., 2004). Such collaboration and coordination maximize the effectiveness of TB control efforts begun in correctional facilities (Hammett et al., 2001). TB diagnostic evaluation or treatment-initiated during incarceration can be completed postrelease by public health or community partners, thus ensuring continuity of care and improved health for the inmate and reducing the likelihood of TB transmission in the community. In addition, collaboration with public health and community partners can assist correctional facilities in overcoming barriers such as brief inmate lengths of stay, unscheduled releases or transfers from the facility, and limited available resources for recommended TB prevention, screening, treatment, and release planning services (CDC, 2006a). Public health agencies and community-based organizations

may have financial, programmatic, or personnel resources that they can offer to correctional facilities. Public health staff can provide TB medical expertise and assistance with case management, contact investigations, administration of DOT, and accessing community TB-related resources (e.g., local TB clinics for follow-up appointments). In addition, public health departments often maintain TB registries containing diagnostic and treatment-related information on all persons with TB within their jurisdictions. Correctional facilities and public health departments can work together to use TB registry data to find inmates with TB infection or disease and obtain the TB history. Registry information including TB diagnostic test results, drug susceptibility patterns, and treatment history can be helpful to correctional facilities in case management and release planning. Use of TB registry data in correctional settings may also enable health departments to locate persons with TB who have been lost to follow up in the community. Correctional facilities can assist public health departments by promptly reporting all inmates with suspected or confirmed TB disease, so that the public health staff can ensure timely performance of case management, contact investigations, and entry of information into the TB registry. Correctional facilities should contact their local or state health departments to identify their designated TB control staff. Likewise, public health departments should make efforts to contact the infection or TB control staff of local correctional facilities. To facilitate effective collaboration, correctional facilities and public health departments should designate liaisons and have regularly scheduled meetings to discuss correctional TB control issues (Lobato et al., 2004).

Community-based partners, including clinical and social service providers and community correction staff (e.g., probation and parole officers), are vital to the success of release planning efforts. Recently released inmates have a multitude of health- and non-health-related needs, and it is imperative to link them with organizations that are interested and experienced in working with these populations; correctional facilities and public health agencies should make efforts to identify and partner with such organizations. Soon-to-be-released inmates often express a need for help in accessing healthcare services after release and have high expectations of the role that community correction staff will play in helping them gain lawful employment, find substance use treatment programs, stay crime free, or otherwise transition into the community (La Vigne et al., 2004). Parolees meet with their assigned parole officer on a monthly or bimonthly basis; as such, including community correction staff in prerelease TB-related planning, with inmate consent, may facilitate continuity of care (Nelson & Trone, 2000). By participating in release planning for soon-to-be-released inmates with LTBI or TB, community correction staff become more knowledgeable about TB and can assess TB management-related compliance issues with their parolees; as such, they are better able to protect themselves, their clients, and their communities (Hammett et al., 2001; Wilcock et al., 1995). Community correction can also assist public health departments in locating TB cases that are lost to follow-up in the community and are on probation or parole.

Successful TB release planning requires correctional facilities to provide timely and thorough TB diagnostic and treatment information to public health agencies (via mandatory TB case reporting), as well as to community partners involved in postrelease provision of services. Likewise, feedback of postrelease TB follow-up data from public health departments and community partners back to correctional facilities is helpful in maintaining continuity of care, particularly for persons with TB who are reincarcerated. However, there are patient-confidentiality-related restrictions on sharing information across agencies, and local, state, and federal regulations should be followed. Correction, public health, and community partners should inform and reassure inmates of their confidentiality rights. In addition, inmates should be explained the importance and benefits of signing a limited release or consent so that their TB-related information can be shared among appropriate agencies (Hammett et al., 2001). Caution should be taken to share only the information necessary to provide continuity of care.

Components of Comprehensive Release Planning

Incarcerated populations have a complexity of release planning needs. Following release from correctional facilities, reentrants face urgent housing, employment, financial, and other subsistence needs that often take priority over their health care (Hammett et al., 2001). While incarcerated, inmates may lose their employment, housing, eligibility for food stamps, or Medicaid and Social Security benefits. As such, postrelease, reentrants with TB may not have the ability or resources to make or keep follow-up appointments or obtain necessary medications. They may have language, literacy, or cultural barriers, which further complicate their ability to seek care. In addition, reentrants often have mental health or substance use issues that can hinder their ability to access healthcare services. Thus, to be effective, TB release planning efforts must be holistic and tailored to the needs of the reentrant. As such, correctional facility release planning programs should: (1) initiate release planning early; (2) provide case management; (3) obtain detailed postrelease contact information; (4) assess and plan for substance abuse, mental health, and social service needs; (5) make arrangements for postrelease follow-up; (6) make provisions for unplanned release and transfers; and (7) provide education and counseling (CDC, 2006a).

Initiate Release Planning Early

Release planning efforts for inmates diagnosed with TB infection or disease should begin as early as possible during incarceration and continue postrelease to facilitate continuity of care and avoid delays in initiating or resuming TB treatment. Designated release planning staff in the correctional facilities should promptly notify the public health department of all inmates with suspected or confirmed TB disease or inmates receiving TB treatment, even if the inmates have been transferred or released from the facility. Inmates diagnosed with TB disease are of the highest priority for ensuring continuity of care and should be interviewed by public health (preferred) or correctional release planning staff as soon as possible after diagnosis so that the medical discharge and transitional care plans can be developed (CDC, 2006a). Whenever possible, correctional facilities should provide the release planning staff with advance notice about the inmates' projected release dates; this will enable development of a more individualized and thorough plan. Even in short-term detention facilities, where a significant number of inmates may be released within 1–3 days of admission, many critical community TB linkages can be made if the release planners are promptly notified about an inmate with TB.

Early involvement of the inmate in the planning process is integral to the success of the release plan. Inmates may perceive the plan and community linkages as an extension of their punishment in jail or prison and be reluctant or fearful to participate. Release planning staff should work to build a rapport and trusting relationship and to educate the inmates on the benefits of such planning to their health and well-being. Staff should assess the inmates' perceptions of their postrelease needs and priorities and tailor the plan accordingly; inmates may have received release planning before and know what worked or did not work for them in the past. In addition, staff should assess the inmates' expectations of postrelease support from their families, particularly as it relates to their health care. Often soon-to-be-released inmates expect that their families will assist them with accessing health care, finding housing or employment, and finances in the community; however, postrelease, inmates may find that the expected support is not always available (La Vigne, 1994; Vishner et al., 2004). Whenever possible, staff should attempt to include inmate families early in the release planning process and link inmates with additional and varied sources of support (e.g., peer counselors, support groups) (Nelson & Trone, 2000).

Provide Case Management

Comprehensive case management is an essential component of release planning and involves identifying, planning, and facilitating the postrelease services required to meet reentrants' health and social service needs. Case management has been demonstrated to support reentrants in utilizing community healthcare services (Rich et al., 2001), modifying risk behaviors (Rhodes & Gross, 1997), and reducing recidivism (Flanigan et al., 1996). In addition, case management for persons with TB has been shown to improve adherence to TB treatment regimens (Marco et al., 1998) and reduce loss to follow-up in the community (Salomon et al., 1997).

Designated correctional staff should provide case management for inmates with TB infection or disease and work with public health and community partners to ensure continuity of care postrelease (Klopf, 1998). Prerelease case management should include a thorough assessment of the inmate's TB exposure, diagnosis, and therapy history by interviewing the inmate directly and reviewing pertinent medical records. Case managers should review the TB exposure history to identify potential TB contacts either in the correctional facility or community and should inform facility infection control and local public health partners so that contact investigations can be initiated as needed. Case managers should also review the results of all TB diagnostic testing conducted during incarceration, such as IGRA or TST, chest radiograph, sputum smears and cultures, and drug susceptibilities. In addition, TB treatment and medication compliance history during incarceration should be reviewed. Case managers should request the local or state public health department to review their TB registry data for additional information that might be useful in release planning. Comorbid conditions, such as HIV or viral hepatitis, can complicate the treatment regimen and should be addressed in the overall plan by ensuring linkages with appropriate community clinical providers.

Case managers should work with public health and community partners to determine where soon-to-be-released inmates will receive TB follow-up care and obtain necessary medications. Newly released inmates sometimes choose not to return to the neighborhood they lived in before incarceration either to avoid previous influences which led to their incarceration or because their family moved to another location (La Vigne et al., 2004). Additionally, released inmates may wish not to receive medical care in the same neighborhood where they live due to a perceived stigma. Case managers should determine where soon-to-be-released inmates would be able and willing to continue their TB follow-up appointments. Case managers should discuss the importance of the follow-up, and identify and address any potential barriers to inmates being able to keep the appointments.

Obtain Detailed Contact Information

Case managers should emphasize the importance of continuity of care in TB treatment and encourage inmates with LTBI or TB disease to provide accurate postrelease contact information. Case managers should request detailed information from soon-to-be-released inmates, such as: (1) their expected residence, including shelters; (2) names and contact information for friends or relatives; and (3) community locations usually frequented, in order to enable location of the released inmate in the community (White et al., 2002). In addition, case managers should obtain a signed consent from inmates authorizing the case manager and public health department to contact and share TB-related information with worksites, community clinical or social service providers, or community correction staff if necessary (CDC, 2006a).

Inmates may provide contact information based on their expectations of where they will reside postrelease; however, for many reasons, they may need to change their residence after they return to

the community. Alternatively, inmates may intentionally give correctional staff aliases or incorrect contact information because of mistrust or fear of incrimination or deportation (CDC, 2006a). The inability to locate and provide continuity of care for released inmates with LTBI or TB disease can result in incomplete treatment regimens (Nolan et al., 1997) and the risk of transmission or drug resistance (Glaser & Greifinger, 1993). In addition, the use of an alias by an inmate with LTBI or TB disease can hinder continuity of care upon reincarceration and potentially place other inmates and correctional staff at risk. Case managers should confirm contact information, including true identity and any aliases, with inmates on a periodic basis throughout incarceration and immediately before release if possible. Correctional facilities should also develop strategies to confirm an inmate's true identity as quickly as possible after admission to the facility (e.g., using fingerprint-based unique identification number).

Assessment and Plan for Substance Abuse, Mental Health, and Social Service Needs

TB case management efforts must include an assessment of substance abuse, mental health, or social service needs that may adversely influence the inmate's ability to adhere to the TB release plan. Substance abuse and mental health issues are significant barriers to continuity of care postrelease and should be addressed by release planning staff in correctional facilities (Hammett et al., 2001). After release from jail or prison, many reentrants return to their old neighborhoods and are challenged to avoid the same influences or circumstances that led to their recent incarceration, which places them at risk for defaulting on their TB care. Relapse to substance abuse postincarceration often occurs and can impact all aspects of a reentrant's life including their health, housing, relationships, employment, parole conditions, and likelihood of reincarceration (Rich et al., 2001). Inmates with mental illness have similar postrelease conditions as those with substance abuse issues. Without sufficient postrelease support in the community, reentrants with mental illness may have difficulty in coping or with treatment adherence and may experience acute decompensation of their mental status, thus greatly increasing the chances of nonadherence to TB follow-up or treatment. Reentrants with prior drug offenses or mental illness often have difficulty in obtaining permanent housing and risk becoming homeless (Lindblom, 1991), which is a major barrier to completion of TB therapy (LoBue et al., 1999). For inmates with a substance abuse history, case managers should provide referrals to or information about convenient substance abuse treatment programs and peer support group meetings (e.g., Alcoholics or Narcotics Anonymous). In addition, inmates with substance abuse histories are at risk for HIV and viral hepatitis, both of which can affect TB management, and would benefit from referrals to community clinical providers experienced in working with these issues. Inmates with TB who have mental illness require community linkages to mental health treatment programs that are integrated with primary care, substance abuse, and social service providers to best facilitate continuity of care.

Incarceration creates several other barriers for released inmates, which can hinder continuity of TB care. During incarceration, inmates may lose their employment or other sources of income. In addition, inmates often lose health insurance or other government benefits, such as Medicaid, Temporary Assistance for Needy Families, Food Stamps, Supplemental Security Income, or Social Security Disability Insurance, while incarcerated and may have to wait several months postrelease to become eligible again (Bazelon Center for Mental Health Law, 2000). This loss of income and services can adversely impact the inmate's ability to adhere to TB follow-up and treatment in the community. Although federal laws require the suspension of certain benefits during the period of incarceration, many states will terminate the benefits and require inmates to reapply for benefits upon release

(Human Rights Watch, 2003). The requirement to reapply for benefits postrelease can present difficulties for inmates as they must provide documentation that may have been lost or destroyed (e.g., birth certificates, social security card, passport, driver's license, or other photo identification). Many states will allow inmates to apply for reinstatement of benefits in anticipation of release from jail or prison; case managers should assist inmates in obtaining the necessary documentation and completing the required application forms.

Correctional facilities should assist this process by making the inmates' driver's licenses, Medicaid cards, or other forms of photo identification available to the case managers during incarceration, as needed, and to the inmates with their personal property postrelease. In addition, correctional facilities should create agreements with agency partners to facilitate prompt reactivation of these benefits (e.g., with state Department of Motor Vehicles to provide nondriver's license photo identification cards, with local Social Security Administration offices to expedite processing of applications) (Hammett et al., 2001). Case managers should ensure that inmates requiring TB care in the community have access to free TB follow-up appointments and medications immediately postrelease and for as long as they are needed.

Make Arrangements for Postrelease Follow-Up

One of the most critical components of release planning for inmates with LTBI or TB disease is the arrangement of postincarceration follow-up appointments and access to medications. Inmates on LTBI therapy who are released from jail or prison before treatment is completed have low community clinical follow-up and treatment completion rates (Nolan et al., 1997; Tulsy et al., 1998). Inmates with TB are at high risk for not completing their TB treatment regimen (MacNeil et al., 2005). Factors such as homelessness, substance abuse, lack of social support or stability, unemployment, and lower education levels contribute to nonadherence postrelease (Cummings et al., 1998; White et al., 2002). Whenever possible, efforts should be made to have inmates complete their LTBI or TB therapy during incarceration. If this is not feasible, case managers, in collaboration with public health staff, should arrange for postrelease follow-up of inmates with appropriate community-based clinical providers so that treatment can be completed.

Case managers should first create an individualized plan based on interviews with inmates about their perceived postrelease health- and non-health-related needs, review of the medical records, and discussions with appropriate correction, public health, and community correction staff. When deciding where to refer inmates for TB care and substance abuse, mental health, or other social services needs, case managers should attempt to find community providers that can best integrate and coordinate all of these areas. To maximize the likelihood of continuity of care, case managers should ensure that the community-based providers are interested and experienced in meeting ex-inmates' needs and provide services in locations convenient to where inmates anticipate living or working postrelease. Case managers should establish relationships and agreements with community partners to facilitate inmates' utilization of services (e.g., enabling "walk-in services," providing phone or mail appointment reminders, utilizing telehealth services when appropriate, or providing transportation for referred inmates).

A variety of models exist in correctional facilities for linking prerelease inmates to community clinical providers (Hammett et al., 2001). Some involve community providers coming into the jail or prison to provide direct clinical services, establish a therapeutic alliance with the inmates and follow them clinically in the community postrelease (Flanigan et al., 1996). Less intensive models include: (1) community providers working with inmates for only a few months prerelease; (2) inmates not meeting the provider during incarceration, but receiving a set appointment postrelease; and (3) inmates

receiving a prerelease list of clinical providers to contact (Hammett et al.). Correctional facilities that enable community providers to establish a direct therapeutic relationship with inmates during incarceration optimize the likelihood of continuity of care postrelease. Correctional staff should encourage public health and community partners to establish a prerelease relationship with inmates either by providing direct services to inmates during incarceration, or by working closely with the release planning staff to assist in development of the release plan. For some correctional facilities, however, the distance between them and likely community providers presents difficulties to meeting with the inmates prerelease (Hammett et al.). Even in such cases, providing the inmate with a set appointment date can improve compliance with community follow-up (Rich et al., 2001). Additionally, prerelease telehealth visits may facilitate the establishment of a therapeutic relationship and encourage community follow-up postrelease. At minimum, soon-to-be-released inmates should be given a list of community clinical and social service providers and resources.

As part of the release plan, case managers should ensure that all inmates who have been diagnosed with LTBI or TB disease receive community referrals for initiation or continuation of TB treatment. In particular, inmates started on DOT for TB disease or LTBI while incarcerated should continue to be closely monitored by local public health staff who will arrange for the continuation of DOT postrelease until the treatment regimen is completed. Inmates with LTBI who do not require DOT should have uninterrupted access to TB medications postrelease for the duration of their treatment regimen. At minimum, they should be given a sufficient supply of their TB medications until their next TB follow-up appointment in the community (CDC, 2006a). If the anticipated inmate release date and community follow-up appointment date are known, then the case manager can determine the exact amount of medication to provide. If either of these dates is unknown, case managers should work with correction or public health staff to arrange for at least a 2-week to 1-month supply of the TB medications to be available at discharge (Hammett et al., 2001). Providing soon-to-be-released inmates with the actual medication is preferable to giving them a prescription; suspension of health insurance or benefit programs due to incarceration may prevent inmates from being able to fill the prescription soon enough to avoid missing doses. However, if legal, policy, or financial reasons prohibit correctional facilities from providing sufficient amounts of medication for discharge, inmates should be given a prescription to cover the time period from release to the first TB appointment in the community (Hammett et al., 2001). Case managers should also inform inmates about public hospitals and clinics affiliated with state or local health departments that may provide free or low-cost TB care and medications. Regardless of whether medications or prescriptions are given, case managers should ensure that the inmates understand the proper dosing and administration of the TB medications and provide written instructions in the inmates' preferred languages.

Make Provisions for Unplanned Release and Transfers

Correctional facilities should have policies and procedures in place to address unplanned transfers or releases of inmates with LTBI or TB disease (CDC, 2006a). Correctional clinical or release planning staff should create and routinely update a summary health record for all inmates (Re-Entry Policy Council, 2003), particularly those with LTBI or TB disease. The summary health record can be initiated based on the initial health screening and added to as needed. The summary should contain all pertinent medical history; physical examination, radiology, and laboratory results; prescribed medications; scheduled consults or clinical appointments; and postrelease management plans. For inmates with LTBI or TB, the summary health record should contain detailed information on TB exposure

history, diagnostic testing results including IGRA or TST, chest radiograph, sputum smear and cultures, TB therapy, drug susceptibility patterns, and planned postrelease follow-up.

The summary record should be updated throughout the case management and release planning process, based on collaboration with public health and community partners. It should be part of the inmate's medical record and be easily accessible. In addition, staff should ensure that the summary is as complete and up-to-date as possible prior to inmate transfer or release. All inmates being released or transferred from jail or prison should receive a copy of their summary health record, so that they have documentation of the tests or services provided and can share this information with clinical providers upon release (CDC, 2006a).

Correctional release planning staff should promptly notify the public health department of all reentrants into the community with TB disease or those on treatment for LTBI, to ensure continuity of care postrelease. Inmates with LTBI or TB disease, who are being released into the community and do not yet have a comprehensive release plan, should, at minimum, be given their summary health record and a list of community TB providers where they can follow-up postrelease. If the summary record cannot be provided before release, inmates should be informed on how to obtain a copy postrelease. Inmates with LTBI or TB disease who are being transferred to another correctional facility should have all of their TB diagnosis and management information sent to the receiving facility, to avoid duplication of tests or delays in treatment initiation or continuation. Inmates with TB disease who are infectious but are eligible for release or transfer to another medical or correctional facility should remain in AII precautions until they become noninfectious (CDC, 2006a). If AII precautions cannot be maintained during and after the transfer process, facility administrators can consider using a brief "medical hold," so that a follow-up plan can be initiated.

Provide Education and Counseling

Ongoing education and counseling about TB is an important component of release planning and TB control efforts in correctional facilities. Inmates, as well as correctional facility staff, may not fully understand TB transmission, the difference between LTBI and TB disease, and methods of TB prevention and treatment (Woods et al., 1997). In addition, some inmates and staff may still perceive a stigma associated with TB, which may be a barrier to seeking or providing proper TB care (Woods et al., 1997).

TB education, to increase knowledge, and counseling, to change attitudes, have been shown to increase perception of self-efficacy (Morisky et al., 2001) and improve adherence to community TB follow-up visits and completion of treatment regimens postrelease (White et al., 2002). Frequent education sessions were shown to be more effective than a single education session at diagnosis or even financial incentives in facilitating improved adherence to clinic visits and completion of treatment postrelease (White et al., 2002). Inmates on TB treatment should receive ongoing supportive education and counseling about the importance of adhering to the treatment plan after release into the community. Education should be provided in the inmate's preferred language and be culturally sensitive with regard to ethnicity, gender, and age (Goldberg et al., 2004; Hovell et al., 2003; White et al., 2003). Individual TB counseling should be conducted in a private setting if possible (White et al., 2003), so that inmates feel comfortable discussing their questions or concerns. Case managers should ensure that inmates are active participants in the development of the TB release plan and provide feedback into their motivations or challenges regarding treatment and adherence.

Community-Based Case Management After Release

The first 24 h after release from a correctional facility are critical to an ex-inmate's success with reentry into the community (Mitty et al., 1998). Reentrants returning to the same neighborhood where they lived prior to incarceration may be exposed to the same circumstances and influences that led to their arrest. Additionally, at the time of release from jail or prison, reentrants may not have adequate food, clothing, shelter, or financial resources; thus, health care becomes less of a priority than these other urgent needs. Therefore, it is imperative that the case management process begun in the correctional facility be continued after release, particularly for ex-inmates with suspected or confirmed TB disease, LTBI who are at high risk for progression to disease, or those who are on TB treatment (CDC, 2006a). Former inmates may experience a lack of social stability and support after reentry into the community; often they find that their community case manager is a much-needed source of support and encouragement (Rhodes & Gross, 1997). As such, public health and community partners should attempt to make contact with reentrants within the first week of release to assist with general transition issues and ensure continuity of TB care as prescribed in the release plan created in the correctional facility. Case management that is culturally sensitive and serves reentrant-defined needs, along with TB control needs, has been shown to improve completion rates for therapy (Goldberg et al., 2004). Public health and community partners should also work with community correction staff to ensure that ex-inmates adhere to their follow-up TB clinic visits and medication regimens.

DOT for active TB or LTBI, both in the correctional setting and postrelease, is a strategy for facilitating adherence to TB treatment regimens. DOT initiated in the correctional facility provides an opportunity for education and counseling and establishes the medication as routine (CDC, 2006a). The continuation of DOT postrelease may enhance compliance and reduce relapse rates and acquired drug resistance (Nolan et al., 1997). Implementation of DOT in conjunction with housing programs has been effective in improving TB therapy outcomes in homeless populations (LoBue et al., 1999).

Incentives and enablers are another strategy that case managers can use to promote adherence to TB treatment. Incentives are items or services that encourage individuals to complete TB treatment by motivating them with something they want or need (e.g., food, money, and clothing). Enablers help clients overcome barriers to completing their TB treatment (e.g., transportation, stable housing, service programs). Incentives and enablers, combined with education and counseling, have been shown to improve adherence to TB follow-up appointments and treatment completion in incarcerated populations (Frieden et al., 1995; Tulsy et al., 1998; White et al., 1998, 2002). Financial incentives are believed to be most effective for promoting adherence (Giuffrida & Torgerson, 1997). Recent data suggest that financial incentives may be helpful in adherence to initial follow-up clinic visits, but that ongoing education and counseling may be more effective in facilitating completion of TB treatment regimen (Pilote et al., 1996; White et al., 2002).

Comprehensive release planning and community linkages have been shown to reduce recidivism rates (Flanigan et al., 1996). Despite these successes, approximately two-thirds of all parolees are rearrested within 3 years; most are rearrested within the first 6 months after release. Thus, case management after release is critical for continuity of care in the event of reincarceration, particularly for inmates who are still taking TB treatment when rearrested.

TB Control Program Evaluation

Correctional facilities should conduct a program evaluation of their TB control program to determine if stated and desired TB prevention and control goals are being met. The program evaluation should include a systematic assessment of TB program goals, activities, and outcomes. In addition, local TB

epidemiology data (e.g., TB case rates, demographics of TB cases, local drug susceptibility data) should be used to inform the evaluation. Data from the program evaluation should be used to guide program planning and policy. Guidelines on conducting a TB program evaluation in correctional facilities have been published (CDC, 2006a).

Conclusion

TB in any segment of the population endangers every member of society (Laniado-Laborin, 2001). Correctional facilities are part of our communities, not separate from them (Hammett et al., 2001). If the goal of TB elimination is ever to be achieved, increased attention must be given to incarcerated populations in which the prevalence and transmission risk of TB are high. The early screening, diagnosis, isolation, and treatment of inmates with TB must be prioritized. In addition, continuity of care must be provided throughout incarceration and postrelease through effective TB transitional care planning and case management. Collaboration between correction, public health, and community partners is essential, and this ensures the greatest chance of success in the prevention, control, and ultimately, elimination of TB.

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Screening and Treatment of Chlamydia, Gonorrhea, and Syphilis in Correctional Settings

Erin Tromble and Laura Bachmann

Sexually transmitted infections (STI) include a broad category of bacterial, viral, protozoan, and fungal infections and ectoparasitic infestations. For three of these bacterial infections – chlamydia, gonorrhea, and syphilis – there is substantive evidence that screening and treatment in correctional settings can play a critical role in their control. We will describe the epidemiology of these infections, the appropriate populations to target for screening, methods to increase treatment of identified infections, evidence of the impact of detention screening in controlling them, and the cost-effectiveness of screening in detention. Correctional settings might also play a critical role in controlling HIV, another STI, among some populations.

Epidemiology of Chlamydia, Gonorrhea, Syphilis, and Corrections: Overlapping Populations

Chlamydia and Gonorrhea

Chlamydia and gonorrhea are the two most common infections reported to the Centers for Disease Control and Prevention (CDC) with 1.8 million and 583,405 cases reported in 2018 (CDC, 2019). Chlamydia and gonorrhea are most common in persons aged 25 years and younger, with peak rates among young people aged 15–24 (CDC, 2019). Disparities continue to persist in rates of STIs and a wide variety of health status indicators among some racial minority or Hispanic groups. Compared with White people, chlamydia rates are more than five times greater among Black people 3.7 times greater among American Indians/Alaskan Natives, and approximately two times greater among

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Hispanics (CDC, 2019). Similar disparities exist in gonorrhea rates, with the rates 7.7 times greater among Black people, 4.6 times greater among American Indian/Alaskan Natives, and 1.6 times greater among Hispanics compared with White people (CDC, 2019). In addition to demographic characteristics, other risk markers for STIs include: multiple sex partners, drug and alcohol misuse, lower educational attainment and socioeconomic status, and poor access to medical care (Aral & Holmes, 1999).

When symptomatic, chlamydia and gonorrhea are associated with urethritis, cervicitis, and proctitis syndromes, though the majority of infections are asymptomatic (Karnath, 2009). Lack of timely treatment can lead to complications and serious long-term sequelae in women, including pelvic inflammatory disease, chronic pelvic pain, infertility, and ectopic pregnancy (Hook & Handsfield, 1999; Stamm, 1999). Additionally, these infections increase the susceptibility and transmissibility of HIV infection (Fleming & Wasserheit, 1999). The US Preventive Services Task Force (USPSTF) recommends screening for gonorrhea and chlamydia among sexually active women 24 years of age and younger and among older women who are at increased risk (USPSTF, 2014). Routine screening for gonorrhea and chlamydia screening is not recommended by the USPSTF for men. However, the CDC does advise chlamydia screening for men in clinical settings with high prevalence such as adolescent and STD clinics (CDC, 2021). CDC also advises regular gonorrhea screening for men who have sex with men (MSM) (CDC, 2021). Because most chlamydial and gonococcal infections in both females and males are asymptomatic (Hook & Handsfield, 1999; Stamm, 1999), screening and treatment of asymptomatic infections is essential for disease prevention and control. Large-scale screening programs that have been in place for several years have decreased both community chlamydia prevalence and disease outcomes (Addiss et al., 1993; Mertz et al., 1997; Nelson & Helfand, 2001; Hodgins et al., 2002; Gottlieb et al., 2013). The most effective method to control chlamydia is routine screening in high-volume, high-prevalence settings (Farley et al., 2003).

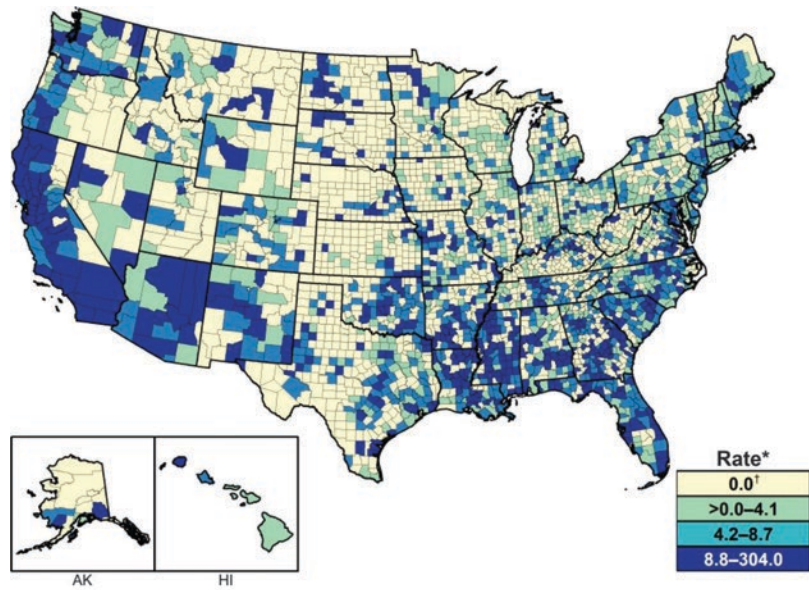
Syphilis

Syphilis is a genital ulcerative disease that causes significant cardiovascular and neurological complications if untreated (Sparling, 1999). In pregnant women, 40% of untreated early syphilis results in perinatal death (Radolf et al., 1999). If syphilis was acquired during the 4 years preceding pregnancy, it could lead to infection of the fetus in over 70% of cases (Radolf et al., 1999). Like other STIs, syphilis also facilitates the transmission of HIV (Fleming & Wasserheit, 1999). Syphilis infection is staged by symptoms and likely duration of infection.¹ Infections of less than 1 year's duration are the most important from a public health perspective, because they represent recent infections among persons and sexual networks which should be targeted for intervention to prevent further ongoing transmission within a community. However, infection of any duration is also critically important to identify in pregnant women given the risk of vertical transmission.

Syphilis was extremely common until the introduction of penicillin in the 1940s, with up to 25% of persons of lower socioeconomic status infected (Sparling, 1999). During the late 1990s, syphilis elimination in the United States was considered plausible because of the historically low rates of infection, the limited geographic distribution of infection, and the availability of effective and inexpensive diagnostic tests and treatment (St Louis & Wasserheit, 1998). However, in 2001, syphilis rates began increasing nationally among MSM (CDC, 2019). Evidence of a growing heterosexual epidemic

¹In January, 2018 CDC released new syphilis case definitions which include the following subtypes: primary, secondary, early non-primary non-secondary, unknown duration or late, congenital syphilis, and syphilitic stillbirth. Full details of these definitions can be found at: <https://www.cdc.gov/nndss/conditions/syphilis/case-definition/2018/>

Fig. 12.1 Primary and secondary syphilis: rates of reported cases per 100,000 by county, United States, 2018 (CDC, 2019)



CDC - Sexually Transmitted Disease Surveillance, 2018

subsequently developed with rates among men who have sex with women only (MSW) and women increasing between 2014 and 2018 (CDC, 2019) in parallel with a 185.3% increase in congenital syphilis rates during this same time period.

During 2018, there were 115,045 reported cases of syphilis in the United States, 1/5 the number of gonorrhea cases and 1/15 the number of chlamydia cases (CDC, 2019). For reasons that are not totally clear, syphilis affects a slightly older population than chlamydia and gonorrhea; the peak age among women is 20–24, among heterosexual men is 25–29, and among MSM is 35–39 (CDC, 2019). Like chlamydia and gonorrhea, there are substantial differences in rates by race/ethnicity. In 2018, compared with White people, rates of primary and secondary syphilis were 4.7 times greater in Black people, 2.6 times greater in American Indian/Alaskan Native, and 2.2 times greater in Hispanics (CDC, 2019). There is also substantial asymmetry in the geographic distribution of syphilis (Fig. 12.1). In 2018, nearly half (47%) of all US counties reported no cases of primary or secondary syphilis, while 61.5% of all cases were reported in only 70 counties or independent cities (CDC, 2019).

Overlapping Populations: Corrections and STIs

The epidemiology of chlamydia, gonorrhea, and syphilis suggest that some of the persons at greatest risk for STIs are those who pass through the correctional system. Many incarcerated persons have risk factors for STIs: unprotected sex with multiple partners before incarceration, poor access to medical care, lack of education, a personal or family history of drug and alcohol use, a history of physical and sexual abuse, young age, and racial or ethnic minority status (Beltrami et al., 1997; Aral & Holmes, 1999; James, 2004; Bureau of Justice Statistics, 2004; Margolis et al., 2006). Additionally, incarceration rates are disproportionately higher among many of the same demographic groups as STIs including racial and ethnic minorities and young people. Black adults are imprisoned at rates among 5.7 times higher than their white peers, and Hispanic adults are imprisoned at rates 3.0 times higher

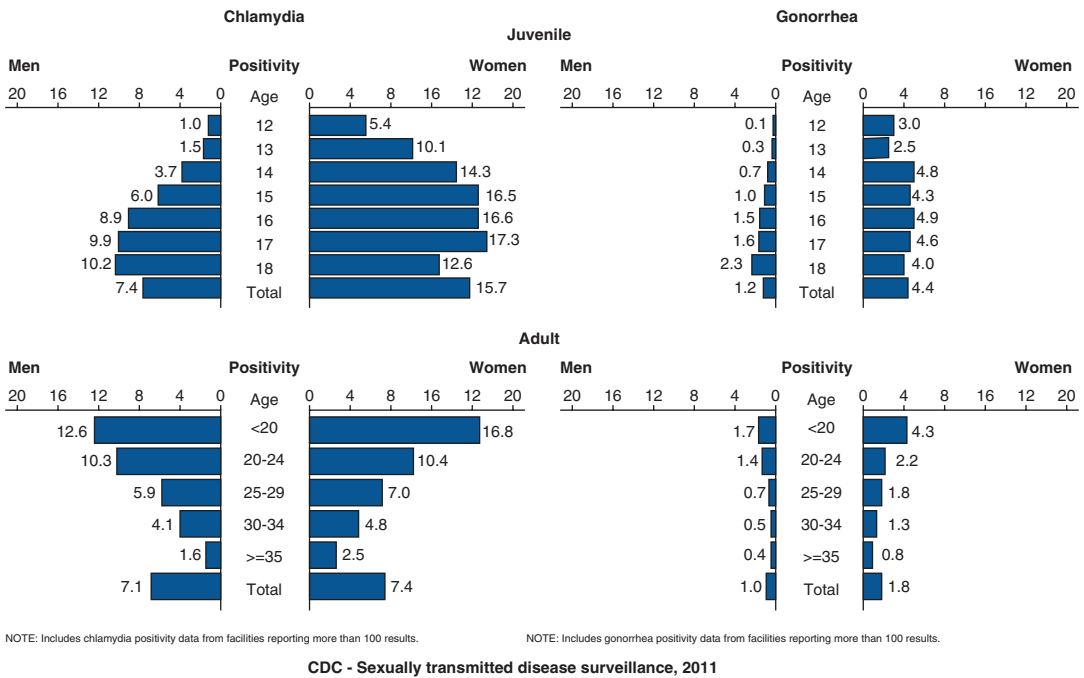


Fig. 12.2 Positivity of chlamydia and gonorrhea in juvenile vs adult correctional settings by age and sex, 2009 (CDC, 2011a)

(Bureau of Justice Statistics, 2019). Overall, nearly 70% of detained adults are racial or ethnic minorities, and more than 40% are younger than 35 (Bureau of Justice Statistics, 2019).

As with the general population, prevalence of STIs in correctional settings varies based on demographics, risk behaviors, and geography. In 2011, as part of the Infertility Prevention Program (IPP), screening data were reported to the CDC from correctional facilities in 33 states and Puerto Rico for chlamydia and 32 states and Puerto Rico for gonorrhea (CDC, 2012). These data (with some denominator variation across facilities) are illustrated by age, gender, and juvenile/adult facility in Fig. 12.2. Since 2011, comprehensive data from correctional facilities are no longer reported to the CDC, and literature reporting gonorrhea and chlamydia prevalence in these settings is highly limited. Among adult women in correctional settings, a small number of studies over the past decade have reported chlamydia positivity ranging from 6.1% to 11.4% and gonorrhea positivity from 1.7% to 3.0% (Parvez et al., 2013; Javanbakht et al., 2014; Cole et al., 2014). In adolescent females more recent studies have reported chlamydia test positivity ranging from 10.3% to 14.8% (Satterwhite et al., 2014; Burghardt et al., 2016; Torrone et al., 2016). Recent evidence of infection rates among men are even more limited, but one study based in 11 New York City jails reported 6.5% chlamydia positivity and 0.9% gonorrhea positivity in adult males (Franklin et al., 2012). Despite limitations in recent data, existing evidence continues to demonstrate that disease burden among detained individuals is higher among women compared to men, and among younger detainees compared to older individuals. Additionally, chlamydia and gonorrhea rates among incarcerated individuals who are 35 years of age or younger have been consistently found to be higher than those of the general population (Joesoef et al., 2009; Donaldson et al., 2013; Torrone et al., 2016; Burghardt et al., 2016).

Public Health Strategies for Controlling STIs

There are three determinants of the rate of spread (reproductive rate) of STIs: (1) the probability of exposure of infected persons to uninfected persons, which relates to the number of partners an infected person has, (2) the average probability of transmission per sexual contact, and (3) the average duration of infectiousness of an infected person (Anderson & May, 1991). The prevalence of STIs in a community is related to the reproductive rate of STIs. While the spread of STIs is based on these three determinants, an individual's risk of acquiring an STI is not based solely on their sexual behavior but is heavily influenced by the probability of having sex with someone who is infectious. Therefore, two individuals with the same sexual practices can have different risk of acquiring an STI. Therefore, to reduce disparities in STI rates among different populations it is critical to prioritize programs that screen and treat members of populations at highest risk of infection. Screening and treating these populations reduces the duration of infection in the community, which drives down the reproductive rate and the prevalence of infection in the community. This, in turn, lowers the probability of encountering an infected partner. Other strategies to decrease the prevalence of infection in a population include assuring that partners of infected persons are treated (partner services); health education about the importance of accessing care for STI screening, using condoms to prevent STIs (including HIV) and unintended pregnancy, and the risk of multiple partners; and surveillance of emerging STI trends to target intervention resources.

Community Impact of STI Screening in Corrections

Most detained individuals are released and return to their communities within only a few days or weeks, and many subsequently have unprotected sex (Skolnick, 1998; MacGowan et al., 2003). Because many detainees are drawn from high-prevalence communities, widespread, targeted screening and treatment programs in correctional facilities can serve as a public health structural intervention to reduce community rates of STIs. Although no national protocol currently exists for such programs, the potential for impact has previously been demonstrated in multiple localities where implementation of STI screening programs resulted in corrections-based screening surpassing all other screening venues in the number of reported cases and led to substantial increases in the number of STIs detected in jurisdictions overall (Broad et al., 2009; Pathela et al., 2009; CDC, 2011a; CDC, 2014).

A 2006 study based on the San Francisco jail chlamydia screening program demonstrated the potential impact STI screening in jails can have on the community (Barry et al., 2006). The prevalence of chlamydia detected among sexually active young women (aged 25 and younger) seen in a community clinic (Clinic S) located in a neighborhood with high jail testing density was compared to a community clinic located in a neighborhood with low jail testing density (Clinic O). The prevalence of infection in these two clinics was compared between 1997 and 2004. The initial prevalence at Clinic S was four times higher than at Clinic O. During the evaluation period, the prevalence of infection at Clinic S declined significantly from 16.1% in 1997 to 7.8% in 2004. The prevalence of infection remained stable at Clinic O at 4.7% during the same period with only minor vacillations. No other STI control programs, other than jail screening, explained the substantial decline in community rates of chlamydia in young women. This decline was seen despite the fact that only about 45% of the target population in the jails was screened and only about 80% of infected persons were treated.

STI Screening in Correctional Settings

In order to have the largest impact on the community, STI screening should occur at intake because a substantial proportion of detainees are released back to the community within 48 hours (Skolnick, 1998; Spaulding et al., 2011). A systematic review of literature examining active case finding approaches in the US and European prison settings found that screening programs that utilized opt-out approaches demonstrated increased screening uptake and detected more infections than opt-in strategies (Tavoschi et al., 2018). However, given the loss of autonomy and agency associated with correctional environments, careful attention should be paid to assuring adequate consent is obtained when applying opt-out approaches. Recent studies have found that when opt-out screening methods were used, although the right to decline consent was officially available, many detainees perceived participation to be compulsory (Rosen et al., 2015; Tavoschi et al., 2018).

Targeted Chlamydia and Gonorrhea Screening

Because resources for STI screening are limited, screening programs should focus on the highest risk persons in correctional environments. Currently, the CDC recommends that all women 35 years of age or younger and men under the age of 30 in correctional settings be screened on intake for chlamydia and gonorrhea using an opt-out approach (CDC, 2021). The availability of nucleic acid amplification tests (NAATs) for chlamydia and gonorrhea facilitates screening in nonclinical settings including correctional facilities. NAATs for gonorrhea and chlamydia are highly sensitive and specific, available in a variety of specimen types conducive to implementation of patient self-collection protocols, and require minimal staff training (CDC, 2002; CDC, 2021).

Targeted Syphilis Screening

CDC recommends universal syphilis screening in correctional facilities located in communities with a high syphilis prevalence (CDC, 2021). As was previously discussed, syphilis cases are heavily concentrated within a minority of US counties. In order to ensure that corrections-based syphilis programs are practical and cost-effective, local authorities should stay apprised of epidemiologic trends within their jurisdiction. Additionally, CDC currently recommends that all women be screened for syphilis at the first prenatal visit or as early in pregnancy as possible. However, because prenatal care access among pregnant detainees may be difficult to assess, and given recent increasing rates of congenital syphilis, screening all pregnant women in correctional facilities for syphilis, regardless of the stage of pregnancy, should be considered.

Current syphilis test technology requires the collection of serologies, which requires blood specimen collection by more highly trained staff than is necessary for chlamydia and gonorrhea screening. A presumptive diagnosis of syphilis requires two tests: nontreponemal tests [either rapid plasma reagin (RPR) or venereal disease research laboratory (VDRL)], which detect antibodies that are not specific to *T. pallidum*, and treponemal assays [such as *T. pallidum* particle agglutination (TP-PA) and enzyme immunoassay (EIA)], which detect specific antibodies to *Treponema* species. While nontreponemal tests may serorevert after treatment, treponemal assays may remain reactive indefinitely despite adequate therapy.

Traditionally, a non-treponemal test is used for screening purposes, while a treponemal test is used to confirm the diagnosis. However, a growing number of institutions have begun implementing a reverse screening algorithm in which a treponemal test is used first, followed by non-treponemal testing. Use of the reverse algorithm allows for automation of screening in the laboratory (in contrast to screening with non-treponemal tests, which require manual performance and interpretation). Automated screening may result in time and cost savings in the laboratory, particularly in high-volume settings. However, several studies have found that the reverse algorithm results in more false-positive results, increased follow-up, higher levels of over-treatment, and increased costs overall (CDC, 2011b; Owusu-Edusei Jr et al., 2011). Regardless of the algorithm employed, positive results should prompt a thorough review of the individual's medical, sexual, and treatment history to determine the likelihood and stage of untreated syphilis infection and ensure proper therapy is administered.

STI Screening in Correctional Facilities

CDC recommendations:

- *Chlamydia and gonorrhea*: Women ≤ 35 and men < 30 years in correctional facilities should be screened for chlamydia and gonorrhea. Chlamydia and gonorrhea screening should be conducted at intake and use an opt-out approach.
- *Syphilis*: Universal, opt-out screening should be conducted on the basis of the local area and institutional prevalence of early (primary, secondary, and early latent) infectious syphilis. Correctional facilities should stay apprised of syphilis prevalence as it changes over time.

In addition to conducting screening at intake, *opt-out* approaches have been demonstrated to improve screening uptake.

Source: CDC, 2021

STI Treatment Recommendations

CDC published its most recent treatment guidelines for STIs in 2021 (CDC, 2021). Table 12.1 summarizes key recommendations with full guidelines available at: <https://www.cdc.gov/std/treatment-guidelines/>. Positive screening results should prompt follow-up to ensure no signs or symptoms of complicated disease or sequelae are present, and therapy should be tailored accordingly.

Methods to Improve Treatment of Persons Identified with STIs in Corrections

Identifying persons with STIs in corrections has little public health value unless a high proportion of those with infection are treated. Because intake is a standardized process that applies universally to all detainees, it provides an ideal opportunity to integrate STI screening. However, once an STI is diagnosed challenges may be encountered in locating individuals for treatment due to the potential for a detainee's release, transfer to another facility, or court appearances.

Table 12.1 Summary of key CDC STI treatment recommendations (CDC, 2021)

	Recommended treatment
<i>Neisseria gonorrhoea</i> : uncomplicated infections of the cervix, urethra, or rectum	Ceftriaxone 500 mg IM in a single dose
<i>Chlamydia trachomatis</i>	1. Doxycycline 100 mg orally twice daily for 7 days - alternative regimen- Azithromycin 1 g orally in a single dose -or- Levofloxacin 500 mg orally once daily for 7 days
<i>Chlamydia trachomatis</i> : in pregnancy	Azithromycin 1 g orally in a single dose
Syphilis: Primary, secondary, or early non-primary non-secondary	Benzathine penicillin 2.4 million units IM in a single injection
Syphilis: unknown duration or late	Benzathine penicillin 2.4 million units IM for three doses at 1-week intervals
Neurosyphilis	Aqueous crystalline penicillin G 18–24 million units per day, administered as 3–4 million units IV every four hours or continuous infusion, for 10–14 days
Syphilis: in pregnancy	Penicillin regimen appropriate for stage of syphilis as above

Treatment of persons identified with STIs in corrections has varied substantially but can reach up to 95% (Silberstein et al., 2000; Kahn et al., 2002; Mertz et al., 2002; Hardick et al., 2003; Barry et al., 2006; Trick et al., 2006; Pathela et al., 2009; Cole et al., 2014). Factors that may improve corrections-based treatment rates include:

- Conducting screening as early as possible (i.e., during intake)
- Use of urine-based screening for gonorrhea and chlamydia to ease the burden of sample collection
- Assuring test results are available as quickly as possible
- Administering treatment as quickly as possible after results are obtained
- Use of single dose antibiotic therapy where appropriate

Any delay in these processes increases the probability that individuals will be released without treatment, which increases the chances they will not be treated at all because it is frequently difficult to locate people after release. Additionally, an electronic jail medical record that can receive test results may facilitate quick processes by speeding transmission and notification of results. In order to facilitate quick treatment after results are available, standing orders can be developed that allowed nursing staff to treat under the orders of the medical director. In the absence of standing orders, treatment in jails may be delayed based upon when a physician is available to see the patient.

Regardless of the systems implemented within the correctional setting, collaboration between correctional staff and public health authorities is essential. Even in the most efficient system, results may not be available prior to an individual's release in many cases. Therefore, a process that allows correctional staff to notify public health authorities who can then complete follow-up with those who have returned to the community is needed to fully maximize the public health impact of STI screening in correctional settings.

Cost-Effectiveness of STI Screening in Corrections

The cost-effectiveness of STI screening in corrections has been examined with somewhat mixed findings due to differences in modeling (Silberstein et al., 2000; Mrus et al., 2003; Blake et al., 2004; Kraut-Becher et al., 2004; Gift et al., 2006; Gopalappa et al., 2013; Tivoschi et al., 2018). Models

have generally shown that the cost-effectiveness improves as the treatment rate before release improves (Kraut-Becher et al., 2004) or as screening men is translated to treatment or aversion of cases in women (Blake et al., 2004; Gopalappa et al., 2013). Additionally, age-based screening is more cost-effective compared to universal screening (Gift et al., 2006; Gopalappa et al., 2013). Clearly, the higher the prevalence of infection in the population screened, the more cost-effective the screening program will be.

Summary

There is a heavy burden of STIs among select populations of incarcerated persons. Evidence suggests that targeted screening and treatment of STIs can reduce community rates of infection. Broad-based, national screening of key populations in corrections would allow public health programs an opportunity to leverage the alarming racial and ethnic disparities within the incarcerated population to address important subpopulations at greatest risk for STIs. The evidence for the public health benefit of STI screening targeted to correctional settings is strong.

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Part III

Primary and Secondary Prevention



Root Cause Analysis to Improve Care: Getting Past Blame

13

Susan W. McCampbell

Introduction

Respectful, honest, and routine self-critical analysis involving corrections custody personnel and healthcare staff is essential for safe facility operations and positive outcomes, before, during, and after critical incidents. Regular reviews of operational challenges or emerging opportunities anticipate and prevent negative outcomes; this is risk management. During an incident, teamwork is necessary to ensure timely care. Following an incident, joint efforts are required to thoroughly dissect the incident to identify the root causes, not the symptoms, and put in place corrective action plans to improve operations and patient outcome. Too often, the goal of post-incident evaluation, including morbidity and mortality reviews, is blaming, versus correcting. Medical providers are sometimes hesitant to question custody operations related to patient outcomes; while custody staff may be more inclined to “blame” medical providers when there are negative outcomes. Both these reactions, or similar ones, are the result of the internal culture of each group, the history of collaboration in the facility, the costs of the incident to public image, and the amount of political fallout. “Criminal justice practitioners . . . rank and file have been taught throughout their careers that silence on the matter [of errors] is usually the safest policy” (Doyle, 2010a, b, c).

This chapter will address an overview of root cause analysis; why conduct it; how to conduct it; and how to identify and overcome obstacles.

This chapter is partially taken from a toolkit by the Center for Innovative Public Policies, Inc. Root Cause Analysis to Improve Jail Safety: Getting Past Blame. 2019. Details available at <http://www.cipp.org/root-cause-analysis-to-improve-jail-safety-gettin-past-blame.html>.

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What Is Root Cause Analysis?

The ultimate objectives of root cause analysis (RCA) are problem-solving, reduction of risk, and prevention of future occurrences of adverse events through the implementation of measurable and time-driven action plans.

RCA is not limited to post-incident review, but also can and should be used to identify and fix problems before there is an incident. Waiting for a “spectacular” incident before examining operations is an irresponsible way of doing business. The consequences of an isolated error may be perceived as minor, for example, an inmate out to court misses her medication, when in fact it may be a tragedy, if that missed medication was a part of an undiscovered pattern that contributes to negative patient outcomes. The failure to collect, analyze, and act on data creates or magnifies harm and safety risks.

With a numbing sense of *déjà vu*, some correctional facilities seem to run on adrenalin; staggering from one crisis to another. Often the views of medical and custody leadership are not calibrated to see the early warning signs of policy failure, or lapses in supervision or training. While an internal affairs investigation may be done after an incident to identify, or “blame” who was responsible, prevention and sustainable change are often not a priority of these reviews. Yet, does this operational philosophy keep staff and inmates safe, and/or inspire the confidence of the employees, the community, and the funding authority?

The objectives of RCA are to create and sustain a “culture of safety” distinguishing symptoms from core deficiencies – including that the organization:

- (1) is informed about current knowledge of its field;
- (2) promotes the reporting of errors and near misses;
- (3) creates an atmosphere of trust in which people are encouraged to report safety-related information;
- (4) remains flexible in adapting to changing demands (by, for example, shifting from steeply hierarchical modes into ‘flatter’ team-oriented professional structures); and
- (5) is willing and able to learn about and adjust the functioning of its safety system. (Reason, 1997)

RCA is a transparent, collaborative process, occurring after a sentinel event, or used to address an emerging operational challenge, to:

- Identify the policy/procedure disconnect or the emerging challenge
- Gather data, or identify the lapses and gaps in credible data
- Thoroughly analyze the event (sometimes labeled as determining the “5 W’s” – who, what, when, where, why)
- Determine causation
- Articulate recommendations
- Develop and implement a corrective action plan

Principles of Root Cause Analysis (RCA)

- Focusing on corrective measures of root causes is more effective than simply treating the symptom of a problem or event.
- RCA is performed most effectively when accomplished through a systematic process with conclusions backed up by evidence.
- There is usually more than one root cause for a problem or event.
- The focus of investigation and analysis through problem identification is WHY the event occurred, not who made the error.

(Washington State, n.d.)

RCA is a tool that will improve operations in at least three ways. First, RCA can be used to dissect an incident or event. “A sentinel event is a significant, unexpected negative outcome that signals possible underlying weaknesses in a system or process; is likely the result of compound errors; and may provide keys to preventing future adverse events or outcomes” (U.S. Department of Justice, National Institute of Justice, n.d.). Sentinel events should serve as early warnings of pending adverse events.

Second, leaders can use RCA to examine emerging issues or perceived barriers inside operations **before** a crisis or event. For example, RCA can examine the causes for findings of loose medication in inmate housing units, delays in escorting patients to healthcare staff, or trends in injuries among inmates. This is true risk avoidance. The process also helps identify what the facility missed as warning signs before the incident happened.

Finally, the deliberative process of objectively examining an incident models the behavior for future leaders.

An RCA is NOT intended to be, or replace, an internal affairs investigation, nor is it intended to replace clinical performance measurement, morbidity and mortality reviews, grievance analysis, or other quality management activities. The RCA looks at process, policies, procedures, training, and supervision, while an internal affairs investigation often seeks to focus on employee behaviors. These are not mutually exclusive processes. The agency’s policy must define the role of each and how, and if, the processes coalesce.

What Events Trigger a Root Cause Analysis?

Internal facility policies (both medical and custody) will define when RCAs are conducted. Triggering events may include, but are certainly not limited to:

- In-custody death or serious self-harm
- Escapes from custody
- Inmate disorders
- Staff shortages
- Housing shortages for special populations
- Persistent challenges such as discontinuity of medication, lags to access to acute or chronic care, etc.

RCAs can be used to drill down into emerging issues before these become incidents. Other emerging challenges that might trigger an RCA include, but are certainly not limited to:

- Uses of force involving inmates on the mental health caseload
- Introduction of contraband
- Increasing numbers of inmates with serious mental health and medical diagnoses
- Employee attrition
- Physical plant issues
- Staff sexual misconduct
- The impact of the community’s opioid crisis on the correctional system

Developing tracking mechanisms with monthly or quarterly reviews of these types of occurrences will likely highlight where attention is needed. It is the leadership’s decision as to what will trigger an RCA.

Elements of a Root Cause Analysis

The facility's written directives and policies define what events TRIGGER an RCA. Among the first steps are: assembling a team, gathering information, brainstorming contributing factors, identifying root causes, writing and implementing a corrective action plan, and assuring the plan is effective (California Correctional Health Care Services, April, 2013).

Not meant to be an exhaustive list – here are elements of the RCA PROCESS. Each facility must evaluate the elements and incorporate them into their own internal written directives. Above all, the process must be systematic and not be derailed by politics, relationships, or predetermined conclusions.

To conduct a credible root cause analysis, additional steps to consider include, based on written directives:

- Develop the preliminary plan – who is to do the work, who is to assist, what is a reasonable time frame? Revise the plan as needed. Be sure to keep records of meetings, attendees, and assignments. Ensure that documents are securely and confidentially maintained.
- Determine what happened (if there is an immediate, urgent need for action – do not wait to report).
- Establish the facts; gather the data, evidence, information, interviews, videos, examine existing audits, inspections, etc. Act promptly so that information does not get misplaced or disappear.
- Identify issues, conditions, and events that contributed – perhaps using techniques such as charting or mapping; drill down to ensure that actual causes, not just the symptoms are identified.
- Ensure that contributing factors are identified.
- Compare findings to relevant policies, including training lesson plans.
- Identify the root causes, keep asking “why”; are the issues human factors, communications, training, staffing, scheduling, environment, equipment, rules, policies, procedures?
- Avoid hindsight bias. You only know what you know as an incident unfolds.
- Start with the problem not the solution. Assumptions and “fixing” can hamper through analysis of causes.
- Develop specific recommendations; brainstorm; discuss recommendations with those involved.
- Write the report; align cause and effect, be specific and factual, focus on incident.
- Develop corrective action plan(s) and/or after action report (based on jail's policy).
- Discuss individual staff accountability (leave employee discipline and commendations to others).

Five Rules of Causation

- Rule 1: Clearly show the cause and effect relationship
- Rule 2: Use specific and accurate descriptors for what occurred, rather than negative & vague words.
- Rule 3: Identify the preceding cause(s), not human error.
- Rule 4: Violations of procedures are not root causes; they must have a preceding cause.
- Rule 5: Failure to act is only causal when there is a pre-existing duty to act.

(Center for Healthcare Engineering and Patient Safety, University of Michigan, 2015)

The challenging realities in conducting RCA are the influencers, positive or negative, of forces in the community. For example, an inmate's death is attributable to illegal drugs circulating in the facility. The drill-down must include asking tough questions. Is the root cause due to: the absence of an inspections/audits; failure of supervisors to identify and/or report the problems; failure to revise operations to address emerging findings of illegal substances; the failure to appropriate available funds to improve arrestee screening; or the funding authority's failure to appropriate funds to fix the problem? This simplistic example of drill-down does not seek to "blame" the persons who may be involved; rather it looks at the cause with an eye toward prevention.

Corrective Action Plans

Findings and recommendations flowing from an RCA are an asset *only* if promptly incorporated into a realistic, timely and resourced corrective action plan. There are many formats of corrective action plans. The essential ingredients are:

- List specific actions expected in clear, objective, measurable statements.
- Identify who will carry out these actions; include others who need to be involved.
- Establish timelines or deadlines for completion of action items.
- Identify resources needed to carry out change(s).
- Make the process transparent and define how it will be communicated to staff and outside entities.
- Develop periodic monitoring reports to leadership and management with updates to the plan as necessary.
- Evaluate/determine whether the plan resulted in the desired outcome, why or why not.

There is no ideal way to conduct an RCA and there is not one preferred format for a corrective action plan. If a facility wholeheartedly and sincerely adopts this approach, there must be discussion, debate, and collaboration to arrive at their unique strategy. Wholesale adoption of another agency's policies will likely not fit the facility's specific needs or organizational structure.

Finally, self-critical analysis and RCAs as part of an agency's culture and processes is an EVOLVING process. Count on learning more about how to improve agency operations as the systems become better refined, resourced, and integrated.

Smart Model

In defining actions, consider:

- S – Specific – Is the wording precise and unambiguous?
- M – Measurable – How will achievements be measured?
- A – Action-oriented – Is an action verb used to describe expected accomplishments?
- R – Realistic – Is the outcome achievable with given available resources?
- T – Time-sensitive – What is the time frame?

(FEMA, 2010)

Overcoming Internal Culture Barriers to RCA

The internal culture of many correctional organizations does not embrace self-critical analysis. Internal culture is defined as the values, assumptions, and beliefs that people in an organization hold that drive the way they think and behave within the organization (Flaherty-Zonis, 2007). Therefore, before self-critical review processes are introduced, it is critical to educate and gain buy-in from employees, stakeholders, funders, and the community. Proceeding without acknowledging the impact of internal culture and without making efforts to change will substantially undermine implementation of a credible self-critical culture.

Positive outcomes that can emerge from an agency's commitment to self-critical analyses and RCA include, but are not limited to:

- *Commitments to excellence through objective reviews of serious incidents, examination of emerging issues, and development and implementation of change strategies.* As publicly funded agencies, correctional institutions have an obligation to be accountable to the community. RCA provides the vehicle to do this (McCampbell, 2016d).
- *Establishment of a culture of “. . . non-blaming, forward-thinking, all-stakeholder approach to improving criminal justice outcomes”* (Doyle, 2014). The “blame game” is one obstacle to creating an environment for meaningful self-critical analysis, prevention, and problem solving. Those operating correctional facilities work in “. . . an inherently political context” with potential negative outcomes of public scrutiny and criticism (Ritter, 2015). Transparent review of sentinel events goes a long way in maintaining credibility with the public and in the political realm.
- *Role modeling leadership expectations.* Facility leaders leave a legacy – whether positive or negative, sought or unearned. That legacy is even more apparent in emergencies and critical incidents. Employees, inmates, and the community observe how the leader manages in very difficult times. This then sets and/or redefines the future of the organization.
- *Identification of system failures* (U.S. Department of Homeland Security, U.S. Fire Administration; National Fire Data Center, Federal Emergency Management Center, 2008). The goal of conducting an RCA is to find system failures. “Systems” or processes are what correctional facilities put in place to achieve the mission. Often, we create redundant systems so that if one fails, the backup system will flag and address the matter. Sometimes these processes are people-focused; sometimes hardware-focused; but quite often are a combination of both. There is frequently more than one cause of an incident, hence a failed system. Systems may fail because staff are untrained, processes not written down, supervisors are ineffective, or people just don't do their job. The RCA is to learn more about the underlying issues.
- *Examination of issues from a global perspective.* Borrowing from the National Transportation Safety Board's “Go Team” investigations – aviation accidents are examined from a wide view – the history of the flight and crew immediately prior to the crash, the airframe's integrity, the craft's power plant; the aircraft's hydraulic, electrical, pneumatics, and associated systems, communication from air traffic control, weather, human performance, and survival factors. Just knowing that the weather was bad is insufficient to assess the accident and focus on prevention (National Transportation Safety Board, n.d.).
- *Providing a framework for review, assuring that data and steps in the process are not missed* (Washington State Department of Enterprise Services, n.d.). A facility's commitment to conducting transparent reviews of incidents requires a framework. This framework protects the process from those who may not be happy with the potential results, and provides credibility.
- *Assessment of the effectiveness of policies, procedures, protocols, supervisory practices, training, and leadership.* Even if a facility periodically and systemically assesses operations and updates

policies and procedures, an adverse outcome will most likely enable a more detailed review. The process of evaluating foundational provisions using a structured framework will improve the organization. Addressing the “blaming” culture noted above, the focus is on processes NOT people.

- *Documentation of trends and patterns involving operational errors.* While seeing the same error repeated too often might be the result of focusing on symptoms rather than the cause, stepping back to identify and examine patterns will help define solutions. Correctional facilities’ decision-making should be data-driven. If solutions have been previously attempted, why did those not work? What are the barriers to a permanent solution? How effective is the risk management system when considering the adverse event?
- *Serving as a platform for change.* The first step in the change process, according to James P. Kotter, is establishing a sense of urgency (Kotter, 1996). It is concerning that, in some organizations, change only happens after an adverse incident is aired on the six o’clock news and on social media.
- *Distinguishing the symptoms from the disease.* As action-oriented organizations, public entities are often quick to react to negative outcomes, but often do not spend time figuring out the underlying issues that caused an incident. Leaders are often left wondering why the “fix” did not work. The RCA process focuses on unpeeling the event to its core.
- *Tracking issues in consideration of adequate funding to assist with budgetary prioritization* (Zarnescu, 2017). The competition for funding in any community is intense. Political leaders must choose between competing and compelling priorities. The RCA process is part of that foundational work in objectively documenting needs – perhaps a renovation to provide a mental health unit, more infirmary beds, or more mental health training for employees (McCampbell, 2016b, e).
- *Identification of emerging community trends and issues.* As the public does not generally view correctional facilities as part of the community’s law enforcement/public safety, correctional facilities need to clearly state the case for what they need. The most profound examples are the evolution of correctional facilities into the community’s de facto mental health hospital and the impact of the opioid crisis on both custody and medical personnel (who ever anticipated carrying Narcan on medical carts?). RCAs provide the opportunity to engage in community research, identifying stakeholders, and community-wide problem solving. Without the community’s knowledge and support, organizations will struggle to solve the issue of incarceration of the mentally ill.
- *Identification of positive outcome.* Correctional employees feel underappreciated in the best of times. In crisis, when the community is scrutinizing the facility, accurately identifying what went well and who contributed are helpful to boost staff morale and public opinion. The RCA process helps point out what went right and identifies staff who are performing well.

Strategic planning to implement (or revise) an environment in which self-critical analysis is an engrained part of the organization needs to be grown, not dropped into an organization without serious discussion.

Overcoming Obstacles

There are challenges to implementing and sustaining a credible RCA process. Among these are:

- Absence of authentic leadership commitment
- Internal agency culture which does not accept critical self-assessment and is characterized by “blaming” rather than fact finding and correction
- Fear of findings/outcomes
- Absence of governing policies, procedures, and formats for RCAs

- Lack of training on how to accomplish RCAs
- No follow-through on findings or action plans, thus undermining the commitment
- Concerns of legal counsel
- Resources

Strategies to address the obstacles can be developed as part of the planning process to implement or revise RCAs. No one knows their facility better than the people who work in it. Communicating ideas about this initiative may bring supporters and detractors forward. Listening to these concerns are important, but with an eye toward solving the issue, rather than allowing these to become barriers.

This discussion is not intended to minimize the concerns of the organization's legal counsel as a barrier to implementing a credible and robust self-critical/RCA process. There is an unquestionable inherent conflict between the organization's need to identify the causes of an incident to prevent it from happening again and legal counsel's desire to protect such information from discovery in the event of litigation.

Can a facility credibly operate if it fails to drill down into the reasons for harm and does not take corrective action? The leadership must address this matter with their counsel. Rather than furthering a conflict, identification of common ground can lead to collaborative efforts to ensure future jail safety. Depending on the physical location of a facility, a state or Federal court may have already ruled on any privilege that may exist to protect bona fide reviews, consistent with their internal policies and procedure (Jones, 2003a).

The balancing of the competing interest – prevention of future harm to staff and inmates, verses protection of negative RCA findings – require consensus on the future of the facility's operations. Failure to thoroughly review incidents and develop and implement corrective actions places the organization at risk of being perceived as unresponsive, or worse, deliberately indifferent.

Developing a Strategic Plan for RCA

Establishing (or in some cases revising) an environment where self-critical review is a positive and welcome part of the organization requires honest discussion, agreement on principles, development of written guidance, training of employees, supervision of the initiatives, and evaluations of outcomes.

When a facility considers adopting RCA and critical self-assessment as part of its operational practice, the following are considerations:

- Discussion and consensus among the leadership of commitment to the process, including identification of strengths, weaknesses, opportunities, challenges, and barriers
- Consultation with legal counsel, risk managers, and insurance carriers
- Communication/orientation/education for all employees about the initiative and what it means to them, inviting participation, and providing periodic updates
- Assignment of tasks with timelines and review processes to update, refine, and implement
- Assessment of internal culture and strategies to address changing any "blaming" culture
- Identification of resources needed to develop and sustain the initiative and how resources will be obtained
- Dialogue with both the organization's internal and external stakeholders (e.g., community, funders) about the merits of RCA and the leadership's proposed strategies
- Plans for ongoing collective, transparent oversight as the process begins

Initiating an RCA process begins deliberately, with planning, assignments, accountability, and timelines.

What Is Next

Whether a correctional facility and the healthcare staff have a credible root cause analysis process should be a matter of mutual, objective discussion. After a negative public event, or when the news media is at the front door of the facility is not the time to engage such an introspective conversation.

A proactive step may be a mock tabletop exercise – using a real, or invented scenario, and involving the organization’s risk manager and external stakeholders. This simulation can help identify training and policy needs and communicate a clear sense of purpose in conducting the work. Use this as a learning event, and critique what proposed, or actual policy and procedures.¹

Examples of RCA

The following is a list of reports that provide root cause analyses for contemporary issues. There are not many publicly accessible corrections-related RCAs, and/or after-action reports. These incident reviews are provided as examples only, and no assessment is made of the quality of the reviews.²

- Death at Hampton Roads Regional Jail (2016) Jennings, June W., CPA, *Office of the State Inspector General Report to Governor Terence R. McAuliffe Investigation of Critical Incident Hampton Roads Regional Jail*, April 2016, <https://www.osig.virginia.gov/media/governorvirginiagov/office-of-the-state-inspector-general/pdf/2016-bhds-002-hrrj-death-final-sig-approved.pdf>
- Inmate Escape Clinton Correctional Facility (2016) Scott, Catherine Leahy, Investigation of the June 5, 2015 Escape of Inmates David Sweat and Richard Matt from Clinton Correctional Facility, State of New York, Office of the Inspector General, June 2016, <https://assets.documentcloud.org/documents/2853033/Inspector-General-s-Investigation-of-New-York.pdf>
- Deaths at James T. Vaughn Correctional Center (2017) Staub, Frank, Jennifer Zeunik, Maria Valdovinos, Michelle Phillips, Joyce Iwashita, Roger Werholz, Roger May, *Preliminary Report: Independent Review of Security Issues at the James T. Vaughn Correctional Center*, Police Foundation, February 14, 2017, <http://governor.delaware.gov/wp-content/uploads/sites/24/2017/06/Independent-Review-Initial-Report-June-2-2017.pdf>
- Shooting at Fort Lauderdale, Florida airport (2017) Herrera, Chabeli and Amy Sherman, “Officer mishandled response to Fort Lauderdale Airport shooting, report says, leading to chaos”, June 5, 2017, <http://www.miamiherald.com/news/business/article154497524.html>
- Shootings at Marjory Stoneman Douglas High School (2018) Marjory Stoneman Douglas Public Safety Commission, *Marjory Stoneman Douglas High School Public Safety Commission, Initial Report Submitted to the Governor; Speaker of the House of Representatives and Senate President*, January 2, 2019 <http://www.fdle.state.fl.us/MSDHS/CommissionReport.pdf>
- Shooting at Virginia Beach City Hall (2019) Hillard Heintze, The City of Virginia Beach, An Independent Review of the Tragic Events of May 31, 2019, November 13, 2019, <https://www.vbgov.com/government/departments/city-auditors-office/Documents/Hillard%20Heintze%20Presentation%20to%20Virginia%20Beach%20Exec%20Summ%2011-13-19.pdf>

¹Examples of policies and procedures are available at: [http://www.cipp.org/uploads/3/7/5/7/37578255/rca_cipp_4_25_2019\[5270\]_1.pdf](http://www.cipp.org/uploads/3/7/5/7/37578255/rca_cipp_4_25_2019[5270]_1.pdf)

²Additional after-action reports are available at: [http://www.cipp.org/uploads/3/7/5/7/37578255/rca_cipp_4_25_2019\[5270\]_1.pdf](http://www.cipp.org/uploads/3/7/5/7/37578255/rca_cipp_4_25_2019[5270]_1.pdf)

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Health Promotion in Jails and Prisons: An Alternative Paradigm for Correctional Health Services

Megha Ramaswamy and Nicholas Freudenberg

According to the Bureau of Justice Statistics, each year 10.6 million people pass through a jail in the United States. About 1.5 million individuals are in prison on any given day (Zeng, 2019). It is worth noting that although the United States makes up 5% of the world's population, it incarcerates 25% of the world's prisoners (Lee, 2015). Individuals who become incarcerated include some of the most vulnerable populations, those suffering from or at higher risk of infectious and chronic diseases, addiction and mental illness, and victims and perpetrators of violence (Dolan et al., 2016; Kelly et al., 2014; Stürup-Toft et al., 2018). Not only are incarcerated populations themselves often unhealthy, but untreated they can also worsen the well-being and impose additional costs on their families and communities (Nowotny & Kuptsevych-Timmer, 2018; Uggen et al., 2012). Unfortunately, the majority of people leave prison or jail without having their most serious health problems addressed, and many correctional health systems in the United States, in particular, see their main responsibility as providing only the most essential medical care to those in their custody. In this chapter, we consider whether the paradigm of health promotion can provide an alternative framework for correctional health in the United States and examine the scientific evidence, benefits, and opportunities for this perspective.

For the last 35 years, the World Health Organization (WHO) has made health promotion a priority. The Ottawa Charter for Health Promotion, adopted in 1986, defined health promotion as the “process of enabling people to increase control over and to improve their health.” The 2016 Shanghai Declaration recast the transformative potential of health promotion for sustainable development in the contemporary world, with emphasis on multisectoral action, not just individuals (WHO, 2017). In this vision, health promotion addresses the interconnected reality of people's lives; that well-being and health may be outside of individual and traditional health sector control; and that multisectoral collaboration and advocacy are needed to sustain health-promoting efforts (WHO, 2017).

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This declaration was in the context of global Sustainable Development Goals, which are a roadmap for global development. For corrections, this lens offers a broader view of the role of corrections in society and as a place that can contribute to communities. *Interconnectedness* recognizes that correctional facilities are part of communities, and incarcerated people have multiple interactions with others, meaning that correctional health issues are also public, community, family, and individual health issues. The idea that major influences on *well-being and health may be outside of individual and traditional healthcare system control* acknowledges inequities in access to health care and preventive services, healthy food, a safe environment, adequate housing, and other necessities of life.

In the United States, the reality is that over the past decades, often by default rather than by design, incarceration has become a de facto solution to mental illness, addiction, poverty, and inequality. For those who seek more effective and humane solutions to these and other social problems, improving correctional health services and integrating health promotion within these services may become a system change strategy that can enlist other sectors in defining more appropriate, achievable, and limited roles for jails and prisons.

WHO initiatives on health promotion provide one influence on reconsidering the scope of correctional health services. Another source is the recent movements to end mass incarceration, the war on drugs, and the inequitable impact of criminal justice policies on low-income communities and people of color (Chettiar & Raghavan, 2019). These movements have sought to interrupt the school-to-prison pipeline; end racially biased criminal justice practices; divert inmates out of correctional facilities to the mental health, substance abuse, and other services better prepared to treat them; and ensure successful community and civic reintegration after release. Thoughtfully designed health promotion programs can contribute to each of these goals.

Just as *multisectoral collaboration and advocacy* are needed to sustain global health promotion and to support criminal justice reform movements, correctional institutions cannot transform their mission and strategies on their own. As jails and prisons play more complex roles in the lives of individuals and communities, they will need partners to negotiate this transition—partners within the criminal justice, public health, social service, economic development, workforce preparation, social justice, and other sectors.

At first sight, this expansive conception of health promotion may seem too naïve or idealistic to serve as a useful framework for transforming the practice of correctional health. However, as society reconsiders the role of the criminal justice system in promoting public safety, social justice, and core American values, we make the case in this chapter that a transformative and forward thinking definition and practice of health promotion can serve as a bridge to bring together correctional and public health professionals, incarcerated people and their families and communities, and elected officials who must define an approach to incarceration and justice that engages public trust and support. The challenges that the recent opioid and coronavirus epidemics posed to the correctional system illustrate the potential societal contributions that a health promotion perspective could bring to this system.

In Table 14.1, we summarize the broad vision, how it applies to corrections, and our recommendations from the literature about tangible health promotion activities that could occur in jails and prisons.

In this expanded view, correctional health services (CHS) seek to improve population health both by treating the conditions that inmates present to facility providers and by offering the knowledge, skills, and referrals that incarcerated people need to protect their health inside the prison or jail and after release. CHS can also serve as referral sites for both facility-based (during incarceration) and community-based (after release) health education, health care, mental health, substance use, and social services, and also as resource on health for inmates' partners and children in the free world. In this model, the outcome of incarceration is assessed in part on the extent to which the facility has

Table 14.1 Vision for health promotion as it applies to corrections

Health promotion concept	Utility for corrections	Key activities
Interconnected reality of people's lives	Changing view of role of corrections in society and as a place that can contribute to communities; people in corrections have community contact—meaning health issues corrections deals with are community, family, and individual health issues	Provide inmates, correctional officers, and families with education and information Prepare individuals for release Enable individuals to act on behalf of their health
Well-being and health outside of individual and traditional health sector control	Reality of corrections as a United States' mental health solution, poverty solution, and addiction solution; corrections in the business of serving people and communities; responsibility for access to health care and prevention, healthy environments, and safety	Ensure access to appropriate health care Create healthy environments in correctional facilities (sanitation, infection control, unpolluted air, water) Provide basic necessities like healthy food, safe housing, and protection from violence
Multisectoral collaboration needed to sustain health promotion	Gains in public health, reduction of recidivism and safety of communities may need to include partners outside corrections	Facilitate collaboration to conduct health promotion activities
Advocacy for criminal justice reform	Recognizes need for ongoing advocacy to win changes in criminal justice reform, policies, and budgets that support enhanced role for health promotion in correctional systems	Training of CHS staff and inmates to serve as advocates for health promotion inside and outside correctional facilities

prepared those in its custody for healthier living after release. Since correctional systems tend to select populations at highest risk of health problems, an added benefit of this expanded conception of the role of CHS is that it can contribute to reducing the stark inequities in health that now characterize the United States and many other nations.

Finally, from a criminal justice perspective, health problems such as substance use, perpetration of or victimization by violence, mental illness, or chronic or infectious diseases can increase recidivism, encourage dependency, or endanger the well-being of people connected to the returning individual. Health promotion activities that prevent or reduce these problems can help to encourage healthier and safer post-release behaviors and lifestyles, thus serving a rehabilitative and public safety function.

In this chapter, we consider health promotion using the broad framework set out by the WHO and including enhancements suggested by the recent criminal justice reform movements as a mindset that views CHS as an integral element of public health that is judged by its contribution to improved population health. We distinguish this perspective from the more traditional view that CHS simply provide care that meets minimal legal standards for those in custody.

Rationale and Mandate for Health Promotion in Correctional Facilities

For the last 25 years, the United States and the European Union have set standards for correctional health care. In the United States, the National Commission on Correctional Health Care (NCCHC) first introduced a clinical guidelines document in 2001, with the most recent standards updated in 2018 (NCCHC, 2001, 2018a, b, c). The purpose of the NCCHC guidelines was to assist healthcare workers with the management of illness in correctional settings and improve incarcerated patient

outcomes. The NCCHC also developed a document that specifically addressed health education within correctional facilities (Task Force on Correctional Care Standards, 2003). The Health in Prisons Project (HIPP) was started in Europe in 1995 by the WHO with the goal of improving health in European prisons in order to improve public health (Gatherer et al., 2005). Member countries (there are currently 38) have pledged the resources necessary to build a public health infrastructure in prisons and participate actively in the collaboration (Whitehead, 2006; WHO, 2019).

On the public health sector side, both Healthy People 2020 and its successor Healthy People 2030, the primary national health planning process of the United States, and the “Public Health 3.0” vision, which sets the tone for how local public health in the United States addresses local challenges, have also called either for comprehensive responses to incarceration as a social determinant of health and multisector collaboration as a solution for addressing complex community health problems (Healthy People 2020, 2017; Centers for Disease Control and Prevention, 2017; DeSalvo et al., 2017).

Together, these mandates demonstrate that a wide variety of correctional health and public health professionals and organizations support the inclusion of a health promotion perspective within CHS. In our review of these calls to action, the literature, and our experience offering health promotion programming in jails, we identified eight key program activities that can provide an operational definition of health promotion within correctional facilities. These were: (1) providing inmates, correctional officers, and families with education and information; (2) preparing individuals for release; (3) enabling individuals to act on behalf of their health; (4) ensuring access to appropriate health care and preventive services; (5) creating healthy environments in correctional facilities (sanitation, infection control, unpolluted air, water, etc.); (6) providing basic necessities like healthy food, safe housing, and protection from violence; (7) facilitating collaborations to conduct health promotion activities; and (8) training of CHS staff and inmates to be advocates for health promotion inside and outside correctional facilities. These activities are not mutually exclusive, but each activity has distinct characteristics, as defined in Box 14.1.

Box 14.1 Defining Key Activities for Health Promotion in Jails and Prisons

***Provide inmates, correctional officers, and families with education and information** for health promotion, but do so using multilevel models that address institutional, peer, family, and community influences on health outcomes.*

***Prepare individuals for release** with programming that helps people avoid the health risks of release (drug overdose, homicide, suicide, HIV health risk, for example). Provide multifaceted wraparound care that acknowledges comorbidities and social needs after release from jail or prison.*

***Enable individuals to act on behalf of their health** by facilitating critical reflection of circumstances, solutions, and engaging the broader community in building structures that support change. This can also include preparing individuals, families, and communities to advocate for policies that protect their well-being.*

***Ensure access to appropriate health care** with a reorientation of services to focus on disease screening, chronic disease management, and preventive care. This reorientation takes the long view that investing in prevention saves costs and lives down the road.*

***Create healthy environments in correctional facilities** with a focus not only on jail and prison conditions, but also on policies that encourage social support, family interaction, and better preparation for release. This also includes policies that prevent correctional facilities from amplifying epidemics.*

Provide basic necessities like healthy food, safe housing, and protection from violence to all inmates both to fulfill basic human rights obligations and to ensure that released inmates do not return to their communities with unmet health needs or higher burdens of trauma.

Facilitate collaboration to conduct health promotion activities through linkages among correctional entities, community organizations, and local public health departments to expand the scope of population health activities provided by CHS.

Train advocates for health promotion by drawing on the experience of criminal justice reform movements. Examine policies across sectors to see which policies harm communities; change CHS procedures; and when necessary, use litigation to effect change.

The structure of US jails and prisons offers multiple opportunities as well as daunting obstacles to health promotion. Jails incarcerate individuals who are awaiting adjudication, those sentenced to terms of a year or less, and parole and probation violators (James, 2004). Because of the high volume, short lengths of stay, and rapid turnover, jails provide unique opportunities to reach many vulnerable individuals within low-income communities and to link them to community health promotion efforts after release. Unlike prisons, jails are usually located within high-incarceration communities, enabling activities to engage family members in health promotion activities (Begun et al., 2017; Freudenberg, 2001; Maschi et al., 2018). On the other hand, the high turnover, security concerns, dynamic environment, and external demands from elected officials, the media, and the public on jails make them a difficult environment for health promotion. This setting requires health staff to have patience, modest goals, and a willingness to balance their desires to address health issues with the custody and control priorities of correctional officials.

Prisons typically house people sentenced to more than a year and include individuals who will never be released from the facility. Longer lengths of stay and a more secure and stable environment sometimes enable prisons to have more opportunities for planned health activities and to have the intensity and duration of contact needed to achieve health goals. However, prisons have more limited interactions with families and communities, reducing their potential to have an impact on population health (Austin & Hardyman, 2004).

Correctional systems also vary in their support for and commitment to health services. Some jurisdictions have established model programs and CHS, and wardens, sheriffs, or commissioners/directors are forceful advocates for health (Lincoln et al., 2006; Sinclair & Porter-Williamson, 2004; White et al., 2003). Others, however, view health as a distraction from more traditional custody and control issues and take on health issues mainly in response to litigation (Nathan, 2004). Obviously, health professionals in a supportive environment will have an easier time adding a health promotion perspective into existing CHS, while those in more traditional settings face greater obstacles. Even in challenging environments, however, litigation, new state or federal mandates, or forceful advocacy can stimulate interest in more comprehensive approaches to health, including health promotion.

Another external influence is the growing trend of assigning responsibility for correctional health services to external contractors. While the quality and scope of such privatized services vary widely, a recent review identified problems related to quality of care, accountability of professionals, and timely access to care in privatized services (Weiss, 2015). Whether contacted out services provide more or less health promotion has not, to our knowledge, been studied. Since privatized services are generally not accountable for population health, their role in health promotion may be limited.

A fourth contextual variable of interest is the extent to which existing officials in local or state correctional or health departments or in local or state government as a whole support intersectoral, multilevel approaches to reentry and improved health. The approach to health promotion described here works best if officials, providers, and advocates from multiple systems and agencies are willing to come together to articulate a shared vision, identify and solve problems, exchange resources, and plan comprehensively. Having a high-level official who supports and is willing to lead such an effort significantly increases the likelihood of success.

Operationalizing a Vision for Health Promotion: A Review of Evidence and Opportunities

While to our knowledge no correctional system has yet implemented a comprehensive and integrated health promotion initiative, in fact all elements of such a program have been implemented in some correctional facilities. In Table 14.2, we provide an overview of the components of a comprehensive health promotion program for correctional facilities. In a subsequent section, we provide practitioners with a practical list for health promotion opportunities in correctional and post-release settings.

