



Evolving Models of Integrated Behavioral Health and Primary Care

Parashar Ramanuj¹ · Erin Ferenchik² · Mary Docherty³ · Brigitta Spaeth-Rublee⁴ · Harold Alan Pincus⁴

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Abstract

Purpose of Review Mental and physical disorders commonly co-occur leading to higher morbidity and mortality in people with mental and substance use disorders (collectively called behavioral health disorders). Models to integrate primary and behavioral health care for this population have not yet been implemented widely across health systems, leading to efforts to adapt models for specific subpopulations and mechanisms to facilitate more widespread adoption.

Recent Findings Using examples from the UK and USA, we describe recent advances to integrate behavioral and primary care for new target populations including people with serious mental illness, people at the extremes of life, and for people with substance use disorders. We summarize mechanisms to incentivize integration efforts and to stimulate new integration between health and social services in primary care. We then present an outline of recent enablers for integration, concentrating on changes to funding mechanisms, developments in quality outcome measurements to promote collaborative working, and pragmatic guidance aimed at primary care providers wishing to enhance provision of behavioral care.

Summary Integrating care between primary care and behavioral health services is a complex process. Established models of integrated care are now being tailored to target specific patient populations and policy initiatives developed to encourage adoption in particular settings. Wholly novel approaches to integrate care are significantly less common. Future efforts to integrate care should allow for flexibility and innovation around implementation, payment models that support delivery of high value care, and the development of outcome measures that incentivize collaborative working practices.

Keywords Integrated care · Collaborative care · Mental health services · Primary care · Co-occurring conditions

Introduction

An estimated 1 in 5 adults in high-income countries such as the United States and United Kingdom live with mental illness, from common mental disorders like major depression

and anxiety to serious mental illnesses (SMI) such as schizophrenia and bipolar affective disorder [1, 2]. People with mental illness frequently have high rates of adverse health behaviors, including tobacco and other substance use, physical inactivity, and poor diet [3]. These behaviors, combined with the iatrogenic effects of many psychotropic medications, can contribute to higher rates of chronic medical conditions such as diabetes, cardiovascular disease, and thromboembolic events [4]. The pathways of comorbidity are complex and bidirectional [3], and this population has an estimated mortality rate that is 2.2 times higher than the general population [5].

While such patients have the greatest needs, they often receive poorer quality of care due to a combination of many factors, including both system and provider issues [4, 6]. Research has consistently demonstrated worse clinical outcomes for patients with mental illness [7–9], and health care costs are estimated to be 60–75% higher for those with mental illness than those without [10]. As such, there is a pressing need to better identify and manage this high-need, high-cost patient population.

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✉ Parashar Ramanuj
p.ramanuj@doctors.org.uk

¹ Imperial College Health Partners, 30 Euston Square, London NW1 2FB, UK

² Center for Family and Community Medicine, Columbia University Medical Center, 630 West 168th Street, New York, NY 10032, USA

³ Department of Psychological Medicine, South London and Maudsley NHS Foundation Trust, Denmark Hill, London SE5 8AZ, UK

⁴ New York State Psychiatric Institute, 1051 Riverside Drive, New York, NY 10032, USA

Integrated behavioral health care—or simply, integrated care as used in this article—has emerged as a service delivery model to improve both access and the quality of care for this highly complex patient population. The concept of integrated care has been broadly defined by expert consensus as a model of service delivery that combines care for physical, mental, and substance use disorders in a collaborative way to address problems identified during primary care visits [11]. Primary care settings frequently serve as the entry point of care for this patient population, and thus, primary care providers and behavioral health specialists should work together with patients and families to identify and address mental health, substance misuse, and behaviors that affect overall health and well-being.

Effectiveness of Integrated Care Models

To date, a range of integration models have been implemented and described in the literature. Originally based upon the principles of chronic care, such models for the delivery of integrated care have emerged with a strong evidence base. Research suggests that, overall, integrated care for the treatment of mental and physical comorbidities coordinated across multiple health care providers and settings results in increased quality of care, improved population health, and can contribute toward a high-value health care system [12••].

The American College of Physicians posits that most integrated care models in the primary care setting fall into two major categories: the Collaborative Care Model (CCM), originally developed for the treatment of depression in primary care, and the Screening, Brief Intervention, Referral to Treatment (SBIRT) model for alcohol and substance use disorders (ASUD). A host of other models and mechanisms which borrow aspects from these two approaches also exist [13].