Table 14.2 Elements of a comprehensive correctional health promotion program

Health promotion activity	Selected activities/ approaches in jails or prisons	Selected health and social outcomes: inmates	Selected health and social outcomes: correctional facilities	Selected health and social outcomes: society as a whole	Selected references
Provide education and information	Health education and other health promotion programming; family planning, parenting, violence prevention, and other health programs	Improved HIV outcomes; better chances for successful reentry; lowered rates of violent recidivism; improved relationships with children; less jail transmission of infectious diseases	Improved HIV management and delivery; lowered healthcare costs; lowered violent reoffenses	Improved HIV testing, prevention, and treatment policies and practices; improved outcomes for children of inmates; decreased violent reoffenses	Polaschek (2011), Belenko et al. (2013), Bronson and Sufrin (2019), Miller et al. (2014)
Prepare individuals for release	Reentry programming (chronic, infectious, mental health, substance abuse, housing, employment, education planning); case management services; integrated treatment programs for trauma	Improved HIV care retention; fewer drug overdoses; improvement in mental health	Greater linkage of care for HIV and other health conditions; fewer drug overdose deaths; increased delivery of trauma-informed care	Better HIV care delivery systems; decreased drug deaths; improved mental health outcomes	Althoff et al. (2013), Wallace et al. (2011)

Table 14.2 (continued)

Health promotion activity	Selected activities/ approaches in jails or prisons	Selected health and social outcomes: inmates	Selected health and social outcomes: correctional facilities	Selected health and social outcomes: society as a whole	Selected references
Enable individuals to act on behalf of their health	Health literacy programming; empowerment; civic engagement approach	Increased knowledge on positive living strategies; increased community engagement	Reduced imprisonment-related HIV vulnerability; greater civic engagement	Improved social structures and reentry for incarcerated populations; increased representation of groups in civic processes	Daniels et al. (2011), Draine et al. (2011), Emerson et al. (2019)
Ensure access to health care	Move from disease treatment to disease management, health promotion, and prevention; develop continuity of care inside and after release; train providers to promote health	Improved control of chronic conditions; lowered healthcare costs after release	Greater infrastructure for providing health care and promotion; lowered healthcare costs; greater efficiency through health promotion & prevention; more linkages to community-based organizations	Better community health outcomes; reliance on healthcare system for emergency care; more seamless medical care inside and on release	Institute of Medicine (2002), Gopalappa et al. (2013), Ramsey et al. (2019)
Create healthy environments	Sanitation, infection control, clean air, water; encourage positive social support; improve mental and physical outcomes; encourage healthy family relationships; training health providers and peers	Reduced transmission of infectious diseases; reduced mental health burden; greater substance abuse care; better family functioning post-release	No overcrowding; greater healthcare provider knowledge on how to deliver care; better linkages to care	Reduced transmission of infectious diseases; better relationships for spouses and children of inmates	Roux (2011), Newman and Scott (2012), Thomas et al. (2019), Wohl et al. (2010)
Provide basic necessities	Advocate policies that provide substance abuse, mental health, HIV support, and other services during incarceration and after release; reduce stigma against people returning; provide job training and education inside and after release	Increased access to and use of housing assistance, substance abuse treatment services, mental health services; increased ability to find employment and reduce dependency after release	Greater infrastructure for substance abuse and mental health treatment and promotion	Lowered unemployment, homelessness and illegal activity rates, better HIV linkage to care	Kerr and Jackson (2016), Freudenberg et al. (2005), Schmitt and Warner (2011)

(continued)

Table 14.2 (continued)

Health promotion activity	Selected activities/ approaches in jails or prisons	Selected health and social outcomes: inmates	Selected health and social outcomes: correctional facilities	Selected health and social outcomes: society as a whole	Selected references
Facilitate collaboration	Needed to sustain health promotion activities; establish linkages with community organizations, local public health departments to encourage cross-sectoral collaboration to meet complex population health needs	Increased access to health care and promotion; creation of community environments that reduce recidivism; increased knowledge on risk reduction	Greater infrastructure and resources for providing health care and health promotion; less reliance on funding from corrections departments and time from staff to provide services	Increased linkage to care; improved health outcomes of vulnerable populations	Harawa et al. (2018), Senkowski et al. (2016), Nunn et al. (2010)
Advocate for health-enhancing policies and programs	Organize community coalitions to advocate for policies listed above	Inmates better equipped to advocate for jail and community policies that will enhance their well-being	Correctional leaders will have additional community, staff, and inmates' support for health-promoting policies	Cities and states will have greater capacity to enact and implement health-promoting correctional policies	Hatton & Fisher, (2018), Jeffrey, (2018), Freudenberg & Heller, (2016)

Providing Education and Information

While helping people to learn about health and develop skills in order to improve their own health is central to the concept of health promotion (WHO, 1986), more recent scholarship emphasizes the importance of integrating education and counseling into a continuum of services operating at multiple levels (Golden et al., 2015). By recognizing that people incarcerated in jails and prisons are part of a community of people and organizations—from the inmates themselves, to correctional staff, and family members in communities, CHS staff can ensure that educational programs are embedded in multilevel health promotion programs. The challenge remains to integrate the many tested models of counseling, health education, and disease management established in correctional facilities for such problems as HIV and other sexually transmitted infections (STIs) (Spaulding et al., 2013; Harawa et al., 2018; Belenko et al., 2013), tuberculosis (Parvez et al., 2010), violence prevention (Polaschek, 2011; Cooley, 2019; Opsal et al., 2019), prenatal care and reproductive health (Bronson & Sufrin, 2019; Knittel et al., 2017; Ramaswamy et al., 2015), and parenting (Barr et al., 2014; Miller et al., 2014; Troy et al., 2018) into multilevel models that address institutional, peer, family, and community influences on these outcomes. The recent COVID-19 epidemic further illustrates the role correctional facilities can play in providing information that can help protect inmates, staff, and families.

These educational programs often demonstrate increases in knowledge and motivation to change; sometimes in health behavior and health beliefs; and less frequently in health status. Program characteristics that have been identified with more successful outcomes include use of multiple methods, materials and communications that are culturally and linguistically appropriate, sufficient program intensity and duration, opportunities for practice of skills, and reinforcement of messages (Freudenberg,

2001; Freudenberg & Heller, 2016; Lowenkamp et al., 2006; Palmer, 1995). The focus on infectious diseases, violence prevention, reproductive health, and parenting in these interventions also suggests that researchers and practitioners are looking beyond only the inmates to sex partners, families, and communities.

Though interventions to increase access to education and information are a vital component of correctional health promotion programs, their value is significantly enhanced by interventions at other levels of organization (e.g., family, correctional facility, community, public policy) that help to create a context in which individuals have the opportunity to use the skills they have acquired. For example, several HIPP prisons now make condoms and sterile injection equipment available to people in prison (Gatherer et al., 2005). But while harm reduction initiatives have been successful at providing increased access to clean needles in nonincarcerated populations in the United States (Crawford et al., 2013; Dasgupta et al., 2019), no US correctional system distributes clean needles and only a few make condoms available inside the facility (McCuller & Harawa, 2014; Leibowitz et al., 2012).

A less common trend is health promotion programming that focuses on providing health education and information to correctional officers. Though significantly less vulnerable than inmates when it comes to health, correctional officers also face high levels of stress, burnout, violence, depression, and chronic conditions associated with stress like high blood pressure (Bezerra et al., 2016; Ferdick & Smith, 2017; Lerman & Harney, 2019). The few interventions that do exist to address these problems have been mental health counseling, referral, and peer support programs (Powell & Gayman, 2019). The health risks that correctional officers face have been well established, but the resources available for correctional officers have been much slower to develop. Taken together, most health promotion programming focuses on one segment of the affected population, and less so on the total world of interconnected people affected by corrections. In the future, including correctional and CHS staff in health promotion programs may increase support for this approach and highlight shared needs of all those who spend time behind bars.

Preparation for Release

There are many health dangers associated with release from jails or prisons—death, overdose, psychosis, for example (Binswanger et al., 2016; Zlodre & Fazel, 2012). Most of the evidence-based interventions have focused specifically on HIV, substance use, and mental illness (Freudenberg & Heller, 2016). These take the form of discharge planning programs, linkages to health care, and housing, with programs showing promise when they are multifaceted (for example, addressing mental health and substance abuse problems at the same time), gender-specific (particularly important for women), and offer wraparound health and social services (Freudenberg & Heller, 2016). A new trend of “transitional healthcare” programs has also cropped up in several cities across the United States. Their model is noteworthy because it focuses on primary care linkages as a way to reduce acute care use and ultimately reduce recidivism (Wang et al., 2012). Early evidence shows this model is effective, but the effects on recidivism are mixed (Shavit et al., 2017; Wang et al., 2012, 2019). Programs that address the transition from corrections to communities are also often better positioned to address the relationship between individuals who become incarcerated and their contacts in the community. Models include programs that address HIV prevention among couples, where one partner has criminal justice involvement (Reznick et al., 2011). But on the whole, these programs are rare, and thus represent a missed opportunity for addressing some of the most pressing causes of poor health during the transition from corrections to communities.

Enabling Individuals to Act on Behalf of Their Health

A new set of health promotion programs designed for people with criminal justice involvement utilize civic engagement, community building, and critical health literacy approaches to engage people with a history of criminal justice involvement (Daniels et al., 2011; Draine, McTighe, & Bourgois, 2011; Emerson, Allison, and Ramaswamy, 2019). These programs are centered on engaging the target population in critical reflection of their circumstances, solutions, and then for some, engaging the broader community in building structures that support change. On a practical level, these programs have been associated with reductions in substance dependence, days spent reincarcerated, gains in voter registration, and community activism to address HIV and mass incarceration (Daniels et al., 2011; Draine, McTighe, & Bourgois, 2011; Emerson, Allison, and Ramaswamy, 2019). They are also challenging to fund, design, implement, and evaluate, yet serve as a model for what comprehensive, participant-engaged health promotion programming can look like.

Ensuring Access to Appropriate Health Care

When Congress authorized the creation of Medicare and Medicaid in 1965, it prohibited Medicare or Medicaid from paying for health care in the nation's jails and prisons. This exclusion, known as the "inmate exception," has diminished the capacity of the correctional healthcare system to meet inmate needs and isolated CHS from mainstream medicine. This exclusion has inadvertently contributed to the opioid crisis by leaving a large vulnerable population with limited access to care. As Fiscella et al. observed, "repeal of the inmate exception can improve correctional health care, boost community health and safety, and reduce wasteful public spending" (Fiscella et al., 2017).

Before passage of the Affordable Care Act (ACA) in 2010, most adults leaving prison or jail were not eligible for Medicaid because coverage generally did not extend to most childless low-income adults. By 2018, however, 33 states and the District of Columbia had expanded Medicaid to all adults with incomes below 138% of the federal poverty level (FPL), creating the potential to expand coverage to people after their release from jail or prison (Guyer et al., 2019). Some states have initiated the enrollment process before inmates are released, expanding the pool of those who return to their communities with access to health care. Such coverage can help to reduce recidivism and related costs as well as and unnecessary emergency department visits and hospitalizations—a benefit to inmates and their families, the healthcare system as a whole, and taxpayers (Guyer et al., 2019).

Most health services in the United States focus on treatment of acute and chronic conditions rather than on primary care and prevention, despite evidence that a shift in emphasis could improve population health and reduce costs (Institute of Medicine, 2002). This is certainly reflected in correctional settings, where the vast proportion of healthcare resources is devoted to providing acute care for inmates who present medical problems to correctional health services staff; and relatively few resources are devoted to prevention. In jails, correctional health resources are often consumed by performing mandated services such as intake physical examinations, often repeatedly on the same people who reenter the system frequently.

Two recent epidemics illustrate the challenges and potential of using correctional facility health-care programs to promote inmate, community, and population health. During the opioid epidemic, many correctional facilities have had high proportions of inmates with opioid addiction. By providing onsite treatment within jails and prisons, ensuring that released inmates were connected to community care, and coordinating services with community-based providers that served people before and after incarceration, CHS programs can help to reduce the impact and prevalence of opioid addiction (Fiscella et al., 2018; Wakeman & Rich, 2015). More recently, the COVID-19 epidemic showed both

the potential for correctional facilities to serve as amplifiers of epidemics and also their capacity to use widespread screening, prompt treatment, and early release to prevent infections and transmission (Gibson, 2020).

Broader changes in medical practice require CHS programs to reassess their practices and policies. In the free world, for example, extensive routine physical examinations are no longer recommended for young adults. In correctional settings, however, more effective and economical alternatives to this outdated approach have yet to be developed. In this context, reorienting health services might include: expanding prevention and health promotion initiatives; providing routine screening for appropriate conditions and ensuring that those testing positive receive appropriate follow-up before or after release; devoting more resources to chronic disease management; and increasing opportunities for healthier behavior and use of preventive services after release.

Such a reorientation faces significant obstacles in part because many correctional officials believe that their legal mandate is limited to providing acute care to those in their custody. Additionally, meeting the complex health needs of inmates can break the budgets of for-profit CHS corporations. It is estimated that 70% of medical care is provided by an outside source, with most contracts run by for-profit corporations with an eye toward their financial bottom line (Coll, 2019). Thus, CHS often fail to provide *preventive* health services to inmates. Although the previously cited standards provide a rationale for prevention and health promotion, these activities are usually perceived as a lower priority, even though their potential for improving the health of individuals and populations and reducing the cost of CHS may be greater. Moreover, since most correctional systems do not see health promotion as part of their core mission, these entities do not claim leadership in bringing about the reallocation of resources that such a reorientation requires.

To what extent have CHS begun a reorientation of priorities? Examples include the addition of routine chlamydia screening to CHS protocols (Gopalappa et al., 2013), partnerships between CHS and community-based health centers (Ramsey et al., 2019), and stronger linkages between CHS and community-based substance abuse and mental health services (Lorenzen & Bracy, 2011; Wohl et al., 2010; Fingfeld-Connett & Johnson, 2011; McKenzie et al., 2012; Wolff et al., 2013). These examples illustrate the potential for moving on a variety of fronts to shift healthcare resources from acute care and facility-based services only to a balance of treatment and prevention and facility and community-based care.

Creating Healthy Environments

Healthy physical and social environments can make important contributions to individual and population health (Tsai & Papachristos, 2015; Bunnell et al., 2012; Roux, 2011; National Research Council, 2013). In correctional facilities, physical environmental factors that have been associated with poor health include overcrowding; lack of privacy; pests; lack of access to showers, hot water, and soap; and exposure to infectious agents (Ruderman et al., 2015; Lambert et al., 2016; Newman & Scott, 2012). Social environmental conditions associated with poor health in correctional facilities include exposure to physical and sexual violence, isolation from family and friends, and stigma (Perry & Bright, 2012; Harner et al., 2017; Cloud et al., 2015).

Creating healthier correctional environments requires making changes in physical conditions, for example, improving ventilation, reducing overcrowding, or reducing exposure to pests without increasing exposure to harmful pesticides. Often, such changes have been achieved through litigation (Chanin, 2014).

Strategies to improve social environments and increase the positive support that incarcerated people experience include correctional staff training to improve positive interactions with inmates;

changes in policies related to visits from partners, family, and children; more vigorous enforcement of laws on sexual violence and inmate bullying, and campaigns against stigma and isolation both inside the facility and after release (Galanek, 2014; Moore et al., 2015; Massoglia and Pridemore, 2015). For the most part, such interventions have not been described or evaluated in the literature. After release, a variety of reentry programs seek to connect people returning from jail to prosocial networks and individuals, strengthen family functions and parenting, and prepare individuals for work and self-sufficiency (McKenna et al., 2014; Wikoff et al., 2012; Thomas et al., 2019). Often, these programs serve only people with mental illness or HIV infection, rather than the general population. Few of these programs have been systematically evaluated; those that have been evaluated often show positive but modest results (Senkowski et al., 2016; Lorenzen & Bracy, 2011; Wohl et al., 2010).

Providing Basic Necessities

As noted in previous sections, ensuring that inmates have access to the basic necessities of life during their incarceration and in the post-release phase can help to prevent problems that can burden individuals, the inmate population as a whole, families, communities, and taxpayers. These basic needs include safe housing, healthy food, access to medical care, protection from inmate and correctional staff's sexual and physical violence and discrimination (Hoke & Demory, 2014). Every inmate returning to the community with an untreated health condition or new traumatic experiences behind bars or returning to unsafe or unhealthy living conditions poses a risk to individual and community health. Preventing such occurrences both ensures recognition of the basic human rights of inmates and the public mandate to protect public health.

Collaboration

A central tenet of the health promotion literature is that health professionals alone can achieve only limited improvements in health, but in partnership with a variety of community-based organizations, more significant gains are possible (Corbin et al., 2016). In correctional settings, community organizations have played a variety of health roles including providing health education and counseling, especially on HIV; seeking referrals for post-release health care, mental health, and social services; and providing post-release case management and other services (Harawa et al., 2018; Lichtenstein & Malow, 2010; Senkowski et al., 2016; Draine et al., 2011; Nunn et al., 2010).

A small but growing evidence base shows that effective collaborations with local public health departments and local correctional facilities can, for example, provide contraception to women leaving jails and HPV vaccine for inmates (McNeely et al., 2019; Ramaswamy et al., 2019). Local public health departments can also play an important role in vaccination for other conditions inside correctional facilities, for example, influenza and hepatitis B (Farrell et al., 2010; Lee et al., 2014). These partnerships between public local entities could be cost-effective, in line with local health departments' mission to serve the public's health, and meet the new goals of cross-sectional partnership of Public Health 3.0 models (DeSalvo et al., 2017).

Negotiating effective partnerships between correctional agencies, health departments, academic institutions, and community organizations presents many challenges, including finding common ground among differing missions, locating the resources that can sustain the collaboration, and choosing priorities among the multiple needs that incarcerated and returning populations face (Barta et al., 2016; Freudenberg et al., 2005; Robillard et al., 2003).

Advocacy

In recent years, the public health community has called attention to the importance to population health of public policies in a variety of sectors, including housing, education, the environment, work, taxation, and criminal justice (Daniel et al., 2018; Golden et al., 2015; Basu et al., 2017). In fact, this is the explicit mission of the Public Health 3.0 mandate of local health departments (DeSalvo et al., 2017). Recent research on the health of incarcerated populations demonstrates that policies on substance abuse, crime, housing, employment, health care, and other issues can adversely affect their well-being (Kerr & Jackson, 2016; Nyamathi et al., 2018; Freudenberg & Heller, 2016; Schmitt & Warner, 2011; Cramer et al., 2019; Edwards & Collins Jr., 2014; Thomas et al., 2019). Often these policies impose disproportionate burdens on vulnerable and disenfranchised groups—people of color, women, transgender people, and drug users, and may thus contribute to growing disparities in health (Mignon, 2016; Wang & Green, 2010; Weidner & Schultz, 2019).

How have CHS staff taken on advocacy roles, given these realities? Some have chosen to become active in developing national standards of care that can serve to improve the quality of care in jails and prison (APHA, 2003; NCCCHC, 2018b, c). Others have worked to change health insurance policies that barred coverage for people leaving correctional facilities, to provide immunizations for people in incarcerated populations, to advocate for laws that require discharge planning for people returning from incarceration, to reduce discrimination against inmates with HIV, and to improve housing options for those coming home from prison or jail (Beck et al., 2001; Freudenberg et al., 2005; Gondles, 2005; Restum, 2005). While the impact of these efforts has not been systematically evaluated, one review of litigation on correctional conditions concluded that these lawsuits had led to improvements in the past three decades (Nathan, 2004). An analysis of the role of litigation and legislation in California's successful effort to lower incarceration concluded that the "'dual sticks' of litigation and a ballot initiative ...proved to be the driving forces in reducing California's use of mass incarceration" (Austin, 2016).

Another relevant body of experience is the legislative, legal, electoral, and other forms of advocacy by groups such as American Civil Liberties Union National Prisoner Project, Black Lives Matter, the Southern Center for Human Rights, the Equal Justice Initiative, the Center for Prisoner Health and Human Rights, Human Rights Watch, and others. These efforts have helped restore voting rights for ex-inmates, modified sentencing guidelines, changed policing practices that exacerbated racial inequities in incarceration, and educated the public about the health consequences of criminal justice policy. While few studies have evaluated the impact of these activities, they seem to have helped change the national conversation on criminal justice and public health and reduce the health-damaging social isolation that many ex-inmates face (Jansson, 2019; Hatton & Fisher, 2018; Jeffrey, 2018). Most of these groups have depended on evidence, testimony, and other forms of support from public health and correctional health professionals, examples of expanded roles for health professionals in improving CHS.

Recommendations

In this section, we suggest actions that could help to move CHS from an acute medical care perspective to a health promotion model (see Table 14.3). The recommendations are based on our review of the literature and our own experience working in jails and prisons. Once again, we use the activity categories proposed by the World Health Organization's definition of health promotion and practices of recent criminal justice reform movements.

Table 14.3 Menu of practical steps to strengthen health promotion in correctional settings

Task	Possible activities for CHS staff and partners
1. Provide inmates, correctional officers, and families with education and information	Develop, implement, and evaluate informational campaigns and educational programs Establish partnerships with public and nonprofit community agencies for education Train inmates to serve as peer educators and advocates
2. Prepare individuals for release	Ensure that all eligible inmates leave with prior enrollment for benefits that can support successful release (e.g., Medicaid, SNAP, job training, housing assistance) Facilitate community programs to meet and establish relationships with inmates prior to release Establish pick-up programs so that inmates who so desire can be released directly to housing, job training, substance use, or other programs
3. Enable individuals to act on behalf of their health	Provide training for peer advocates inside facility and after release Offer workshops in facility to prepare inmates to make informed health choices
4. Ensure access to appropriate health care	Advocate for repeal of Medicaid exemption Make strong referrals to community-based programs post-release Ensure that correctional facility healthcare programs meet standards and are monitored for quality of care
5. Create healthy environments	Establish ongoing monitoring systems for correctional facility environments Train staff to act to safeguards environmental conditions Engage staff, inmates, and management in ongoing activities to create healthful correctional environments
6. Provide basic necessities	Monitor food services, medical care, and housing conditions within facility and act to correct deficiencies Engage with community partners to make improvements in provision of necessities
7. Facilitate collaboration	Establish well-defined partnerships with universities, health departments, state and local governments, and community organizations as appropriate
8. Train advocates	Establish and evaluate programs to prepare inmates, correctional staff, and CHS staff to serve as advocates for healthier correctional programs and services

While few correctional systems will have the capacity or resources to adopt all these recommendations, every jail and prison has the potential to expand the repertoire of activities beyond treatment to health promotion. By viewing these two approaches as a continuum with a menu of options, CHS managers can begin to broaden their range of services within the realities of their political and financial constraints. At the same time, by articulating a vision of a correctional system whose mission has widened to include promoting the well-being of those who enter and exit its gates, we offer a more comprehensive view that can contribute more fully to the goals of improved public safety and community health.

Conclusion

The challenge ahead is to develop systematic approaches to making prisons and jails settings that improve rather than harm the well-being of the people who enter the front gate and the families and communities to which they return. At one level, this is as simple as recognizing the basic ethical principles that guide health professionals; at another, it will require a transformation of the US correctional system.

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Screening for Public Purpose: Promoting an Evidence-Based Approach to Screening of Inmates to Improve Public Health

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Introduction

Jail and prison screening procedures have primarily been developed to prevent transmission of communicable diseases, protect staff, and mitigate individual bad outcomes. Detention and incarceration are otherwise opportunities to impact public and individual health by offering evidence-based screening to adult persons who do may not otherwise access routine preventive care. Given the dynamic exchange between correctional facilities and medically underserved communities, effective screening in jails and prisons is generally considered a cost-effective approach to improving population health and that of the incarcerated person.

General Considerations Regarding Screening Tests

Approaches to prevention are broadly categorized into levels that reflect the natural history of a disease (Fletcher & Fletcher, 2005). Primary prevention prevents disease before occurrence, for example immunizations and focused health education. Secondary prevention detects disease early and when early treatment impacts progression and transmission. Screening for conditions like hypertension and sexually transmitted diseases are examples of secondary prevention. Tertiary prevention addresses established disease by reducing morbidity and mortality.

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The goal of screening in primary care is to identify risk factors or disease that can be treated or modified by early intervention. The value of a screening test, then, depends on the value of an early diagnosis. If accurate detection of disease during the asymptomatic phase can meaningfully alter the course of disease and reduce morbidity and mortality or transmission to others, then screening likely has meaningful impact. If an effective screening test is inexpensive relative to the cost of diagnosis and treatment of advanced disease, then the screening is likely to be cost-effective.

Whether a screening test results in better health outcomes depends on the characteristics of the disease, the test, and the patient population. The severity of a disease and its effect on the quality or duration of life, a sufficiently high prevalence, and the availability of acceptable and effective treatment all impact the value of a screening test. Some diseases have an asymptomatic period during which detection and treatment significantly reduces morbidity and mortality. For these diseases, treatment in the asymptomatic phase yields a better therapeutic result than treatment that is delayed until symptoms appear. Other diseases, such as pancreatic cancer, progress rapidly, lack effective treatments for advanced disease, and therefore have only a narrow window of asymptomatic disease during which intervention prevents death.

The operating characteristics of the screening test are crucial. The test must be sufficiently sensitive to detect disease during the asymptomatic period, and sufficiently specific to provide an acceptable positive predictive value. The test should be simple to administer and interpret, relatively low cost, safe, and acceptable to patients and clinicians. “Labeling” and the adverse psychosocial effects of a positive result should be anticipated. Further, a positive screening test is usually not a confirmed diagnosis, rather it should prompt further confirmatory diagnostics. A screening test’s utility can be undermined if false-positive cases are labeled as “diseased” or subsequent workups are intolerably expensive or harmful. Screening should only be undertaken if both the clinician and patient will treat a confirmed positive test or otherwise benefit from this new information. Comorbid conditions can also modulate screening and need to be considered by the provider on an individual basis. For example, there is little value in screening and pursuing a particular diagnosis if a patient has a high likelihood of dying sooner from another cause. Studies evaluating new screening technologies must consider lead-time and time-linked sampling biases. Lead time is the period of time between the detection of disease by screening and when it would ordinarily be diagnosed due to symptoms. Studies that do not account for lead-time bias can overestimate a screening test’s impact on survival.

Lastly, the characteristics of the patient population are important in critically evaluating a screening program, including age. The prevalence of or harm from the disease must be high. The screening test must have both a high sensitivity so as not to miss cases and a high enough specificity to reduce false-positive tests. For example, in diseases with very low prevalence, a test with a low specificity could produce an unacceptable number of false-positive results. However, by limiting screening to a high-risk population (i.e., universal gonorrhea/chlamydia screening is often offered to sexually active adult men at jail admission but is not recommended for asymptomatic US adult men), the pretest probability and positive predictive value increases and the rate of false positives decreases.

Among the elderly, selecting which cancer screening tests are appropriate for an individual older person requires consideration of his or her life expectancy (Williams et al., 2014). For example, a healthy older person with a favorable life expectancy should be offered cancer-screening tests such as colonoscopy or mammography. In contrast, an unhealthy older person with a limited life expectancy will be more likely to suffer the immediate harms of cancer screening, such as the workup of false negative test results, without having the time to accrue the benefits of screening (Walter & Covinsky, 2001). Thus, in geriatrics, preventive care follows a model of shared decision-making between patient and provider in which the focus is on discussing the risks and benefits of each test based on the patient’s life expectancy and individual goals (Table 15.1) (Williams et al., 2014).

Table 15.1 Steps to individualize decision-making for screening tests

- | |
|--|
| 1. Estimate the individual's life expectancy |
| 2. Estimate the risk of dying from the condition |
| 3. Determine the potential benefit of screening |
| 4. Weigh the direct and indirect harm of screening |
| 5. Assess the patient's values and preferences |

This rationale holds true for preventive medications as well and can support a reduction in polypharmacy and the associated risks. For example, a patient with a life expectancy of less than 2–3 years will not likely benefit from tight blood pressure control to prevent future stroke or myocardial infarction nor will a patient with a life expectancy of less than a year likely benefit from lipid lowering medications (Kutner et al., 2015).

United States Preventive Services Task Force Recommendations

For the general US adult population, the United States Preventive Services Task Force (USPSTF, uspreventivetaskforce.org) conducts reviews the evidence for screening a variety of health issues, and grades the evidence based on the strength of the evidence and the magnitude of net benefit. Recommendations for population-based screening that earned grade A (strongly recommended) or grade B (recommended) in 2020 for adult men and nonpregnant women are the following: obesity, hypertension, HIV, Hepatitis C, depression, smoking and unhealthy drug and alcohol use, and high blood pressure screening for non-elderly persons of all ages; syphilis, tuberculosis, and Hepatitis B screening for persons at increased or high risk, colorectal cancer screening at age 50, abnormal blood glucose as part of cardiovascular risk assessment in adults aged 40–70 years who are overweight or obese, and lipid disorder screening per age and gender (men, age 35; women, age 45) (USPSTF, 2020). Additional procedures are recommended for women: breast cancer screening (mammography) at age 40, cervical cancer screening if sexually active, chlamydial infection screening women 25 and younger or at increased risk, intimate partner violence (IPV) in women of reproductive age, and osteoporosis screening for women 65 or older, postmenopausal, or at increased risk for osteoporotic fractures. Men age 65–75 with a history of ever smoking should be screened for abdominal aortic aneurysm via ultrasonography. Finally, and highly pertinent to older correctional populations is lung cancer screening, which recommends annual screening for lung cancer with low-dose computed tomography (LDCT) in adults aged 55–80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years.

These recommendations are based on a critical review of the evidence for screening in the general population and may need to be reevaluated within correctional settings. For instance, all persons in correctional facilities should be evaluated for syphilis, while osteoporosis screening or LDCT lung cancer testing may not be appropriate or feasible in a central intake facility such as a county jail. Many persons cycling through US jails and prisons are at higher than normal risk for many of these communicable and chronic diseases due to health disparities, high rates of smoking, alcohol and unhealthy drug use and mental illness, and historically poor access to primary care and preventive services. Therefore, any correctional facility or system that provides primary care to incarcerated persons should address all of these USPSTF recommendations.

Screening in Jail and Prison Populations

Few public institutions are more important to the surveillance and treatment of communicable disease and mental health disorders than jails, prisons, and other detention centers. Due to the concentration and high turnover of high-risk individuals otherwise out of contact with other public and community health systems, correctional institutions are uniquely situated to implement testing, treatment and referrals for chronic diseases, STDs, HIV, and tuberculosis via cost-effective means (Lee et al., 2006). Proper TB control mandates prompt and uniform screening at facility admission. Finally, adequate screening for suicidality and drug and alcohol withdrawal syndromes helps ensure these two leading causes of preventable death among the incarcerated are greatly minimized. Intake and general screening recommendation are summarized in Tables 15.2 and 15.3.

Table 15.2 Recommended correctional screening for adults: intake

Condition	Recommended procedure
Tuberculosis, active infection	Symptom questionnaire and one or more of the following:
	TST
	Serum QuantiFERON-Gold
	Chest X-ray
Syphilis	Nontreponemal serology (RPR, VDRL)
Chlamydia	Urine or swab NAAT
Gonorrhea	Urine or swab NAAT
HIV	Rapid HIV-1 antibody test, blood, or oral swab
Hepatitis C	Serum antibody test
Cervical cancer	Pap smear
Pregnancy	Serum or urine qualitative hCG
Mental illness	Symptom screen, psychiatric history
Suicidality	Symptom and risk factor screening
Alcohol, opioid, and sedative/hypnotic dependence	Drug and alcohol use and withdrawal history

Table 15.3 Recommended correctional screening for adults: general health assessment

Condition	Recommended procedure
Hypertension	Sphygmomanometry
Cholesterol ^a	Random or fasting serum cholesterol
Diabetes ^b	Fasting serum glucose or hemoglobin A1C
Overweight, obesity	Height and weight measurement
Abdominal aortic aneurysm ^c	Ultrasonography
Colon cancer ^d	FOBT ^e , flexible sigmoidoscopy, colonoscopy, or barium enema
Breast cancer ^f	Mammography
Osteoporosis ^g	Bone mineral density

^aMen age ≥ 35 , women age ≥ 45

^bAdults age 40–70 who are overweight or obese

^cMen who have smoked, age 65–75 only

^dPersons age ≥ 50

^eFecal occult blood test

^fWomen age >40

^gWomen age >65 or older, postmenopausal, or at increased risk for osteoporotic fractures

Communicable Disease

Active Tuberculosis Infection

Multiple studies have demonstrated a higher prevalence of active TB in correctional environments and evidence of outbreaks in the setting of poor TB control (MacNeil et al., 2005; CDC, 2006). The need to screen for TB on admission to a correctional facility is uncontroversial. Despite these findings, recommended screening protocols in jails and prisons are not uniformly applied, with only 55% (11 of 20) of large jail systems instituting routine tuberculosis skin testing (TST) at admission in a 1998 survey (Roberts et al., 2006).

In 2018, the Federal Bureau of Prisons released the document “Preventive Health Care Screening” to provide clinical guidance for TB screening in correctional facilities. All individuals who are incarcerated, except those with a documented prior positive TST or history of active TB disease, should receive a tuberculin skin test at intake and annually thereafter.

Tuberculosis Skin Testing: TSTs are the most common form of mass screening for TB among correctional and other institutionalized populations. The sensitivity of TST using a 15 mm of induration cutoff in immunocompetent LTBI cases approaches 100%. Past BCG vaccination and exposure to non-tuberculosis mycobacteria, however, generate considerable rates of false positive tests, which lower TST specificity and positive predictive value (“Targeted tuberculin testing”, 2000). Different cutoffs of induration are recommended to maximize specificity depending on a person’s category of risk (Table 15.4). Induration of 10 mm or more in persons admitted to a correctional facility without HIV, immunocompromise, prior TB, or recent exposure to an active TB case should prompt a medical evaluation and further testing.

Chest Radiographs: Chest radiographs are the most efficacious means of screening for active pulmonary TB. Radiography as universal screening in corrections is limited by cost and logistic considerations, despite data demonstrating that standard, digital, or miniature radiographs increase active TB case findings, decrease time to isolation, and are cost-effective from a combined health and correctional systems perspective (Jones & Schaffner, 2001; Layton et al., 1997).

QuantIFERON-TB Gold Test: QFT-G is equally sensitive and is a more specific test than TST for detecting TB or LTBI (CDC, 2006). Its chief disadvantages to date are cost and the need for laboratory analysis within 12 hours of sampling. Like TST, it does not distinguish between LTBI and TB. The

Table 15.4 Tuberculosis skin testing: Interpretation and cutoffs

Reaction ≥5 mm	HIV
	Recent TB case contact
	CXR fibrosis c/w prior TB
	Organ transplant
Reaction ≥10 mm	Immunosuppression
	Recent immigrants from high-prevalence countries IVDU
	Residents of high-risk facilities (prisons and jails, nursing homes, hospitals, homeless shelters)
	TB lab personnel
Reaction >15 mm	High-risk medical conditions (silicosis, diabetes, CRF, leukemia or lymphoma, malignancy, weight loss)
	Person with no risk factors for TB

Source: American Thoracic Society (2000)

test measures levels of interferon-gamma present in whole blood cells that have been stimulated by peptides unique to *M. tuberculosis*. CDC guidelines endorse QFT-G as a substitute for TST in all situations, including correctional screening (Mazurek et al., 2005).

Sexually Transmitted Diseases

Correctional facilities present an opportunity to screen for STDs among high-risk individuals. Serum-based screening for syphilis and urine-based screening for *Chlamydia trachomatis* and *Neisseria gonorrhoeae* infections are cost-effective practices across correctional settings due to high prevalence, underexposure to community-based screening, frequent asymptomatic infections, end-stage complications including pelvic inflammatory disease and tertiary syphilis, and effective treatments (Kahn et al., 2002; Kraut-Becher et al., 2004). Correctional screening for chlamydia and gonorrhea is particularly cost-effective among adolescents and adult females (Joesoef et al., 2006; Mertz et al., 2002a). In a large, multiyear study of female inmates in the Los Angeles County Jail a high prevalence of chlamydia (11.4%) and gonorrhea (3.1%) were observed (Javanbakht et al., 2014). Reactive syphilis is more likely among men who have sex with men and older adults (Ciesielski et al., 2005). In some localities, STD screening, often for syphilis, is mandated by public health codes.

Syphilis

A 2004 study analyzing national data from 1999 to 2002 demonstrated that 12.5% of all reported early syphilis (primary, secondary, early latent) cases in the United States were identified in correctional facilities, while incarceration rates were on the order of <1% during this period (Kahn et al., 2004). US estimates of syphilis prevalence vary by year, population, and region, with higher rates generally reported in both general and correctional populations among adult women, African Americans, HIV-positive individuals, crack cocaine users, sex workers, and those living within urban centers or the Southeast (Patton et al., 2014). Universal screening should be conducted on the basis of the local area and institutional prevalence of early (primary, secondary, and early latent) infectious syphilis (Barrow et al., 2020).

Serum testing consists of a two-step process which includes a nontreponemal test followed by treponemal confirmation. Nontreponemal tests include rapid plasma reagent (RPR) and Venereal Disease Research Laboratory test (VDRL). Treponemal tests are the fluorescent treponemal antibody absorbed (FTA-ABS) or *T. pallidum* particle agglutination (TP-PA). Nontreponemal positive results should trigger a confirmatory treponemal test due to high false-positive rates on nontreponemal tests secondary to pregnancy, injection drug use, or unrelated medical conditions (Workowski & Berman, 2006). Sensitivity of nontreponemal tests varies with antibody levels and may be 78–86% in primary syphilis, 100% during secondary syphilis, and 95–98% in latent syphilis (USPSTF, 2016).

Newer screening technologies, including rapid syphilis tests, are currently being studied, but are not yet available for commercial use (USPSTF, 2016).

Treponemal tests have 84% sensitivity in primary syphilis, 100% in other stages, and a specificity of 96%. Alternative methods of syphilis screening, including ELISA and IgG, have not been evaluated in mass screening programs. If follow-up of laboratory results cannot be reasonably assured, point-of-care qualitative syphilis assays present an alternative screening method with comparable sensitivity and specificity to traditional nontreponemal screens (Blank et al., 1997).

Chlamydia

Urethral and cervical infections with chlamydia are the most common sexually transmitted bacterial conditions in the United States. Cross-sectional observational trials implementing chlamydia screening in correctional settings have demonstrated infection rates of 15.3–21.5% among women aged 16–74 in Chicago, IL, Birmingham, AL, and Baltimore, MD, 15.6% among adolescent females and 5.9% among adolescent males in 14 US juvenile detention centers, and 4.9% among adult males in Chicago, IL (Kahn et al., 2005; Mertz et al., 2002b; Trick et al., 2006). The Federal Bureau of Prisons Clinical Practice Guidelines recommend routine intake screening for all women age 25 or under, older than 25 with risk factors, HIV-positive, or with history of STD (Federal Bureau of Prisons, 2018).

Screening tests for chlamydia include nucleic acid amplification tests (NAAT), nucleic acid hybridization assays, or by culture. NAAT can be performed on urine samples with minimal compromise of sensitivity as compared to swab samples (91–100 versus 100%). NAAT is the test of choice in males and females in correctional settings where urethral or endocervical swabs are not optimal (Johnson et al., 2002). Because of the high prevalence of chlamydia and the high sensitivities (94–99%) of NAAT, the positive predictive value of NAAT within correctional settings is excellent (Johnson et al., 2002). Thus, positive NAAT screens for chlamydia in correctional populations are presumed evidence of infection and should be treated without further diagnostic testing (i.e., culture).

Gonorrhea

The Federal Bureau of Prisons does not recommend routine screening for gonorrhea at intake unless symptoms of gonorrhea are present, or the individual has been diagnosed with syphilis or chlamydia (FOB Clinical Practice Guidelines). *N. gonorrhoeae* cervicitis and urethritis share risk factors and reservoir populations with chlamydia. Rates of gonorrhea-positive screens in corrections have been documented as 5% in adolescent women, 1% in adolescent males, 2–4% in adult females, and 2% in adult males (Mertz et al., 2002b). Like chlamydia, gonorrhea can also be detected using a NAAT of urine or urethral, oral, or rectal swab samples. Sensitivities vary by NAAT manufacturer (78–100%) and are decreased but acceptable in urine compared to swab samples (Johnson et al., 2002).

HIV Screening

Routine HIV screening is recommended as a component of clinical care in all healthcare settings, including EDs, urgent-care clinics, inpatient services, STD clinics, tuberculosis clinics, substance abuse treatment clinics, public health clinics, and correctional healthcare facilities (Brandson et al., 2006). Screening for HIV in correctional facilities is cost-effective and recommended for all patients given the HIV prevalence among inmates is approximately four times that of the general US population (Spaulding et al., 2009).

The CDC recommends the use of the fourth-generation HIV-1/2 antigen/antibody combination immunoassay for testing persons who are incarcerated. This assay detects the HIV p24 antigen allowing the test to confirm HIV infection 15 days after HIV RNA is detectable. Individuals with a reactive fourth-generation assay should undergo a reflex HIV-1/2 antibody differentiation assay. If the differentiation assay is negative, an HIV viral load should be obtained (FBOP, 2017). Despite recommendations for routine screening and availability of testing modalities, moving practices into routine use has

been extremely challenging with fewer than half of state prisons using these CDC approved protocols for HIV testing. Barriers to implementation include cost, time commitment, and release of jail inmates before test results are available (Belenko et al., 2013).

Viral Hepatitis

Hepatitis C: Multiple studies have documented rates of chronic viral hepatitis in correctional populations 2–20 times those of the general population, with an estimated one-third of all chronic hepatitis C cases cycling through US jails and prisons in a given year (Hammett et al., 2002; Macalino et al., 2005; Weinbaum et al., 2005). In October 2016, the Federal Bureau of Prisons recommended an opt-out strategy for HCV testing for all sentenced patients (FBOP, 2016). HCV-infected individuals are frequently in and out incarcerated settings and may be unaware of their infection. Multiple studies have shown that HCV testing in jail and prisons can provide an opportunity for linkage to care for those who test positive (Beckwith et al., 2015). Furthermore, screening even without treatment in these high-risk populations could have a substantial effect on the trajectory of HCV (Rich et al., 2014). Testing should include both an antibody screening assay (e.g., enzyme immunoassay [EIA]) and supplemental or confirmatory testing with an additional, more specific assay (e.g., nucleic acid test for detection of HCV RNA). All patients with positive tests should be counseled to abstain from drink alcohol and to avoid transmission to others. They should also be offered vaccinations for HAV and HBV and treatment for HCV (Schillie et al., 2020). Direct-acting antiviral therapies are effective, well-tolerated, and require a relatively short duration of treatment. Treatment of HCV within correctional settings improves overall public health through decreasing community transmission and decreased overall disease burden (MacDonald et al., 2017).

Hepatitis B: Rates of chronic, treatable HBV infection are lower than those of HCV in correctional populations, though HBV transmission has been shown to be more common than that of HCV or HIV among prisoners (Macalino et al., 2004). Generally, the burden of HBV has decreased due to universal HBV vaccination at birth in the United States starting in 1991. Because acute and chronic HBV is preventable via the HBV vaccination series and vaccinating correctional populations is an efficient way to protect high-risk populations, HBV efforts in jails and prisons have focused on vaccine programs rather than serologic screening (Rich et al., 2003; Weinbaum et al., 2003). Pregnant women are the exception and should be screened for HBV at the first prenatal visit.

Hepatitis A: Like HBV, HAV is a preventable infection via vaccination. HAV vaccination is recommended for individuals at high risk for HAV infection or complications (i.e., those in endemic areas and chronic HCV patients). Serologic screening for HAV antibody status is not recommended for general correctional populations.

Mental Health, Drug, and Alcohol Use

Mental Health Disorders

Lifetime prevalence estimates of severe mood or psychotic disorders in correctional populations, excluding substance use disorders, are historically much higher than those of the general population and range from 5% to 50% (Abram et al., 2003; Lamb & Weinberger, 1998; Teplin et al., 2005). Universal screening for severe mental illness at admission to a correctional facility is crucial to ensuring adequate treatment, suicide prevention, and discharge planning.

There are no national guidelines for validated instruments for intake mental health screening. A recent systematic review identified six tools that have published replication studies with independent samples of individuals in correctional institutions. The Brief Jail Mental Health Screen (BJMHS), the Correctional Mental Health Screen for Men (CMHS-M), the Correctional Mental Health Screen for Women (CMHS-W), the England Mental Health Screen (EMHS), the Jail Screening Assessment Tool (JSAT), and the Referral Decision Scale (RDS). While the BJMHS, CMHS-M, CMHS-W, and EMHS take 5 minutes or less and can be administered by health or custodial staff, the JSAT and RDS require 20–30 minutes and must be completed by nursing or psychology staff (Martin et al., 2013). Regardless of screening tool used, every individual should be asked about a history of psychiatric illness or care, psychotropic medications, past suicide attempts or ideation, and symptoms of mood and psychotic disorders, in addition to assessing current mental status (National Commission on Correctional Health Care, 2018).

Suicide Prevention and Screening

Identifying risk of self-harm is paramount given the majority of preventable deaths in correctional facilities are from suicide (Lanphear, 1987; Way et al., 2005). Risk factors for suicide in correctional settings include a history of mental illness, comorbid substance use disorders, “stressors” or behavior changes preceding the attempt, and a history of violent crime (Blaauw et al., 2005; Way et al., 2005). Various screening instruments are designed to identify pertinent risk factors for impending suicide attempts, including a 14-item Suicide Screening Inventory or the Scale for Suicidal Ideation (Holi et al., 2005; Kaczmarek et al., 2006). Most validated instruments assess current suicidality (ideation and plans), a history of ideation or attempts, a history of mental illness and treatment, and recent stressors including loss of job, relationships, or deaths of loved ones. Arrest and incarceration is itself a significant stressor, underlining the need for timely suicide screening at admission. Positive screens should trigger comprehensive psychiatric assessments and effective prevention, including hospitalization or protective housing as needed.

Smoking, Alcohol, and Drug Use Disorders

Drug and alcohol use disorders are pervasive in correctional populations. Rates of nicotine dependence approach 90%; alcohol use disorders, 10–30%; and other drug use disorders, 10–60% (Bronson et al., 2017; Fazel et al., 2006; Yacoubian, 2003). Alcohol use disorder rates trend higher in men, while drug use disorder rates are higher in women. Given that high rates have been consistent over time and across correctional settings, precise screening for gradations of individual substance use disorders is low yield (e.g., mild vs. severe use disorders). Instead, tobacco, alcohol, and drug treatment should be offered universally and independent of an individual’s response to intake history items surveying tobacco, alcohol, and drug use.

Effective treatment for drug and alcohol use disorders exists and is associated with improved medical and mental health outcomes. Medication for Opioid Use Disorder (MOUD) significantly reduces post-release overdose deaths (National Academies of Sciences, Engineering, and Medicine, 2019; Bird et al., 2015; Gisev et al., 2015; NCCCHC, 2016). Until recently, many correctional facilities have not provided MOUD, even for individuals who had received therapy prior to incarceration despite randomized controlled trial data demonstrating that the continuation of these medications was beneficial (McKenzie et al., 2012). That is rapidly changing in many jurisdictions across the country in the face of the US opioid epidemic and realization that release from corrections is an important and prevalent risk factor for overdose death.

Alcohol, Benzodiazepine/Sedative, and Opioid Withdrawal Syndromes

Within holding and intake facilities, however, alcohol, sedative-hypnotic, and opioid withdrawal symptoms require targeted screening strategies in order to prevent discomfort and death (NCCCHC, 2018). Despite national guidelines, a minority of US jails report offering detoxification services (Fiscella et al., 2004). All patients should be asked about daily use of alcohol, barbiturates, benzodiazepines, and opioids. Those with chronic, heavy use should be asked about a history of withdrawal syndromes, pharmacologic treatment for withdrawal, and in the case of alcohol and sedative-hypnotics, a history of seizure and delirium tremens (DTs). Clinical Institute Withdrawal Assessment-Alcohol (CIWA) and Clinical Institute Narcotic Assessment (CINA) scores help classify withdrawal severity and chart symptom course, but do not provide cutoffs for screening purposes. In the case of alcohol and sedative-hypnotic withdrawal, the onset of unstable vital signs, altered mental status, or neurologic deficits necessitates prompt treatment and close observation if not hospitalization (Miller et al., 2019). Opioid withdrawal, while generally not fatal, is marked by severe psychological discomfort and hyper autonomic symptoms. Isolated cases of death related to opioid withdrawal within correctional settings have been observed (Fiscella et al., 2004).

Chronic Disease and Health Maintenance

Cardiovascular and Metabolic Disease

Screening to reduce cardiovascular risk in correctional populations should follow current USPSTF guidelines. While cardiovascular disease rates are thought to be higher both within corrections and following release, the burden of CV disease and diabetes is so high in the general population that universal screening should be employed in all healthcare settings.

The Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure recommends screening every 2 years with blood pressure <120/80 mmHg and annually with systolic blood pressure of 120–139 mmHg or diastolic blood pressure of 80–90 mmHg.

All smokers should be counseled to quit and offered smoking cessation resources. Male smokers between the ages of 65 and 75 should be offered one-time ultrasonography screening for abdominal aortic aneurysm, and lung cancer screening using low-dose CT testing is now a USPSTF grade B recommendation among adults aged 55–80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years.

Random or fasting serum cholesterol is recommended for men aged 35 and older and women aged 45 and older and should be repeated every 5 years. Fasting serum glucose or hemoglobin A1C should be used to screen for diabetes in all asymptomatic adults age 40–70 with overweight-obesity. All adult persons should be screened for obesity (BMI 30 or higher).

Diabetes Care

Individuals with diabetes should be offered blood pressure and cholesterol screening, annual retinal and foot examinations, and screening for microalbuminuria by measurements of urine albumin-to-creatinine ratios. All diabetics should be considered for primary prevention of myocardial infarction with lipid lower agents if indicated (Arnett et al., 2019).

Cancer Screening

HIV-, smoking-, HCV-, and HPV-related malignancies occur at higher rates in correctional populations (Baillargeon et al., 2004; Mathew et al., 2005).

Cervical cancer screening with cytology should be offered to all females with an intact cervix at facility admission and every 3 years. For females aged 30 to 65, co-testing with HPV should also be offered every 5 years.

USPSTF recommends colon cancer screening for individuals between 50 and 75 years old with the following modalities: (1) annual high sensitivity fecal occult blood testing; (2) sigmoidoscopy every 5 years with high sensitivity fecal occult blood testing every 3 years; or colonoscopy every 10 years.

Women aged 50–74 should be offered screening mammography every 2 years. Either CBE or breast self-examination without mammography is insufficient.

While the USPSTF does recommend annual low-dose computed tomography (CT) for adults between the ages of 55–80 who have a 30-pack-year smoking history and currently smoke or who have quit within the past 15 years, there is little data available on the use or prevalence of this screening modality in corrections, which typically do not provide access to LDCT testing at scale.

Pregnancy

All females on admission to correctional facilities should be screened for pregnancy. If pregnant, women should be offered screening for the following: blood pressure, Rh (D) incompatibility, HIV, chlamydia, gonorrhea, bacterial vaginosis, syphilis, and UTI or asymptomatic bacteriuria (Kilpatrick et al., 2017).

Annual Screening Procedures for Long-Term Correctional Populations

There are no evidence-based guidelines for annual health screens for long-term correctional populations. However, given high rates of communicable, cardiovascular, and psychiatric disease, we recommend the following annual screening procedures: depression and suicidality questionnaires, blood pressure, cholesterol and measurements of body mass index, fasting serum glucose if the patient has hypertension or hyperlipidemia, TB, HIV, and HCV testing (Table 15.5).

Conclusion

Health screening at admission to a correctional facility and as a routine part of primary care both protects the facility's population and staff and delivers appropriate preventive services to underserved individuals and their communities. Chronic and cardiovascular disease screening in jails and prisons largely conforms to general population guidelines. Mental illness and suicidality, alcohol and drug withdrawal symptoms, and communicable diseases, all conditions with high prevalence in correctional populations, present opportunities for expanded screening not found in other general healthcare settings.

Table 15.5 Recommended correctional screening for adults: annual health screening

Condition	Recommended procedure
Depression and suicidality	Screening questionnaire
Hypertension	Sphygmomanometry
Cholesterol ^a	Random or fasting serum cholesterol
Diabetes ^b	Fasting serum glucose
Overweight, obesity	Height and weight measurement
Colon cancer ^c	FOBT, flexible sigmoidoscopy, colonoscopy, or barium enema
Breast cancer ^d	Mammography
Cervical cancer	Pap testing
Tuberculosis, active infection	Symptom questionnaire and one or more of the following:
	TST
	Serum QuantiFERON-TB-Gold
	Chest X-ray
HIV	Rapid HIV-1 antibody test, blood or oral swab, or ELISA testing
Hepatitis C	Serum antibody test

^aMen aged ≥35, women aged ≥45; if other CV risk factors, age ≥20

^bPersons with HTN and hypercholesterolemia only

^cPersons aged ≥50

^dWomen aged ≥40

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Principles of Nursing Care in the Correctional Setting

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Scope and Standards of Professional Practice

Nurses are the primary healthcare provider for the population of justice-involved persons detained in correctional facilities. In 2017, the Health Resources and Services Administration (HRSA) reported that 29,461 registered nurses identified their primary practice location as a correctional facility (Smiley et al., 2018). An additional 20,009 licensed practical or vocational nurses work in these settings. The number of advanced practice nurses is unknown. These data do not reflect nurses who have another primary employer and work part-time in correctional facilities, nor does it count nurses who are employed by hospitals, universities, or public health departments to deliver health care to persons who are incarcerated.

Correctional nurses share the same ethical principles and practices that are universal to the profession. It is the population served, role of the nurse, the setting, and context in which care is delivered that distinguish the specialty from other areas of nursing practice (Schoenly, 2013). The American Nurses Association (ANA) recognized correctional nursing as a specialty area of practice in 1974 and established the first standards for the scope and practice of the specialty. Currently there are 17 standards with corresponding competencies for correctional nursing practice. There are 17 standards. The first six correspond to the nursing process; the others concern aspects of professional performance (ANA, 2020).

Conflict Between Organization Mission and Professional Practice Values

Human-to-human caring is the moral foundation of nursing practice (ANA, 2015). The profession's code of ethics calls for nurses to practice with compassion and respect for the individual; the nurse's primary commitment is to the patient (ANA, 2020). The purpose of the carceral environment and culture in correctional organizations is to maintain safety and security, accomplished by removing justice-involved persons from society and then de facto submitting them to depersonalization, loss of

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autonomy, and degradation in all aspects of daily life. The environment and culture are antithetical to the core of nursing and the source of considerable cognitive dissonance (Choudhry et al., 2017).

Nurses who stay in the field of correctional health care must do considerable work to resolve or mitigate the conflict between the correctional organization's environment and culture and caring in their pattern of practice. This work includes learning to express caring for individuals in ways that do not rely on casual touch and personal disclosure, recognizing and addressing personal biases and negative narratives about stigmatized people that impede the development of a therapeutic relationship and cloud clinical judgment, and developing superior skills in communication and collaboration to negotiate and advocate in harsh conditions (Dhaliwal & Hirst, 2016; Solell & Smith, 2019). When this conflict is not resolved, nurses either leave correctional nursing or adopt the beliefs and values of the dominant organizational culture and find their practice compromised in ways which puts patient outcomes at risk (Chafin & Biddle, 2013; Choudhry et al., 2017; Venters, 2016).

Correctional healthcare programs with a strong commitment to excellence are able to recruit and retain nursing professionals who excel. This is accomplished, among other things, when recruits are provided with realistic information about the setting. Orientation, clinical supervision, coaching, and a lengthy mentoring period are recommended so that nurses have time and guidance to adjust their professional practice to be effective in the correctional environment (Chafin & Biddle, 2013; Hale et al., 2015; Choudhry et al., 2017; Venters, 2016).

Access to Care

Annually, given the flow of people in and out of correctional settings in the United States, health care reaches 1 out of every 30 adults living in the United States (Rich et al., 2014). Nurses have primary responsibility for facilitating access to this care through health screening, initial and periodic health appraisals, and response to requests for healthcare attention.

Receiving Health Screening

Receiving health screening is the first encounter detained persons experience with a healthcare professional. It may be the only healthcare encounter during the person's detention. The purpose of screening is to identify disease that must be treated immediately and to prioritize access for evaluation and treatment of other identified health needs. Receiving health screening should take place as soon as possible after admission but no more than 2–4 hours later (Titus, 2019).

The major risk with receiving screening is under-identification of medical or mental health conditions which delays timely access to necessary care. Inquiries about health status and history can be annoying, especially if the person has other concerns or does not believe they will be detained long. Nurses who are skilled in establishing rapport, eliciting information, and observing nonverbal behavior are better able to obtain information at receiving screening (Knox, 2013).

Factors that contribute to the failure to identify someone who has healthcare needs include:

- Insufficient inquiry when the patient reports a medical or mental health condition.
- Failure to collect serial assessment data (vital signs, peak flow, etc.) when abnormal results are found.
- Faulty communication, especially with language differences, disability, or with individuals who respond minimally to inquiry about their health status at intake (who should then be scheduled as a priority for an initial health assessment and to check on their condition).

- Deficient follow-up on urgent referrals to a provider or requests for bridge orders for medication.
- Failure to access health records of recent treatment from providers in the community or in the facility itself. Making advance agreements for the transfer of information with providers who care for the same population, but elsewhere, reduces time and effort obtaining records. Examples of major providers are the state prison system, other jails, major providers of indigent care in the community, and the mental health system in the state or county (Knox, 2016a).

The priorities for this encounter are to ensure that medical support for detoxification is in place, orders for continuing medication and other treatment obtained, trauma and injury are addressed, transmission of contagious disease prevented, and the person informed about how to access care for any subsequent needs. The volume and quality of health information obtained at intake can be improved by looking critically at the process from the perspective of those who have been detained to identify and mitigate barriers.

Performance monitoring for receiving health screening includes timeliness of screening, referral completion, carrying out a withdrawal protocol, and receipt of the first dose of critically important medication (e.g., anticoagulants, psychotropics, HIV medication, insulin, detox medication). Monitoring should also evaluate the thoroughness and accuracy of screening, the quality of the clinical assessment, and the appropriateness of decisions made about immediate need for treatment, referrals for higher-level care, housing restrictions, and diet.

Health Assessment

The initial health assessment (NCCHC, 2018) is more comprehensive and includes elaboration of the patient's health history, vital signs, laboratory work, and physical examination. The purpose of the health assessment is to provide a basis for a treatment plan. Individuals who have chronic disease, acute illness, or injury should be scheduled for an initial health assessment with a physician, nurse practitioner, or physician's assistant as soon after admission as possible to avoid discontinuity or deterioration of function. At better performing facilities, this assessment takes place within hours of receiving health screening.

Persons without acute or chronic illness or injury at intake can have the initial health assessment completed by a registered nurse who has received appropriate training. It should take place only a few days after admission to a correctional facility. This is a good time to ensure the person understands the instructions provided at intake about how to access care, refill medications, obtain self-care items, and make complaints. Periodic health assessments are completed throughout a person's incarceration at intervals established by the facility medical authority.

The health assessment should take place in a clinical setting with supplies and equipment sufficient to take a health history and perform an examination. Auditory and visual privacy should be sufficient for the patient to feel comfortable and safe. Language assistance and the presence of a chaperone need to be available, when necessary. A health assessment should take on average 40 minutes to complete including documentation, testing, vaccination, and referral.

Because the justice-involved population has more limited access to healthcare resources when in the community, preventive care and screening for early identification of treatable disease should be available (Kinner & Young, 2018; Strugar-Fritsch & Follenweider, 2016; Massoglia & Remster, 2019; Rich et al., 2014). The A and B recommendations of the U.S. Preventive Services Task Force, the immunization schedules recommended by the Centers for Disease Control and Prevention, and chronic disease guidelines developed by the facility, based on nationally accepted guidelines, should be used to guide decisions about diagnostic screening and vaccinations offered. These recommenda-

tions should be incorporated into written guidelines and treatment protocol so that nurses can initiate orders for diagnostic work, address infectious disease, identify persons at risk of poor health outcomes, and establish an individualized plan to reduce the risk of harm.

Recording vital signs, including height and weight, and calculation of BMI, vision, hearing, and an oral health assessment establish a baseline of the patient's health status against which to measure change in condition at subsequent healthcare visits. The health assessment is also a time to evaluate progress accomplishing wellness goals, identify new targets (weight control, exercise, substance misuse treatment, coping skills, etc.) with the patient, and evaluate their readiness to engage in learning more, referral, or make a self-care plan. Referrals for follow-up on newly identified medical, mental health, and dental concerns or wellness goals need to indicate urgency and their completion monitored. The benefits of these encounters are early identification of disease, development of rapport, and patient engagement in managing their health (Gorbenko et al., 2017).

Performance monitoring for health assessment includes timeliness of the appraisal and referral completion, the thoroughness of the history and physical exam, compliance with preventive care protocols, appropriateness of clinical decision-making, and attention to wellness targets. People who are at risk of adverse health outcomes (e.g., acute and chronic disease, elderly, infirm or disabled, etc.) should be targeted for inclusion in sample selection.

Requests for Healthcare Attention

The ability to request healthcare attention and receive timely and appropriate care, to obtain a professional clinical judgment, and to receive care that is ordered are civil rights for patients in custody. Neither correctional nor healthcare staff can limit requests for healthcare attention. At correctional facilities with timely, responsive healthcare programs 3–5% of the population request healthcare attention each day. In healthcare programs that are operating effectively 60–80% of patient-initiated requests can be resolved by nurses with simple first aid, over-the-counter medication or other self-care products, and health education or advice about self-care. Nurses experienced performing sick call should see on average seven patients per hour (Knox, 2014b).

When justice-involved persons are received at a correctional facility, they must be informed about how to request healthcare attention before leaving the booking area. Common methods to request healthcare attention are by filling out a request, signing up on a list, or showing up at a particular time. Pitfalls to an effective request process are listed in Table 16.1.

Nursing staff must investigate any indication of a breakdown in the process to request health care and resolve it promptly or report the problem to a responsible supervisor for further action. Each request received, each sign-up sheet, or each walk-in encounter should be dated, and the record retained to provide evidence of unencumbered access.

Table 16.1 Pitfalls in the process to request healthcare attention

Failure to provide instructions on how to make a request for healthcare attention	Misunderstanding instructions about how to make a request
Not having a secure or confidential way to make a request	Staff not picking up or receiving requests every day
Request forms that are too complicated	Not having enough request forms
Not having access to devices used to request care	Intimidation or dismissal by others

Each request for healthcare attention is assessed by a licensed nurse within 24 hours of receipt to determine when and how each request will be handled. Requests that are not symptomatic, such as information, refills of medications or supplies, an appointment to use the nail clippers, etc., can be handled administratively with a written response to the person. However, simply reading the request is not sufficient when it involves any description of a symptom-based complaint. Emergent requests such as chest pain or suicidal thoughts are seen immediately. Urgent requests such as abdominal pain, headache, or mental deterioration should be seen the same day the request is received. Routine requests such as muscle ache, minor infection, or back pain should be seen no later than the next day. Documentation includes the results of the assessment with the date and time the patient was seen. Screening requests for care less than 7 days a week, staff practicing outside their legal scope, clinically inadequate assessment, and minimizing patient complaints are risk factors for harm to patients.

It is important for the patient to know what to expect and when. This is accomplished when the nurse discusses their recommendations with the patient and a care plan is developed. The plan includes treatment, referral, patient education, and advice about self-care. Pitfalls in the assessment include poor clinical decisions, inadequate follow through or handoffs, fragmented implementation of the plan of care, and patient misunderstanding or disagreement with the plan of care.

Sick call is a barometer for the quality of the entire healthcare program in a correctional facility. When requests for healthcare attention are not received and acted upon in a timely, responsive, and clinically appropriate manner, the efficient operation of the healthcare program is in serious jeopardy. Effects of insufficient access include increased number of grievances, increased requests for emergent healthcare attention, and multiple requests for the same problem (Knox, 2014a, b, c; Murphy, 2015). Healthcare programs should track the timeliness, completeness, and clinical appropriateness of the assessment of healthcare requests and resulting care plans. The types of requests being made and frequency of multiple requests should also be tracked.

A recent study using the 2004 Survey of Inmates in State Correctional Facilities found black men more likely to access health care compared to white or Latino men. The author suggests that racial disparities in access to health care are reduced because of the availability of health care during incarceration (Nowotny, 2016). Similarly, others have suggested that incarceration provides low-threshold access to health care for those who face substantial barriers in healthcare access when in the community (Kinner & Young, 2018; Massoglia & Remster, 2019; Matz, 2018).

There are, however, barriers to care in prisons and jails. These may include dysfunctional methods to request healthcare attention, untimely delays seeing those who have a healthcare request or those who have been referred to a provider, offering sick call at unreasonable times of day, excessive fees such as co-pays, language or other difficulty with communication, and culturally discriminatory practices. Incarcerated persons report reluctance to access health care because of distrust in healthcare staff, not having a choice of provider, being disbelieved, loss of wages from missing work, isolation from general population if admitted to the medical unit, and logistical challenges in obtaining care. A last reason given for reluctance to access care is being treated like everyone else rather than having unique needs addressed, and is an example of the depersonalization that characterizes correctional settings (Heidari et al., 2017).

Telehealth nursing has been in place in primary care settings since the 1970s and is very similar to the assessment of healthcare requests in correctional settings (Mataxen & Webb, 2019; Neville, 2018). However, the application of telehealth technology in correctional health care has been primarily limited to specialty care. Advantages of telehealth technology are eliminating the need to transport, reducing wait times, and reducing the costs of higher-level care (Young & Badowski, 2017). Telehealth is considered as effective as face-to-face interventions and patient satisfaction with telehealth encounters is equal to or better than a face-to-face encounter (Schuelke et al., 2019; Finley & Shea, 2019; Speyer et al., 2018). It is estimated that half of all ambulatory care visits in the community can be

accomplished safely in a telehealth encounter (Deloitte, 2014). Increased use of telehealth technology to address requests for attention in correctional settings mitigates some of the barriers described earlier; missed appointments are reduced and is a more efficient way to make use of nursing personnel (Peck, 2005; Cady & Finkelstein, 2014).

Getting Work Done: Communication, Advocacy, and Collaboration

Communication

Healthcare delivery in the correctional setting takes place within hierarchal and rule-driven organizations, emphasizing command and control of detained people. Nurses must communicate with personnel throughout the organization to ensure that timely, necessary, and appropriate health care is provided. Communicating effectively requires nurses to understand the language, culture, norms, and values of the organization and to establish relationships. Positive work relationships are not among the characteristics that nurses use to describe the correctional setting. Correctional nurses report custody staff are most often the source of emotional abuse, conflict, and bullying (Solell & Smith, 2019; Almost et al., 2013; Maroney, 2005; Weiskopf, 2005).

Communication between nurses and custody staff is facilitated when clear expectations are established for a respectful workplace, staff are educated about the roles of the various professional disciplines, interdisciplinary training is conducted, and joint meetings are held to monitor services and address problems. Correctional nurses benefit from developing conflict resolution skills, given their prominent role negotiating coordination of patient care with custody operations (Knox & Pinney, 2017; Schoenly, 2014; Weiskopf, 2005).

Nurses also communicate with other healthcare professionals. Communication in health care is often fragmented and does not provide pertinent information, causing delays in patient care. Communication failures are widely recognized as contributing to the majority of adverse events in health care (Schoenly, 2014; O’Keeffe & Saver, 2014; Institute for Healthcare Communication, 2011). Correctional health care does not differ from the community in error caused by fragmented, incomplete communication.

Communication failures take place when work rules are not followed, such as when staff take shortcuts or develop workarounds. Another situation in which communication failure is likely is when there is poor oversight of clinical judgments resulting in a patient care mistake. Lack of support from colleagues who are reluctant or refuse to help also can contribute to communication failure. The failure to communicate concerns about a provider’s competence is another example. Poor teamwork resulting from divisiveness, disrespect among coworkers, and managers who abuse their authority who threaten, bully, and force their own viewpoint on subordinates are also situations when communication failure is likely to take place (O’Keeffe & Saver, 2014). There are two types of communication breakdowns in health care. The first occurs as a result of mistakes or misunderstandings which are accidental and unintentional (misplacing the report from the specialist, giving the wrong medication, drug-drug interactions). Interventions to correct the first type of communication failure include structured handoff protocols (e.g., SBAR), checklists and whiteboards, standardized procedures (e.g., read back verbal orders, check backs, approved abbreviations), and automation (Schoenly, 2014; Maxfield et al., 2011).

The second type of communication failure is intentional and takes place because an individual knows or suspects something is wrong (work shortcuts, incompetence, disrespect) but chooses to ignore or avoid it. Addressing these errors requires an organizational culture that enables people to speak up. Since the magnitude of mistakes made in healthcare delivery and risk to the patient has been

recognized, several organizations such as the ANA Magnet Program and the Institute for Healthcare Improvement (IHI) have developed training and tools to improve communication about these kinds of problems in healthcare programs (Maxfield et al., 2011).

Delegation and supervision of subordinate personnel is an inherent nursing responsibility and, in correctional settings, may also include inmate or detainee workers. Communication with subordinate personnel should be respectful, timely, with a rationale that gives the delegated task meaning (Anthony & Vidal, 2010). Better performance on quality measures in patient care has been consistently reported when communication between nurses and subordinate personnel is more frequent (Knox & Pinney, 2017).

Most importantly, communication skill is considered essential to correctional nursing practice because it is how caring, the moral foundation of the profession, is demonstrated (ANA, 2020). Similarly, justice-involved persons also identify good communication by healthcare providers as indicative of caring. Reaching out to inquire about the person rather than waiting to receive a request for healthcare attention is one example of caring. Another is spending time listening and getting to know the patient (Walsh-Fez et al., 2019; Kanbergs & Durfey, 2019).

A nurse providing in-reach services at the jail in Camden County, New Jersey described her clients as being “in a more contemplative state, so it’s a little easier to get down to what is important to them and learn what has been going on...” (Wiest & Kuruna, 2019 page 14). Failure to provide appropriate communication aids for persons for whom English is not their primary language or who have hearing or speech difficulty is a significant barrier and cause for healthcare error (Watt et al., 2018; Knox, 2014a, b, c). The use of nonjudgmental inquiry and active listening improve accuracy and understanding when people from different cultures, ages, and gender communicate. Effective communication helps patients participate in their care, adhere to the treatment plan, and improve self-management; these contribute to better health outcomes (Institute for Healthcare Communication, 2011).

Grievances are a primary means of communicating dissatisfaction with health care and the source of valuable information about patient perceptions of the program. The subject areas being grieved should be tracked to identify trends with results discussed by the healthcare team. Ways to improve patient perceptions about specific subjects (e.g., missing medication, delays in care, disagreement with the treatment plan, etc.) should be identified and acted upon.

Individual grievances should be investigated so problems are resolved promptly. Meeting with the patient to discuss the problem and options for resolution has been found especially helpful with complex patients. Table 16.2 lists recommendations to effectively respond to healthcare grievances.

Table 16.2 Practices for an effective response to grievances

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| 1. Write in a simple, conversational manner easily understood by the reader. Avoid medical and correctional terminology |
| 2. Be professional and polite, regardless of what was written in the complaint |
| 3. Respond in person-first language, not a third party such as the grievance coordinator or ombudsman |
| 4. Thoroughly address each of the issues being grieved. Do not add irrelevant material or blame the writer |
| 5. Let the person know what steps were taken or what action will be taken in the future to resolve the complaint |
| 6. If a problem is identified and needs correction, let the person know the information was appreciated, for example, “Thank you for bringing this problem to my attention....” If an apology is due, include it in the response |
| 7. Keep the response informative; avoid abrupt or legalistic answers |

Source: Knox (2014c)

Advocacy

Advocacy is closely aligned with communication. For nurses in correctional settings, advocacy for patient needs is a fundamental area of responsibility (ANA, 2020). The dehumanizing nature of the correctional setting requires nurses to speak out regularly on behalf of the patient to ensure their health and well-being are not compromised (Solell & Smith, 2019). Advocacy by nurses takes place on behalf of individuals and for groups at the organizational and policy level. Examples for patients include: ensuring medically necessary assistive devices are provided (e.g., C-PAP machines, hearing aids, eyeglasses, etc.), protecting patients from deterioration if segregated, and arranging extended family visitation for ill patients. Examples of nursing advocacy at the organization and policy level include: establishing a heart healthy diet, increasing the number of healthy items in the commissary, and requesting the local hospital incorporate the NCCHC position statement on Restraint of Pregnant Inmates into their policy and practices. Correctional nurses also work cooperatively with community-based advocacy groups to improve conditions within correctional facilities (ANA, 2020).

The characteristics of successful advocates include the following practices:

- A calm and thoughtful approach
- Raises relevant issues in a fair manner
- Builds on relationships
- Incorporates the views of the patient
- Facilitates others' understanding of the problem
- Is succinct, articulate, and offers alternatives (Stewart & Macintyre, 2013)

Advocacy is the most direct way to bring about needed change; it also improves confidence and self-esteem and brings the attention of other stakeholders to the issue (Disability Rights Wisconsin, 2008). The result of advocacy is illustrated in this description by one person who was incarcerated: "They showed that they wasn't just doing their job, which was enough. Just doing their job was enough. But they genuinely cared. They genuinely put forth an effort and got other people to understand my point of view. My lawyer stepped in then. The judge started listening. Now everybody's paying attention. And this is what I needed. I needed this. So, it's a great blessing for me" (Wiest & Kuruna, 2019).

Collaboration

Correctional facilities are complex organizations with many parts (e.g., central control, facility maintenance, ambulatory care clinics, food service, commissary), intertwined and connected. Collaboration is a means for complex organizations to address a problem, increase efficiency, or improve patient outcomes (O'Keeffe & Saver, 2014; Grafton & Erickson, 2007). An example of collaboration is meeting with the Captain to determine how to complete a series of radiation treatments for a patient with cancer without delaying other off-site appointments.

Collaboration is predicated upon relationships and communication among the participants. Team members must be able to articulate their own role in achieving a shared outcome and differentiate it from others (Haas et al., 2016; McGarry & Ney, 2006; Grafton & Erickson, 2007; Ashkenas, 2015; Schoenly, 2014). In health care, collaboration is associated with improved patient outcomes and decreased mortality. It is also associated with improved patient satisfaction and decreased staff turnover (Knox & Pinney, 2017; Schoenly, 2014; O'Keeffe & Saver, 2014).

Table 16.3 Behaviors to facilitate collaboration

1. Listening instead of talking or thinking about what to say next
2. Demonstrating empathy—imagine yourself in another’s place—to see another person’s viewpoint
3. Being comfortable with feedback; soliciting feedback
4. Flexibility, both leading and following
5. Clearly, plainly speaking and avoiding abstraction
6. Identifying shared goals

Source: Gino (2019)

Other examples of collaboration in the correctional setting include multidisciplinary treatment planning, safety and sanitation monitoring, and responding to communicable disease clusters. Nursing collaboration on committees such as pharmacy and therapeutics, medical administration, morbidity, and mortality is mandatory so that barriers in delivery of care are identified and resolved. Table 16.3 lists behaviors that facilitate collaboration.

Collaboration does not happen without leadership and support to overcome barriers in the correctional setting. These include staff turnover, lack of trust, diverse opinions, lack of a shared mission or values, authority imbalance, and time (Schoenly, 2014). In organizations that support collaboration, leaders create opportunities for staff from various areas to work together on problems. Leaders model collaborative behaviors; they are open to diverse viewpoints and share power. Leaders provide time away from distraction for staff to align interests and bring resources to problem-solving or completing a project. Collaboration is both the grease that keeps the organization running smoothly and also the brakes that keep it from crashing.

Care Coordination

The coordination of patient care is a major role of correctional nurses. For example, a person who has a history of seizures should not be assigned to a top bunk. This can only be prevented if the housing officer is informed. Nurses are responsible for managing the delivery of care and maintaining care continuity (ANA, 2020).

Other examples of care coordination are transferring information about health status and prescribed medication when someone is transferred from jail to prison, administering medication and other treatment, performing diagnostic procedures and obtaining results, and explaining or teaching the patient about their care.

Care coordination is a concept that has received a great deal of attention in the last 20 years, as a way to improve the experience of health care, improve the health of populations, and reduce costs. This is known as the Triple Aim (Berwick et al., 2008). Care coordination specifically targets defects in the continuum of care. An example of a defect in the continuum of care is when a patient returns to the correctional facility after hospitalization and the discharge recommendations are not acted upon. Care coordination involves identifying patients at risk of poor outcomes, communication of accurate and meaningful information, managing the delivery of care, and managing transitions.

Identifying Patients at Risk

Certain patients or situations in the continuum of care present a significant risk of harm or an adverse event. These are times when nurses are most vigilant coordinating care. In correctional settings, people with the following conditions benefit from care coordination:

- Newly diagnosed chronic condition or major medical disorder
- Poorly controlled chronic condition
- Deteriorating or unstable medical disorder
- Multiple comorbidities, especially psychiatric conditions

Nurses in the community found that the need for care coordination increased when language was a barrier or cultural beliefs diverse, when family and financial resources were limited, and physical and social problems complex (Vanderboom et al., 2015). These factors should be considered when identifying patients needing closer monitoring and early intervention.

Communicating Accurate and Meaningful Information

Care coordination does not happen without timely flow of accurate and meaningful information. Nurses are referred to as the “switchboard” of health care. This is because nurses make sure that each person has the information needed to carry out their role in the delivery of care. The use of a standardized script, like the huddle agenda, ensures that pertinent information is not left out of important communication within the care team. The daily huddle prioritizes the issues to be addressed that day and assigns responsibility among members of the care team. Subjects reviewed in the daily huddle include:

- Patients who required attention from the on-call provider
- Patients returning from a higher level of care
- Patients with significant lab or diagnostic results
- New patients who are at high risk
- Patients who have medication due to expire
- Patients scheduled to be seen that day
- Scheduling issues or backlog
- Barriers to care
- Insufficient available resources (Dunlap et al., 2016)

Another form of scripted communication is known as SBAR, a tool used to convey information, especially in critical situations that require a clinician’s immediate attention. This tool is especially useful in communicating with on-call providers. SBAR is an acronym that corresponds to the order of subjects to be communicated.

- **S** is for Situation and includes the person’s identity, location, and reason for the communication, the identity of the patient and a brief description of the problem, when it happened, and the urgency that needs to be addressed.
- **B** indicates the Background information pertinent to the situation. Information should include the presenting complaint, relevant past medical history, vital signs, and relevant lab or other diagnostic results.
- **A** is your Assessment and clinical impression of what the problem is.
- **R** is your Recommendation and should clearly state what action you want the other person to take and how quickly (Schoenly, 2014; Institute for Healthcare Improvement, n.d.).

Seeing complex patients more frequently to review health status and address concerns improves patient engagement and outcomes (Cryer, 2018; Strugar-Fritsch & Follenweider, 2016). Patients are more engaged when nurses inquire about side effects or improvement in symptoms, answer questions,

Table 16.4 Techniques to promote accurate and meaningful communication with patients

Simplicity	<ol style="list-style-type: none"> 1. Explore simple concepts before moving to complex areas 2. Avoid medical terminology 3. Use words that are meaningful to the general public 4. Be concrete—state what you want the other person to do
Reinforcement	<ol style="list-style-type: none"> 1. Discuss the most important subject first and come back to it at the end 2. Ask the person to restate what you said to check for understanding 3. Use visual aids 4. Provide written follow-up material

Source: Burrow et al. (2006)

teach, and support their commitment to the treatment plan. Techniques recommended for accurate and meaningful communication with patients are listed in Table 16.4.

Managing the Delivery of Care

The central work of care coordination is translating the plan of care into action. A typical plan of care is an interplay of various providers and intended actions related to diagnostic work and follow-up care, medication administration and management, treatment procedures, patient education, and referrals. Nurses are responsible for coordinating the staff and resources to implement the plan and then monitoring completion of these activities. In correctional facilities, this will also involve custody staff to ensure that people arrive on time for scheduled appointments.

Traditionally, health care in correctional settings has been delivered as a series of discreet tasks; nurse sick call is separate from practitioner clinic, labs require a separate appointment, tuberculosis screening is handled apart from any other encounter. This requires the patient to make multiple trips to the healthcare area. Some information gathered at the encounter is redundant, other pertinent information may not be available or missed, and care is delivered by multiple people impeding the development of a helping relationship between the patient and caregivers.

Some state and county correctional healthcare programs have adopted team-based care where a primary care team shares responsibility for a panel of patients. The team convenes daily to prioritize needs for care, reviews the schedule of activities, and allocates responsibility among team members with a particular focus on high-risk patients. Staff work collaboratively to address patient care needs comprehensively (Strugar-Fritsch & Follenweider, 2016). Tips for running a primary care clinic in the correctional setting are listed in Table 16.5.

Strategies for more comprehensive care management include periodic team conferences. An example is for the team to review care of patients whose chronic disease is not well controlled. The purpose of the review is to identify contributing factors and develop strategies to influence better disease control. Team conferences with difficult patients are also effective because all members of the team hear out the patient's concerns and collaboratively arrive at a treatment plan that is acceptable.

Shared visits are another care management strategy. These are appointments that take place with a group of patients who share the same diagnosis. The educational portion of the encounter takes place in a group setting and then individuals are seen individually for a shorter, focused visit. While individual visits take place, other members of the group are coached in self-management and lifestyle modification. Shared appointments have the additional advantage of peer support and advice. Patients

Table 16.5 Ten ways to run clinics smoothly

1. Monitor and continuously improve the quality, effectiveness, and efficiency of clinics: Data collected should include the number of people seen timely, the number of no-shows by reason, diagnostic tests not available, number of patients whose condition improved since last visit, the number of patients in fair or poor condition, and patient satisfaction
2. Protect the provider from interruptions: Interruptions are potential causes for error. Discuss with the provider in advance what interruptions are necessary
3. Plan how to manage time when patients are late or miss their appointment: Avoid overscheduling because it increases no-show rates; instead correct the root cause
4. Keep the provider running on time: Discuss with the provider how this is accomplished
5. Gather information the provider should review in advance: This includes medication adherence, blood pressure or blood glucose readings, canteen purchases, and adherence with diet and any exercise, sleep, or food diaries
6. Schedule all routine diagnostic work and consults to be completed before the appointment.
7. Update the chronic disease flowsheet or record for each visit: Review the record to identify clinical variables that determine the status of the patient's condition (e.g., number of seizures, etc.) and summarize these for the provider
8. Take vital signs, including weight. Record them on the encounter record: Taking vital signs before the visit saves time for the provider to focus on the patient
9. Summarize the reason for the visit on the encounter record and list any questions or issues the patients want to have addressed: This helps focus the patient and gives the provider a quick reference to begin the encounter
10. Promptly follow up after the visit to remove paperwork and process orders: Schedule diagnostic and treatment procedures to take place while the patient is still in the clinic to avoid return appointments

Source: Burrow et al. (2006)

who participate in shared appointments have more knowledge about disease and self-care strategies, quality of life, and problem-solving skills than those enrolled in usual care (Ridge, 2012; Strugar-Fritsch & Follenweider, 2016). With shared appointments, nurses are a resource because of their knowledge and expertise in health education and coaching.

Maintaining medication continuity is a fundamental aspect in managing the delivery of care. Negotiation and collaboration with custody staff on an ongoing basis are required to ensure that medication is administered as ordered and diversion is prevented.

Medication reconciliation needs to take place upon arrival after patients return from off-site care and at each primary care encounter. Nurses educate the patient about their medications and role in reconciliation. Any inconsistency between recommended doses and what is ordered, especially high-risk medications, needs to be resolved by a clinician promptly (Knox, 2016b). Nurses also monitor patient symptoms to evaluate the effectiveness of treatment and work with patients to improve adherence, if necessary. Patients likely to be nonadherent should be identified early and monitored closely for early intervention, if necessary (Mills et al., 2011; Ehret et al., 2013). The following is a list of strategies to improve medication adherence:

Symptom and side effect monitoring

- Increase frequency of contact
- Address side effects promptly
- Consider how distressing the side effect is for the patient
- Provide information about how to manage side effects
- Simplify the medication regime
- Consider the patient's preference for dosing regime
- Monitor closely for symptom response using a daily checklist or chart

Medication monitoring and environmental supports

- Institute directly observed therapy
- Provide reminders to take medication
- Provide reminders to get medication refills
- Target support to address barriers
- Increase visit frequency to monitor for relapse
- Involve family or other social support
- Use motivational interviewing to prompt patients to adopt behavior consistent with their goals

(Sources: Velligan et al., 2010; Palacio et al., 2016)

Typically monitoring of care is done by maintaining a log of scheduled care by type (e.g., dental, medical, mental health, episodic care, wound care, lab, radiology, referrals) with notation of the date the request, order, or referral was received, the date scheduled, the date it occurred, and, if different than the date scheduled, the reason why. Keeping the log is not enough; they need review to identify delayed care and action taken to provide the needed service. Recurring delays in care need to be discussed by the care team, corrective action taken, and performance improvement monitored. As electronic health records make their way into the correctional setting, logs are replaced with automated reports greatly facilitating the availability of information for patient management.

Monitoring performance of the healthcare program identifies areas of discontinuity in patient care. Examples of monitoring measures that detect discontinuity include:

- Were discharge recommendations implemented within a day of the patient's return from the hospital?
- In the last 6 months, have any prescribed medications expired without notification of the prescribing clinician?
- Were CIWA-R assessments completed as scheduled?
- Were labs obtained within the timeframe specified in the order?
- Did the specialty consult take place within the timeframe ordered?

Managing Transitions

All nurses have had experience with that patient who “fell through the crack.” Anytime the responsibility for a patient's plan of care moves from one clinician to another, there is risk that important aspects of care will be disrupted, misunderstood, or forgotten.

During incarceration, people experience many transitions including intake, health care at a hospital or from a specialist, transfers within the correctional facility or to another, and release.

Whenever a patient is hospitalized or referred to see a specialist, there is a need to send and receive information about the patient to facilitate care. Nurses are responsible for preparation of the patient and assembly of pertinent information to inform providers at the hospital or specialists office of the assistance needed. They are also responsible for obtaining information about the care the patient received in the community, implementing a plan of care which includes collaboration with the primary care provider to incorporate the recommendations from the off-site visit, and scheduling future appointments.

Steps to improve the quality of care during these transitions include targeting patients at high risk of avoidable hospitalization, proactive intervention, increased timeliness accessing care, and patient education. The likelihood of future hospitalization is reduced when the nurse provides the patient with an explanation about their condition, how to take medications and why, what to expect about their progress, self-management, and then answers questions and listens to concerns (Cryer, 2018).

Steps to improve the quality of specialty care include:

- Build a relationship with high referral specialists.
- Establish expectations with each about when to refer, prior diagnostic work desired, pertinent information, type of recommendations sought, and future care.
- Logging and tracking referrals, addressing barriers and following up on missed appointments.
- Use information technology to improve timeliness and flow of information (Wagner & Thomas-Hemak, 2013).

Continuity of care is at risk with transfer. Any time a person is transferred, nurses prepare information and supplies, as necessary, to continue care. Steps to improve continuity of care on transfer are to establish a relationship with the most frequent transfer locations and agree on what information needs to be communicated and how it will be conveyed. Provide feedback to the transferring party about the adequacy of transfer arrangements and develop backup mechanisms to ensure that information vital to continuing care is communicated. For persons with complex care needs, consideration should be given to putting a hold on the patient's transfer. If transfer is unavoidable, confer with the receiving party before the transfer, so they are prepared; follow up afterward to address any questions or concerns.

Discharge or release from incarceration is the most important transition. People are most vulnerable to deterioration in their health and at increased risk of mortality during the first 2 weeks after release from incarceration (Costa et al., 2018; Harzke & Pruitt, 2018). Bureaucratic hurdles within the healthcare program and differing goals for care during and after incarceration are cited as the main challenges in effective care coordination at discharge (Wiest & Kuruna, 2019).

Nurses assist in identifying patients who need services after release, linking patients to community providers, obtaining a prescription or supply of necessary medication, preparing a summary of the patient's health status and need for ongoing health care, and communicating with the patient about these arrangements.

Performance monitoring should track counts of how many people are released, how many are identified as needing discharge planning, receive discharge planning, are enrolled in benefit programs, provided health summaries and medication or a prescription at release, and attend their first appointment in the community. Connecting releases to health care in the community reduces disease burden and the associated costs of deteriorating health status, as well as suppressing communicable disease transmission in the community (Costa et al., 2018). The reason correctional nurses persist in caring for incarcerated population is the commitment that every person transitions back to their community in better health, with more knowledge about health and with increased ability to care for themselves.

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Debra A. Graham and Diane Skipworth

Introduction

Prisons and jails are responsible for the physical safety and security of prisoners, staff, volunteers, and visitors; however, safety also includes the environmental health of the facility, and the factors that adversely affect human health, which may present even greater challenges to correctional administrators.

Simply by the nature of incarceration, prisoners live in crowded and overcrowded environments which on their own pose public health challenges. Additionally, some prisoners lack healthy personal hygiene behaviors, including proper handwashing procedures or the skills to maintain a clean living environment. Access to personal hygiene supplies, such as hand soap and single-use paper towels, may be limited due to security reasons, and unhealthy practices such as prisoners sharing razors increase the risk of unfavorable and harmful health outcomes. In addition, a lack of appropriate cleaning and disinfecting processes increases the risk of the intramural spread of viruses and infections between prisoners, employees, and visitors. Since staff and visitors return to their homes and community daily, and the majority of prisoners are eventually released and subsequently return to the community, the environmental health of a prison or jail facility impacts the public health.

The National Environmental Health Association (NEHA) defines Environmental Health and Protection as “the science and practice of preventing human injury and illness and promoting well-being by identifying and evaluating environmental sources and hazardous agents and limiting exposures to hazardous physical, chemical, and biological agents in air, water, soil, food, and other environmental media or settings that may adversely affect human health” (NEHA, 2020). According to US Department of Health and Human Services, Office of Disease Prevention and Health Promotion ([HealthyPeople.gov](https://www.healthypeople.gov)), environmental health entails preventing or controlling disease, injury, and disability related to the interactions between people and their environment (HHS, 2020). The environmental conditions of a facility can have positive or negative influences upon human health, prisoner

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and staff morale, as well as the overall conditions within the facility. It is incumbent upon facility administrators to ensure that environmental health conditions promote health and welfare and avoid adverse outcomes, and they must do so while maintaining safety and security. Invoking safety and security as excuses for not promoting sound environmental health practices is imprudent, and alternatives should be sought that meet the objectives of maintaining institutional safety and security as well as facility sanitation and prisoner hygiene. For example, if a prisoner is restricted from using cleaning supplies to clean their immediate living area, a janitorial crew performs the cleaning.

Sanitation Plan and Infection Control

An essential component of a healthy correctional facility is a formal Sanitation Plan that details what must be cleaned, sanitized, or disinfected, what processes to follow, when, where, and how often to complete the processes, what products and equipment to use, and who is responsible for completing each process, and follow up inspections. The Sanitation Plan focuses on clear communication of cleaning tasks and needs, is proactive in preventing or reducing the spread of infection, and reflects the overall mission and goals of the administration's general philosophy concerning environmental health. A well-written and properly executed Sanitation Plan that is consistently followed will ensure the facility is actively working toward the goal of protection of human health and preservation of the facility.

Prior to writing a Sanitation Plan an assessment is conducted to determine what needs to be cleaned, what needs to be sanitized, what needs to be disinfected, and where sterilization will be required. This assessment provides the foundation for determining who is responsible for the processes required, what chemicals will be needed, that is, cleaners, sanitizers, disinfectants, the frequency, and steps necessary to accomplish completion and verify the processes were completed correctly. It is advisable to involve a reputable chemical manufacturer or vendor during the assessment process and seek assistance with determining the proper chemicals to use for cleaning, sanitizing, and disinfection tasks.

Components of a Sanitation Plan

A Sanitation Plan is the backbone of environmental health and safety processes. To be effective, key components of the plan include, but are not limited to:

1. Objective
 - Mission statement of the facility.
 - Goals and objectives of the Sanitation Plan.
2. Definitions
 - All definitions that relate to the Sanitation Plan, such as "cleaning," "sanitizing," etc. The Centers for Disease Control and Prevention (CDC) is a good source for definitions of terms related to sanitation (CDC, 2020a), available at www.cdc.gov/infectioncontrol/guidelines/disinfection/glossary.html.
3. Chemicals
 - All chemicals used by the facility, what the chemical is used for, Safety Data Sheets (SDS) for all chemicals, and training for all staff on the use of SDS.
 - Identification of cleaning, sanitizing, or disinfecting requirements for all areas of the facility by section, that is, food service, laundry, medical, housing areas, offices, locker rooms, gyms, etc., and the detailed steps required.

4. Cleaning Schedules

- Identify and list by area the cleaning interval and who is responsible for performing the cleaning duties.
- A best practice recommendation is to include a signature line for the employee that completed the task(s) and a separate signature line for a supervisor verifying that the task(s) were completed.

5. Monitoring and Inspections

- Periodic monitoring and the steps for completion of tasks.
- Scheduled internal and external inspections, with documented results.

6. Corrective Actions

- All corrective actions taken to correct identified issues or violations are documented.
- Use a standardized format that includes the problem or violation, corrective action taken, re-inspection/follow-up, dates, and signature.

7. Routine Sanitation Plan Review Process

- Outline the process for review, who reviews it, and the interval for scheduled review.

The Sanitation Plan must undergo a review process on a regular basis to ensure the information and processes are current. In addition, it must be flexible enough to allow for responses to unforeseen circumstances, such as newly discovered or introduced diseases or environmental health issues that necessitate an immediate change in cleaning and sanitation agents or processes.

Sanitation Standard Operating Procedures (SSOPs)

Environmental Health and Infection Control policies and procedures can either be incorporated into the Sanitation Plan or detailed in standalone policies and procedures known as Sanitation Standard Operating Procedures (SSOPs). Which way the facility chooses to handle this is a matter of preference. The SSOPs should be written so they can be easily understood and followed. The SSOPs should include:

- The SSOP number
- Effective date
- Title of the Procedure
- What is covered in the procedure, usually referred to as the Scope
- Step-by-step instructions of what is to be done, in a logical and sequential order. Include the chemicals along with their concentration or dilution as well as exposure or dwell times and any temperature requirements
- Schedule or how often the procedure is to be completed
- Documentation and recordkeeping logs or forms used to document the processes

Cleaning vs. Sanitizing vs. Disinfecting vs. Sterilization

In accordance with the CDC's guidelines, "cleaning is the removal of foreign material (e.g., soil, and organic material) from objects and is normally accomplished using water with detergents or enzymatic products" (CDC, 2020b). Proper cleaning can remove germs from a surface, but it does not necessarily kill germs. However, cleaning is the necessary first step of any sanitizing or disinfection process. Not all areas of a facility require sanitizing or disinfecting, and therefore, the cleaning process is sufficient. For example, everyday use of a file cabinet in an office area would not require disinfection but should be cleaned to remove dust buildup.

Sanitizing lowers the number of germs on a surface to a safe level as prescribed by public health standards. For sanitizing to be effective, thorough cleaning is required first before sanitizing because inorganic and organic materials that remain on the surfaces interfere with the effectiveness of the sanitizers and the sanitizing process. Most often, sanitizing is accomplished after proper cleaning by the use of chemicals designed for sanitizing purposes or through the application of heat at a specified temperature for a designated time as required for sanitization. Sanitizing is most often used in food service.

Disinfecting is the process of killing microorganisms on surfaces by using chemical agents. Disinfecting does not clean a surface or remove germs, but after proper cleaning, disinfecting will kill germs on the surface.

Sterilization destroys all microorganisms on the surface of an article or in a fluid to prevent disease transmission associated with the use of that item. Sterilization is most often used in the medical environment.

It is important to understand the different cleaning, sanitizing, and disinfecting needs in a facility. The principles and processes used need to take into consideration the intended use of the surface or area. For example, the cleaning, sanitizing, and/or disinfecting needs of an office area differ from a food services area, which also differs from a medical area. Specifically, a table in an administrative office will require cleaning, whereas a food preparation table in the kitchen will require sanitization, and an examination table in the medical clinic will require disinfection.

Food Service and Food Safety

The importance of serving food that is safe can never be underestimated. From the time food is produced as a raw product to the final step of human consumption, there are many steps in which food can become unsafe. Unsafe food can contribute to foodborne illness outbreaks that can range from illness to permanent injury and even death. An outbreak of foodborne disease is defined as “the occurrence of two or more cases of a similar illness resulting from ingestion of a common food” (CDC, 2019).

The United States government works through collaborative efforts with governmental agencies, including the Food and Drug Administration (FDA) to protect the public from foodborne illnesses. The purpose of the FDA Food Code is to safeguard public health and provide to consumers food that is safe, unadulterated, and honestly presented. The Scope of the FDA Food Code establishes definitions, sets standards for management and personnel, food operation, equipment, and facilities, and provides for food establishment plan review, permit issuance, inspection, employee restriction, and permit suspension (FDA, 2019). It provides a model for local regulatory agencies to adopt as part of their individual food safety standards. The FDA Food Code and Food Code information, and education and training materials can be viewed at <https://www.fda.gov/food/retail-food-protection/fda-food-code>.

Avoiding contaminants is critical to serving safe food. Food contamination falls into three major categories, biological, chemical, and physical. Biological contaminants include microorganisms, that is, viruses, bacteria, parasites, and fungi, as well as toxins found in certain plants, mushrooms, and seafood. Chemical contaminants include chemical substances, that is, cleaners, sanitizers, polishes, lubricants, or pest control substances. Physical contaminants are physical objects, such as hair, dirt, metal staples, broken glass, or bones from fish.

Food service sanitation practices can contribute to or curtail any one of the three categories of food contamination. All areas of a food service establishment must be kept clean and all food contact surfaces must be cleaned and sanitized. “Sanitization” in a food service establishment means the applica-

tion of cumulative heat or chemicals on cleaned food-contact surfaces that, when evaluated for efficacy, is sufficient to yield a reduction of five logs, which is equal to a 99.999% reduction, of representative disease microorganisms of public health importance (FDA, 2019). A well-written and properly implemented Sanitation Plan specific to food service requirements will support the goal of food safety practices.

A food service establishment must be proactive about and committed to the prevention of foodborne illness. They must anticipate risks to food safety and plan and take steps to reduce and prevent those risks. This process is often referred to as Active Managerial Control and is defined as the purposeful incorporation of specific actions or procedures by management into the operation of their business to attain control over foodborne illness risk factors. It embodies a preventive rather than reactive approach to food safety through a continuous system of monitoring and verification (FDA, 2006). A food safety management system is a part of Active Managerial Control and can be implemented through written policies and procedures that address food safety, for example having a certified food protection manager, standard operating procedures, monitoring procedures, recordkeeping practices, staff training, and a cleaning and sanitation program called/known as a food service Sanitation Plan.

An effective Food Service Sanitation Plan begins with an assessment of all food service areas, to determine the cleaning and sanitation needs. In a food service establishment, sanitation is required for any object or surface that touches food. Establishing a logical flow of food beginning with the delivery of food items until the actual time the food is consumed will assist with establishing food safety processes and are part of the assessment. For example, finished meal products should not come into contact with any raw food items that require cooking. Use separate cutting boards for raw uncooked foods, such as raw chicken from ready-to-eat foods such as fruit. Ensure proper cleaning and sanitizing of all surfaces that come in direct contact with food.

The FDA Food Code and your local food establishment regulatory agency standards are valuable sources for assisting with the assessment. Staff, especially Registered Sanitarians from the local or state health department, trained in food service inspections can also provide helpful information. Engage your Registered Dietitian/Nutritionist and a licensed Pest Control Operator in this process to the fullest extent possible. In the food service area, establish written Sanitation Policies and Procedures (SSOPs) covering all areas of the food service establishment and include step-by-step instructions of any tasks that must be completed. These tasks can be as simple as emptying trash to as cumbersome as cleaning large equipment. The SSOPs must be written clearly and concisely so cleaning and sanitizing can be properly accomplished by following the procedure step by step. Use a standardized format that includes a list of all materials, such as brooms, mops, and brushes; supplies, such as cleaners and sanitizers; personal protective equipment, such as gloves, goggles, protective clothing, all steps required to perform the tasks properly, and the steps for cleaning and sanitizing materials used during the process, such as brushes or mops. Include SSOPs covering staff hygiene requirements, handwashing procedures, gloves and hair restraints, pest control, management of employee illnesses, as well as safe handling of food from delivery to the establishment through meal service.

Establish a food service Sanitation Schedule to denote the frequency for each task to be completed and establish a Master Cleaning Schedule that contains all cleaning and sanitizing tasks. Separate daily, weekly, or monthly schedules can then be established based on the Master Cleaning Schedule to be assigned to the staff responsible for completion. Include an area for accountability of completion as well as supervisory review.

A self-inspection program can be developed and established to measure the effectiveness of the Food Service Sanitation Plan. Effective self-inspections are based on needs and conducted in accordance with an established schedule. Self-inspections may be conducted at any frequency as outlined by management. For example, daily self-inspections are conducted after cleaning tasks have been

completed to verify all steps in the process were properly followed. A comprehensive inspection of the food service areas completed on a regular schedule covers the entire food service establishment, including but not limited to floors, walls, ceilings, drains, structure both inside and outside, all storage areas, loading dock or receiving area, all equipment, bathrooms, pest control, etc. Findings and violations are documented in a written report. Responsibilities for corrective actions are assigned to specific employees with all corrective actions documented. Follow-up inspections are conducted to ensure appropriate corrective actions were completed.

Importance of a Registered Dietitian

Registered Dietitians (RDs) or Registered Dietitian Nutritionists (RDNs) are the food and nutrition experts who can translate the science of nutrition into practical solutions for healthy living (Academy of Nutrition and Dietetics, 2020). The RD/RDN is a professional credential granted to an individual who has “met the education and credentialing requirements in accordance with the Accreditation Council for Education in Nutrition and Dietetics (ACEND) and CDR (Commission on Dietetic Registration)” (Academy of Nutrition and Dietetics, 2019). Most correctional facilities are required through statute to have a “Registered Dietitian certified” menu. This requirement is usually achieved through a consultant dietitian or a dietitian in a headquarters office that approves menus on an annual basis. Food service staff communication with the dietitian is usually infrequent and dietitian visits to the facilities are generally rare. A Registered Dietitian is an excellent resource for menu planning, and their expertise can be of particular assistance with medical diets and religious or faith-based diet accommodations, both of which are expanding exponentially in jails and prisons across the nation. Furthermore, failure to meet these requirements can result in allegations of violation of constitutional rights and litigation.

Laundry

Whether laundry services are performed in-house or by a contractor, the goal is to ensure the provision of clean, hygienic laundry, including clothing, towels, and bedding. The CDC reports that fabric contaminated with bodily fluids, including blood, skin, feces, urine, and vomit, can carry high loads of bacteria and the inappropriate handling of contaminated fabrics has been attributed to disease transmission in healthcare settings (CDC, 2015). Bacteria, viruses, fungi, and ectoparasites, including *Sarcoptes scabiei*, the mite responsible for scabies have been transmitted via contaminated fabrics (CDC, 2015). Methicillin-resistant *Staphylococcus aureus* (MRSA) is of particular concern in correctional facilities and it is known to spread through laundry, for example, by sharing a bath towel that has contacted infected skin. Establish laundry SOPs for all laundry services with specific steps to complete each laundering process, that is, handling soiled laundry, laundry schedules, laundry exchange, washing, drying, etc.

Handling Soiled Laundry

Handling soiled laundry exposes both employees and prison workers to potential hazards. To minimize the risk of exposure to biological hazards, including blood or other potentially infectious material, including semen, vaginal secretions, any bodily fluid that is visibly contaminated with blood, and

all body fluids in situations where it is difficult or impossible to differentiate between body fluids, appropriate personal protective equipment (PPE) should be provided to all workers, including prison workers. At a minimum, disposable or single-use gloves should be worn at all times while handling soiled laundry, discarded if they become torn or otherwise compromised, and single-use gloves must never be washed or reused (US Department of Labor, 2020). If latex gloves are used, have appropriate alternate gloves readily available for those with a latex allergy or sensitivity. Policy and procedures should be in place requiring the utilization of universal precautions for handling laundry that is known or likely to contain sharps or be contaminated with blood or other potentially infectious material (US Department of Labor, 2020).

Washing and Drying of Laundry

Washing laundry in hot water provides disinfection and the CDC recommendation for healthcare settings specifies “a temperature of at least 160°F (71°C) for a minimum of 25 minutes is recommended for hot-water washing. Water of this temperature can be provided by steam jet or separate booster heater. The use of chlorine bleach assures an extra margin of safety. A total available chlorine residual of 50–150 ppm is usually achieved during the bleach cycle. Chlorine bleach becomes activated at water temperatures of 135°F–145°F (57.2°C–62.7°C). The last of the series of rinse cycles is the addition of a mild acid (i.e., sour) to neutralize any alkalinity in the water supply, soap, or detergent. The rapid shift in pH from approximately 12 to 5 is an effective means to inactivate some microorganisms” (CDC, 2015). Although this recommendation is intended for healthcare settings, it has been commonly adopted by correctional facilities. The CDC also recognizes that laundries utilize significant amounts of hot water, at substantial costs (CDC, 2015), leading some facilities to search for lower-cost alternatives. Therefore, if low-temperature or cold-water wash cycles (<70 °C) are used, they should ensure that chlorine- or oxygen-activated bleach is used (CDC, 2015). Temperatures reached during drying provide significant microbicidal action and therefore all laundry should be completely dried.

Self-Laundering by Prisoners

It is common for prisoners to self-laundry items by handwashing them in sinks, showers, mop buckets, and toilet bowls, using bars of body soap, shampoo, contraband laundry chemicals that are smuggled from the facility laundry, or laundry detergent purchased from the commissary, and then hanging them to dry in their housing unit. This practice is unsanitary and should not be allowed because it poses numerous sanitation and safety concerns. Body soap and shampoo are not effective at cleaning textiles and fabrics. Washing in sinks, showers, toilets, and buckets lacks the hot water temperatures and proper concentrations of laundry chemicals required for the proper cleaning and disinfection of laundry. The use of contraband laundry chemicals including highly concentrated commercial strength laundry detergents and bleach inside prison housing units is dangerous and if bleach is mixed with cleaning solutions that contain ammonia, a deadly gas can be formed (US Department of Labor, 2020). Furthermore, improper laundering and use of soaps and detergents may cause skin problems, such as allergic reactions and dermatitis (US Department of Labor, 2020). Hanging laundry in a housing unit poses safety and security risks as clotheslines obstruct an officer’s line of sight.

Laundry Exchange Methods

The two most common methods to exchange laundry are “one for one” and “laundry bag.” In a one-for-one exchange, the prisoner turns in their soiled item in exchange for a comparable clean item. A major pitfall of this system is that it often leads to the insanitary practice of self-laundering, particularly if the prisoner distrusts that the laundry is clean or if they have an item that they are particularly fond of and turning it back in to the laundry will result in them receiving an item that they deem less desirable. Therefore, for the one-for-one system to work properly, prisoners must have confidence that the laundry comes back clean, is not malodorous, that they will receive serviceable garments or linens, and that there is a reliable process for them to request a timely replacement. The laundry bag method requires the prisoner to send their laundry items, generally their outer clothing, undergarments, and towels to the laundry in a mesh laundry bag to be washed, dried, and returned to them. However, without adequate processes in place to ensure it is done correctly, this method may foster distrust of the laundry leading to self-laundering. One of the most common problems is overstuffed laundry bags. Prisoners create tight balls of laundry inside the mesh bags, by filling the bag with too many items or tightly packing items in the bottom of the bag and then tying a knot just above them. The water and chemicals from the wash cycles cannot penetrate through the compact ball(s) of fabric in the mesh bag and the heat from the dryer cannot dry the inner layers of water penetration that did occur during the wash cycle. Therefore, the overstuffed bags of laundry are returned to the prisoner damp, still soiled, and malodorous which leads to distrust of the facility laundry operation and further promotes an institutional culture of self-laundering. The best way to overcome this situation is to provide ongoing education about the proper use of mesh laundry bags combined with a laundry schedule that meets or exceeds the required or mandated number of laundry exchanges, if applicable, and ensures that the mesh laundry bags are either properly sized to hold the wash load or collected frequently enough that prisoners do not need to overfill them.

Medical Care Spaces

Preventing the spread of disease and healthcare-associated infections requires a well-written comprehensive plan, implemented consistently and covers all aspects of infection control, including but not limited to standards for cleaning, disinfecting, and sterilization, personal hygiene, handwashing, use of hand sanitizers, handling of sharps, and biohazard waste. The plan must also include step-by-step instructions of how to complete tasks properly, what needs to be cleaned/disinfected/sterilized and frequency, materials/supplies needed, PPEs and chemicals to complete the tasks, training, who is responsible, and monitoring processes.

The creation of a Medical Sanitation Plan should be completed by a team consisting of medical staff from the facility, subject matter experts in medical care environmental health, such as a hospital’s environmental health and infection control staff, a local Environmental Health Practitioner such as from the public health department for your area, and/or a Registered Sanitarian. A team approach will help ensure a comprehensive plan covering all medical areas is completed. The CDC provides information concerning environmental infection control and disinfection and sterilization in healthcare facilities and is available at: <https://www.cdc.gov/infectioncontrol/pdf/guidelines/environmental-guidelines-P.pdf> and <https://www.cdc.gov/infectioncontrol/pdf/guidelines/disinfection-guidelines-H.pdf>.

Importance of Training

When the importance of training is considered, most likely we think of improving employee skills and job performance and may even consider reducing liability. While these are definitely very important reasons to train employees, from an environmental health perspective, the importance of training is even more profound. A prison or jail environment and all of its components is a community with housing, a medical clinic, kitchen, recreation, faith-based activities, and even a store or commissary. Therefore, the knowledge of the cleaning and sanitation requirements for these areas and the proper execution of the requirements is an important part of the facility's overall environmental health and all of the individuals living and working within this community. Generalized sanitation training, as well as training for the specialty areas, such as the kitchen and medical clinic, is a necessity. For example, in the medical area, cleaning, disinfection, and sterilization are all requirements, but what must be cleaned, what must be disinfected, and what must be sterilized, and how to accomplish each requires proper training. It is advisable to ensure that training is completed by those knowledgeable in these areas and qualified to provide the training. Individual states vary concerning their particular requirements, that is, food manager certification, so it is important to know and abide by your particular state's requirements and ensure adequate training. Facilities can also seek training assistance from outside sources, such as their chemical suppliers and pest control operator.

Use training assessment tools once training has been completed to provide information about whether staff has understood the concepts presented. Assessments can be in the form of pre- and post-testing, and/or monitoring and inspections of tasks performed, and/or observing the employee actually completing tasks. Staff that do not demonstrate adequate understanding of concepts should be retrained.

Document all training provided, as well as staff's attendance through sign-in documents. Keep records by employee of all training that has been completed. This allows for easy reference that indicates what training an employee has completed.

Monitoring, Inspections, and Corrective Actions

Monitoring and verifying the proper adherence to environmental health practices, policies and procedures, standards, and regulations are required on a regular basis. A facility must determine the methods and frequency for monitoring and verification and must establish protocols for handling violations, including handling corrective actions.

The first step in a monitoring program is to ensure policies and procedures are in place outlining steps to follow to ensure adherence to standards, regulations, laws, rules, and facility policies. Staff must be sufficiently trained on goals and objectives, policies and procedures, and expectations. Without these components in place, what exactly are you monitoring, what are you inspecting against and what expectations do you have?

Monitoring means that you are watching or observing something and may also be tracking and documenting it. An inspection is a form of monitoring and is an organized examination or evaluation of something, usually to monitor status, not to be confused with an audit. Audits are formal, comprehensive examinations and verifications of systems in place. An inspection can be part of an audit, but an audit is not part of an inspection.

There are multiple ways that a facility can monitor their environmental health status. This is most often completed through inspections and can be accomplished in different ways. Always include a visual inspection as part of the monitoring protocol. A visual inspection allows for a visual assessment, especially for proper cleaning practices, and can alert facility inspectors concerning other issues such as maintenance needs. Include all areas of a facility during periodic scheduled visual inspections. Inspections in specialty areas, such as food service, medical areas, and dental areas, must include protocols specific to the area, such as proper cleaning and sanitizing of food service equipment or proper disinfection of exam tables in the medical area. Unannounced and impromptu visual inspections also can be very beneficial. During a visual inspection, at minimum use a flashlight to assist you with visually inspecting an area or piece of equipment. Check for visible soiling, residue, etc. Check on, in, above, below, around, and behind equipment. Check walls, ceilings, floors, tables, and countertops. A visual inspection of the outside perimeter of the facility is also an important part of the inspection.

Emergency Situations/Natural Disasters

Emergency situations and natural disasters can strike anywhere without warning. Advance planning can reduce loss of life, injuries, property damage, and the more prepared you are prior to an event, the less time it will take to begin recovery afterward. Emergency situations and natural disasters not only affect the correctional facility, but the entire community. Proper planning is critical. For example, will the availability of clean (potable) water be a factor after a flood? How does that affect the facility, prisoners, and staff? How will toilets be flushed if the water pressure is reduced or cut off? How are employees affected in their own homes? What happens if your facility needs to be evacuated? Who will make the decisions? These are only a few of the very important questions that can arise.

Environmental health in emergency situations and natural disasters must always be considered, however, these events do not automatically present health hazards. The availability of safe food and water, safe sanitary waste disposal, the degree of crowding, ability to clean and disinfect, and overall health of prisoners and staff are all part of how environmentally healthy a facility can and will be in an emergency situation or natural disaster. The first step in ensuring a positive outcome is to plan ahead and plan appropriately.

It is advisable that every facility develop a disaster plan taking into consideration the threats posed to the facility, including but not limited to natural disasters such as hurricanes and tornadoes, or other events such as a train derailment of hazardous chemicals. Planning must involve facility-specific plans and also include agreements with other facilities, agencies, jurisdictions, etc. For example, what if your facility needs to be evacuated, where will the prisoners be safely and securely housed?

When developing and writing a disaster plan, consider the goals of the plan. Of importance is continuity of essential operations, such as safety and security, meals for prisoners and staff, safe drinking water, and medical care, and how the plan will help avoid injury or loss of life. For example, in the case of a hurricane, will you evacuate or shelter in place? Can essential operations continue in the aftermath if you shelter in place? What if there is an earthquake or wildfire and the facility is ordered to be evacuated? A disaster plan must include policies and procedures to address how you will handle sheltering in place, evacuation of the facility, provide essential functions, staffing needs, obtaining supplies, safety and security of staff and prisoners, power outages, cleaning and disinfection needs, and communications, etc. Include checklists in the plan to be used before, during, and after an emergency situation or natural disaster to assist with ensuring that vital steps and needs are not forgotten. Include training, refresher training, and verification mechanisms for staff and exercises for testing the plan, such as drills, scenarios, and table-top exercises. Testing your plan for the first time during an

actual disaster is not proper planning. Planning for every type of disaster that can happen is not feasible; however, effectively training as many employees as possible, including in-depth mock drills will lessen the impact an actual disaster will have on the staff's ability to function. Scheduled periodic review will help to ensure that policies and procedures and training are kept up to date.

The National Incident Management System (NIMS)/Incident Command System (ICS) provides a comprehensive, national approach to handling incidents and common standard for overall incident management and a standardized core mechanism for coordinated and collaborative incident management. NIMS provides a consistent nationwide framework and approach to enable government at all levels (Federal, State, tribal, and local), the private sector, and nongovernmental organizations (NGOs) to work together to prepare for, prevent, respond to, recover from, and mitigate the effects of incidents regardless of the incident's cause, size, location, or complexity (US DHS, 2015).

Conclusion

Safety in a prison or jail not only includes the safety of prisoners and staff but also environmental health of the facility, and public health at large. It is essential that a facility incorporate environmental health standards, regulations, and requirements into their everyday practices. Well-written and implemented plans, policies and procedures, training programs, and monitoring/verification and corrective action processes will be the foundation and support for a well-functioning environmentally healthy facility.

While safety during incarceration is essential, safely re-entering prisoners into the community is also important. Preparing prisoners for release is not a one-size-fits-all process, as everyone's situation, health, and mental status is different. However, one goal of a facility should be to re-enter prisoners back into the community better off than they were when they came into the facility. Prisoners that are capable of being taught skills, such as working in food service and serving food that is safe, or proper cleaning and sanitizing processes should be given the opportunity to learn. A prison or jail should be a representation of what environmental health looks like from a clean and sanitary environment to personal hygiene, proper handwashing, serving safe food or simply keeping their personal space clean and tidy. Anything a prisoner can glean from the facility environment to better himself/herself is a positive step.

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Treatment of Mental Illness in Correctional Settings

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Introduction

Treatment for mental illness and other conditions related to mental functioning presents significant challenges to clinicians, administrators, and custody staff within correctional facilities. In this chapter, the term *correctional facility* refers to police lockups, jails, and prisons. The distinctions are important considerations in the provision of mental health care because of the varying lengths of stay and various levels of custodial certainty.

Ethics and Clinical Practice Guidelines

The American Medical Association, American Psychiatric Association, and American Academy of Psychiatry and the Law all promulgate principles or guidelines applicable to the treatment of prisoners that include individualized treatment relevant to patient needs, humane treatment in the least restrictive environment, and confidentiality and informed consent.

The mental health and behavioral health problems encountered in prisons reflect the predictable issues that evolve when individuals with varying pathologies are contained in a crowded, stressful environment, where the mission of the institution emphasizes containment, deterrence, and punishment, with limited concern and/or resources for rehabilitation. A relatively small number of seriously mentally ill individuals have been diverted from corrections through pretrial evaluations resulting in findings of insanity; however, many more individuals convicted and serving sentences do have serious

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mental disorders which were not identified or did not exist during the trial process or which did not meet the standard for legal insanity.

The psychiatrist is expected to supervise the development of policies and procedures, conduct training and provide supervision, and provide direct services, where appropriate.

Mentally ill persons in custody require a broad range of psychiatric and other mental health services. What these services should be and how they should be provided in a correctional setting are described in detail in this chapter.

Developing a Mental Health Services Delivery System

How should we address the mental health needs of inmates and detainees housed in jails, lockups, and prisons given the historical, demographic, and public policy factors, such as sentencing structure and the deinstitutionalization of the mentally ill? The approach to addressing these needs begins with defining the six major steps essential for a comprehensive mental health services delivery system:

1. Initial intake screening and referral.
2. Suicide risk assessment.
3. Intake mental health screening.
4. Mental health assessment.
5. Treatment planning.
6. Discharge planning.

Step 1: Initial Intake Screening and Referral

At reception or intake, any detainee or inmate entering a correctional facility should receive an intake screening at the “front door,” to identify those with acute medical or mental health needs. In lockups, such initial screening is frequently conducted by an arresting or receiving officer who has determined that someone in custody appears to have mental health, medical, and/or substance abuse issues that may require that they be transferred to the local hospital emergency room. Following clearance at the local hospital emergency room, the detainee/inmate is returned immediately to the lockup. If the inmate has an acute medical or mental illness or if the inmate is suffering from drug or alcohol withdrawal, the individual may require admission to the hospital. Given the very limited services available in most lockup environments, the police or sheriff deputies determine if there is a need to then transport the individual to an outside medical or mental health facility for evaluation.

In small jails (less than 100 detainees), these services are frequently provided by the local hospital. In medium to large jails, there are staff and onsite programs for medical detoxification and mental health services for crisis intervention treatment. The reception or intake screening at small jails is frequently conducted by correctional officers who should be trained in the proper administration of reception screens. In larger facilities, screening is most commonly performed by nurses.

The screens are completed during intake processing (within minutes to a few hours of the prisoner’s arrival). Frequently, the screening consists of a checklist of questions, inquiring for any history of mental health conditions, medical/mental health treatment, suicide attempts, medication utilization, alcohol and/or drug use, and information as to whether the offense is considered high profile or shocking in nature. Typically, the reception/intake screening also includes documentation about the detainee’s behavior, appearance, and apparent state of mind.

When the results of the reception/intake screening indicate the need for referral to a mental health professional, the detainee is to be evaluated within specified time frames. The specific time frames for evaluating referrals are the following:

- “Emergency” referrals are to be seen within minutes to hours and the individual should be directly and constantly observed until seen.
- “Urgent” referrals are to be seen within 24 hours.
- “Routine” referrals are to be seen within 3–7 days.

These criteria should be established through institutional policy, so that the responses by mental health professionals to the referrals are timely. Adequate training for intake staff is essential to ensure that the proper level of referral at the “front door” is generated.

In prisons, there is generally more information available to custody and mental health staffs than in lockups or jails. This is largely because there is usually more opportunity to accumulate information that should be available to custody and healthcare staffs, such as the results of evaluations that may have been conducted during prior incarcerations. This information will often provide an inmate’s history of treatment, whether medications were prescribed, self-injurious behaviors, and attempted suicide or self-harm. Community treatment records should be obtained whenever possible for continuity of care while in custody. Information on evaluations conducted prior to trial and conviction or during any previous incarcerations assists prison administrators, custody officers, and mental health practitioners to provide appropriate housing and timely services.

Even though there may have been previous assessments conducted on a detainee/inmate, a reception/intake screening is still performed to determine the acute medical or mental health needs for the incoming population. The purpose of reception/intake screening is to determine whether the arrestee, detainee, or inmate needs immediate medical or mental health services. The screening process does not presume that officers who conduct the screenings have extensive medical or mental health knowledge. The forms are designed to facilitate immediate referral for those in need of medical or mental health services on an acute basis.

The value of adequate training for staff who complete the screening tool and are responsible for notifying the appropriate personnel when positive responses are generated is obvious. Unless there are sufficient policies and procedures in place, along with the training of correctional staff responsible for the reception/intake screening process, the process itself is subject to failure; and failures at the “front door” of any lockup, jail, or prison have been associated with an increased incidence of poor outcomes including medical and psychiatric complications and death, most notably suicide.

Step 2: Suicide Risk Assessment

As a result of numerous tragic suicides, civil rights actions regarding these suicides, and standards for reducing the risk of suicide (Hayes, 1995), there has been an increased emphasis on the importance of assessing the potential risk for suicide in correctional settings. The basic suicide risk assessment requires completion of a standardized form that identifies areas that are important for review and assessment. The risk assessment must be done face-to-face, with review of all pertinent records, including the medical records from prior incarcerations. Suicide risk assessment is indicated, on referral, by: (1) statements made by a detainee or inmate indicating thoughts or intent to harm him- or herself, (2) behaviors that indicate the potential for self-harm, or (3) referral by facility staff for changes in behavior or exhibiting behavior that warrants referral for the suicide risk assessment. The

reports of these behavior changes frequently result from training provided to correctional officers as well as other non-mental health staff who can then better recognize that an inmate's changes in behavior, demeanor, activity level, or relationship with other inmates or staff may be an indication of increased risk for suicide. These behavior changes may include giving away property, having disciplinary problems with staff or other inmates, or no longer taking part in previous activities.

Not infrequently, detainees and inmates send self-referrals to mental health or other staff with a request for an evaluation, "someone to talk to" or sometimes with overt statements of intent to commit suicide or otherwise harm him- or herself. Because there are often large numbers of sick call requests by inmates each day, a functional and responsive screening and triage process is mandatory. This means that training is not only crucial for custody and healthcare staff but also for any other staff who may handle sick call request slips (see Chap. 19 on *Reducing Inmate Suicides* by Lindsay Hayes).

Mental health staff perform the suicide risk assessment, but it may also be done by trained non-mental health medical and nursing staff members. In either case, it is essential that it be performed face-to-face and in privacy, to the extent possible. Further, policies and procedures are in place that require the inmate to be placed in a safe environment, under observation, until the risk assessment can take place in those instances where the referral suggests an emergency or urgent situation.

Segregated housing is identified as a factor in 53% of suicides in the Federal Bureau of Prisons during a 15-year study (White et al., 2002). Based on a 6-year review of completed suicides in the California Department of Corrections, Patterson and Hughes (2006) determined that a number of additional factors should be considered, both in the assessment of suicide risk and the management of inmates who present with potential suicide risks. Additional risk factors include:

- Single-cell housing, particularly segregation.
- Changes in their *dynamic* risk factors, for example, when patients indicate that they believe they have run out of options or feel "backed into a corner," where they see suicide as the most immediate option.
- Concomitant medical illness, particularly chronic and/or life-threatening conditions.
- Changes "from home," for example, dissolution of relationships, divorce.
- Loss of visits.
- New charges that could result in a longer prison term.
- Near of harm from other inmates and/or staff.

The fear of harm from other inmates and/or staff may be related to "prison politics," that is, gang-related activities; inmates who may have been charged or convicted of particular offenses including child molestation or rape that may increase the risk of harm from other inmates; or social issues within the prison population including drug debts, other "favors," or obligations owed to other inmates.

Suicide risk is often described as "none," "low or minimal," "moderate," or "high." Suicide risk assessments should also consider "acute" and/or "chronic" risks. While there are several appropriate criticisms regarding the ability or inability to predict future violence to self or others, the risk must be estimated, and interventions should be targeted toward mitigating or eliminating specific suicide risk factors. Such interventions include, but are not limited to, placement on suicide watch (constant observation); placement on suicide precautions (usually meaning physical observation by a correctional officer or healthcare professional every 5–15 minutes); transfer to a higher level of care (crisis bed care or hospital level of care); follow-up by a clinical case manager, psychiatrist, or other mental health professional within specific time frames; placement on a residential unit; or treatment as an outpatient.

Following release from suicide watch, inmates should have increased clinical and/or custody contacts for up to 2 weeks to reduce the likelihood of subsequent harm. It is helpful to have documentation of these assessments and recommendations for continued follow-up care.

Emergency Response

An obvious, but often faulty, component of suicide prevention is the emergency response process. The emergency response process includes not only assessment but also treatment activities; these characteristically involve both custody and clinical staff. Given that most individuals attempting suicide are discovered by custody staff, the policies and procedures on custody response are crucial. The activation of medical and custody alarms to indicate an emergency is frequently the very first step taken by a custody officer after determining that an inmate may be unresponsive or behaving in a bizarre manner.

Once that occurs, there may be some ambiguity as to the custody officer's responsibility to enter the cell, which depends largely on post orders and may vary depending on the security level of the inmate. Often, segregated inmates may not have their cells entered (by policy) until a supervisor, other officers, or a cell extraction team has been assembled. This means that valuable time may elapse from the moment of discovery until the actual emergency clinical response process is put into place.

There are obvious risks to staff entering cells housing inmates who have already been determined to represent a threat to the staff or the facilities' safety. Therefore, the facilities must have operational policies and procedures and post orders to allow for the safety of its staff, as well as the immediate response to an inmate who may be hanging, bleeding, or unconscious, for example, officers who are the first responders supporting the weight of a hanging inmate to reduce pressure on the neck until they can be cut down.

Greater than 90% of completed suicides within correctional facilities are by hanging or self-strangulation. The use of a cut-down tool is imperative. Cut-down tools must be readily available and supplied to trained custody staff for use prior to resuscitation. Even the use of cardiopulmonary resuscitation is debated in some systems. In a few jurisdictions, custody staff will not perform emergency procedures, because they are not medical personnel and not trained to determine whether CPR is indicated. This is dangerous.

In addition to custody staff, all medical and mental health staff should be trained to respond to an emergency code and implement CPR on anyone who is without pulse or respiration. In a study of suicides in California prisons, the one component that contributed the most to foreseeable or preventable suicides was failure of staff to follow established policies and procedures when responding to an emergency where an inmate was attempting suicide (Patterson & Hughes, 2006).

Step 3: Intake Health Screening and Referral

The mental health and medical screenings are more comprehensive processes conducted after the initial intake screening. A brief mental health assessment should be conducted within 72 hours of the time of a positive screening and referral, with provision for more immediate assessment if there is a determination that the referral should be completed on an urgent basis (Psychiatric Services, 1989). This screening may be completed by medical or mental health personnel within a relatively short period of time (during intake processing) for every newly admitted detainee/inmate. The screening is

structured to include review of the intake screening done on arrival, any past medical records and mental health history, information on the individual's adjustment to the correctional environment since admission, and assessment of suicide risk. The intake health screening form is typically 31 questions, approximately half of which focus on mental health issues.

It is essential that the intake health screening be consistently administered to newly arriving prisoners within a short, specified time period and that the information obtained be documented on a standardized form (handwritten or electronically). The form must include "trigger questions," so that immediate emergency referral for further mental health assessment is accomplished, with safe housing placement until the emergency assessment is completed. The health screening process also identifies those in need of referrals that are not "emergent," for example, "urgent," with a need for the inmate to be seen within 24 hours, or "routine," which allows for typically 3–5 days for inmates to be seen for further mental health assessments.

Based on the results of the initial intake screening or the intake health screening, when emergency mental health services are indicated, staff must be available on an emergency basis, 24 hours per day. In lockups, the arrestee is transported to a local hospital emergency room. In larger jails, there may be mental health staff on the premises of the facility. The detainee must be maintained in a safe environment, on one-to-one direct observation by a correctional officer, until the referral has been completed.

Video Monitoring

Some jails use video monitoring of prisoners on suicide watch or suicide precautions instead of one-to-one observation. In our experience, this is an extremely risky procedure, if video monitoring is the sole mechanism used for observation of a prisoner who is awaiting a more intensive mental health evaluation. Video monitoring should be used only as a supplement to direct human observation, if at all. Although there may be cost efficiencies of video monitoring of multiple inmates, there are several potential pitfalls:

1. The arrangement of the cameras inside a cell, as cells frequently have blind spots.
2. The resolution on the monitors may be poor, obscuring sufficient detail to detect and prevent self-harm.
3. The officer may not be located proximate to the cell, leading to slow response time.
4. The officer may be in a control booth, with additional responsibilities that can lead to distractions.
5. Some facilities utilize inmate sitters to monitor suicidal inmates alone or in conjunction with video monitoring: we strongly advise against using inmate sitters/monitors, if possible, as they are not an adequate substitute for direct observation by trained staff (NCCHC, 2015).
6. Post orders may require officers to wait for additional correctional staff to arrive before the cell can be opened, delaying attempts to intervene with a suicidal patient. Potential harm to the inmate and danger to the staff must be carefully considered and reflected in policies, post orders, and training.

Performance Measurement

Performance on meeting time-standards for referrals should be monitored to assure that the screening and referral process is being followed according to existing policies and procedures. This monitoring

should be conducted by trained correctional and healthcare personnel as part of the healthcare provider's Continuous Quality Improvement process.

Step 4: Mental Health Assessment

The mental health assessment is a formal assessment and includes initial plans for treatment and management. A task force of the American Psychiatric Association (APA) recommended that the assessment be conducted by a trained mental health professional, within a time frame appropriate to the level of urgency, with a face-to-face interview with the patient and review of available healthcare records and collateral information (APA, 2001). Mental health assessment using telemedicine services has become more common, both within larger institutions that have several facilities and smaller facilities that have contracted with an outside health provider. While this is not the standard of care, it is an adequate substitute for isolated locations and for sites without 24-hour onsite mental health staff for limited services such as outpatient treatment.

Suicide risk assessments and crisis or hospital-level care require face-to-face, in-person assessment. Last, a comprehensive mental health evaluation should include additional assessment tools such as psychological testing, laboratory testing, and neuroimaging procedures, where clinically appropriate. The comprehensive mental health evaluation occurs within 14 days of intake (NCCHC, 2018). Where appropriate, the timeframe for psychiatric evaluation is similar to that used for mental health assessment. Many facilities utilize stop-gap measures to ensure continuity of care with psychiatric treatment regimens by having onsite primary care staff review and prescribe facility appropriate medications until the inmate can be seen by a psychiatric prescriber.

Step 5: Treatment and Treatment Planning

For patients with serious mental illness, a primary issue is the balance between security and treatment needs. Quality care can only be provided in a secure environment. While there is no inherent contradiction between appropriate security and quality treatment, these often appear to be competing goals. In practice, security usually takes precedence over treatment, except in emergency or urgent situations where security and treatment processes share equal importance. High-quality treatment programs encourage a patient's participation and assumption of responsibility for his/her behavior.

Barriers

Many traditional correctional practices can negatively impact individuals with serious mental disorders. For example, accumulating "good time" (shorter sentence) can be difficult or impossible for an inmate living on a psychiatric unit in prison, since participation in work assignments, education, or recreation activities may be limited or prohibited. The practice of isolating prisoners who have been disruptive to the environment or threatening the safety of the institution is a longstanding practice. Only in the last two decades have there been serious efforts to ensure that prisoners in isolation are not seriously mentally ill or at risk of decompensation. They should be regularly evaluated by both mental health and medical staff and removed from isolation if their condition requires more intensive mental health services.

In lockups, individuals who are "fresh off the street" may have mental health, other medical or substance abuse histories, and/or current behaviors or symptoms that can be very difficult to distin-

guish by correctional personnel. The historical use of the “drunk tank” or “sobering cells” to allow new arrestees to “dry out” has resulted in bad and even fatal outcomes when those individuals had medical and/or mental health issues that were unrecognized and untreated, not the least of which were consequences of intoxication or withdrawal.

In any correctional environment, behaviors caused by functional impairment, such as hallucinations or delusional thinking, can result in “tickets” or lead to disciplinary violations that may result in punishment including restriction of visitors, or transfer to isolation where the inmate is kept in their cell for 22 hours or more per day (USDOJ, 2016). Tickets may be given for rule infractions, however unfairly, that range from not getting up on time to verbal or other confrontations with security staff, including, in some jurisdictions, “attempting suicide.” In all correctional settings, detainees/inmates who exhibit behaviors that result in the accumulation of infractions cannot amass “good time” and consequently are more likely to serve their maximum sentence. The mentally ill in prisons may not be eligible for transfer to halfway houses because they exhibit behaviors that may be a direct result of their mental illness.

Prior to placement in segregated housing, inmates should be evaluated by medical and mental health staff. This provides the opportunity for them to identify any contraindications to placement in segregation, or if the inmate’s mental illness played a role in the disciplinary infraction, for example, the inmate did not comply with officer’s commands due to commanding auditory hallucinations telling him if he did he would be killed. This process is a joint venture with both the facility and clinical leadership jointly agreeing on alternative housing/interventions when segregated housing or discipline is inappropriate, and potentially harmful, for a mentally ill inmate.

Institutions should consider education and training on ways to build awareness of implicit bias for both clinical staff (Knaak et al., 2017; Stull et al., 2013) and custody officers (Correll et al., 2007) to reduce its impact on the provision of effective mental health and correctional practices and safety.

Rational Alternatives to Isolation

Recently, “behavioral management” services, including cognitive behavioral therapies, are concurrently used to decrease and/or eliminate segregation/isolation for prisoners with mental health conditions. Segregation/isolation has been the traditional “default” option or, in some cases, the primary and established custody and clinical response to “bad,” “disruptive,” “aggressive” or “threatening,” and or non-suicidal self-injury (NSSI). These patients commonly meet diagnostic criteria for a personality disorder diagnosis such as antisocial personality disorder (ASPD) or borderline personality disorder (BPD).

Inmates with BPD, and sometimes ASPD, can also present with NSSI. While the presentation may appear the same, that is, an inmate superficially cuts themselves, the underlying reason each harmed themselves will likely be very different; this impacts the implementation of an effective intervention. For example, inmates with BPD may self-injure to cope with emotional pain because they do not possess effective coping mechanism. Whereas an inmate with ASPD may self-injure after placement in segregated housing to be moved to more desirable housing, for example, a mental health unit. Careful evaluation by a trained mental health professional can help assure that the best therapeutic intervention is provided.

There are six key elements with behavior management to help reduce negative, destructive, and dangerous inmate behavior (Hoke & Demory, 2014):

1. Assessing risk and needs.
2. Assigning inmates to housing.

3. Meeting inmates' basic needs.
4. Defining and conveying expectations for inmate behavior.
5. Supervising inmates.
6. Keeping inmates productively occupied.

The need for adequate assessments and risk identification by clinicians and classification determinations at the “front door” cannot be overemphasized. Appropriate, adequate, and relevant site-specific policies, procedures, and post orders to assist all participants, voluntary or involuntary, and supervision and quality management review and analysis are necessary. Resource allocations, at reasonable salary, and compensation for staff and space configurations for sound confidentiality while maintaining security surveillance and oversight are inherent for any program to be successful.

Levels of Care

Crisis Services

Mental health crisis services usually consist of short-term (10 days or less) stays in designated areas that, in some states, are licensed by the state mental health authority or other licensing body. These cells are typically part of an infirmary-like setting in which there may be medical as well as mental health cells specifically used for crisis management. The distinction between medical and mental health cells is important because cells used for mental health crisis management require special security provisions to make them suicide resistant.

The cells need to have sinks and toilets without sharp edges or protrusions to prevent hanging or self-injury, no clothing hooks, bed frames with no holes in them, no ladders, security air vents to reduce the likelihood of threading sheets or other materials used for ligatures through the air vents, modified window screens, and other physical plant enhancements. These cells may also include cameras for video monitoring of inmates who are on suicide observation and/or observation for psychiatric decompensation.

No cell is completely suicide proof, though the architectural changes reduce risk substantially. More often than not, these crisis bed cells are managed from a custodial point of view in much the same way as administrative segregation or detention cells are managed with meals provided to the inmate through a food-port in modified food trays; limited yard and out-of-cell time and showers, and “limited issue” materials such as paper gowns, suicide-proof blankets, finger foods, and “sporks” (plastic spoons/forks). These crisis bed infirmary-like cells require 24-hour nursing and custody support for inmate movement in and out of cells for whatever reasons. Patients who have not improved sufficiently to be transferred to a lower level of care within 10 days should be considered for transfer to a hospital level of care for more intensive services.

Residential Services

The next less-intensive level of services in jails and prisons that have a comprehensive mental health services delivery system is residential services. Residential services programs are for inmates who have a serious mental illness or severe personality disorder, with self-harming or other behaviors that may require housing with other inmates similarly diagnosed. These inmates require a range of services not available to outpatients. These services are typically provided on a self-contained unit with food service available on that unit, individual and group therapies, and a separate yard for outside activities.

The services on residential units are provided by trained mental health staff, including 24-hour nursing. These units usually have individual and group treatment space in rooms or cubicles that allow

correctional staff to visually observe interactions between clinical staff and inmates but limit the correctional staff's ability to hear what is being discussed. This provides a "sound confidential" treatment process. This compromise within many correctional facilities is intended to allow for some degree of confidentiality in the treatment process while having safety of staff and inmates reinforced by visual observation from correctional officers.

Residential units, depending on the size of the prison and the size of the unit, may be designed for inmates who are "higher functioning," and it is anticipated they will be returning to the general population at some point in the reasonably near future, that is, weeks to months. This contrasts with units where inmates are felt to be "low functioning" and who require housing on a separate and specialized unit for an extended period of time.

The distinction between "higher functioning" and "low functioning" allows for consideration of other factors that contribute to the inmate's overall functioning including co-occurring intellectual or developmental disability, medical illnesses including brain damage and dementia, and chronic substance abuse which may also have contributed to an inmate being at a lower functioning level than would be solely explained by their mental illness.

Successful efforts to safely reduce the use of isolation for prison patients with serious mental illness include, but are not limited to (USDOJ, 2016):

- Special Management Units (SMU) – Special purpose, non-punitive segregation unit for inmates with elevated security concerns due to a history of violent behavior or gang activity. Involves progression through four levels of programming over 18–24 months with eventual return to general population.
- Steps Towards Awareness, Growth, and Emotional Strength (STAGES) – A residential treatment program for inmates with SMI with a primary diagnosis of personality disorder. The program uses integration of cognitive behavioral therapies, a therapeutic community environment, and skills training. The goal is to increase time between disruptive behaviors, improve living in general population or a community environment, and increase pro-social skills.
- Skills Program – This is a residential treatment program that last one to one-and-a-half years and is designed to improve the adjustment of inmates with intellectual disabilities and social deficiencies to the correctional environment. This program also uses integration of cognitive behavioral therapies, a therapeutic community environment, and skills training to "increase the academic achievement and adaptive behavior of cognitively impaired inmates, thereby improving their institutional adjustment and likelihood of successful community reentry."
- Challenge Program – A residential psychology, cognitive behavioral treatment program for inmates with mental illness and/or substance use who are high-security. The program places an emphasis on violence prevention and avoidance of negative peer contacts and is designed to increase self-control and problem-solving skills and encourage the development of pro-social relationships.
- Token Economy Programs – This is a system of behavior modification that is integrated into several of the psychological treatment programs. Token economy systems utilize positive reinforcement as the core driver of behavioral change. Positive reinforcement is "a powerful behavior change tool" that is used "to encourage and support pro-social behaviors and relationships."

Outpatient Services

Outpatient services for inmates in prison are provided within the facilities or halfway houses. Outpatient services typically consist of scheduled appointments with a clinical case manager or other clinician, as well as scheduled appointments with a psychiatrist, or a mid-level psychiatric provider

for inmates on prescribed psychotropic medications or who need a medication evaluation. Ensuring the inmate is evaluated by the appropriate psychiatric provider is essential and should be based on the severity of mental illness and other presenting problems. It is important to ensure mid-level psychiatric providers have had appropriate training and are provided adequate clinical supervision.¹ Achieving sound confidentiality for outpatients can be more problematic than on residential or crisis management units because of escort requirements or not being able to leave their cell because of segregation or lockdown. This means the patient may need to be seen at cell-side or cell-front. In these cases, other inmates would most likely be able to overhear at least some of the conversation between the clinician and the patient. This reduces the likelihood of legitimate information being provided to the clinician and raises concern for violation of the Health Insurance Portability and Accountability Act (HIPAA). Facilities should provide sound confidentiality.

A special circumstance for outpatient services occurs in segregation units and protective custody. The movement of inmates within these units is strictly limited which compromises sound confidentiality even further. A few systems have developed “therapeutic holding cells,” “therapeutic modules,” or “individualized treatment cells,” essentially wire-meshed enclosures that may be 2 by 3 feet and 7 feet tall; a patient under special custody conditions can be removed from their cell and interviewed by clinicians in a semi-sound confidential setting. For those inmates who require more intensive mental health services patients might be clustered to enable group therapy. These are some of the most difficult challenges to providing treatment where patients need interventions that would ordinarily be provided on a residential or hospital unit.

Hospital-Level Services

Access to hospital-level mental health services must be provided either within the correctional facility or by agreement with a hospital. Typically, hospital-level services, when outside of the correctional environment, are provided in the local or closest forensic hospital where security measures are in place and staff include the usual array of mental health staff and custody staff for security and management of the units. The process for referral to a hospital level of care is typically instituted by clinical staff within the correctional facility, with an agreed upon approval process for transfer. Transport should be timely because of clinical urgency. The hospital services typically consist of services that are similar to crisis bed and residential services including more out-of-cell time, participation in verbal individual and group psychotherapies, medication management, and access to a greater range of diagnostic tests including psychological testing, neuroimaging, other medical procedures.

Medication Management

Medication administration is a challenge, as psychotropic medications need to be “watch take” for reasons of adherence and prevention of diversion. Another challenge may be the differences between the formulary in the hospital versus the correctional formulary. The same medications that are available at the hospital should be available at the prison. The waiver process for nonformulary medications should be a rapid process without excessive requirements for approval that delays timely access to medically necessary medication. Medical, mental health, and nursing staff need to be sensitive to discontinuity of medication and therapy.

¹Many States require direct or indirect clinical supervision of nurse practitioners and physician assistants.

Treatment Planning

A comprehensive treatment plan is critical. The clinician who completes the assessment formulates the initial treatment plan. This is a short-term plan. Later, multidisciplinary treatment planning for ongoing treatment is imperative. This latter plan should be timely and well-documented with diagnoses, staff participants, and planned interventions—including interventions to address problematic behaviors, regular updates, and discharge plans. Correctional staff should be involved in psychiatric treatment planning for patients.

Correctional staff include officers and supervisors, but also classification personnel who have access to records and information regarding what restrictions or enhancements are applicable. There may be policies and procedures that limit the participation of correctional staff in the actual treatment planning process. Given that correctional officers are within the facilities 24 hours a day, 7 days a week, their observations and information shared among them are important for the development of an individualized comprehensive treatment plan. Some institutions train and certify officers who work on mental health units, including on HIPAA, to enable a therapeutic mindset.

The treatment plan should be based on the assessment process, but also take into consideration the inmate's length of sentence, security status, and housing. This will allow the development of objectives for the treatment team including goals for the patient to achieve or address for optimal functioning and milestones to demonstrate when the patient is ready for modification of treatment or transfer to a less restrictive level of care. Conversely, when those goals are not reached, the reasons should be documented during treatment plan updates. Examples include non-participation in treatment activities, nonadherence with medication, changes in correctional status, or other factors. The patient should have the treatment plan discussed with him or her, and he or she should sign the treatment plan and be encouraged to comment on any areas where there may be disagreement with the treatment team.

Effective treatment planning begins with the development of policies and procedures designed to govern the treatment planning process. There are several basic requirements for this process to be effective and meet the mental health needs of individual patients:

1. Policies and procedures that define the appropriate content of treatment plans include:
 - (a) Identification of presenting symptoms as reported by the inmate.
 - (b) Inclusion of collateral information from past records, transfer documents, and observations of officers or others who had access to the detainee/inmate.
2. A complete and appropriate mental status examination, including both the detainee/inmate's self-report and the observations and evaluation of the clinician conducting the examination.
3. Diagnostic impressions according to the *International Statistical Classification of Diseases and Related Health Problems, tenth revision* (ICD-10), or *Diagnostic and Statistical Manual of Mental Disorders, fifth Edition*² (DSM-V). A comprehensive assessment should include consideration and inclusion, of all or most of the categories as follows:
 - (a) The major mental disorders, substance abuse/dependencies, adjustment to incarceration and life changes, and other potential areas of focus including diagnosis of malingering, when appropriate.
 - (b) Identification of personality disorders and developmental disabilities, particularly regarding their impact on the potential adjustment and behavior issues related to correctional confinement.

²Some correctional facilities may not have transitioned from ICD-9 or DSM-IV to ICD-10 and DSM-V. Therefore, it may be beneficial to familiarize oneself with the immediately prior versions of both diagnostic classification systems for the purposes of practicing in a correctional setting.

- (c) Relevant medical conditions, disorders, or diagnoses, especially if they have direct impact on mental health care.
- (d) The stressors that the patient is experiencing that include reasons for the current focus treatment.
- (e) Patient's overall level of function, especially in the context of their ability to address their activities of daily living without support and to appropriately interact with others.

While these basic areas of clinical focus are very much in concert with the *Diagnostic and Statistical Manual of Mental Disorders, fifth Edition*, they must be applied with particular care in a correctional environment. These categories also align with the axial diagnostic system that was used previously with earlier versions of the DSM. The absolute necessity to identify mental and other disorders that will be the primary focus of attention and to then apply the treatment process to addressing those disorders is essentially the same as it would be in the community, with the exception that there may be particular limitations on what interventions are available in the correctional environment. This applies not only to what are often considered the talking therapies such as individual and group therapy but also to creative arts therapies and other therapeutic interventions. All these interventions are influenced by custodial practice and may prove challenging in areas such as confidentiality, the clinician–patient relationship, and the inclusion of non-clinicians in the treatment planning process. Interventions, particularly group therapies, should take account of the fact that inmates live together and what is said in group often does not stay in group.

Medical diagnoses or problems must be incorporated into treatment planning, because of the potential impact on mental health functioning and for potential drug interactions including second-generation antipsychotic medications, as a prime example.

It is standard correctional practice for clinicians to identify and document the stressor bringing the patient into mental health treatment. Terms such as “criminal justice issues” or “incarceration” are woefully inadequate descriptions of what the inmate may be suffering; simply limiting the descriptors to these categories implies that every “incarcerated” individual should be in mental health treatment based on that stressor alone. In reading the actual descriptions of inmate behavior and inmate reporting of symptoms, it becomes very clear that incarceration may certainly be a concomitant factor, but there is a need for much more comprehensive identification of the specific stressors for an inmate to be a focus of treatment at any given time.

An inmate's overall level of functioning and adaptability in a correctional environment must also be considered in the context of their treatment needs. The “occupation” of an inmate may very well be “inmate,” although certainly many inmates are working in shops, as porters, in food service, and other job activities and/or training activities. Educational pursuits vary by facility and the availability of educational opportunities may be limited to obtaining a GED or may include formal classes at some facilities in some systems. Inmates with serious and persistent mental illness may be excluded from work and/or educational activities such that they may not be able to participate based on the errant assumption that their mental illness precludes such participation. Their serious and persistent mental illness may also impact their ability to appropriately address their activities of daily living, for example, personal hygiene, dressing themselves, eating, management of continence, and safe mobility.

Very careful consideration of the inmate's overall level of function, especially in the context of their ability to address their activities of daily living without support and to appropriately interact with others in a correctional environment, should drive the identification of the level of functioning and directly influence treatment decision making and placement.

- Patients who are experiencing severe symptoms of mental illness and unable to function without the availability of 24-hour close clinical support will need crisis intervention services and may require hospitalization.
- Patients with moderate to severe symptoms frequently need residential-level services and accompanying special housing and activities to address their level of functioning.
- Those with mild to no symptoms are most frequently outpatients.
- Patients whose level of function fluctuates based on other factors, including housing location and with whom they are housed.

These factors underscore the need for participation in the treatment planning process by clinical, security, and classification staff to address not only the clinical needs but also the housing and other placement supports. The housing and other placement supports are determined by custody and classification officers with real-time input by mental health staff because of the wide range of mental health and behavioral concerns, including patients with personality disorders, intellectual disabilities/cognitive impairments, and age, gender, and culturally related concerns.

All treatment planning must be based on proper and timely assessment by a professional and qualified clinician. The use of the terms “professional” and “qualified” are included, because in community and hospital practice outside of corrections, states and the federal systems recognize licensure or certification as requirements for clinicians to make independent clinical decisions about diagnosis. Unfortunately, in correctional settings, there are sometimes waivers of such qualifications, and a clinician who is identified as “mental health clinician” without further definition may be placed in a position of assigning diagnoses and developing treatment plans outside their legal scope of practice, without proper qualification and training. Qualifications, privileges, and policies and procedures for clinical personnel must be well-defined.

This does not mean that basic licensure or certification can substitute for appropriate training and experience. For example, physicians are licensed to practice medicine and surgery in most states; however, they may have not practiced in a particular area of expertise for many years. Psychiatrists, for example, are not typically asked to perform general surgery in a prison hospital because they have not engaged in surgical practice since their internships and/or residencies which may have been many years before. Similarly, surgeons should not be in the business of making psychiatric diagnoses when their latest experiences with psychiatric patients may have been during their training years.

While policies and procedures describe the information that should be provided in the treatment plan, the timeliness of the treatment plan becomes the next important factor. Treatment plans should always be based on assessments. Initial treatment plans, which are usually done at the time of the first thorough mental health assessment, may be authored by one clinician as a short-term management strategy until a full, comprehensive treatment plan can be completed. This is usually within the first 3–5 days of the inmate’s admission to a facility, after the need was determined through the screening or assessment process. If the assessment determines the detainee or inmate is in need of mental health treatment, there should be: (1) diagnoses; (2) an assigned level of care, for example, outpatient, residential, crisis bed, or hospital; and (3) a management plan to be in effect until the full comprehensive treatment plan has been completed, usually within 14 days.

The comprehensive treatment plan is, indeed, a multidisciplinary treatment plan that requires input from several disciplines including psychiatry, psychology, social work, nursing, and activity/creative arts therapies, plus the presence and participation of custody and classification staff. It is essential for medical staff to be present in specific cases when inmate medical care is involved, such as inmates with chronic pain, seizure disorder, or risk factors for the development of complications related to psychotropic medications, such as metabolic syndrome.

Metabolic syndrome is a constellation of symptoms that has been associated with the use of atypical antipsychotics and includes elevations in glucose, hemoglobin A1c, lipids, and associated weight

gain. The majority of these symptoms are preventable with appropriate monitoring and care. Unless the mental health staff, particularly the psychiatrist, is keenly aware of the inmate's medical status and monitors these parameters via laboratory analysis on a periodic (3–6 month) basis, the development of metabolic syndrome is a serious consequence for patients taking second-generation antipsychotic medication. There are similar risks for inmates on antidepressants and other medications, particularly when used in combination with medications prescribed by non-psychiatric physicians. The American Psychiatric Association Clinical Practice Guidelines for the treatment of schizophrenia and bipolar disorder provide guidance on the standards of care for laboratory and other testing when patients are taking antipsychotic and mood stabilizer medication.

Treatment planning should be timed to the level of care provided to the specific inmate or patient. The frequency of mental health treatment planning following admission and the development of the initial treatment plan should be as follows:

- Inmates in crisis care: every 3–7 days.
- Hospital-level care: Initially within 7 days with weekly to monthly review.
- Inmates in residential or transitional care units: every 3 months.
- Inmates who are outpatients: from 6 to 12 months.

Each of these treatment planning time frames include the development of a comprehensive treatment plan at the first meeting of the treatment team with treatment plan revisions or updates at no longer than the stated frequency, or sooner when there are any significant changes in the inmate's mental status or functioning.

The next most important area is the composition of the treatment team. It should be a multidisciplinary team that includes various clinical and custody staff. There was a time when there were concerns regarding confidentiality of issues discussed in a treatment team meeting and whether correctional officers and other custody staff could be included in those discussions. Confidentiality can be addressed by having custody staff sign confidentiality waivers. They can participate in portions of treatment team meetings concerning observed behaviors, security, limits on transfers, etc. Facilities that do not allow the participation of custody staff, and “hide behind” the concept of not violating confidentiality, are missing an important source of information for effective treatment planning and collaborative service provision.

The treatment plan itself consists of not only descriptions of symptoms reported by the inmate and signs of mental illness as determined by clinical assessment and consultation with custody and nursing, but also diagnoses and specific criteria for addressing the symptoms and signs of mental illness. The process includes the development of a “problem list” that describes in behavioral terms the kinds of signs and symptoms the inmate is exhibiting. For example, auditory hallucinations, suicidal thoughts, lack of socialization with other inmates, and nonadherence with medication are all important behavioral signs and symptoms. Invalid descriptor signs or symptoms include “schizophrenia” or “bipolar disorder” or “personality disorder,” because the manifestations of each of these diagnoses may differ from inmate to inmate. The behaviors are the focus of the treatment interventions. True interventions should describe the plan of action, including the assignment of responsibility for executing the plan. Interventions may include: (1) medication, which in most facilities, is prescribed by a psychiatrist and administered by nursing staff, and (2) talking therapies, such as individual and/or group sessions that should be focused on the inmate's mental health signs and symptoms rather than simply being “round robin” groups comprised of whichever inmates feel like participating that day. The latter is an unacceptable way of conducting group therapy. The treatment planning process not only should assign patients to specific groups but also should review whether group participation has been meaningful and effective in addressing the patient's mental health needs. Other interventions include suicide watch or suicide precautions, placement in a crisis or residential bed, or placement in outpatient services.

The intensity of services decreases with the reduction of the level of care. Inmates who are in hospital crisis beds experience the least involvement with other prison activities; inmates in outpatient are in “general population” and, therefore, may have recreational and other activities with inmates who do not have mental illness. These factors should be very seriously considered in determining not only the level of care, but more specifically what interventions are available and at what frequency the interventions will be provided at each level of care.

The interventions should be provided to address specific objectives. For example, if the problem “hearing voices telling him to harm himself” is addressed by interventions including medication, verbal therapy, and housing in a crisis bed unit to prevent harm to himself, including suicide precautions, the objective should be to reduce the impact of the voices and reduce the likelihood of harm to self. When these objectives have been met, based on the interventions provided, then the problem may indeed be resolved or improved to the extent that a crisis bed is no longer necessary. When the treatment plan identifies a specific problem with specific interventions and objectives, the discharge plan from crisis bed is also being developed. Therefore, the discharge plan should include where the inmate is to go next, which may be to a residential treatment unit or to outpatient services, as a less restrictive environment than hospital or crisis bed services.

Conversely, if the objective of reducing the impact of the voices and reducing the likelihood of harm to self is not met in a crisis bed, then transfer to a higher level of care (hospital) may be the most appropriate intervention. If the inmate is already in a hospital, maintaining the inmate may be the appropriate intervention if the objective of reducing the impact of voices and harm to self has not been achieved. This is just one example of an identified problem with associated interventions to address that problem and the specified objectives to be met by that intervention.

Overall, the short- and long-term goals should also be identified in the treatment plan, which is a compilation of all of the objectives. In the short term, the objectives, if achieved, may result in a decrease in the level of care and, if not achieved, may result in a change to either a higher level of care or maintenance of the inmate at the same level of care.

In the treatment planning process, it is not infrequent to read in medical records the impressions by clinical staff that an inmate is “manipulative” or “malingering.” Unfortunately, this occurs with the suggestion that because an inmate is manipulative or malingering, they are excluded from having legitimate mental illness. Manipulation and mental illness are not mutually exclusive. In correctional environments, our experience is that some inmates attempt to control or otherwise influence their environment by reporting they have mental illness, particularly suicidality, or by disruptive/offensive behaviors, such as smearing feces or “gassing,” that is, throwing bodily fluids on staff.

One of the crucial questions to be asked by any clinician evaluating an inmate for the presence or absence of mental illness or the presence or absence of malingering or manipulative behavior is to ask the inmate “what do you want?” or “what are you trying to achieve by this behavior?” Although these may seem to be simple questions, they frequently are not asked of the inmate (lest the inmate “control” the situation), and a struggle between the inmate and facility staff including clinicians and custody staff can occur. This kind of “struggle” may result in “upping the ante” with accelerated disruptive or self-destructive behavior to achieve unexpressed goals.

With careful interviewing, inmates tend to acknowledge that they are attempting to influence their conditions of confinement for reasons other than true suicidality or even serious symptoms of mental illness, such as hallucinations and delusions. For such a dialogue to occur, there must be an effective and useful relationship between clinical and custody staff. Unfortunately, to return an inmate to the very same conditions that they are attempting to avoid by manipulating staff or malingering illness can result in more serious attempts to change that environment or change their placement in it and greater morbidity and mortality and/or increased risks to staff.

We strongly encourage clinicians and custody staff to step back and rethink whether “manipulative” and “malingering” behaviors and statements may be adaptive—at least for some prisoners—and consider alternatives to restrictions and punishments. We also encourage clinicians to reconsider the differential diagnosis and approach to care. For example, inmates may report clearly malingered hallucinations, but if a clinician explores further, they may discover the inmate actually has post-traumatic stress disorder—a commonly missed diagnosis in correctional populations—and that the patient lied in an attempt to obtain psychotropic medication to relieve nightmare-induced insomnia.

Step 6: Discharge Planning and Aftercare

Patients with serious and persistent mental illnesses should have a discharge plan providing community-based services on reentry. The community-based services should include an evaluation and assessment of the inmate’s mental health needs at the time of discharge, with transitional care focused on disease management and social support.

In jails, while initial treatment planning may occur when the inmate is assessed, with “bridge orders” of medication, the assessment process may not be fully realized until up to 14 days into the incarceration. A high proportion of jail inmates will have bonded out or been released prior to the development of a treatment plan or an appropriate discharge plan. When detainees in the jail are in treatment, a comprehensive multidisciplinary treatment plan should be completed, and a discharge plan should be initiated on the supposition that the detainee will require treatment for a year or possibly 2 years when released to a prison or to the community. The collaboration between correctional practitioners and community providers is a critical component of successful treatment.

In prisons, discharge planning is frequently based on level-of-care determinations and length of incarcerations. For patients who are on a higher level of care, the treatment planning generally focuses on what interventions are necessary to meet objectives for them to move to a lower level of care or remain stable. When those objectives are met, the discharge plan should be updated by the sending facility staff and reviewed in detail and incorporated into the treatment planning process by the receiving staff. In those instances where patients are serving long sentences, it is important to remember that these sentences do come to term. For condemned inmates who will most probably die in prison, treatment services should address their changing mental health needs.

The provision of discharge summaries to identified clinicians in the community, with scheduled appointments and adequate medications to bridge the period between release and the appointment, is vital for continuity of mental health care for inmates to have a reasonable chance of successful reentry to the community. In Chap. 30 on transition to community outpatient services for the mentally ill released from correctional institutions, Dr. Steven Hoge provides an excellent description of some of the challenges and mechanisms for success in providing appropriate discharge and transition planning.

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Reducing Inmate Suicides through the Mortality Review Process

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Lindsay M. Hayes

Suicide continues to be a leading cause of death in jails across the country, where close to 400 inmates take their lives each year (Hayes, 2012). The rate of suicide in county jails is estimated to be more than four times greater than that of the general population (Noonan, 2016a). Although prior research indicated that most jail suicide victims were young white males who were arrested for nonviolent offenses and intoxicated on arrest and dead within the first 24 hours of confinement (Hayes, 1989), more current research suggests that suicide victims are now more likely to be confined on personal/violent offenses, less than one quarter of all victims commit suicide during the first 24 hours, with an equal number of deaths occurring between 2 and 14 days of confinement (Hayes, 2012). In addition, it appears that inmates who committed suicide were far less likely to be housed in isolation than previously reported (Hayes, 2012). The overwhelming majority of victims continue to be found hanging by either bedding or clothing.

While suicide is well recognized as a critical problem within jails, the issue of prison suicide still has not received comparable attention, perhaps because the number of jail suicides continues to far exceed the number of prison suicides. For example, the Bureau of Justice Statistics' Deaths in Custody Reporting Program reported 372 suicides occurring in local jails during 2014 (resulting in a rate of 50 deaths per 100,000 inmates), whereas the program reported 249 suicides occurring in state and federal prisons during 2014 (resulting in a rate of 20 deaths per 100,000 inmates) (Noonan, 2016a; Noonan, 2016b). Suicide ranks fourth, behind cancer, heart disease, and liver disease, as the leading cause of death in prisons (Noonan, 2016b). Although the rate of suicide in prison is considerably lower than in jail, it still remains greater than the general population (Noonan, 2016b). Most research on prison suicide has found that the vast majority of victims were convicted of personal crimes, disproportionately housed in single cells (often either administrative or disciplinary segregation), and have histories of prior suicide attempts and/or mental illness (Daniel & Fleming, 2006; He et al., 2001; Kovaszny et al., 2004; White et al., 2002).

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The precipitating factors of suicidal behavior in jail are well established (Bonner, 2000; Konrad et al., 2007). It has been hypothesized that two primary causes for jail suicide exist: (1) jail environments are conducive to suicidal behavior and (2) the inmate is facing a crisis situation. From the inmate's perspective, certain features of the jail environment may enhance suicidal behavior: fear of the unknown, distrust of authoritarian environment, lack of apparent control over the future, isolation from family and significant others, shame of incarceration, and the dehumanizing aspects of incarceration. In addition, certain factors are prevalent among inmates facing a crisis situation that could predispose them to suicide: recent excessive drinking and/or use of drugs, recent loss of stabilizing resources, severe guilt or shame over the alleged offense, current mental illness, prior history of suicidal behavior, and an approaching court date. Some inmates simply are (or become) ill equipped to handle the common stresses of confinement. As the inmate reaches an emotional breaking point, the result can be suicidal ideation, attempt, or completion. During initial confinement in a jail, this stress can be limited to fear of the unknown and isolation from family, but over time (including stays in prison) stress may become exacerbated and include loss of outside relationships, conflicts within the institution, victimization, further legal frustration, physical and emotional breakdown, and problems of coping within the institutional environment (Konrad et al., 2007). Precipitating factors in prison suicide may include new legal problems, marital or relationship difficulties, and inmate-related conflicts (White et al., 2002). Finally, recent research has found that 30% of inmates committing suicide in both jail and prison settings had prior or recent suicidal ideation/plans/attempts, and of them, 64% had not received mental health treatment while incarcerated (Choi et al., 2019).

The mortality review process is a critical ingredient to a correctional facility's suicide prevention program. Correctional facility officials should not conclude that an inmate suicide was not preventable unless they have comprehensively examined the death (Hayes, 2013). The thorough examination of an inmate death, encompassing both a mortality review and psychological autopsy, is cited in most national standards. For example, according to National Commission on Correctional Health Care (NCCHC) standards, "a clinical mortality review is an assessment of the clinical care provided and the circumstances leading up to a death" (NCCHC, 2018a, 2018b). In many cases, however, particularly in local jails, the mortality review is confined to both a cursory review of the decedent's chart by a healthcare professional, as well as a review of incident reports that are generally confined to a discussion regarding the emergency response to the incident. A national survey of suicide prevention practices in local jails found that 63% of respondents reported that they did not conduct any type of mortality review following the inmate suicide (Hayes, 2012). Other researchers have found significant improvement in the mortality review process in at least one state prison system (Patterson & Hughes, 2008).

NCCHC standards also recommend a "psychological autopsy," in which a psychologist or other qualified mental health professional conducts "a written reconstruction of an individual's life with an emphasis on factors that led up to and may have contributed to the death" (NCCHC, 2018a, 2018b). Although there are various references to psychological autopsies for inmate suicides in the literature (Aufderheide, 2000; Sanchez, 2006), the process is often misunderstood and misused within the correctional environment. For example, although the process should include "a careful examination of the suicide site, and interviews with staff and inmates familiar with the deceased" (NCCHC, 2018a, 2018b), the exercise is often limited to a review of the decedent's medical chart. Finally, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) offers guidance through policies and procedures for the "root cause analysis," but it too is rarely found within the correctional facilities (JCAHO, 2005). According to JCAHO:

Root cause analysis is a process for identifying the basic and causal factors that underlie variation in performance, including the occurrence or possible occurrence of a sentinel event. A root cause analysis focuses primarily on systems and processes, not on individual performance. It progresses from special causes in clinical

processes to common causes in organizational processes and identifies potential improvements in processes or systems that tend to decrease the likelihood of such events in the future, or determines, after analysis, that no such improvement opportunities exist. (p. 2)

In order to fully understand why an inmate committed suicide, as well as whether the correctional facility was in the best possible position to prevent the incident, every suicide and serious suicide attempt (defined here as referring to an incident of self-harm with the intent to die serious enough to require medical treatment outside the correctional facility) should be examined through a comprehensive mortality–morbidity review process. The process is separate and apart from other formal investigations that may be required to determine the cause of death (e.g., medical examiner’s autopsy, departmental investigation, state police inquiry, coroner’s inquest).

The primary purposes of a mortality review are: What happened in the case under review and what can be learned to help prevent future incidents? Unlike NCCHC requirements which stress only a clinical perspective, the mortality review team must be multidisciplinary and include representatives of both line and management level staff from the corrections, medical, and mental health divisions. Exclusion of one or more disciplines will severely jeopardize the integrity of the review. The multidisciplinary review should include: (1) critical review of the circumstances surrounding the incident; (2) critical review of facility procedures relevant to the incident; (3) synopsis of all relevant training received by involved staff; (4) review of pertinent medical and mental health services/reports involving the victim; (5) review of possible precipitating factors (i.e., circumstances which may have caused the victim to engage in self-injury/suicide) resulting in the incident; and (6) recommendations, if any, for change in policy, training, physical plant, medical or mental health services, and operational procedures (Cox & Hayes, 2003; Hayes, 2013). Such recommendations should result in a corrective action plan that identifies specific deficiencies, responsible party(s) to address deficiencies, deadlines for completion, and continuous quality improvement to ensure that corrective action is maintained.

Many jail and prison facilities do not embark on a comprehensive and multidisciplinary mortality review process. Why? There are concerns about liability and possible disclosure of the process to outside parties. There is also the inherent awkwardness of discussing the circumstances surrounding an inmate’s death across various disciplines within an agency and/or with an outsider healthcare contractor. Some deaths result in disparate “silo” reviews by a correctional agency and private healthcare contractor, resulting in the possibility of inconsistent findings and finger-pointing between the entities. But inevitably, comprehensive mortality reviews are not conducted because key actors in the process (i.e., correctional and healthcare administrators, as well as their legal counsel) are afraid of what they may find. Take, for example, the suicide of Patrick Harrison.

The Suicide of Patrick Harrison

According to available records, 27-year-old Patrick Harrison was arrested by South Bend Police Department (SBPD) officers during the afternoon of June 1 for various offenses, including flight to avoid prosecution, possession of stolen property, resisting officer, and willful reckless driving.¹ These alleged offenses involved his theft of an automobile and subsequent high-speed chase to elude police officers. During his subsequent arrest at a local hotel, officers noticed Mr. Harrison had self-inflicted lacerations on his left wrist. He was then transported to the Regional Medical Center (RMC) by SBPD Officer Scott Tucker for treatment of his self-inflicted injury and to obtain either an emergency protec-

¹In order to ensure complete confidentiality, certain identifying information regarding the victim, facility, and staff has been changed. No modifications to the facts of the case have been made.

tive order (EPO) at the hospital or a medical clearance for incarceration. The time was approximately 2:47 pm. According to a report by Officer Tucker:

I asked Patrick (at the hospital) if he was depressed and/or suicidal and he said 'yes.' He told me he 'wanted to die.' He even mentioned that he tried to die 'before they got to me,' referring to us (the police) arresting him. Hospital staff also asked him questions and he reported being depressed because his girlfriend left him.

I looked at his wrist and noticed that the cuts were not that deep and appeared to be fresh. I then asked Patrick when he started to cut himself and he stated when we first started to knock (on the door). He said that he used a razor blade to cut his wrist.

(Emergency room physician) Dr. David Fleming came in to evaluate Patrick because it was believed at the time that I was going to place him into protective custody. Dr. Fleming said that Patrick was not 'EPO material' and suggested that he should go right to the (Smith County) jail. I asked Dr. Fleming to call the jail and explain his wishes to them. He said he would take care of it.

While at the hospital, Mr. Harrison was also examined by nursing staff. According to the "ED Mental Health Assessment" completed by a nurse, Mr. Harrison had multiple superficial lacerations on his left wrist, complained of a recent breakup with his girlfriend, financial and legal problems ("patient is under arrest and is broke"), appetite ("sometimes I don't eat") and sleep ("unable to sleep") disturbances, and self-reported experiencing bipolar disorder and posttraumatic stress disorder (PTSD). In addition, the Assessment noted that Mr. Harrison had a current plan to harm himself ("cut risk before I was arrested"), and had a prior suicide attempt ("took pills"). He also self-reported not having a support system and being impulsive. Based upon the nursing assessment, Mr. Harrison was placed on suicide precautions that included one-to-one direct supervision at the hospital.

According to Dr. Fleming's assessment, Mr. Harrison presented with anxiety, depression, and suicidal thoughts. In addition, however, the physician and nursing assessments differed in presentation of symptoms and observation (e.g., the nursing assessment found a "flat" mood/affect, while Dr. Fleming found mood and affect were normal). Although the hospital did have a small short-term, inpatient psychiatric unit, and there were beds available that day, Dr. Fleming did not believe that Mr. Harrison's symptoms necessitated an EPO. Instead, his assessment reflected a concern about further suicidal behavior (i.e., recommending "Patient Needs Suicide Precautions" on the "Inmate Medical Clearance Report" that would be sent to the Smith County Jail). As noted above in Officer Tucker's report, at his (Tucker's) urging, Dr. Fleming called the Smith County Jail to ensure that jail staff could provide a "safe and secure environment" for Mr. Harrison on suicide precautions. According to the SBPD investigative report, Dr. Fleming conversed with an unknown jail officer and "asked if they were equipped to handle someone with suicidal thoughts and he was advised they were. Dr. Fleming also advised that he felt Mr. Harrison should be put in a cell on 1:1 observation, naked, with nothing in it." Dr. Fleming then cleared Mr. Harrison for discharge to the Smith County Jail (although the patient refused to sign a "No-Suicide/Homicide Agreement").

Officer Tucker subsequently transported Patrick Harrison to the Smith County Jail, arriving sometime after 3:30 pm on June 1. The officer presented his "Inmate Medical Clearance Report" to jail staff which clearly indicated Dr. Fleming's finding of "anxiety, depression, and multiple abrasions to the left wrist," as well as recommendation that "Patient Needs Suicide Precautions." According to Officer Tucker, he briefly conversed with jail staff and informed them of Mr. Harrison's recent suicide attempt and hospital evaluation. Prior to departing the Smith County Jail, Officer Tucker also completed a "Suicide Checklist" which again summarized the inmate's suicide attempt and lacerations to the left wrist.

During the intake and booking process at the Smith County Jail, a booking officer completed a "Medical Screening" form that documented Mr. Harrison's prior treatment for bipolar disorder and PTSD. The inmate also self-reported a recent suicide attempt, for example, "today cut his wrist," and was currently both "depressed" and "suicidal." As a result of this process, jail staff inputted "Suicide Risk" into the state Criminal Justice Information System.

Following the booking process, Mr. Harrison was placed in the Jail's Isolation cell clothed in a safety gown and blanket, and required (pursuant to a jail policy that called for all suicidal inmates to be observed at the same level of supervision) to be observed by jail staff at 15-minute intervals. The cell was not suicide-resistant. Mr. Harrison was not seen or referred to medical and/or mental health personnel. According to the "Isolation Form" which was utilized to document the frequency of observation while the inmate was on suicide precautions, Mr. Harrison was placed in the Isolation cell at 3:52 pm on June 1. Subsequent examination of the form indicated that many of the observations that were required to be documented at 15-minute intervals were instead made in excess of 15-minute intervals. Less than six hours later at approximately 9:18 pm, Mr. Harrison was removed from suicide precautions by correctional officers and relocated into another cell (referred to as the "FED cell"). According to the Isolation Form, the inmate was placed in the FED cell with his regular jail uniform and blanket, with an indication for "keeping him on 15 min. watches for now." There was, however, no indication that Mr. Harrison was observed again by correctional officers at 15-minute intervals.

According to subsequent statements of two correctional officers (Rachael Walsh and Margaret Simmons), the inmate had complained that he was having trouble sleeping because the lights in the Isolation cell remained on during the suicide precautions and also made the cell warm. According to Officer Walsh, "I thought Harrison's mood would improve and that he would be more comfortable if it were easier for him to sleep." Officer Simmons, who (along with other staff) had not had any suicide prevention training since the preservice training academy, added that "when he (Harrison) was in Isolation he was suicidal. After he visited with me, he said he would not harm himself" and "he made the comment that he promised me he would not harm self."

Following his relocation to the FED cell during the evening of June 1, subsequent "Roll Call Report Sheets" continued to list Mr. Harrison as "Suicidal" on June 2, and as a "self-harmer with possible suicidal tendencies" on June 3 and June 4. Despite this documented information, and although correctional officers subsequently stated that the inmate was placed in a "high-traffic area" because they frequently walked past the FED cell on the way to the laundry room, there was no indication that he was observed again by correctional officers at 15-minute intervals.

At approximately 11:55 pm on June 4, a correctional officer (Tim Caldwell) was conducting rounds of the FED cell and shined his flashlight into Mr. Harrison's cell and observed that the inmate was hanging from the top bunk by a pair of tube socks that were tied through the bunk holes. Officer Caldwell yelled out for assistance, two other officers arrived to assist, and the inmate was removed from the ligature and placed on the bottom bunk. The jail nurse was then called, arrived approximately five minutes later, and initiated life-saving measures, including cardiopulmonary resuscitation (CPR). Emergency medical personnel subsequently arrived at the scene, removed the inmate from the bunk, carried him into the corridor, and continued life-saving measures. Patrick Harrison was subsequently transported to hospital and pronounced dead two days later on June 6.

Consistent with jail policy, a mortality review was not conducted in Patrick Harrison's case because he had not been seen by either medical or mental health personnel during the course of his confinement. However, the mental health director at the Smith County Jail did review Mr. Harrison's suicide. The inquiry was limited to a review of the inmate's medical file and did not include any staff or inmate interviews. The mental health director summarized her medical file review of Mr. Harrison's suicide in a brief one-paragraph confidential report self-titled a "psychological autopsy." The report is reprinted in its entirety as follows:

The inmate, Patrick Harrison, was admitted to the county jail on June 1. He was never referred to mental health staff and he never requested our assistance, therefore, Mental Health Services never had an opportunity to interview, evaluate or treat him. Based upon a review of the medical file, there is no evidence that this inmate's death could have been prevented by either mental health or medical staff.