Perhaps the most studied model has been the CCM for depression, a team-based approach for care which has demonstrated significant improvement in depression outcomes compared with usual care [14••]. The CCM model focuses on three core processes: collaboration between different providers, a stepped-care approach, and outcomes driven improvement [15].

The CCM has been extensively documented to date, so here we provide only a brief overview of the supporting evidence [16•]. Early randomized controlled trials (RCTs) demonstrated the effectiveness of the CCM for a specific, targeted patient population. Bogner et al., for example, showed that in people with diabetes and depression, the CCM resulted in significant improvement in both depression remission and glycated hemoglobin compared with patients who received usual care [17]. The Cochrane collaborative subsequently confirmed the clinical effectiveness of the CCM in people

with depressive or anxiety disorders in primary care through a meta-analysis of 79 RCTs (involving 24,308 participants) which showed improved clinical outcomes, concordance with evidence-based medication strategies, and health-related quality of life [18•]. The superior effectiveness of the CCM in improving depression symptoms or achieving remission compared to usual care in primary care settings has now been shown to persist for at least 24 months [19•].

The CCM is likely to be cost-effective. The CADET trial [20••], which compared collaborative care interventions for the management of depression in primary care versus usual care in the British National Health Service, demonstrated that the health gains in collaborative care, measured in QALYs (quality-adjusted life years), exceeded those in usual care after 12 months, while additional direct costs over usual care were minor. When external service costs provided by family members were included, collaborative care became the dominant option. The COINCIDE trial [21••], also conducted in England, concluded that collaborative care was cost-effective for participants with depression and either diabetes or cardiovascular disease over 24 months.

The SBIRT model, the other commonly cited approach to integration care, uses evidence-based screening scales to identify and risk stratify people with ASUD. Those with low-risk patterns of addictive behaviors are offered brief interventions in primary care, whereas those with riskier patterns of use or illicit substance use receive more specialist interventions [22]. Brief interventions typically consist of motivational enhancement therapy and brief behavioral therapy approaches. Results have been less conclusive than for the CCM. The ASPIRE Trial [23], a RCT comparing both types of brief intervention with signposting to ASUD services found no decrease in days of alcohol or drug use after 6 months. Similarly, a meta-analysis conducted around the same time found no evidence that brief interventions increase the use of specialist alcohol treatment [24]. However, a more recent Cochrane systematic review supports the hypothesis, citing moderate-quality evidence, that brief interventions can reduce alcohol consumption in hazardous and harmful drinkers compared to no or minimal intervention [25]. The SBIRT model, thus, remains an attractive proposition to policy-makers and primary care providers because of the ease with which it can be embedded into routine practice [26]. Some authors have even suggested that implementation factors may determine effectiveness, rather than a deficiency in the model itself [27, 28].

Despite the evidence base, most integrated care models, including the CCM and SBIRT models, have not been adopted widely outside well-resourced or academic centers. Successful implementation requires adaptation to local contexts and practices, alignment of financial incentives to support system redesign, and adequate ongoing funding to sustain change [29]. New evidence from qualitative systems-wide analysis suggests that integrating care is a complex

intervention, often requiring substantial service transformation [30•]. This has given rise to tailored adaptations of the main models to target specific patient populations or policy initiatives to encourage adoption in particular settings. Less commonly, novel approaches to integrated care have also been developed. We now describe some of these adapted models and mechanisms using evidence from both the UK and the USA.

New Targets for Integrated Models (Table 1)

Serious Mental Illness

The significant health inequalities facing individuals with serious mental illness (SMI), coupled with resultant cost inefficiencies, have led to sustained interest in improving integrated care for this population in particular. Some experts have argued that those individuals living with SMI qualify as a unique disparity category [38]. As such, in responding to this need, different health systems have developed a range of levers to encourage a more integrated approach.

In the USA, the large-scale Primary and Behavioral Health Care Integration (PBHCI) grant program provided by the Substance Abuse and Mental Health Services Administration (SAMHSA) has incentivized improvements in the general medical health of people with serious mental illness [31]. The grant is intended to aid integrated primary care services into community-based behavioral health settings to improve access to holistic physical and behavioral care for people with SMI. Other countries, such as the UK, have used a series of payment levers to encourage more coordinated activity between primary and secondary mental health care [32].