What a Mortality Review Would Have Found

If an adequate multidisciplinary mortality review had been conducted in Patrick Harrison's case, the following issues would have been discussed.

- What were some of the known facts about Patrick Harrison's suicide risk?
 1. He had multiple lacerations on his left wrist that were self-inflicted a few hours prior to entering the Smith County Jail on June 1.
 2. He expressed anxiety, depression, and suicidal thoughts at the RMC that were communicated to jail staff.
 3. He self-reported a recent breakup with his girlfriend, financial and legal problems, appetite and sleep disturbances, and bipolar disorder and PTSD.
 4. He self-reported a prior suicide attempt by drug overdose.
 5. He self-reported not having a support system and being impulsive.
 6. The emergency room doctor recommended that jail staff place him on suicide precautions "in a cell, naked, with nothing in it."
 7. He refused to sign a "no-suicide agreement" at the hospital.
 8. He self-reported to jail staff at intake that he was depressed and suicidal.
 9. The term "Suicide Risk" was entered into the state Criminal Justice Information System.
 10. He was placed on suicide precautions in the jail's Isolation cell clothed only in a safety gown and blanket, and required to be observed at 15-minute intervals.
 11. The Jail's Roll Call Report Sheets continued to list Mr. Harrison as either "suicidal" or "a self-harmer and has possible suicidal tendencies" from June 1 through June 4.

- What Worked Well?
 1. The emergency room physician (David Fleming, MD) communicated directly with the Smith County Jail booking staff regarding Mr. Harrison's suicide risk and.
 2. SBPD officer Scott Tucker communicated with Smith County Jail booking staff, as well as completed a "Suicide Checklist" on Mr. Harrison and gave it to the booking staff.

- What Went Wrong?
 1. Although placed on suicide precautions, clothed in a safety gown, and required to be observed by jail staff at 15-minute intervals, Mr. Harrison was not seen or referred to either medical and/or mental health personnel.
 2. Many of the required 15-minute observations on June 1 were untimely.
 3. Without consulting with medical or mental health personnel, jail staff removed Mr. Harrison from suicide precautions and relocated him into another cell because he complained of having trouble sleeping and was cold. His jail uniform and blanket were returned.
 4. According to the officers, Mr. Harrison "made the comment that he promised me he would not harm himself." The literature is replete regarding the dangers of utilizing "no harm contracts" (Garvey et al., 2009).
 5. Despite continued documentation that Mr. Harrison was a suicide risk, there was no documentation that he was observed at the required 15-minute intervals after June 1.

- Other Issues to Review
 1. Was it sufficient that the jail policy had only one level of observation (15-minute checks) for suicidal inmates? Should consideration have been given for placing Mr. Harrison on constant (1:1) observation as he was at the RMC?
 2. Were the cells where Mr. Harrison was housed suicide-resistant?
 3. Was CPR properly conducted in this case? (Note: Mr. Harrison's body was initially placed on the bunk rather than the flat hard surface of the floor; correctional officers did not initiate CPR, rather, they waited for nursing staff to arrive at the scene.)
 4. Was staff sufficiently trained in suicide prevention?
 5. Was there an issue regarding an EPO and whether it was more appropriate for Mr. Harrison to be placed in the hospital's short-term inpatient psychiatric unit at the RMC or the Smith County Jail? (Note: Dr. Fleming appeared very protective of his inpatient unit and reluctant for it be utilized to house county jail inmates. This is an issue beyond the scope of the mortality review committee and would need to be forwarded to the Sheriff for resolution through a memorandum of understanding between County officials and hospital administrators.)
 6. Should a mortality review have been conducted in this case, even if medical and mental health staff did not have any contact with Mr. Harrison?

Conclusion

Although national standards address the issue of mortality reviews in varying degrees, practical guidelines for conducting meaningful reviews are absent. Based on the critical components of a comprehensive suicide prevention program (Hayes, 2005), detailed below are a recommended format and areas of inquiry for conducting a morbidity–mortality review.

1. Training
 - Had all correctional, medical, and mental health staff involved in the incident received both basic and annual training in the area of suicide prevention prior to the suicide?
 - Had all staff who responded to the incident received training (and were currently certified) in standard first aid and cardiopulmonary resuscitation (CPR) prior to the suicide?
2. Identification/Referral/Assessment
 - Upon this inmate's initial entry into the facility, were the arresting/transporting officer(s) asked whether they believed the inmate was at risk for suicide? If so, what was the response?
 - Had the inmate been screened for potentially suicidal behavior on entry into the facility?
 - Did the screening form include inquiry regarding: past suicidal ideation and/or attempts; current ideation, threat, plan; sense of immediate future (inmate expressing helplessness and/or hopelessness); prior mental health treatment/hospitalization; recent significant loss (job, relationship, death of family member/close friend, etc.); and history of suicidal behavior by family member/close friend?
 - If the screening process indicated a potential risk for suicide, was the inmate properly referred to mental health and/or medical personnel?
 - Had the inmate received a postadmission mental health screening within 14 days of his/her confinement?

- Was the inmate provided reasonable privacy and confidentiality during the intake screening process, as well as during any subsequent screening and/or assessment?
 - Had the inmate previously been confined in the facility/system? If so, had the inmate been on suicide precautions during a prior confinement in the facility/system? Was such information available to staff responsible for the current intake screening and mental health assessments?
3. Communication
- Was there information regarding the inmate's prior and/or current suicide risk from outside agencies that was not communicated to the correctional facility?
 - Was there information regarding the inmate's prior and/or current suicide risk from correctional, mental health, and/or medical personnel that was not communicated throughout the facility to appropriate personnel?
 - Did the inmate engage in any type of behavior that might have been indicative of a potential risk of suicide? If so, was this observed behavior communicated throughout the facility to appropriate personnel?
4. Housing
- Where was the inmate housed and why was he/she assigned to this housing unit?
 - If the inmate was on suicide precautions at the time of the incident, was the inmate housed in a suicide-resistant, protrusion-free cell?
 - If placed in a "special management" (e.g., disciplinary and/or administrative segregation) housing unit at the time of death, had the inmate received a written assessment for suicide risk by mental health and/or medical staff on admission to the special unit?
 - Was there anything regarding the physical design of the inmate's cell and/or housing unit that contributed to the suicide (e.g., poor visibility, protrusions in cell conducive to hanging attempts)?
5. Levels of Supervision
- What level and frequency of supervision was the inmate under immediately prior to the incident?
 - Given the inmate's observed behavior prior to the incident, was the level of supervision adequate?
 - When was the inmate last physically observed by staff prior to the incident?
 - Was there any reason to question the accuracy of the last reported observation by staff?
 - If the inmate was not physically observed within the required time interval prior to the incident, what reason(s) was determined to cause the delay in supervision?
 - Was the inmate on a mental health and/or medical caseload? If so, what was the frequency of contact between the inmate and mental health and/or medical personnel?
 - When was the inmate last seen by mental health and/or medical personnel?
 - Was there any reason to question the accuracy of the last reported observation by mental health and/or medical personnel?
 - If the inmate was not on a mental health and/or medical caseload, should he/she have been?
 - If the inmate was not on suicide precautions at the time of the incident, should he/she have been?
6. Intervention
- Did the staff member(s) who discovered the inmate follow proper intervention procedures, that is, surveyed the scene to ensure the emergency was genuine, called for backup support, ensured that medical personnel were immediately notified, and initiated standard first aid and/or CPR?
 - Did staff initiate standard first aid and/or CPR within four (4) minutes following discovery of the incident?

- Did the inmate’s housing unit contain proper emergency equipment for correctional staff to effectively respond to a suicide attempt, that is, first aid kit, gloves, pocket mask or Ambu bag, and rescue tool (to quickly cut through fibrous material)?
 - Were there any delays in either correctional or medical personnel immediately responding to the incident? Were medical personnel properly notified as to the nature of the emergency and did they respond with appropriate equipment? Was all the medical equipment working properly?
 - Were there any delays in notifying outside emergency medical services personnel (i.e., 911)?
7. Reporting
- Were all appropriate officials and personnel notified of the incident in a timely manner?
 - Were other notifications, including the inmate’s family and appropriate outside authorities, made in a timely manner?
 - Did all staff who came into contact with the inmate prior to the incident submit a report and/or statement as to their full knowledge of the inmate and incident? Was there any reason to question the accuracy and/or completeness of any report and/or statement?
8. Follow-Up/Morbidity–Mortality Review
- Were all affected staff and inmates offered crisis intervention services following the incident?
 - Were there any other investigations conducted (or that should be authorized) into the incident that may be helpful to the morbidity–mortality review?
 - In addition to a medical chart review, was a “psychological autopsy” conducted in this case? Did the process include examination of the suicide site, and interviews with staff and inmates familiar with the decedent?
 - As a result of this morbidity–mortality review, were there any possible precipitating factors (i.e., circumstances which may have caused the decedent to commit suicide or engage in the serious suicide attempt) offered and discussed?
 - Were there any findings and/or recommendations from previous reviews of inmate suicides that are relevant to this morbidity–mortality review?
 - As a result of this review, what recommendations (if any) are necessary for revisions in policy, training, physical plant, medical or mental health services, and operational procedures to reduce the likelihood of future incidents?
 - What are specific corrective active plans (CAPs) for each recommendation, who is the responsible party for each CAP, and what is the expected timeframe to complete each CAP?

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Blinders to Comprehensive Psychiatric Diagnosis

20

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Introduction

Accurate diagnosis is a critical component of treating patients with psychiatric disorders. Rendering an accurate diagnosis for patients suffering from mental illness and comorbid diagnoses is a complex and elegant process and there are many *blinders* to that accuracy: misinformation, biases, stereotypes, and lack of knowledge, that can get in the way. While mental health clinicians of all kinds in all clinical settings are challenged by blinders, we think the blinders to accurate diagnosis of patients in the penal system are more setting-specific and subtle than the blinders facing clinicians working in outpatient and inpatient mental health facilities. This chapter focuses on identifying the blinders and makes recommendations on how to effectively negotiate those blinders.

The system for treating mental illness in the United States is in flux if not broken (Jaffe 2017, Torrey 2010, Roth 2018). Throughout the twentieth century and now, patients with the most severe or complex psychiatric disorders have been increasingly left to their own devices. The result is that aberrant, disruptive behaviors, delusions, homelessness, confusion, suicidality, and often minor criminality due to lack of resources promote police officers unwillingly to be primary mental health workers, and the path to beginning treatment very often begins only by getting arrested. This leads to a need for psychiatric treatment in settings not intended or adequately staffed and equipped to provide such treatment.

Jails and prisons have thus become way stations for the most severely mentally ill patients in the United States, in addition to those with lesser, but treatment-needed degrees of psychiatric symptomatology. The percentage of patients suffering from severe mental illness (SMI), co-occurring psychiatric disorders, and disorders presenting with complex psychiatric-medical problems in the US penal

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system far exceeds those of both outpatient and inpatient treatment facilities (Al-Rousan, 2017; Torrey, E.F, Kennard, A.D., Eslinger, D., et al., 2010).

The United States has more prisons than colleges and universities with by far the largest percentage of its populace incarcerated compared to other nations in the world (Al-Rousan, 2017). Recidivism rates continue to float around 80% (Jaffe, 2017, 48–49; Torrey, 2010). Sentences are longer across all offenses in the United States compared to other countries (Jaffe, 2017). Nonviolent inmates are spending weeks, months, or even years in 23-hour isolation (Weir, 2012). Mentally ill inmates spend greater time in prison *for the same offence* compared to nonclinical inmates (Torrey, 2010).

The path proposed in this chapter begins with identifying and reducing blinders, engaging in the process of making accurate psychiatric diagnoses, and utilizing a system designed to see and treat patients comprehensively that is consistent with well-established, but rarely achieved, standards of care. Although treating patients with complex and comorbid psychiatric difficulties is challenging in any setting, the environment of jails and prisons and a multiplicity of intervening factors affecting treatment render an already difficult clinical task into a sometimes insurmountable one.

First, we explore the diagnostic process with special emphasis on methodology and terminology as a tool for detecting and removing the blinders for patients suffering with the most severe, compound, or complex clinical psychiatric disorders. Second, we discuss how the imperatives of the penal system as a unique social environment create and influence many of the attitudes and biases about mental disorders held by citizens, penal staff, penal administrators, mental health professionals, and inmates. Evaluation of behavior *in context* is crucial for accurate psychiatric diagnosis. Specifically, utilization of a social context viewpoint reveals how the penal environment creates imperatives (rules) that influence the behavior of inmates, guards, and staff further influencing environmental or systemic markers utilized for accurate diagnosis.

Overview of Prevalence of Mental Illness in Penal Systems

The American penal system is considered the de facto mental hospital in this country (Roth, 2018; Torrey, 2014; Leifman, 2014). The prevalence of all diagnosable mental disorders in our penal systems ranges variably from 40% to 70% or higher. Around 15% is the figure given for the seriously mentally ill (SMI) (Torrey, 2010). With such high mental disorder prevalence, compounded by frequently undiagnosed traumatic brain injury (TBI) or substance abuse, and the high prevalence of coexisting mental disorders, it is no wonder that the penal system is burdened.

Since the first edition of this work, researchers have added greater diversity concerning the prevalence and diversity of mental illness in inmates. It appears that there is a rich combination of psychiatric disorders in inmates worthy of note beyond the three SMI categories so frequently reported upon. Compared to community samples, a range of Axis I disorders (a Diagnostic and Statistical Manual of Mental Disorders, fourth Edition, Text Revision (DSM IV-TR) designation containing all mental illnesses, except personality disorders and the developmental disabilities that are on Axis II) occur 3 to 12 times more frequently. Such disorders as posttraumatic stress disorder (PTSD), attention deficit hyperactivity disorder (ADHD), panic disorder, obsessive-compulsive disorder, agoraphobia, generalized anxiety disorder, and substance use disorders are reported. We refer the reader to these commendable sources: (Urbaniok, 2007), Westmoreland, et al. (2010), Brown, et al. (2013), Fries, et al. (2013), Prins (2014), Wetterborg, et al. (2015), Al-Rousan, et al. (2017).

The personality disorders receive more mention in recent years, even though some earlier authors called attention to reasonably accurate reports of antisocial personality disorder (ASPD) (Fazel &

Danesh, 2002) and borderline personality disorder (BPD) (Trestman, 2000). The personality disorders are abnormalities in four areas: cognition, affectivity, interpersonal functioning, and/or impulse control (two or more are required to make a diagnosis). Such personality disorders as antisocial personality (Gunter, et al., 2008), borderline personality, narcissistic personality, and psychopathic personality disorder (not a Diagnostic and Statistical Manual of Mental Disorder (DSM) category) along with several other personality disorders are particularly relevant for this discussion (Blair, 2005, Faustino, 2017). These relatively stable, long-standing personality styles (usually present from adolescence or early adulthood) contribute to difficulty in complying with authority, living in a highly structured environment, and taking responsibility for behavior, just as do people suffering from many of the traditionally defined SMI disorders. The thinking that personality disorders are not treatable is false. There are useful psychotherapeutic and psychopharmacologic interventions for some of them. Trestman (2000) demonstrated that penal institutions have consistently had a high prevalence of personality disorders even prior to the modern era because criminal behavior is sometimes one of their manifestations. The belief that personality disorders are untreatable or too difficult to treat contributes, then and now, to their lack of formal assessment and identification and becomes a blinder to accurate, that is, complete, psychiatric diagnosis. We argue that psychiatric comorbidity considerations should include statements about personality disorders in a comprehensive psychiatric evaluation. That the autism spectrum disorders, fetal alcohol syndrome, mental retardation, and traumatic brain disorders are rarely mentioned is a significant omission given, when present, their occurrence can be another blinder to accurate diagnosis and therefore management.

Crocker et al. (2005), in a longitudinal analysis of ASPD, psychopathy, and violence in persons with comorbid severe mental disorders, found that the Self-Report Psychopathy Scale II “had limited associations with criminality and violence, whereas ASPD, having a thought disorder, negative affect, and earlier age at initial psychiatric hospitalization were predictive of aggressive behavior” for the 203 subjects over 3 years. This is further confirmation of the prevalence of comorbidity and speaks to a reversal of the concept that psychopathy alone is more predictive of aggressive violence; so too is environment.

But there is a caveat about behavior in the prison culture. Generally, the diagnosis of a personality disorder is made if behavior deviates significantly from the expectations of the individual’s culture (American Psychiatric Association, 2013). The prison culture is not necessarily the person’s culture, but, *when imprisoned, it is the cultural context*. Hence, violent behavior does not necessarily deviate from the person’s culture “of the moment.” It is arguable that violent behaviors would not be used toward diagnosis if the context were different. Likewise, the pattern must manifest in two of four areas: cognition, affectivity, interpersonal functioning, and/or impulse control. Situation-specific behaviors would have to be demonstrated in more than just one area. General Criteria B and C would require an *enduring pattern* of inflexible and pervasive behaviors across a “broad range” of personal and social situations. Finally, in order to make a diagnosis of a personality disorder (using the current criteria), General Criterion D states that the pattern is “stable and of long duration, and its onset can be traced back at least to adolescence or early adulthood.” If these general criteria are not met, and much of this would have to be demonstrated to have happened before imprisonment in many cases, behavioral changes unique to the prison setting would not count toward or support a diagnosis.

The untreated severely mentally ill are both more violent and more likely to be victims of violence than the general population. They are more likely to commit major and minor infractions of the law than the general population (Jaffe, 2017, pp. 134–136). We accept, as the obvious fact it is, that an increasing population of jail inmates and prisoners have impairing mental illness and psychiatric diagnoses are being missed.

Diagnostic Terminology and Methodology

The literature concerning the prevalence of mental illness in general, and in the penal system more specifically, is replete with the phrase *serious mental illness*. The term SMI refers to three categories of psychiatric diagnoses: the psychoses (including the schizophrenias, paranoia, and other psychoses), bipolar disorder (particularly with manic episodes), and major depressive disorder (Jaffe 2017, 65–76, Roth, 2018, 15–17). These are singled out because of the severity of their symptomatology and because they are considered the psychiatric diagnoses with the most support for being properly understood as disorders of brain function with high difficulty of treatment.

Institutions including the National Institute of Mental Health (NIMH), numerous state-funded agencies variably, and researchers add additional diagnoses such as posttraumatic stress disorder (PTSD), personality disorders, attention deficit hyperactivity disorders (ADHDs), anxiety disorders, and substance use disorders as SMI when reporting prevalence in penal institutions. Such conditions contribute to significant psychopathology, especially when co-occurring. Inclusion or exclusion of this additional class of psychiatric disorders to SMI is one of the reasons for a wide variability in the reported prevalence of mental illness in the penal system. Bronson and Berzofsky (2017) reported in the 2011–2012 National Inmate Survey (NIS-3) on data from over 600 jails, prisons, and special facilities with more than 100,000 inmate participants. They defined the catchphrase *serious psychological distress in the past 30 days* to denote the dividing line for threshold estimations. The report selected diagnoses including major depressive disorder, bipolar disorder, schizophrenia/other psychotic disorders, PTSD, anxiety disorders, and personality disorders. The disparities in prevalence estimates by other authors clearly derive from different methodologies and purposes in the various studies. This chapter uses the conventional phrase serious mental illness (SMI) to include the psychoses, bipolar disorder, and major depressive disorder and, where relevant, specifies other psychiatric diagnoses aside from those.

Since the advent of the “Decade of the Brain” in the 1990s, a significant segment of psychiatric research has focused on the fact that diagnostic conditions are disorders of the brain. Studies on inheritance, brain imaging, sociobiology, neurophysiology, and neurobiology seemed to support this contention, although no clear consensus exists (Camara & Binyet, 2017, Malla, et al., 2015, Bolton, 2013, Lieberman, 2015, 188–189). Marcella (2014) reports the heritability of ADHD, autism, schizophrenia, and bipolar disorder to be in the 75–80% range and Sullivan (2012) states that genetic factors account for 35–50% of the variability in major depression and alcohol addiction.

This evidence and more leads us to endorse the hypothesis that diagnosable psychiatric disorders are best understood as disorders of the brain and that presenting those conditions as such is an important adjustment in terminology that helps eradicate bias and stereotype. Patients suffering from these conditions are not “bad” but rather, “mad,” to put it in memetic terms. That is, without intent, the brains of many inmates suffer from brain disorders and require treatment as patients in addition to punishment or rehabilitation as inmates.

An example of the problem of language is in the term “treatment.” Appraisals of the penal system are replete with criticism regarding treatment (e.g., Bowers et al., 2006; Carr, 2014; Gottfried & Christopher, 2017). SMI and complex/co-occurring diagnosis patients experience treatment through medication dispensation and monitoring but little to no psychotherapeutic treatment. Psychiatrists become restricted to 12–15 min sessions with patients and see inmates infrequently. In the penal system, treatment has been subsumed under control and submission, and we think this is predominantly because of the restraints, fiscal and bureaucratic, placed on service providers. Most importantly for our purposes is the fundamental proposition that treatment planning is dependent upon diagnosis, and satisfactory treatment is impossible without accurate diagnosis and other resources including the time needed to complete the diagnoses.

Psychiatric diagnoses constitute a description of our current level of understanding of mental illnesses and their effect on function, not a label of judgment. To view a patient in context is essential for accurate psychiatric diagnosis; more will be said of this later. For now, we resolve to be circumspect about language and understand that its use can itself become a blinder to effective treatment.

Martin et al. (2016) take up the problem of cognitive errors in diagnosis in a rare paper on this topic in the field. They estimate at least 10–15% of inmates may be misclassified on the single issue of presence or absence of a mental illness. They did not address errors in specific diagnostic categories. Citing from two papers in the general psychiatric literature (Croskerry, 2003, Crumlish and Kelly, 2009), they hypothesize psychoactive medications started on an inmate due to urgent need but with either a generic provisional diagnosis such as “psychosis” or an unclear psychopathology. This is the cognitive error of *commission bias*. *Diagnostic momentum* may account for the persistence of that diagnosis over time without further diagnostic assessment. Another psychiatrist may be unwilling to change a colleague’s diagnosis and management due to *anchoring*. Or, if the medication is perceived as working, then *confirmation bias* may perpetuate the existing designation with no further information being collected. Most psychiatrists are familiar with any or all these errors. We think any of them may be playing a role for various reasons in penal psychiatry.

State of Psychiatric Treatment of the Mentally Ill

The mental health industry, along with psychiatry as a medical specialty, finds itself to be a relatively unique outlier from the rest of the specialties. It has no coherent understanding of the etiology and pathogenesis even for the most serious of the psychiatric disorders described in DSM-5 much less for the arguably subordinate yet disruptive or distressing disorders including personality disorders. Psychiatric diagnoses are empirical combinations of descriptive symptoms with often confusing overlap. Excesses, deficiencies, inconsistencies, and inappropriatenesses in observable behavior or patient self-perceptions have thus become the generic categories by which the various psychiatric diagnoses are distinguished. Only a few diagnoses have known biological markers and etiologies.

Psychiatric diagnoses are primarily useful in the selection of psychopharmacotherapy for selected symptoms or problems subsumed by that diagnosis. Inaccurate or insufficient identification of accurate psychiatric diagnoses has its greatest impact in this arena of appropriate psychopharmacologic intervention, often with more than one agent, especially when, as is quite common, there are coexisting psychiatric diagnoses.

Although not a psychiatric diagnosis, a condition of the brain called anosognosia should be in the lexicon of anyone doing or wanting to know about psychiatric treatment or even having oversight responsibilities for dealing with or managing people with the disorder such as jail or prison staff (Jaffe, 2017; Torrey, 2010). First described in traumatic brain injuries, strokes, and the dementias, anosognosia is a neuropsychiatric condition in which the afflicted person has impaired ability to be fully aware or conscious of their physical or mental incapacity. The frontal lobes of the brain are crucial for providing self-insight including the capacity to recognize any bodily or mental dysfunction. This “lack of insight” is increasingly recognized to be a feature of severe mental illness and is present in some 50% of people with schizophrenia and 40% of people with bipolar disorder; it is the most frequent reason for medication refusal and resistance to treatment of any kind. In this condition, brain scans demonstrate evidence of anatomical disruption of the brain. For the seriously mentally ill and other similar psychiatric conditions, a specific informed evaluation for this condition as part of a mental status evaluation should be performed at intervals over a patient’s course of management and treatment. The blinder of ignorance about this condition may significantly affect how penal staff and health professionals engage with a person having anosognosia.

Comorbidity and the Differential Diagnosis

A full understanding of the presenting mental disorders in each patient is critical for creating an effective plan for intervention. An important step in disbanding the blinders present to mental health and medical care delivery in penal institutions is the process of conceptualizing a *differential diagnosis*: a listing of *any and all* diagnoses that might account for the presenting symptoms. This systematic diagnostic method entails identifying which of several diagnostic possibilities might be present when there are overlapping criteria. The absence of reliable biomarkers (objective measures) for most psychiatric diagnoses, having only empirical combinations of descriptive symptoms, predisposes clinicians to confusion in ways often more complex than diagnostic dilemmas in other specialties of medicine. Because the presence of more than one legitimate psychiatric diagnosis is the rule rather than the exception, the differential diagnosis in psychiatry becomes especially important.

An unknown but very high number of today's physicians were trained and essentially socialized with the clinical value of "the law of parsimony," namely, *don't render two diagnoses when one diagnosis adequately explains the symptom presentation*. While parsimony and economy are useful in academic writing, and where scientists are well advised to consistently seek it, we argue that strict adherence to that practice both creates and inserts blinders into the diagnostic process that may render understanding of a patient either incomplete, inaccurate, or both. Central to the understanding of psychiatric diagnosis and case conceptualization in any clinical situation is the necessity to determine comorbidity and the importance of environment (e.g., a system in which the patient lives and the rules that govern the system).

Variously, comorbidity can mean:

1. Mental disorders that occur related to organic, body disorders such as stroke and depression, hyperthyroidism and anxiety, or treatment of traumatic brain injury (TBI) and personality change. More, within these pairings, the necessity for additional rule-outs emerges.
2. Mental disorders that occur in the presence of substance use, abuse, and dependence that are also DSM-5-defined mental disorders.
3. Mental disorders co-occurring with each other exclusive of substance disorders.

These three types of comorbidities are significant in all patient populations across settings, including penal patients. Too often, the third type of comorbidity is little recognized even by psychiatrists and psychologists. A lack of adequate definition and exploration of comorbidity in the literature paired with antagonistic training models that socialize mental health professionals differently from one another creates a context where clinical thinking becomes artificially constrained to just a single working diagnosis when others are present. More commonly, and more realistically, when this blinder is removed what comes into view is a collection of analytically distinct problems that often have an interactive nature. To capture these is to possess all relevant data regarding psychiatric presentation and very often alters, to the benefit of refinement and accuracy in diagnosis, case conceptualization, differential diagnosis, and therefore treatment.

Whether in prison, in a psychiatric hospital, or in the community, the person with one or several mental disorders deserves the same form of assessment and treatment, ethically and legally. Errors in diagnosis are rarely discussed in penal mental illness research but could approximately be at least 10–15% (Martin, et al., 2016). We find that though widely used, the term "comprehensive" is often misunderstood and misapplied in clinical work across settings, and propose that the process of arriving at comprehensive psychiatric diagnoses would mean that *each and every diagnostic condition should be ruled in or ruled out* based on the current level of understanding and within a clear and

convincing degree of medical/psychiatric certainty. It should also stand as implicit to the process and as a fundamental component of standards of care that the differential diagnostic process and its results are *dynamic*, in that they can and should be refined and potentially altered as more data are acquired subsequent to the initial evaluation and over the course of treatment. It would be well to acknowledge that this idealistically conceived notion is rarely achieved, except perhaps in the few dedicated full psychiatric units functioning within penal institutions. The implication of this assumption is that psychiatric care in ordinary penal settings consistently lacks comprehensive information.

As more data come in with the passage of time for a given person, the probability of diagnostic change increases. This is a fundamental and underlying assumption of the DSM-5 itself and is a hallmark component of treatment in the clinical world. Yet, we undermine or forget this reality because of our blinders and “myside biases” (Mercier & Sperber, 2017, 218–221) which seek single cause correlation and cause-effect schemes. For example, most professionals know that where there is a history of recurrent major depressive disorder over time, there is the need to rule out bipolar disorder. Most realize that impulse control disorders are potential precursors to attention deficit hyperactivity disorder. And the seeds of personality disorders are often found by reviewing the history of previous psychiatric diagnoses. Without an accurate history about the patient, the blinders of ignorance of history and of single-factor diagnosis obscure from our vision psychiatric comorbidity as well as the development and expression of more serious psychiatric difficulty (e.g., many psychiatric conditions, untreated, get worse as we age). If we think of patients and problems as both static and single shot, the probability that we are missing very important details that inform case conceptualization and diagnosis increases significantly.

More, the history of a given individual is complex and multifaceted. The inmate is not, and therefore should not be, the only source of data on history. Previous treatment records, collateral data interviews, patient reporting, health and education records, previous incarceration data, previous psychological testing—all these data and more represent components of “the history.” Moreover, this does not simply refer to a biopsychosocial review of systems. It also contains history of all the presenting problems, both at the current time and sequentially over past time. Any assessment that does not capture all this information is incomplete and the treatment has blinders.

Outpatient and inpatient psychiatric treatment settings contain a system-level exploration (about the social context and other people involved), regardless of the theoretical orientation of the clinician. Its dynamics are captured and explored throughout the assessment/evaluation and treatment process. Nowhere in the psychiatric world can we think of an environment where the rules of the system have a more significant influence on patients than in the jail and prison context. Therefore, a dispassionate awareness of the system in which the patient is functioning and experiencing impairment and the theoretical knowledge that this system contains formal (explicit) and informal (understood or inferred) rules are essential. Some of these are known to the individual and some are not and yet, nonetheless, influence an inmate’s decision-making and behavior. What may appear to be antisocial behavior in civil society may be adaptive fitness coming from an inmate’s “rational” assessment and conclusion about the behavioral necessities for survival in prison and not a long-standing personality disorder indicator. What appears to be anathema and disproportionate in terms of response to stimuli in the free societal environment may be *iron clad rule* and necessity in the prison system. This allows us as observers of the human condition to both see and measure how those rules influence behavior: both patterns of interaction and communication. And we need to accept what the rules of jails and prisons are. An important blinder to remove and resolve involves this definition of acceptance versus endorsement. That we accept violence as a necessary act in order for an inmate to prevent being perpetually victimized is not to endorse violence in jails and prisons.

Attitudinal Bias Concerning Interpretation of Behavior and Diagnosis

In Israel, Rubinstein (2006) studied right-wing authoritarianism in border police officers, career soldiers, airport security guards, and controls. In general, scores fell significantly from the border police officers to the soldiers to the guards (who had similar scores), to the controls. To the extent one can extrapolate from these subjects to the penal system, we predict that high authoritarianism would be the mode in that setting. This presents a further blinder to assimilating and utilizing knowledge about mental disorders.

In a simplistic world where choosing between dichotomies (and indeed manufacturing false dichotomies of either/or propositions instead of both/and propositions) is the path of least resistance, the only two choices are to view deviant behavior as either bad or mad in its origins (American Psychiatric Association, 2013). In the penal system, only those with flagrant psychosis are considered mad. The rest are labeled as bad. They are deemed to cheat, manipulate, mangle, or be factitious. And none of this is to say that does not happen and should not be considered. Such conclusions should not be simply automatic bias-based inferences but get virtually the same weighing of the evidence as is given to psychiatric diagnoses. After all, factitious disorder is a psychiatric diagnosis and malingering is an important distinction needing determination if it is present. Malingering-feigning symptoms, a DSM-5 V-Code meaning it is a condition worthy of consideration, can be assessed with several structured assessments. McDermott and Sokolo (2009) reported in the Sacramento (CA) County Jail that the Structured Interview of Reported Symptoms (SIRS) is used when malingering is suspected. Sixty-six percent of those tested met inclusion criteria. A diagnosis of ASPD did not make malingering more likely. So, suspected malingering, similar to the psychiatric diagnoses we discuss, is amenable to potential formal identification.

Miresco and Kirmayer (2006) studied 127 psychiatrists and psychologists in a department of psychiatry concerning the presence of mind-body dualism (meaning the mind is distinct from the brain) in their view about patients. They found that if a problem (or set of symptoms) was deemed to originate “psychologically,” the patient was viewed as more blameworthy for the symptoms, and if a neurobiological cause was posited, the patient was considered less responsible and blameworthy. If academic psychiatrists and psychologists still retain this atavistic dualism, which is rife in the general population, we can only expect that insiders (staff of penal institutions) would reveal a more malignant version concerning the prisoners for whom they have responsibility. And yet, few are more well acquainted with the private, nonpublished rules of their system than they. A cohort of prisons have embraced comprehensive treatment acknowledging the reality of co-occurrence and comorbidity, and some few have developed specialized psychiatric treatment approaches. Outstanding examples of this include the program at the Central New York Psychiatric Center (Smith & Sawyer, 2002). Peters, LeVasseur, and Chandler (2004) reported 20 co-occurring disorder treatment programs in 13 state penal systems.

Regardless, addressing knowledge deficits is not enough. Exposure to new information or conceptualizations must occur in the presence of accepting attitudes and open minds ready to use that information. The example of clinical professionals who “don’t believe” ADHD is a *real* disorder (and more than one of us have dealt with psychiatrists and other physicians who take this view) is perhaps one of the most egregious examples of how attitudes affect the incorporation and use of information. Holding that people who commit criminal acts are simply immoral or evil by choice is a much more pervasive and destructive belief that often precludes any attempt to understand the underlying disorders of brain function that could be treated. Another example that forecloses on full treatment is thinking that if a person has schizophrenia, then they cannot also have obsessive-compulsive disorder or generalized anxiety disorder. While economy and parsimony are important elements of scientific inquiry writ large, being sufficiently satisfied with categorical data matching only one diagnosis and listing that as both *primary* and *only* may be incomplete, and ultimately, inefficient because diagnoses

inform treatment planning. If we cannot account for all that is operating in the diagnostic milieu, we could not conceivably construct a treatment approach that is either efficacious or efficient.

Blinder Prescription One: A Systems Perspective

Systems matter. Every system, be it a family system or a large social system like a corporation or bureaucratic agency, contains rules and those rules influence patterns of interaction and communication for all members. The rules of systems, the manner in which people interpret and apply those rules, and the effect that the application of rules has on system occupants are of considerable importance in understanding, describing, explaining, and attempting to predict behavior. Lacking knowledge of the system for a particular inmate is as much a problem as lacking knowledge of a patient's medical or educational history when it comes to rendering accurate diagnoses. Attitudinal bias about what a prison is and does, be it normative or practical, obscures rather than illuminates the full clinical picture.

Attitudinal bias lures observers into immediate intuitive inferences that behavior is bad in any inmate because that inmate is a "criminal" or "convict." While all inmates are properly understood as convicts simply on the basis that they have been convicted of or plead guilty to a crime and therefore received conviction, thinking of inmates as criminals or cons only is to enforce an artificial, one-dimensional view of a person that is completely inconsistent with reality. Patients are more than their depression. Inmates are more than their crimes. Intelligent observation of inmates reveals that behaviors are often influenced in significant ways by the rules of the system. Whereas blinders lead one observer to find pure pathology in a behavior, the other observer who has removed the blinder observes adaptive fitness designed for survival. Newly incarcerated inmates quickly learn the rules of their system and find them to be qualitatively different from the rules of civil society. To not account for the effect of this rule change on inmate behavior is to commit significant negligence when assessing inmate-patients.

System rules are a critical domain of the psychosocial review of systems. Whether they *ought* to exist is irrelevant for clinicians. *That* they exist is the salient feature. Blinders prevent clinical and security staff from properly interpreting observable behavior and quickly making intuitive inferences using historical schemes that classify behavior as bad or evil. Awareness and knowledge of rules help sharpen those initial intuitive inferences with reason, and through that process one finds that the fist-fight that emerges in the dining hall because one inmate stepped on another inmate's shoes is a result of rule following and not necessarily antisocial personality disorder. Should an inmate choose to remain ignorant of the rules of the new system in which they find themselves, they very often are choosing to be a victim in a system that rewards defiance and defense and severely punishes timidity and compromise.

Long before our current knowledge of neurobiology, Grant and Saslow (1971) proffered a set of principles for psychiatric treatment in an inpatient university-based psychiatric unit. This set of principles became the guidelines for staff "attitude and approach" to patients. In a sense, it was a blinder removal project and the deliberate construction of a conceptual lens through which to look to understand patients, behavior, and environment.

The first principle still stands as relevant in understanding and dealing with human behavior in general and symptomatic behavior in particular. It is also consistent with modern neuropsychiatric understanding of underlying brain mechanisms and dysfunctions. The principle, which has been carried forward in both academic medicine and in outpatient clinical treatment as well as the training and supervision we all provide for psychiatric and psychological professionals, is this: *All people are doing the best they can at all times at their current level of understanding.* This means that in any set-

ting with its myriad influences at a given moment in time, a person will use the state of their brain at the time, strongly and jointly influenced by genetic heritage, previous learning, the instant emotional state, and environmental situation (including ingested psychoactive substances) to react more deterministically than volitionally with a given behavior. Whether that behavior is moral or immoral, symptomatic or not, it is the result of a final common pathway for dealing with the situation at the moment. Such a dispassionate understanding in staff maximizes the possibility to understand and accept the person and their behavior most fully and how to deal best with it.

To hold this principle foremost runs diametrically opposed to the mad versus bad or “behavioral” versus “organic” dichotomies. This *attitude and approach* principle requires learning and practice. It deals less with motives and more with acceptance and understanding in order to deal most humanely with repetitive behavioral excesses, deficiencies, inconsistencies, and inappropriatenesses that either make a person or those around the person miserable. The bias of the “people are doing the best they can at all times at their current level of understanding” principle runs counterintuitively for most people but is consistent with our modern understanding of brain function. Lest we not be misunderstood, a psychopathic serial murderer should be held responsible and sentenced appropriately to protect the public, but that murderer’s brain could not do better at that time in that context and with that understanding than to demonstrate that awful behavior.

In a study of United Kingdom prison officers working with dangerous and severe personality disorders, Bowers et al. (2006) assessed staff attitudes toward personality disorders using the Attitude to Personality Disorder Questionnaire (APDQ). Over the 16 months of the study, those staff with a more positive attitude toward personality disorder had improved general health and job performance, less burnout, and a more favorable impression of managers. This supports the contention that positive attitudes toward any category of inmates, though highly variable prior to intervention, can be managed utilizing our “people are doing the best they can at all times” principle as a crucial first step in removing blinders to efficacious treatment and management of disordered inmate-patients. Toxic staff and clinician attitudes, and the judgment that “not all people are doing the best they can at all times (and I personally can tell the difference),” render a skewed, biased, incomplete, and often inaccurate diagnostic picture and therefore a flawed treatment approach to say nothing of the day-to-day interactions with inmates and the extent to which interventions can be deployed in robust ways.

To that, we believe that even guards can be important contributors of observational data as well as stakeholders negatively affected by blinders. We applaud those penal systems incorporating specialized training, education about mental illness, and sensitivity training for jail and prison guards (Walsh & Freshwater, 2009; Galanek, 2015; Parker, 2015). These various programs usefully add a component that includes the *attitude and approach* principle, although not explicitly stated.

The stigma of mental illness at times acts as a brake on the willingness of inmates to seek help with medical or psychiatric disorders just as much as it clouds the judgment of clinicians that what is in front of them is truly a patient suffering from the unintended consequences of behavioral excesses, deficiencies, inconsistencies, and inappropriatenesses. Howerton et al. (2007) indicate that *distrust* constitutes a major barrier to healthcare seeking in inmates during and after incarceration. They think that a positive precedent could be set by prison healthcare providers to “help de-stigmatize mental illness.” Yet, the attitudes, biases, and the philosophy now rife in penal institutions play a major role in the current configuration of psychiatric care which discourages inmates from seeking it in prisons, and, indeed, afterward. The conservative approach with high authoritarianism is a blinder for perceiving the need for and implementation of a modern approach to psychiatric services in jails and prisons.

Blinder Prescription Two: The Problem-Oriented Medical Record

We recommend implementation and utilization of the Problem-Oriented System (also referred to in the literature as the Problem-Oriented Medical Record or POMR) first established by Laurence L. Weed (e.g., Weed, 1968), and modified by Grant for psychosocial therapies (Grant, 1979). POMR is the shorthand name for a system of recordkeeping that we find also to be a valuable tool that assists clinicians in the differential diagnostic process and in case conceptualization. In brief, the POMR has these four categories of patient data: an initial assessment, termed “minimum (predefined) database,” a problem list, a problem-oriented treatment plan, and problem-oriented progress notes. Though a full accounting of this approach is beyond the scope of this chapter, we draw special attention to one particular component of POMR as something to be implemented immediately: the problem list.

Constructed from the beginning of a clinical interaction with a patient, the problem list is dynamic. It represents a snapshot of all identified problems in a patient’s history as well as a current presentation of problems. It is listed and described in predominately nondiagnostic nomenclature and at the clinician’s current level of understanding. Because items on the list can be added, refined, redefined, or resolved at any given time by any trained observer or member of a treatment team, the dynamic nature of the problem list grows and changes with the patient. The list also allows for a notation when data is missing or incomplete from the assessment process. With supervised clinical training, the problem list ideally may be viewed, updated, and altered by all staff members in a penal system ranging from primary psychiatrist to third shift prison guard, thereby creating an even more comprehensive description of the experiences and functional impairments of inmates and providing even more clarity in the diagnostic picture, the differential diagnostic process, and the formulation of treatment plans.

Conclusions

With rare exceptions, most prisoners, including those currently incarcerated in supermax facilities, will at some point be released. When inmates with serious mental illness are punished for their symptoms instead of effectively treated, recidivism rates remain high or potentially increase. For some, incarceration in perpetuity is a reality, and even for these prisoners, psychiatric treatment is both necessary and useful in a world where inmates have constitutional and moral rights to health care and where prison staff and fellow inmates have a right to safety and environmental protection. Inmates who in some way change or benefit from treatment will leave these facilities and attempt to reenter civil society. Quality mental health care while incarcerated is essential in reducing recidivism and protecting both the patient and the public. That we are in a position where prisons are our primary inpatient psychiatric units is a far more compelling, realistic, and urgent problem than debating whether prisons should be in this position. The least we can do is get the diagnoses right so that treatment while incarcerated and continuity of care once released can be useful and effective.

We need to think of inmate-patients completing sentences in the same way as patients are discharged from high-level facilities of psychiatric care. This means that while in the care of the prison system, an ideally blinder-free environment where accurate psychiatric diagnosis occurs and evidence-based treatment is provided, most patients can begin the process of healing and being less disordered in their thinking and behavior. Equipped with the gift of accurate diagnosis and a robust record of history and treatment, once discharged, these patients, bringing their POMR and treatment

history with them in any interoperable form, can then enter the next level of care and continue working through their Problem List until, eventually and theoretically, their psychiatric symptoms are reduced enough to allow greater functioning and perhaps a fuller integration into society. If the inmate has not received full and comprehensive treatment while incarcerated, the only seamless transition that may occur will be the one that happens on the bus that brings the inmate back into the prison.

Blinders in terminology, knowledge, attitudes, and perception are the most formidable barriers to diagnosis. Those blinders negatively affect treatment, growth, development, and improvement. We need a new *zeitgeist*. Today's prisoner will be tomorrow's co-worker or neighbor. The long-term interest of civil society is to invest in creating higher probability for successful emergence of released inmates and to provide ethical and clinically appropriate treatment behind and outside bars.

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The Interface of Functional Impairment and Discipline

21

Adam Chidekel

Correctional environments are complex and require inmates to quickly recognize and adapt to situational demands. Successful adaptation requires knowing, understanding, and remembering the rules and procedures and then following them in the midst of changing and competing situational demands. To remain disciplinary free, an inmate has to assess a situation, organize and formulate a response, and execute behavior that falls in line with institutional expectations. Success requires attention, concentration, cognitive flexibility, social skills, and the ability to adapt when rules and procedures are not administered or enforced consistently. Success also requires simultaneously negotiating both inmate and custodial cultural expectations.

Custodial environments are based on safety and security. They function best when directions are followed in a systematic and uniform way. Consideration of individual differences and the recognition that some inmates vary in their ability to independently program and lawfully comply with orders are not always acknowledged. This becomes problematic for inmates with functional impairment. This chapter will use the term functional impairment to refer to the difficulties inmates have with psychiatric, developmental, and cognitive disorders experience performing tasks and engaging in the inmate role in correctional settings.

Functional impairment in a correctional environment refers to how the symptoms of psychiatric, developmental, and cognitive disorders interfere with an inmate's ability to complete tasks, take independent personal action, and follow directions. Impaired inmates cannot consistently or uniformly navigate the complex correctional environment and thus meet inmate role expectations. For example, inmates with psychotic disorders have symptoms which interfere with their ability to attend, concentrate, and quickly respond to direct orders. Active symptoms of psychosis also cause misinterpretation of the environment. Psychotic inmates can attribute idiosyncratic meanings to the actions of others, which leads them to misunderstand social cues, including direct orders. Consequently, they can execute behaviors that do not fall in line with the expectations of officers.

Inmates with developmental or cognitive impairment have difficulty filtering, organizing, and processing information. They often need extra time to receive direction, process information, and organize a response. Success in a correctional situation may be contingent upon correctional staff first ensuring that the inmate is paying attention before giving an order. Directives and prompts often need

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to be repeated to help inmates with functional impairment successfully comply with them. Complicating this further, officers often give orders and direction from a distance or via loudspeaker. They do not have access to the diagnostic information necessary to understand an inmate's problem and the time and training needed to accommodate the inmates with functional impairment whom they supervise.

Disciplinary System

The inmate disciplinary system operates on the premise that rule infractions are caused by volitional antisocial behavior. The system assumes that inmates have control over their behavior and simply choose to act out. The system responds to these infractions with punishments which are typically defined by a disciplinary matrix. Functional impairments cause or contribute to inmates violating rules. Custodial environments also contain inmate predators who bully, coerce, and intimidate those with impairment. Impaired inmates can be pressured, manipulated, or exploited into engaging in illegal behaviors for which they are subject to being written up. Officers, who are outnumbered by the inmates they manage, have limited time to investigate why program rules are not followed. Their primary responsibility is to take whatever action is appropriate to restore the safe and secure operation of their unit. Inmates who do not follow rules are secured and then written up in accordance with the disciplinary policy. This often results in punishment. However, functional impairment caused by symptoms of recognized disorders is not antisocial behavior. When treated as such, impaired inmates are punished without consideration of why they violated a rule. Consequences are imposed without understanding how they might impact an inmate's underlying condition or if they can help the inmate make the behavioral changes necessary to live disciplinary free (Coleman v Brown, 2014).

Penalties in corrections involve work time credit loss, privilege loss, confinement to quarters, placement in segregation, assignment of extra duties, loss of specific duties (i.e., an institutional job), trust account withdrawal or hold, loss or reduction in telephone calls and/or visits, loss of packages and/or canteen, and loss or reduction in yard or day room (Westlaw California Code of Regulations, Title 15, Section 3317.2, 2020). Serious infractions can be referred for prosecution and can result in additional charges and new sentences. Many infractions result in segregation placement. This prevents inmates from accessing programs needed to prepare for release and from earning "good time" credit.

Imposition of these penalties can be stressful and doing so without knowledge or consideration of an inmate's condition can unwittingly exacerbate symptoms, destabilize conditions, and interfere with access to, or utilization of, coping skills and protective factors which the inmate relies upon to manage in the correctional environment. This results in increased distress and increased suicide risk. Inmate disciplinary actions are also costly for society. District attorney referrals and new trials result in court costs. Segregated environments are more expensive to run. They require additional health care and custodial staffing, increased security procedures, increased suicide prevention procedures, and smaller staff to inmate ratios (Coleman v Brown, 2014).

It is important morally, ethically, and practically to ensure that antisocial behavior is punished not symptoms of a legitimate disorder. This can be accomplished by evaluating inmates who are receiving services for psychiatric, developmental, and cognitive disorders as well as inmates who may need them. Psychiatric disorders are cyclical. Symptoms can wax and wane. It is possible for inmates to enter the correctional system in a period of stability and begin to manifest symptoms which interfere with their ability to follow the rules later on. Therefore, it is important to rule out psychiatric decompensation when the presentation of inmates who have been able to program without difficulty suddenly or dramatically changes.

Evaluation

There are three general concerns that correctional systems need to consider for inmates in the disciplinary process. First, are the inmates capable of participating and advocating for themselves? This involves confirming the inmates understand their charges, their rights, the potential consequences they face, and how the disciplinary process works. Second, do the inmates have functional impairment due to a psychiatric, developmental, or cognitive disorder which caused or contributed to the behavior that leads to the write-up? Third, will sanctions, including placement in segregation, negatively impact the inmate's condition and/or restrict their access to coping strategies and protective factors they have been using to manage their conditions?

The three concerns need to be assessed by a healthcare provider. The steps of the assessment are straightforward and no different than other types of psychiatric or psychological assessments. However, there are complex and competing interests the provider needs to consider. The assessment requires the release of protected personal health information (PHI) to custody. There is a risk that this information can be misunderstood or misused. The assessment is also being used in a disciplinary process which can result in the restriction of an inmate's liberties so care needs to be taken to avoid providing information that can be used as evidence against the inmate (National Commission on Correctional Health Care, 2018).

The assessment will include an inmate interview, a review of the inmates medical and custodial records, and consultation with treatment provider(s), custody, and other staff who know the inmate (i.e., teachers, work supervisors, etc.). The goal of the interview is to obtain information from the inmate about their mental status, their understanding of the event, and their self-assessment of functioning at the time of the incident. The goal of consultation and record review is to obtain information about the inmate's daily functioning in temporal proximity to the incident. Collection of this information allows the provider to determine if functional impairment caused or contributed to the behavior that resulted in the write-up. The healthcare provider will organize and summarize the information and write a brief report to custody which addresses the aforementioned factors. The healthcare provider will also document the assessment and findings in the inmate's chart for the treatment team to consider.

Informed Consent, Privacy, Forensic Information, and the Preservation of Therapeutic Partnership

When conducting a disciplinary assessment, the healthcare provider must offer an inmate a confidential interview and obtain informed consent (National Commission on Correctional Health Care, 2015). Unlike other services, the interview, consultation, and record review are part of the disciplinary process. Inmates can refuse to participate in the interview, but the provider will complete the assessment and generate a report to custody with or without their consent. While HIPAA permits the release of protected health information to assist with custodial matters (United States Department of Health & Human Services, 2003), the role of all health providers is preserved when healthcare staff maintain confidentiality. This protects the integrity of the therapeutic partnership (National Commission on Correctional Health Care, 2015). These competing interests create a dilemma for the assessing provider who must carefully consider what information to include in their report.

National Commission on Correctional Health Care standards (NCCHC) (2015, 2018) recognize that custody staff can discipline inmates. The participation of healthcare providers in disciplinary decisions is limited to advocating for mitigating circumstances for inmates who are impaired and to

educating disciplinary committees on the role mental illness may have played in a particular event. Healthcare providers do not provide information to custody for the purpose of discipline and they are not involved in the collection of forensic information. Forensic information is “physical or psychological data collected from an inmate that may be used against him or her in disciplinary or legal proceedings” (National Commission on Correctional Health Care, 2018, p. 133).

Healthcare staff are employed to provide medical and psychiatric treatment to inmates who are also patients. When healthcare staff collect forensic information, they are viewed as extensions of law enforcement by the inmate population. This diminishes their perception as helpful by the inmates. This undermines their credibility and destroys the trust necessary to provide effective care. It can also create an adversarial situation since the evaluations are done with or without the inmate’s consent. Furthermore, the communication of confessions or the provision of explanations that confirm an inmate broke the rules can be used to find them guilty. This can undermine the defense inmates put forth in later hearings and can result in inmates feeling betrayed by healthcare personnel.

Healthcare staff are further challenged by instances when an inmate with a recognized disorder or impairment breaks the rules volitionally. In these cases, advocating for mitigation of a penalty would provide unwarranted justification for antisocial behavior. This can reinforce antisocial behavior and undermine the therapeutic efforts to teach prosocial behavior. It is also viewed as collusive by custody and can undermine the partnership between healthcare providers and custodial staff required to run a safe institution.

Disciplinary assessments raise ethical considerations for healthcare providers. Healthcare staff must establish working partnerships with their patients which is based upon trust. They must share reliable and valid information with custody in support of institutional safety. Providers must prioritize the needs of their patients (American Psychiatric Association 2013a, 2013b) and avoid multiple role relationships whenever possible (American Psychological Association, 2017). The need to share information with custody and the need to provide services to inmates essentially creates “clinical” and “forensic” roles for healthcare staff who work in correctional settings. The “clinical” role focuses on providing treatment and support to the inmate population. A clinician can help inmates in the disciplinary process debrief from the event and manage their feelings about what happened. A clinician can also help inmates develop skills to use in the future to avoid disciplinary action. The clinician accomplishes this by talking to inmates about what happened, understanding their perspective, and helping them develop alternative responses. In order to achieve this, the healthcare professional must maintain confidentiality.

The “forensic” role focuses on determining whether or not psychiatric, developmental, or cognitive impairment impacted behavior. While this is best accomplished by a provider who does not have a therapeutic relationship with the inmate, it is acknowledged that many jurisdictions do not have the staff available to separate these roles. This requires consideration, as the therapeutic alliance can create bias for the provider who can feel investment in the outcome of the evaluation. Care must also be taken because the disclosure of PHI to custody can also contaminate the therapeutic work, particularly if the information does not support the inmate’s position or understanding of what happened or is later misused or inappropriately revealed to others.

While using a provider who is not treating the inmate to complete the disciplinary assessment reduces problems associated with multiple roles, the assessing provider must still refrain from providing forensic information and limit the PHI shared to “the minimum necessary to accomplish the intended purpose” (United States Department of Health & Human Services, 2003). Providers must use their professional judgment about what information is reasonably necessary to disclose and balance the privacy requirements needed by inmates to engage in services, the privacy needs of the health service to be viewed as effective, the advocacy needs of inmates with impairment, and the custodial needs of the institution. The purpose of the evaluation is to determine if the inmate can participate in

the hearing, whether or not functional impairment played a role in the infraction, and how disciplinary measures will may negatively impact the inmate. By limiting the information to what is reasonably necessary to answer these questions, the provider can provide a report with integrity.

Diagnosis and Functional Impairment

In most cases, inmates referred for disciplinary assessment will have an existing or presumed psychiatric diagnosis. The *Diagnostic and Statistical Manual of Mental Disorders, fifth Edition* (DSM5) defines mental disorder as “a syndrome characterized by clinically significant disturbance in an individuals’ cognitive, emotion regulation, or behavior that reflects a dysfunction in psychological, biological, or developmental processes underlying mental functioning. Mental disorders are usually associated with significant distress or disability in social, occupational, or other important activities” (American Psychiatric Association, 2013a p. 20). The DSM5 does not clearly define “clinically significant distress” or “impairment in social, occupational, or other crucial area of functioning.”

The authors of the DSM5 further warn of “an imperfect fit between the questions of ultimate concern to the law and information contained in clinical diagnosis. In most situations, clinical diagnosis of a DSM5 mental disorder does not imply that an individual with such a condition meets legal criteria for the presence of a mental disorder or the specified legal standard (competence, criminal responsibility, disability)” (American Psychiatric Association, 2013a p. 25). This means that the presence of a psychiatric diagnosis alone is not enough to determine that impairment exists. Individuals with the same diagnosis have differing levels of impairment or limitation. The diagnosis itself does not provide any information about the inmates “... degree of control over behaviors that may be associated with the disorder; even when diminished control over one’s behavior is a feature of the disorder; having the diagnosis in and of itself does not demonstrate that a particular individual is (or was) unable to control his or her behavior at a particular time” (American Psychiatric Association, 2013a p. 25).

This difficulty is also recognized by the Americans with Disability Act which requires both a diagnosis and an impairment (mental or physical) which substantially limits “one or more of the major life activities” before a person can be considered disabled (ADATA, 2020). Major life activities are defined as activities or functions that are important to one’s overall functioning that an average person engages in most days with little effort (ADATA, 2020). As many people with diagnoses are able to manage their lives without difficulty, the presence of a mental disorder in and of itself is not enough to label someone as impaired in a custodial setting. Clinically significant symptoms which cause functional impairment or limitations have to be present. In a correctional environment, this would relate to the inmate’s ability to participate in unit programming and follow the institutional rules.

A disability is a mental or physical condition that interferes with a person’s ability to perform activities and interact with the world (CDC, 2020). Another term used to refer to this is impairment. Impairments can be structural or functional. A structural impairment refers to problems with a person’s physical body. A functional impairment refers to problems with a person’s ability to function in the world. Structural and functional impairment create both activity and participation limitations (CDC, 2020). An activity limitation refers to the inability to complete a task or take appropriate personal action. A participation limitation refers to the inability to successfully meet the demands of one or more social roles. Social roles include engaging in employment, pursuing education, participating in relationships, or living as an inmate.

Functional impairment falls on a continuum of mild, moderate, and severe. This can mean few vs. many symptoms or minor vs. marked impairment where mild impairment can be described as the

ability to function normally but with substantial efforts or assistance and a severe disability which can be described as clear cut and observable disability (American Psychiatric Association 2013a).

To determine if an inmate's behavioral infraction resulted from impairment, the assessing provider can start with the diagnosis in the inmate's chart. The provider will next obtain information about the inmate's symptoms and any resulting impairment present at the time of the infraction. The provider will consider the characteristic symptoms of the inmate's disorder and how those symptoms could prevent a person from functioning in a correctional setting. Symptoms can be simplistically characterized as either "positive" or "negative" (National Institution of Mental Health, 2016). A "positive symptom" is a symptom that is not present in a "normal" person and interferes with functioning. For example, a hallucination is a symptom that impairs a person's ability to attend, concentrate, or understand a situation. It is something that is not present in a "normal" person. A "negative symptom" is the absence of abilities or functions that are present in a "normal" person and interfere with functioning. For example, avolition is a lack of motivation to complete tasks and refers to the absence of drive that is seen in people who are functioning well. Once the provider has established that symptoms are or were present, the provider needs to consider how or if those symptoms interfered with the inmate's ability to meet inmate role expectations in one or more of the following areas (Gold, 2008):

- *Activities of daily living* – The ability to independently eat, dress, walk, or move from one position to another, bathe, toilet, and maintain bowel and bladder continence.
- *Social functioning* – The ability to get along with others; accept instruction and direction; act independently, act appropriately, effectively, and adapt to changes in the environment. In the community, it would include responding appropriate to supervisors, coworkers, and work pressures. In the correction environment, it would include responding appropriately to officers, peers, and negotiating the inmate milieu without difficulty.
- *Concentration* – The ability to pay attention and concentrate well enough to complete tasks and carry out instructions.
- *Persistence* – The ability to sustain effort well enough to complete tasks. The ability to follow a schedule, follow a routine, and attend to obligations regularly.
- *Pace* – The ability to organize and complete tasks within a time frame.
- *Understanding and memory* – The ability to understand the demand requirements including remembering the procedures.

Inmates with intellectual or cognitive impairment may be unable to understand a situation quickly or at all. They may be unable to organize a response required in a situation they understand. They may be unable to execute an appropriate response in a complex or stressful situation but demonstrate understanding of the situation when talking about it with staff in the comfort of an office. Healthcare staff must also recognize that patients with physical limitations may or may not be able to adapt to custodial demands due to their physical infirmities. Substance abuse can also negatively impact behavior.

While each correctional system will have to consider how best to manage their populations, ADA presently offers protections to individuals with substance use disorders caused by past use, while individuals with substance use disorders caused by current use of illegal drugs have no ADA protection (ADATA, 2013).

The assessing provider needs to consider the current functioning of the inmate and the functioning of the inmate at the time of the write-up. Information for both time periods can be obtained through interview, custodial and medical record review, and consultation with correctional, treatment, and other staff familiar with the inmate. It is also common for the inmate to experience heightened symptoms after the infraction occurs. This can be due to ongoing decompensation, a reaction to what occurred, or an attempt to obfuscate the situation.

Inmate Interview

The provider must obtain informed consent by describing the components of the assessment and explaining how the information to be shared with custody will be used. The interview should be held in a confidential setting so the inmate can speak freely. The purpose of the inmate interview is to determine if inmates understand the disciplinary process and can represent their interests. The provider will need to assess the inmate's understanding of the charges and the potential consequences. Obtaining the inmate's understanding of the situation and what they believe occurred can help the provider determine if the inmate was impaired at the time of the event. Information about the inmate's understanding of their symptoms, diagnosis, and how they impact their life can also be helpful. The provider needs to obtain the inmate's assessment of the effectiveness of their treatment as well as their functioning on the yard and housing unit. The provider needs to understand if there any safety concerns or "political" issues impacting the inmate. A current mental status examination should also be completed. A mental status examination is a structured assessment of the inmate's behavioral, emotional, and cognitive functioning. Mental status examinations include descriptions of the inmate's attentiveness, level of consciousness, appearance, speech, and general behavior. It also includes descriptions of the inmate's feelings, enduring mood, thoughts and perceptions, and insight and judgment. Sometimes providers will also include descriptions of an inmate's memory, reasoning, and other cognitive functioning (Martin, 1990).

The inmate may refuse to discuss the incident or talk with the provider at all. The inmate may confess to deliberately violating the rule. The inmate may or may not report that their condition impacted their conduct. While their input is valuable, the provider must consider that their explanation may or may not be valid or reliable. The inmate's account may be influenced by poor insight and judgment, motives to avoid responsibility, or efforts to obtain secondary gain. The provider must assess all possibilities.

Record Review and Staff Consultation

A thorough record review and consultation with staff who are familiar with the inmate over time is very important. The inmate interview occurs after the write-up took place and the information provided by the inmate may or may not be reliable. Consequently, a review of both custodial and health-care records for documented evidence of impairment at the time of the offense may reveal information that is not apparent at the time of the interview. The health professional will consult with custody officers, treatment providers, and other free staff familiar with the inmate's daily functioning.

It is helpful to read the disciplinary report if it contains a description of the event and the charges. When reading this report, the provider should consider if the inmate's actions could be understood as an example of functional impairment instead of antisocial behavior. For example, was the behavior described in the report organized, purposeful, goal-directed, and deliberate? Was the behavior disorganized, random, unprovoked, disproportionate, or inconsistent with the expectations of the situation? Were statements made by the inmate at the time rational? Were they irrational? Is the behavior described in the report consistent with the actions of a typical inmate or of an impaired person?

Review the inmate's health record to determine the diagnosis. Consider the symptoms consistent with the diagnosis and how they would manifest in a correctional setting. Are these symptoms documented by staff who worked with the inmate around the time of the infraction? Is there evidence of functional impairment, such as failure to attend appointments? Are there descriptions of impairment in the objective sections of provider notes? The assessing provider needs to read the inmate's treatment plan and any completed suicide risk assessments. What are the symptoms currently being tar-

geted by the treatment team? Is the patient prescribed psychiatric medication? What are the other interventions? Have there been any documented changes in mental status or adaptive functioning described in the chart? Are there any recently identified stressors? This is not to say that receiving bad news is justification for antisocial behavior, but it is to consider the impact of the stressor on the inmate's ability to cope and to make a determination about whether or not the inmate's coping resources were overwhelmed. Is the inmate participating in treatment? Are there medical conditions or new diagnoses? What are the interventions, coping strategies/skills, and safety plans in place for the inmate? What therapeutic homework or skills practice has been prescribed? Did the staff identify any accommodation needed by the inmate?

Review the available custodial records to determine if there are other disciplinary actions. Is there a pattern of acting out or is this an isolated incident that could signify decompensation? Are there identified enemies, safety concerns, or pending classification changes? Could these have impacted an inmate with the identified diagnosis? Review custodial unit logs. Is there evidence that the inmate has been showering, eating meals, going to yard or day room, exchanging laundry, and attending assigned work or school assignments?

The purpose of the consultation and chart review is to confirm or rule out the presence of symptoms and impairment that would be consistent with the medical understanding of the inmate's existing or emerging diagnosis at the time of the incident. Behavioral observations of other staff and historical information contained in the records permit the evaluator to determine if what the events described in the disciplinary report are consistent with functional impairment caused by the symptoms of the identified disorder or if it is antisocial behavior.

Capacity to Participate

The healthcare provider needs to review the data gathered from the interview, record reviews, and consultation to determine whether or not the inmate understands the disciplinary process and can meaningfully participate in it. The assessor will consider documentation that provides evidence the inmate can self-advocate or obtain other services such as successful participation in prior disciplinary actions and completed healthcare service request forms, grievances, and appeals. The provider will also document whether or not the inmate was able to explain the disciplinary process from start to finish in their clinical interview. Do the records or staff consultations demonstrate that the inmate can meaningfully engage in other correctional activities such as medical, mental health, vocational, or educational services? If the inmate is unable to understand the nature of the charges or how the disciplinary process works or if the provider determines the inmate needs assistance because of their condition, this should be communicated and arranged.

Role of Impairment in the Infraction

The healthcare provider needs to determine if functional impairment caused or contributed to the rule infraction. Functional impairment exists on a continuum from mild to severe and from acute to chronic. The assessing provider will need to confirm if the inmate has a recognized diagnosis; was exhibiting symptoms consistent with their diagnosis; and whether the symptoms were causing functional impairment in the area of occupational or social functioning in the correctional setting. For example, a moderately impaired inmate may understand that a particular behavior in an acute situation could violate a rule but due to symptoms of impulsivity, irritability, or increased stress in the situation (that overwhelms their coping resources), they take action anyway, or a severely impaired inmate

with breakthrough symptoms is isolating in his cell and fails to perform an assigned duty or attend a scheduled appointment. Complicating this assessment is the possibility that the inmate may try to use their disorder or diagnosis as an excuse for antisocial behavior or to avoid responsibility for their actions.

The provider will need to determine if the symptoms were severe enough to have caused the infraction or if the symptoms contributed to the infraction. The provider can also consider whether or not additional prompting or additional time could have helped the inmate meet the situational demand. For example, an inmate with an identified developmental disability which interferes with his ability to process information quickly is written up for failing to follow a direct order. The inmate has been identified as having a recognized condition. Healthcare staff have determined the inmate needs information repeated to him two or three times so he can follow directions. There is documentation that the inmate is generally cooperative. The disciplinary report indicates the inmate failed to follow a direction provided to him once via loudspeaker. The provider will have to consider if the inmate would have been successful if the order was provided directly by a floor officer. There may be even situations where it is recognized that a person is so impaired that a write-up should not be issued (Westlaw California Code of Regulations, Title 15, Section 3317.2, 2020). For example, the case of a gravely disabled psychotic person who is in need of involuntary medication or cell extraction. The patient is unable to understand the situation and cannot understand or comply with the demands called for in the situation. In such cases, higher levels of treatment are appropriate not punishment. The former can address the underlying cause of the problem. The latter is likely to further confuse the inmate and exacerbate distress.

Inmates can also have chronic impairment that ranges from mild to severe. In these cases, the healthcare provider may find documentation of an ongoing behavior pattern that has not responded to disciplinary action. The purpose of the disciplinary process is to stop antisocial behavior through consequences. If the disciplinary process is not working because the problems are caused by impairment due to recognized disorders, the provider has the opportunity to better serve the inmate and the institution by recommending that healthcare and custody staff meet as an interdisciplinary treatment team to create a treatment plan to address the inmate's pattern of behavior. Both inmates with identified disorders who are having ongoing problems following the rules and the institutions that house them can be better served through an interdisciplinary plan to more closely supervise the inmate's daily activities and to provide increased assistance or accommodation that would be afforded a person with the same disorder in the community. The plan could also address any safety or victimization risks present in the environment. Intervention, such as increased counseling, medication, behavior management, peer support, or increased custodial supervision, could help the inmate comply with the rules and successfully program.

The Impact of Sanctions

Inmates with psychiatric, developmental, and cognitive disorders can and do engage in planned, purposive, antisocial behavior. When an impaired inmate is found guilty of an infraction, the presence of their condition and their treatment needs still exist. The disciplinary matrices do not account for the adverse impact punishment can have on a person with a disorder. The assessing provider has the opportunity to provide information to custody to ensure that whatever punishment imposed functions as punishment and does not destabilize the patient. To do this, the assessing provider needs to carefully consider the existing diagnosis, the present symptoms, and the existing treatment and safety plans. While the correctional setting cannot withhold treatment as part of the punishment, custody

does not know how sanctions can interact with an underlying disorder or what coping skills or social supports are important for a particular inmate.

The role of the provider is to consider how restrictions will impact a patient's condition. For example, a person who has a condition that causes isolation is working with his treatment team on remaining engaged with peers in dayroom or during yard would have a greater chance of decompensation if he were confined to quarters. This penalty would also interfere with the current treatment plan. Consequently, a different form of punishment would be less detrimental to the patient's underlying condition.

To determine what is important to the inmate's stability, the provider must refer to the treatment plan to identify the coping skills being taught to the inmate. The provider must refer to the safety plan to identify what protective factors are being used to keep the inmate stable. The provider can then inform custody of the inmate's protective factors, coping strategies, and therapeutic activities that have been incorporated into their treatment interventions so that punishment won't prevent the inmate from utilizing these skills, resources, or social supports. The recommendations should be based on information from inmate's health record or received from consultation with treating staff. It is important to not solely rely on the inmate's self-report.

The assessing provider also needs to consider the impact placement in segregation or confinement to quarters will have on the inmate. While the negative effects of isolation on inmates are increasingly recognized, some form of segregation is still commonly used in correctional facilities (Weir, 2012). Inmates do not uniformly respond to segregation placement and the impact of segregation on their functioning over time can change the longer the inmate is retained there. To assess the potential impact of segregation on an inmate, the provider must carefully review the existing diagnosis, the present symptoms, and the existing treatment and safety plans and consider how extended isolation will impact these.

The provider can also review the inmate's housing history to determine if and how the inmate fared with prior segregation placement. For example, during prior segregation, placement was there an increase (or decrease) in the frequency of crisis calls, disruptive behavior, or incidents of self-harm? If there is no housing history available and the inmate is being evaluated after placement in segregation the provider can assess their current adjustment. Another potential source of information is records immediately documenting the inmate's initial response to incarceration following their arrest. Again, consider the existing treatment plans, suicide risk assessment safety plans, and make recommendations about what the inmate would need in segregation.

The Disciplinary Assessment Report and Documentation

The provider will communicate their assessment findings in two ways. There will be a report to custody that includes the minimal amount of information needed to answer the aforementioned questions and communicate the inmate's support needs in a manner custody can understand. The provider will also document their clinical service in the health record. The clinical documentation memorializes the provision of informed consent and completion of the interview, record review, and consultations. The clinical documentation also allows the provider to share information with the treatment team that won't be shared with custody. Through this avenue to the provider can communicate the inmate's account of what occurred. This can provide the treatment team insight into how the inmate thinks and processes information.

A summary of the information gathered from collaterals provides the treatment team with observations from officers or other professionals about how the inmate functions in nonclinical situations and their level of functional impairment. The documentation, like other types of consultation notes, can include the mental status examination findings as well as a summary of the recommendations com-

municated to custody. This information can be incorporated into the current treatment plan and used to support future interventions, referrals, or decisions to change levels of care.

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Juvenile Corrections and Public Health Collaborations: Opportunities for Improved Health Outcomes

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Plight of Confined Youths

In 2015, of every 100,000 young people in the United States, 152 were held in placement facilities (Hockenberry, 2018, p. 10). Minority youth accounted for 69% of those in residential placement (p. 12). There were 36% fewer juvenile facilities (1,947) in 2015 than in 2000 (3,061), and the number of detained youth decreased by 56% from 110,284 (Sickmund, 2002, p. 2) to 48,040 over these 15 years

The brevity and frequency of youth transitions through juvenile facilities create many challenges and opportunities for health promotion and intervention during incarceration and in preparation for reentry. As populations vary by region, these services must be customized to their developmental, cultural, and linguistic needs. It is essential, therefore, to understand who these young men and women are, where they come from, and what circumstances contributed to their incarceration.

Antecedents of Juvenile Detention and the Social Determinants of Health

The US Census estimated that 73.0 million persons under the age of 18 were living in the United States in 2019, representing 22.3% of the population. Their successful transition from adolescence to adulthood is intrinsically linked to many factors, including race, ethnicity, socioeconomic status, family structure, and sexual identity, all of which can affect their development, how they are treated by others, and their ability to thrive. Although coming from diverse backgrounds, the majority share the experience of economic and social disadvantage. The complex way that these societal and cultural forces interact exerts a profound effect on their risk of incarceration.

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The juvenile justice candidate population varies in racial/ethnic make-up by region of the country. In 2010, of all persons under age 18 in the United States, 56% identified as white, 15% as black, 23% as Hispanic, 1% as American Indian, and 5% as Asian (Sickmund & Puzanchera, 2014, pp. 2–3). These percentages varied significantly by region. Especially in the West, many more youths identified as Hispanic. Several states have large Native-American populations. The District of Columbia, some large cities, and many southern states have large African-American populations.

Though race and ethnicity affect the development of a child's identity and the experience of prejudice and discrimination, research indicates that socioeconomic status and family structure have far greater influence on the risk of juvenile incarceration. Sickmund and Puzanchera (2014) point out some important relationships:

- “Exposure to poverty at an early age is linked to delinquency” (p. 7), and lower socioeconomic status disproportionately affects young men and women of color. In 2010, compared to 12% of white and 14% of Asian children, 39% of black and 35% of American Indian and Hispanic children lived in poverty (p. 10).
- Family structure can also increase a young person's likelihood of living in poverty and relying on public assistance for sustenance. In 2010, 23% of all children lived in single-parent households with only a maternal parent (pp. 10–11), but this proportion was especially high for blacks (50%) and Hispanics (26%). “Almost half of children living with only their mothers or neither parent live in poverty” (p. 11). In fact, 57% of all children receiving public assistance and 50% who were receiving food stamps in 2010 lived in single-mother families (p. 11).
- A Northeastern University study (2009, p. 15) found high school dropouts more likely than educated peers to be institutionalized (principally in correctional facilities).
- “Use of detention varied not only by offense, but also by gender, race, and age” (Sickmund & Puzanchera, 2014, p. 163). In 2010, “white youth accounted for the largest number of delinquency cases involving detention,” although the percentage of black youth delinquency cases detained was notably higher.
- In 2010, “likelihood of detention was higher for males,” for those age 16 and above and for black youth (pp. 163–164).
- For every 100,000 black youths, 606 were in a residential facility in 2010, but the rate was 128 for white, 228 for Hispanic, and 369 for American Indian youth (p. 197).
- In 2010, cases involving minority youth were more likely to be formally processed (i.e., petitioned) than cases involving white youth. “Across most offenses, adjudicated cases involving black youth were more likely to result in...out-of-home placement than cases involving youths of other races” (p. 172).
- Minority youth accounted for 68% of those held in custody in 2010 (p. 196). The placement population was 32% white, 41% black, 22% Hispanic, 2% American Indian, 1% Asian, and 2% were of two or more races.
- “In 2017, about 1 in 5 juvenile violent crime arrests involved female and more than half involved minority youth” (Puzanchera 2019, p. 8). Overrepresentation of racial minorities has long characterized the juvenile justice system.

The first two of these relationships—poverty and family structure—merit further attention. First, although racial/ethnic factors correlate with an adolescent's risk of detention, research demonstrates that most detained youth were at or below the poverty level prior to incarceration. Due to scarce resources, many lower-income communities cannot provide social supports needed for youths to reach their full potential, including adequate schools, community centers, hospitals, and clinics (Zigler, Taussig, & Black, 1992). Also of importance, Lauritsen (2003, p. 6) found that youths were

more likely to be victims of a violent crime if they lived in highly disadvantaged communities—with high percentages of persons living in poverty, single-parent families with children, unemployment, and households receiving public assistance.

Second, family structure itself contributes to a youth's chances of incarceration and is a more effective predictor than race or ethnicity of self-reported problem behaviors, such as running away from home, sexual activity, major theft, assault, and arrest. One reason may be that children in single-parent homes are often at greater risk of abuse and/or neglect. Lauritsen (2003, p. 4) indicates that they experienced a 50% greater risk of violence than those in two-parent families. "Adolescents in two-parent families appear to be much better protected from the consequences of living in the most disadvantaged areas. . . . The ability of families to monitor and supervise children's activities is particularly important." Race and poverty level were not statistically significant factors when family composition is taken into account (p. 6).

Healthcare Access: Challenges to Medicaid Coverage

As important and effective as public health and social interventions can be, they often do not reach at-risk youth, leaving open a path for many to begin life-long interactions with the justice system. Detention, however, does provide public health and juvenile justice systems another opportunity for beneficial intervention. Mental and physical well-being is highly vulnerable during arrest and incarceration and often in the period of transition back to the community.

History

Because families of most justice-involved youth are poor, Medicaid and the Children's Health Insurance Program (CHIP) are often the only source of medical insurance. Medicaid was established in 1965 to provide health coverage to low-income adults and families. While individual states can shape the program within established limits, the federal government pays between 50% and 75% of the cost. CHIP covers many children whose family incomes are too high to receive Medicaid.

Youths who are arrested typically spend a short time (median of about two weeks) in a detention facility awaiting further processing or community placement. If judged delinquent by the courts, they are placed in a committed facility and serve a longer sentence (up to several months or even years). Unfortunately, their arrest and detention place them at risk of losing Medicaid coverage, despite their often significant medical and mental health needs. Because federal rules stipulate that no Medicaid funds can be used to pay for health services to "inmates of a public institution"—the so-called *inmate exception*—states cannot claim federal matching funds for services provided to them.¹ Consequently, many states adopted the practice of terminating coverage upon placement in a facility, despite advice from Medicaid authorities to suspend rather than terminate enrollment upon incarceration. Once interrupted, the average wait time for Medicaid reenrollment was 45–90 days (Anderson et al., 2019, p. 2).

Gaps in coverage, occasioned by disenrollment or failure to enroll a youth who is on medications or in treatment, may result in missed dosages, noncompliance, and deterioration of health due to interruption of care. Since this can ultimately impact recidivism, preventive mechanisms must be in place, particularly for youth on psychotropic medications.

¹This prohibition does not apply while the incarcerated person is an inpatient at a community hospital for at least 24 hours.

Disenrollment from Medicaid and being uninsured are only a few of the multiple challenges to providing health care for detained or incarcerated youth. This population may not have been taught the importance of a healthy lifestyle or have had regular access to preventive health services due to unstable home situations, transportation problems, lack of primary care provider, or failure to recognize health care as a priority. Detention offers an opportunity to conduct health assessments and needed interventions on this very medically underserved population. Ensuring enrollment and access to medical coverage is critically important for postrelease follow-up.

Both Medicaid and juvenile justice agencies “have a shared interest in serving the health needs of these high-risk youths.” Too often, however, public agencies serving overlapping populations pursue their missions without effective coordination (Cuellar, 2005, p. 1). This underscores the importance of good communication between Medicaid and juvenile justice agencies. The complex regulations, practices, and constraints of both are not well understood reciprocally. Consequently, much of the slippage of the past can be explained as a misunderstanding rather than malice or ill will. Actually, their goals and missions are congruent and complementary, though exercised in widely disparate fields. Policies and practices of Medicaid programs and justice systems are complex and mutual education is required, but both parties should be motivated to increase community safety, improve health outcomes for justice-involved people, and potentially lower recidivism and incarceration costs (Jannetta et al., 2018, pp. 5–6).

Reentry initiatives should address health coverage reenrollment for youth so that health services can be continued without disruption upon release. This is critically important for youth with chronic medical and mental health conditions requiring clinical follow-up care and medication access.

This situation is beginning to change. Until recently, 40% of states were terminating Medicaid enrollment upon admission to a detention or commitment facility, whether due to policy, misinformation, or conflicting state laws. Since October 29, 2019, however, it is illegal to do so in light of passage of the “Support for Patients and Communities Act” in 2018. States may no longer terminate children and youths’ Medicaid eligibility just because they enter a juvenile justice facility (Lav, 2019).

Relevant to this chapter, the new law (PL 115–271, n.d.) provides in Section 1001, subsection (a)84, as follows: “(A) The State shall not terminate eligibility for medical assistance under the State plan for an individual who is an eligible juvenile. . . because the juvenile is an inmate of a public institution. . . , but may suspend coverage during the period the juvenile is such an inmate.” The law goes on to require that, prior to release from the facility, the state shall conduct a redetermination of eligibility and, if determined eligible, shall restore coverage upon release.

Lav (2019) explains that “the new federal law protects Medicare for juveniles under 21 or former foster children up to 26. The law covers youth who are held in adult prisons and jails as well as juvenile detention facilities or other public institutions.”

Our goal should be to achieve “seamless coverage for [justice-involved] youth, and consumer assistance programs created by the Affordable Care Act (ACA) will provide additional resources to support continuity of care” (Zemel et al., 2013).

Strategies

It is cost-effective and ethically right to extend medical coverage to justice-involved youth—many of whom might have avoided conflict with the law had their mental health or addiction needs been properly addressed earlier. “Fast track enrollment services have the potential to combat the negative consequences of de-enrolling youth in Medicaid” (Anderson et al., 2019, p. 50). Some adult systems have adopted innovative opportunities to enroll or maintain enrollment in Medicaid, which may be relevant to juvenile justice and should be explored in similar settings where the process of reenrollment needs to start while the youth is still in detention (pp. 50–51).

Potential for Relief of some Administrative Costs

The following strategies are recommended:

- Check state laws and regulations and work to change them to remove any remaining impediments to ensuring Medicaid eligibility while the youth is detained or incarcerated. Verify that agency practice is consistent with the new law.
- If a youth is not enrolled when admitted to a facility, immediately begin the process so that it is “turned on” immediately upon release.
- If time does not permit completion of the process prior to release, assign a case manager to assist until eligibility is achieved.
- Explore whether state policies and practices may need to be altered and computer systems updated.
- Educate the youths and their parents/guardians about the use of Medicaid/CHIP.

It is a well-kept secret that certain activities can be supported with federal Medicaid administrative funds for such purposes as enrollment application assistance, eligibility determination, enrollment system updates, and transfer of medical records from correctional to community health providers to promote continuity. Jannetta et al. (2018, pp. 4, 36–55) discuss some helpful ways for justice agencies to obtain federal funding for enrolling clients in Medicaid, for IT assistance in interfacing with Medicaid agencies, and in funding transition services (including covering prescription drugs during release and case management). Thus, government social service agencies or justice agencies could claim 50% funding for the time spent by agency staff, providing needed relief for cash-strapped juvenile justice agencies.

Food for Thought

The “inmate exception,” described above, prohibits Medicaid from paying for health care in jails, prisons, and juvenile facilities, thus effectively isolating correctional healthcare services (both adult and juvenile) from the community healthcare system. Healthcare organizations that participate in Medicare or Medicaid must observe certain minimum standards and regulations from which correctional agencies are exempt. Community hospitals, nursing homes, and health agencies must be accredited, whereas accreditation and external quality oversight are not mandatory for correctional health. The inmate exception “generates wasteful costs through vicious cycles of post-release hospitalizations, discontinuity of care, duplication of services, drug resistance, HIV and HCV spread due to inadequate treatment, avoidable deaths, and costly recidivism. As it is, arrest and detainment entail interruption in insurance coverage, disruption in expensive treatments for chronic mental health treatment and medical conditions, poor transitions in care, and limited exchange of health care information” (Fiscella, Beletsky, & Wakeman, 2017). Repealing this inmate exception would permit correctional facilities “to enroll (or maintain) inmates in available insurance and bill for these services, . . . thus providing sufficient resources to include evidence-based treatment of substance use and mental health disorders and pre-release care coordination for chronic medical and behavioral conditions.” Correctional facilities could then be held accountable for their health care beyond the constitutional “deliberate indifference” requirement.

While there may be legitimate debate and disagreement about the wisdom or feasibility of this step, it does offer some attractive benefits. Given that the Medicaid program dates back to 1965—a time when healthcare delivery in all US correctional facilities was deficient, primitive, and so utterly removed from community practice standards as to defy any common funding or oversight arrange-

ment—the inmate exception may have been reasonable and necessary. Correctional health care has emerged from the dark ages and is now more in keeping with contemporary community standards, despite its imperfections and some systemic differences. Perhaps the time has come to consider revising this policy.

Incarcerating Youths Does Not Mitigate their Medical Needs

Youth transiting the juvenile detention system have particularly high rates of health-risk behaviors and suffer a disproportionate share of adolescent morbidity and mortality. Mental and sexual health are two areas of particular concern in this adolescent population (Savage et al., 2017).

Another study (Barnert et al., 2018) analyzed data culled from 14,689 adult participants in Harris and Udry's (2018) *National Longitudinal Study of Adolescent to Adult Health (Add Health)* to compare adult health outcomes among those first incarcerated between 7 and 13 years of age and those first incarcerated at older ages or never incarcerated. The study demonstrated that those with a history of incarceration were male, minority, and from the lower socioeconomic strata. Not surprisingly, those incarcerated at a younger age had worse adult health outcomes (including physical and mental health challenges, suicidality, and functional limitations) as compared to the other groups.

These studies show, unequivocally, that juvenile incarceration itself is a significant social determinant of health. When seen from the perspective of decades, juvenile incarceration likely correlates with worse health and social functioning across the course of a life (Barnert, Perry, & Morris, 2016; Barnert et al., 2018).

The provision of health care to adolescents in an incarcerated environment presents a challenge not only to healthcare providers but also to administrators and security staff. Fundamentally, the healthcare model can be perceived as foreign and often contradictory to the purpose of a correctional setting. Fulfilling security requirements and protecting the public remain the primary goal of the correctional facility. Ensuring that the incarcerated youth receives unimpeded access to appropriate health care is the primary goal of the facility medical provider. *See* Faiver (2017, pp. 259–289; 2020, pp. 120–157). Public health's goal is to provide disease surveillance and to protect the health of the general community. In a cursory consideration, these goals may seem to conflict with each other, but it is indeed possible that they are not mutually exclusive and can be met simultaneously. To find how these goals can address a common objective, it is crucial to involve all entities in the correctional healthcare program conversation and to view the outcome in light of each perspective. Extending the conversation, it is important to maintain relationships with public health and community health providers who can augment the continuity of healthcare services upon release into the community.

A NIH/CDC study involved a national survey of prison and jail correctional systems for collaboration in the prevention and treatment of HIV/AIDS, STDs, and TB. The study (Hammett, 1998, p. 14) recommends implementing four key elements of collaboration:

- Public health agency collection and dissemination of the burden of infectious diseases and other health issues in juvenile justice populations.
- Correctional representation in all public health planning groups on these topics to ensure that unmet resource needs of juvenile justice settings are understood and receive appropriate priority.
- Initiation or expansion of public health agency funding for health services and staff in correctional facilities. Funding support can be an important first step in developing full collaboration.

- Recognition by public health and correctional agencies of the importance and potential benefits of public health interventions in juvenile justice settings, especially the functions of screening, early detection, and early treatment, so that their implementation can be properly prioritized by both agencies.

Further, a recent study (Rowell-Cunsolo, El-Bassel, & Hart, 2016) identified recommendations for preventing the spread of HIV that are similar to previous studies:

- Establish strong collaboration with community-based agencies and health departments that are willing to provide high-quality care together while maintaining institutional and public safety.
- Tailor programs to meet the needs of individuals involved in the criminal justice system.
- Establish and maintain transitional support services, including association with healthcare providers in the community, a crucial factor in reducing HIV-related disparities.

In addition to the control of sexually transmitted infections, public health also has an important role in the control of respiratory infections such as tuberculosis, influenza, and coronavirus. Due to close contact between persons in juvenile facilities, it is essential that there be tight control measures for intake screening, treatment, surveillance, and containment of respiratory infections. The current COVID-19 pandemic has highlighted the critical interrelationship between corrections and public health. Transmission from the community to correctional environments of overcrowding with the inability to socially distance has resulted in the uncontrolled spread of the disease. This revolving door not only allows COVID-19 infection into the correctional facility from the community, but also allows spread back into the community by staff and releases. A process must be in place for disease notification, prevention, and community follow-up. Local public health should be a resource to juvenile facilities and collaborate with them to mitigate the spread of respiratory infections such as COVID-19 within the facility and the community. A robust immunization program should be an important component of this collaboration with public health. As COVID-19 vaccine becomes available, public health will be an important partner in the distribution and administration of the vaccine.

Immunizations

The federally funded Vaccines for Children (VFC) program may be used to provide free vaccine to youth in juvenile facilities. Public health agencies should be aggressive in enrolling all juvenile correctional facilities in this program and assist them in meeting program requirements.

Since risk behaviors for the spread of Hepatitis A and B and Human Papillomavirus (HPV) are highly prevalent in the juvenile offender population, these vaccines should be strongly promoted. These sexually transmitted infections would allow a child who is sexually active to consent for vaccination without a parent or guardian's consent.

Compared with the general adolescent population in California, detained youth had significantly lower immunization coverage for all vaccines ($p < 0.01$) prior to their first detention except for the first dose of hepatitis A and varicella (chicken pox) vaccines. However, for detained youth with multiple detention episodes, coverage for most vaccines at the latest detention increased to levels significantly higher than the general adolescent population ($p < 0.001$ for Tdap, HepA1, HepA2, MCV4, and HPV series initiation; $p < 0.05$ for HPV series completion). This demonstrates that once the juvenile is in the system, the immunization rates can improve (Gaskin et al., 2015).

Imagine the long-term implications of hepatitis B vaccination with regard to decreased morbidity and mortality, reduced medical costs for adult corrections and community health care, increased productivity, reduced comorbidity with HIV infection, and an overall reduction in infection rates. Collaboration between public health and juvenile justice for immunization of detained youths and compliance with all of CDC's Advisory Committee on Immunizations Practices (ACIP) recommended vaccines is beneficial for all. It can result in a significant decrease in contagion in close correctional quarters, reaching a population that public health may not have accessed, thus increasing overall herd immunity.

Electronic health records now track immunization data so that this information may be both retrieved and entered by all registered health providers. Public health agencies have taken the lead in engaging private healthcare providers in this effort. The next step should be to encourage juvenile justice agencies to register and use the system. The immunization status of youths entering correctional facilities can be determined and should be updated if vaccines are administered in the facility. Upon the youth's release, public health can follow up on any remaining dosages required by accessing the same electronic system.

The Need for Oral Health for Incarcerated Youth

Treating dental issues is often a longitudinal process, and with the short length of stays for the youths, these issues cannot be addressed prior to discharge from detention. However, oral health is just as important a part of one's overall health and self-esteem for the incarcerated youth as it is for anyone else.

A review by Treadwell and Formicola (2005) found in the general population that 80% of tooth decay occurs among 25% of children between the ages of 5 and 17, primarily among those in minority and low-income families and in those with low educational levels. These are the children who are disproportionately represented in juvenile justice facilities, as demonstrated by a study that examined the dental health of incarcerated youth.

Of 419 subjects, 24.6% were female and 75.4% male, with an ethnic distribution of 45.1% African-American, 35.3% Mexican-American or Hispanic, 15.8% white, and 3.8% Asian or "other," which was representative of the yearly detention facility population. The median age of the subjects was 15.43 years with a mean age of 15.35 years (SE 0.06; SD 1.17). Dental caries experience was 74%, and the prevalence of untreated dental decay was 49.6%.

The oral health of incarcerated youth has not yet been as significantly addressed as it should be. The recommendation of the American Dental Association should be followed for this population as well. Youth inside juvenile facilities require dental education regarding hygiene, routine prophylaxis twice a year, third molar extractions as clinically indicated, and restorative dental care as a mandate to mirror the community standard of dental care.

Providing Comprehensive, Adolescent-Friendly Health Care to Incarcerated Youth

Ideally, comprehensive health care and prevention efforts within the juvenile justice system should address the preexisting conditions that youths carry with them when they are incarcerated and make real efforts to prepare them to live healthier lives upon their release. Healthcare providers in juvenile justice systems should utilize the screening and prevention *Bright Futures Guidelines* developed by the American Academy of Pediatrics to model its health programs. Adolescents are emotionally, physically, and men-

tally different from children and adults, so logically, their healthcare services should reflect these differences. Services should be trauma-informed, developmentally appropriate, and adolescent-specific, paying attention to the many factors affecting health decisions and behaviors for this age bracket.

The leading causes of mortality, morbidity, and social problems (e.g., academic failure, poverty, and crime) among youth and adults in the United States are associated with six categories of priority health-related behaviors: (1) behaviors that contribute to unintentional injuries and violence; (2) tobacco use, including the use of electronic vapor products; (3) alcohol and other drug use; (4) sexual behaviors that relate to unintended pregnancy and sexually transmitted infections (STIs), including HIV infection; (5) unhealthy dietary behaviors; and (6) physical inactivity. These behaviors, frequently related to obesity, overweight, and asthma, are established during childhood and adolescence and extend into adulthood (CDC, 2018, p. 2). Health promotion programs should be modeled to address these behaviors while youth are detained in the juvenile justice system.

These risk behaviors are not easily discernible in the traditional patient/provider model of health interviewing. The H.E.A.D.S. Model was developed in 1972 by Dr. Harvey Berman of Seattle and refined by Dr. Eric Cohen and Dr. John M. Goldenring. The updated acronym *HEEADSSS* stands for Home environment, Education and employment, Eating, peer-related Activities, Drugs, Sexuality, Suicide/depression, and Safety from injury and violence. This model can be particularly useful in the juvenile justice system because it addresses and explores the complex forces affecting an adolescent's behavior and health outcomes (Goldenring & Cohen, 1988; Goldenring & Rosen, 2004, p. 64).

In addition to being adolescent-specific, services provided to persons detained in the juvenile justice system should be culturally and linguistically competent and should incorporate sensitivity toward and awareness of the ways that culture and health interact. An individual's culture can have a profound impact on how pain and illness manifest and when and how that individual seeks care.

An important factor in providing adolescent-friendly health services in the juvenile justice system is the ability to discuss confidentiality and to assure the young person that it will be maintained. Concerns regarding confidentiality keep many young people from disclosing crucial health information and from seeking care. Even though parents or guardians are not present, concerns about confidentiality still exist. In cases when the provider may need to contact a parent, even when the law allows such contact, the provider's bias should be toward respecting the confidentiality of the youth. If a patient appears to be a danger to self or to another person, state laws mandate that a provider inform the patient's parents or other authorities.

Laws governing minors' access to and confidentiality about services differ from state to state. The Guttmacher Institute, which monitors and analyzes state policy developments in the United States, includes in its reports a section on Minors' Access to services. These include legislative and judicial services, and executive action, and cover a broad range of issues related to sexual and reproductive health and rights.

Federal Medical Privacy Regulations, including HIPAA, also apply to juvenile correctional facilities. Memoranda of Understanding (MOUs) between agencies can address any HIPAA concerns regarding sharing of confidential medical information. So that medical information can pass freely between agencies to improve continuity of care, public health and juvenile justice must both be HIPAA-compliant, ensuring that appropriate consents are obtained from youth and parents or guardians.

Reproductive Health Needs of Incarcerated Youth

Every medical encounter with an incarcerated youth should include the discussion of sexual behaviors, including risk and protection. Providers should include a thorough sexual history that includes the age at first intercourse, the type of intercourse, and the number of sexual partners in life and within

the last 3 months. It is imperative that the routine sexual history includes an inquiry about the gender of the partners of attraction as well as for intercourse and a discussion of same-sex sexual relations between youth. Part of the history must be a determination of whether the youth has had any nonconsensual sex or been the victim of sexual exploitation. This is a crucial factor to identify, especially in incarcerated youth. As the history is taken, the provider must ensure that there is a process in place for reporting this information and for providing support services to youths who have experienced nonconsensual or exploitative sex.

The provider performing the history must be comfortable asking probing questions in order to ensure that a thorough history is obtained and that appropriate follow-up and resolution can be applied. When questioning all youth about sexual behaviors, it is important to use gender-neutral terms. All reproductive health clinical interviews should include discussions on prevention with hormonal and nonhormonal methods and risk reduction.

Though juvenile justice systems often have restrictions on displaying and dispensing condoms within the facility, medical providers and health educators can educate youth regarding correct and consistent use of condoms so they will be better equipped to protect themselves in the community. Depending on institutional policy, youths in detention should either be given a supply of condoms at time of discharge or told where they can be purchased or given out free of charge.

Due to the high rates of sexual risk behaviors and low rates of condom use, it is not surprising that youths in juvenile facilities experience higher rates of sexually transmitted infections (STIs), including HIV. Chlamydia and gonorrhea are the most common STIs that affect incarcerated youth, but not the only ones.

The data and the public health implications are overwhelming. Though statistics show that incarcerated young men and women are at high risk for sexually transmitted infections, many are still not tested. The detention and confinement period affords a golden opportunity for public health agencies to screen for and treat STIs. Although juvenile correctional facilities may lack the funding to incorporate STI screening into their medical intake process, public health agencies can provide the testing support for these facilities and thus increase their own access to a population that they might not otherwise have been able to serve.

Urine-based nucleic acid amplification tests (NAATs) are highly sensitive and specific. They can improve compliance for STI testing and may be easily incorporated into the juvenile correctional facility intake process to screen for gonorrhea and chlamydia, because self-collected genital specimens, such as urine or even vaginal swabs, do not require the presence of nurses or other medically trained personnel. Although PAP smears are no longer recommended in this female age group (CDC, 2015a, 90), the need remains for clinicians to conduct pelvic and urogenital examinations when symptoms exist. Youth need instruction on breast and testicular self-examination as well.

As one way to help youths develop healthy, life-long, self-care habits, public health agencies should consider partnering with juvenile justice agencies to promote and facilitate STI screening and the treatment of detained youths prior to their return to the community. These partnerships may be informal, with staff routinely communicating treatment and follow-up protocols and providing partner notification. Or the partnerships may be formal with the development of a Memorandum of Understanding (MOU), which allows sharing information across agencies. This defines responsibilities for those involved, whether in kind or with some fiscal responsibility.

Based on risk behaviors, HIV infection rates are growing among this population. Correctional populations have five to seven times higher prevalence of HIV than the general population, based on studies within the adult system (Center for HIV Law & Policy, 2019). The prevalence of HIV within juvenile correctional facilities is not well-documented since many systems do not make testing mandatory as do some adult facilities. Public health agencies should encourage juvenile justice facilities to implement the latest CDC (Workowski & Berman, 2006) recommendations of Opt-Out Testing for

HIV and to incorporate the testing into the routine healthcare admission process. Both entities should be prepared for positive HIV test results and develop a mechanism to provide treatment while the youth is still incarcerated and follow-up after release into the community.

In order to provide a more humane and operative response to young women who are pregnant upon incarceration, pregnancy testing should be a routine part of medical intake for all females entering juvenile correctional facilities. Prenatal care within juvenile justice settings should mimic the community standard of obstetrical care. Since more than half (54%) of all rapes of women occur before age 18, juvenile justice health professionals should also assess for sexual trauma upon diagnosis of pregnancy (Tjaden & Thoennes, 2000). Additionally, youth should be provided with unbiased and comprehensive counseling options regarding their choices as legally allowed. Juvenile corrections, public health, and other child serving agencies should partner and collaborate in order to provide the best outcome for the youth. Prenatal care can be provided through coordination with public health agencies or other community health providers. Policies specific to pregnant youth should be developed to address their particular health needs, such as prohibiting the use of restraints during labor and delivery. Many females will be discharged from the facility prior to delivery, so arrangement for obstetric care follow-up into the community is essential.

Although the juvenile justice system is predominantly male, pregnancy prevention interventions are needed in this population. In the event of forced intercourse or contraceptive failure, emergency contraception provides a second chance to prevent pregnancy. Though commonly referred to as “the morning after pill,” the drug regimen has reasonable effectiveness up to 120 hours after unprotected intercourse. Many adolescents are unaware that this option exists. Discussion of emergency contraception (EC) should be incorporated into the medical intake process.

Young men and women run significant reproductive health risks before incarceration. These risks persist and even increase after release. The period of incarceration is an excellent time to initiate pregnancy and STI prevention interventions for both young women and men. In addition to clinical counseling, these interventions can include programs that focus on the antecedents of risky sexual behavior; knowledge of reproductive physiology, condoms, and contraception; and programs that focus on the nonsexual antecedents such as self-efficacy, communication skills, etc.

One final step in public health efforts to reduce pregnancy upon release is to partner with juvenile justice agencies in the provision of family planning services during incarceration. If contraception services are requested, they should be provided upon release or initiated while the youth is still incarcerated. There are many advantages to the latter of the two options. Even for detained young women who are not sexually active, initiating a method of contraception allows for adjustment to the medication and resolution of any related problems while the girl has full access to a medical provider.

Mental Health and Substance Abuse among Incarcerated Youth

Depression can be both a causal factor in being incarcerated and a result of incarceration, and so it demands serious attention by public health and the justice systems. More than just the everyday ups and downs or the “blues,” depression is a significant disease defined as an illness in which the feelings of sadness, hopelessness, and despair persist and interfere with a teen’s ability to function. Depression is also not simply situational, relating only to the fact that the youth is incarcerated. The term *clinical depression* is used when this mood persists for more than a couple of weeks. Clinical depression is a serious health problem that can change behavior, decrease physical health, and affect appearance, academic performance, social activity, and the ability to handle everyday decisions and pressures. Feelings of depression may prevent youths from seeking preventive health care and from complying with health regimens which can affect behavioral problems and increase the potential for eventual incarceration.

Statistics bear out the weight of the impact depression has on youths, let alone on those incarcerated. Nationally, of children aged 2–17 years, approximately 6.1 million (9.4%) have received an ADHD diagnosis. Of children aged 3–17 years, approximately 4.5 million (7.4%) have a diagnosed behavior problem; approximately 4.4 million (7.1%) have diagnosed anxiety; approximately 1.9 million (3.2%) have diagnosed depression (Ghandour et al., 2019). These statistics must have a bearing on decisions made regarding our incarcerated youths. Youth in custody are at increased risk of suicide from multiple factors, depression being only one. Juvenile justice systems must provide adequate screening processes to determine suicide risk for prevention and to identify mental health conditions to provide treatment.

The United States Constitution’s Eighth and Fourteenth Amendments bar cruel and unusual punishment and assure the right to substantive due process for youth in the juvenile justice system. Federal courts have affirmed that, considering these Amendments, youth in detention who have serious mental disorders have a right to receive appropriate treatment as part of the state’s obligation to provide needed medical care. In addition to the argument that all children with mental illness are deserving of care, to ignore this major affliction may contribute to public health and legal problems such as continuation of antisocial behavior, higher healthcare use, and recidivism.

Data from the 2016 National Survey of Children’s Health (a survey of parents or proxies about their children younger than age 18 years) provided an estimate that at least 7.7 million US children had one or more mental disorders. Of these, half (49.4%) did not receive needed treatment or counseling from a mental health professional. The wide variability among states suggests that state-level practices and policies play a role (Whitney and Peterson, 2019).

Relevant to the high prevalence of mental health issues among incarcerated youths is the fact that the problem of substance use is also more pronounced within the detained population. It is obvious, then, that a range of mental health and substance abuse treatment services are needed in juvenile justice settings. Moreover, this comorbidity is most effectively addressed with integrated treatment. “The ‘dual’ in *dual diagnosis* can lead to fragmented treatment, allowing patient care to suffer. . . . We know that people receiving integrated treatment for dual disorders tend to have better substance abuse outcomes than do those receiving traditional parallel or sequential treatment” (Faiver, 2019, pp. 186–188).

Due to the severe opioid epidemic which has impacted communities across the United States, public policy is starting to navigate toward the treatment for substance abuse disorders rather than addressing the condition through incarceration or punishment. Although substance abuse treatment has been proven to have a tremendous effect on reducing the rate of recidivism, it is not legally mandated in most correctional settings. Efforts should be made to collaborate with community partners whenever available for substance abuse treatment. Unfortunately, these treatment services may not exist in all communities. It then becomes the responsibility of the juvenile facility to provide evidence-based programming to address substance use disorders during the time of detainment. If there is insufficient time to complete a full treatment program, the implementation of prevention and intervention models should be considered for shorter lengths of stay.

Special Populations: Lesbian, Gay, Bisexual, Transgender, and Questioning (LGBTQ) Youth

It is difficult to ascertain an actual percentage of youths who are grappling with questions regarding their sexuality and gender identity. In 2015, the Youth Risk Behavior Survey revealed that approximately 1.3 million youths, or roughly 8 percent of all high school students in America, report being lesbian, gay, or bisexual. An analysis of behavior-based subgroups revealed that both females and

males, who had sexual contact with both sexes, were at higher risk of having had four or more sex partners and of using alcohol and/or drugs before sex, than were their peers with only same-sex sexual contact. In addition, among males with only same-sex sexual contact compared with those with only opposite-sex sexual contact, the higher risk of no condom use is particularly concerning because of the higher HIV/STD risk among the same-sex sexual contact group (Rasberry et al., 2018).

Sexual minority youth face disproportionate risk of family, school, and community violence. After coming out to their families or being discovered, many LGBTQ youths may be thrown out of their homes or otherwise mistreated. Being homeless or sometimes victims of crime or human trafficking increases the risk that these young people will interface with the juvenile justice system.

According to data from the 2015 national Youth Risk Behavior Survey (YRBS), of surveyed lesbian, gay, and bisexual (LGB) students:

- 10% were threatened or injured with a weapon on school property.
- 34% were bullied on school property.
- 28% were bullied electronically.
- 23% of LGB students who had dated or went out with someone during the 12 months before the survey had experienced sexual dating violence in the prior year.
- 18% of LGB students had experienced physical dating violence.
- 18% of LGB students had been forced to have sexual intercourse at some point in their lives (Kann et al., 2016).

Exposure to violence can have negative effects on the education and health of any young person and may account for some of the health-related disparities between LGB and heterosexual youth. According to the 2015 YRBS (Kann et al., 2016, pp. 14, 102), “the prevalence of not having gone to school [on at least one day during the 30 days before the survey] because they felt they would be unsafe at school or on their way to or from school (i.e., did not go to school because of safety concerns)... was higher among gay, lesbian, and bisexual students (12.5%) and not sure students (10.8%) than heterosexual students (4.6%).” While not a direct measure of school performance, absenteeism has been linked to low graduation rates, which can have lifelong consequences.

A complex combination of factors can impact youth health outcomes. LGB youth are at greater risk for depression, suicide, substance use, and sexual behaviors that can place them at increased risk for HIV and other sexually transmitted diseases (STDs). Nearly one-third (29%) of LGB youth had attempted suicide at least once in the prior year compared to 6 percent of heterosexual youth (Kann et al., 2016). In 2014, young gay and bisexual men accounted for eight out of 10 HIV diagnoses among youth (CDC, 2015b).

Of all youths in the juvenile justice system, 20% identify as LGBTQ or gender nonconforming, although they comprise only five to 7 percent of the total youth population in the United States (Irvine & Canfield, 2016, p. 6). This proportion is even higher for girls in the juvenile justice system at 40% (Griffith, 2019, p. 1). Irvine and Canfield also point out that although LGBTQ youth of color greatly outnumber white LGBTQ youth in the juvenile justice system, this is due to the overrepresentation of persons of color in the system. The “high rates of involvement in the juvenile justice system are a result of gay and transgender youth abandonment by their families and communities, and victimization in their schools—sad realities that place this group of young people at a heightened risk of entering the school-to-prison pipeline” (Hunt & Moodie-Mills, 2012, p. 1). “Gay and transgender youth represent up to 40% of the homeless youth populations... and 39% of homeless gay and transgender youth report being involved in the juvenile justice system at some level” (p. 3).

To address not only the safety of our LGBTQ youths but also to assist in their mental and physical well-being, all juvenile justice facilities should have policies in place prohibiting discrimination based

on sexual orientation or gender identity. To that end, they must provide sensitivity training for staff on how to create safe environments for these youths. The intake process must allow the designation of gender identity to be the choice of every individual. Then, based on that stated identity, appropriate clothing, staff searches, and housing assignments should be established and respected by the facility.

Additionally, if sexual minority youths are experiencing harassment within the facility, appropriate action must be taken to ensure their safety. Juvenile justice authorities can also partner with the public health community to secure successful reentry for LGBTQ youth. This includes addressing family counseling needs, locating proper shelter, and offering interventions to limit risk behavior including survival sex.

Youth in the Juvenile Justice System: An Opportunity for Public Health

The period of detainment presents important opportunities for public health to have access to a population that it may not routinely serve. Often, young people in this population do not present to providers for routine health care; they are more likely to present to an emergency room for an acute event. The range of services available through public health can augment the health care provided at the juvenile facility whether in the form of direct services or through support services for the health program. A strong collaboration with juvenile justice agencies can support the primary goal of public health to prevent the spread of communicable diseases and benefit the overall health of the youths when they return to the greater community. Juvenile justice agencies should be encouraged to establish collaborative agreements with internal and external partners. Internal agencies, such as public health, child welfare, behavioral health, and education, can augment services available to youths while detained and can serve as a referral resource upon release. External partners such as local hospitals, health providers, and mental health and substance abuse treatment centers should be sought out and agreements formalized with them.

For the continued medical and mental health care of juveniles when released from a detention center into the community, Memoranda of Understanding should be considered, allowing the effective sharing of relevant health information between agencies. Expanded use of electronic health records expedites the sharing of health information; young people with health needs are then more likely to be referred to the appropriate agency. Tracking appointments and follow-up are shared among the agencies, so that youths will not fall between the cracks. Hopefully, this safety net will ensure greater continuity of care in the community, promote availability of reentry services, and ultimately reduce recidivism of these youth back into the justice system. Model programs between juvenile justice and public health must be encouraged in order to have a positive impact on the lives of so many young people.

Looking Beyond: Expanding the Role of Public Health in Corrections

The Centers for Disease Control and Prevention (CDC Foundation, 2020) defines public health as “the science of protecting and improving the health of people and their communities. This work is achieved by promoting healthy lifestyles, researching disease and injury prevention, and detecting, preventing, and responding to infectious diseases. Overall, public health is concerned with protecting the health of entire populations. These populations can be as small as a local neighborhood, or as big as an entire country or region of the world.” Gostin (2008) taught that government bears a responsibility for advancing health and well-being of the general population. The government’s public health regulations are designed to monitor health threats and intervene to reduce risk and ameliorate harm

within the population. He defined public health as “the science and art of organized societal efforts to ensure [and create] the conditions for the highest possible level of health and wellbeing of the population(s) consistent with the values of social justice and human rights.”

Correctional facilities frequently call on the CDC and their state and local public health departments to assist and advise on communicable disease, food safety, and sanitation. But one can convincingly argue that incarceration and any dehumanizing conditions of confinement are themselves unhealthy. The 2.3 million people incarcerated in the United States represent a significant population at risk, and their unhealthy conditions could threaten the health and well-being of free-world communities.

Much of this chapter has called for a greater degree of collaboration between correctional and public health professionals along well-accepted traditional paths. However, there are also cogent reasons to warrant expansion of the public health role in corrections to include addressing the conditions of confinement, such as the nature, extent, and impact on health of topics identified by the Survey of Youth in Residential Placement (SYRP):

- Overcrowding—In 2010, 20% of youth facilities “were at or over their standard capacity or relied on makeshift beds” (Sickmund & Puzanchera, 2014, p. 204).
- Prior history of serious trauma—“In 2003, 70% of youth in placement said that they had ‘something very bad or terrifying’ happen to them and 67% said that they had ‘seen someone injured or killed (in person)’” (p. 213).
- Prior history of being abused—“Nearly one-third (30%) of the placement population [in 2003] indicated a history of prior abuse, whether frequent or injurious abuse (25%), sexual abuse (12%), or both (7% overlap)” (p. 213).
- Reported problems with staff—“Half of youth in placement [in 2003] reported that staff punished residents without cause, and 34% claimed that staff used unnecessary force” (p. 214).
- Adverse experiences—“More than half of youth [in 2003] reported experiencing theft or violence while in placement” (p. 215).
- Sexual abuse within the placement facility—Despite the passage of the Prison Rape Elimination Act (PREA) in 2003, 1 in 10 reported sexual victimization in 2012 (pp. 217–219). The rate of staff-on-youth sexual victimization greatly exceeded reports of youth-on-youth sexual victimization.
- Safety—“More than one-third of youth (38%) say they fear attack by someone” in 2003 (Sedlak & McPherson, 2010, p 6).
- Discipline—“Twenty-six percent of youth in custody [in 2003] have been confined to their rooms, 24% were placed in solitary confinement” (p. 9).
- Restraint—“More than one-fourth of youth in custody (28%) say that facility staff used some method of physical restraint on them—whether handcuffs, wristlets, a security belt, chains, or a restraint chair” in 2003 (p. 9). “One in five youth in custody (21%) are in living units where staff used pepper spray on more than 10% of residents” (p. 10).

Some facilities employ restraint and isolation as punitive measures and well beyond their prescribed allowed use “only as a last resort.” If isolation cannot be avoided altogether, it should never be imposed for longer than an hour or two and must be closely monitored. Some facilities use pepper spray punitively. Some conduct routine strip searches, even though this invasion of privacy and modesty can be exceedingly problematic and even traumatizing for youths. Strip searches, performed very rarely and only when absolutely necessary, should be accomplished respectfully and in a manner that is physically and psychologically safe to the child (Faiver 2020, p. 145). The long-term impact of these practices on physical, mental, and emotional health can be severe.

Public health authorities should be invited or assigned² to initiate and conduct research over such potentially noxious practices as restraint, isolation, abuse, and trauma in correctional facilities in order to assess their potential adverse impact on health. This surveillance can estimate the extent of harm caused and identify steps to prevent its recurrence. Because public health professionals are outside the correctional or juvenile justice system, they have greater freedom to speak with authority. In contrast, correctional systems could terminate the employment of doctors who speak out forthrightly, potentially replacing them with those less proactive of patients' needs.

Incarcerated youths are still in their developmental years, physically, mentally, and emotionally. Most have already experienced want, rejection, neglect, discrimination, depression, and abuse. They are particularly vulnerable to additional stress when forcibly separated from family and friends and placed at a tender age in an institutional setting, where they may experience further abuse and trauma. Few have had a regular primary provider or received much by way of preventive health or health education and in many cases have been unreachable by public health services. It is reasonable, therefore, for public health to address the particular health needs of this special population.

Hammett (1998, p. 7) offers sound advice for achieving comprehensive partnerships between public health and corrections. Prisons are part of the community and there should not be "impenetrable walls" between the prisons and the communities of which they are a part. However, if public health and corrections are to work together successfully, they must be sensitive to each other's concerns. Public health professionals must focus on "finding solutions rather than finding fault."

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²Public health authority can be advisory or regulatory. Health departments inspect and regulate certain aspects of hospitals, nursing homes, and restaurants to enforce minimum standards.

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Female Prisoners and the Case for Gender-Specific Treatment and Reentry Programs

Andrea F. Balis

While 4% of the world's female population lives in the United States, 30% of the world's imprisoned women are in American prisons and jails. We think that 7–8% of women who are arrested are pregnant. We do not know precisely how many because many facilities do not offer pregnancy tests to women when they are arrested. We do not know precisely how many children are born to women while in jail or prison because, although the Bureau of Justice Statistics records death figures, there is no attempt to keep track of births (Sufrin, 2017).

We do not know the impact of giving birth in restraints on either the baby or the mother, but the American Medical Association and the American Association of Gynecologists and Obstetric are opposed to the practice and have made recommendations deploring the idea of restraints during childbirth, but decisions are left to the discretion of the state and local authorities and for the most part are ignored (DeAvila, 2017; National Commission on Correctional Health Care, 2020).

We do not know precisely how many children are born to women while in jail or prison because although the Bureau of Justice Statistics records death figures, there is no attempt to keep track of births (Sufrin, 2017). There has been no research on what happens to those children despite the fact that the impact of incarceration as an intergenerational trauma has been widely accepted.

The rapidly rising prison, jail, and probation population is clearly a concern for the entire criminal justice system, but this is especially true in the case of female prisoners. Arrests over the last 20 years have increased for the general population, but the increase is significantly larger among females. A 1998 Justice Department study reported that since 1990, the female adult jail population grew 7.0% while the male adult jail population grew 4.5% during the same time period (BJS, 1999b). Between midyear 2004 and midyear 2005, the number of women under the jurisdiction of the state and federal prison systems grew by 3.4% while the number of men grew by 1.3% (BJS, 2006). Despite these significant changes in the incarcerated population, there has not been a commensurate increase in research devoted to the needs of these women, nor in designing discharge and reentry programs specifically for female prisoners.

There are significant demographic and statistical differences between male and female inmates. Women's needs are different because they are much more likely to have been physically and/or sexually abused than men, both as adults and as children (BJS, 1999a, 1999b; Bloome et al., 2002; Green

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et al., 2005; Grey et al., 1995; Rich, 2013). They are much more likely than men to be responsible for the supervision of children (BJS, 2000; Dalley, 2002; Freudenberg, 2002; Grella & Greenwell, 2006; Radosh, 2002). They are more likely to be addicted to drugs and to have committed their offense while under the influence of drugs and/or alcohol than men. They are much more likely to suffer from mental illness than men. They have a higher prevalence of HIV/AIDS, sexually transmitted diseases, and chronic illness than men (BJS, 2001; Blank et al., 1999; Farley et al., 2000; Hogben & Lawrence, 2000; Staton et al., 2003). They are more likely to have been unemployed before their arrest (BJS, 2004). Women who have been in jail or prison are more likely to be stigmatized than men (Richie et al., 2001). Their crimes are somewhat different than men's, including commercial sex work and less violent crime and burglary.

The sharp rise in the number of women who are arrested, convicted, and jailed is, at least in part, a reflection of tougher drug laws and mandatory sentencing practices. Under those laws, women whose drug offenses were relatively minor are punished as severely as more serious offenses committed by men, a situation compounded by the fact that women generally have less information to trade for reduced charges (National Committee on Correctional Health Care, 2020; Radosh, 2002).

The percentage of incarcerated women serving drug sentences has risen from 15% in 1979 to 45% in 1999 (BJS, 1999b). Furthermore, 64% of the females arrested for any reason in 1996 tested positive for illegal drugs at the time of arrest (BJS, 2001). For a variety of reasons, drug use and dependency are higher among women in the criminal justice system; one study reported that 52% of females have a history of dependency on illicit drugs versus 44% of males (BJS, 2005b).

While in nondrug cases adult women are generally sentenced to less time than men for the same crime, in the case of juveniles, the opposite is true. Teenage girls are detained for less serious offenses than are boys. One study reported that 29% of females versus 19% of males were detained for minor offenses such as public disorder, traffic violation, and status offenses. Underage girls were much more likely to be returned to detention for probation violations or technical violations. They are particularly disproportionately punished for running away, perhaps because they are seen as more vulnerable, or more in need of social control (American Bar Association, 2001).

As concern over this growing population within the criminal justice system has increased, it has become clear that there need to be different institutional practices, treatment programs, and systems of discharge planning. Because of less research on women than men, there is still little specific information on the effectiveness of rehabilitation and reentry programs for women. Without addressing these issues, it is unlikely that there will be significant reductions in recidivism statistics. In addition, if these numbers keep on increasing, whole communities, especially children, will suffer from the loss of these women (Rich, 2013).

Prior Abuse

Female inmates have a shockingly high incidence of being abused. Bureau of Justice statistics suggests that well over half of female prisoners were physically and/or sexually abused, while only about 15% of male prisoners had been abused. These findings indicate that between 23% and 27% of female offenders were abused before the age of 18, about twice as high as the rate in the general female population (BJS, 1999a). Other studies put the percentage of female prisoners who have been abused even higher. A 1995 study reported that 75.1% of female prisoners had been physically abused during the year before their arrest. Sixty-eight percent claimed that they had been forced to have sexual activity as adults. Forty-eight percent of female prisoners said they had been sexually abused under the age of 18 (Singer et al., 1995). Among 14- to 18-year-old girls who are already in the criminal justice system, between 75% and 90% report having been abused. Abused and neglected girls and women are twice

as likely to be arrested, both as juveniles and as adults, as those who were not abused. This is in contrast to boys and men, where abuse is not as clearly a predictor of future incarcerations.

Not only do girls and women suffer more serious victimization than men and boys, they often react differently to that abuse. Women are much more likely than men to respond with self-blame and depression. Male abuse victims are more likely than women to engage in aggression or violence. Women who have been abused are more likely to turn to alcohol and drugs than to respond with violent behavior. As adults, men report that they feel less vulnerable to sexual abuse, but women feel more vulnerable (McClellan et al., 1997). Eighty-nine percent of women who reported that they were abused used drugs regularly.

Girls are more likely to be abused if they grew up in foster care than if they live with at least one parent. They are twice as likely to have been abused if they grew up in a family where there was drug abuse, and a third more likely to be abused if a member of the family was incarcerated. Childhood sexual abuse has been linked to a variety of high-risk behaviors, including unprotected sex with multiple partners and sharing needles. Those who have been abused are more likely to exhibit these behaviors. Neglected children who grew up with little supervision are less likely to learn coping skills. They are less likely to learn to plan. They are more likely to turn to prostitution than girls who have not been abused and are younger at their first incarceration (Mullings et al., 2003).

Clearly then, childhood abuse and trauma set the stage for later criminal behavior. The children of incarcerated parents, especially mothers, who are more likely to have been living with their children prior to arrest than fathers, are more likely to be victimized in turn.

Substance Abuse and Mental Health Statistics

It is difficult to assess the prevalence of mental illness and substance abuse in many correctional systems with any certainty since in many women's prisons, there is inadequate screening when inmates arrive making it impossible to determine the severity of some of these problems. A 2001 survey of services found only 72% of jails for women screen for substance abuse, only 70% screen for mental health problems, 60% screen for physical problems, and fewer than 30% screen for math and reading ability, childhood abuse, spousal abuse, or parenting needs. Worse still, only 10% of women prisoners who are drug abusers are offered treatment (BJS, 2000; Richie et al., 2001).

Justice Department figures indicate that in 2002, more than two-thirds of female jail inmates were dependent on or abused alcohol or drugs. Inmates who were dependent were more likely to have previous criminal records (Staton et al., 2003). A 1993 study, published in the *American Journal of Public Health*, reported that 80% of New York City's female detainees had cocaine in their urine at the time of arrest (Blank et al., 1999a).

One study of female prisoners in Kentucky found that 90% of inmates had a history of substance abuse problems, 62% reported symptoms of depression, 53% reported anxiety disorders, and 43% reported difficulty in concentration. Women's drug use differs from that of men in many ways. There are gender differences in the etiology of substance abuse, and in the relative success of various treatment modalities. The fact that women are more likely to have histories of physical and sexual abuse, as well as coexisting psychiatric disorders, and have measurably lower self-esteem than men clearly needs to be taken into account when developing resources.

Illicit drug use can be a way of coping with past or present abuse. It is often a behavior that is embedded in social relationships. Drug use is frequently initiated by a sex partner; continued use becomes part of the fabric of primary relationships (Messina, Burdon, Hagopian, & Prendergast, 2006). These statistics are themselves disturbing, but they take on even more meaning when they are considered in the broader context of substance abuse programs and mental health treatment. A 1995

series of interviews in municipal jails found that according to the Global Severity Index of the Brief Symptom Inventory, 64% of female inmates tested in the clinical range for mental health problems (Singer et al., 1995). Despite these remarkably high figures, women in some correctional systems tend to receive fewer services than male prisoners.

As an example, the Cook County Department of Corrections initiated a longitudinal study which examined what proportion of female and male detainees with mental disorders received treatment while in jail. The Cook County system actually does screen all detainees, although their treatment resources are very limited. Detainees were evaluated using standard instruments, the Brief Psychiatric Rating Scale and the Referral Decision Scale. They were classified as needing treatment if they had been previously diagnosed with schizophrenia or a major affective disorder and were symptomatic within 2 weeks of the interview, had severe cognitive impairment at the time of the interview, or if the subject reported a history of substance abuse and was disoriented at the time of the interview. According to these criteria, 10.7% of detainees needed mental health services. The study subjects were then followed for 6 months, or until their records were disposed of. It was determined that 23.5% of all female detainees received services, as opposed to 37% of all male inmates. The study concluded that in addition to gender, diagnosis had an effect on whether or not a detainee received treatment. Depression was the diagnosis least likely to be treated. In fact, only 3.5% of detainees suffering from depression received treatment. Women in jail have depression rates four times higher than men (Teplin et al., 1997). According to a study by the National Committee on Correctional Health Care in 2020, 66% of women in correctional institutions report a history of mental health diagnoses as opposed to 35% of men.

Medical Problems

Access to health services is strained in our society in general, in prisons in particular, and in women's prisons most of all. Despite their rapidly growing numbers, women are still a small percentage of the prison population, and for that reason, it has sometimes been considered less cost-effective to provide care for drug abuse and addiction, mental health issues, and counseling for trauma and posttraumatic stress disorder for incarcerated females (Teplin et al., 1997; Zaitzow, 2001).

One obvious significant and gender-specific healthcare issue is the need for adequate gynecological and obstetric services. At least 6% of female prisoners are pregnant when they are arrested. Since not all prisons and jails test all women, the prevalence of pregnancy is likely higher. For example, studies have found that about 18% of female inmates had given birth at some point during a past or present incarceration (Acoca, 1998; BJS, 1999b; National Institute of Justice, 2000; Women's and Children's Health Policy Center, 2000).

In the broadest terms, incarcerated women are less healthy than incarcerated men. Many women had poor health care prior to their arrest and incarceration. They are frequently survivors of sexual and physical abuse. Many are sex workers and are therefore exposed to both abuse and sexually transmitted diseases. Many have not received routine gynecological care and have not been treated for reproductive system disorders (Braithwaite et al., 2005). Many women have numerous health issues that are masked by drug dependency. Once sober, mental and physical health issues become apparent, ranging from dental problems to chronic infections.

Because of limitations in the healthcare system, poor women are much less likely than the general population to have had screening and/or treatment for cancer of the cervix. Studies of incarcerated women found abnormal rates as high as 25% (Clarke, 2007).

Studies have demonstrated an extremely high prevalence of sexually transmitted diseases among female prison inmates. Not all those infected are diagnosed, because many facilities only test women

who are symptomatic or who request testing. One study estimated that between 11% and 17% of women tested positive for chlamydia infection, while 9% tested positive for gonococcus infection. Juvenile facilities reported an even higher prevalence of infection. In Chicago, among female prisoners, the incidence of infection with chlamydia was 27% and that of gonococcus was 11%; the Birmingham rates were 22% and 17% (CDC, 1999). Annual data from the California Department of Corrections demonstrate an incidence among women of positive skin testing for tuberculosis of between 20% and 30%. In contrast, less than 0.5% of the general population demonstrate a positive skin test for tuberculosis. Another study from the California Department of Corrections showed that 54% of female prisoners tested positive for hepatitis C, as opposed to 39% of male prisoners (Acoca, 1998; CDC, 2006).

HIV/AIDS statistics are even more disturbing. Groups disproportionately affected by HIV/AIDS are the same socioeconomic and ethnic groups that are disproportionately represented in the prison population. Confirmed AIDS cases are three times higher in correctional systems than in the United States as a whole.

The segment of society currently most affected by rising AIDS rates is that of adolescent and adult females (BJS, 2005a). There are a number of factors which account for the extremely high prevalence among females in the prison population. A large percentage of incarcerated women have a history of intravenous drug use and studies have shown that many incarcerated women have shared needles. Incarcerated women have often traded sex for money or for drugs. Furthermore, the facts that women have poor health in general and high rates of sexually transmitted genital ulcer diseases in particular leave them vulnerable to infection with HIV.

Studies vary in their estimates of HIV prevalence, but all demonstrate a higher percentage of HIV infection among female inmates than among males. One study reported that 2.2% of male prisoners and 3.5% of female prisoners are known to be HIV infected (BJS, 2005a; Zaitzow, 2001). Many states do not test all entering inmates. Policies vary greatly from system to system, but only 18 of 51 state jurisdictions test all inmates on admission. The most common practice is to test inmates who exhibit symptoms or who ask to be tested. Fifteen states test inmates who are in high-risk groups. Four jurisdictions and the Bureau of Prisons test inmates at release (Women and Children's Health Policy Center, 2000; Zaitzow, 2001). These cases are not distributed equally around the country. New York, Florida, and Texas have the largest number of identified HIV-infected inmates, accounting for 48% of confirmed AIDS cases. In New York, which does periodic blind testing, 14.6% of female inmates and 7.3% of male inmates were known to be HIV positive (BJS, 2005a). More recently, those numbers are fewer.

While many states provide state-of-the-art antiretroviral treatment to prisoners, the treatment of HIV requires specialist involvement. Most of the time, prison primary care doctors do not have the training and expertise to effectively treat infected women, and even if they do, they may lack the facilities and staff to do so, or a system to provide follow-up care (Farley et al., 2000; Zaitzow, 2001).

Theoretically, prison would seem to be an ideal situation for monitoring and treating disease, and for managing chronic conditions, from tuberculosis to HIV/AIDS. Instead, not only is there insufficient testing and limited treatment, there are often insufficient connections with health services outside the corrections system to provide further care. As a result, women may leave prison as sick as or sicker than when they arrived, and in many cases, they leave prison with insufficiently treated contagious diseases which can and will affect the community as a whole (Braithwaite et al., 2005; Collica, 2002; Freudenberg, 2002). Their health may deteriorate, and they may wind up in emergency rooms, and in hospital beds, care which is significantly more expensive than treatment would have been within the prison system.

While these are issues for both men and women, they become gender specific, or perhaps more accurately gender critical, because without successful treatment and reentry programs women will have little choice but to return to a cycle of drug addiction, crime, and/or the sex trade.

Conceptual Challenges to Creating Effective Treatment and Reentry Programs for Women

Any attempt to design effective programs for women must take into account the statistical differences mentioned above, but they must also be responsive to the difference in gender roles and socioeconomic identity in contemporary society.

Female prisoners have unique needs because much of the time they are victims, not perpetrators, of crime. Programs that do not take into account the fact that so many women have histories of abuse and neglect and have witnessed and been the victim of domestic violence both as children and as adults are doomed to failure. A successful program intended to reintegrate women into society has to find ways to help women to have a sense of “agency.” Women need, not as a luxury but as an essential need, a sense that they can alter their social environment (Bloome et al., 2002).

Women are more stigmatized by incarceration than men are. Their return to the world is therefore already more difficult. Over 80% have children, and they are often single parents. Men are far more likely to find that they can return to wives or girlfriends who have taken care of their children and kept family life functioning than are women (BJS, 2000).

Put another way, women prisoners tend to have a “social capital” deficit. That is, women, and especially women from low socioeconomic standing, and even more especially those with young children, are not tied into the information systems that help an individual acquire skills and knowledge, networks which help in finding employment, and contacts for financial assistance. All too often they return to the community with the same lack of resources they had before, but now they have a prison record (Reisig et al., 2002).

The successful reentry of female offenders is dependent on helping them to find and connect to networks that will provide them with structural resources. Any program that is going to work has to be holistic; for example, it is not enough to provide employment and education programs and substance abuse treatment, important as those needs are, without also considering these women in their social context, as part of communities and families, and as mothers. Many female prisoners strongly identify with their role as parents. They are motivated to succeed in treatment programs in order to regain or keep custody of their children (Mullings et al., 2003; Surratt, 2003).

To succeed, reentry programs must provide mental health counseling. Given the frequency of abuse and neglect, it is not surprising that so many female inmates suffer from low self-esteem, as well as depression and anxiety disorders (BJS, 2000; Singer et al., 1995). But the actual figures are staggering. A 2002 study of female juvenile offenders reported that 95.8% suffered from low self-esteem. In this study, 88.6% of the participants said they had been sexually abused, and 77.1% claimed to have been physically abused. On testing, 74.1% were found to have a developmental disability, and 73.5% were suffering from severe mental trauma as a result of abuse (Bloome et al., 2002).

Not surprisingly, outcome predictors for reentry programs seem to be different for men and for women. Inmates treated in residential treatment followed by outpatient treatment in the community have lower rates of drug relapse and rearrest. But in the case of women, more than with men, there was a distinct correlation with the length of the program. In the case of female inmates, the length of time they spent in aftercare was a useful predictor of success. The outcome for women in extended treatment programs was better than the outcome for men (Hall et al., 2004; Messina et al., 2006). There is also a strong association between lower recidivism rates for women and having health insur-

ance, as long as it includes treatment for mental illness and substance abuse, as well as treatment for chronic diseases, including but by no means limited to HIV/AIDS (Richie et al., 2001).

For women, other than the length of time in treatment, the most important predictor for successful reentry is reducing the proportion of income that comes from illegal activity, which makes education and employment issues as critical as substance abuse treatment and mental health services. A second predictor is reducing homelessness. Without a job and a home, women will be back on the streets.

This supports the social capital argument in many ways. Education expands networks which increase the likelihood of stable employment. A settled home provides structure which makes emotional and social support possible. These can include traditional community-based institutions like 12 Step Programs (Reisig et al., 2002). Participating in these systems also counteracts the antisocial lifestyle that so often persists into adulthood for so many abused and neglected children, especially girls (National Institute of Justice, 2000).

It is reasonable to suggest that current methods for reducing rearrest figures are not successful. Many of the women who are in prison are the sole support of their families. Their children suffer while they are in jail, and when they get out, they have fewer resources than they had when they were arrested. They have not “learned a lesson”; they have little choice or incentive to do anything but return to the behavior for which they were arrested. The lesson they are passing on to their children is a continuing cycle of abandonment and hopelessness. Removing nonviolent offenders does not make the community safer, it weakens the community. These women need health care, drug treatment, and mental health treatment, as well as job training and parenting skills. They are lonely and isolated, and they have to be connected to productive communities. Family-focused programs are essential as are effective discharge planning and follow-up care. These must be multifaceted and must address all of the relationships through which women tend to define themselves, including the family, social structure, employment, and childrearing practices. A national attempt to legislate reform, The Bicameral Dignity for Incarceration Act was introduced unsuccessfully in 2017 and again in 2019 although reform at the state level has been more successful.

Case Studies

There are programs designed to address the problem of female detainees within the criminal justice system. In 1992, the National Juvenile Justice and Delinquency Prevention Act of 1974 was reauthorized. The new language included directives specifically mandating the development of programs that addressed the needs of female juveniles. These programs were to focus on health and mental health services, education and vocational training, and parenting skills. Despite best intentions, a successful gender-specific program required a paradigm shift; without one the needs of women and girls cannot be met. For example, the criminal justice system is frequently organized so as to place juveniles as close to home as possible. While sensible and humane, on the one hand, establishing that kind of procedure ignores the well-documented reality that many female juveniles have been sexually and/or physically abused, and in many cases, the abuser was a member of the family or a close family friend. Proximity may not be a positive in those cases.

Many jurisdictions have moved to develop new programs and establish parity in terms of services for females. A best practices study commissioned in 1997 found that while most of the programs they evaluated tried to provide counseling and skills training (though frequently they were underfunded and understaffed), health services were inadequate. There was very little emphasis on providing the young women with information about sexually transmitted diseases, family planning, or parenting skills. Substance abuse treatment was provided at about only half of the programs evaluated, and in many cases, this primarily meant referrals to local Twelve-Step Programs. Very few of these programs

addressed the important issues of victimization and prior abuse, and without that component, the needs of these young women would not be met (Bloome et al., 2002).

A study done by the Women's and Children's Health Policy Center at Johns Hopkins University School of Public Health recommended that providing ongoing integrated services that coordinated pre- and post-release care was a critical component in reentry programs for women. They also found that programs for women generally fell into four main categories.

- Nursery programs which allow incarcerated women to keep their infants for a period of time and care for them while receiving child development education. There are several of these in New York State and Nebraska.
- Mentoring programs that stress self-esteem.
- Programs following self-help models, connecting women with networks of survivors, such as incest survivors, sexual and physical abuse survivors.
- A fourth group provide health and education services, which is clearly a broad description (Women's and Children's Health Policy Center, 2000).

Despite certain limitations, there are certainly many programs which are innovative and sensitive to the needs of the populations they serve. The few briefly discussed below are examples chosen from among many others.

HealthLink, which began in 1992, is a program in New York City intended to reduce female recidivism through a comprehensive program to help women reintegrate into the community; it is also intended to help strengthen community institutions. The theoretical basis of the program is empowerment theory. The idea is to strengthen individuals and to make them realize that they can effect change both in their own lives and in their community. In turn, by providing services for inmates with their communities, the local networks are themselves strengthened. Community providers are empowered and develop expertise which allows them to expand and help more members of the community. As these provider organizations become stronger, they can begin to affect politics and social policy. This program creates the social networks so important to success, as well as repairing the social capital deficit that so often exists in lower socioeconomic communities. HealthLink focuses on two specific neighborhoods, which account for 15% of inmates in city jails, and in which the HIV/AIDS prevalence and drug dependence are more than twice as high as the rest of the city. The program stresses that its approach is client-centered, and services begin before release with discharge planning and counseling. The program includes residential treatment services as well as counseling and assistance with education, employment, and housing. Counseling continues for 1 year after release, with the same counselor whenever possible. This coordinated and continuous care is critical to the success of the program. A one-year post-release study that compared women who had services only while in jail and women who had post-release services found significant differences. The women who did not participate in the post-release program had a rearrest rate of 59%, while the women who did participate had a 38% rearrest rate (Richie et al., 2001).

A Michigan program, Project PROVE (Post Release Opportunities for Vocational Education), operates on a different model of empowerment. The program was founded to address the issue that while education and training are supposed to be a critical part of rehabilitation, too often programs for women are limited, consisting primarily of training in cosmetology and clerical skills. Dead-end, poorly paid jobs weaken "workplace attachment," and increase the chance that women will be forced to obtain money illegally. The more a woman gets money illegally, the more likely she is to return to prison. Therefore, the goal of the program is to develop a model of reintegration that provides stability to former inmates and to the community through educational programs, housing assistance, and sub-

stance abuse counseling. In addition to mentoring, and assistance in finding employment, PROVE provides very practical help. They supply tutoring as well as counseling. They help women fill out applications. They can also pay off student loans, pay for licensing exam fees, and provide tuition assistance. This program, too, focuses on community networks and social capital though it does it rather differently.

Rhode Island programs are organized around a medical model (Farley et al., 2000). The state has only one prison, and a large number of HIV-positive prisoners; 4% of males and 8% of females test positive during mandatory testing at admission. Rhode Island also has a high recidivism rate; 62% of women are reincarcerated between 2 and 10 times. The major source of HIV transmission seems to be use of intravenous drugs. The state developed a program intended to reduce both recidivism and the spread of HIV. The premise of the program is that multiple ongoing therapeutic relationships could help inmates plan for their discharges, prevent drug relapse, and encourage stability after release. Some of that counseling comes from peers and the contact continues after release. Another basic principle is that discharge planning is essential to remove women from situations that predispose them to drug use and sex work, because women are especially vulnerable immediately after release. In order to be eligible for the program, a woman has to be either an intravenous drug user, a commercial sex worker, or have a history of recidivism along with a poor educational background and poor work experience. While in prison, the participants develop a relationship with a physician and a social worker. The program is focused on substance abuse issues, healthcare issues, and previous abuse. The same staff member remains in contact with the prisoner after discharge whenever possible. These combined services have proven successful; when compared to the general population discharged at the same time, these high-risk women have a lower recidivism rate. At 3 months, the control group recidivism rate was 18.5% while the rate for women in the study was 5%. At 1 year after release, the recidivism rate for the general prison population was 45% while the rate for the women in the study was 33%. The women who stayed out of jail also reported a higher rate of condom use and a lower number of sexual partners.

While there are distinctions among these plans, all are holistic and integrate a wide variety of services, and all provide health care, education, and substance abuse treatment. All acknowledge social capital deficits and try to build new capital.

A Chain That Must Be Broken

An essential part of the “American” character is independence. Individuals are expected to pull themselves up by their bootstraps and make something of themselves. As a society we believe that we are free to choose our own path and are responsible for our behavior. But most of the women who are in prison were exposed as children to violence, abuse, drugs, and alcohol—all long before they were old enough to be making their own choices.

Most women in prison have children. Most of them understand that there is a connection between the trauma they suffered as children and their adult problems (Greene et al., 2000). They say that they want to provide their children with something else, but the reality is that they are in prison. In 1997, 64% of the mothers in state prison and 84% of the mothers in federal prison had at least one of their children living with them at the time of their arrest (BJS, 2000). Even if they can maintain custody of their children, and many cannot, they have abandoned them for the length of their sentence. Their children will be placed in the foster care system, which statistically increases the risk of abuse for their children, as described above. Their children will grow up without the watchful eye of a parent and they are likely to run away, to turn to drugs and alcohol.

This is not to suggest that these women should not be held responsible, but rather to suggest that the fact that so many of the women in prison were victims is relevant—and not just to them, but to society as a whole (Green et al., 2005).

In a California study, investigators interviewed female prisoners in three jails. All of them were mothers, with an average of 2.5 children. Most of them, 71%, lived with their children at the time of their arrest and expected to do so after their release. Seventy-one percent of the women said that they had been addicted to drugs and/or alcohol at one time. Seventy-nine percent had been arrested before. They had unstable upbringings; they had moved an average of seven times before they were 18. Eighty-six percent had either been abused or witnessed abuse at home. Sixty-two percent had parents or guardians involved with drugs or alcohol. Fifty-eight percent were involved in sexually abusive relationships as adults. They were raised without parents to protect them and they know that their children are being raised the same way. They reported that 83% of their children had been abused or had witnessed abuse at home. Their children, average age 10, had moved an average of three times (Greene et al., 2000).

Women place a high value on parenting and that including mothers in prison, and mothers who are dependent on drugs or alcohol. Perhaps, there are better ways to make use of that desire. To protect their children, we have passed laws that take them away from their parents, though as a society we do not have much to put in their place. The families of inmates may already be stretched to the limit. We have a severely stressed foster care system. Several decades of using the fear of losing their children to discipline mothers or as reminders of the value of self-reliance have not worked. Statistics suggest that they have not “learned their lesson.” And they surely have not been “rehabilitated.” We have to find an alternative because otherwise we are perpetuating a tragic cycle.

We all have a stake in finding better programs for female prisoners. The same things that make their situation unique have an impact on all of us. These women do not stay in jail forever and we do not want to see their children headed in that direction. Instead of making use of a moment for providing health care for an underserved population, and controlling chronic and infectious disease, we let the opportunity pass by. The fact that births are not recorded is indicative of a disregard to the lives of incarcerated women. Over half of female inmates said that they had reported a condition requiring medical attention. About 28% got treatment within the prison system (BJS, 2001). Without intervention, these women will return to prison, but before they do, they will return to the streets, and many will return to sex work. They are part of our community, and they share their poor health with us. They pay. Their children pay. We all pay.

Things to consider:

- Female prisoners have different problems than male prisoners; treatment and reentry programs need to be tailored to their needs. To do so requires a much more careful collection of data.
- To be effective, any reentry program for women must be holistic in nature. It must include substance treatment, psychological counseling, health care, education, and ongoing emotional support.
- The most successful programs include pre- and post-release components. Continuity of staff is extremely valuable.
- Women who are mothers need to learn parenting skills for their own self-esteem and for the sake of their children so that their children are not trapped in the same cycle.

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The Case for Oral Health Care for Prisoners: Presenting the Evidence and Calling for Justice

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Introduction

With the burgeoning expansion of and notable advances in dental technology, cosmetic dentistry, and social media, oral health as represented by “perfect teeth” has become a marker of status and privilege across cultures, particularly in the United States. On the other hand, missing teeth have become a symbol of low social position, a marker of exposure to violence, and an indicator of inadequate resources, even among older adults. According to Northridge et al. (2020), “Poor oral health serves as the national symbol of social inequality,” and nowhere is this more evident than among those behind bars. Thus, the poor oral health of incarcerated populations may be viewed as the accumulated consequence of severe inequities in the distribution of power, income, wealth, and benefits, including lack of access to quality general and oral health care, nutritional deficiencies resulting from poverty and the high cost of healthy food, and discrimination faced by populations (i.e., men of color) who are disproportionately represented in the correctional system. The full burden of poor oral health borne by incarcerated populations is unknown, given the lack of national data on the oral health status of incarcerated populations (Makrides & Shulman, 2019).

Embracing a whole-person approach, the editors of this volume duly acknowledge the importance of oral health and health care to the overall safety and well-being of incarcerated populations. By including this chapter, they have heeded the advice of former Surgeon General David Satcher in his landmark report, *Oral Health in America*, to reconnect the mouth to the rest of the body (U.S. Department

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of Health and Human Services, 2000). Oral health is important to the physical, emotional, psychological, and socioeconomic well-being of individuals and populations, with determinants at the individual, interpersonal, community, and societal levels. Despite the growing body of scientific evidence linking oral health to overall health, coupled with the longstanding documentation of social disparities in oral health status, insufficient attention to oral health as a priority in public policies and programs continues unabated. *Healthy People 2020* (U.S. Department of Health and Human Services, n.d.) rightly drew attention to incarceration as a key issue in the Social and Community Context domain, but oral health was not mentioned.

When compared to the general population, men and women with a history of incarceration are in worse mental and physical health. Data from the Bureau of Justice Statistics found that, in 2005, more than half of all prison and jail inmates had mental health problems. Studies have shown that when compared to the general population, jail and prison inmates of both genders are more likely to have high blood pressure, asthma, cancer, arthritis, and infectious disease, such as tuberculosis, hepatitis C, and HIV.

To shine light on an otherwise invisible population, in October 2005, two of us (H.M.T. and M.E.N.) collaborated on editing a special issue of the *American Journal of Public Health* devoted to prisons and health. When a formal call for papers and personal solicitations failed to yield any papers on oral health in the prison population, we teamed up with our colleague, Allan J. Formicola, D.D.S., former dean of the Columbia University School of Dental and Oral Surgery (now College of Dental Medicine), to fill this gap through researching, writing, and editing a front piece to the issue titled, “Improving the Oral Health of Prisoners to Improve Overall Health and Well-Being” (Treadwell & Formicola, 2005). Findings included that finances and staffing are the major obstacles to the provision of oral health care in prisons.

More recently, to call further attention to these issues, Treadwell and Evans (2019) in *Oral Health in America: Removing the Stain of Disparity* called attention to persisting oral health inequities experienced by distinct population groups, such as children, older adults, incarcerated people, those with disabilities, as well as populations with certain health conditions. They call for “discarding traditional paradigms serving only a privileged few in favor of those paradigms that guarantee unfettered inclusion, as well as culturally competent and expedient, cost-effective quality care for all in this nation.” Identifying oral health disparities as an equity and social justice issue requires inclusive restructuring of policy practice that will lead to oral health for all.

Unmet Dental Needs of Incarcerated Populations

There is scant data on the health of the 1.5 million individuals institutionalized in the U.S. prison system. Blacks, Hispanics, low-income individuals are among those who are over-represented in this population; groups who in the general non-institutionalized populations experience disparities in oral health outcomes and who experience inequitable access to care. For instance, African Americans represent only 13% of the total U.S. male population but comprise nearly 33% of the U.S. prison population (Bronson & Carson, 2019). The rate of incarceration of African Americans is nearly six times that of Whites (1549 per 100,000 Black adults compared to 272 per 100,000 White adults). Hispanics are also disproportionately represented among the incarcerated (23%) compared to within the general population (18%). The rate of incarceration of Hispanics is three times that of Whites (823 per 100,000 Hispanic adults compared to 272 per 100,000 White adults). While American Indian/Alaskan Natives are not included in national data, local data suggest that they too are over-represented among incarcerated populations. For instance, in 2017, the Montana Department of Corrections reported that American Indian males comprised 20% of male inmates and 34% of females compared to 7.2% of males and 7.4% of females in the general population (Montana Department of Corrections,

2017). Overall, men are disproportionately represented among the incarcerated (93%) compared to the general (49%) population (Census, 2019).

In a recent review of the oral health needs of incarcerated populations, Makrides and Shulman (2019) state that “high rates of chronic disease and unmet dental needs are common.” However, given the lack of national, state, or local data on the oral health status of incarcerated populations, the full extent of the problem has yet to be uncovered. What data do exist are mostly studies from decades before. Yet there is no evidence, data, or shifts in environmental factors that would suggest that oral health conditions have shifted for the better in recent decades.

Similar to other underserved and overlooked groups (i.e., low-income and racial/ethnic groups), adults who are incarcerated in federal and state prison systems are more likely to have extensive caries and periodontal disease, be missing teeth at every age, and endure a higher percentage of unmet dental needs than employed U.S. adults (Mixson et al., 1990; Salive et al., 1989). Clare (1998) conducted a survey of dental decay, moderate periodontal pocket depth, and urgent treatment needs in a sample of adult inmates and found more unmet dental needs in the prison sample compared to those reported among participants in Phase One of the Third National Health and Nutrition Examination Survey (NHANES III). Clare (1998) hypothesized that a possible cause for the differences in results between the adult inmates and the general adult U.S. population may be a higher representation of lower socioeconomic groups in the prison populations.

Due to the complex social environment that surrounds individuals at-risk of criminal legal involvement, it should be no surprise that inmates have poor oral health. As part of the W.K. Kellogg funded, Community Voices: Healthcare for the Underserved, work on addressing inequities in prison health, Treadwell et al. (2016) conducted a study that assessed the access to oral health care of a sample of 98 female inmates in Georgia’s prison system. Prior to incarceration, female inmates reported that they did not have a regular dental provider (83%), lacked insurance coverage (66%), and had their last dental visit more than a year ago because they did not have money for service or treatment (64%).

Studies conducted at the state level provide further evidence of the poor oral health status of inmates. Ormes et al. (1997) examined a representative sample of 251 male inmates in the Michigan Department of Corrections. Results were that inmates aged 18–34 had a mean Decayed Missing Filled Teeth Index (DMFT) of 11.52 compared to a mean DMFT of 19.25 for inmates aged 35–44 and 24.70 for inmates aged 45 and older. Differences were also found in the number of decayed and filled teeth and the DMFT composite index with respect to the number of years a male inmate was incarcerated. When these results were compared to those of combined age categories in the NHANES and the Midwest Regional findings of the U.S. Employed Adults survey, the Ormes et al. (1997) inmate survey identified more decayed teeth than the general population surveys, but fewer missing and filled teeth.

Badner and Margolin (1994) investigated the oral health status and dental experience of 183 mostly African-American women detained by the New York City Department of Corrections at Riker’s Island Correctional Facility. Almost one-third of the detainees complained of oral pain. Only 41.1% and 67.9% had received dental treatment within the past 12 and 24 months, respectively. One-third of the last treatments were for tooth extraction. The DMFT, time between appointments, need for emergency care, and utilization of extractions all indicated that New York female detainees have: (1) a large amount of unmet dental need, (2) a past dental history consisting of emergency dental care, and (3) limited utilization of preventive and restorative dental services (Badner & Margolin, 1994).

More recent data indicate that inmates continue to suffer from oral disease. Nowotny’s analysis of the 2004 Bureau of Justice Statistics Survey of State Inmates in Correctional Facilities, a nationally representative sample of persons incarcerated in state prisons, revealed that 60.8% of inmates self-reported having a dental problem during their incarceration. Boyer et al. (2002) examined a representative sample of new inmates to Iowa prisons. They found that Iowa inmates, male and female

combined, had 8.4 times the amount of untreated decay compared to U.S. non-institutionalized population, but similar numbers of missing teeth.

Mack and Collins (2013) conducted reviews of oral health needs of inmates housed in the Georgia prison system at three time points in 2011. Consistently, they found that approximately 50% of inmates presented with minimal routine dental health needs, about a third presented with moderate cavities and/or gum disease, and 14%–15% presented with extensive gum disease and/or widespread decay. Less than 0.04% of inmates presented with an urgent need for dental services, and 0.01% with life-threatening disease, extreme pain, or infection.

A compounding issue (that arose in the 2000s and continues today) among incarcerated populations is “meth mouth” which refers to a pattern of oral signs and symptoms of methamphetamine abuse, thought to include rampant caries and tooth fracture, leading to multiple tooth loss and edentulism (i.e., toothlessness) (Curtis, 2006). Murphy et al. (2016) in a study examining a matched NHANES cohort showed that methamphetamine “users have severe oral health deficits compared to the general population: they are 3.5 times more likely to experience painful toothaches, 6.6 times to experience difficulty eating, and 8.6 times to be self-conscious due to dental appearance.” The issue of meth mouth among incarcerated populations drew the attention of Sen. Max Baucus and Rep Brian Baird who introduced the *MethMouth Correctional Costs and Reentry Support Act* (S. 1907/H.R. 3187) which, if passed, would have supported the collection of data about the oral health of federal inmates and dental care provided in federal correctional facilities and would have provided grants to states to support oral health for prisoners during incarceration and upon release.

Importantly, the impact of poor oral health is not time limited and follows individuals prior, during, and post-incarceration. Poor oral health conditions that remain unaddressed follow inmates after release that can range from severe pain to missing teeth, and can result in low esteem with ramifications for successful re-entry.

A Broken Oral Healthcare System for the Incarcerated

Equitable access to quality oral health care should be a fundamental component of a comprehensive system to provide whole person care that promotes the health of all individuals regardless of social status or condition. This is, in fact, far from the present case. Regardless of location—rural or urban, within the United States or outside of its borders—impoverished communities are everywhere distinguished by crisis-oriented rather than preventive oral health care (Allukian & Horowitz, 2006). Despite dental care being listed as an essential health service by the National Commission on Correctional Health Care (Treadwell & Formicola, 2005), this has not resulted in equitable care for inmates. A major barrier to equity is in the manner that the U.S. dental system operates both external and internal to the correctional healthcare system. The U.S. dental system is financed and organized as a separate system from medical care and behavioral health care—making it virtually impossible to provide comprehensive whole-person care.

In 2017, the Pew Charitable Trusts and Vera Institute of Justice conducted two 50-state surveys to examine healthcare spending in prisons. They found that “Departments of correction collectively spent \$8.1 billion on prison health care services for incarcerated individuals in fiscal year 2015—probably about a fifth of overall prison expenditures.” They also found huge variation in healthcare spending per inmate ranging from \$2173 in Louisiana to \$19,796 in California. The percent of spending towards dental care was not provided, but if dental care expenditures follow national healthcare spending patterns, then the amount is paltry at best. Only 4% of national healthcare expenditures is for dental services. For instance, in 2004, the North Dakota State Penitentiary spent \$150,000 for dental work and supplies (Healthcare Mergers, Acquisitions, & Ventures Week, 2004). This is almost

three times the reported amount it spent in 2000 for dental care and supplies (\$56,000), but likely still meager compared with the unmet dental needs of prisoners in this facility (Healthcare Mergers, Acquisitions, & Ventures Week, 2004).

In 2012, 45 states participated in the National Survey of Prison Health Care. The survey captured how states provided dental care and oral surgery services. The majority (82%) provided dental care services both on-site and off-site. Oral surgery is provided primarily on-site by two-thirds of states (Maruschak et al., 2016).

Forty-five of 50 states and the District of Columbia (88% response rate) replied to a 1996 survey from the Department of Corrections (DOCs) that sought to examine the characteristics of dental care provided to state prisoners. Results indicated that there was substantial variation in the way that oral health care was provided to state inmate populations. For instance, 73% of respondents reported that they had dental directors who coordinated dental care in their state prisons, 72% described their DOCs as providing emergency dental care and some routine dental care, 52% required inmates to make a copayment for dental services, and 23% indicated that their states were providing dental care through managed care (Makrides & Schulman, 2002). Not unexpectedly, finances and staffing are major obstacles to the adequate provision of oral health care in prisons.

Although inmates have a constitutional right to health care, co-pays serve as a barrier to care in many states. In the 2019 state legislative sessions, California (AB 45) and Illinois (HB 2045) passed bills eliminating medical and dental co-pays at jails and prisons in the state. In doing so, California and Illinois joined Missouri, Montana, Nebraska, New Mexico, New York, Oregon, Vermont, and Wyoming states that have eliminated copays in jails and prisons (Bishari, 2019). The Texas legislature (HR 812), while not fully eliminating healthcare services fee, significantly reduced the healthcare service fee and put a \$100 limit on the fees that an inmate could be charged in a fiscal year.

In terms of patient experience, the Marshall Project reported that as a result of having few dental clinicians, inmates experienced long waits for routine cleanings. They went on to report that “In March 2017, an inspector general report revealed that one of four inmates at a federal prison in California was on a waitlist for dental care; some waited for as long eight years.” Increasing there is anecdotal evidence that prison dentists are pulling teeth rather than providing restorative treatment. Whether the decision to pull teeth is due to limited resources, state procedures that guide dental care, or otherwise should be further investigated (Eldridge, 2018).

In *Parsons v Ryan*, the rebuttal expert report of Dr. Jay Shulman (2014) illustrates the poor quality of care experienced by some inmates in the Arizona Department of Corrections Dental Program. The poor care consists of inadequate clinical triage, exceeding long wait times to be seen by a dentist, inadequate staffing, and avoidable extractions. Dr. Shulman, in his expert testimony, attributes the poor care to “inadequate policies and practices regarding staffing, triaging, treatment time frames (or lack thereof), tooth extraction, preparation for dentures, and contractor monitoring create a system that places all inmates at a substantial risk of serious dental injury, such as preventable pain, advanced tooth decay, and unnecessary loss of teeth.” (p. 10)

Wait Times. Ms. Wells [plaintiff] requested a filling (on tooth #13) as a result of her intake exam in 2009, but the routine care wait was 257 days—at which time the appointment was postponed a further 96 days by medical issues. Delay for medical issues is appropriate and unavoidable, but the original wait, at over 8 months, is itself unacceptable.

Avoidable Extractions/Prisoners’ Dilemma. Ms. Wells [plaintiff] was twice offered extractions of teeth that were not diagnosed as needing an extraction, and both were ultimately filled [Shulman Report at 25]. The first incident occurred 6 weeks after receiving the filling on #13, when she submitted an HNR regarding pain in that tooth and #18 and was seen on a pain evaluation. Dr. Dovgan and I agree that nothing in the chart entry suggested a clinical reason for extraction of either tooth.²⁷ ... If the dentist did in fact merely offer to extract teeth with no identifiable issues, this is itself below the standard of care (Shulman, 2014).²⁸

Clearly, the system and how care is provided further perpetuates oral health inequity as experienced by inmates. State policies and laws, accreditation policies and reviews, should be reviewed and assessed to determine to what extent disparities are further perpetuated or remediated as a result of existing policies and practices.

Moreover, in the current federal and state efforts to transform and improve the health system, the disconnect between oral health and physical and behavioral health must be bridged. As states and regions seek to transform how their health systems are organized and financed, they have the opportunity to transform oral health systems and include oral health care in integrated systems. It is particularly opportune for states and localities working on diversion for those at-risk of being involved in criminal legal systems or transitional care for individuals re-entering from prisons or jails. Efforts aimed at giving individuals an equitable opportunity to reach their full potential must also include access to quality oral health services as part of whole-person care.

Addressing Oral Health Disparities and Increasing Workforce Diversity

Achieving access to quality oral health care necessitates a workforce that is culturally sensitive and linguistically appropriate. Diversifying the workforce remains an imperative challenge for the health professions. The Sullivan Commission (2004) report titled *Missing Persons: Minorities in the Health Professions* demonstrated the considerable under-representation of African Americans, Hispanic Americans, and American Indians (AI/ANs) within the health professions. In 2016, data from the American Dental Association show that compared to the general population, Black/African Americans (4.3% Black dentists to 12.4%) and Hispanics (5.3–17.8%) dentists continue to be under-represented. Data on AI/ANs were not included in the ADA report. Mertz et al. (2017) reported that only 0.2% of the 190,800 active dentists in the United States in 2012 were AI/AN, compared to the portion of AI/AN (1.7%) in the United States. Evidence of the direct link between poorer health outcomes for racial and ethnic minorities and the shortage of racial and ethnic minorities in the healthcare professions was compiled by the Institute of Medicine (2002) in its landmark report, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*.

Mitchell and Lassiter (2006) reviewed the literature concerning healthcare disparities and workforce diversity issues within the oral health field and synthesized recommendations intended to address the disproportionality within the workforce, with a focus on the role of academic dental institutions (ADIs). “First and foremost, ADIs need to develop a culture conducive to change and the implementation of diversity issues” (Mitchell & Lassiter, 2006, p. 2095). They further explained that developing such a culture will require consistent support the leadership within ADIs, including a formal declaration of each institution’s commitment to diversity, cultural competency, and the elimination of oral healthcare disparities (Mitchell & Lassiter, 2006).

By 2045, people of color will make up the majority of the U.S. population. As of 2020, children of color under 18 make up the majority of the under 18 population. The need for ADIs to enroll and support more applicants from underserved racial and ethnic groups is crucial to the elimination of disparities in oral health care. In response to this impending crisis, 15 dental educators undertook a feasibility study with funding from the W. K. Kellogg Foundation which resulted in the publication of the report, *Bridging the Gap*:

Partnerships between Dental Schools and Colleges to Produce a Workforce to Fully Serve America’s Diverse Communities (Community Voices: Healthcare for the Underserved Study Committee, 2006). Findings suggest that “a collaborative model between colleges and dental schools can become a valuable way to enroll students of color but ... the establishment of such programs would most likely depend on a demonstrated need for (1) new practitioners in a particular locale, and (2) an interested state legislature seeking to solve a dental workforce problem” (Community Voices: Healthcare for the Underserved Study Committee, 2006, p. 7).

It is no wonder, then, given the striking economic and racial disparities in the application of incarceration and the dearth of dentists of color in the oral healthcare workforce (Community Voices: Healthcare for the Underserved Study Committee, 2006), that inmates suffer from poor oral health and have unmet oral healthcare needs.

Opportunities to Create an Equitable System

Having a willing, ready, and well-trained dental workforce will be essential to achieving oral health equity. Expanding community-based dental externships to prisons presents an opportunity to develop a dental workforce ready to serve incarcerated individuals. In addition, expanding the use of dental hygienists, dental assistants, and dental therapists may be a cost-effective manner to increase access to oral health services within correctional systems.

In a recent survey of U.S. dental schools, Candamo et al. (2018) found that two-thirds of responding dental schools¹ include correctional health as part of their didactic curricula; approximately a quarter (27%) offered students a correctional health rotation most often in the format of a community-based dental externship. Of those that offered a correctional health rotation, only half of those were mandatory. The common length of the rotation was 5 days, though at least one school offered a rotation lasting 6–8 weeks. Schools estimated that an average of a third of their student bodies participated in the correctional health rotations.

State dental schools in North Carolina and Florida have programs in which students or residents are rotated through prison facilities (Treadwell & Formicola, 2005). The University of Texas Medical Branch, the Texas Tech University Health Sciences Center, the University of Southern California, and Ohio State University all sponsor programs in which oral health care is provided to incarcerated populations. Additionally, the Bureau of Prisons (BOP) offers an externship for dental students in their final year of study. Recipients attend dental school as normal, but are commissioned in the U.S. Commissioned Corps of the U.S. Public Health Service. After graduation, they are promoted in the ranks PHS and practice dentistry at a BOP job site for twice the length of the externship. More such programs could help alleviate the shortage of dentists and hygienists in the prison system.

One new innovative model located in Boston is the *Crimson Care Collaborative*, a student-faculty collaborative that has developed a partnership with the Suffolk County Jails to provide a weekly student-faculty collaborative jail-based clinic. Dental students work as part of a health team that includes medical and mental health providers and students to provide care and health education. Specific to oral health, dental students work under the direction of attending jail dentist to conduct an oral health history and an oral health screening, and to implement a treatment plan. Patients needing additional care post-release are provided dental appointments at an academic dental center during the discharge process (Simon et al., 2017). Through this program, students gain an awareness of the complex social determinants of needs faced by incarcerated populations. They also gain an experience with a model of compassionate evidence-based oral health care and an integrated team-based approach to whole-person care.

Similar to efforts to expand access to oral health services for other underserved populations, the use of dental therapists should be explored. Dental therapists are mid-level providers who work under the supervision of a dentist to provide routine preventive and restorative care. Dental therapists are trained to prepare and fill cavities using a hand drill and perform nonsurgical extractions. Dental therapists currently practice in Minnesota and among tribes in Alaska, Washington, and Oregon.

¹ Surveys were sent to all 66 U.S. dental schools. Responses were received by 41 schools, but only 30 fully completed the survey.

Vermont, Maine, and Arizona have authorized the use of dental therapists (Koppelman & Singer-Cohen, 2019).

Expansion of loan forgiveness programs might also encourage dental school graduates to work in prisons. For instance, the National Health Services Corps is a federally funded program that offers a loan repayment program for dental students in return for placement and service in underprivileged areas.

In terms of treatment, silver diamine fluoride (SDF) when applied arrests and prevents caries for less than a dollar per treatment. SDF has multiple benefits given its cost, its non-surgical application which can be done in minutes, and its ability to halt and prevent further decay. In other words, “a simple, inexpensive and effective way of preventing caries initiation and progression” (Oliveira et al., 2018). The adoption of silver diamine fluoride may be particularly beneficial for populations and communities that are underserved and under-resourced, such as low-income children, older adults, and inmates (Northridge et al., 2020).

Calling for Justice

The number of U.S. prison inmates² is equivalent to the number of residents in San Antonio, TX, and more than San Diego, CA. Nearly 95% of those incarcerated will return back to their communities (Hughes & Wilson, 2002), with over 641,000 individuals released over the course of a year (Carson & Anderson, 2016). Just as it would be unimaginable to turn our heads away from the residents of an entire U.S. major metropolitan city, we should not be ignoring or disregarding those who are incarcerated. Yet the oral health status of inmates in the prison system is not routinely incorporated into data and reports that summarize the state of the nation’s health, making the incarcerated an invisible population. Hence, the need for volumes such as this, which are shining light on the inequities of our nation.

Prison oral health care rests at the intersection of two complex systems: the prison system and the healthcare system. Significant improvements will require policymakers to reform the extremely bureaucratic systems and advocate for adequate resources to address those most in need before, during, and after any involvement with the criminal justice system. Dental providers can help lead the way by expanding access through the use of hygienists and dental health aide therapists, and by using therapies such as silver diamine fluoride. Academic dental institutions need to create the pipeline of providers that reflect the growing diversity of the nation and who are suited and prepared to care for those with the greatest need. The responsibility for oral health rests with us all. If good oral health care is provided to prisoners, the benefits will extend to their families, their communities, and the nation as a whole. We can and must do better as a society to ensure oral health equity for all.

Recommendations

In closing, we have built upon a core set of recommendations from the report titled, *Confronting Confinement: A Report of the Commission on Safety and Abuse in America’s Prisons* (Gibbons & Katzanbach, 2006) with the vision of an equitable and just system to assure the oral health care of imprisoned populations. The recommendations that follow are high-level recommendations, and ultimately will require partnering with oral healthcare providers from the community and departments of

²There are another 700,000 individuals incarcerated in jails (Kann, 2019).

corrections which take into account the perspectives and experiences of individuals who are or have formally been incarcerated.

1. *Create partnerships between correctional staff and dental providers around a shared vision of oral health for incarcerated populations.* Having a shared vision among corrections administrators and officers with oral health providers that is informed by inmate experiences and perspectives is critical to building a system that can effectively address oral health needs of incarcerated individuals. This includes accounting for possible past negative experiences with care, histories of chronic disease and substance use, and trauma experienced by prisoners. A comprehensive vision should include continuity of oral health care upon release.
2. *Assess and monitor the oral health of incarcerated populations.* Individuals should be screened and have their oral health monitored while incarcerated. Assessment should include tracking the utilization and quality of oral health services provided in correctional facilities. Data from monitoring systems should be analyzed by race/ethnicity and gender to identify potential disparities.
3. *Address systemic bureaucratic inefficiencies in correctional settings.* Given the limited resources and the high demand of dental services in the incarcerated population, there are efficiencies to be gained by addressing the systematic bureaucracies and inefficiencies that delay timely delivery of services (Ditslear, Personal communication, 2019).
4. *Remove financial barriers to oral health care for prisoners.* This includes ending copayments for oral health care. State legislatures should revoke existing laws that authorize prisoner copayments for oral health care. Congress should change the Medicaid rules so that correctional facilities can receive federal funds to help cover the costs of providing oral health care to eligible prisoners. Until Congress acts, states should ensure that benefits are available to people immediately on release.
5. *Academic dental institutions should partner with correctional facilities to provide practice opportunities for dental students.* Students can gain practical experience while also gaining an awareness of the complex social determinants of needs faced by incarcerated populations.

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Part IV

Access to Appropriate Care



Advancing the Care of Transgender Patients

25

Newton E. Kendig and Natalie A. Rosseau

Introduction

Effectively caring for transgender patients and ensuring their safety are complicated challenges for jails and prisons throughout the United States. Transgender persons, overall, represent a small percentage of the US incarcerated patient population; however, they are disproportionately more likely to be justice-involved and experience significant health disparities. Nearly one-fifth of transgender women respondents in the National Transgender Discrimination Survey reported a history of ever being incarcerated (Reisner et al., 2014). Respondents who had ever been to jail or prison were more likely to be persons of color, poorer, and uninsured. These respondents also had significantly higher rates of negative health indicators, such as substance use disorders, tobacco use, and human immunodeficiency virus (HIV) infection. Although there are limited data on the mental health needs of incarcerated transgender patients specifically, the acute stressors posed by incarceration and the potential for victimization, may add significantly to the pre-existing psychological distress experienced by many transgender persons. The 2015 US Transgender Survey found that, in the month before the survey, 39% of transgender people reported experiencing serious psychological distress (compared to 5% of the US population), 7% attempted suicide in the past year (compared to 0.06% of Americans), and 40% had attempted suicide in their lifetimes (compared to 4.6% of the US population) (James et al., 2016).

The diagnosis of gender dysphoria is often included in the wider conversation surrounding the mental healthcare needs of transgender patients. The American Psychiatric Association (APA) defines gender dysphoria as a medical condition in which there is clinically significant distress or impairment associated with the incongruence between an individual's gender identity and the gender they were assigned at birth (APA, 2013). Many transgender persons are not dysphoric, yet still desire and require gender-affirming healthcare services. For other transgender persons, gender dysphoria is a significant emotional concern that requires access to culturally competent mental healthcare services. Correctional

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healthcare policies should not make a diagnosis of gender dysphoria a prerequisite for providing transgender patients access to gender-affirming healthcare services. Alternatively, gender dysphoria should be recognized as a potentially important mental health concern for incarcerated transgender patients that may be further exacerbated by the gender binary, highly structured environment of the correctional setting. Transgender persons are at extraordinary risk of sexual victimization by correctional staff or other incarcerated persons while residing in US jails or prisons. The Bureau of Justice Statistics National Inmate Survey for 2011–2012 indicated that nearly 40% of transgender persons in state and federal prisons reported being sexually victimized during the past year (Beck et al., 2014). Jenness and colleagues reported an even higher rate of 58% of transgender persons reporting sexual assaults in the California state prison system (Jenness & Fenstermaker, 2016). Some potential advances in protecting incarcerated transgender persons were made with the enactment of the Prison Rape Elimination Act (PREA) in 2003 (PREA, 2003). The PREA standards require, in part, correctional policies for screening and identifying newly incarcerated persons who may be vulnerable to sexual victimization, staff training on respectful treatment of sexual minorities, case-by-case housing assignments of transgender persons and review of this placement twice yearly, private showering facilities for transgender persons, and investigating sexual assaults that involve incarcerated persons. These standards, however, were not officially promulgated until 2012. Furthermore, a 2017 survey of state correctional system PREA policies indicated that many states failed to adopt policies for all 13 PREA provisions related to transgender persons (Malkin & DeJong, 2019). Perhaps, most importantly, correctional policies in and of themselves do not ensure meaningful implementation of the PREA standards. The actual impact of PREA on protecting incarcerated transgender persons remains to be determined.

Beyond ensuring the respectful treatment and safety of incarcerated transgender persons, correctional systems must also ensure access to medically necessary healthcare services. Defining medical necessity, however, is complicated by the rapidly evolving standard of care in the United States for providing healthcare services to transgender patients. As stated by Baker, “[i]n 2002, no Fortune 500 company offered employee coverage for gender transition, but by the end of 2016, 50% did” (Baker, 2017). Similarly, State Medicaid coverage increasingly includes gender-affirming services, such as hormone therapies and surgical procedures. A Williams Institute Report from 2019 indicated that 18 states and the District of Columbia Medical programs had specifically included coverage for gender-affirming care or were in the process of extending coverage (Mallory & Tentindo, 2019). Within this changing landscape of healthcare coverage, correctional systems must define the scope of services they will provide to their transgender patients. Providing quality of care to incarcerated transgender patients also requires having adequately trained healthcare professionals. Primary care providers often have had little training in transgender medicine. In the correctional environment, there may also be limited local access to knowledgeable subspecialists, such as endocrinologists or surgeons with expertise in gender-affirming procedures. Transgender women have reported access to adequate health care as their major concern during incarceration (Brown, 2014). Specific concerns include healthcare providers’ transgender bias, as well as limited knowledge or experience caring for transgender patients (White Hughto et al., 2018).

The correctional management and clinical care of incarcerated transgender persons are further complicated by a complex and rapidly evolving legal environment. Active correctional litigation is ongoing related to the housing of incarcerated transgender persons, access to gender-specific personal property, and access to a range of healthcare services. Court rulings, including those related to gender-

affirming surgery, have at times been in conflict. In the 2015 ruling, *Norsworthy v. Beard*, a federal district court ruled that the California Department of Corrections and Rehabilitation (CDCR) must provide sex reassignment surgery to patient Norsworthy, a transgender woman in a California state prison (Norsworthy, 2015). The decision, however, was never implemented, because Norsworthy was released on parole while the case was on appeal. But in the 2019 ruling, *Gibson v. Collier*, a federal court of appeals ruled that the Texas Department of Criminal Justice (TDCJ) was not required to provide sex reassignment surgery to patient Gibson, a transgender women in a Texas state prison, or even to make an individualized assessment of medical necessity (Gibson, 2019). These conflicting rulings may ultimately require resolution in the Supreme Court. Correctional policies and clinical guidance for treating incarcerated patients must evolve progressively within this legal landscape to both better ensure patient safety and better provide quality healthcare services.

Correctional Management

Correctional systems have increasingly focused on improving policies and procedures to better ensure the respectful treatment and personal safety of incarcerated transgender persons. Drivers of these improvements in correctional practices have included: the alarming data on sexual victimization of incarcerated transgender persons, the system's decision to comply with PREA standards, growing concerns about litigation, an increased social awareness of transgender identity and discrimination, and the advocacy of community organizations. Key policies of concern to transgender advocates have included: the use of preferred pronouns to address transgender persons, housing assignments that strongly consider gender identity, access to undergarments and commissary items consistent with gender identity, and gender accommodations for pat or strip searches. Designing correctional policies to address these concerns can be complicated by a variety of factors including: structural and security issues unique to a specific jail or prison, legislative, regulatory, and judicial mandates, and the varying individual preferences of incarcerated transgender persons. Despite these challenges, correctional systems must strive to create a culture of safety for transgender persons that is also gender-affirming. Engaging with local transgender community advocates to inform public policy can be particularly helpful in this regard.

In 2018, the National Center for Transgender Equality (NCTE) published expansive guidance to correctional agencies and advocacy organizations on developing policies to increase the respect for and safety of incarcerated transgender persons (NCTE, 2018). The guidance covers areas of correctional management that affect transgender persons from intake identification and risk assessments, to gender affirming treatment during incarceration, to reentry to the community. Each area of discussion includes specific examples from US jails and prisons that can help guide policymakers. Correctional policy guidance for managing incarcerated transgender persons, largely consistent with NCTE recommendations, has also been published by others (Bromdal et al., 2019; Kendig et al., 2019; Sevelius & Jenness, 2017). The recommendations from Kendig and colleagues are outlined in Box 25.1.

While sound correctional policies can help guide correctional practice, well-written policies alone do not ensure their implementation or a change in institutional culture. Leaders of national correctional organizations identified training of correctional staff at all levels as essential if gender-affirming policies are to be effectively implemented in US jails and prisons (Kendig et al., 2019). Their practical training considerations are enumerated in Box 25.2.

Box 25.1 Identifying Correctional Policy and Practice Considerations for Screening, Searching, Housing, and Managing Transgender Incarcerated Persons That Protect Them from Abuse and Create a Culture of Safety*Consensus Considerations:*

Community engagement: Correctional systems should consider engaging transgender community members or advocates to help inform correctional policies and practices in managing transgender inmates.

Housing: Facility designation decisions for transgender inmates should be made on a case-by-case basis utilizing an interdisciplinary team, including representatives from the following areas: mental health, medical, security, and programming. When making these housing decisions, the team should consider relevant factors, including but not limited to, the inmate's gender identity, their history living daily life in accord with that identity, physical characteristics, security level, criminal and disciplinary history, medical and mental health needs, vulnerability to sexual abuse, and facility-specific factors. Consideration should also be given to the individual's own perception of where they would be safest. Facility designation decisions for transgender inmates should not be based solely on the inmate's genitalia or the sex they were assigned at birth.

Screening: Facilities should ensure that their existing risk screening tools initially identify transgender inmates and adequately assess transgender inmates' vulnerabilities to victimization. Risk screening information should be communicated to correctional staff, modified as needed to protect the inmate's privacy, and used throughout an inmate's incarceration. In order to accomplish this, there needs to be adequate communication and "systems compatibility" with booking/intake, medical, mental health, classification, housing, and program staff.

Pronouns and Names: Correctional agencies should encourage staff to use a transgender inmate's preferred pronoun.

Searches: Transgender inmates should be provided an opportunity to indicate a preference for the gender of the staff they would feel most comfortable with conducting pat or strip searches. Absent exigent circumstances, the correctional agency should honor this decision.

Commissary: Transgender inmates should have access to the same commissary items consistent with their gender identity and security classification. For example, a medium-security transgender woman who is housed in a men's facility should have access to the same commissary items that are available to medium-security women housed in a women's facility.

Undergarments: Transgender inmates should be permitted to have undergarments consistent with their gender identity, regardless of whether they are housed in a facility for men or a facility for women.

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Box 25.2 Training Correctional Staff to Enhance Respectful Attitudes Toward Transgender Inmates and Transgender Co-workers*Consensus Considerations:*

Correctional agencies should create and sustain a leadership culture of safety for transgender persons. Staff training should align with the agency's vision, mission, and values and link to the agency's leadership expectations for interacting with transgender persons.

Correctional agencies should develop training content, design, delivery, and evaluation methodologies that engage correctional staff in understanding their role in responding to transgender individuals in consideration of the following:

- Training content should be consistent with best practices and professional standards guiding correctional practice and the treatment of transgender individuals.
- Training design for supervisory, mid-level, and line staff should be skilled-based and include scenario-based skill development and content.
- Training strategies should be tailored to the size and unique characteristics of the correctional facility. Examples of training strategies include, accessing web-based resources, regional trainings, and the involvement of community organizations and advocacy groups.
- Training delivery should be consistent with adult learning theory and best practices in responding respectfully to transgender individuals.

Key training concepts for consideration include the following:

- Select train-the-trainers using defined criteria that establish clear role expectations.
- Ensure trainers are knowledgeable and possess the communication skills to adequately convey key messages.
- Integrate, as feasible, transgender persons as trainers or contributors to the training curriculum, including available transgender correctional staff or transgender law enforcement peers from the local community.
- Support trainers with additional training materials, including videos that provide access to subject matter experts and the experiences of justice-involved transgender persons.
- Conduct training that emphasizes the importance of respecting incarcerated transgender persons as human beings in their routine activities within the correctional setting, rather than solely focusing on PREA compliance and sexual victimization.
- Provide correctional staff with confidential opportunities to communicate their concerns for managing transgender persons in compliance with policy. (Proven strategies include submitting note cards with questions for a private response and engaging in volunteer meetings that provide a trusting environment, e.g., chaplain prayer breakfasts).

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Healthcare Delivery

The landmark Supreme Court ruling *Estelle v. Gamble* provides incarcerated patient populations a constitutional right to health care (Estelle, 1976). The ruling, however, does not determine the scope of healthcare services that must be provided. Determining the approved healthcare interventions for incarcerated transgender patients is particularly challenging, since transgender coverage in the United States is rapidly evolving in both the public and private sectors (Baker, 2017). Furthermore, clinical recommendations for transgender care have historically been based on expert opinion, rather than evidenced-based guidelines. Increasingly, however, transgender medicine is guided by published, peer-reviewed data. Guidelines, such as those from the Endocrine Society (Hembree et al., 2017), the

University of California, San Francisco (Deutsch, 2016), and the World Professional Association for Transgender Health (WPATH) (Coleman et al., 2012) can help inform the care of incarcerated transgender patients across a wide range of medical and surgical interventions. The National Commission on Correctional Health Care (NCCHC) position statement also provides a basic template for recommended transgender care in US jails and prisons (NCCHC, 2020). A few correctional systems have integrated professional organizational and university recommendations into their own guidelines to delineate the scope of healthcare services provided to their transgender patients (California Correctional Health Services, 2020; Federal Bureau of Prisons, 2016).

Hormone treatments, gender-affirming surgeries, and other transition-related healthcare services are all potential components of treatment plans for transgender patients. The provision of hormones therapies, in particular, is often essential to the physical and emotional well-being of transgender patients. Abrupt discontinuation of hormones upon incarceration can result in hot flashes, anxiety, depressed mood, other disabling symptoms, and potentially dangerous consequences, such as suicide attempts and genital mutilation. The WPATH standards recommend that transgender patients should be maintained on hormone treatments upon incarceration, and that hormones should be initiated during incarceration if clinically warranted (Coleman et al., 2012). Implementation of the WPATH recommendations, however, has been highly variable in correctional systems. In the 2015 US Transgender Survey, 37% of respondents who had been taking hormones before incarceration were prohibited from taking those hormones while in jail, prison, or juvenile detention (James et al., 2016). A 2017 report of correctional healthcare policies indicated that 21 state correctional systems allowed transgender patients to continue hormone treatment, but only 13 states allowed initiation as well as continuation of hormone treatment (Routh et al., 2017). Since 2017, however, more and more correctional systems have rescinded “freeze-frame” policies to allow hormone initiation for transgender patients, potentially impacted by medical legal challenges (*Keohane v. Florida Department of Corrections Secretary*, 2020).

The provision of gender-affirming surgeries for incarcerated transgender patients has been even more controversial than hormone initiation. In 2016, the CDCR became the first correctional system to provide gender-affirming surgery for an incarcerated transgender patient as part of a legal settlement (Quine, 2015). Other incarcerated transgender patients in Massachusetts and Texas, however, have been denied gender-affirming surgery by federal appellate courts, albeit with very different reasoning in the different cases (Gibson, 2019; Kosilek, 2014). Despite the legal controversies, thoughtful engagement on criteria for approving gender-affirming surgeries for incarcerated transgender patients is warranted. WPATH criteria include: persistent, well-documented gender dysphoria (i.e., a feeling of persistent discomfort with one’s biologic sex or assigned gender); capacity to make a fully informed decision and to consent for treatment; legal age of maturity; 12 continuous months of hormone therapy (unless hormones are not indicated for the individual); 12 continuous months living in a gender role that is congruent with the patient’s gender identity; and if significant medical or mental health concerns are present, they must be well controlled. The CDCR adopts these clinical criteria in its Transgender Guide (California Correctional Health Care Services, 2020). The guidance also includes specific types of genital surgeries that will be considered for approval. Adopting correctional-specific eligibility requirements for gender-affirming surgery warrants some consideration, as clinical experience for these patients is in its very earliest stages. Osborne and Lawrence recommended additional sex reassignment criteria for male inmates with gender dysphoria: prominent genital anatomic gender dysphoria, a long period of expected incarceration after surgery, a satisfactory disciplinary record, and demonstrated capacity to cooperate with providers and comply with recom-

mended treatment a period of psychotherapy, if recommended by the responsible practitioners, and willingness to be assigned to a women's prison after surgery (Osborne & Lawrence, 2016). Other correctional systems, beyond California, have begun promulgating policies and clinical guidelines for gender affirming surgery for their patients. Over time, the collective correctional health care experience of providing these surgical procedures to incarcerated transgender patients should help refine the assessment and approval criteria in meaningful ways.

The legal advocacy for providing quality health care to incarcerated transgender patients has strongly focused on the provision of hormone treatments and gender-affirming surgery. Yet, for certain transgender patients, other transition healthcare services are equally or even more important. Transgender women often endure emotional distress related to the physical manifestations of their gender identity, such as their facial appearance and voice intonation. Facial feminization surgeries are a treatment priority for certain transgender women and can markedly impact quality of life (Ainsworth & Spiegel, 2010). These surgeries can include rhinoplasty, lip augmentation, brow lift, frontal cranioplasty, and other procedures that aim to better align a patient's facial features with the gender with which they identify. Often, there is no clear distinction with these surgeries between what is purely reconstructive and what is purely cosmetic, resulting in variable insurance coverage (Coleman et al., 2012). Transgender women may also consider voice and communication therapy a treatment priority for developing voice characteristics and non-verbal communication patterns that facilitate comfort with their gender identity and reduce social isolation (Hancock, 2017; Coleman et al., 2012). Yet, frequently these healthcare services are not readily available or covered by healthcare plans. The existence of myriad gender-affirming treatment interventions highlights the importance of adopting individualized treatment plans that are mindful of patient priorities and emotional needs. Additionally, correctional healthcare systems must navigate the difficult minefield of defining medical necessity and approving payment criteria for an evolving array of transgender healthcare services.

Not only must correctional systems adopt policies and clinical guidance that adequately address the healthcare needs of transgender patients, but they must also ensure access to capable healthcare providers with cultural sensitivities and clinical competencies that may be lacking in some settings (Clark et al., 2017). The thousands of US jails and prisons that may potentially house transgender patients are often located in remote locations without ready access to local transgender medicine expertise or subspecialty support. Training strategies for providers must therefore leverage both local and virtually available educational opportunities. Potential options for training healthcare providers include: group education in transgender cultural competencies; investment in quality continuing medical education, both in-person and on-line; on-site provider-to-provider peer education; and virtual telementoring through proven strategies, such as the Extension for Community Healthcare Outcomes (ECHO) model adopted by the National LGBT Health Education Center (Arora et al., 2011; White Hughto et al., 2017). These training efforts are worthwhile investments. Adequately trained primary care providers can very capably care for transgender patients, with the support of mental health and medical subspecialists as needed (Coleman et al., 2012).

The evolving community standard of care in the United States for transgender patients, its related legal challenges, and the training needs of the correctional healthcare workforce, all pose significant challenges for US jails and prisons for the foreseeable future. Consensus recommendations, such as those from an academic medical center symposium in Box 25.3, can help inform transgender health care in the correctional setting; however, ongoing dialogue and updated guidance will be necessary in this dynamic healthcare arena (Kendig et al., 2019).

Box 25.3 Identifying Clinical Practice Considerations for Better Defining Medically Necessary Health Care for Incarcerated Transgender Patients and Improving Their Access to Quality Medical Care*Consensus Considerations:*

Correctional chief executive officers, healthcare authorities, and legal advisors should stay abreast of the evolving landscape of healthcare services coverage for transgender patients in both the public and private sectors.

Correctional health authorities should adopt clinical practice guidelines for managing incarcerated transgender patients.

Chief medical officers and correctional healthcare administrators should recognize the wide range of healthcare services that are important to incarcerated transgender patients that include, but are not limited to, hormonal treatments, surgical interventions, voice training, hair removal, and mental healthcare interventions.

Treatment plans should be patient-centered, (individualized), for incarcerated transgender patients as mental health and medical needs are highly variable.

Hormonal treatments should be continued, and medically adjusted as clinically indicated, for newly incarcerated transgender patients who were on treatment at the time of incarceration.

Patients without a documented prescription should be considered for continuation of hormonal treatment on a case-by-case basis as clinically warranted.

Hormonal treatments should be initiated for incarcerated transgender patients who are deemed candidates for treatment by a qualified healthcare professional.

Surgical interventions for incarcerated transgender patients should be considered on a case-by-case basis, while weighing the clinical importance of the intervention for the patient and other relevant factors.

While gender affirming surgical interventions can incur significant costs, these treatments can be cost effective. Incarcerated transgender women with debilitating dysphoria related to their genital status can be costly to manage due to frequent hospitalizations, self-injurious behaviors, and associated litigation expenses.

An inter-disciplinary approach, as feasible, should be adopted to engage the entire healthcare team in transgender care with the support of subject matter experts as needed.

Mental healthcare staff, in certain settings, may need to take on the unusual role of patient advocate in coordinating an interdisciplinary healthcare treatment plan.

Correctional healthcare administrators should adopt one or more proven interventions for providing quality healthcare services for their transgender patients, which may include, but are not limited to:

- Training primary care providers to gain competencies in managing transgender patients through residential and online continuing medical educational programs.
- Employing or contracting subspecialists, for example, endocrinologists, to provide care for incarcerated transgender patients.
- Accessing transgender medicine expertise through telehealth options: teleconsultation, provider to provider case presentations by phone, televideo, provider to direct patient care or telementoring, subspecialist training to primary care providers through video case presentations.

Correctional health administrators should evaluate the adequate delivery of transgender care as part of the health system's improving organizational performance plan.

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Reentry and Public Health

Release from jail or prison to the community can be a challenging transition for many incarcerated patients and pose substantial healthcare risks. Released persons with chronic medical and mental health conditions may have lapses in care that result in emergency department visits or hospitalizations (Wang et al., 2013). Those with untreated opioid use disorder can be at an alarmingly high risk for drug overdose and death within 2 weeks of release (Binswanger et al., 2007; Ranapurwala et al., 2018). Certain persons are also at increased risk of acquiring sexually transmitted infections, including human immunodeficiency virus (HIV) infection, soon after release from a correctional setting (Wiehe et al., 2015). These and other health risks may affect transgender persons releasing from jail or prison for multiple reasons. The frequent lack of family support or limited housing options related to stigma can be very destabilizing and lead to disengagement from needed medical services. “Life chaos” – a perceived inability to anticipate and plan for the future – is associated with disrupted care for justice-involved transgender patients with HIV infection (Takada et al., 2020). Transgender persons may face other barriers to a safe and healthy community transition, such as: (1) inability to secure gender-affirming medical or mental healthcare services; (2) release to sex-segregated facilities or residential treatment programs where they may be vulnerable to physical or emotional abuse or stigma affecting access to treatment

(Lyons et al., 2015); and (3) difficulty obtaining legal services to assist with navigating healthcare insurance coverage, name changes, and nondiscriminatory access to housing and public accommodations. These potential barriers to stable living and access to health care warrant intensive reentry services that target the unique challenges of transgender persons returning to their communities. A summation of reentry strategies for incarcerated transgender persons that were recommended by key correctional stakeholders are outlined in Box 25.4 (Kendig et al., 2019).

Investing in reentry services for incarcerated transgenders persons is not only a sound healthcare practice, but an important public health strategy. Community HIV prevention efforts can be advanced by targeting at-risk transgender women for HIV pre-exposure prophylaxis (HIV PrEP) prior to release from jail or prisons. Women as a group are largely undertreated with HIV PrEP in the United States (Huang et al., 2018). Innovative reentry interventions, such as peer navigation, can help transgender women with HIV infection achieve higher rates of sustained viral suppression upon their return to their families and communities (Cunningham et al., 2018). Linking incarcerated transgender persons with opioid use disorders to treatment services upon release can help reduce the risk of drug overdose and help prevent the transmission of blood-borne pathogens. A broader array of effective public health interventions is needed to better mitigate the multiple health risks faced by many transgender patients released from US jails and prisons.

Box 25.4 Identifying Effective Reentry Strategies for Transgender Persons

Consensus Considerations:

Unique needs: Correctional agencies should recognize that transgender people are at high risk of recidivism and have unique reentry needs that warrant tailored release plans.

Safety: Reentry programs should ensure that transgender people are being connected to safe housing and support services.

Medications: Correctional agencies should have policies and procedures in place to ensure that transgender patients have access to prescription medications at the time of release. Ideally,

releasing incarcerated transgender patients should have a referral to a health services provider who is culturally aware and clinically astute in caring for transgender patients.

Identity documents: A reentry priority for corrections should be providing legal support/referrals to transgender people for name and gender marker change on personal documents such as a driver's license, state ID cards, and birth certifications, to facilitate community reintegration.

Employment: Correctional agencies should provide tailored job training, formal education, and physical and mental health interventions to transgender people during incarceration to support their ability to gain employment upon release.

Parole: Correctional agencies should target parole locations, as feasible, that minimize housing and employment discrimination for releasing transgender people.

Community support: Linking incarcerated transgender persons with community transgender support groups, peers, or advocates can be helpful during incarceration and facilitate release planning to appropriate community services. Connectivity can be fostered not only through in-person meetings but also through virtual support groups.

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Conclusion

As correctional systems grapple with the unique and complex challenges of managing incarcerated transgender patients, they will need to stay abreast of the evolving medical and legal landscape that will inform future correctional management practices and standards of clinical care. Many thoughtful measures, however, can be advanced now, such as enacting policies that better implement PREA standards and enforce operational compliance, ensuring comprehensive and culturally competent gender-affirming healthcare services, and improving reentry strategies for incarcerated transgender persons. These efforts should be a priority for US jails and prisons if we are to effectively address the healthcare disparities and safety concerns faced daily by transgender persons behind bars.

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Europe: Monitoring Bodies for the Prevention of Ill Treatment

26

Hans Wolff

Introduction

The absolute prohibition of torture, inhuman, or degrading treatment or punishment is part of many international treaties, in particular, the United Nations Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, which has been ratified by most countries in the world, including the United States and all European countries (United Nations, 1984). Nonetheless, prisons are not free from torture. Venters' book on the detention conditions at New York City's Rikers Island is a compelling testimony about people tortured and even killed while under the authority of the State (Wolff & Greifinger, 2020).

Independent monitoring bodies play an important role in preventing such events by regular monitoring of respect for human rights in detention. On a global level, the Optional Protocol to the Convention against Torture (OPCAT) sets the frame for national preventive mechanisms (United Nations, 2002). The European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment (CPT) liaises closely with national preventive mechanisms of each country it visits. By the end of 2019, 90 nations/states had ratified OPCAT.

This chapter presents the working methods of one of the most effective correctional monitoring bodies—the CPT—with a focus on health care.

The CPT

The European Convention for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment of 1987 calls for a preventive monitoring system in all prisons and establishments in which people are held against their will (Council of Europe, 1989). The CPT was created in November 1989, in accordance with Article 1 of the European Torture Convention; it works as a non-judicial mechanism (Council of Europe, n.d.). It complements the judicial control carried out by the European Court of

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Human Rights, which has jurisdiction over crimes of torture committed in Europe by virtue of the 1950 European Convention for the Protection of Human Rights and Fundamental Freedoms prohibiting such practices (Council of Europe 1950).

The CPT carries out its investigations by means of periodic or ad hoc visits. Its mandate extends to any place where individuals are held, whether by administrative, judicial, or military authorities. The committee has unrestricted access to these facilities at any time, has access to all documents, and the right to speak in private with all detained persons in the 47 countries of the Council of Europe.

Confidentiality and Cooperation

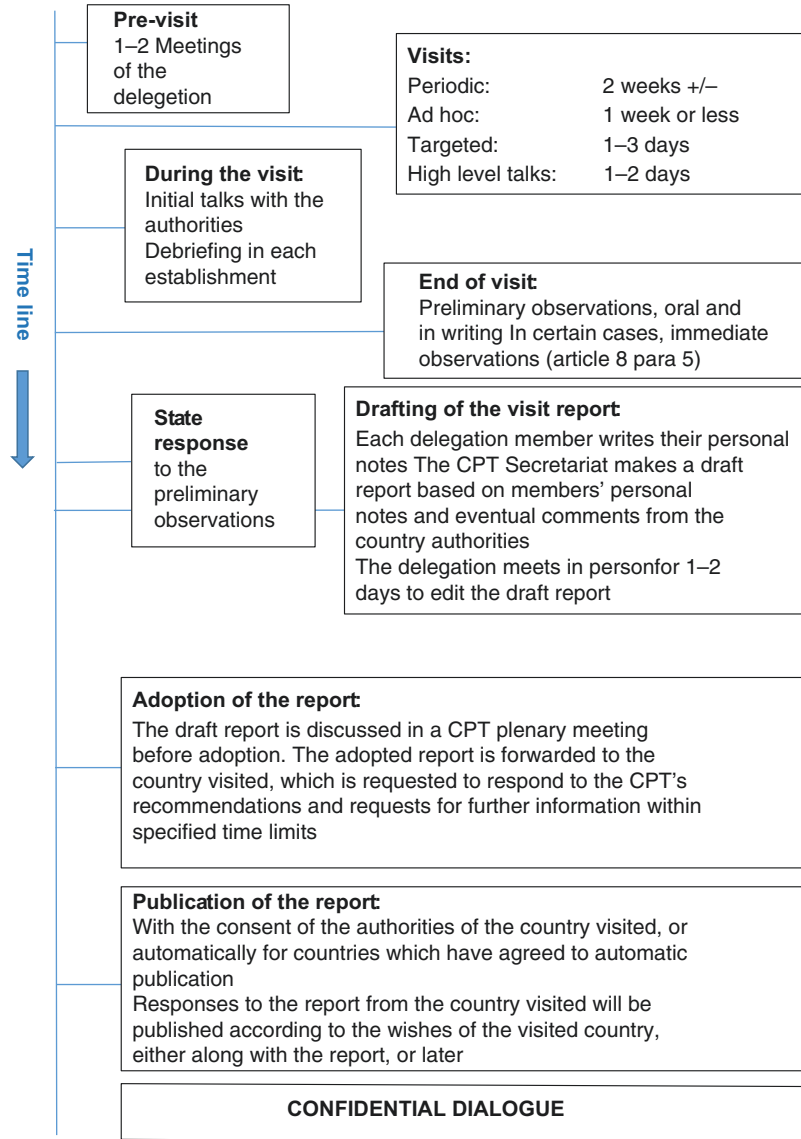
Two working principles determine the work of the CPT: confidentiality and cooperation. *Confidentiality* is achieved by reporting back to the government of the country visited. No information is disclosed without the respective government's authorization. The government decides the moment of publication of the report, along with its response. Most countries accept that the CPT publishes the visit reports on its website. *Cooperation* means regular and constructive interaction with the respective government. After each visit, recommendations are made, and former recommendations and responses are followed up. In the very seldom case of non-cooperation of a country, the CPT can make a public statement (Art. 10.2 of the Convention). By 2020, 455 visits were carried out and only nine public statements were released (Council of Europe, n.d.).

Every member country of the Council of Europe is visited periodically, on average every 5 years. Further ad hoc visits are made on an irregular basis, depending on the issues related to the CPT's mandate. Relevant issues can be brought to the CPT's attention by individuals, human rights organizations, nongovernmental organizations (NGOs), media, or other agencies of the Council of Europe. The CPT's secretariat gathers the information and discusses adequate action with the members to prioritize future visits. Member states are notified 1 year in advance of periodic visits. Ad hoc visits can be organized on short notice. Two weeks before entering a country, its government is notified to prepare relevant credentials, which are needed to enter all facilities without delay. The CPT has the liberty to conduct surprise visits. However, some (but never all) targeted detention facilities are notified and relevant documents requested, for example, the plan of the institution, a list of the detained persons with date of arrival and release, as well as type of offence, registries related to the use of force and security measures. Police stations are visited without prior notice and the choice of the police detention facility depends on the information on the spot, frequently through interviews in pretrial settings with recently arrived detainees. Figure 26.1 presents the organization of CPT's visits and its cooperation with member states.

Role of the Delegation Physicians

Each visiting delegation has at least one physician who evaluates the prison healthcare unit and assesses the medical files and any visible injuries of detained people who allege ill treatment. One cannot overestimate the importance of medical findings, which is frequently the only proof of injuries and may therefore support allegations of ill treatment. Besides medical "traces," the delegation may also watch video recordings, speak with prison officers and administrative staff, interview the prosecutor in charge of a case, and analyze disciplinary records, administrative files and registries related to the use of force.

Fig. 26.1 Organization of CPT’s visits and cooperation with member states. (Used with permission from M. Georg Høyer)



Prevention of Ill Treatment

The CPT has acknowledged that many other aspects related to health care are relevant to its core activities. In its substantive section of the third General Report (Council of Europe, 1993), the CPT set out seven guiding principles for health care in detention:

- Access to a physician
- Equivalence of care (with special attention to the higher morbidity and the greater healthcare needs of detained people)
- Patient consent and confidentiality
- Preventive health care (vaccination, substance use disorders, opioid agonist therapy, access to condoms, needle and syringe exchange, etc.)

- Protection of vulnerable groups: older people, women, disabled persons, lesbian, gay, bisexual, and transgender (LGBT) individuals, juveniles, ethnic minorities, or undocumented foreign nationals
- Professional independence
- Professional competence

Since its creation, the CPT has emphasized the important role of healthcare services, which should combat ill treatment through the methodical recording of injuries and the provision of information to the relevant authorities as recommended by the Istanbul Protocol (United Nations, 2004). The accurate and timely documenting and reporting of such medical evidence greatly facilitates the investigation of cases of possible ill treatment.

Health-Related Problems

The spectrum of health problems in detention centers is wide and their prevalence is generally greater behind bars than in the general population. The main challenges to health care in prison are substance use, mental illness, and communicable diseases, alongside several other problems such as violence, self-harm, and suicide (Fazel & Baillargeon, 2011). The quality and accessibility of healthcare services in detention centers are therefore of particular importance for the overall quality of life of detained people. This is all the more pertinent since they usually do not have access to a physician of their choice but are fully dependent on the healthcare services provided.

Inadequate provision of health care in detention can rapidly lead to situations falling within the scope of the term “inhuman or degrading treatment” under Article 3 of the European Convention on Human Rights (Council of Europe, 2018). The European Court of Human Rights has based more than 800 judgments on the CPT’s findings. The court has determined that the authorities have an obligation to: ensure that a prisoner’s state of health is regularly and systematically supervised; maintain a comprehensive record of a detained person’s health condition and the treatment received; ensure that diagnosis and care are prompt and accurate; and (where necessary) develop a comprehensive therapeutic strategy.

The CPT has emphasized that prisoners are entitled to the same level of medical care as persons living in the community at large. It attaches to the principle of equivalence of care. This principle is also recognized by many other organizations and is reflected in the legislation and policies of several states. In light of the disproportionately high level of health problems amongst detained people, a growing body of opinion questions whether the aim should instead ensure the equivalence of objectives or results. In many cases, this would involve a higher standard of care for people in detention. Proponents of the principle of “equity of care” argue that, quite apart from the legal and ethical considerations, it is often the only real way to achieve larger public health objectives.

Assessment of a Medical Service in Prison

The delegation physician assesses the quality of the healthcare service using a checklist (Box 26.1). This checklist is not exhaustive and may be adapted according the specific aim of the visit.

Box 26.1 A CPT Physician's Inspection Checklist for Assessing Medical Services in a Detention Center**I. Initial Interview with the Doctor-in-Charge****A. Medical/Nursing Team**

- Number of doctors (GPs, psychiatrists, dentists), other specialists, psychologists, nurses, and auxiliaries (full-time/part-time; other employment) in relation to the number of detained persons
- Presence of staff in detained persons (times of arrival and departure)
- Training, qualifications, and remuneration terms
- Involvement of third parties in care: guards, detained persons?

B. Outside Medical Support

- Back-up hospitals for emergencies/serious conditions?
- Specialist outside consultations (what, who, when, and number?)
- Method and conditions of medical transfer of sick patients (in particular, emergency cases)

C. Medical Care Work**1. Volume**

- Transmission of healthcare information/continuity of care
- Newly arrived detained persons: number per month, content/moment of medical examination upon admission
- Consultations during imprisonment: availability, number and duration of consultations by type of health-care staff, access arrangements respecting confidentiality? (oral/written requests, giving reasons for requests to non-medical staff, filtering of requests, eventually by whom?)
- Waiting times by type of healthcare service
- Emergencies: procedure during/outside working hours; medical staff on call in detention: who?
- Care provided free of charge/copayment by detained persons? health insurance?
- Medical service also responsible for staff/families working in the detention center?

2. Ailments Encountered

- Type/specific ailments encountered by the service
- Gender-sensitive health care and prevention (pregnant women/mothers and infants/ screening for sexual abuse and other forms of violence and screening for breast and gynecological cancer)
- Groups with special needs: for example, disabled/LGBT/elderly
- Mental disorders (e.g., psychotic disorders, consent to treatment, use of seclusion, and restraint)
- List of deaths: causes, autopsies conducted?

3. Prevention, Addiction, and Harm Reduction

- Suicide prevention, and self-harming
- Transmissible diseases: (e.g., Hepatitis, HIV, TB, syphilis, skin infections; screening, counseling, prevention, follow up and treatment)
- Condom distribution in a confidential manner?
- Prevention of transmission of diseases through tattooing, piercing, and other forms of skin penetration

- Systematic screening for drug, alcohol, and tobacco use/use disorder upon entry?
- Drug testing (type of tests used, reference lab for supervision? and who tests?)
- Is opioid agonist treatment offered to detained persons and under what conditions (free of charge? exclusion of undocumented migrants? confidentiality?)
- Are needles and/or syringes found during cell searches? Frequency of needle- and syringe-related problems? Needle and syringe exchange programs in the community/in prison?

4. *Medicines*

- Sufficient quantity and range/free of charge/expiry dates/distribution/who and how?
- Inappropriate use of prescription drugs, for example, benzodiazepines?
- Proportion of detained persons who receive medicines (percentage of psychoactive drugs, percentage of benzodiazepines)
- Distribution of medicines (how? who? confidentiality, supervision of intake)

D. *Non-care Work/Expertise*

1. *Ill Treatment*

- Number/type of cases (e.g., police, detention officers, and fellow prisoners)
- Medical certificates concerning traumatic injuries:
 - Procedures for drafting: who may request/consult them?
 - Allegations/objective findings/conclusions
 - Reporting system (when? to whom?)
 - Specific register/involvement of forensic doctor

2. *Disciplinary Sanctions/Security Measures*

- Involvement of healthcare staff in decision-making/fit-for-punishment/restraint certificates?
- Medical supervision of disciplinary isolation measures? Frequency?

3. *Miscellaneous*

- Certificates indicating persons unfit for detention?
- Hunger strikes (administrative instructions? written procedures?)
- Biomedical research: staff/detained persons involved; board of ethics; type of consent
- Monitoring of kitchens/checks on food/protection from pathogens/hygiene and temperature of storage rooms, refrigerators/presentation, quality and quantity of meals/variation of menus/inspection reports by public health authorities
- External inspection of healthcare provision, by whom? (reports/recommendations)

E. *Files/Records*

- Number and types (electronic file?)
- Confidentiality (access by detained person, lawyer, judicial organs, other medical authorities? what procedure?)
- Quality of medical files (check files of interviewed patients)

F. *General Atmosphere*

- Relations between members of the medical service and detained persons/detention officers
- Confidentiality of medical consultations

- Relations with doctors/nurses outside the prison system
- Independence of the medical staff (from penitentiary/judicial authorities)? Issues of conflicting loyalties/conflicts of interests

II. *Inspection of Medical Service Premises*

- Number of rooms/type (e.g., pharmacy, X-ray, and laboratory)/general hygiene
- Checking of apparatus/equipment [defibrillator, electrocardiogram (ECG), sphygmomanometer, sterilizer, etc.]
- If infirmary: number of rooms/beds/distribution of patients

III. *Final Talk with the Doctor-in-Charge*

- Flag up any contradictions between the statements made by the medical team and
 - the findings made during the visit to the premises
 - detained persons' complaints (supported by files)
 - the observations of the other members of the delegation

Conclusion

The quality of health care in places of deprivation of liberty is important for the prevention of inhuman and degrading treatment. The CPT thoroughly assesses all elements related to potential violation of human rights in these places.

The state has the responsibility to ensure access to health care that is equivalent to care delivered in the outside community. The European Court of Human Rights has repeatedly qualified non-access to essential medical treatment as inhuman and degrading treatment. In this regard, as an example, Germany has been found guilty because it did not allow a person to receive opioid agonist treatment in prison (Junod et al., 2018).

All items assessed by the CPT's medical members are relevant for the provision of health care and therefore relevant for the respect of human rights in places of deprivation of liberty. In particular, the timely screening for healthcare problems at entry and the detection and reporting of injuries are key elements for the prevention of ill treatment. Healthcare professionals must be trained to identify, record, and report injuries in places of deprivation of liberty (Pont et al., 2015).

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Substance Use Disorder Treatment in Correctional Facilities: Updates in Evidence-Based Treatment and Steps Forward

Radha Sadacharan and Josiah D. Rich

Introduction

The War on Drugs

From the 1970s onward, the United States at both federal and state levels worked to criminalize drug possession of all kinds. There is an increasing appreciation that this grew out of a political goal of disenfranchising Black voters rather than as a response to public health concerns. In 1971, President Richard Nixon declared a “war on drugs” and deployed mandatory sentencing, no-knock warrants, and increased the presence of federal drug control agencies. The late 1970s, under President Jimmy Carter, saw some positive change in decriminalization of small amounts of marijuana possession. This progress unfortunately did not last. Over the next 20 years, the number of people behind bars for non-violent drug law violations increased from 50,000 in 1980 to over 400,000 by 1997, disproportionately affecting poor communities of color. The media portrayal of and governmental response to the crack and cocaine epidemic of the 1980s further vilified racial minorities, especially Black communities across the United States. These antidrug laws have dramatically increased incarceration rates in America, and while the pendulum seems to now be swinging the other way toward more sensible drug reform, 700,000 people are arrested for marijuana offenses each year and almost 500,000 people are still incarcerated solely for drug law violations (Drug Policy Alliance, 2020). The opioid epidemic that has hit the United States, along with the devastating number of individuals that die of overdose annually, have given us an opportunity to take a step back and reevaluate how we treat individuals struggling with addiction.

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Addiction Treatment in Correctional Settings: Therapeutic Communities

The most prevalent forms of addiction treatment in correctional facilities are therapeutic communities/residential treatment, counseling, and various iterations of recovery support services. Historically, therapeutic communities (TCs) have spurned the use of medications in addiction treatment, citing the concern for dependence on a medication as being antithetical to recovery. TCs are typically favored and understood by correctional officials (Butzin et al., 2002; Hiller et al., 1999), and continue to be a dominant mode of treatment in correctional facilities. Despite their prominence in correctional settings, therapeutic communities are successful (defined as decreased rates of recidivism and relapse) only when there is adequate linkage to community programs on release (Chanhathasilpa et al., 2000). Utilization of a therapeutic community alone is akin to managing a patient's hypertension with diet and exercise alone, when in fact antihypertensives may be needed. When combined with evidence-based medications for addiction treatment (MAT) and adequate linkage to community programs on release, therapeutic communities can provide a holistic and effective treatment plan for individuals with substance use disorders.

The Cost of Untreated Substance Use Disorders

The individual and societal costs of untreated substance use disorders (SUDs) are myriad and complex. These costs include death due to drug overdose, overutilization of emergency departments, criminal activity, and incarceration (Mark et al., 2001; Wall et al., 2000). Individuals with SUDs, in particular those who inject drugs, tend to be among those most at risk for many medical illnesses, with a high prevalence of infectious diseases—HIV and hepatitis C in particular (Edlin, 2002; Hagan et al., 2002; Kapadia et al., 2002)—and comorbid psychiatric conditions (Lurigio, 2011; Steadman et al., 2013).

The lifetime prevalence of substance use disorders among inmates is over 70%, and 86% of inmates report using illicit substances in their lifetime, rates far greater than the general population (Baillargeon et al., 2009; Steadman et al., 2013). Not only are rates of use high, many of these individuals also report crimes leading to their most recent arrest being committed while under the influence of drugs or alcohol. Despite high rates of substance use disorders among inmates and their contribution to increased arrests, there is a void of evidence-based treatment readily available during incarceration. Treatment with medications for addiction is maintenance-based, and safely can be taken for years. It is not uncommon to meet an individual who has been taking methadone for their opioid use disorder for 40 years, has an excellent quality of life, works a steady job, has a family, and has no concern about continuing to take methadone until they die from old age. Before treatment can start however, adequate screening and assessment must be done.

Screening and Assessment of Substance Use Disorders

The use of evidence-based approaches for screening and assessment is likely to result in more accurate matching of inmates to treatment services and more effective treatment and supervision outcomes (Shaffer, 2011). There are numerous validated tools that may be used for substance use disorder screening. As it is not the focus of this chapter, we will not delve into the details of different screens, but as a guide when evaluating screens for substance use disorder, it is most beneficial to patients and providers to prioritize highly sensitive versus highly specific screening tools. That is to say, a tool that identifies the greatest number of true positives is an effective screening tool for substance use disorder.

ders. While screening can be done quickly and does not require any specific professional certification, assessment and determination of a treatment plan should always be completed by a qualified treatment provider, such as a correctional healthcare provider.

For every positive screen, a patient should be interviewed by a qualified treatment provider in order to confirm the diagnosis and plan for treatment. The substance/polysubstance use disorder should be confirmed based on history elicited by the provider, provided by the patient, and potentially collateral information. The most recent Diagnostic and Statistical Manual of Mental Disorders (DSM-V) criteria is the standard for substance use disorder diagnosis utilized in the community. While the DSM-V eliminates the abuse/dependence diagnosis dichotomy found in the DSM-IV and instead uses Substance Use Disorder-Drug, 10 of the 11 criteria are the same as the DSM-V. The exception is recurrent legal difficulties in DSM-IV has been replaced by a craving criterion. The DSM-V also provides guidelines for diagnosis severity, with severity indicators for mild (meets 2-3 criteria), moderate (meets 4-5 criteria), and severe (meets 6 or greater criteria) substance use disorders (Hasin et al., 2013).

In the assessment, the provider should identify current substance use: when, what types of substances, and how much, and whether currently in any treatment. In many cases, individuals may use more than one substance, and in our experience, patients may be unknowingly exposed to multiple substances. In the time of fentanyl, multiple substances such as cocaine are now being laced with the fatal opioid, leading to an increase in opioid overdoses among individuals with primary cocaine use disorders (Ungar, 2019). Well-timed urine drug screens may help confirm or clarify history. Patients should also be asked about previous treatment episodes in terms of length of treatment, type of treatment (inpatient stays, detox, residential), medications, and outcomes (duration of recovery, number of relapses, environmental/stress situation surrounding relapse). Patients should be reminded: the best predictor of recovery success is the number of times a person has attempted recovery. In addition to questions surrounding substance use, providers should also identify patients who have comorbid medical and psychiatric conditions. Important medical conditions to be aware of in patients who are interested in medications for addiction treatment include pregnancy, hepatitis B and C, HIV/AIDS, heart conditions, and any liver disease in general. Where psychiatric conditions are concerned, individuals with co-occurring disorders (mental health and substance use disorders, also known as CODs) should be prioritized for integrated treatment when available. There are higher rates of recidivism and overdose associated with patients with CODs when compared to patients with substance use disorders alone; 60–87% of justice-involved individuals who have severe mental disorders also have co-occurring substance use disorders (Chiles et al., 1990; James & Glaze, 2006; Lurigio, 2011; Steadman et al., 2013). Finally, providers must evaluate each patient's degree of motivation for behavior change and readiness for treatment and partner with the patient to understand what treatment the patient believes will be most effective.

Effective Treatment of Opioid Use Disorder

“Medication-based treatment is effective across all treatment settings studied to date. Withholding or failing to have available all classes of U.S. Food and Drug Administration-approved medication for the treatment of opioid use disorder in any care or criminal justice setting is denying appropriate medical treatment” (National Academies of Sciences, Engineering and Medicine, 2019).

Drug overdoses are now the leading cause of death for Americans under the age of 50. There is a plethora of evidence demonstrating that three medications—methadone, buprenorphine, and naltrexone—are all effective treatments for opioid use disorder (OUD) as compared to placebo, when studying outcomes of mortality and continued drug use in the general population. All three medications are

regarded as the standard of care for OUD in the community. Methadone and buprenorphine, the two opioid agonist therapies, seem to be most effective. Among justice-involved populations, opioid agonist therapies specifically have been associated with higher retention in treatment, lower rates of illicit substance use, lower rates of recidivism, and lower rates of death immediately after release (Vorma et al., 2013; Timko et al., 2016; Westerberger et al., 2016; McKenzie et al., 2009; Marsden et al., 2017). If all three medications for opioid use disorder were accessible in prisons and jails across the United States and there were community linkages to ensure retention in treatment at reentry, this could reduce overdose deaths by up to 32% (Macmadu et al., 2021).

Despite the mounting evidence of the benefits of medications for OUD in criminal justice settings, most correctional facilities currently rely on, at best, an opioid antagonist like naltrexone and, at worst, forced opioid withdrawal, which has generally been represented as “drug-free detoxification,” a term that belies the discomfort and disruption it causes. Return-to-use rates following detox have been reported to be as high as 65–91%. If patients return to using opioids, this approach carries a high risk of overdose due to a reduced opioid tolerance (National Academies of Sciences, Engineering and Medicine, 2019). With the exception of methadone for pregnant women with opioid use disorders, a well-accepted standard of care, historically there have been various parts of the criminal justice system that expressed concern regarding the need for opioid agonist treatment. Among treatment courts, judges, parole, and probation agencies, and treatment options such as 12-step programs, many felt that buprenorphine and methadone were replacing one drug for another.

This belief and stigma are clear in treatment referral sources for state-regulated treatment facilities. The Substance Abuse and Mental Health Services Administration (SAMHSA) manages data collection and dissemination regarding treatment admissions in state-regulated treatment facilities within the United States, known as Treatment Episodes Data Set-Admissions (TEDS-A). A retrospective study of these data looked at sources of referral for treatment facilities and the likelihood of receiving opioid agonist medications as part of their opioid use disorder treatment plan. Justice-referred individuals were significantly less likely to receive agonist medications as compared to those referred through other resources: while 40.9% of people referred through other sources received opioid agonist treatment, less than 5% of people referred through the justice system received opioid agonist treatment for their opioid use disorder (Krawczyk et al., 2017).

The patient-provider discussion in choosing a medication for opioid use disorder should be guided by patient preference after understanding their choices (Puglisi et al., 2019), as patients will be most motivated to take the medication regularly and as instructed. This motivation is integral to recovery.

Medications for Opioid Use Disorder

Methadone

Methadone was first introduced as a medication to treat opioid use disorder in 1972, and it continues to be strictly regulated at a federal level in the United States, only available through opioid treatment programs that are certified by the Substance Abuse and Mental Health Services Administration (SAMHSA) and registered by the Drug Enforcement Administration (DEA). It is a schedule II narcotic and a full opioid agonist. With a long half-life of 18–36 hours, methadone can be dosed once per day and will achieve a steady state within 3–7 days with continued daily dosing. In terms of dosage regimens, higher doses (80–100 mg) have been found to be more effective than lower doses (40–50 mg) in reducing opioid use (Strain et al., 1999), and the dosage should be no less than 30 mg daily to effectively decrease opioid cravings. This dose-response varies by individual but is generally due to the increase in mu opioid receptor blocking with an increase in dosage, thus decreasing cravings for opioid use.

Note that methadone is metabolized through the CYP450 pathway, and medications such as rifampin and phenytoin, which are CYP450 inducers, can increase the rate of clearance of methadone. Patients that are on methadone maintenance therapy and start any CYP450 inducer medication can therefore experience opioid withdrawal symptoms, so methadone doses may need to be increased accordingly. Some antiretrovirals may also cause an increase or a decrease in clearance rate of methadone, so symptoms of withdrawal or sedation should be monitored and the methadone dose should be adjusted accordingly.

The regulation surrounding this controlled substance is to reduce diversion of methadone for illicit use. Unfortunately, the strict control significantly reduces the access to care. If correctional settings do not have an established relationship with a community methadone provider, they are able to obtain special licensing for methadone dispensation. Pursuing the licensing and adhering to an additional layer of regulation to be able to dispense methadone on-site for opioid use disorder treatment may be cost-effective and more efficient for larger facilities, especially in areas of the country that are far from any opioid treatment programs (OTPs). The National Commission on Correctional Healthcare has a program to assist correctional facilities interested in becoming accredited to dispense methadone for OUD (Mckenzie et al., 2009). For smaller facilities, or ones in which special licensure is not possible, outreach to a community OTP is advised. The major benefit of a relationship with a community OTP as compared to an internal methadone dispensation is the linkage to treatment on release.

Compare these restrictions to both the United Kingdom and Canada, where regulatory changes over the last 20 years have allowed methadone to be prescribed for the treatment of opioid use disorder by primary care physicians. Many countries around the world—including Australia, Canada, China, and most of Europe—have widely available methadone treatment programs for incarcerated individuals.

The data supporting methadone maintenance therapy for the treatment of opioid use disorder have demonstrated successful outcomes in prison populations. Forced withdrawal from methadone during incarceration reduces the likelihood of inmates restarting methadone maintenance after release. In comparison, inmates for whom methadone maintenance was continued during incarceration had higher levels of treatment engagement after release, which can reduce the risk of overdose and risk behaviors (Rich et al., 2015).

With respect to jails, since 1987, Rikers Island Correctional Facility has run an opioid treatment program, the Key Extended Entry Program (Project KEEP). Project KEEP began as a response to the HIV/AIDS epidemic. Tens of thousands of inmates have been started or maintained on methadone treatment through incarceration and on reentry into their communities. The jail's treatment program has demonstrated cost savings of health care, reduced recidivism and criminological activity, reduced HIV and hepatitis C transmission, and improved rates of recovery. To alleviate security concerns regarding the risk of diversion, directly observed therapy using a public health nurse and correctional officer has been utilized to excellent effect. The success of Project KEEP is contingent upon community linkage at release, with 74–80% of individuals continuing methadone maintenance therapy in the community (Tomasino et al., 2001). This treatment program has since expanded to provide buprenorphine and depot-naltrexone.

If initiation of methadone maintenance therapy for incarcerated individuals is not possible, maintenance of community-initiated MMT should be advocated. In Rhode Island, the continuation of methadone maintenance treatment during incarceration has been shown to significantly improve engagement in treatment and reduce overdose risk for at least 12 months after release (Brinkley-Rubinstein et al., 2018).

Buprenorphine

Buprenorphine is a partial opioid agonist and schedule III medication. It was approved by the US Food and Drug Administration (FDA) in 2002 for the treatment of opioid use disorders. The benefits of buprenorphine are its ability to be prescribed in outpatient facilities (outpatient-based opioid treatment, or OBOTs), fewer side effects as compared to methadone, and a lower risk of overdose. Administration of buprenorphine to a person who has recently used opioids can precipitate withdrawal, given its high affinity for mu receptors (knocking other opioids off the receptor), but is also a partial agonist. As such, buprenorphine initiation necessitates that a person who is actively using opioids be in opioid withdrawal, to avoid putting patients in uncomfortable and potentially dangerous situations. Initiation should occur at least 6–12 hours after the last use of heroin or other short-acting opioids, or 24–72 hours after last long-acting opioid use, such as methadone. The Clinical Opioid Withdrawal Scale (COWS) can be used to assess the level of withdrawal of an individual who is physiologically dependent upon opioids; if someone has had recent opioid use, we recommend a COWS score of at least 10 prior to buprenorphine initiation.

Buprenorphine is currently available in a sublingual pill and film form to be taken daily and recently has been approved as a monthly depot-injection (SUBLOCADE™). Buprenorphine should be placed under the tongue to dissolve slowly. This poses a time constraint and potentially a risk in secure environments. For this reason, we recommend, when possible, administering the buprenorphine film to inmates in directly observed treatment (DOT), or if films are cost-prohibitive, crushing buprenorphine pills. After administering, allow at least 5 minutes to ensure the film has dissolved. If it were not even more cost-prohibitive for many systems, the extended-release buprenorphine injection would be an excellent choice for correctional settings, especially if given prior to release to address the risks of cravings and overdose, and to allow for continuation of effective treatment over the course of the first 30 days post-release. It is also wise to remember that as a partial agonist/antagonist, the risk of fatal overdose from buprenorphine is perhaps the lowest of all opioids.

If the correctional facility has an OTP license as described in the methadone section above, this will cover buprenorphine prescribing too for opioid treatment and withdrawal. If the facility does not have an OTP license, buprenorphine may be prescribed for opioid use disorder treatment by any healthcare provider—physician or mid-level—who has obtained a special DEA waiver by completing a DATA 2000 waiver training course or in the case of mid-level practitioners, completing a total of 24 hours of training. These courses are held live and online, and some are free (PCSS, 2020). So long as a provider has an individual DEA number, once they complete the course and a SAMHSA waiver notification form for a new waiver, after uploading their training certificate they will receive an “X-number,” that is, a DEA prescribing number and be cleared to start treating patients with opioid use disorder with buprenorphine-based medications. The notification of intent must be submitted to SAMHSA before the initial dispensing or prescribing of opioid treatment. Qualifying practitioners can treat up to 100 patients using buprenorphine for the treatment of opioid use disorder (OUD) in the first year if they possess a DATA 2000 waiver and meet certain requirements. After 1 year, if SAMHSA-defined requirements are met, providers can apply to treat up to 275 patients per year (SAMHSA, 2020).

In terms of cost to correctional facilities, buprenorphine as the medication itself is generally more expensive than methadone. However, federal 340B funding that provides reduced-cost pharmaceuticals to Federally Qualified Health Centers (FQHCs) in the community can provide some relief to correctional facilities, and if there is a positive partnership with a community FQHC, this would be an ideal opportunity to link individuals to treatment on reentry.

When compared to methadone, buprenorphine continuation at reentry is easier for providers to facilitate and for patients to access. As primary care providers with the DATA waiver are able to pre-

scribe, patients have a lower barrier to accessing needed treatment. Buprenorphine treatment in an OBOT also is less structured as compared to methadone in an OTP. Counseling is encouraged but not required; medication visits occur somewhere between weekly and monthly. There is a concern that while buprenorphine is effective in the community, justice-involved individuals may require the structure of an OTP to be successful. However, a recent multisite cohort study of 305 patients living with HIV/AIDS and stratified by self-reported incarceration in the 30 days before initiation of buprenorphine found that there was no significant difference in self-reported opioid use or 6-month or 12-month retention in treatment between those with and without recent incarceration (Riggins et al., 2017). Additionally, if the medication is started immediately prior to or at the time of release, the dose of buprenorphine will be effective in controlling cravings more quickly than the time needed to increase a patient's methadone dose.

When initiated prior to release, buprenorphine does seem to have a positive effect on engagement and community-based treatment retention after release (Zaller et al., 2013). At the time of writing this chapter, buprenorphine initiation in correctional facilities happens infrequently. Patients who enter correctional systems on buprenorphine sometimes may be allowed to remain on the medication, depending on their length of sentence and the facility they will be sent to (Lopez, 2018; Wakeman & Rich, 2015). For these reasons and due to the stigma surrounding opioid agonist therapy, there is currently limited information regarding randomized controlled trials on the efficacy of buprenorphine for the treatment of OUD in correctional systems. Given the trajectory and outcomes of methadone when it is available in corrections, along with the rising tide of interest in treating addiction effectively in the community, we are confident that buprenorphine will be an important part of OUD treatment in corrections in the near future.

Naltrexone

Naltrexone, an opioid antagonist, is most effective as a monthly intramuscular injection in the outpatient setting. Intramuscular depot-naltrexone (XR-NTX, Vivitrol®) was initially approved by the FDA for the treatment of alcohol use disorder in 2006, and in 2010 was approved for the treatment of opioid use disorder. While an oral naltrexone formulation is available, it is generally not effective for preventing opioid use relapse, as people will stop taking the medication. Unlike methadone and buprenorphine, we still do not have sufficient evidence that naltrexone reduces the risk of mortality (Larochelle et al., 2018).

Both the injection and the oral medication necessitate a longer abstinence from opioids than either methadone or buprenorphine, generally at least 5–7 days, as naltrexone initiation can induce withdrawal by causing displacement of any opioids present on opioid receptors. In rare cases, induced withdrawal has been reported as long as 10–14 days out from last opioid use (Center for Substance Abuse Treatment, 2008). The safety and efficacy profile of naltrexone is well understood and, save for the risk of liver enzyme elevation and inducing withdrawal on initiation, comes with few other risks. Liver enzymes should be checked prior to initiation. Transaminases greater than three times the upper limit of normal should be considered a contraindication to naltrexone, and a trial of oral naltrexone, with a dose of 50–100 mg daily for 3 days, should be completed as a trial for side effects. Two of the highly touted aspects of naltrexone are the lack of opioid-related side effects and the potential to concurrently treat alcohol use disorder and opioid use disorder.

The lack of effect of naltrexone, as discussed above, has been attributed to a lack of motivation on the part of subjects. Correctional settings offer a location where motivation can be affected by concerns of punishment. Naltrexone was first used in the United States in a correctional setting as part of a work-release program in Nassau County, New York. In total, 691 work-release inmates struggling

with addiction who had formerly been excluded from work-release were admitted contingent upon starting oral naltrexone to treat their substance use disorders (Brahen et al., 1984). This was not a controlled trial, but the intervention was overall viewed favorably by correctional staff, healthcare providers, and clients. After this initial pilot study's results were disseminated, a trial among 51 federal parolees in whom oral naltrexone therapy was a condition for parole was undertaken. Parole officers directly observed parolees taking naltrexone and conducted weekly urine opioid screens. Compared to historical controls, parolees taking naltrexone for opioid use disorder had higher retention in treatment (52% vs. 33%) and reduced urine opioid screens (8% vs. 30%). In both of these programs, strong motivating factors were present (inclusion in programs previously unavailable to individuals), and adherence was strictly enforced.

The focus on reentry remains the most important. Looking at a more recent treatment at release from jail, a randomized proof-of-concept effectiveness pilot done in NYC demonstrated potential short-term benefits of extended-release intramuscular naltrexone (XR-NTX). Thirty-four adult men with a diagnosis of opioid use disorder and a known release date were recruited between January 2010 and April 2013 and enrolled into this pilot. Seventeen were randomized to one depot-naltrexone shot within 1 week prior to release along with standard counseling. The other 17 received standard counseling. After 4 weeks, 88% of the control group had experienced an opioid relapse, compared to 38% of the treatment group. There was no difference in reincarceration or overdose rates, and patients were not followed further (Lee et al., 2015).

In terms of prison-based programs, an observational pilot study of 27 adult male and female prerelease prisoners were given an injection of XR-NTX prior to release and were offered up to six monthly injections in the community. Only 37% of participants completed all six injections. 0% of participants who completed the full course of treatment submitted a positive urine opioid screen, compared to 63% of all others (Gordon et al., 2015). This pilot study demonstrated the feasibility of beginning XR-NTX in prison and continuing it upon release, but retention rates were notably low, especially compared to other studies with opioid agonists, mentioned above. The short-term benefits are notable, but to date we have little long-term follow-up for justice-involved patients started on naltrexone during or immediately after incarceration.

A Case Study: Rhode Island Department of Corrections

In 2015, the Governor of Rhode Island, watching the opioid epidemic unfold across the nation and taking the lives of Rhode Island residents at a far greater rate, signed an Executive Order to create an Overdose Prevention and Intervention Taskforce to identify solutions for the high rate of opioid overdoses and fatalities. The strategic action plan created aimed to reduce opioid overdose deaths in the state of Rhode Island by one-third in 3 years: through prevention, rescue, treatment, and recovery. Accomplishing that meant for treatment, every door was the right one. The governor approved a \$2.5 million budget to Rhode Island's Department of Corrections (RIDOC) for FY17, to be used specifically for MAT services.

Rhode Island has a unified correctional system, meaning combined prison and jail oversight: the men and women's intake facilities, and men's minimum, medium, max, and super-max facilities all operate under the Rhode Island Department of Corrections. Even more unique and due mostly to the small size of the state, all facilities are on one centralized campus.

With the state budget allocation and an ambitious timeframe, RIDOC leadership set out to deliver comprehensive MAT services to all inmates. In addition to a treatment program with recovery coaches provided by the Providence Center, this included a roll-out of screening every individual for opioid use disorder, assessment with a healthcare provider, and ultimately medication initiation/continuation

with buprenorphine, methadone, or depot naltrexone within all state correctional facilities. Given the high risk of death from drug overdose at reentry, RIDOC also needed to ensure smooth transitions for individuals back into their communities with no lapse in treatment. CODAC Behavioral Healthcare, a nonprofit network of 12 community-based Centers of Excellence for MAT answered RIDOC's Request for Proposals and met these needs.

For every individual that now passes through the RIDOC, they are screened at least once for opioid use disorder using the Texas Christian University (TCU) Drug Screen. The first screening is done on a tablet within 24 hours of booking. From that point, any patient with a positive TCU screen is referred to a CODAC counselor and then to a CODAC physician. During this process, a urine drug screen is also obtained. Based on the healthcare provider's assessment and discussion with the patient, treatment with any of the three medications for opioid use disorder (methadone, buprenorphine in the form of Suboxone™ crushed tabs, or naltrexone closer to release, with a trial of oral naltrexone to ensure there are not side effects and then XR-NTX prior to release) is offered. The most appropriate medication is tailored to the patient based on many factors but especially patient preference. The state of Rhode Island has demonstrated preliminary data showing a decrease in the state's rate of overdose deaths of individuals released from incarceration by 61% (Green et al., 2018).

In a security setting, diversion has been and will continue to be the most important risk to discuss. Directly observed therapy (DOT), in particular of methadone and buprenorphine, significantly reduces the risk of diversion. Methadone remains fairly easy to administer and observe as it is in a liquid form, an oral concentrate. Buprenorphine in its two sublingual forms requires more time to ensure the tablet or film has dissolved. RIDOC initially treated patients with buprenorphine tablets but quickly moved to films, and then to crushed tablets, the latter two of which dissolved faster and were more conducive to DOT. Films/tabs should also be counted each shift. With Sublocade™, the concern for diversion would be far reduced.

Legal Implications in Treating Substance Use Disorders During Incarceration

Despite the serious public health need for access to evidence-based pharmacological treatment for substance use disorders, a vast majority of correctional facilities across the United States are still not engaging in this work. Many facilities still discontinue inmates' OUD medications on commitment, or, slightly less terribly, taper inmates off of their long-term medications within 30 days of incarceration. The withdrawals that ensue can be horrendous, and at times life-threatening. There have been multiple successful litigations as of late against correctional facilities denying inmates access to treatment for their substance use disorders. In December of 2019, the American Civil Liberties Union filed a case (Sclafani v. Mici, 2019) against the Massachusetts Department of Corrections, arguing that inmates in the DOC with an opioid use disorder must have access to treatment, namely, MAT. This case followed two prior cases in Massachusetts that also argued for the continuation of inmates' medications for opioid use disorder while incarcerated. These cases and the ones that will inevitably follow will likely move the dial on allowing more widespread access to medications for opioid use disorder during incarceration.

Medications for Alcohol Use Disorder

To date, the three medications that follow have not been rigorously evaluated in correctional settings for their effectivity in treating alcohol use disorder. Disulfiram is no longer considered a first-line treatment. As they do not pose the same diversion risk and concerns as methadone and buprenorphine,

use of medications for the treatment of alcohol use disorder has been less contentious in correctional settings. All medications for alcohol use disorder rely on a baseline level of motivation, whether it is external, internal, or both. The information that follows is based on data and information from community settings.

Acamprosate

Acamprosate is a GABA analogue and, while not fully understood, is thought to increase the glutamate effect at NMDA-type receptors. This aims to restore the neuronal excitatory/inhibitory balance that is thought to be altered in alcohol use disorder (Kalk & Lingford-Hughes, 2014).

Medication adherence to acamprosate is of concern as it must be taken three times a day. In a large multicenter trial comparing naltrexone, acamprosate, or a combined behavioral intervention, there was no benefit of acamprosate over placebo (Krupitsky et al., 2006).

Naltrexone

This medication has been described in detail above, and as noted, XR-NTX was initially approved for alcohol use disorder treatment, and later for opioid use disorder treatment. As ethanol activates the opioid system which results in various neurotransmitter activation, utilizing naltrexone to block opioid receptors provides an interruption in the activation cascade and decreases a desire for heavy drinking (Baldin et al., 2003; Gianoulaakis et al., 1996). When considering dual treatment for alcohol use disorder and opioid use disorder, XR-NTX should certainly be considered.

Disulfiram

No longer considered a first-line treatment, disulfiram (Antabuse®) is a once-a-day pill that works by blocking the alcohol oxidation, causing increased levels of acetaldehyde accumulation. This produces unpleasant symptoms such as nausea, vomiting, seating, chest pain, tachycardia, headaches, flushing, and palpitations. It is a medication that works solely through negative reinforcement. As cessation of disulfiram does not have any adverse consequences, patients will stop taking this medication regularly.

Other Substance Use Disorders

As of yet there have not been any pharmacologic breakthroughs to treat methamphetamine, cocaine, cannabinoid, or other substance/polysubstance use disorders.

Methamphetamines are the second most commonly used illicit substance worldwide, following cannabis. Methamphetamine use disorder is becoming more common in select cities across the country, and pharmacotherapy exploration for its treatment remains in early stages (Elkashef et al., 2008). While no broadly effective medication has been put forth, there have been some potential in-roads with methylphenidate, naltrexone, bupropion, and mirtazapine in reducing stimulant use (Brensilver et al., 2013).

Transitions of Care

Despite it being the point at which incarceration ends, reentry is the most important moment to consider when understanding how to care for a justice-involved individual struggling with addiction. Transitions back into the community pose tremendous risks and uncertainty to patients. For an individual with potentially no housing, no job, no access to health care nor access to an ID, reentry can be overwhelming. The desire to use increases during times of stress, and without systems of support in place, this can be disastrous. In a large retrospective study looking at 30,237 released inmates from Washington state prisons, 443 died during a mean follow-up period of 1.9 years. Drug overdose was the leading cause of death among former inmates in this study, with 103 individuals suffering a fatal overdose. Even more devastating, in the first 2 weeks after release, the relative risk of drug overdose for released inmates was 129 times greater, as compared to other Washington state residents (Binswanger et al., 2007). As highlighted previously, the majority of correctional facilities do not currently provide adequate access to medications for addiction treatment. In the frightening world of fentanyl and a higher risk of fatal overdose, it is imperative that we advocate for our patients to have access to evidence-based treatments for addiction before we send them off into the fray.

Steps Forward

The implementation of medications for addiction treatment in correctional settings does not exist in a healthcare vacuum, like a hospitalization for an acute illness. In order to effectively treat addiction, we need a common understanding: addiction is not a moral failing. It is a chronic brain disease. It changes the way that brains are wired, and in order to allow people to return to normalcy and reintegrate into their communities, we have to help them take the weight of addiction off their shoulders before they can rise up. To be successful in helping justice-involved individuals overcome addiction, we must have political buy-in, endorsement from correctional leadership, and collective agreement and understanding among correctional staff.

At a federal level, we have witnessed a tide change in the way that the United States views drug use and overdose, specifically opioids. There is more compassion, more understanding, than there has been in a long time. While nationally more politicians desire to engage their communities, this focus does vary greatly between states, and there can be markedly different responses based on the drug in question.

Correctional leadership plays an invaluable role in moving the dial. The National Sheriff's Association, in conjunction with the NCCHC, recently published an excellent jail-based MAT guidance document providing best practices and resources. With leadership calling for change, the daily work by correctional staff must also be supported. Staff will likely require education from trusted medical and correctional sources. Correctional staff see the worst-case scenarios of addiction, mental illness, violence, and poverty. The chronic psychosocial problems that affect individuals in the general population who struggle with substance use disorders are magnified for justice-involved people. When individuals are able to exit the criminal justice system, correctional staff does not witness those successes. When possible, we recommend presenting cases to correctional staff individuals who have taken their lives back thanks to MAT. In Rhode Island, for every new class of correctional officers, Medical Services hosts an education session on MAT in partnership with security leadership.

Until the majority of correctional facilities are providing these services, health services workers, especially those directly interacting with treatment dispensing in the setting of opioid agonists, may

also require additional compensation. Negotiations with unions, from correctional officers to nurses, are common occurrences. These conversations all require a major time and energy investment.

During the current COVID-19 pandemic, we have already witnessed an increase in overdose deaths in the initial months of the pandemic. Fortunately, emergency regulations now allow buprenorphine, and to a lesser extent, methadone, to be more widely available to patients struggling with opioid use disorder. It is our hope that these regulations prevent deaths and by doing so remain in place after the pandemic. As mentioned before, methadone for the treatment of OUD in other countries is safely provided by primary care physicians. In our fractured and complex healthcare system, we must meet patients where they are, instead of increasing their barriers to accessing care when they need it most.

Medications for addiction treatment save lives. In corrections, we are moving from a focus on incarceration and punishment to rehabilitation. As correctional health providers, we must ensure our patients have access to the tools they need to lead healthy lives.

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Part V

**Thinking Forward to Reentry—Reducing
Barriers and Building Community Linkages**



Research on People Who Experience Imprisonment

28

Fiona Kouyoumdjian

During much of the twentieth century, health research was conducted in prisons in violation of fundamental contemporary ethics principles such as respect for persons and justice. In light of this history, prison health research must recognize the inherent vulnerability of people in prison and uphold the obligations of researchers, correctional authorities, and national bodies to protect people in their roles as research participants.

That notwithstanding, research “affords the potential of great benefit as well as burden” (Gostin, 2007). Article 27 of the Universal Declaration of Human Rights states, “Everyone has the right [...] to share in scientific advancement and its benefits” (United Nations, 1948), and the creation and application of knowledge through research can support such advancement. People in prisons should have the right to be included in and to benefit from research that is relevant to them and ethical.

The goals of prison health research are to contribute to health at the individual and population levels and decrease inequity, consistent with population health principles (Rose, 1985). The vision of health in prison health research should be expansive, as defined by the World Health Organization: “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (World Health Organization, 2020). The population scope of prison health research could be defined as all people whose liberty is restricted by the criminal justice system (Gostin, 2007), people who experience imprisonment, or people while they are in prison. This chapter focuses mainly on people who experience imprisonment and on the prison setting.

Why Is Prison Health Research Important?

There are several reasons to conduct health research for this population and setting, based on population health arguments and the need to provide health care in prisons.

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Prison Health Research Should Be a Societal Priority

We can apply frameworks from other contexts (Erickson et al., 2005) to explore whether a focus on prison health research is justified, i.e., based on the burden of disease in the population, whether opportunities exist to improve health, and relevant ethical, legal, and policy issues. Similar to other socially excluded populations (Marmot, 2018), people who experience imprisonment bear a disproportionate burden of morbidity and mortality across diverse health status indicators (Aldridge et al., 2018; Fazel & Baillargeon, 2011; Kouyoumdjian, Schuler, Matheson, & Hwang, 2016). There is evidence regarding population- and individual-level interventions that positively impact health (Kouyoumdjian, McIsaac, et al., 2015; Freudenberg & Heller, 2016). The State has defined obligations to provide health care for people in prison (*Estelle v Gamble*, 429 US 97, 1976; United Nations, 2015). Arguably, the State may also have reciprocal obligations toward people in prison as a consequence of denying people their liberty, in particular in the context of mass incarceration and its substantial health impacts (Wildeman & Wang, 2017).

Excluding People in Prison Challenges Population Health Knowledge

People in prison are often excluded from population-based research, for example, from national surveys that exclude institutionalized populations. This exclusion could bias population-level estimates, especially for risk factors or conditions that are disproportionately represented in people who experience imprisonment (Ahalt et al., 2012; Wang & Wildeman, 2011). Further, if we fail to include people in prison when we look at the impacts of relevant policies and programs, we may not adequately quantify benefits, harms, costs, and inequities, which could lead to decision-making based on flawed or incomplete information. As an example, research on the impacts of the Affordable Care Act reveals persistent inequities in access to health insurance and in access to mental health treatment for people involved in the criminal justice system (Howell et al., 2019; Knapp et al., 2019).

Hepatitis C virus provides a clear illustration of the need to include people in prison in research to understand epidemiology and to control disease. In the context of the criminalization of drug use in most countries and the consequent overrepresentation of people who inject drugs in prisons, the hepatitis C prevalence and burden is high in people in prisons (Dolan et al., 2016) and a large proportion of people with hepatitis C experience imprisonment each year (Kouyoumdjian & McIsaac, 2015; Spaulding et al., 2018). As the international community works to eliminate hepatitis C (United Nations, 2015), we need to include people in prison in studies to define disease prevalence, incidence, and burden, and we need to include the prison setting in the implementation of interventions to prevent and control hepatitis C (Spaulding et al., 2017).

Prison Health Research Can Inform Prison Health Care

States are responsible for the provision of health care in prisons (United Nations, 2015), and research can produce data to inform health care. Evidence on the health status of people in prison and on healthcare quality and use is important to develop prison health care and health promotion services that efficiently and effectively address the health needs of people in prison. These data are also valuable for healthcare providers as they care for patients (Ahalt et al., 2018). Further, data on interventions can be used to support the implementation of acceptable, effective, and cost-effective policies, programs, and treatments, which could contribute to improved health of people in prison and decreased recidivism, greater institutional safety, and better health and retention for correctional staff.

Laying the Foundation for Prison Health Research

While research on prison health has apparently increased in the first two decades of this century based on the number of publications (see Fig. 28.1), there remains a paucity of research focused on this population (Gostin, 2007; Kinner & Young, 2018; Kouyoumdjian, McIsaac, et al., 2015; Luchenski et al., 2018) in light of the population size and burden of disease, unrealized opportunities to improve health, and equity considerations. To advance prison health research, several instrumental factors need to be in place, including a robust research workforce, bolstered research funding, and appropriate legislation, policy, and ethics guidance.

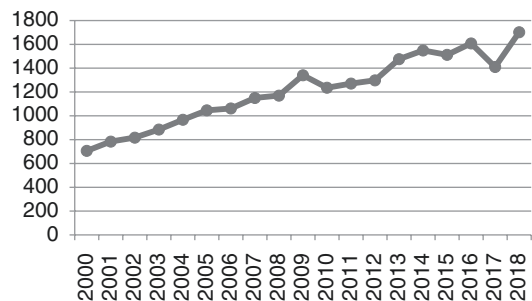
Research Workforce

To build a strong workforce for prison health research, there should be broad exposure and specific training opportunities for trainees, as well as networks to support collaboration (Neher et al., 2020), which are not in place in many countries (Kinner & Young, 2018). As people in prison are largely hidden from the view of the public, we need to incorporate information about this population and setting into education at various levels and across diverse disciplines in higher education. We also need dedicated training opportunities to foster interest and develop expertise, including courses, mentorship programs, fellowships, and trainee support for conferences. Examples of training opportunities include the Lifespan/Brown Criminal Justice Research Training Program at Brown University (The Center for Prisoner Health and Human Rights, 2020) and scholarship support for trainees to attend the Academic and Health Policy Conference on Correctional Health (Academic Consortium on Criminal Justice Health, 2019). We need infrastructure to support the development of networks of researchers to advance mentorship and collaboration. As an example, the Worldwide Prison Health Research and Engagement Network (WEPHREN) aims to “improve the health of people in prison through the equitable development of the evidence base and through capacity building initiatives for health” (The Worldwide Prison Health Research & Engagement Network (WEPHREN), 2020).

Funding

Evidence from the United States and Canada indicates a lack of funding awarded for prison health research (Ahalt et al., 2015; Kouyoumdjian et al., 2017), which likely contributes directly to the paucity of evidence in prison health (Travis et al., 2014). This lack of funding may reflect broader challenges for research focused on marginalized populations; disparities research may be considered unexciting or “pedestrian” by the scientific community, leading to less funding despite express federal

Fig. 28.1 Number of PubMed citations for prison health research by year, 2000–2018*



commitments to fund disparities research (Carnethon et al., 2019). Opportunities to advance funding for prison health research include designating a proportion of research within specific agencies for health disparities research (Carnethon et al., 2019) or for prison health research in particular, targeted funding opportunities, and more broadly, developing a national strategy for funding prison health research (Freudenberg & Heller, 2016).

Legislation, Policy, and Ethics Guidance

Recognizing the vulnerability of people who experience imprisonment, legislation, policy, and ethics guidance should "...permit scientifically rigorous research to the extent that it confers significant benefit without undue risk and in accordance with the prisoner's wishes" (Gostin, 2007), in order to support the participation of people who experience imprisonment in research while protecting their rights (Ahalt et al., 2018; Gostin, 2007). Ethics guidance should expound relevant principles and advance contemporary best practices to address challenging issues in this setting such as informed consent and confidentiality. All human subjects research with people in prison should be reviewed by an institutional review board to ensure appropriate protections are in place, and regulations should be consistent across jurisdictions and regardless of research funding sources, to support voluntary participation in ethical research (Ahalt et al., 2018; Gostin, 2007).

A Path Forward

As we strengthen the foundation for prison health research through developing these instrumental factors, we can simultaneously take steps to enhance research quality and impact. Three areas for focus in prison health research are knowledge translation, filling gaps in content areas, and using high-quality methods.

Knowledge Translation

Defined as "a dynamic and iterative process that includes synthesis, dissemination, exchange and ethically-sound application of knowledge... to improve health, provide more effective health services and products and strengthen the health care system" (Canadian Institutes of Health Research, 2016), knowledge translation supports the development and application of acceptable, efficient, and rigorous research (Macleod et al., 2014). Specific aspects of knowledge translation merit attention for prison health research: involving knowledge users, setting priorities, and sharing information about research.

Including knowledge users in the research process is most often required for successful research in prison health. Correctional authorities and staff can define the scope of what is feasible and acceptable and support knowledge dissemination and application. There may be conflicts of interest for correctional authorities as they lead or partner on research, given potential political and legal implications of identifying human rights, health status, and healthcare issues for people in prison (Neher et al., 2020). Therefore, explicit attention should be placed on anticipating and addressing any such conflicts, for example, clarifying project governance and plans for the dissemination of project findings. People who experience imprisonment can identify what is desirable, as well as what is acceptable and feasible.

Participatory action research is one method for involving people with lived experience, which involves researchers "co-developing research program *with* people rather than *for* people" (McIntyre,

2007) and which attempts to “reduce or eliminate injustices and/or inequities that have been identified by community members themselves” (Jull et al., 2017). This type of research may be particularly valuable in prison health research, given the history of abuse of people in prison by researchers, and participatory research has been used successfully in prior research initiatives (Elumn Madera et al., 2018; Elwood Martin et al., 2009; Martin et al., 2009; Martin et al., 2012).

Research highlight: The Share Project was a participatory research project that was developed by the Transitions Clinic Network, which is a national consortium of primary care centers that provide care to people recently released from prison (Elumn Madera et al., 2018). The project team first used a community-based participatory research approach to develop a new health informatics system, which would enable stakeholders to access and analyze data (Wang et al., 2017). They then adapted a curriculum for research design for patient-centered outcomes research. Using the adapted curriculum, they trained teams of patients, community health workers, policy makers, and researchers, and used the web-based platform to collaboratively generate hypothesis-driven questions. This novel project demonstrates the potential to equitably engage stakeholders, including people who experience imprisonment in the research process.

We need to define priorities for prison health research using systematic, collaborative, and transparent processes (Macleod et al., 2014), especially in the context of many pressing health and human rights issues and limited funding. Strategies to support priority setting include completing evidence syntheses such as systematic reviews and meta-analyses, generating objective data on the burden of disease, for example, translating outcomes data into common metrics such as disability-adjusted life years (DALYs) (Kouyoumdjian, McIsaac, et al., 2015), developing arguments that point to the value of specific foci (Kinner, 2014), and engaging in consensus-building processes such as the Delphi method (Kouyoumdjian, Schuler, McIsaac, et al., 2016; Scholin, 2019).

Consistent sharing of information about research is important to support collaboration and the use of evidence, and to reduce research waste (Ioannidis et al., 2014; Macleod et al., 2014). Researchers and correctional authorities should make information publicly available on all ongoing and completed research, which could be done through a government-supported and publicly accessible database of all research involving people in prisons (Gostin, 2007), as well as through registering studies, publishing protocols, and publishing and presenting null and negative findings as well as positive findings. Publication of research in open access journals would facilitate research access for knowledge users outside of academic settings.

Fill Gaps in Content Areas

As we work to build the knowledge base in prison health research overall, we should also attend to gaps in specific content areas. There are gaps in knowledge regarding population subgroups such as females, youth, people who are transgender, people in racial and ethnic minorities including Indigenous peoples, and people from low- and middle-income countries (Kinner & Young, 2018; Kouyoumdjian, McIsaac, et al., 2015), and in aspects of health status such as chronic diseases, injury, and reproductive and sexual health (Freudenberg & Heller, 2016; Kouyoumdjian, Schuler, et al., 2015; Kouyoumdjian, McIsaac, et al., 2015). In addition, recognizing medical and social complexity in this

population, research should include a focus on multimorbidity and overall health status as well as disease-specific outcomes (Kouyoumdjian, McIsaac, et al., 2015) and should explore intersectionality (Bell, 2017) and syndemics (Kelly et al., 2014).

Use High-Quality Research Methods

We need high-quality quantitative and qualitative evidence regarding health and the health impacts of policies, programs, and services. In quantitative research, we need to conduct studies with adequate power and to support studies that aim to replicate important research findings (Ioannidis et al., 2014). For quantitative studies of interventions, we should use rigorous methods such as randomized controlled trials (Freudenberg & Heller, 2016; Kouyoumdjian, McIsaac, et al., 2015) or study designs such as stepped wedge studies (Craine et al., 2015) when randomized controlled trials are not acceptable or feasible. Use of administrative data and data linkage across sources are promising strategies to generate evidence at the population level and on multiple outcomes (Young et al., 2018; Kinner & Young, 2018) and may be particularly informative when coupled with rich data from primary data collection. We also need to conduct studies that use common metrics such as DALYs, as noted, as well as cost analyses, which could directly inform decision-making by policy makers and correctional authorities (Freudenberg & Heller, 2016).

Research highlight: The Seek, Test, Treat, and Retain criminal justice cohort combined data on the HIV care cascade from 11 studies focused on people involved in the criminal justice system (Chandler et al., 2017; Chandler et al., 2015). Studies collected harmonized data across pre-defined domains. Data were then aggregated to support research that would not be feasible in a single study, i.e., with greater power and enhanced heterogeneity by including studies across geographic areas, criminal justice system settings, and stages of the HIV care cascade. This study was the product of a data collection and harmonization initiative involving several federal agencies and represents a large-scale collaboration between independent research teams and government.

Conclusion

Prison health research represents an important means to improve the health and health care of people who experience imprisonment. Bearing the history of prison health research in mind, we need to strengthen the instrumental factors to support prison health research and simultaneously advance research that incorporates best practices for processes and methods.

*PubMed search strategy:

1	prison\$.mp. or Prisons/
2	prisoner\$.mp. or Prisoners/
3	(after prison or after parole or community reentry or ex-convict* or ex-inmate* or ex-offender* or ex-prisoner* or former convict* or former inmate* or former offender* or former prisoner* or formerly incarcerated or offender* reenter* or offender* reentry or offender* reintegrat* or offender* release or out of jail or parole* or postincarceration or post-incarceration or postprison or post-prison or postrelease or post-release or prison to community or prison to society or prisoner* reenter* or prisoner* reentry or prisoner* reintegrat* or prisoner* release* or probation* or rearrest* or recidivis* or recidivate* or reconvict* or re-imprison* or re-incarcerat* or release* from prison or re-offend* or return to communit* or reoffend*).mp. [mp = title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
4	exp Juvenile Delinquency/ or "juvenile delinquent".mp.
5	(after prison or after parole or community reentry or ex-convict* or ex-inmate* or ex-offender* or ex-prisoner* or former convict* or former inmate* or former offender* or former prisoner* or formerly incarcerated or offender* reenter* or offender* reentry or offender* reintegrat* or offender* release or out of jail or parole* or postincarceration or post-incarceration or postprison or post-prison or postrelease or post-release or prison to community or prison to society or prisoner* reenter* or prisoner* reentry or prisoner* reintegrat* or prisoner* release* or probation* or rearrest* or recidivis* or recidivate* or reconvict* or re-imprison* or re-incarcerat* or release* from prison or re-offend* or return to communit* or reoffend*).mp. [mp = title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
6	1 or 2 or 3 or 4 or 5
7	exp animals/ not humans.sh.
8	6 not 7

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Reentry and the Role of Community-Based Primary Care System

29

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Introduction

This chapter discusses the role of primary care systems in addressing the myriad health needs of community members who have been recently released from carceral facilities in the United States. This chapter reviews the historical role of primary care systems in addressing the needs of this population, the epidemiology of common behavioral and physical health conditions in people being released from incarceration, system-level barriers to effective care, and an evidence-based model for community care.

The History of Healthcare Access for Incarcerated People and Returning Community Members

In the mid-1960s, just over a decade before the Supreme Court's 1976 ruling in *Estelle v. Gamble* created a precedent for access to medical care for people who were incarcerated, major legislation to create and fund the community health system was just emerging. Under the Economic Opportunity Act of 1964, the concept of the community health center emerged and would grow to include federally qualified health centers (FQHCs) designed to provide care in areas with high rates of poverty. In 1965, Congress authorized the creation of Medicaid and Medicare. Medicaid, specifically, was designed to provide federal funding for health insurance coverage for low-income individuals and families in the community, excluding those in prisons and jails (Social Security Act Amendments of 1965).

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This “inmate exception” has contributed to the formation of healthcare systems in prisons and jails that are isolated from community health systems, exempt from Medicaid policies related to mandatory accreditation and external quality oversight, and under-resourced (Fiscella et al., 2017). Additionally, most states had Medicaid criteria that limited eligibility to those who were poor and disabled or with dependent children, effectively excluding a large portion of the recently released and formerly incarcerated population, which are predominantly men without dependent children. Expansion of many state Medicaid programs that occurred in 2014 through the Patient Protection and Affordable Care Act (ACA) provided an opportunity for insurance coverage upon release for incarcerated single people without dependent children. In states that expanded Medicaid to cover low-income adults, an estimated 80–90% of returning community members are eligible upon release, and most retain eligibility for at least a year due to low earnings (Albertson et al., 2020).

However, since constitutional mandates only dictate provision of timely access to a reasonable level of care during incarceration, and Medicaid only covers care post-release, there remains a funding gap to support an organized system of care coordination from the carceral to the community health system (Mallik-Kane, 2005; Rich et al., 2011; Solomon et al., 2014). This resulting gap in care can prove to be catastrophic as evidenced by worsening of chronic conditions, increased hospitalizations, and high rates of death post-release (Binswanger et al., 2009; Wang et al., 2013).

Barriers to Healthy Reentry

High Rates of Chronic Illness

Incarcerated people have elevated rates of chronic medical and behavioral health conditions compared to the general population (Binswanger et al., 2009). Data from the late 2000s show one quarter of people in state prison had been diagnosed with a mental health condition and between a half and two-thirds had a substance use disorder (Mumola & Karberg, 2006; Wilper et al., 2009). A number of chronic physical health conditions are also more prevalent in incarcerated people including hypertension, asthma, HIV, hepatitis C, and some cancers, such as lung and cervical cancer (Binswanger et al., 2009; Rosen et al., 2019). In 2015–2016, 33% of people being released from North Carolina state prison were on medications for one or more chronic physical or behavioral health condition. This figure rose to 49% among individuals aged 35–54 and 70% for those aged 55–64.

Laws that increased the length of sentences and “truth in sentencing” policies that required larger proportions of sentences to be served (Human Rights Watch, 2012) have left more people aging and getting sick while in prison. As evidence, between 1993 and 2013, the population of people over the age of 55 in prison quadrupled (Carson & Sabol, 2016). The prevalence of chronic conditions among incarcerated individuals is noted to be closer to what one would expect to find among people that are 10–15 years older, leading some to suggest there is an “accelerated aging” process behind bars (Greene et al., 2018; Williams et al., 2012). These older incarcerated individuals have poorer health while incarcerated, and, upon release, their multi-morbidities, frailty, and loneliness have been associated with high rates of acute care utilization (emergency department and hospitalization) that are similar to that of patients in the last year of their lives (Chodos et al., 2014; Humphreys et al., 2018). Though these data are rarely disaggregated by race or ethnicity, the high burden of disease among the aging incarcerated population signals a grave racial injustice since Black, Latinx, and Native American individuals are incarcerated at disproportionate rates and likely to be sentenced to longer terms (Alexander, 2010; Wildeman & Wang, 2017).

To further illustrate the comorbidity among chronically ill individuals returning from prison to the primary care setting, we have included data from a 2013–2016 survey of Transitions Clinic Network

Table 29.1 Characteristics of transitions clinic network patients from ten states, 2013–2016 ($n = 751$)

Characteristic	Percentage or mean
<i>Demographics</i>	
Mean age in years (standard deviation)	46.1 (11.2)
Male	85.2
Black	46.9
Hispanic	30.2
Had health insurance at first visit	60.1
Self-reported fair to poor health	46.1
<i>Chronic health conditions</i>	
1–2 chronic physical health conditions	41.3
3 or more chronic physical health conditions	43.9
Chronic mental health condition	52.7
Substance use disorder	49.9
<i>Prison health system utilization</i>	
Received health care in prison	81.1
Had medications for chronic conditions at release	75.8

Source: Shavit et al. (2017) analysis of TCN patients' baseline characteristics. (Republished with permission of Shavit et al. (2017). Permission conveyed through Copyright Clearance Center, Inc.)

(TCN) patients in Table 29.1. Note that to be eligible for the TCN program, patients had to be released from prison in the prior 6 months and either have a chronic condition or be 50 years of age or older.

Health Impacts of Incarceration

While aging contributes to the high prevalence of chronic conditions, the environment inside prisons and jails can also directly contribute to the onset or worsening of these conditions. As seen with COVID-19, prisons and jails can become incubators for respiratory disease outbreaks, as it is nearly impossible to maintain physical distancing in most carceral facilities in the United States (Montoya-Barthelemy et al., 2020). Likewise, limited access to treatment for substance use disorders, harm reduction supplies such as clean syringes for injection and clean needles and ink for tattooing contribute to the spread of hepatitis C and HIV (Stone & Shirley-Beavan, 2018). Prolonged exposure to outdoors on prison yards can lead to increased rates of airborne infectious spores, such as valley fever (Wheeler et al., 2015). Use of solitary confinement is associated with increased risk of self-harm, anxiety, depression, and other symptoms of psychological distress during incarceration (Kaba et al., 2014; Reiter et al., 2020), and spending any amount of time in solitary confinement has been linked with an increased risk of death following release, particularly for suicide, homicide, and opioid overdose (Brinkley-Rubinstein et al., 2019).

Exposure to a health system that does not prioritize a patient-centered focus can have lasting, negative impacts on returning community members' desire to seek care in the community. Despite being constitutionally mandated, medical care for incarcerated people is highly variable, and may be substandard or fail to meet patient needs. For instance, in spite of a high prevalence of opioid use disorder among incarcerated people, a minority of prisons and jails offer medications to treat opioid use disorder (MOUD), leaving most people to experience the difficult and painful experience of withdrawing off opioids while incarcerated. For some, these experiences can influence their future desire to engage in treatment with MOUD (Gryczynski et al., 2013; Maradiaga et al., 2016; Nunn et al., 2009; Woo et al., 2017). Carceral facilities are also designed to prioritize security over treatment, which can compromise the quality of care provided. For instance, in California prisons, "therapeutic modules" (small individual cages) are used often during group therapy sessions for people at higher custody levels.

Medical providers leave exam room doors open and often times custody staff are in the room or nearby, negating any possibility for confidentiality.

Healthcare needs and criminal legal system policies can also be in direct opposition. For instance, in at least one state prison system, seeking mental health services becomes part of the permanent prison record that is reviewed at parole hearings, creating a disincentive for individuals to seek vital services they need.

“People are going to get out (of prison) and still die. Because they’ve been trained that the medical profession is not there for them.”

-Johnny Lewis, Transitions Clinic patient with history of incarceration speaking about the impact of negative experiences within the prison healthcare system.

A lack of autonomy during incarceration also may create challenges in utilizing and seeking healthcare services post-release. In particular, highly controlled prison and jail environments leave incarcerated individuals few opportunities to gain self-efficacy in addressing their chronic health conditions (Wang et al., 2017). Carceral facility procedures may promote passivity by providing incarcerated individuals with medications through a daily pill line without giving any education about the purpose, dosage, or directions of the medications. Incarcerated individuals also do not gain practice in going to a pharmacy to fill their prescriptions or navigating health systems to make and attend appointments. Instead, individuals are summoned to medical appointments and escorted by staff. Similarly, diabetic individuals are generally not able to test their own blood sugar, inject their insulin, or even control their diets while incarcerated. These experiences can leave people without the needed skills to self-manage their chronic conditions after returning to the community (Wang et al., 2017).

In incarcerated settings, if individuals face medical neglect, these negative experiences can foster mistrust of the medical system which can extend to the community medical system, serving as a barrier to seeking care upon release. Anecdotally, individuals with histories of incarceration also share stories of being denied health care during incarceration due to providers’ assumptions that they were feigning or malingering. Others have shared that they were too afraid to ask for care, worried that staff would label them as troublemakers.

Care Coordination Gaps

Generally, there is a lack of continuity of care between carceral facilities and primary care clinics (Shavit et al., 2017; Wang et al., 2008; Waters, 2019). Returning community members are often released with either no prescription medications or a limited supply (e.g., 7 to 30 days), and only a small percentage are connected to providers in the community prior to release (Mallik-Kane, 2005; Rich et al., 2011). Similarly, when community members are incarcerated, community providers seldom reach out to communicate with staff in carceral facilities. Obtaining medical records from carceral facilities is also challenging—both for patients (who are often required to pay for a copy of their records) and community-based providers—and little infrastructure exists to facilitate transferring these records in a timely manner (Solomon et al., 2014).

Carceral facilities provide constitutionally mandated healthcare services inside their facilities but have no legal mandate to provide warm hand-offs or ensure continuity of care to community health systems. This is in stark contrast to the community standard of care with medical transitions after hospitalization where medical plans are communicated via discharge summaries and patients are scheduled with their providers post-discharge. Poor coordination of care after release from incarceration is further exacerbated by the inmate exclusion under Medicare and Medicaid, which is detailed above, as there is little funding for efforts to coordinate healthcare services from carceral facilities to the community health setting. The lack of formal discharge planning structures within carceral facilities is even more problematic for severely ill individuals who may have a need for a higher level of care in the community (such as a skilled nursing facility) and durable medical equipment (such as oxygen or a wheelchair) and who are receiving specialized intensive treatment (such as cancer patients or severely mentally ill individuals). Disruptions in care or inappropriate placement can cause significant morbidity or mortality. Aging incarcerated people are at especially high risk if not appropriately screened for healthcare needs and placements prior to release (Maschi et al., 2014).

Furthermore, organizational structures of the carceral facilities can create challenges for efforts related to continuity of care. Healthcare services within institutions (such as mental health, physical health, substance use disorder treatment) are frequently siloed making it difficult for community health systems to navigate or partner with carceral facilities. Additionally, carceral facilities often lack systems to consistently and accurately identify parole or release dates and communicate them to community partners. Release dates and locations to which people will be paroled can also change with little notice making it difficult to schedule appointments with community-based providers prior to release.

There are emerging efforts toward funding positions, such as social workers, dedicated to coordinating care during this transition period. These funding mechanisms include Section 1115 Medicaid waivers, such as the Whole Person Care pilots in California where some programs focused specifically on returning community members, and coverage through managed Medicaid programs. Additionally, in the Veterans Health Administration, an increasing focus has been placed on transitional care through the Veterans Justice Outreach programs that try to connect with people before release and assist with benefits and social services, though the focus is usually not on medical transitions in care.

Community Healthcare Access Gaps

Prior to the implementation of the ACA in 2014, community health systems had little financial incentive to proactively care for chronically ill individuals returning to the community from incarceration given the low rates of health insurance and newly diagnosed health conditions. Medicaid expansion widened the opportunity to insure and care for many returning community members. While the implementation of the ACA appears to be instrumental in narrowing disparities, individuals who have been involved with the criminal legal system are still twice as likely to be uninsured than other community members (Farrell & Gottlieb, 2020; Winkelman et al., 2016). Fourteen states have yet to expand Medicaid coverage to low-income adults, leaving fewer options for insurance coverage for these individuals. Additionally, many states still terminate Medicaid coverage upon incarceration, leaving individuals without coverage and needing to reenroll in Medicaid upon their return to the community (Rosen et al., 2014; The Henry J. Kaiser Family Foundation, 2019).

Community health systems also often limit access to care for returning community members through organizational barriers or bias. Many return to communities where healthcare access was difficult before they went to prison and where community health systems remain underfunded and with

a multitude of structural barriers to access. While there is a markedly elevated risk of death immediately following release from incarceration, especially in the first 2 weeks (Binswanger et al., 2007), primary care health systems may not be able to accommodate new patients in a timely manner. For instance, a 2012–2013 audit study of primary care clinics in 10 states found a median wait time of 9 days at FQHCs for new Medicaid patients (Saloner et al., 2014). The same study found that while 80% of FQHCs made appointments for new Medicaid patients, this was true of just 56% of non-FQHC providers.

Individual biases among health system staff may also be a barrier to healthcare access and utilization. One study in Canada found that once patients identified themselves as returning from prison, they were half as likely to be given a new visit appointment if they mentioned an incarceration history (Fahmy et al., 2018). While this study focused on the ability to get access to primary care through new visit appointments, these biases could also influence the quality of patient-provider interactions and relationships and discourage individuals from returning for future visits. Furthermore, a majority of returning community members are people of color who also have to contend with individual racism in the health system and generally have more limited access to well-resourced health centers due to residential segregation (Bailey et al., 2017).

Clinic policies can also be experienced as punitive and may prevent patients from returning for additional services. For instance, a strict 15-minute late policy for appointments can limit access to returning community members who may be late due to learning how to navigate public transportation or being triggered or overwhelmed in public. Likewise, the length of the traditional 15-minute visit limits providers' ability to build trusting relationships understand the complex medical histories that patients returning from incarceration often have. Traditional health systems focusing solely on physical health may fail to meet returning community members' behavioral health and social determinants needs.

Collateral Consequences and Social Determinants

People returning from incarceration face myriad collateral consequences that negatively affect their social determinants of health including housing, employment, food security, and social support. There are over 44,000 collateral consequences in the United States codified into laws and policies (National Inventory of the Collateral Consequences of Conviction, n.d.). These laws bar people with certain convictions from working in specific positions and fields, receiving government benefits such as food assistance and subsidized housing, and participating in democratic processes, such as voting. The lasting impact of a criminal record itself has been shown to affect employment opportunity, with a disproportionate impact on Black job seekers (Pager, 2002). Collateral consequences create additional and formidable challenges for returning community members to meet their basic needs and manage their health.

A prominent example of collateral consequences is the difficulty of securing permanent housing after release. Indeed, many returning community members experience homelessness or are unstably housed (Wang et al., 2012; Zelenev et al., 2013). An analysis of the 2008 National Former Prisoner Study found that people on parole were ten times more likely to experience homelessness than the general population, with the highest prevalence among recently released individuals with intersecting marginalized identities (e.g., people of color and women of all racial backgrounds) (Couloute, 2018). Challenges with housing result from a combination of legal barriers, institutional policies, and individual discrimination. In the 1980s and 1990s, a series of federal laws and directives from HUD required state and local housing authorities to evict tenants and deny applicants based on criminal histories, and granted these agencies with broad discretion to ban individuals suspected of any crimi-

nal activity (Walter et al., 2017). While HUD has rolled back most of these provisions, many housing authorities have not updated their policies (Purtle et al., 2020; Walter et al., 2017). For those able to afford housing independently, discrimination by private landlords based on criminal history remains a barrier (Evans et al., 2019).

The collateral consequences of incarceration in turn harm physical and mental health of returning community members. While factors such as housing, employment, and family support can be protective of health post-release, their absence is associated with poorer mental and physical health (Semenza & Link, 2019). In some cases, these barriers have measurable impacts. For instance, homelessness is associated with poor medication adherence and engagement in care among returning community members living with HIV (Zelenev et al., 2013). In addition, individuals returning from incarceration who are struggling to meet their basic needs are unlikely to be able to prioritize seeking medical care (Dong et al., 2018).

Worsening Health after Release

All of the challenges noted above contribute to poor health outcomes for returning community members, especially in the period immediately following release. As a result of gaps in continuity of care, returning community members may not receive ongoing treatment in a timely manner, or may run out of medication (Wildeman & Wang, 2017). There can be worsening of many chronic conditions, such as HIV, after release from incarceration (Springer et al., 2004). Returning community members are twice as likely to be hospitalized in the first 30 days after release, with mental health conditions being the most common reason (Wang et al., 2013). People returning from prison are 12.9 times more likely to die in the first 2 weeks after release compared to individuals of similar demographics living in the community (Binswanger et al., 2007). Importantly, four of the top five causes of death are preventable or treatable in a primary care setting: overdose, cardiovascular disease, suicide, and cancer. This underscores the key role a primary care setting plays in caring for people post incarceration.

Transforming Health Systems to Care for Chronically Ill Returning Community Members

While the challenges facing returning community members are great, community health systems can be transformed to meet the needs of this population (Wang et al., 2012, 2019). In this section, we lay out key features of community health systems that have successfully implemented programs to care for returning community members. This summary is based on our experience providing technical assistance and training to clinics in the Transitions Clinic Network.

Defining Patient-Centered Care

The Transitions Clinic Network model of care was developed in 2006. Healthcare providers at Southeast Health Center, a federally qualified health center, collaborated with Legal Services for Prisoners with Children, a local advocacy organization, City College of San Francisco, a local CHW training program, and local community members impacted by the criminal legal system to develop a patient-centered model of care for people returning from incarceration. With the goal of implementing patient-centered services in existing community health centers, several guiding principles were identified through a series of focus groups (see box below).

Guiding Principles for Patient-Centered Care

- Include individuals and communities impacted by criminal legal system in design, implementation, and evaluation of programs
- Take a broad definition of health and well-being
- Adapt systems to be patient-centered
- Empower patients
- Favor reintegration
- Avoid replication of criminal legal system

Transitions Clinic Network Model of Care

As a result of these focus groups, a model of care was developed with the goal of transforming the existing primary care medical system to improve the health and well-being of people returning from incarceration. The Transitions Clinic Network model of care is implemented in existing primary care clinics in communities disproportionately impacted by the criminal legal system. By leveraging and transforming existing resources, people returning from incarceration can receive rapid access to healthcare services in the same clinics that serve others in their communities. The TCN model of care includes: community health workers with histories of incarceration as central members of the primary care team, enhanced linkages with criminal legal entities and community reentry partners, healthcare providers trained to care for people impacted by the criminal legal system, and patient-centered services to meet the broad range of behavioral, physical, reentry, and wellness needs of patients (see box below).

The Transitions Clinic Network model consists of:

- Team-based primary care with CHWs with histories of incarceration as central members of the team.
- Healthcare providers trained to provide culturally relevant services to people returning from incarceration.
- Enhanced patient-centered services that meet the broad needs of people with histories of incarceration, such as medications for opioid use disorder, hepatitis C treatment, and trauma-informed care.
- Strong linkages with criminal legal system and community reentry partners.

Since 2006, the TCN has grown to reach over 40 clinic systems in 14 different states and Puerto Rico. All clinics in the TCN have adopted this evidence-based model of care for returning community members and adapted it to their unique setting.

This model of care was associated with a 51% reduction in visits to the emergency department in a randomized controlled trial, a 50% reduction in preventable hospitalizations, and reductions in parole and probation violations in a propensity-matched study (Wang et al., 2012, 2019).

Patient-Centered Services

Adapting community health systems is critical to meeting the needs of complex chronically ill individuals returning from incarceration. This includes greater integration of mental health and substance use treatment into primary care. Historically, physical health care and mental health care have been siloed, as reflected in the lack of “co-training” of their practitioners, and different regulatory, administrative, and payment structures (Crowley et al., 2015). It was not until 2008, in the Federal Parity Law, that health insurance plans were required to cover behavioral health and physical health services equally.

As an evidence-based strategy that promotes patient-centered integration for patients with an opioid use disorder (Fiellin et al., 2013, 2014), primary care providers should be trained and waived to prescribe buprenorphine (also referred to as x-waivered) as permitted through the Drug Addiction Treatment Act (DATA 2000). This is beneficial because it allows a patient to receive help from a provider with whom they have built trust. Providers can also be patient-centered by offering options that fit with each individual’s goals around substance use. The options can range from harm reduction education, supplies to reduce risks of infections or overdose (e.g., syringes or naloxone), and medications for substance use treatment such as buprenorphine and naltrexone. Patient care is further improved when behavioral and physical health providers are co-located and coordinate care.

Team-based care is also patient-centered. In a team-based approach, a dedicated team provides specialized services for a specific group or “panel” of patients with complex needs. The composition of the care team may vary depending on the specific patient population and setting, but generally includes a medical provider, a medical assistant, staff members responsible for care coordination (e.g., CHW and care coordinator), a nurse, and other clinical staff such as behavioral health providers. For primary care teams serving patients returning from incarceration, a community health worker (CHW) with a history of incarceration should be a central member.

Clinic schedules should be adapted to meet the needs of returning community members. The amount of time allotted for an initial visit with a primary care provider needs to account for the additional time it takes to begin establishing trust and fully understand a patient’s medical history and health priorities. It is also important that providers are able to see returning community members within a few weeks of their release from incarceration. Clinics often find they need to set aside appointment slots or utilize flexible scheduling templates (such as open access) that more easily accommodate patients who are just released and may need to be seen within a few days.

Clinics also benefit from identifying and rewriting policies that may be experienced as punitive, such as turning away patients from the clinic if they are more than 15 minutes late for their visit. As an alternative, front desk staff can attempt to accommodate the patient, or if they cannot be seen, ask a nurse or the CHW to triage the patient to identify urgent needs such as medication refills or assistance with the social determinants of health (e.g., helping patient access an on-site food pantry).

Community health systems can also systematically screen new and existing patients for recent incarceration and refer these individuals to receive additional services. The PRAPARE tool is one example of a screening tool for the social determinants of health that is widely used in primary care settings (National Association of Community Health Centers, n.d.) and includes a question about experiences of incarceration. While returning community members benefit significantly from a tailored model of care, these individuals should not be segregated from other patients or treated differently. Instead, our experience has shown that these individuals benefit from being integrated in the same clinic that their family members and other community members are seen in.

The biases and stigma of health providers and clinic staff can directly limit access to the clinic and negatively affect the patient experience (Fahmy et al., 2018). People with histories of incarceration have experienced discrimination in the healthcare system both in carceral and community settings

(Frank et al., 2014). Successful clinics provide opportunities for staff to identify their own biases and question stereotypes about returning community members. Formal training for all clinic staff is critical to ensure that people with histories of incarceration feel welcome and respected in all interactions with clinic staff. Including CHWs with histories of incarceration as part of the clinical team also increases the likelihood in culturally responsive interactions between team members and the patient over time.

Community Health Workers with Histories of Incarceration

CHWs with personal histories of incarceration are critical members of a primary care team that serves returning community members. Using their lived experience, CHWs are able to establish trust with patients and serve as cultural interpreters between the patient and the rest of the team. CHWs work with patients to address social determinants by connecting them with social services agencies, reentry organizations, potential employers, and with other resources that promote well-being, such as community groups and places of worship. As individuals with shared lived experience, they also serve as mentors and sources of social support.

CHWs are most effective when fully integrated into the primary care team (Centers for Disease Control and Prevention, 2014). Integrated CHWs participate in care team huddles and meetings and have a workspace within the clinic. At the same time, it is equally important that CHWs spend about half of their time in the community building relationships and meeting patients in the field, as illustrated by the roles outlined below.

Clinic-Based CHW Roles

- Health system navigation (e.g., teaching patients how to refill prescriptions and make appointments).
- Cultural interpretation (e.g., providing context to a provider so that they can fully address the patients' needs).
- Using patient-centered practices to establish individualized goals.
- Communicating with primary care team about patients' needs and strengths.
- Health education about chronic conditions and self-management support.
- Contributing to planning and evaluation of clinical programs for returning community members.
- Advocating for clinic policies that support returning community members.

Community-Based CHW Roles

- Relationship-building across systems (including parole, probation, community-based organizations).
- Community outreach (e.g., going to transitional homes to visit or recruit patients).
- In-reach into incarcerated settings (e.g., speaking to groups in prison, meeting with individuals prior to their release, or corresponding with incarcerated people).
- Social services navigation (e.g., accompanying a patient to activate public assistance or connecting a patient to a staff person at a job training program).
- Emotional support and mentoring.
- Individual patient advocacy (e.g., advocating on patient's behalf to parole).
- Policy advocacy (e.g., speaking on behalf of community members to a policy maker).

Relationships with Community Organizations and Criminal Legal System Entities

Health systems are best able to address the social determinants of health when they have strong relationships with community-based organizations and social services agencies that help returning community members access housing, foods, jobs, education, social support, and other basic needs. These organizations can identify clients that could benefit from the clinic's services and provide mutual referrals. Clinics can also reach returning community members by building relationships with other parts of the health system that work with these patients, including emergency departments and substance use treatment programs. CHWs often spend a substantial portion of their time establishing and maintaining relationships with these organizations and systems.

Community health systems also need to build relationships with carceral facilities who can refer returning community members to these clinics immediately after release. It is particularly valuable when CHWs are able to enter these facilities to connect with returning community members before they are released. One clinic found that their show rates for primary care appointments more than doubled to 70% after CHWs with histories of incarceration began meeting with returning community members prior to their release. Other CHWs have shared that even a phone call prior to a person's release increases the chance that they will reconnect with the CHW after coming home.

Relationships with parole and probation also provide a pathway for referrals and for clinic staff to advocate on behalf of their patients. For example, if a patient has relapsed, healthcare staff can work with the patient to engage them in substance use treatment and potentially avert a parole or probation violation. While relationships with criminal legal entities are valuable, clinics need to avoid inadvertently becoming an extension of a punitive system. For example, even when well-intended, providing information such as results of a urine test, a patient's progress toward meeting their treatment goals, or where a patient is living could be all used to revoke parole or probation or apprehend an individual. As more clinic systems move toward contracting with probation and administering court-mandated treatment, the danger of fundamentally changing the role of the healthcare system increases. However, health systems can work with criminal legal systems while still putting their patients' needs first. For instance, a TCN program in North Carolina agreed to accept funding from the state prison system but buffered themselves by using a state university as a fiscal intermediary and developing strict agreements to protect the confidentiality of patients.

Advocacy Beyond the Clinic

In addition to caring for individual returning community members, healthcare providers also can play an important role in changing the deleterious policies of mass incarceration or addressing the impact of collateral consequences on the social determinants of health. Working with patients often reveals patterns of injustice that healthcare providers are uniquely positioned to change locally or more broadly. A patient might share that she was denied services at a certain institution or that she is unable to find housing because of her conviction.

If providers ask questions and identify the root causes of these experiences, they may find that an individual parole officer, a local ordinance, or a state legislation is responsible. They can then address the issue at its source, potentially improving conditions not only for the patient who brought it to their attention, but others who may be suffering under the same decision or policy. Health workers are generally well respected and considered credible by lawmakers, government officials, and others who have power to make change, which provides them an opportunity to use the power of their voices to lift up the issues affecting the communities they serve.

Provider Advocacy: An Example

Problem: A patient shared with a CHW that he was being denied mental health care at county clinic based on an outdated policy that prohibited people on parole from getting state-funded mental health services.

Solution: The CHW raised the issue at the local county run reentry council meeting attended by the director of the county mental health department.

The result: Department-wide education of county mental health staff about inclusion of people on parole in county mental health services.

In addition to addressing issues that affect patients after their release, health workers have advocated for changes that address mass incarceration or improve the conditions inside. For example, CHWs and other clinic staff have advocated against the imposition of extreme sentences such as life without parole and for eliminating co-pays for medical care during incarceration. Some of the concrete actions these individuals have taken include meeting with individual lawmakers, speaking at legislative hearings, and participating in rallies and other mass mobilizations.

Summary

Due the expansion of Medicaid coverage via the ACA, community-based health systems have a growing opportunity to care for returning community members, a majority of which have chronic conditions that can be treated in a primary care setting. Unfortunately, long-standing structural barriers to primary care in communities most impacted by mass incarceration and the quality of healthcare services and denial of individual autonomy during incarceration have lasting impacts that decrease the likelihood these individuals will seek or utilize primary care after release. These factors and others contribute to shockingly high rates of death, hospitalizations, and use of the emergency department among this population.

Because of these challenges, CHWs with lived experiences of incarceration are uniquely positioned to engage returning community members in care. One evidence-based model of care is to embed CHWs in primary care teams to work with patients to set individualized goals, address social determinants of health, teach skills in navigating the medical system, and facilitate communication between patients and the medical team.

Health systems must transform existing services to meet the health and social needs of returning community members, including by building partnerships with social services agencies and community-based organizations. Community health systems can work with correctional systems to ensure timely referrals. While doing so, community health systems have a responsibility to ensure they prioritize the health and welfare of their patients and avoid becoming an extension of a punitive system. Health systems can also be more responsive to the needs of those recently released by offering behavioral health services and adapting policies and practices that could otherwise create barriers for this population.

Ultimately, it is our responsibility as providers and public health professionals to address the broad health needs and wellness of returning community members in a way that centers their individual needs and goals. To achieve this, we must work alongside leaders and community members with histories of incarceration to recognize, name, and work with the intention to dismantle correctional and community-level structural barriers to health, often entrenched in racism.

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Providing Transition and Outpatient Services to the Mentally Ill Released from Correctional Institutions

30

Steven K. Hoge

Introduction

More than a generation ago, the mentally ill began to flood our jails and prisons. Correctional institutions were not prepared for the influx of mentally disordered offenders, and numerous reports have graphically detailed deficiencies in the provision of needed services (Center for Mental Health Services, 1995; National Commission on Correctional Health Care, 2002a, 2002b; The Correctional Association of New York, 2004). However, little attention has been focused on the problems related to transitioning this population to the community and the provision of outpatient-based mental health services. Though the quality of institutional care remains woefully inadequate in many jurisdictions, it has become increasingly apparent that community-based care is an urgent necessity.

Parallels between the current state of correctional mental health services and the civil public psychiatric system can be drawn. For many years, the public sector struggled with the problem of the “revolving door”: following discharge from inpatient care, many mentally ill individuals were unable to function in the community, relapsed, and were readmitted. In most jurisdictions, efforts to address this problem have relied on an increased emphasis on discharge planning for patients transitioning from state civil hospitals to community-based treatment and, once in the community, aggressive support services. There is now universal recognition that these measures are essential ingredients to maintaining many of the seriously mentally ill in the community. At present, correctional care systems have not broadly adopted such services, with predictable results. A study from the state of Washington illustrates the consequences. A cohort of mentally ill individuals convicted of felonies was followed postrelease. In the first year in the community, only 16% received any form of mental health treatment; by the end of year three, nearly 40% had been rearrested (Lovell et al., 2002). Inmates with serious mental disorders have higher rates of repeated incarceration than those with no mental disorder, and the recidivism rates of those with comorbid substance use disorders are even higher (Ballergeon et al., 2009; Baillargeon et al., 2010; Bronson & Berzofsky, 2017).

In this chapter, I review the historical factors underlying incarceration of large numbers of seriously mentally ill individuals, explore a commonly held view that increased funding of routine civil

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outpatient services would lower incarceration rates, and summarize clinical, social, and legal factors that create barriers to effective outpatient treatment. In the last section, I examine emerging models for the provision of transitional and outpatient services to this population.

Historical Background

Deinstitutionalization

From the beginning, there has been a connection between institutionalization and incarceration. In 1825, the Reverend Louis Dwight, shocked by what he witnessed while delivering Bibles to inmates in jails, formed the Boston Prison Discipline Society to advocate for better treatment of the mentally ill (Grob, 1973). The attention that he brought to the degrading conditions in jails, and his insistence that the mentally ill belonged in hospitals, led the state legislature to create the State Lunatic Asylum in Worcester, the first state psychiatric hospital. When it opened in 1833, half of the newly admitted patients came from jails, houses of corrections, and almshouses.

Dorothea Dix picked up the crusade in 1841. At that time, she was a 39-year-old teacher who agreed to teach Sunday school at the East Cambridge Jail, outside of Boston. She was appalled at the conditions, particularly the way the mentally ill were treated, and began a systematic survey of the conditions in other jails and almshouses, ultimately visiting 300 county jails, 500 almshouses, and 18 prisons in several states (Grob, 1973). She became the leading advocate for the creation of state institutions and has been credited with the creation of 32 such institutions in 20 states.

In 1880, the government undertook a census of “insane persons” in the United States (Wine, 1888). At the time, when the US population stood at approximately 50 million, 92,000 insane persons were identified. Of these, 41,000 were in the 75 newly created state institutions. Fewer than 400 mentally ill inmates were located in jails or prisons, which at that time housed more than 58,000 people. Thus, less than 1% of the incarcerated population was identified as mentally ill. Following this snapshot, the issue of the criminalization of the mentally ill disappeared for almost a century.

The era of institutionalization peaked in the mid-1950s, with a total institutionalized mentally ill population of about 560,000 (Appelbaum, 1994; Hoge et al., 1989). It is important to recognize that institutionalization reflected a societal preference for segregation, isolation, and control of the mentally ill. The mentally ill were afforded few rights with respect to involuntary confinement and treatment. Under prevailing laws, psychiatrists held broad discretionary powers to initiate commitment based on a vague “need for treatment” standard. Those subject to commitment were afforded few procedural safeguards. Committed individuals were regarded as being globally incompetent, either by law or by social practice. The status of being committed, therefore, rendered individuals unable to enter contracts (such as rental agreements), to get married, or to vote. These legal disabilities served to further isolate the mentally ill and to place them under the control of family and others.

The process of deinstitutionalization began with two developments in the field of psychiatry (Appelbaum, 1994; Hoge et al., 1989). The first development was the rise of the community psychiatry movement. This influential movement grew out of the experiences of psychiatrists in WWII, who found the most effective management of combat fatigue to be brief treatment and quick return to duty. This approach was applied domestically, as psychiatrists focused on the importance of maintaining patients’ relationships in the community and promoting rapid reintegration of hospitalized patients back into preexisting family and social structures. The move to an outpatient-oriented mental health system received a substantial boost when President John F. Kennedy signed into law the Community Mental Health Centers Act of 1963 (Title II, Public Law 88–164) providing federal support for construction of local outpatient treatment facilities for the mentally ill and developmentally disabled. The

second development was the introduction of chlorpromazine (Thorazine®) into clinical practice in 1954, the first effective antipsychotic medication. As a result, psychotic episodes could be treated rapidly and patients could be returned more quickly, and more safely, to their homes.

The pace of deinstitutionalization increased during the 1960s, with the introduction of federal health insurance programs that stimulated the rise of private sector psychiatric hospital units. In addition, state legislatures evinced growing reluctance to fund the rising costs of public sector institutional care. On the legal front, civil commitment laws were dramatically transformed between the late 1960s and the mid-1970s (Appelbaum, 1994; Hoge et al., 1989). This wave of libertarian reform replaced the old “need for treatment” standard with a requirement that “dangerousness” be demonstrated. More stringent procedural safeguards, including higher standards of proof, were put into place. During this era, there was significant expansion of patients’ rights, including the legal presumption of competence for committed patients, that accelerated deinstitutionalization. The reform movement increasingly empowered the mentally ill to take control of their destiny.

At present, there are roughly 37,000 patients hospitalized in state facilities (Fuller et al., 2016). Nearly half of these patients are confined in forensic psychiatric hospitals as a result of criminal justice involvement. Between 1999 and 2014, as the number of civil psychiatric beds has fallen, the number of forensic patients in state psychiatric hospitals has increased 76% (Wik et al., 2017).

Increasing Societal Reliance on Punishment and Incarceration

During the period of rapid deinstitutionalization, there were important developments in correctional policy that helped set the stage for criminalization of the mentally ill. Beginning in the early 1970s, the United States began to rely increasingly on incarceration as a solution to societal problems (Travis, 2002). This is reflected most dramatically in the rate of incarceration per 100,000 adults. For several decades, this rate held steady at about 100. In the 1970s, the rate rose to more than 500 per 100,000, and if one includes parole and probation supervision, then to more than 700 (U.S. Census Bureau, 2004). Within a decade, the United States became the global leader in the use of incarceration.

A full discussion of the factors underlying the sea change in correctional policy is beyond the scope of this chapter. However, a few developments are important to understanding incarceration of the mentally ill. First, the drug culture took root in the 1960s. By the 1970s, it was perceived that treatment-based approaches to the “war on drugs” had failed; federal and state policymakers began to turn to punishment. Indeed, much of the increase in the incarceration rate can be attributed to drug-related offenses (Travis, 2002). The widespread availability of drugs of abuse has proven to be particularly problematic for many of the mentally ill, who seem to be vulnerable to abuse and addiction, and who suffer destabilization as a result. Although hard evidence is not available, it is likely that the mentally ill were disproportionately affected by the implementation of a broader range of drug-related offenses.

A second important factor underlying the higher rate of incarceration has been the reduction of judicial discretion with respect to sentencing and release decisions. Previously, judges could exercise wide discretion in the imposition of sentences. Moreover, sentences were indeterminate in nature, allowing parole boards to release inmates when they saw fit. Responding to concerns about racial discrimination in the exercise of discretion and political pressures to get tough on crime, legislatures enacted sentencing guidelines, reducing judges’ authority (Travis, 2002). And, “truth in sentencing” legislation has ensured that inmates serve longer periods incarcerated. In recent years, there has been some reduction in incarceration rates (Bronson & Carson, 2019).

Deinstitutionalization, therefore, occurred during a period of important social and correctional change. The mentally ill were released into a culture in which drug use was becoming endemic—a development that would provide ongoing challenges to the young and vulnerable, especially those at

risk for psychiatric illness. Ready to exercise their newly found freedom, the deinstitutionalized entered a crime-weary society ready to punish their misdeeds. Moreover, they faced a criminal justice system less inclined to reduce the burden of punishment on the basis of mitigating factors such as mental illness.

Incarceration of the Mentally Ill

It appears self-evident that as more people have been incarcerated, the mentally ill would be included. But what is the basis for the widely accepted conclusion that there has been an increase in the rate of incarceration of the mentally ill? The evidence is largely inferential in nature. The silence on incarceration of the mentally ill that had prevailed since the national census of “insane persons” in 1880 was broken in the early 1970s. In the wake of civil commitment reform and deinstitutionalization in California came reports that the mentally ill were appearing in increasing numbers in jails, and reports from prisons soon followed (Abramson, 1972; Stelovich, 1979; Swank & Winer, 1976; Whitmer, 1980).

It is difficult to determine with precision the prevalence of mental illness in correctional settings. In the 1980s, several groups of researchers applied modern diagnostic criteria to various incarcerated populations. Employing standardized assessment techniques, they reported rates of serious mental illness several times that of the nonincarcerated population. A study of male detainees at Cook County Jail found a lifetime prevalence of schizophrenia and bipolar disorder of 3.8 and 2.2%, respectively (Teplin, 1990). The Epidemiological Catchment Area (ECA) Study, a large-scale examination of the prevalence of mental disorders in the United States, reported 1-year prevalence rates for schizophrenia and bipolar disorder of 5% and 6%, respectively, in a sample of prison inmates (Robins & Regier, 1991). Steadman and coworkers, employing a somewhat broader definition of mental disorder, found 8% of New York State prisoners to be affected (Steadman et al., 1987). A study of several jails in New York and Maryland employed structured diagnostic assessments (the SCID) and found the prevalence of serious mental illness (bipolar, depressive, and psychotic disorders) among male inmates to be 14.5% (Steadman et al., 2009). If PTSD were included as a qualifying diagnosis, this figure would increase to 17.1%. The rate of mental disorders in subpopulations may be higher. For example, there is some evidence to suggest that incarcerated women have higher rates of mental illness than do incarcerated men (Teplin et al., 1996). Steadman and colleagues’ study found the prevalence of serious mental illness among female jail inmates to be 31%; 34.3% if PTSD were included (Steadman et al., 2009).

The federal government has undertaken periodic surveys of inmates in jails, state prisons, and federal prisons, as well as those on probation. These surveys have constructed estimates of mental illness based on self-report of illness, treatment, or hospitalization. The most recent Bureau of Justice Statistics (BJS) study collected data from inmates in several hundred state and federal prisons, jails, and ICE facilities (Bronson & Berzofsky, 2017) in 2011 and 2012. More than 50,000 inmates participated. Bronson and Berzofsky found that 14% of prison inmates had suffered serious psychological distress within the past 30 days using a screening scale defined by Kessler and his colleagues (Kessler et al., 2003; Kessler et al., 2010). The rate was higher in jail inmates: 26%. In comparison, 5% of the US population met the threshold criteria for serious psychological distress; those with no criminal justice involvement in the past year had a 4% rate. Consistent with other studies, female inmates had higher rates of serious psychological distress as their male counterparts; female prison inmates, 20.5%, female jail inmates, 32.3%.

The estimates of mental illness in correctional settings have received support from collateral sources. For example, BJS surveys indicate that about 10% of state inmates are prescribed psychotro-

pic medication (Beck & Maruschak, 2001). Based on these studies, as well as the experience of clinicians and administrators in the field, it is generally accepted that roughly 6–11% of jail and prison inmates have a serious mental illness (such as schizophrenia or bipolar disorder); approximately 10–15% have some form of mental disorder requiring treatment; and an even larger number may experience some symptoms during incarceration (James & Glaze, 2006). Of course, the rate of mental illness observed in a facility will depend on both the definition employed and the effectiveness of institutional procedures in identifying mentally disordered inmates and bringing them to clinical attention.

When one applies estimated percentages to the total population in corrections, the numbers are staggering. Based on the BJS estimates, there are more than 800,000 mentally ill individuals under the control of correctional authorities at any given time: 180,000 state prisoners, 8000 federal prisoners, 97,000 jail inmates, and 547,000 on probation. It is important to note that there is turnover in these populations, particularly in jails. An estimated 700,000 people leave prison every year and 13 million are released from jail (Council of State Governments, 2002; Travis et al., 2009). This translates into about 2.1 million mentally ill inmates in need of transitional planning and outpatient services each year.

Early Responses to Criminalization

As the mentally ill began to flood our jails and prisons, the first wave of responses from the psychiatric community focused on restrictive civil commitment laws as the chief culprit. In brief, these admittedly early analyses of the newly coined “criminalization” problem concluded that the incarcerated mentally ill were being jailed for nuisance offenses because civil commitment was no longer available to them and, moreover, that those being incarcerated were similar to long-term state hospital patients (Lamb, 1982; Lamb & Weinberger, 1998; Torrey, 1997). Thus, from the beginning, the problem of the criminalization of the mentally ill has been linked to the failures of deinstitutionalization. It is not surprising that commentators have seen a common solution for both problems: a marked increase in the provision of mental health services, particularly outpatient services. However, several studies offer evidence that simply providing access to psychiatric services would not significantly affect incarceration of the mentally ill.

The relationship between community mental health services and incarceration of the mentally ill was examined by Fisher and colleagues at the University of Massachusetts Medical Center (Fisher et al., 2000). As a result of the settlement of a class action suit, for more than a decade prior to the study, western Massachusetts had received a substantially higher level of funding for outpatient adult mental health services than had central Massachusetts. In comparison with central Massachusetts, the western part of the state had nearly twice the resources per capita for a diverse range of outpatient services, including emergency services, case management, residential programs, clinical treatment, and support services. Comparing western and central Massachusetts, Fisher et al. found that the rate of hospitalization was 60% higher in central Massachusetts (396 days per 100,000 versus 247 days), presumably reflecting the lower intensity and availability of outpatient services. The research team examined jail admissions in western and central Massachusetts over a 6-month period. An overall rate of mental disorder of 9.7% was found (schizophrenia, 2.5%; major depression, 6.1%; bipolar disorder, 1.1%). No significant difference was found in the rate of mental illness in the two jurisdictions.

In another study, researchers compared the rates of prior psychiatric hospitalization in two groups of seriously mentally ill individuals: those who had been incarcerated and those who had not (Fisher et al., 2002). The rate of prior hospitalization in the incarcerated group was 52%, significantly higher than the comparison group. A recent review of aggressive community treatment and intensive case

management found these treatment modalities had little or no effect on rates of arrest (Morrissey et al., 2007; Mueser et al., 1998). Thus, it appears that lack of access to the mental health system and to comprehensive outpatient services per se are not the critical factors in criminalization, at least for many individuals. These studies suggest that we must look deeper at the nature and quality of outpatient services. The failure of well-funded outpatient services to lower rates of incarceration of the mentally ill demands explanation and, ultimately, further empirical study.

The Mentally Ill in Corrections: Barriers to Outpatient Treatment

In this section, the characteristics of the mentally ill in correctional facilities are examined in order to better understand why outpatient treatment failure is so common. It is important to note at the outset that the incarcerated mentally ill bear a double burden of stigmatization. In characterizing this group, we should not lose sight of the fact that there is substantial diversity within the population, and varying problems and needs that require individualized approaches. Nonetheless, examination of group characteristics will help to explain why some of the incarcerated mentally ill are so challenging to treat and why outpatient treatment failure is so common.

Comorbidities

It has been consistently reported that correctional mentally ill populations have high rates of alcohol and substance abuse conditions comorbid with primary psychiatric disorders. Teplin (1994) examined comorbidity in her study of mental disorders in the Cook County Jail. Among male detainees with a severe mental disorder (here defined as schizophrenia, major depression, or bipolar disorder), 85% were found to have a comorbid alcohol abuse or dependence disorder; 58% were found to have a drug abuse or dependence disorder (nonexclusive). Baillargeon and colleagues found a rate of 70% comorbid substance abuse disorder in a large sample of Texas prison inmates with severe mental illness (Baillargeon et al., 2010). It should be noted that rates of primary substance abuse disorders in the incarcerated population as a whole are high. In the large ECA Study, described earlier, the rate of any substance abuse disorder was found to be 72% in the prison sample (56% alcohol related, 54% related to other drug use) (Robins & Regier, 1991). Based on its survey results, the BJS reported that mentally ill inmates when compared with non-mentally ill inmates had significantly higher rates of use of drugs and alcohol at the time of their offense and in the month prior to offense (Ditton, 1999).

Individuals with mental illness and substance abuse disorders, in general, have worse prognoses than those with uncomplicated mental illness. Comorbidity is associated with a higher degree of psychotic symptoms, depression and suicidality, violence, lower functioning, higher rates of noncompliance, treatment relapse and rehospitalization, and HIV infection (Osher & Drake, 1996). Inmates with comorbid mental illness and substance abuse disorders may be systematically excluded from treatment programs within correctional institutions (Hills, 2000). The availability of inpatient and outpatient programs equipped to address this population following release to the community is not sufficient to serve those in need. Moreover, many of the programs that do exist are unwilling to serve correctional populations or those recently released from incarceration. Finally, as previously noted, intoxication is a very common correlate of criminal behavior. Thus, recidivism is likely to be the outcome of relapses, which are a common feature of the course of substance abuse disorders. For example, a study in Massachusetts comparing mentally disordered offenders with and without a substance abuse diagnosis found higher rates of reincarceration in the dual diagnosis group (Hartwell, 2004). In a large sample of Texas prison inmates, inmates with a severe mental illness and comorbid substance use

disorder had substantially higher rates of recidivism than inmates with psychiatric disorders alone or substance use disorders alone (Baillargeon et al., 2010).

A second important comorbid condition is antisocial personality disorder (APD). In a study of jail inmates, Abram and Teplin (1991) found rates of APD ranging from 68% in those with schizophrenia and major depression to 82% in those with bipolar disorder. APD comorbidity also greatly complicates the treatment and management of mentally disordered offenders because it is associated with manipulative behavior and a predisposition to commit criminal acts (DSM-5, 2013).

Related Social Disabilities

Homelessness has been consistently found as a correlate of incarceration for the mentally ill. BJS statistics reveal that the mentally ill have roughly double the rates of homelessness as those without mental illness (state prisoners, 20% versus 9%; federal prisoners, 19% versus 3%; jail inmates, 30% versus 17%) (Ditton, 1999).

Homelessness among the mentally ill is associated with serious alienation from health systems and family, and treatment failure. Substance abuse disorders contribute to the problem. McGuire and Rosenheck (2004) reported relevant data from the Access to Community Care and Effective Services and Supports (ACCESS) demonstration project, which involved 18 sites in 9 states. In this project, 5774 homeless individuals with severe mental illness were provided comprehensive, integrated services, including assertive community treatment and intensive case management. The sample was grouped into three roughly equal groups, based on incarceration history. A strong association was found between comorbidity with substance abuse and incarceration. The homeless mentally ill with no history of incarceration had rates of comorbid alcohol dependence (26%) or drug dependence (25%) significantly lower than those with a lifetime incarceration history of 6 months or less (alcohol dependence, 44%; substance dependence, 37%); and those with an incarceration history of more than 6 months (mean, 48.9 months; alcohol dependence, 57%; drug dependence, 51%). Those with long-term incarceration histories (greater than 6 months) also exhibited higher scores on psychiatric symptom measures. In a 1-year follow-up, those with longer incarceration histories spent more time in jail and had lower service utilization, including outpatient treatment contacts, engagement in employment services, and substance abuse services. In addition, those with incarceration histories received lower public support payments.

The alienation of mentally ill justice-involved individuals from outpatient treatment resources is demonstrated by a Bureau of Justice Statistics survey of more than 25,000 inmates in jails and prisons. Of those inmates identified as having a mental health problem, fewer than 25% had received any sort of mental health treatment in the year before arrest (James & Glaze, 2006).

Unemployment or reliance on federal or other public assistance is disproportionately found in the incarcerated mentally ill population. At the time of arrest or conviction, 39% of state prisoners, 38% of federal prisoners, and 47% of jailed mentally ill are unemployed (Ditton, 1999). These rates exceed those found in non-mentally ill prisoners.

Violent Behavior

The literature on the relationship of mental illness to violent or criminal behavior is voluminous. In the mentally ill, a strong relationship has been established between substance abuse comorbidity and violent behavior. In a carefully designed study, Steadman et al. (1998) followed more than 1000 patients who had been hospitalized for mental illness and compared their violent behavior with that of

a comparison non-mentally ill group from the community. Data were collected from the mentally ill group for 1 year following discharge from the hospital. Based on patient and family reports, released patients with no comorbid substance abuse diagnoses were no more likely than the controls to commit a violent act. However, patients who were comorbid for substance abuse diagnoses were significantly more likely to be violent during the follow-up period (1-year prevalence rate of violence was 31%, compared to 18% in released patients without comorbidity). Swanson et al. (1990) reported similar findings in a reanalysis of ECA study data.

As discussed above, the mentally disordered correctional populations have high rates of risk-enhancing comorbid disorders. Therefore, it is not surprising to find violent behavior in incarcerated mentally ill people. The BJS data support this conclusion. Based on conviction offenses for prisoners and probationers, and charges faced for jail detainees, the BJS found higher rates of violent offenses in mentally ill inmates when compared with non-mentally ill inmates (state prisoners, 53% compared with 46% in non-mentally ill; federal prisoners, 33% and 13%; jail inmates, 30% and 26%; and probationers, 28% and 18%). The increased rate of violent offenses among the mentally ill extended to comparisons of inmates who were repeat offenders.

Mentally disordered offenders are a diverse group. While many are charged with or convicted of a violent offense, a substantial number are not. Indeed, as the BJS data summarized above indicate, most of the mentally ill in jail populations have been incarcerated for nonviolent offenses (Ditton, 1999). Nor is it necessarily correct to conclude that those facing violent offenses are best managed in the criminal justice system. Many may be safely diverted to treatment programs. On the other hand, from the standpoint of treatment providers and outpatient mental health systems, those who are violent, homeless, and suffering comorbidity will be difficult to engage successfully in treatment programs.

Treatment in Correctional Settings

The quality of care in correctional facilities has been the subject of scrutiny and litigation. This section summarizes the findings of recent studies with the purpose of highlighting aspects of correctional treatment that are problematic from the perspective of community providers.

Jails

As part of a National Institute of Justice-sponsored initiative, Steadman and Veysey (1997) surveyed 1053 jails of varying sizes regarding the mental health services provided; conducted more extensive telephone interviews with 100; and visited 10. They found that 84% of jails reported that less than one-tenth of inmates received any kind of mental health service. Based on the responses, Steadman and Veysey estimated that crisis intervention programs are available in only 43% of jails; psychiatric medications in 42%; inpatient care in 72%; special housing in 36%; and discharge planning in 21%. Smaller jails tended to provide no services beyond suicide screening and prevention. Case management or similar services designed to link detainees to treatment on release were seldom provided. In a large survey of inmates conducted by the Bureau of Justice Statistics, only 30% of inmates who met criteria for having serious psychological distress were receiving treatment of any kind; 38% of those who had been told by a mental health professional that they had a mental disorder received treatment (Bronson & Berzofsky, 2017).

Prisons

Recent government reports provide some insight into the scope of mental health services in state prisons. The National Commission on Correctional Health Care, in a recent report to Congress (2002a), noted that “most jails and prisons do not conform to nationally accepted guidelines for mental health screening and treatment.” Comparing federal surveys from 1988 to 2000, Manderscheid et al. (2004) concluded that “the growth in prison facilities and the growth in prisoner populations are outstripping the more meager growth in mental health services,” and warned that services are becoming less available. The inadequacy of services is illustrated by examining unmet treatment needs. Examining the status of mentally ill state prisoners due to be released within 12 months, Beck (2000) found that 43% had not received treatment. In addition, only about 20% of inmates with alcohol or substance abuse problems—not necessarily comorbid—had received treatment. In a more recent report, only 36% of prison inmates with a serious psychological disorder received any treatment; and of those who indicated a history of mental disorder, only 38% received any treatment (Bronson & Berzofsky, 2017).

Many barriers to treatment exist in correctional settings, not least of which is inadequate funding. Other barriers that have been identified include inadequate training of correctional officers in identification and management of the mentally disordered, poorly trained mental health professionals, institutional bias toward characterizing the mentally ill as malingerers, and the use of segregation units to manage disruptive behavior caused by mental disorder (Center for Mental Health Services, 1995; National Commission on Correctional Health Care, 2002a, 2002b; The Correctional Association of New York, 2004). In addition, in many institutions inadequate protection of privacy undermines treatment of the mentally ill: some inmates choose to forgo assessment and medications rather than risk being preyed on by inmates who target the impaired. And facilities often have no method to enforce treatment when psychotic inmates refuse medication.

The problem of inadequate treatment in correctional settings is not likely to be solved in the near future; providers of transitional services and outpatient care must take these treatment deficiencies and the resulting unmet needs into account when they develop care plans for their clients.

Reentry Problems

Facilitating successful return to the community and reintegration into family, work, and other social roles serves multiple purposes. Released inmates who are able to make a successful transition are less likely to recidivate or to place other burdens on societal resources. Moreover, assisting prisoners who have paid their debt to society seems fair. The problematic nature of prisoner reentry to society has received considerable attention (Travis, 2002). There are many barriers to prisoner reentry that result from a variety of social policies, or that occur as a consequence of incarceration. The problems of transition to the community are frequently compounded in the mentally ill population.

Prisoners, particularly those being released after lengthy prison terms, are alienated from their families and communities. This is particularly true of the mentally ill, who have often become estranged from families as a result of their psychiatric disturbances. In addition, they face the pervasive societal stigmatization of mental illness, as well as that related to incarceration.

Social policies further impede the transition process. Mentally ill inmates are disproportionately reliant on public assistance and SSI or SSDI benefits in order to obtain needed treatment and to ensure continuity of care following release. However, these benefits are discontinued during incarceration and, following release, the process of reinstatement may take 45 to 90 days. This process is not auto-

matic; negotiating the bureaucracy may be beyond the abilities of some of the serious mentally ill. In the absence of medical benefits, the prospects for receiving treatment or obtaining psychotropic medication are bleak. Barriers to transition extend to housing and general assistance. As previously discussed, the burden of homelessness falls disproportionately on the incarcerated mentally ill. For the homeless mentally ill leaving prison, some form of financial assistance and help negotiating the complex process of obtaining residential access is necessary. However, those who have served time for violent offenses may face exclusion from Sect. 8 housing and drug-related felons may face a lifetime ban from federal public assistance and food stamps. Generally, assistance negotiating the maze to find appropriate housing is not available.

Mentally ill individuals released from incarceration face significant barriers to receiving care. The public mental health system is increasingly resource-constrained and, in many jurisdictions, access to outpatient services is restricted or prioritized to patients released from civilian public hospitals. In other cases, services may simply not be made available to the incarcerated population. Many providers are reluctant to treat former inmates due to fear and concerns about liability.

Inmates' poor access to care after release from prison has shocking consequences. A study of a large group of Washington inmates found in the first 2 weeks following release, the risk of death was 12.7 times of those in the general population (Binswanger et al., 2007). Over the 2 years following release, the risk of death among inmates was 3.5 times the general population. Drug overdose and suicide were among the leading causes of death in released inmates. Inmates who were treated for serious mental illness were at an even higher risk for death, as were those who had substance use disorders (Binswanger et al., 2016).

Providing Transitional Services and Treatment

Discharge Planning

Discharge planning is a vital part of care for individuals with mental illness in correctional as well as civil settings. Professional organizations, accreditation bodies, and correctional administrators (AMA, 2012; APA, 2016; APHA, 2003; Bureau of Prisons, 2014; NCCHC, 2015) have recognized the necessity of discharge planning in jails and prisons. Psychiatrists and other treatment providers have professional and ethical responsibilities to ensure continuity of care for their correctional patients, even in the face of institutional indifference. Perhaps most critical to ensuring change in the field, discharge planning has been recognized as a constitutionally required element of correctional care (Charles v. Orange County, 2019). This obligation has particular salience in correctional settings where patients are not free, are often incarcerated in facilities far from their homes, are likely to have serious mental disorders, and have comorbid disorders and may require complex and specialized services. In addition, in order to receive needed care, many will need assistance establishing or reestablishing Medicaid, public assistance, and disability benefits.

Actual implementation of effective discharge planning is absent or inadequate in many correctional facilities. A survey of jail services (Steadman & Veysey, 1997) found that discharge planning was available to about 20% of discharged mentally ill inmates; smaller jails provided this service less often. There is no comparable study of discharge planning for those released from prisons. Given the longer period of incarceration and greater investment of resources at the point of release, there is greater opportunity for comprehensive discharge planning. However, anecdotally, it appears that transitional services in many prisons consists of supplying a few weeks' worth of medication and a list of providers in the community (National Commission on Correctional Health Care, 2015; American Psychiatric Association, 2016; American Public Health Association, 2003; American Medical Association, 2013; Federal Bureau of Prisons, 2014).

Key Elements of Transition Planning

The Substance Abuse and Mental Health Services Administration (SAMHSA) has published a best practices model for discharge planning in correctional settings (2017). The APIC model is a pragmatic approach that is named for four steps: (1) assess the inmate's clinical and social needs, and public safety risks, (2) plan for the treatment and services required to address the inmate's needs, (3) identify required community and correctional programs responsible for postrelease services, and (4) coordinate the transition plan to ensure implementation and avoid gaps in care with community-based programs.

- Assess the inmate's clinical and social needs, and public safety risks. This assessment should identify unmet treatment needs, including treatment of alcohol- and drug-related problems. In addition, transition planners should review the inmate's past record of compliance and current level of interest in community-based treatment following release. Review of preincarceration treatment records and consultation with family members will be necessary in some cases. The inmate's plans and prospects for meeting housing and financial needs should be reviewed. The assessment of public safety risks should focus on past violent and criminal conduct. Efforts should be made to identify factors related to problematic behavior, particularly symptoms of mental illness, noncompliance with medication, and substance abuse.
- Plan for treatment and services required to address the inmate's needs. A comprehensive plan should be constructed that addresses the inmate's needs. The plan should identify and prioritize services necessary for a successful transition, including services needed to minimize the risk of treatment noncompliance. Inmates with serious mental disorders or significantly impaired decision-making capacities should be considered for long-term psychiatric treatment, guardianship, or, in some jurisdictions, outpatient civil commitment. Coercive measures should be strongly considered for inmates who have a pattern of noncompliance or where symptoms of mental illness have been associated with violent behavior. Plans should be made to ensure future access to care with attention being paid in particular to SSI, SSDI, and other benefit programs.
- Identify required community and correctional programs responsible for postrelease services. The availability of services will vary considerably from community to community. Transition planners should maintain lists of providers and programs willing to accept released inmates.
- Coordinate the plan to ensure implementation and avoid gaps in care with community-based programs. Special assistance should be given to the more serious mentally ill inmates who may have difficulty making and keeping appointments, negotiating transportation, or renewing SSI or SSDI benefits. Ideally, community-based providers will meet with their correctional counterparts and the inmate prior to release.

Jail Reentry

Planning discharge and transitional treatment in jails is challenging. Release procedures are often unpredictable and therefore undermine planning (Hoge et al., 2009). For example, detainees not scheduled for release may make court appearances that result in bail, dropped charges, or immediate transfer. As a result, seriously ill inmates may be released without adequate plans for maintaining medication treatment, receiving outpatient care, housing, or other needed services (Hoge et al., 2009). In most jurisdictions, courts have the power to order emergency civil commitment in these circumstances, but do not use it. In general, detainees are released within a few days. Therefore, discharge planning for detainees must, of necessity, occur in a context of incomplete information, ongoing mental health needs assessment, and uncertain release dates. Jail planning processes for detainees resemble crisis intervention programs (Hartwell & Orr, 2000).

A few specialized programs have emerged, designed to manage mentally ill inmates in the reentry process and in the postrelease period. These innovative programs, which have embraced the dual role of improving the treatment of this population and reducing rates of recidivism, have reported success, although in small or uncontrolled studies (Lamberti et al., 2001; Project Link, 1999; The Thresholds State, County Collaborative Jail Linkage Project, 2001; Ventura et al., 1998). A survey of more than 300 county behavioral health directors resulted in the identification of 16 programs in 9 states involving the management of the mentally ill on release from incarceration (Lamberti et al., 2004). Thirteen of the sixteen programs addressed reentry and postrelease management of ordinary mentally ill jail inmates (the remaining three included two diversion programs and a specialized service to manage insanity acquittees).

In 1998 the state of California established the Mentally Ill Offender Crime Reduction Grant program (MIOCRG) that provided more than \$80 M in grants to 30 programs in 26 counties to develop and evaluate projects to help mentally ill offenders avoid further involvement with the criminal justice system (California Board of Corrections, 2004). Grant recipients were free to design programs to meet local needs and to leverage existing resources. The programs that emerged varied in admission criteria and the precise composition of services. In some programs, participation was voluntary; others involved court mandates to participate as a condition of probation. Generally included in the enhanced program were the following services: assistance in securing disability entitlements, housing, vocational training, and employment; residential and outpatient mental health treatment; individual and group counseling; substance abuse education and counseling; life skills training; medication education, management, and support; transportation services; socialization training and support; advocacy; and crisis intervention.

In its final evaluation of MIOCRG, the California Board of Corrections identified assertive community treatment as the most common element, reported by 19 of the 30 programs. The second most common feature was the use of mental health courts (9 programs). Three major strategies were identified within the programs: the use of multidisciplinary teams, intensive case management, and flexible service delivery. In addition, medication management and having a clinic or center as bases of operations were found to be important program elements.

Grant recipients were required to randomize offenders into two groups: one receiving experimental, enhanced services and the other receiving treatment as usual; all to be followed for 2 years postrelease. Twenty programs provided data suitable for analysis, involving a total of more than 4700 inmates. Inmates receiving enhanced services had better criminal justice outcomes than those who received routine services. In the follow-up period, they were booked less often (53% versus 56%), convicted less often (35% versus 38%), were less likely to be jailed (54% versus 57%), and spent less time in jail (13.7 versus 15.2 days). More impressive differences were found in treatment outcomes. At the end of the follow-up period, those receiving enhanced services were less likely to have a drug problem (45% versus 55%) or an alcohol problem (38% versus 49%). Functioning, as assessed by the Global Assessment of Functioning Scale, indicated that those receiving enhanced services were less likely to worsen (21% versus 32%). Similar differences were found in quality of life and social measures: those receiving enhanced services were less likely to be homeless (7% versus 12%) and to be economically insufficient throughout the follow-up period (30% versus 53%). All findings were statistically significant.

Qualitative evaluation of the various programs resulted in the identification of several factors related to success. These included interagency collaboration and multidisciplinary partnerships, comprehensive and flexible services, intensive case management, involvement of the court, mental health courts, assistance with benefits, use of flex funds, and residential assistance (California Board of Corrections, 2004).

Prison Reentry

Discharge planning for prison inmates allows for comprehensive planning as release dates are known in advance. Individualized assessment and planning following the APIC model should be the norm. In New York State, planning begins 4–6 months prior to the earliest release date. The clinical review includes the inmate’s response to treatment, stability, and community history. In addition, there is an assessment of prior violence and incarceration history. Entitlement applications are made by the treatment providers and housing interviews are done by video. All inmates with serious mental disorders are provided outpatient case management services. And each inmate is assessed for assertive community treatment, outpatient civil commitment (known as “assisted outpatient treatment” in New York), or psychiatric hospitalization. In 2018, of 822 inmates evaluated, 139 released inmates were ordered to outpatient civil commitment (Lee, 2019).

Conclusion

Deinstitutionalization was a disruptive force in the provision of public sector psychiatric services. The shift to a community-based model has undoubtedly resulted in increased autonomy and a higher quality of life for many individuals who would have been institutionalized in an earlier era. However, the transition was not painless. In many communities, decades passed before community mental health care received minimally adequate funding, and fiscal constraints continue to limit the implementation of services throughout the country. In addition, the magnitude of the need for social support and outreach services for the severely mentally ill was not anticipated at the outset of deinstitutionalization. Nearly a generation passed before a conceptualization of assertive community services was developed and began to serve as a model for care (Stein & Test, 1980). Finally, the early, widespread experience of revolving door readmissions for the seriously mentally ill appeared unsolvable, until the walls between hospital and outpatient providers were torn down, and they began to work collaboratively on discharge planning and transition to community management.

Public sector psychiatry has had limited success, however, with the incarcerated mentally ill population. Many of the most difficult patients are not being served, or are not served adequately, in existing outpatient treatment programs. It appears that this deficiency is not the result of shortfalls in funding outpatient services or failure to provide aggressive community treatment (Fisher et al., 2000; McGuire & Rosenheck, 2004; Mueser et al., 1998). Two potential explanatory factors emerge from this review.

First, the incarcerated mentally ill include disproportionate numbers of patients who are difficult to treat, and who are more resistant to being engaged in treatment. Many individuals with serious mental disorders are not in treatment prior to their involvement with the criminal justice system. Second, correctional institutions, particularly our jails, have not embraced discharge and transition planning for the mentally ill.

The development of outpatient services for the correctional population will require treatment targeted for alcohol and substance abuse comorbidities. Beyond the specifics of treatment, the more daunting challenge will be engaging released inmates in treatment. As suggested by the evolution of public sector services, nominal discharge planning—for example, merely scheduling outpatient visits—is not likely to be successful. Correctional and outpatient providers need to work together to ensure individualized plans designed to provide continuity of care and to ensure compliance. The experience from the public sector is that investment in this process will result in substantial improvement in outpatient care for those who desire services, but have impairments that limit follow through.

At present, we do not know to what extent it will be possible to rely on strictly voluntary programs, or whether legal coercion will be necessary for some patients. The public sector outpatient system is based almost exclusively on voluntary service provision, and it has failed to address the needs of the correctional population adequately. However, this may be due to providers' reluctance to treat patients with a propensity for violence and/or manipulative behavior. The California Board of Corrections' final report on the MIOCRG program identified one of the factors in success as involvement of the courts, suggesting some application of coercion was involved in ensuring compliance. However, half of the county programs relied exclusively on voluntary participation (California Board of Corrections, 2004). It is likely that staff dedication to the correctional population, a commitment to spanning the boundary between the criminal justice and treatment systems, and comfort with risk assessment and management of patients with a history of incarceration were important to success. Clearly, more research is necessary to understand the factors underlying treatment compliance and recidivism reduction.

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Written Health Informational Needs for Reentry

31

Jeff Mellow

Introduction

In the last 40 years, tools and techniques have been developed and refined to identify, control, and treat inmate health problems, including physical examinations at intake, screening for chronic and communicable diseases, referral of inmates for additional health and behavioral care, peer and community health counseling, health education and risk assessment programs, and comprehensive discharge planning and transitional health care on release. Long-term changes in an inmate's health regimen are nevertheless difficult to implement due to the constant cycling of inmates in and out of correctional institutions. The average time served in state and federal prison is 30 and 37.5 months, respectively, with jail inmates incarcerated an average of 26 days (Kaeble, 2018; Motivans, 2015; Zeng, 2019). Though an inmate's stay in a facility may not be for long, correctional healthcare professionals still have an advantage in combating health and behavioral issues that rarely exists in the community—a controlled setting.

This chapter will discuss the development and assessment of written health education and discharge planning materials as a low-cost and effective tool to supplement the continuation of health care at discharge. In no way is one naive enough to suggest, however, that written information is a cure-all to increase adherence to a discharge plan. Nonadherence to a medical regimen and lack of utilization of community health services on release results both from macro- and micro-level factors: lack of funds or insurance to pay for health services, inconvenient locations of the health services, adverse effects of medication, competing priorities, ineffective health education, language barriers, and personal or cultural beliefs (Centers for Disease Control and Prevention [CDC], 2014). Nevertheless, research also suggests that adherence to treatment and utilization of services is higher when written materials are incorporated in the discharge plan. This chapter argues that the research is unequivocal on the need for easily understandable discharge plans and also provides a template that correctional personnel can use when developing their own written materials for a correctional population.

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The Importance of Written Discharge Summaries

Experience from the Medical Field

In a hospital setting, a discharge plan is the process by which healthcare personnel prepare the patient for taking care of his or her medical needs after release from the hospital. Discharge plans commonly include a discharge summary, which is a “document written by the patient’s physician upon discharge; contain a brief summary of all important information from the entire hospitalization or stay in the institution, including the discharge diagnosis and often a plan for follow-up care” (Centers for Disease Control and Prevention, 1999a, p. 3). Discharge summaries can be brief, stating the patient’s diagnosis, medication protocol, and physician to contact if condition worsens. On the other hand, these summaries can be extremely detailed including time and date of follow-up appointment, support services in the community to help with the patient’s medical need, and even illustrations on how to complete a medical procedure, such as the administration of insulin. Regardless of the format, the goal of written discharge summaries is to make the transition back into the community as healthy as possible.

Believing that inmates will routinely follow their health regime and discharge plan at release may seem implausible when the same individuals keep being readmitted, many times with more severe health and behavioral problems. Correctional personnel may start believing that no type of preparation on the inside will affect how an inmate deals with his or her medical issues on release. The truth is, however, that inmates are not the only ones who have difficulties following a discharge plan. Research conducted on the discharge process in hospital emergency departments indicates that the majority of patients do not comprehend their medical needs and treatment plan at discharge and after their return home (Engel et al., 2012; Isaacman et al., 1992).

In a study of patients ($n = 43$) discharged from an urban hospital, 72% could not identify all of their medications at release, 63% did not understand why the medication was prescribed, and more than half (58%) could not articulate their medical diagnosis (Makaryus & Friedman, 2005). This lack of understanding increases emergency room readmissions and becomes a public health matter when the medication regime for communicable diseases is not properly followed. Not understanding their medical protocol is one of the main reasons cited as to why patients with tuberculosis (TB) do not adhere to their treatment. This can severely impact their own health and also increase the probability of spreading TB to others and the development of drug-resistant strains of TB (Centers for Disease Control and Prevention, 1999b).

Discharge summaries are one tool medical personnel use to increase adherence to discharge plans. According to Moulton et al. (2004), written summaries not only increase information retention and adherence to a medical protocol, but also help patients minimize anxiety and improve illness-related communication skills (p. 166). Eames, McKenna, Worrall, and Read (2003, p. 70) further note that health education materials “encourage self-paced learning” and “offer a consistency of message” that individuals cannot receive if the information is solely delivered verbally.

A systematic review of 51 studies analyzing the impact of providing patient discharge instructions in emergency departments found that written and video discharge instructions had a higher impact in patient recall of information compared to verbal information (Hoek et al., 2019). Isaacman et al. (1992) determined that standardized discharge instructions written at the fifth-grade level significantly improved the understanding of parents regarding their child’s medical needs after being released from the hospital. Based on the above cited research, it is hypothesized that prisoners who are given “a well-written, organized, and easily understood overview of their conditions, symptoms to expect with

their condition, medications they will be taking, how to take the medications, and what side effects to expect” will have a greater rate of adhering to their medical regimen (Makaryus & Friedman, 2005, p. 993). In terms of helping a population adhere to their medical regimen, the effectiveness of discharge summaries in the medical field supports similar uses in corrections.

Most Inmates Don't Receive Comprehensive Discharge Planning

The Centers for Disease Control and Prevention (1999a) defines a barrier as “anything that can prevent a patient from being able to adhere to a treatment regimen” (p. 2). One could argue that the increasingly large number of inmates being discharged unconditionally without any community supervision constitutes such a barrier. According to the Bureau of Justice Statistics, 112,139 state prisoners were released unconditionally through an expiration of their sentence in 2017, up from 51,288 in 1990 (Bronson & Carson, 2019; Hughes & Wilson, 2005). State prisoners being discharged for “maxing out” their sentence now represent approximately 20% of those who are released (Bronson & Carson, 2019), and a national survey of 43 state correctional agencies found that only 37% of the states “provided discharge plans to all inmates who max out” (La Vigne et al., 2008 p. 28).

Jails are even more problematic, with the overwhelming majority of inmates receiving no community supervision. This means that many discharged inmates cannot rely on parole officers to refer them to health and behavioral services to support their reintegration into society. Even when under supervision, enormous caseloads are leaving parole officers stressed and overwhelmed and, consequently, they are not often able to give adequate attention to each and every parolee. In his study which examined the availability and accessibility of resources for ex-inmates, Helfgott (1997) found that inmates often felt that there was nobody to help them. They often did not know what was available, or how to find out.

The fact that so many released prisoners receive no prerelease preparation further supports the creation of written discharge materials, because a pamphlet or a comprehensive resource guide may be the only information on which they can rely. The parallels to the medical field are surprisingly similar. Makaryus and Friedman (2005) note that “after being carefully supervised in the hospital, patients at discharge assume the former responsibilities of the health care team for their own health care” (p. 991). The same can be said for the majority of inmates. However, unlike most patients, inmates must also start from the beginning in finding employment, housing, food, clothing, and the development of strong social networks to increase their chance of succeeding in the community (Morani et al., 2011). Many times, the inmate’s family is not there to support him, having given up on the inmate for his past transgressions. The inmate is in a situation where with limited help he has to locate and obtain identification, health care and ongoing treatment for substance abuse, mental illness, and chronic and/or communicable diseases. Written information given to an inmate prior to release may be the only assistance for returning to the community that they receive.

Currently, a minority of state prisoners released each year receive written discharge plans and/or experience a multisession, formalized prerelease program (Angiello, 2005; La Vigne et al., 2008). Also, the majority of the state prison prerelease programs are voluntary and are available primarily in minimum-secure facilities (Austin, 2001). Furthermore, prisoners with serious mental health issues, gang membership, who are maxing out and who are seriously violent are often exempted from participation in specific prerelease programs (Corrections Compendium, 2004). Services are even more limited for the jail population.

Recommendations for the Development of Written Discharge Health Information

Even when the importance of developing health materials as part of a comprehensive discharge plan is acknowledged, correctional personnel must recognize that the majority of inmates have low literacy skills and that written materials must be designed with this in mind. To quote Smith and Smith (1994), who analyzed medical education publications, “information written above patients’ reading level is useless and a waste of time and money” (p. 1). The criteria for developing easy-to-read, high-quality discharge information vary, but the majority of experts agree that the following must be incorporated for the information to reach its reader: (1) clearly state purpose of the information, (2) write to a fifth or sixth grade literacy level, (3) use short sentences as much as possible, (4) personally address the reader, (5) use a respectful tone, (6) make the design and layout approachable, (7) use visuals, and (8) describe specific problem-solving strategies (Cotugna et al., 2005; Doak et al., 1996; Fant et al., 2005; Irick & Fried, 2001; Moulton et al., 2004; US Department of Health and Human Services, 2020).

The following recommendations can help correctional personnel develop written health information and discharge summaries for their prerelease population. Several of the following points were first discussed by Mellow and Dickinson (2006) when assessing prisoner reentry guidebooks, but can also be used for any written health information and discharge materials developed for the health needs of inmates being released. When appropriate, examples from health materials from across the country will be used to highlight the recommended style of writing.

Be Considerate of Prevalent Literacy Levels

The National Assessment of Adult Literacy Prison Survey found that incarcerated adults have significantly higher illiteracy rates than adults living in households. In the survey, the majority of prisoners had “below basic” (16% & 15%) or “basic” literacy (40% & 35%) levels, respectively, on the prose and document literacy scales (Greenberg et al., 2007). Individuals with “below basic” prose and document literacy levels cannot read and comprehend information written out in short text as one often finds in brochures and discharge plans. Those with “basic” prose and document literacy levels will have a difficult time using a bus schedule to determine the appropriate bus to take, or read a news article and identify a sentence that provides interpretation of a situation (Haigler et al., 1994). Extreme care must be taken to ensure that the complexity and length of text is compatible with the limited literacy levels of many inmates.

Research by Mellow and Christian (2008) indicates that discharge materials produced for inmates are presently not tested to ensure the appropriate readability level. In their study of a nationwide sample of reentry guides, no reentry guides were written at the fourth or fifth grade level and the majority of the guides were written at the high school or college level. Information written above an inmate’s level increases the frustration they already experience when returning to the community.

It is important, therefore, to evaluate all written materials before they are widely disseminated to the inmates. In essence, this is a “pretesting” of the material to determine if the inmates understand the content and what, if any, changes need to be made prior to a final printing. Converse and Presser (1986) note that the pretest sample should resemble the target population and be no fewer than 25 persons. Therefore, the sample selected should represent different inmate characteristics based on age, sex, race/ethnicity, and educational level.

Depending on the situation within the particular correctional facility, pretesting of inmates can be administered to them alone or in focus groups. Likewise, the pretest can be in an open- or closed-ended format. The objective is to find out if the inmates have any problems comprehending the infor-

mation. One should note, however, that individuals with low literacy levels may feel embarrassed and have a sense of shame about their poor reading skills and will verbally acknowledge they understood the material when asked, even if that is not the case (Saefer & Keenan, 2005). Others will come up with an excuse such as “I forgot my glasses” and ask to take the instructions back to their cell so as not to identify themselves as functionally illiterate. A simple way to evaluate their reading comprehension level of the material is to ask them some basic questions, in a one-on-one situation, about what they read. From this author’s experience, inmates may need some time to read the materials before responding. Allow them to read the materials for 20–30 minutes to reduce their anxiety and elicit a more valid response rate. At a minimum, the following questions should be incorporated into the interview:

- Was the handout/pamphlet/webpage/book easy to read?
- Can you show me what words or parts of the handout/pamphlet/webpage/book which were hard to read/understand?
- What parts of the handout/pamphlet/webpage/book helped you the most?
- What information was not listed that you think should be written down?
- The handout/pamphlet/webpage/book talked about _____. Can you tell me in your own words what the handout/pamphlet/webpage/book said?

After the interviews, it is advisable to analyze if there was a difference in the comprehension rates of the materials depending on characteristics of the inmates (e.g., age, sex, race/ethnicity, education level).

Another way to measure the readability of written materials produced for inmates is to use readability software, such as the Flesch Reading Ease test available in Microsoft Word. The Flesch Reading Ease Scale is “the most widely used formula to assess such general reading materials as newspapers, magazines, business communications, and other non-technical materials” (Electronic Privacy Information Center, 2006). Many state and federal agencies, including the US Department of Defense, require all training and informational documents to have a Flesch reading scale between a sixth grade and high school level. The following four points outline how to access these readability statistics when using Microsoft Word (Montclair State University, 2020, p. 1–2):

1. Go to “File” in the ribbon menu and select “Options.”
2. Select “Proofing” in the dialog box that pops up; scroll down to view the “When correcting spelling and grammar in Word” area, and make sure the “Check readability statistics” box is checked.
3. Now that Word is set to check readability statistics, select “Review” in the ribbon menu, and select “Spelling & Grammar” on the left side of the ribbon menu. Word will now check grammar and spelling throughout the document and ask you to approve its suggested revisions.
4. After it completes checking spelling and grammar, it will display a dialog box with readability statistics. The relevant number is the “Flesch-Kincaid Grade Level.”

Like many readability tests, the Flesch Reading Ease test score is based on the average number of syllables per word and words per sentence. “It rates text on a 100-point scale; the higher the score, the easier it is to understand the document” (Scottish Government, 2020, p. 9). Though not an exact science, Table 31.1. correlates the Flesch Reading Ease test score with the level of reading difficulty and the corresponding grade level of the score (Smith & Smith, 1994, p. 114). Government agencies recommend that all documents be written at the standard difficulty level (61–70). However, writing at the fairly easy or easy reading level is recommended for inmates.

Table 31.1 Flesch Reading Ease formula

Score	Reading difficulty	Approx. grade level
91–100	Very easy	4th grade
81–90	Easy	5th grade
71–80	Fairly easy	6th grade
61–70	Standard	7th–8th grade
51–60	Fairly difficult	Some high school
31–50	Difficult	High school–college
0–30	Very difficult	College level up

Reprinted with permission from Wolters Kluwer Health, Inc. (Smith & Smith, 1994, p. 114). © 1994 American Academy of Orthotists & Prosthetists. https://journals.lww.com/jpojournal/Abstract/1994/06040/Patient_Education_Information___Readability_of.5.aspx

A reentry handbook from Washington, DC, is a good example of writing to the audience at the literacy level the majority can comprehend. The following are bullet points listed in their handbook on how to improve reading skills, but the format could just as well be used when addressing inmate-related health needs (Sullivan, 2002, p. 5). The Flesch Reading Ease test score from Microsoft Word is 74.4 and is written at the sixth-grade level.

- If you do not read or write well, enroll in a literacy class.
- If you lack a high school diploma or GED (*General Education Development*), get one.
- If you have enough time to take a basic skills course (*like writing or math*), do it. All of us get rusty in our basic skills when we do not use them for a while.

If you have time to take a vocational training class (*like computer repair, word processing, or graphic arts*), do it. It will greatly improve your chances of finding a well-paying job.

Make the Design, Layout, and Information Approachable

Doak et al.'s (1996) research indicates that the readability of health resource materials increases when the reader finds the text simple and easy to understand. Readability is measured not only by the literacy level of the information but also by how the material is organized, the writing style, its appearance (e.g., font size and style, spacing, and color contrast of ink and paper), and appeal. An appropriate writing style would have “little or no technical jargon” and use a “conversational style” of writing (p. 43). For example, a TB patient’s discharge summary should read “this pill will help you get better” and not “this drug, isoniazid is a bactericidal agent that is highly active against *Mycobacterium tuberculosis*” (Centers for Disease Control and Prevention [CDC], 1999b, p. 27). The appeal of the material is increased if the information is “culturally, gender and age appropriate” and “matches the logic, language, and experience of the intended audience” (p. 43).

Comic books are a recommended format when communicating health information to inmates. Unlike a static set of facts and figures, comics tell a story using pictures and the written word. Pictures not only aid the reader in understanding the context of the story but also reduce the anxiety level of reading about health-related issues which may impact their personal health. Doak et al. (1996) believe comic books are so popular as a way to disseminate information because “people remember stories better than a set of facts” and “using familiar characters in a familiar setting can help people talk about the real problems in their own lives and community” (p. 110).

The New York City Department of Health and Mental Hygiene [NYC DOHMH] uses the comic book format as one method to help educate individuals on transmission, diagnosis, and treatment of

tuberculosis (NYC DOHMH, 2006). Titled *Friends Forever: A Triumph over TB*, the comic book is 12 pages long, in color, and includes characters of different ethnicities and gender. The last page lists chest center locations in New York City and a phone number to call to make an appointment. The image in Fig. 31.1 is of Annie, the public health advisor, telling Joe that he has tested positive for the TB germ and she is answering his questions about TB.

One can also hire companies that specialize in communication solutions for niche markets. Tim Peters and Company (2006), for example, is known for creating comic books to “humanize health information.” Tim Peters’s *A Sister’s Story* uses a prison setting to discuss HIV/AIDS and the importance of getting tested. During the development of the storyline, the artist and writer interviewed current and former inmates and correctional healthcare providers.

The majority of discharge materials, however, will not be in a comic format. Nevertheless, pictures and cartoon illustrations, even when only a few are dispersed throughout the information, are still one of the best ways to catch a reader’s attention and help him understand the information (Alberti & Nannini, 2013). The Centers for Disease Control and Prevention offers healthcare providers different collections of public health images that are free and accessible via the Internet. The CDC’s *Public Health Image Library* is a collection of images and multimedia files related to public health (CDC, 2020). The National Institutes of Health’s *National Eye Institute Photo, Image, and Video Catalog* focuses on vision-related images and publicdomainvectors.org (PDV) offers a large selection of copyright-free health-related images (NEI, 2020; publicdomainvectors.org, 2020a, 2020b, 2020c). Figure 31.2 shows a man getting a medical checkup (PDV, 2020a), a pill bottle (PDV, 2020b), and a patient who just received a flu shot (PDV, 2020c).

Personally Address the Reader

Regardless of whether the written information is given at intake or at discharge, or is one page or 60 pages, inmates want the information personalized. *Making It Happen & Staying Home* (Whitaker, 2005) is a 92-page, 4- × 6-inch self-help/resource guide for individuals coming out of New York’s jails and prisons. Chapter 3 is titled *What’s Up Doc?—Am I OK?* The following are excerpts which highlight a personalized style of writing and are written between the fourth and fifth grade level (Flesch Reading Ease score 85.8):



Fig. 31.1 Health information comic book *Friends Forever: A Triumph over TB*. (New York City Department of Health and Mental Hygiene, 2006)



Fig. 31.2 Public domain clip art. (Source: <https://publicdomainvectors.org>; left to right: PDV, 2020a, 2020b, 2020c)

- How's your health? Do you really know? Afraid to ask? Have you had unprotected sex? Shared needles for any reason? Had a forty and a blunt? Swung an episode on the roof, no condom?
- Negative life styles—alcohol, tobacco and other drugs, unhealthy diet, not getting proper rest—all good reasons to check in and get checked out. Get a physical. Why? To check and deal with the wreckage of your past; you need to know how much damage you've done, if any. (p. 10).
Have you been tested for STDs, HIV, and Hep C? Getting tested can be very personal and stressful. But you still need to know where you stand. You need to know your medical status. Dig this—transmission can also happen in jail. (p. 11).

Describe Specific Problem-Solving Strategies

Written discharge summaries should describe specific problem-solving strategies that inmates can use. Templates of letters, for example, are ideal for inmates preparing for release who will need access to services but may not be able to call these services while incarcerated. The following is an example from Arizona (Tucson Planning Council for the Homeless, 2005, p. 18) of the type of problem-solving strategies and interactive nature of the guides. The beginning of the page describes when the letter should be used and then outlines the letter for the inmate.

Problem-solving strategies which work post release in the community may not be feasible inside a correctional facility. A common problem is written information disseminated to inmates which lists only the phone numbers, email addresses, and websites of service providers. The Bazelon Center for Mental Health Law has developed the online brochure *Arrested? What Happens to Your Benefits If You Go to Jail or Prison?* The following is their description on how to access veterans' benefits while incarcerated.

Veterans Disability Benefits

If you do not receive these benefits and did not receive them before your arrest, you can begin the application process while you are in jail or prison. You use VA form 21-526, Veteran's Application for Compensation and/or Pension, which is available on line. You can also apply online using the Veterans On-Line Application (VONAPP), at <https://vabenefits.vba.va.gov/vonapp/>. (Bazelon Center for Mental Health Law, 2006, p. 12)

The problem is that the text is written at the high school to college level (Flesch Reading Ease score 34.2) and recommends inmates access the information online. Only a handful of facilities allow inmates access to the Internet, and in all cases only certain websites are available for their use. Even if a phone number was included, most facilities require inmates to make collect calls and few agencies accept them. The following (box), from *The Essex County Smart Book: A Resource Guide for Going Home*, is an alternative way to write the information, written at the eighth grade level (Flesch Reading Ease score 71.9):

First Steps After Release: Where Do I Go to Find...

The first days after you get out can be the toughest. This section will give you information to help you get on your feet: places to go for food, shelter, clothing, money, and other emergency needs. While every agency in Essex isn't listed, we've listed places to help you get started, places that will work with people coming out of prison. Here are some pointers for the first days out:

- *Be prepared:* Put all your paperwork and identification in one place, a folder or an envelope, and have it with you, so you can answer questions that people ask.
- *Keep records:* Write down the full names and phone numbers of people that you've talked to, and when you spoke to them. Keep copies of any money orders or receipts for things you've paid for, and any letters you've gotten from government agencies, the courts, or organizations that are helping you.
- *Be patient:* You are probably going to have to wait in a lot of lines for things, and be put on hold by telephone operators. You will meet a lot of workers who are trying to help a lot of people, not just you. Expect to wait. Expect that you may be sent to different offices and workers to get something taken care of. Try to be patient and be polite – it will help.

Below you'll find the names, addresses, phone numbers and descriptions of agencies and services that can help you. It is a good idea to call first to check that hours of operation haven't changed.

(Source: Fishman & Mellow, 2005)

Highlight the Immediate Needs Crucial to Reentry

Understand that inmates, even with severe chronic or communicable diseases, may not place their healthcare needs at the forefront on discharge. Therefore, any discharge summary or healthcare information should also take into consideration what inmates consider as their most pressing needs: obtaining identification, housing, clothing, food, employment, money, and family reunification (Morani et al., 2011). Until inmates have their other needs met, the likelihood of them showing up for a medical appointment or adhering to their medical regimen is remote. One way to help is to locate a multi-purpose community-based organization, otherwise known as a "one-stop center," and highlight in all discharge summaries that this is a good place to go for help and support.

Even when released inmates are committed to their discharge plan, there are numerous barriers which can derail all of their good intentions of maintaining their health protocol. Crick and Potter (2006) conducted five focus groups of former inmates and their families in four cities across the nation to better understand the barriers they face in accessing health and behavioral services. The main concern was the lack of health insurance and money. Therefore, any written discharge information must discuss how to become eligible for healthcare benefits and focus on how, even if one is not eligible for Medicaid, other benefits may be available to them depending on their special circumstances. Veterans, for example, may be eligible for healthcare benefits through the Veteran's Administration, and people with HIV/AIDS are typically entitled to be part of a state-sponsored AIDS Drug Distribution Program. A list should also be provided of all Federally Qualified Health Centers in the community on their return with an explanation that most health clinics provide primary health care at low cost, sliding scale, or for free. Charity care is also an option offered by hospitals in various states. The following is a template written at the fourth-grade level to help released inmates without financial resources obtain health care.

Don't Have Insurance?

- Call the hospital's clinic at _____ and ask when you can see a doctor.
- Get to the hospital early so you can go to the hospital's charity care office.
- Talk with a counselor and tell them you have no money to pay the doctor.
- Ask for a charity care service form to fill out.
- You will know in 10 days if you can receive charity care.
- You do not need to be a citizen or have a green card for charity care.
- Charity care can also be for your family.
- Make sure to bring any doctor bills you get to the counselor.
They will pay your bill.

Include Only Service Providers with a Steadfast Commitment and Appropriate Accessibility to the Ex-inmate Population and Are Close to Where They Live

"It is common knowledge that nothing frustrates a released ex-offender more than to be referred to a resource that no longer exists" (CSOSA, 2003, p. 16). One could go further and argue that inmates, who have low-frustration tolerance to begin with, also become upset when they are referred to a service that requires fees they cannot afford, does not have an open space for them, has rude personnel, or refuses to work with them because they are a felon. Therefore, all services listed in any discharge summary, reentry guide, or other written material need to be contacted to verify they are willing to work with returning inmates.

Many times, inmates have had such bad experiences with service providers that they are hesitant to interact with them on release. In a reentry guide for prisoners returning to Washington, DC, they acknowledge this issue in their *Where to Get Substance Abuse Treatment or Other Rehabilitation* section.

- All the programs listed here are good programs operated by dedicated people who really want to help you. There are no government programs listed.

All of these programs are comprehensive. They recognize that there is more than one reason why you have abused drugs and/or alcohol. They recognize that, unless you can change many aspects of your life, you will probably go back to abusing drugs and/or alcohol. So they try to help heal the whole person by assisting you to mend your life and to become a productive citizen. Most have certified substance abuse counselors and licensed social workers. They really do know how to help you. (Sullivan, 2002, p. 83).

Be Sensitive to Language Barriers

Inmates across the United States are no longer a monolingual English-speaking population. Twenty-three percent of the state and federal prison population is Hispanic (Bronson & Carson, 2019). Though not all Hispanics use Spanish as their language of choice, research by Mellow (2001) in a state prison on the East Coast found that 42% of the 122 inmates who identified themselves as Latinos stated they preferred to only speak Spanish, with another 35% preferring to speak Spanish sometimes. In Alaska, similar research found that 32% of the indigenous inmate population preferred to speak their American Indian language all of the time, with 17% stating that they spoke it some of the time.

Murphy et al. (2003) note that “language can be one of the most salient barriers to treatment, especially for first- and second-generation migrant families” and therefore bilingual health materials are recommended (p. 218). The benefits are numerous, including:

- Improving clients’ comprehension of education materials and instructions;
- Improving clients’ ability to follow prescribed treatment and medication schedules;
- Avoiding preventable health crisis and the inappropriate use of healthcare services;
- Avoiding possible legal liability due to miscommunications;
- Reducing administrative time needed to correct miscommunicated information. (Young, 2000).

It is always recommended to use a professional translator when developing and translating health information, because there are always idiomatic and regionalized expressions which may not be understood by all. Young’s (2000) *Developing, Translating and Reviewing Spanish Materials: Recommended Standards for State and Local Agencies* is a good resource to use during the translation process.

Conclusion

Corrections can no longer isolate itself from its public health responsibilities. To quote De Groot and Maddow (2005), “the correctional facility is a publicly funded part of the public health infrastructure in the United States, and it is the ethical and legal responsibility of correctional facilities to respond to the serious medical needs of prisoners” (Chap. 5, p. 15).

The numbers are also just too overwhelming when seen through the prism of individuals with serious health needs and the potential public health risks. Granted, in the short term, developing transitional health care for the 572,916 inmates discharged each year from state prison, with another approximately ten million inmates released from jails, is unlikely (Bronson & Carson, 2019; Zeng, 2019). However, tools must be developed now to begin the slow and arduous process of developing and implementing comprehensive programs for transitioning inmates back to the community. By ignoring the inmates’ health needs at release, corrections not only places the public health at risk but also contributes to millions of dollars in medical costs in years to come for problems that could have been prevented or treated earlier on. Vaccinating an inmate for hepatitis B, in the long run, is less expensive than dealing with chronic liver disease in years to come.

The development and distribution of written health materials and discharge summaries should not be disregarded, just because it has previously not received any attention in the criminal justice field. Every facility should have community-specific written discharge materials on inmates with HIV/AIDS, tuberculosis, hepatitis B and C, STDs, substance abuse, diabetes, hypertension, dental care, mental illness, and other chronic and communicable diseases. These health materials would serve the purpose of being an organized, succinct informational resource for inmates returning to their communities, and something they can rely on as a reference even after their release. In addition, it can assist correctional staff in assisting inmates with their prerelease planning.

Though not a comprehensive solution to the health needs of inmates, written health materials have the potential to be a valuable tool to supplement or, if no other alternatives are available, to substitute for a formal medical discharge plan. In addition, and at a low cost, it signals to the correctional staff and the community that corrections is serious about its public health role. In sum, the following checklist (Fig. 31.3) will guide you the next time you develop written health information needs for the correctional population.

Fig. 31.3 Writing discharge health information checklist

- Writing discharge health information:
A checklist
- Clearly state purpose of the information.
 - Write to a 5th or 6th grade literacy level.
 - Make the design and layout approachable.
 - Describe specific problem solving strategies.
 - Personally address the reader.
 - Be sensitive to language barriers.
 - Highlight the immediate needs crucial to reentry.
 - Include only service providers willing to work with ex-inmates.

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Coordination and Continuity Through Electronic Medical Records

32

Muthusamy Anandkumar

Introduction

In the past few years, technology has greatly advanced in all fields of study. Health care has been impacted greatly. One of those advances is in the way health records are being shared between hospitals, clinics, and correctional facilities. An electronic health record (EHR) is a computerized database where healthcare providers are able to track all aspects of health care delivered. Though there are challenges, implementation of an EHR system allows healthcare professionals to provide better care.

The EHR has many advantages. First, it helps patients become more engaged in the healthcare process, for example, the opportunity to receive test results faster, to view a visit summary, and to have prescriptions sent directly to the pharmacy in an instant. Second, the database gives physicians detailed medical record information about their patients. Third, prescription and transcription errors are reduced, which is beneficial both to the patient and to the practitioner. Lastly, there is less need to replicate and hunt down the written version of a chart, reducing the risk of developing care plans without all relevant information. Despite the fact that many correctional facilities are using EHR, as of today many are still using paper record files as a means of storing clinical information or scans of paper documents. Where EHR is implemented, employee workload has diminished, and efficiency and safety has increased substantially. In this chapter, we will take a closer look at the benefits the EHR has to offer correctional facilities and why we must integrate with other healthcare organizations.

Admission

People arriving in the booking area should be added to the EHR system as early as possible so all healthcare staff interactions are documented electronically. The detention management system is the primary source of inmate history pertaining to admission, housing location, security level, alerts, and release. Awareness of and accessibility to this data is important for the healthcare staff to ensure they can provide appropriate care to these patients. To reduce errors, the detention management system can

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also share the inmate's photo to the EHR for the medical team to use for patient identification in addition to the two other patient identifiers typically used. Ideally, the admission, discharge, and transfer (ADT) data (locator data) must be shared with the EHR in real time, since it impacts the healthcare team's workflow. For this documentation to flow between the detention management system and the EHR, the patient identification in both systems should include at least one common identifier.

The EHR should possess the ability to create a master account for each inmate. This master level can display longitudinal information which may be relevant to future visits, ranging from problem lists to allergies and diseases. The EHR should also include subsections for each incarceration. Each subsection retains all documents regarding health care provided during that specific incarceration and can be separated from the person's other incarcerations. This feature helps to ensure that irrelevant clinical history from the previous record is available, but does not automatically feed into the current file, causing inaccuracies. Immediately upon release, healthcare professionals should decide what to keep active and what should be inactivated. Although some patient information may be vital to keep active, such as any chronic diseases, the problem list, and allergies, these should be verified when the inmate is reincarcerated. In contrast, medications and lab orders from the current incarceration should be cancelled upon release, so they do not automatically get reactivated in a successive incarceration. Also, when an inmate is released from the facility, the person should physically leave the building before they're discharged in the EHR. In certain situations, the inmates may end up staying for additional days after their initial release, especially if the person has additional warrants or is transported to a different facility and the transportation is delayed in picking them up.

As inmates sometimes misrepresent themselves during booking, healthcare staff must remain wary when using past recorded clinical history when treating their patient. The detention staff will have to correct the identity if incorrect. If the identity is changed, those details ought to be shared with the health personnel and trained staff will need to likewise change the EHR chart.

Initial Health Screening

Persons entering custody may not provide (or be able to provide) accurate health details. In most cases, these individuals are in very vulnerable positions because they have just been arrested and arriving at a correctional facility is frightening. Nevertheless, it is crucial for healthcare personnel to gain the inmate's trust and to explain that they are there to help with their well-being while incarcerated. Hence, the EHR assists in reviewing records from previous visits during the initial screening process. The presence of both past and current clinical history can aid staff to provide safe and adequate care. Based on their patient's history and the EHR, the practitioner is able to refer the inmate to the appropriate services.

With the EHR, the team can design algorithms so certain patient responses will trigger specific tasks or referrals, thereby reducing the possibility of human error. Also, they can use order sets upon booking, allowing every inmate registered in the EHR to automatically receive a list of defined tasks that apply to all or a subset of inmates by diagnosis. The tasks, set up and created upon admission, may include an initial health assessment, lab work, TB screening, or a urine pregnancy test for female inmates. By combining both the HER history and the patient's reported medical history, the staff member is able to provide the inmate with the appropriate services. Used effectively, the EHR guides a patient through the clinician's treatment plan, minimizing opportunities for care to fall through the cracks. Additionally, the EHR has the ability to alert the staff to abnormal test results or vital signs.

In sophisticated systems, correctional facilities share an EHR with their local hospital system. Some inmates are taken to the hospital upon arrest before arriving at the correctional facility. This means access to such records during the initial screening ensures appropriate and timely follow-up

care. Also, as the EHR technology expands, inmates transferred from one correctional facility to another can continue receiving care without interruption or delay.

In particular, comprehensive physician exam templates can be built to standardize evaluation and documentation. TB screening questionnaires feature auto triggers based on the answers. EHR also notifies the healthcare staff by alerting and displaying relevant history such as HIV status (WHO, 2012), pregnancy, TB history, and more. The EHR enables the clinical staff to receive a list of patients due for PPD read with the correct housing location so the staff can read the results within the required timeframe. In addition, the EHR can trigger an annual physical exam visit and annual TB screening for all inmates still in the facility who meet the established criteria.

Chronic Care

Most correctional facilities have established clinical practice guidelines for chronic diseases such as hypertension, diabetes, and asthma. A systematic and comprehensive approach for chronic disease treatment helps improve outcomes (Metzger, 2004). Registries featured in the EHR can be set up for each disease. Patients can be added to the appropriate registries from the problem list and tracked for clinical care and outcomes (Middleton et al., 2007). The clinical team can monitor compliance with visits, level of disease control, lab results, and the cohort's vaccinations. This setup helps them to quickly identify and address gaps in patient care. The *chronic care* visit templates for both the initial evaluation and follow-up visits can be designed for each diagnosis to help the provider develop an individualized plan for each patient, based on the established clinical practice guidelines. Correctional facilities document blood pressure readings, blood sugar values, and lab and radiology results in paper logs; however, documenting them in the EHR helps the practitioner make an informed decision for each patient.

Sick Call

The medical staff distributes *sick call* forms and collects them daily. The registered nurse then screens the form, assigns an acuity, and schedules patients to be seen in priority order. Nonetheless, common challenges of the paper process include running out of forms in the housing units, using several versions of the forms and handing the completed forms to the officers instead of the healthcare staff; these can lead to privacy concerns and loss. Correctional facilities are now installing electronic kiosks inside the housing units for ordering commissary. Most kiosks include features which allow the inmate to submit sick call requests online. To work properly, the kiosks must include an interface with the EHR software in which the requests are sent directly to the healthcare team for screening. Then, acuity levels can be assigned and appointments scheduled for the appropriate services right in the EHR. The healthcare staff can send responses back to the inmate through the kiosk machines. Patients can view their upcoming on-site clinic appointments electronically.

The nurses can access the nursing practice guidelines built into the EHR; this gives them a standard assessment tool to document pertinent positives and negatives. The template can also guide them as they develop a treatment plan or refer to a higher level of care based on the nature and urgency of the patient's complaints. Results of any point-of-care tests can be entered directly into the EHR. Significantly, the nurse can order over-the-counter medications directly in the EHR based on the established nursing guidelines or obtain verbal orders from a physician. The prescriptions can be routed to the authorizing provider for review and acknowledgment. Subsequently, the verbal orders can be tracked to ensure that standards and compliance have been met (Kulczycki, 2012). Within the

EHR, the system can monitor the time of the request submission, time it was screened, level of acuity, time of the face-to-face visit, and volume of request by service.

Hospital and Off-Site Visits

Patients are sent to the hospital or to offsite specialty clinics. Relevant healthcare information should be sent along so that consultants can make informed decisions regarding care. To ensure continuity of care upon the patient's return, communication of relevant medical details proves crucial. Most of this communication is currently through paper envelopes that often get lost in the process; this delays care. Electronic health information exchange (HIE) allows healthcare organizations to securely share and access key healthcare information (What is HIE? 2019). Sharing chief complaints, treatment plans, lab work, and medications between healthcare providers in different organizations reduces duplication of testing and medical errors and improves the patient's quality of care and the ability for healthcare teams to communicate. Once the individual is released from jail, it is easier for them to follow up with outside providers for their medical conditions.

Medication Management

The Institute of Medicine reported that at least 1.5 million preventable adverse drug events occur each year (Aspden, Wolcot, & Bootman, 2005). Computerized physician order entry (CPOE) allows staff to enter prescription orders electronically in the EHR. The EHR helps standardize, control, and manage the formulary data for the facility. EHR keeps clear records of allergies, lists of medications, and medication administration records, thus improving patient safety (Health IT, 2019).

Medication management involves documentation of allergies, accurate prescription lists, medication orders, pharmacist's review, medication dispensing, and medication administration. The process involves several steps by various departments and staff, thereby increasing chances of human error. Various departments buy separate applications of the EHR that are best for their part of the workflow. For example, the pharmacy may buy an application that has extensive features to support their requirements, while the practitioner and the nurse may prefer an application that works well for their function.

Currently, few options exist in which an EHR includes all components of medication management built into one system or is well-integrated for seamless functioning. The EHR should provide *one source of truth* regarding what medications are active and the administration history of the medications. Correctional facilities try to buy applications with quality features for each of the functions and custom-integrate the EHR, pharmacy management system, and the electronic medication administration (eMAR) application. Having separate or custom-integrated applications always has the risk of not being synchronized. Bidirectional integration of these applications is very complex and many technology companies are hesitant to integrate with others' products due to the safety risk. Some facilities don't integrate the applications so the staff must review the patient chart in the EHR application and then assess the eMAR to look at the administration history. This lack of integration is an ongoing challenge.

Allergies and current medications should be verified and updated at each appointment. The list should be reconciled at each visit and inactivated upon the patient's release. If the patient is released, the allergy and medication history should be verified upon re-admission. The team should have the

ability to view the inactive medications and allergies to use these as a source of inquiry if the patient does not automatically disclose during the intake health screening. When an individual gets reincarcerated, no medication should be continued automatically since their health conditions may have changed. Alternatively, a new plan of care should be developed based on the practitioner's evaluation at this visit.

CPOE can guide the provider to select from the formulary available for the facility. In the standard CPOE order entry process, the provider has to select the medication, the dose, frequency, number of days, etc. without guidance from the application. In the newer EHRs, the orders in the COPE list can be pre-built with the medication's recommended dose and frequency to reduce transcription errors. The providers can also save commonly used medications to their favorite list further reducing the error of unintentionally clicking and ordering the wrong medication. Providers can always make changes to the orders, where applicable. These features increase security without restricting the provider's autonomy.

If the orders for non-formulary medication require the medical director's approval, the order can be routed for review before sending it to the pharmacy. Verbal orders can be routed to the authorizing provider for acknowledgment. The automatic allergy check and drug-to-drug interaction check for each medication order helps increase medication safety. Notably, the CPOE can also alert the provider to check the required lab tests and verify any contraindications. Advances in artificial intelligence and predicative and prescriptive analytics will continue to help guide the clinical team to provide better and safer care.

Correctional facilities are implementing automatic pill-packing machines. These machines receive the approved order from the pharmacy management system and package medications in unit doses. The machines can also be used for packaging *keep on person* medications (KOP). The packets include patient name, date of birth, facility identification number, standard prescription details, as well as shape, color, and quantity of pills in the packet. The packets are sorted to match the workflow of the nurse administering the medication. They can be sorted by location, housing, and name of the patient such that it is ready for the pill pass. Medications are packaged right before the pill pass so the most updated medication information is used. The packager will have the latest information regarding any change in dosage or medication discontinuation. Even though machines have a low margin of error, the packets must be manually checked before the medications are administered or dispensed. If the machines are not synchronized with the pharmacy management system, they could dispense a discontinued medication. The current challenges with the automatic pill-packing machines are due to software and hardware issues leading to mistakes in medication dose or quantity. A variety of issues can impact pill pass. A failure mode effect analysis (FMEA) should be periodically performed and backup plan should be established.

An electronic Medication Administration Record (eMAR) includes the administration history for each medication and the list of all active medications which are to be administered to each patient. This can include medication scheduled to be given once or several times a day. Other medications, such as pain medications, can be administered as needed per the provider order. In a correctional facility, medications can be dispensed to the patient one dose at a time as prescribed; some medications are given to the patient as *keep on person* (KOP), meaning the patient can keep the medication supply for self-administration. Usually the KOP medications are limited to low risk medications and patients who are at low risk of danger to themselves and others. The medications available as KOP are selective and are given in limited quantities to reduce the risk of an overdose. Other products that are approved to be dispensed as KOP are ointments and eye and ear drops.

Unquestionably, two patient-identifiers for medication administration should always be performed. An increase in use of barcodes and profile pictures has emerged as additional identifiers to the standard name and date of birth. The scanning of the barcode can pull up the patient's medication profile in the eMAR, displaying the medications due for the person. The staff can also get a glimpse of any other medications in the patient's profile. In addition, the drug package includes a barcode. As the packets are scanned, the corresponding medications in the eMAR list gets highlighted. As an additional precaution, the medical staff should also perform a visual check of the medications in the packet. Once the medications are handed over to the patient, the staff confirms the patient has swallowed it and notes the medication as administered in the eMAR. Immediately upon refusal of medication or treatment, staff can document refusal and receive the patient's signature using a signature pad. The witness signature can also be documented in the eMAR.

The medical staff can request medication refills for directly observed or KOP orders, set up sick call requests, or send a note to the practitioner from the eMAR, while still interacting with the patient. If a medication order has expired, the staff can send a request to the provider asking if the medication needs renewal. All the information from the eMAR should feed into the EHR, making it a close-looped system.

Laboratory and Radiology

Another convenience of electronic systems are the laboratory and radiology studies that can be ordered through the EHR. The tests can be set for a future date or set to recur at a specific frequency. Custom panels can be created for easy ordering. The EHR can create a work list for the phlebotomist. It can provide information regarding the color of the collection tubes, the required quantity, and the processing and storage instructions that drastically reduce sample rejection by the lab. In fact, it can also print patient-specific labels, eliminating the need to hand write the patient information on the specimen label; this increases safety through error reduction.

An interface between the lab or the radiology applications and the EHR allows test results to flow instantly to the patient chart. The results are simultaneously sent to the ordering practitioner's inbox for review. The inbox can be set up to be forwarded to another person's inbox for cross-coverage. Critical and abnormal test results can be routed to the appropriate medical staff to ensure timely response. The healthcare team can monitor to ensure that the test and imaging results are addressed without delays.

Behavioral Health and Infirmiry Care

Behavioral health screening, suicide risk screening, initial mental assessment, psychiatric evaluation, and follow-up can all be documented using custom templates designed by the healthcare team. EHR allows electronic documentation and tracking of suicide watch, as well as medical rounds in special housing units like segregation.

Medical staff can also use the EHR to track patients in the infirmiry who need intensive care. The EHR flowsheets offer a useful tool for documenting information, including assessments and observations over a length of time, as well as providing checklists for routine tasks (White, 2000). Staff can also document antenatal care diagrams, optometry assessments, and dental evaluations. Specialty-specific modules can be added as well. Moreover, the EHR has the ability to save patient images of the disease or wound.

Continuity of Care

Once inmates are about to be released, the medical team tries to connect them with physicians in the community. The inmate can leave with a reasonable supply of medications, information regarding any scheduled future off-site visits, and a follow-up appointment with a primary care provider in the community. The EHR can provide a discharge summary that includes active medications, the problem list, test results, and follow-up appointments. Health-related educational information are also to be added, as well as resources regarding healthcare options, and community-based organizations to help with clinical and social needs. When a patient is transferred to a different facility, a summary of their health care can be printed and sent to the receiving facility or electronically transmitted to them. The coordination and continuation of care can be improved if the faculties can share the same EHR or share information through the HIE. It is critical to ensure that the inmate receives care during transfer.

Quality and Safety

Managing a healthcare program in a correctional facility is very complex; it requires a well-developed process-mapping of all the available services. Each process step should be close-looped with no dead ends. Correctional facilities that are planning to implement EHR should start with an inventory of the facility's operation and map out its current state. The stakeholders should be forgathered to verify the current state and discuss its challenges. This conversation can help develop a future process that works in a safe, effective, and efficient manner. Most organizations try to fit the old processes into the new system without taking advantage of the EHR. The exercise of process mapping will help the leadership to identify the right EHR for their program. Once an ideal-state process is developed, it can be somewhat modified to exploit the available features or accommodate any EHR restrictions. Good communication and collaboration with the stakeholders will help the implementation team set up the EHR to match the expectations of the program and develop training materials on how the EHR can be used at each step of the process.

Cost is a major challenge to facilities planning to implement EHR. The budget includes the cost of the software license, hardware, initial setup, network, consultant support, chart conversion, staff training fees, labor costs, and ongoing maintenance fees. Installing network cables or wireless routers are difficult and expensive in correctional facilities due to thick walls and security issues. Poor implementation of EHR can increase the risk of error so facilities should spend adequate effort in planning, implementation, and maintenance to help reduce the risk (Gamble, 2020). Many EHR implementations are replacements of existing systems. Replacements are often done because of integration issues with other software, missing functionality, delay in addition of newer features, and poor vendor support. Proprietary systems by private vendors make vendor transition a nightmare.

EHR are expected to improve efficiency and safety and increase productivity. Most EHR implementations are not successful due to unrealistic goals and expectations, physician resistance, poor planning, inadequate workflow design, insufficient staff involvement, inadequate training, insufficient infrastructure, incomplete implementation, poor network connections, and delay in resolution of technical issues after the system goes live. Contemporaneous charting is hard for nurses if they don't have handheld devices and wireless access to the EHR. Some EHR allows offline capabilities where the staff can continue to use the EHR offline on a mobile device and the data will sync automatically to the server when they connect to the network. This feature can also be a very helpful addition to the earlier applications since they will be used during medication administration in the housing units where there may be no network access.

A well-designed and implemented EHR can play a valuable role in guiding the staff to providing excellent service. Excellence resides in the details. EHR implementation teams are mostly composed of technical staff and their focus centers more on the technical aspects. If the implementation is led by the EHR company and corporate leaders with less collaboration with the facility staff and local leadership, not much time and effort will be given to grasp the current state and nuances of the facility. Insufficient emphasis on the workflow redesign and user input creates frustration for the staff and makes the project ineffective. A team led by motivated operational leaders and staff from all aspects of the healthcare program can make the execution and its adoption successful.

EHR provides a great tool for correctional health programs that want to provide a constitutional level care, with the primary focus on patient safety, by using automated processes, built-in safety checks (Thomassen et al., 2011), and alerts. The EHR also helps monitor the flow of patients and alerts the care teams and supervisors regarding delays or gaps in care, so the healthcare worker can address them in real time. A lot of data is captured in the EHR as discrete reportable fields.

Most EHRs have built-in reports that are not readily usable. Most facilities are data rich and information poor. Accurate and timely information is very valuable. A strong reporting team is needed to build operational, quality management and safety reports. The team should be able to provide static and dynamic reports for day-to-day operations and routine monitoring of key performance indicators (KPI). Ad hoc reports will be needed to perform root-cause analysis for focused interventions. A well-informed leadership team will know what works and what doesn't at any given time. The leadership team can respond to the issue and recheck to see if the intervention resolved the problem. The EHR can enable the program's success by ensuring the precision in well-conceived and executed design. In conclusion, EHR adoption helps build a culture of continuous improvement (Chandrasekaran & Toussaint, 2019), supported by data-driven decision-making.

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Correctional Health Is Public Health Is Community Health: Collaboration Is Essential

33

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Introduction

What happens behind bars does not stay behind bars; disease and illness naturally travel through the air and from person to person. Staff return to their families at the end of a shift, and nearly all incarcerated individuals will at some point return to their larger communities. Correction and health agencies as well as community providers must work together to deliver high-quality health care that protects the public including people incarcerated. A continuous flow of staff and visitors move in and out of correctional facilities. There are high rates of chronic and communicable disease among the incarcerated, including COVID-19. Thus, incarceration affects the health of individuals, families, and communities.

People incarcerated in jails and prisons are likely to have multiple socioeconomic and health-related problems. Planning for continuity of care after incarceration can ameliorate public health concerns and improve the overall health of communities. Using public health interventions consistent with concomitant community interventions as part of correctional health services is a proven approach to addressing community health with demonstrated cost savings on a societal level (Spaulding et al., 2012; Teixeira et al., 2014). Continuity of care after incarceration, especially for people who are older or living with chronic or communicable health conditions and mental illness including substance use disorder, is an important aim of public health (MacDonald et al., 2013; Williams et al., 2012).

The COVID-19 pandemic and Black Lives Matter movement have highlighted the ways the criminal legal system disproportionately incarcerates Blacks, Indigenous, and People of Color (BIPOC). The incarcerated population in the United States is larger than at any time in the history of penitentiary systems anywhere in the world. According to the US Census, Blacks represent 13% of the US

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Table 33.1 Incarceration rates by race and ethnicity based on US 2010 Census

Race/ethnicity	% of US population ^a	% of US incarcerated population ^a	National incarceration rate (per 100,000) ^a
White (non-Hispanic) ^b	64%	39%	450 per 100,000
Hispanic	16%	19%	831 per 100,000
Black	13%	40%	2306 per 100,000

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^aFigures calculated with Census 2010 SF-1 Table P42 and the PCT20 table series

^b“Whites” refers to white non-Hispanics throughout this report and the accompanying figures. Because the Census Bureau does not publish non-Hispanic data for any other race in correctional or detention facilities, all other racial categories in this report are that race alone without distinguishing ethnicity

population, yet the rate of incarceration of the 2.3 million people behind bars is five times higher for Blacks than white non-Hispanics (see Table 33.1) (Muhammad, 2010; Sakala, 2014; Sawyer & Wagner, 2020; The Marshall Project, 2020.)

BIPOC have lower socioeconomic status and higher rates of chronic health conditions including cardiovascular, diabetes, and pulmonary disease (Flynn et al., 2019). Blacks are more likely to be infected and ill and die from COVID-19, and are less likely to have health insurance and access to medical care and treatment (WHO, 2020). While incarcerated, many cannot afford to pay phone bills to stay in touch with family or the copay required by some correctional facilities for health care and treatment (Lewis & Lockwood, 2019). Stress related to socioeconomic disparities and resulting housing instability and food insecurity also impacts health and wellness as well as community connections (Arriola et al., 2013; MacDonald & Venters, 2018; Teixeira et al., 2014).

Overview

Collaborative approaches taken to prepare the incarcerated for return to the larger community have increased in import across disciplines and must be prioritized in the larger community to maintain public health and safety. Historically, carceral systems, an extensive interconnecting network of both public and private institutions, including prisons and jails, immigrant as well as juvenile detention centers, the courts, and community corrections (probation and parole programs), focused heavily on custody, control, criminalization, and surveillance, confining people held awaiting trial or convicted and serving court-ordered sentences or monitoring people outside the physical bars. However, it is clear that programs make safer correctional facilities and communities at large, through partnerships among all stakeholders having an interest, including correctional and other public, private, and community agencies that provide services and support (APHA, 2020; Burke, 2008; NIC, 2015).

Comprehensive collaborative approaches follow a continuum of care, starting with intake assessment and treatment and ending with ongoing care, treatment, and service coordination in the larger community. The objective is to assess individual needs during incarceration and connect correction agency programs and correctional health services with public health, community health, and social services as a diversion from and for continuity after incarceration. The process begins before or during correction facility intake/admission, includes plans for the first few critical months following program completion/incarceration, and extends through successful, sustained connections in the larger community (Burke, 2008; Jordan et al., 2013; La Vigne et al., 2008; Lincoln et al., 2006; NIC, 2020).

Terminology, focus, and measurement of activities that fall within the construct of such interdisciplinary collaborations vary among and between entities. Correction programs focus on reentry and community reintegration and look at measures related to reincarceration and community survival. Public health agencies focus on disease prevention and promotion, measuring reduced infection and transmission rates, and documenting engagement in care and treatment outcomes. Community programs focus on case management, goal setting, and engagement in care, treatment, and social services. Transitional planning and coordination with service providers removes barriers and establishes essential relationships to improve community connection. Comprehensive, collaborative approaches cross three interconnected phases:

1. *Planning phase*: planning before or during incarceration for transfer to another facility or return to the larger community (care plan, discharge plan, reentry plan, transfer of care plan, or *transitional planning*)
2. *Transition phase*: supported transition to community programs, between facilities and from correctional to community settings (community return, discharge, linkage to care, reentry, release, transfer, or *transitional care services*)
3. *Connection phase*: sustained connection to care, treatment, and services in the larger community (community access, connection to care, continuity of care, engagement in care, maintenance in care, reintegration, or *connection*).

Planning Phase

Transitional planning begins before or during incarceration by facilitating: (1) *treatment* and other court-led placements as alternatives to incarceration, and (2) *continuity of care*, by arranging linkages to treatment and services after incarceration. Transitional planning activities require coordination and collaboration among health and social service programs in correctional settings and the larger community including: primary health care; medication and insurance; specialty care including mental health counseling and medication, skilled nursing care, substance use treatment and services; homelessness prevention; supportive housing; employment services; and job training (Jordan et al., 2013; Seiter & Kadela, 2003). In addition to identifying community services and supports, plans address community access to needed services, prioritizing immediate access to survival and critical needs, identifying community health centers and programs with walk-in hours and flexible schedules, and addressing needs for transportation assistance and accompaniment. Transitional planning helps establishing linkages to community care and services and bridges gaps in care through information sharing between correctional health and community services.

Transition Phase

Transitional care services require collaboration across traditional boundaries among correction agencies, correctional health providers, local health agencies, community corrections, legal services, and community health and human service providers. Correction-based social service programs may include benefits counseling, employment services, housing assistance, job training, peer educator training, transportation arrangements, and voter registration. Family visits also offer support and opportunities for connecting to the community at large. Community health centers, health and social service agencies, local foundations, and community-based nonprofit, civic, and faith-based

organizations address healthcare access, housing, employment, transportation, and other transitional needs that impact health and social determinants of health outcomes after incarceration. A condition of grant applications under the Second Chance Act is to collaborate with state and local health, housing, employment, education, substance use, intimate partner violence services, child welfare, and law enforcement agencies (James, 2015).

Connection Phase

Continuity of care is facilitated through seamless service delivery using care coordination and information sharing among and between providers resulting in improved outcomes. Continuity means that providers and the patient know the past treatment/care plan, agree on next steps, and that a warm transition, facilitated through relationships with the participant and community partners, is made to empathic providers and community health workers/case managers to continue ongoing care and treatment. The treating provider facilitates continuity by providing sufficient information so the patient continues to receive appropriate care recognized and continued by their successor(s) (Haggerty et al., 2003; Jordan et al., 2013). Connections to the larger community are facilitated through community support and are sustained overtime through ongoing supportive relationships and subsequent civic engagement. People with histories of incarceration serve as peer leaders, advisory board members, patient navigators, and community leaders (Cruzado-Quinones et al., 2016; NYC BOC, 2020; Ross et al., 2015).

Surgeon General's Call to Action on Corrections and Community Health

Former Surgeons General Dr. David Satcher and Dr. Richard Carmona highlighted the important link between correctional medicine and public health by commissioning the development of the Surgeon General's Call to Action on Corrections and Community Health. The purpose of the report was to advance the nation's understanding that the incarcerated are part of the broader community and will eventually return to live with their families, friends, and neighbors; targeted public health interventions are needed both before and after incarceration. Unfortunately, although the Call for Action report was ready for publication in 2006, final federal approval was never received, and the findings and recommendations of the draft document remained unpublished. In 2018, Dr. Roberto Hugh Potter (the lead editor of the report) and Dr. Carmona produced an updated Correctional Health Care Symposium document that summarized the original findings, which remain relevant today (Carmona, 2018; Floyd, 2019; Matz, 2018; Potter, 2018).

Collaborating organizations that share and pursue the common goal of successful community connections can accomplish much more together than they can alone (Burke, 2008). As former US Surgeon General Richard H. Carmona shares, "Public safety is public health; public health is public safety" (Pew, 2017, p. 4–5).

National Demonstration Projects

Research has shown that collaborations do work.

Beginning in the mid-1990s, public health workers in communities with high rates of HIV and other sexually transmitted infections (STIs) recognized the strong relationship between diseases, substance use, and periods of incarceration in jails and prisons among people with HIV. The correctional

setting provided access to high-risk populations and represented an important opportunity to screen and provide counseling and treatment to prevent further transmission of infectious disease, both during and after incarceration. Jail and prison intake admissions continue to be an excellent intervention point to screen for and treat COVID-19, STIs, HIV, HCV, chronic hepatitis B virus (HBV) infections, and tuberculosis (TB) and to develop effective prevention programs (Flanigan et al., 2009; Grigg et al., 2020; Hammett, 2006).

Beginning in the mid- to late 1990s, correctional health services and community connections took on greater importance with the increased prevalence of people with HIV in correctional settings (Conklin et al., 1998; Klein et al., 2002). Community connections of people with incarceration histories is a multidisciplinary, interconnected systems issue far beyond the scope of any single entity to manage on its own requiring interdisciplinary collaboration between corrections, community, and public health programs at all levels (local, state, tribal, and federal) (HRSA, 2007).

In 1992, Hampden County, Massachusetts' Sheriff Michael J. Ashe, MSW welcomed community health providers to the jail because he understood that incarcerated individuals are temporarily displaced community members and continuity of care was important for their successful reentry (Ashe, 2014; COCHS, 2019). Consequently, a community-integrated correctional public health model was created at the Hampden County Correctional Center. A Community/Public Health Model of Correctional Health Care (PHMCH) was implemented to provide comprehensive health and mental health services, linking people to the community from which they came and to which they return. PHMCH builds collaborations between correctional health and public health, reducing costs by contracting with nonprofit community health centers (Conklin et al., 1998). PHMCH grew out of collaboration on HIV care between correctional and community health. Other early examples of HIV care with dually-based providers facilitating continuity of care, the Rhode Island correctional system and the HIV Core Center in Cook County, IL, also proved durable, continuing as sites in subsequent demonstration projects (Council of State Governments (CSG), 2004; HRSA, 2008, 2013; Rich et al., 2001; Spaulding et al., 2013).

From 1999 to 2004, the HIV/AIDS Intervention, Prevention, and Continuity of Care Demonstration Project for Incarcerated Individuals Within Correctional Settings and the Community (Corrections Demonstration Project (CDP)) was implemented under the US Department of Health and Human Services' Health Resources and Services Administration (HRSA) and the Centers for Disease Control and Prevention (CDC) in jail, prison, and juvenile settings in seven states and targeted incarcerated individuals with HIV/AIDS, hepatitis, TB, substance use, and STIs. The CDP programs included disease treatment in correctional facilities, discharge planning, and services after incarceration. CDP collaborations included carceral systems, community service networks, and public health systems to provide continuity of health care and support services to individuals during and after incarceration (HRSA, 2007; Myers et al., 2003).

HRSA/Special Projects of National Significance (SPNS) Enhancing Linkages to HIV Primary Care and Services in Jail Settings (Correctional Health Linkages Initiative (CHLI)) was a 5-year (2007–2012) multisite demonstration and evaluation of HIV service delivery interventions in correctional settings. This initiative funded ten demonstration sites to design, implement, and evaluate innovative methods for linking people with HIV in jail settings, or recently returning home from local jails, into community-based HIV primary care and ancillary services (HRSA, 2008). PHMCH served as the foundation for the NYC local SPNS CHLI demonstration project, Transitional Care Coordination (TCC). The TCC model intervention promotes greater collaboration among correctional facilities, public health agencies, and community-based organizations. Under the SPNS CHLI, successful engagement in care initiated during incarceration continued after incarceration (see Fig. 33.1) (Cruzado-Quinones et al., 2016; HRSA, 2008, 2013; Jordan et al., 2013).

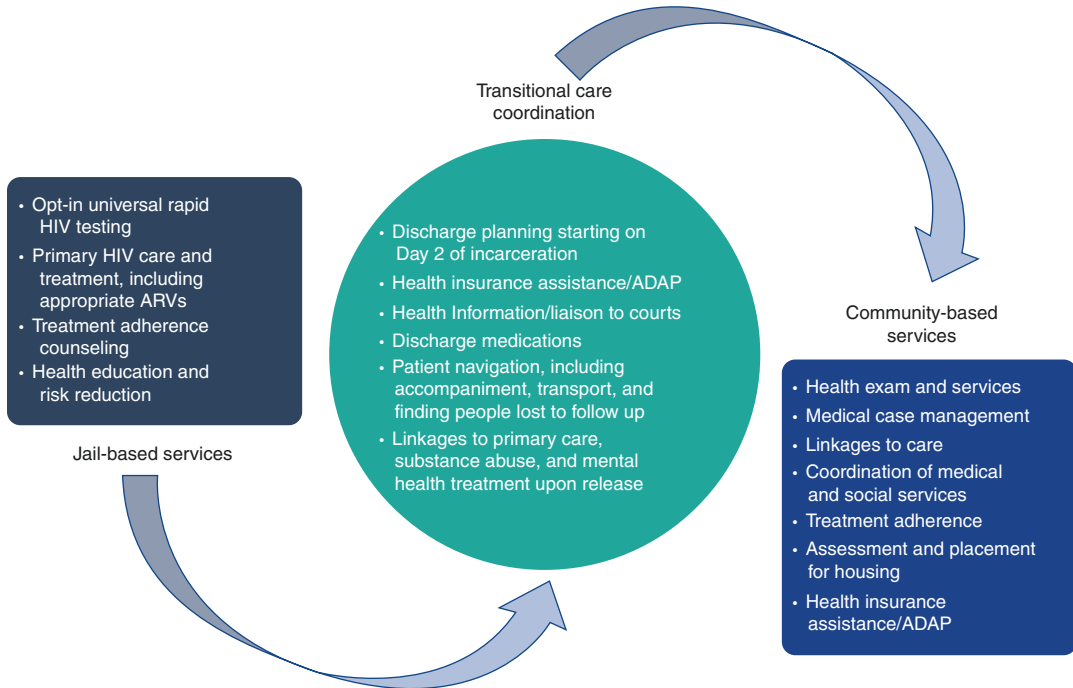


Fig. 33.1 Transitional Care Coordination model. (Cruzado-Quinones et al., 2016, p. 15; <https://targethiv.org/ihip/tools-tips-providing-transitional-care-coordination>)

The HRSA/SPNS Dissemination of Evidence-Informed Interventions (DEII) initiative (2017–2020) adapted TCC and three other prior SPNS demonstration projects. Two TCC interventionists were added to each of three sites and trained as dually-based transitional care coordinators, identifying people with HIV in jail and supporting connections to community HIV primary care and services after incarceration. TCC and the other three other adaptable, evidence-informed Care and Treatment Interventions (CATIs) are documented as replicable, cost-effective, and capable of producing optimal outcomes (HRSA, 2016, 2019, 2020).

The Public Health System

The public health system is distinct from other parts of the healthcare system in two key respects: (1) its primary emphasis on preventing disease and disability, and (2) its focus on the health of entire populations, rather than individuals. The Institute of Medicine describes government public health agencies as the backbone of the public health system and states that these agencies need support and resources and cannot work alone. Public health agencies build and maintain partnerships with other organizations and sectors of society, working closely with healthcare providers, public safety agencies (including corrections), human service and charitable organizations, education and youth development organizations, recreation and arts-related organizations, economic and philanthropic organizations, and environmental agencies and organizations (see Fig. 33.2) (CDC, 2020; IOM, 2003).

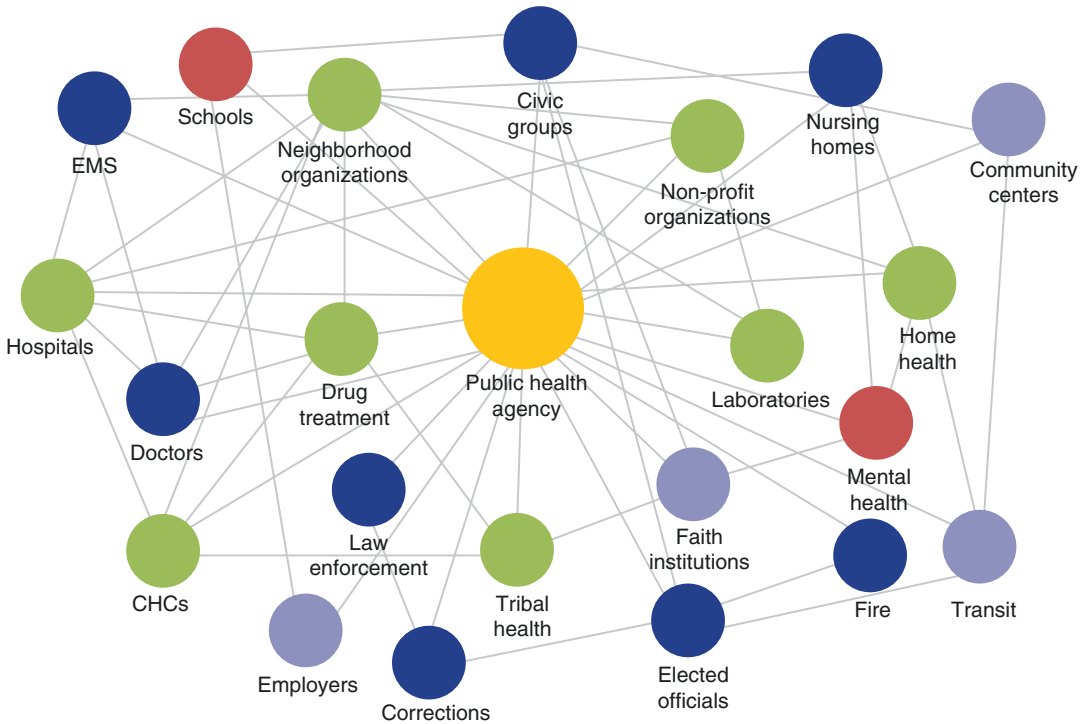


Fig. 33.2 The Public Health System (CDC, 2020; <https://www.cdc.gov/publichealthgateway/publichealthservices/essentialhealthservices.html>; EPHS launch event: <https://vimeo.com/456604095>)

All public health services depend on the presence of basic infrastructure. Each public health program requires capable and qualified health professionals, up-to-date information systems, and public health agencies with the capacity to assess and respond to community health needs. Federal public health agencies rely on the infrastructure at local and state levels to support the implementation of their programs (ODPHP, 2020).

Essential Public Health Services

The three components of the basic public health system—(1) workforce capacity and competency, (2) information and data systems, and (3) organizational capacity—are interrelated. The local and state public health departments and laboratories work collaboratively with private and community partners to provide the essential services of public health. Deficiencies in one component, or in one jurisdiction, have a ripple effect throughout the entire public health system. Therefore, strengthening public health's infrastructure means achieving improvements in all three of these components, in every part of the country (CDC, 2001). Public health infrastructure provides the necessary foundation for undertaking the basic responsibilities of public health, the ten Essential Public Health Services (EPHS) (see Fig. 33.3) (CDC, 2020).

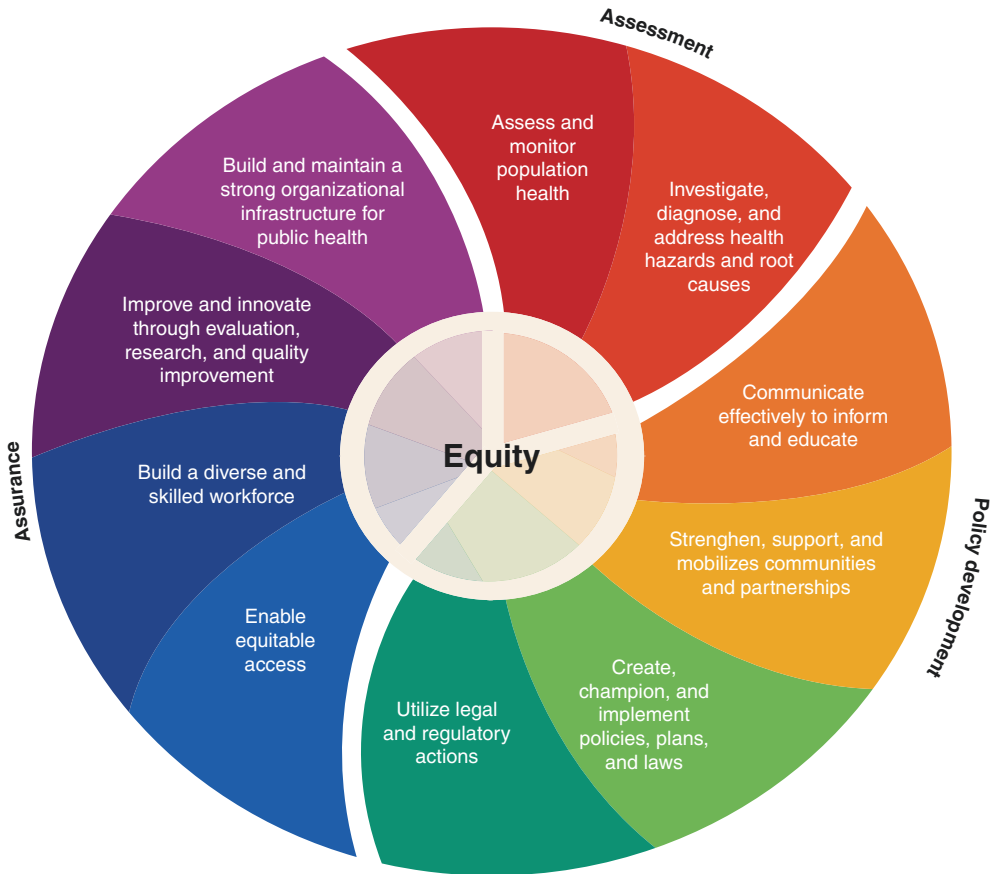


Fig. 33.3 Ten Essential Public Health Services (CDC, 2020; <https://www.cdc.gov/publichealthgateway/publichealth-services/essentialhealthservices.html>)

Ten Essential Public Health Services

1. Assess and monitor population health status, factors that influence health, and community needs and assets.
2. Investigate, diagnose, and address health problems and hazards affecting the population.
3. Communicate effectively to inform and educate people about health, factors that influence it, and how to improve it.
4. Strengthen, support, and mobilize communities and partnerships to improve health.
5. Create, champion, and implement policies, plans, and laws that impact health.
6. Utilize legal and regulatory actions designed to improve and protect the public's health.
7. Assure an effective system that enables equitable access to the individual services and care needed to be healthy.
8. Build and support a diverse and skilled public health workforce.
9. Improve and innovate public health functions through ongoing evaluation, research, and continuous quality improvement.
10. Build and maintain a strong organizational infrastructure for public health.

Source: CDC (2020).

In 1994, the Core Public Health Functions Steering Committee developed the framework for the Ten Essential Public Health Services. The committee included representatives from US Public Health Service agencies and other major public health organizations (CDC, 2020; ODPHP, 2020).

The EPHS defined public health and its role, provided accountability by linking public health performance to health outcomes, and provided a starting point in giving structure to how public health could work in the community at large (de Beaumont Foundation & PHNCI, 2019). The EPHS signaled a shift in:

- *Focus* from treating disease to sustaining health; from solving isolated problems to creating a preferred future; from an individual's needs to a broader perspective on the health of populations
- *Strategy* from treating illness to promoting prevention; from being focused on needs and problems to looking at community-wide assets and opportunities; from being reactive to being proactive
- *Guiding principles* from managing individual health system components to supporting the dynamic interaction of these components through a systems and community approach to health; and setting expectations, outcomes, and accountability that can only be achieved through empowerment (Nelson et al., 2002)

This definition of public health's essential role in our nation's health system sets forth a framework for healthcare agencies and providers at all levels to move forward and forge working relationships to enhance performance and health outcomes:

"Every health department fully prepared; every community better protected" (CDC, 2001, p. 6).

Correctional Health Care

Dr. Carmona challenges us to consider, "with the highest incarceration rate in the world – where persons of color are disproportionately represented and have a higher incidence of chronic and communicable diseases, and where the recidivism rate is unacceptably high – are we successfully accomplishing the ostensible social goals of punishment or rehabilitation?" (Carmona, 2018, p. 283).

While there is a Constitutional right to health care for the incarcerated under the Eighth Amendment, regarding cruel and unusual punishment, affirmed by the Supreme Court (*Estelle v. Gamble*, 1976), correctional institutions must not act with deliberate indifference to serious medical needs. Despite *Estelle v. Gamble*, social security law prohibits correctional facilities from billing federal health insurance plans ("Medicaid Inmate Exception") for health care provided during incarceration (Medicaid Reentry Act, 2019; NACo, 2019). Thus, for the most part, correctional health care must be paid with local and state dollars and federal department of justice funding (Venters, 2016). One notable exception is the federal policy to allocate funding from the HRSA HIV/AIDS Bureau, Ryan White HIV/AIDS Program (Ryan White (RW)) to provide HIV services for people soon to return to the community after incarceration (HRSA, 2018).

Yet, correctional facilities are tasked with delivering health care to a large, complex, and aging population under the pressure of increasing regulation and budget constraints. Increasingly correction agencies must partner with public health and other community providers to help achieve and maintain essential medical and support services for the individuals they house. Carceral systems can also play an important role in the health of communities. By reaching individuals in jails or prisons, their families and friends and others affected by the larger carceral system, health messages, and interventions can be reinforced in the community. Devising new strategies to improve the health of those involved in the carceral system, and strengthening and developing new partnerships among corrections, courts, parole, probation, community programs, and public health are crucial activities for addressing the health objectives in Healthy People 2020 (AmeriHealth Administrators, 2015; CDC, 2020).

Protecting the public health depends on good correctional health care. Many infectious diseases, such as STIs, TB, HCV, HBV, HIV, and COVID-19, have an increased prevalence in the correctional system. As these are all communicable infections, there are three reasons to screen and treat for infection during incarceration to: (1) improve individual outcomes, (2) minimize spread within the correctional facility, and (3) reduce the risk of community transmission.

In addition, if public health officials are not performing routine surveillance of the incarcerated and people returning to the community after incarceration for these infections, then they will underestimate the overall reservoir of disease. Increased collaborations among state, tribal and local health and correction agencies, as well as partnerships between academic institutions and criminal legal systems, have the potential to improve outcomes in individuals, their families, and communities (Akiyama et al., 2020; Carter et al., 2005; Grigg et al., 2020; Nijhawan, 2016).

There are significant implications for correction agencies. If prisons and jails improve the screening of individuals for certain conditions, then the correctional healthcare system has a duty to treat these individuals and to ensure that any medical treatment started during incarceration is continued in the community. Yet, prohibited from billing Medicaid (NACo, 2019), state and local correctional healthcare systems, with limited resources to provide services, have a disincentive to identify additional medical needs which may place additional demands on an already overburdened system.

Public health departments have the mandate to prevent illness in the general population. Thus, they generally have access to public health funding, staff with expertise, and other resources to help correctional facilities address the serious health needs of their population consistent with the public health mission for their communities (Hammett, 1998; IOM, 2003; Turnock, 2016).

Successful public/correctional health collaborations are much easier to develop and sustain when surveillance data are available to establish health profiles of the populations housed in our nation's prisons and jails. Limitations in the data from state prison and large city/county jail systems hinder understanding of the true nature of the complex physical and behavioral conditions that must be addressed by correctional health providers. This information is also needed by community public health providers to plan and prepare for community return.

It is essential that public health agencies assist correctional facilities in communicating and sharing data with state and local legislators to document disease prevalence by race and ethnicity and the financial burden incurred by both correctional and public health providers. It is difficult to demonstrate the cost-effectiveness of prevention programs when the investment is often realized downstream in other systems. For correctional systems, it is challenging to justify the increased costs of enhanced screening and increased education and prevention activities when the benefits are realized by future cases averted. However, through public health and correctional collaborations, all stakeholders can realize the potential public health benefit of jail-based interventions to affect: (1) the course of various epidemics, including the COVID-19 pandemic; (2) factors that contribute to incarceration, such as untreated mental illness; and (3) the progression of disease so that chronic conditions can be managed in a more cost-effective manner during and after incarceration (Akiyama et al., 2020; Olson et al., 2020; Schanenman et al., 2013).

Benefits of Collaborations Across Systems

Collaborating across systems is essential in order for correction and public health systems to address the community health impact of incarceration. Successful collaboratives bring together interconnected groups toward a common aim. Ground rules and establishing trust and clear lines of communication are critical. Establishing goals for the collaborative helps to focus diverse groups around a

common purpose, which then highlights action items that are mutually beneficial and creates buy-in (Ramchandani, 2019). Thus, traditional adversaries help one another achieve the overarching objective to improve community health.

Collaboratives may be informal, operating through government leadership, referral relationships, information collaborations, personal connections, and volunteer arrangements, or more formal, through contracts, subcontracts, memoranda of agreement, out-stationing staff, shared personnel, and to meet grant-funded program requirements. As the healthcare landscape in the community changes, the correctional health program and collaborative networks must adapt.

Additional time and effort are required to establish collaborations among and between systems that are often siloed with no requirements to collaborate. Thus, while potential benefits may not be readily apparent at the onset, community-wide mutual benefits are realized through collaborations among and between correctional programs, correctional health, local and state public health agencies, community health centers and case management programs, community outreach programs, local and state social service agencies, local hospitals, hospice and long-term care facilities, dental programs, laboratories and pharmacies, community-based social service networks, community corrections (parole and probation), state prisons and local jails, state and local information technology departments, prosecutors and defense attorneys, advocates and university researchers.

Leadership

Working across correctional health and public health systems requires leadership to bring together the various teams, programs, and individuals. Removing barriers to collaboration often begins with establishing relationships. Sometimes this happens organically: commissioners of correction and homeless service agencies share an elevator (Horn & Moser, 2014), a public health administrator marries a warden, a community provider realizes many of his patients had spent time in the local jail (Ashe, 2014), or the local health department receives federal grant funding on behalf of a consortium to serve people coming home after incarceration (Jordan et al., 2013).

Vulnerable Populations

More strategic collaborations on local, state, and national levels are born from identifying the populations at greatest risk. Public health epidemiologists will draw a circle around the local jails as points of intervention due to the co-occurring chronic health, mental health, substance use disorder, unstable housing, and food insecurity along with minority health disparities and aging populations. State correctional officials need skilled nursing facilities to care for people who have completed the required sentence. Correctional facilities and shelters struggle to address mental illness and substance use disorders where law enforcement and public health are intertwined (DOJ, 2016; Horn & Moser, 2014; MacDonald, 2017; New York Lawyers for Public Interest (NYLPI), 2018; Skarupski et al., 2018).

Public health agencies' disease intervention specialists (DIS) make regular visits to the jails to conduct contact tracing, partner notification services, and counseling and testing in collaboration with the local correctional facilities. Such public health mission-driven practices are cost-effective (Gift et al., 2006; Macke & Maher, 1999) and can effectively identify sex and needle-sharing partners with previously undiagnosed HIV, syphilis, or viral hepatitis. Specific considerations for correctional populations are included in the current CDC recommendations (CDC, 2008).

COVID-19

Local and national leaders established collaborations and were instrumental in the rapid responses, data and information sharing, and advocacy needed to address the harms of carceral systems in COVID-19 response efforts. Information sharing and guidance provided through public and private leadership and collaborative approaches included: (1) virtual trainings, webinars, policy briefs, blogs, and other creative approaches to sharing ongoing lessons and reports from the field, (2) studies on the impact of COVID-19 and correctional facilities, and (3) establishing criteria to mitigate impact for older people and others at higher risk across criminal and immigration legal systems (Akiyama et al., 2020; APHA, 2020; Artiga & Corallo, 2020; COCHS, 2020; CSG, 2020; Grigg et al., 2020; Beletsky & Johnson, 2020; Jordan & Wilson, 2020; Mistak, 2020; NCCHC, 2020; Reinhart & Chen, 2020; Vera, 2020; Williams & Bertsch, 2020).

Programs and services that rely on a warm transition approach to facilitate linkages to and continuity of care after incarceration are adapting and adopting new strategies and approaches. Telehealth, video conferencing, and web-based applications for public health screening, prevalence mapping, and case management supports are being adapted to respond to COVID-19. Community corrections, including parole and probation, shifted to telephone appointments to facilitate supervision as well as social supports, locating support groups and assisting with online applications for unemployment benefits. Creating safer ways of staying connected are unfolding every day, such as point of reentry teams of community health workers facilitating linkages to health insurance, social services, and community health care. Webinars, virtual forums, interactive polls, and sharable resource guides have provided ways to connect across the larger community and for collaborators to discuss and share best practices (ACOJA, 2020; Amend, 2020; National Commission on Correctional Health Care (NCCHC), 2020).

Benefits Realized

Two comprehensive evidence-informed models, PHMCH and TCC, are illustrative of the benefits of collaborations and have demonstrated improved health outcomes (Hammett et al., 2004; Spaulding et al., 2012; Teixeira et al., 2014). Additional opportunities for mutual benefits may also be realized when public and community health collaborate with housing and employment service agencies and when larger community connections are realized (MacDonald & Venters, 2018).

Housing initiatives that are integrated with TCC to address immediate needs after incarceration include: (1) Frequent User Service Enhancement (FUSE), (2) Justice Involved Supportive Housing (JISH), (3) SPNS Latino Initiative and (4) SPNS Workforce Capacity Initiative. These collaborations integrated TCC with linkages to supportive housing, permanent apartments with case management, transitional housing, and other services to end the cycle of housing insecurity and incarceration among high-risk, vulnerable populations including: hotspotters, people frequently incarcerated with minor criminal charges, and people living with mental illness and substance use disorders (Horn & Moser, 2014; MacDonald et al., 2015; Sinreich et al., 2016; Wiersema et al., 2017).

In New York City, discharge planning and behavioral health and criminal justice collaboratives led to the establishment of the Mayor's Office of Criminal Justice (Montero, 2007; NYC BHTF, 2015). In Raleigh, NC, an existing citywide task force informed and supported the integration of TCC with local law enforcement, jail, health, and social service programs (Farel et al., 2017). The Transitions Clinic Network provides proven, culturally responsive care and treatment and improves access to care after incarceration (Shavit et al., 2017; Wang et al., 2010).

A statewide Health Home/Criminal Justice Pilot Project connected jail-based care coordinators and Health Home care management teams funded primarily through the New York State Medicaid

office under a waiver process. This pilot primarily serves people with mental health and substance use disorders who are out of care users of Medicaid services in the community (Hane & Jordan, 2016; NYS MRT, 2015).

Peer educator training approaches, including CDC evidence-based interventions delivered in correctional facilities with health agency-signed certificates, also enhance employment applications (Ross et al., 2006; Ross et al., 2015; Siegler et al., 2015). One innovative community-oriented peer-led program from a university community-based organization and prison collaboration “spans the fence” into the community with an education and prevention program not just for the incarcerated, but also for the women who visit (Grinstead et al., 1999).

From April 2014 to January 2020, through an integrated collaborative of correction, correctional health, public health, and community-based organizations, 75,000 doses of intranasal naloxone (IN) were distributed through outreach and training to visitors to New York City (NYC) jails. In addition to two doses of IN, each prevention kit includes condoms and overdose prevention resource guides. A longitudinal study of 283 participants visiting NYC jails reached 80% of participants 6 months after enrollment finding 40 participants witnessed 70 overdose events and 28 used IN, reaching a population that includes not only people recently incarcerated but those in the larger community who experienced overdose (Huxley-Reicher et al., 2018; Siegler et al., 2015).

Training and Technical Assistance

Interdisciplinary approaches expand the reach and yield to improve the health of communities. Collaborations to develop interdisciplinary training and supports help build mutuality of objective and support teams in corrections, community corrections, correctional health, public health, health and social services, transportation services, and block-by-block community planning based on local needs. Collaboratives may offer intra- and interdisciplinary training and support around: (1) *population health* (i.e., aging, chronic health, mental illness, and substance use disorder); (2) *scope and culture of corrections/correctional health* (i.e., alternatives to incarceration/sentencing, dual loyalty, staff burnout); and (3) *community considerations* (i.e., cultural responsiveness, healthcare access, housing and employment services, minority health disparities, and transportation) (HRSA, 2019; Jordan et al., 2015).

Preparing community/civilian staff to work in a correctional setting is very important. Most community-based health staff are unfamiliar with the environment, and new employees, including those who may be assigned to the jail for limited timeframes, require security and other specialized training unique to the setting. Key topic areas include the culture of corrections, dual loyalty, the role and structure of security, emergency procedures, multiple boundary issues, regulations when friends or family are incarcerated, if you get arrested, and being aware of your surroundings (Cruzado-Quinones et al., 2016; Glowa-Kollisch et al., 2015; HRSA, 2019).

Health Information Technology

Managing by data is critical for both public health and correctional health systems. Public health agencies are responsible to report to the community about trends and actions taken to prevent or mitigate emerging local health crises, as we have seen with COVID-19 pandemic. Having actionable datasets and tools for patient-level and population-wide information sharing and electronic health records allows correctional and community health providers to virtually share patients. Systemwide mapping of zip codes to which people return after incarceration helped enhance linkages to care and

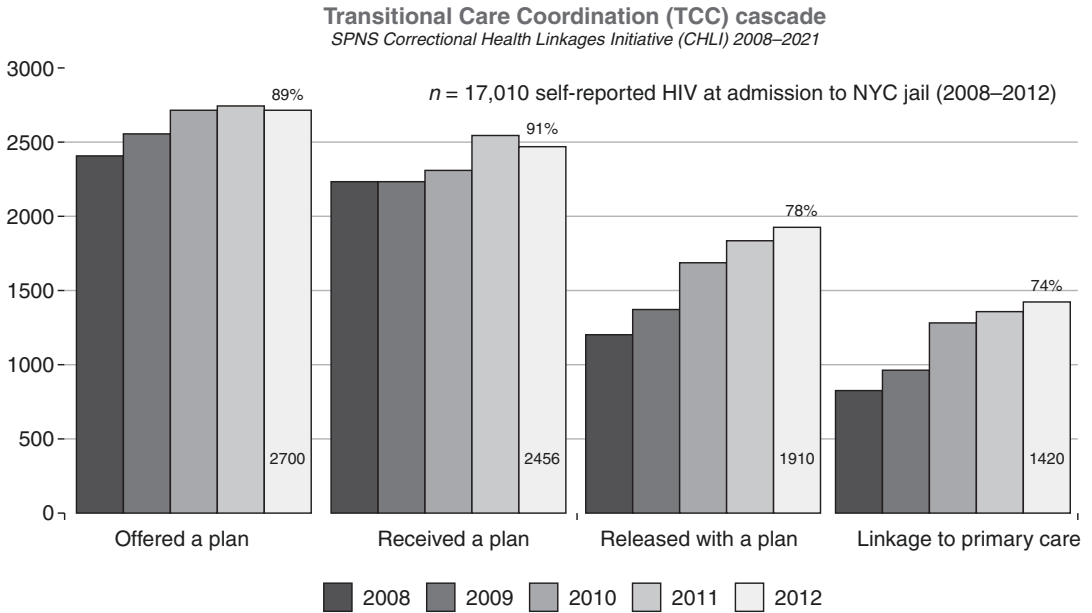


Fig. 33.4 Transitional Care Coordination Cascade (2008–2012) (Jordan, 2019)

documented the overrepresentation from communities with the greatest racial and socioeconomic disparities (Jordan et al., 2013; Mellow et al., 2008; Montero, 2007; Thomas et al., 2020).

Health IT solutions informed the TCC Cascade (see Fig. 33.4) and helped address gaps between the number seen and receiving a plan, the number receiving a plan who returned to the community, and the number returned to the community and linked to care. Across all ten SPNS CHLI demonstration projects, 79% of people who returned to the community were linked to care within 30 days after incarceration (Booker et al., 2013). Managing data and reports was critical to addressing gaps along the way and helped sustain, expand, and enhance the intervention after the SPNS CHLI demonstration project ended (see Fig. 33.4) (Jordan, 2019; Jordan et al., 2013; Jordan & Wilson, 2020; Teixeira et al., 2014).

Cost-Saving on a Societal Level

Our collaborative approach is based on social work tenets, public health principles, and human rights aims and aligns with RW policies and practices. Not only is this the right approach from a social work, public health, and human rights perspective, it is also cost-saving on a societal level (Spaulding et al., 2012; Teixeira et al., 2014; Venters, 2016).

A Community/Public Health Model for Correctional Health Care

Over the past 25 years, PHMCH has been operating in Hampden County, Massachusetts with goals and program structure designed to address the health of those currently incarcerated, as well as the health of the communities to which people return after incarceration. Key to this has been the integration with community health care. (The “porous walls” also permit collaboration with community partners in education, employment, and other programs besides health care.) At program conception,

the three disciplines at the table—the community health centers (CHCs), the local public health agency, and the Sheriff’s department (the triad)—recognized that the incarcerated are temporarily displaced members of the larger community, with the same health and social issues on either side of the bars (Ashe, 2014; Conklin et al., 2002).

PHMCH was designed to recognize and treat people in jail as community health center patients, support the community standard of care, foster local connections, promote neighborhood health care, and minimize transportation needs, but not overwhelm a particular community site with a disproportionate correctional health caseload. In brief, at admission to the jail, patients are assigned to one of four healthcare teams based on their residential zip code proximity to the four CHCs participating in the program. For this correctional facility, where approximately 1200 reside, each of the four teams ideally comprises a physician, a primary nurse, a nurse practitioner or physician assistant, and a case manager.

The physicians and case managers are “dually based,” with the majority of the physicians’ time at the CHC and a half-day or two per week at the jail, and the case managers’ time divided between the jail and outside community. The primary nurse and nurse practitioner are based only in the jail. Ongoing care is scheduled with the primary nurse, nurse practitioner/physician assistant, or physician. The primary nurse is the team care manager and coordinator, responsible for keeping track of team patients in the facility. The case managers focus much of their time on substance use and/or HIV case management and discharge planning, but also serve the same role for patients with other chronic medical conditions. A discharge planning nurse focuses on patients requiring hospitalization, long-term care, other complex medical discharge needs, or correctional classification issues, as well as standard medical reentry planning, and serves as a resource to the case managers.

Core Components of a Community/Public Health Model for Correctional Health

There are six core components of PHMCH:

1. *Early detection and assessment* of health-related conditions, both for individuals and for groups, activates the care that follows. A good interview in the appropriate setting usually elicits much of the health and risk status information needed to guide the individual’s care. Population appropriate screenings for chronic (i.e., diabetes and hypertension), communicable disease (i.e., HIV, HCV, STIs, TB, COVID-19), and mental illness including substance use, as well as age- and gender-appropriate screening, such as for cervical and breast cancer, are found cost-effective as well as cost saving on a societal level.
2. *Comprehensive treatment* of the conditions identified through assessment is not isolated to the “purely medical” aspects but is necessarily biopsychosocial.
 - (a) *Community health* providers have direct, practical knowledge of the community resources as well as how the care plan behind the walls fits into the continuity of care after incarceration. Likewise, comprehensive treatment may not be limited to the patient. Important family needs can be identified and addressed with appropriate resources and collaboration. Difficulties at school for children with an incarcerated parent have been noted as a repeating theme, and can be identified and addressed.
 - (b) *Specialty care* is addressed through several approaches. The primary care practitioners in the jail have developed expertise for various conditions having a high prevalence (e.g., HIV, HCV, gynecomastia, chronic pain, and substance use disorders). This also benefits the community health center practices. Other specialty care may be managed by internal health providers outside the team structure, such as the tuberculosis prevention program, run by the infectious disease nurse and medical director in consultation with the CHC teams and state TB clinics.

- Specialty services with sufficient volume, such as optometry and orthopedics, are provided through on-site visits. When outside visits for specialty care are needed, patients are generally seen by the same specialists used by the corresponding CHC.
3. *Disease prevention and health promotion* efforts in correctional facilities are beneficial to public health including: HIV and hepatitis counseling and testing; vaccinations (COVID-19, influenza, pneumonia, varicella, and others provided by the local health agency); prenatal care for pregnant women; tobacco, drug, and alcohol relapse prevention; and staff wellness efforts including health and employment fairs, and the diabetic/cardiovascular exercise program.
 - (a) *Vaccinations*: While *hepatitis A and B* can be transmitted within correctional facilities, most of the benefit of vaccination accrues to the larger community (Gondles, 2005; Nelson et al., 2020; Sequera et al., 2015). Economic modeling has demonstrated that there is at least as much cumulative prevention value for those testing negative as for those that test positive, primarily due to the far greater number of patients testing negative (Sequera et al., 2015; Varghese et al., 2002; Varghese & Peterman, 2001).
 - (b) *Smoking cessation*: There has been substantial recognition of the immediate benefits and conversion to *smoke-free facilities* (Zhang, 2018). On the other hand, forced tobacco abstinence alone during incarceration has had little impact on smoking after incarceration (Lincoln et al., 2009), representing another indication for treatment. A multisession intervention based on motivational interviewing and cognitive behavioral therapy during incarceration with phone contact continued in the community markedly decreased relapse to smoking (Burke et al., 2003; Clarke et al., 2013). Given that tobacco use prevalence is more than twice as high among individuals with a history of criminal legal system involvement than without, many of whom are parents, even small effects in relapse prevention represent a sizable public health benefit.
 - (c) *Employee wellness*: A strong commitment to the health and well-being of staff members is an important part of PHMCH. Wellness and fitness programs for staff are designed to promote health, enhance work morale, and support self-esteem, which in turn are seen doing the same for staff families and the incarcerated.
 4. *Education* is a major component of comprehensive treatment and prevention and enthusiasm for learning while incarcerated is high. Peer-led education programs are consistent with the community health paradigm and have important strengths including: credibility, effectiveness, cost-efficiency, benefit to educators in knowledge, allowance for informal learning moments throughout the week in housing settings, and the return of expertise to the community leading to broader impact (Lyons et al., 2014; Ross et al., 2006).
 5. *Continuity of care* importance is self-evident and central to the design of PHMCH. Successful continuity of care depends on having an adequate level of health care available in the community. A number of activities in this, as well as in other models, have been important in facilitating continuity of care (Hammett et al., 1999, 2004; Jordan et al., 2013; Lincoln et al., 2006; Wang et al., 2010), including:
 - (a) *Patient priorities of daily living* hierarchy, such as food, housing, or transportation, for themselves or their dependents. Transportation was the most common barrier to health care cited by our patients with chronic medical conditions after reentry (Hammett et al., 2004; Lincoln et al., 2006).
 - (b) *Case management*, which addresses the aforementioned needs (CSG, 2004; Rich et al., 2001). While various models exist, under PHMCH, the case managers begin working with clients as soon as the need is identified, and follow them in the community, transitioning to the community standard of care over 6 months, or longer as needed (i.e., when the case managers change jobs and move on from their position), highlighting the importance of relationships.

- (c) Establishing a *personal connection* with the client during incarceration (Myers et al., 2003). To remove barriers to care including stigmatization and feeling judged, care managers acting as surrogate family can enhance motivation and the confidence to persist and follow-up with health care. This may be particularly important for women (Hammett et al., 1999), and the many patients without established community healthcare providers.
 - (d) *Dually-based healthcare workers/case managers (HCW)* that work with people in the corrections program and in the community not only promote a personal connection but also bridge programs, bringing a community perspective into the correctional institution, and vice versa. This was judged a primary facilitator by patients after community return (Hammett et al., 2004; Lincoln et al., 2006). Besides providing continuity of care at reentry, this feature can also provide continuity of care at incarceration (CSG, 2004).
 - (e) *Timely initiation* of reentry planning, ideally at intake admission. This is particularly important for jails, given the shorter stays and unexpected discharges. With PHMCH, it is even sometimes possible to begin reentry planning prior to the incarceration.
 - (f) *Appointments scheduled* for follow-up health care in the community. This basic step was rated as very helpful by patients with chronic health conditions after incarceration in the Hampden County jail. It may serve as a marker of a tangible discharge plan and was found to be a leading predictor of follow-up (Hammett et al., 1999, 2004).
 - (g) A *summary record* of important health conditions, medications, allergies, diagnostic studies, vaccinations, and other important treatments should be available to the community health provider for each person at the time of community return. The use of electronic medical records (EMRs) facilitates this.
 - (h) *Healthcare payer/benefits available promptly at the point of community return* is essential, not just for medical care and medications, but for other requirements such as food, housing, and transportation. Initially, in Hampden County, fairly effective arrangements were made between local social service offices and individual institutions—benefits were usually “denied” on application during incarceration but by maintaining the application within the system they could be activated on return. Electronic application and communications facilitate work within the current Medicaid system. However, there are myriad challenges throughout the process of suspension, termination, and reinstating health insurance and other benefits.
 - (i) *Geographic proximity*: The closer the correctional institution is to the neighborhoods and community organizations, the lower the barrier to dually-based providers, on-site collaborations with the CBOs, HCWs coming from the primary neighborhoods of reentry, and other aspects of PHMCH community-integrated model. Jails can also serve as reentry sites for the prison system. In Hampden County, state prisoners planning to return to live in Hampden County may be transferred to serve the last months of their sentence in the jail and have access to the local program and resources. Similar practices exist in other jurisdictions (CSG, 2004).
6. *Use of data* for programmatic and public health response (Conklin et al., 1998).

Transitional Care Coordination

The Transitional Care Coordination (TCC) model intervention is based on social work principles using a public health approach (Jordan et al., 2013). Supported, recognized, replicated, and disseminated by the Health Resources and Services Administration (HRSA, 2016, 2019, 2020), TCC, initially developed in NYC jails, has demonstrated significant health and social determinant outcomes 6 months after incarceration, including: (1) improved clinical indicators and increased rate of viral

load suppression; (2) fewer visits to the emergency department, from an average of 0.60 per person in the 6 months prior to baseline to 0.20 visits at follow-up; (3) reduced housing instability and food insecurity from over 20% at baseline to less than 5% at follow-up; and (4) individuals self-reported feeling in better general health (Teixeira et al., 2014). In addition to linkages to care, TCC addressed the myriad challenges faced by people with HIV and incarceration histories who are frequently unstably housed or not fully engaged in care prior to their incarceration. Housing instability is a fundamental barrier to successful retention in care for most people since survival needs such as food and housing are typically prioritized over healthcare needs (Arriola et al., 2013; MacDonald & Venters, 2018; Thomas et al., 2020).

The New York City Department of Health and Mental Hygiene (DOHMH), the local health agency, set a goal of population-based discharge planning for all people with chronic health issues, including HIV, in NYC jails, with an outcome measure of documented linkage to primary care after incarceration. During a successful 6-week pilot project at one jail facility on Rikers Island, 32 participants were enrolled and received individual needs assessment interviews using an open-ended approach to determine each client's top priorities after incarceration ("Wish List"). Through these qualitative interviews, housing, food, medication, transportation, and court advocacy were identified as top priorities. Resources existed for all services except transportation and court advocacy. While DOHMH's outcome measure was linkage to primary care within 30 days after incarceration, the pilot determined that in order to achieve this health outcome, the program objective needed focus on linkage to the right fit program within 7 days after incarceration. Removing barriers to engagement in care by establishing relationships with participants, their families, corrections, correctional health and community providers, courts, social service providers, and a network of community health workers/case managers were all needed to address participant survival needs after incarceration and facilitate linkage to primary care after incarceration (Cruzado-Quinones et al., 2016).

Leveraging data from the successful pilot, DOHMH, on behalf of the Transitional Consortium (TC), applied for and was awarded one of ten federal HRSA Special Projects of National Significance (SPNS) Correctional Health Initiative (CHLI) demonstration project awards to add a health liaison to the courts to facilitate alternatives to incarceration; one of the TC groups was separately funded for an ADA-compliant van to address the gap in transportation assistance. While the NYC SPNS CHLI grant proposal was under review, the pilot results led DOHMH to allocate additional Ryan White funding to scale up the initial pilot project and serve all people with HIV in all 12 NYC jails. The TC, led by the NYC SPNS CHLI Principal Investigator, facilitated program coordination among NYC corrections, health, homeless and social services agencies, four reentry service organizations (Exponents, Fortune Society, Palladia, and Women's Prison Association), as well as the full NYC HIV care network of medical and nonmedical case management providers (HRSA, 2008; Jordan et al., 2013). After the conclusion of the SPNS CHLI demonstration project, an overview of the TCC model intervention as implemented for HIV populations in NYC jails and resulting health outcomes were published in peer-reviewed journals (Jordan et al., 2013; Teixeira et al., 2014), and TCC, along other CHLI projects (Avery et al., 2013), were internationally recognized as associated with addressing the needs of hard-to-reach populations (Lin et al., 2019).

Three Phases of Transitional Care Coordination

Three interconnected phases of the TCC model intervention (see Fig. 33.1) demonstrate the need for a collaborative approach:

1. *Prepare for community return*, including admission screening for population identification and health education and risk reduction services

2. *Transition to community standard of care*, activities include discharge planning, continuity of medication, and linkages to health care and services
3. *Facilitate linkage to care and community-based services*, including health care, substance use treatment, housing, social services, and case management, with ongoing follow-up and care coordination.

Creating a warm transition from jail to community requires participant engagement, coordination, and collaboration with community partners as well as cross-system tracking and reporting of services delivered to participants (HRSA, 2013, 2016, 2017, 2019; Jordan et al., 2013; Teixeira et al., 2014). For example, DOHMH participated in a citywide Discharge Planning Collaborative (Montero, 2007). *Tools & Tips for Providing Transitional Care Coordination: Handbook* illustrates these and other hallmarks of the TCC model intervention for direct service staff and has relevance for developing and sustaining collaborations among correctional facilities, community agencies, and other partners (see Fig. 33.1) (Cruzado-Quinones et al., 2016).

Adaptations and Enhancements to Transitional Care Coordination

The TCC model intervention, created to address community collaborations for chronic health issues including HIV, was subsequently adapted to address geriatric and complex care, substance use disorders, as well as HCV treatment. Prior to TCC, mental health services were separately addressed in NYC through a similar collaborative approach under court supervision (NYLPI, 2018). After the Correctional Health Linkages Initiative, subsequent SPNS demonstration projects funded additional adaptations and enhancements to TCC including:

1. *Culturally-Appropriate Interventions of Outreach, Access, and Retention among Latino(a) Populations (2013–2018) (Latino Initiative)*, by enhancing TCC for Latino/as developing curricula and linkage agreements to enhance continuity of care for people of Puerto Rican (PR) ancestry (Guilamo-Ramos & Muñoz-Laboy, 2018)
2. *System-level Workforce Capacity Building for Integrating HIV Primary Care in Community Health Care Settings (2014–2018) (Workforce Capacity Initiative)*, using a “Pay It Forward” approach to replicate and adapt TCC in PR (Thomas et al., 2020; Wiersema et al., 2017)
3. *Dissemination of Evidence-Informed Interventions to Improve Health Outcomes along the HIV Care Continuum Initiative, (2015–2020) (DEII Initiative)*, providing training, TA, and content expertise to replicate and adapt TCC in Camden NJ, Raleigh NC, and Clark County NV (Marback & Fox, 2017)
4. *Improving HIV Health Outcomes Through the Coordination of Supportive Employment and Housing Services (2017–2020) (Employment and Housing Initiative)*, integrating TCC and cultural responsiveness through training and TA to address the specific needs of people involved with the criminal legal system to improve access to housing and employment services (Boston University, 2020; Thomas et al., 2020).

Under the *Latino Initiative*, key collaborators and community partner organizations were identified by the One Stop Career Center of Puerto Rico (OSCC-PR). OSCC-PR leadership, in partnership with the NYC TCC Program Manager: (1) conducted site visits to community health centers, homeless shelters, and residential and outpatient substance use treatment programs; (2) built relationships among and between health and correction agencies, correctional health, law enforcement, HIV service providers, housing providers, and employers; and (3) established the *Strengthening Collaborations Consortium (SCC)* in PR (Rodriguez-Diaz & Jordan, 2017; Thomas et al., 2020).

Under the *Workforce Capacity Initiative*, training, TA, and support were provided by TCC leadership working alongside OSCC-PR to integrate HIV nonmedical case management services into existing housing and employment services and implement TCC across the islands of PR. OSCC-PR documented a 90% linkage to care rate after incarceration, despite Hurricane Maria's arrival during the 6-month follow-up window. Relationships built through the SCC network also helped facilitate emergency relief efforts (Thomas et al., 2020; Wiersema et al., 2017).

For the *DEII Initiative*, three TCC demonstration sites, located in Camden NJ, Raleigh NC, and Clark County NV, were selected to implement, document adherence to, and adaptations made to the TCC intervention (Marback & Fox, 2017). Demonstration site concerns at the onset were addressed through training, TA, and support. Two sites expressed concern about transitioning folks to another team for standard of care. Training was provided to downstream community case managers, and ongoing collaborations continued to mitigate barriers identified through the planning and implementation processes. At one site, there was initial concern about the community health workers distributing condoms, in the jail and at the time of reentry, and gaining access to space. Strategies to address these concerns included attending Corrections' superintendent and warden meetings, including correction officers and correctional health staff in offered trainings, and leveraging well-established relationships among the local health, social services, correction, and parole agencies.

Established relationships were transferred to the coordinators who then developed and built their own relationships with partners in the jails and the larger community. One pair of interventionists kept a first aid kit and a microwave in their workspace to encourage Correction Officers to stop by for a bandage or meal break. At the final site visit, a culture shift was evident; the interventionists had keys to the jail, office space, and a reputation as the "condom ladies," providing health education to staff and incarcerated alike as they walk through the jail hallways wearing red "Condom Love" t-shirts. All three sites successfully replicated and sustained TCC (Fox et al., 2017).

Under the *Employment & Housing Initiative*, one demonstration site in Chicago exclusively enrolled people detained in Cook County jail and all 12 demonstration sites reported having a cohort of patients with histories of incarceration that required additional coordination and collaboration. Cross-site collaborations with the *DEII Initiative* demonstration sites as well as training and technical assistance has helped address the specific needs of people with HIV and incarceration histories (Boston University, 2020; HRSA, 2020; Thomas et al., 2020).

Core Components of Transitional Care Coordination

Under the HRSA *DEII Initiative*, the NYC TCC model was adapted as an evidence-informed intervention (HRSA, 2020). There are five core components of the TCC intervention aligned with the three interconnected phases of the model:

1. *Initial client contact*: Based on medical intake, and after addressing immediate care and treatment needs, an initial assessment is conducted, health insurance assistance and prevention health education and risk reduction services are provided. Request client permission/consent to contact attorney and family as well as community navigators and providers, as needed.
2. *Transitional care plan*: Based on current legal/criminal case status, and in coordination/collaboration with family, identified community resources, and defense attorney, a preliminary plan is developed. Ongoing sessions are held before and after each court date or hearing to modify/update the plan addressing needs for continuity of health care, medication, substance use treatment services, housing, income/employment, and other social services.
3. *Facilitate a warm transition*:

- (a) Provide sufficient supply of medication (i.e., 7 days) to bridge the gap from community return to access medication in community. Electronic prescribing and transitional care planning for continuity of health insurance as well as coordination with pharmacies are needed. Security concerns about medications in glass vials and syringes with sharp needles as well as refrigeration requirements need to be addressed. Injectable insulin and intranasal naloxone may not be authorized for direct provision in the correctional facility at the time of community transfer.
 - (b) Accompaniment and/or transportation at the time of community return and to facilitate community linkage and follow-up is a high priority in most jurisdictions. Navigation assistance may be provided by family members or helpers acting as surrogate family (transitional care coordinators, peer counselors, patient navigators, community health workers, caseworkers, social workers, or others). The objective is to facilitate the least complicated, most direct path to the right first step.
4. *Appropriate follow-up* through 90 days after incarceration and beyond, as needed. Verify linkages to care, treatment, and needed services after incarceration by contacting community provider. Document linkage to the right first connection and prepare detailed case notes regarding follow-up efforts, community contacts, and any changes to the planned transitional care plan or community provider/program.
5. *Ongoing case management*: Continuity of medication, health insurance, mental health counseling, prevention education, and social supports including assistance with scheduling and managing appointments, legal, parole, and probation requirements, and access to needed community services and supports. Programs that offer 24-hour access and lifetime membership such as those offered by the Fortune Society have demonstrated outcomes, including over 80% retention 90 days after community return (HRSA, 2020; Ricard, 2018).

Future Considerations

While these strategic collaborative approaches have benefits to improve community health, national correctional healthcare policy with national public health oversight is needed to: (1) allow for public health plan payment of healthcare services provided in correctional facilities that also bridges the transition from and return to community care; (2) align correctional health with community standard of care in all local, state, and federal correctional facilities; and (3) require collaborations among corrections, correctional health, public health, and community health and services.

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