Most of these efforts have focused on improving cardiovascular health of people living with SMI, as this is the biggest cause of death in this population [39]. Major limitations in the existing evidence base include a lack of longitudinal studies and lack of information on a range of outcomes beyond changes in disease biomarkers, such as quality of life or personal recovery goals. Despite these limitations, several studies are starting to suggest potential unintended benefits of more integrated approaches such as a reduction in psychiatric admissions [40•]. In addition to targeted attention on cardiovascular and metabolic health, awareness of the changing needs of individuals with SMI over the disease course and the substantially lower costs of locating care for SMI in primary care has led to a range of enhanced primary care models for people with SMI [41, 42]. Common features of these approaches include co-locating some psychiatry provision within primary care but configuring the service model to provide seamless step up or step down from secondary care according to the clinical need [43].

Targets for Integrated Care Across the Life Course

The CCM was initially developed to improve depression in elderly populations and its effectiveness in primary care settings for this group has been well-established [44, 45]. However, consistent evidence still demonstrates diagnosis and treatment gaps for depression in older adults and associated excess mortality [46–48]. Focus is now shifting toward adapting integrated approaches to meet the needs of elderly people with complex comorbidity including multiple long-term conditions, frailty, and co-occurring mental health conditions such as depression and dementia [49]. This has been a particular focus for the UK vanguard program where integrated care teams covering a local area to target those with highly complex needs have been developed [50•]. Many of these teams offer care based on CCM principles although methods of delivery vary according to local priorities and resources, from fully embedding mental health practitioners within primary care teams to retaining a consultation and liaison model provided by a separate mental health service. Ongoing evaluation of these programs may provide important insights as to the clinical and cost-effectiveness of different integration approaches for an older adult population [50•].

Awareness of the impact of mental illness at the start of the life course is also increasing, particularly on maternal and newborn health. This has led to more robust efforts to include mental health in maternal health programs [51, 52]. Robust evidence on the efficacy of psychological interventions for postpartum depression in primary care supports the interest in integrating mental health care into routine antenatal and postnatal care services [53].

Within child and adolescent health, the early prevention and identification of mental illness in primary care settings is considered a key approach to reducing the pediatric, and ultimately, adult burden of mental illness. In the USA, those involved in planning and delivering pediatric patient-centered medical homes (P-PCMH) to deliver more comprehensive, coordinated, patient-centered, and team-based primary care to children, and adolescents have emphasized behavioral health access or delivery as a key component of these programs [54]. The current literature favors collaborative care models to improve outcomes in depression [54, 55], facilitate more efficient service use [56], greater effectiveness for behavioral problems in children [57], and in reducing barriers to diagnosis and treatment of mental illness in youth [58].

However, trials to date have not extensively compared collaborative care approaches to other integrated approaches. While the evidence suggests that the CCM should be incorporated within the P-PCMH, additional research and demonstration projects are required to identify the optimal strategy for addressing behavioral health needs in children and adolescent population [59, 60]. A range of other intervention models, therefore, have started to be implemented including

Table 1 Characteristics of evolving models of integrated care

Model	Mechanism	Target population	Aims	Intervention
Primary and Behavioral Health Care Integration Grant [31]	Policy initiative: 4 years federal grant provided by the Substance Abuse and Mental Health Services Administration in America	People with serious mental illness in community-based health settings	Provide holistic physical and behavioral care services in community-based behavioral health settings	Screening and intervention for general physical conditions, developing of case registries and tracking of primary care needs, case management, prevention, and well-being support.
Commissioning for Quality and Innovation [32]	Policy initiative: pay for performance scheme for monitoring of physical health disorders across England and Wales	People with serious mental illness admitted to psychiatric facilities	Improve cardiometabolic risk assessment in target population and onward referral when necessary	Screening and intervention for cardiometabolic disorders, improved communication, and collaboration between behavioral health and primary care providers
Certified Community Behavioral Health Centers [33]	Policy initiative: development of a new safety-net provider type in Medicaid (USA)	Underserved populations with serious mental illness, long-term addiction or mild-to-moderate mental illness and complex health profiles	Create access, stabilize people in crisis and provide the necessary treatment for those with the most serious, complex mental illnesses and substance use disorders, through an approach that emphasizes recovery, wellness, trauma-informed care and physical-behavioral health integration	Directly providing (or contracting with partner organizations to provide) a comprehensive range of services, with an emphasis on the provision of 24-h crisis care, utilization of evidence-based practices, care coordination and integration with physical health care.
Perinatal Mental Health Project, South Africa [34]	Adapted CCM: stepped-care collaborative care model utilizing peer-support workers and non-specialist health workers.	Expectant and new mothers (in first postnatal year) in low-resourced settings.	Increased screening for psychological distress in expectant mothers and appropriate psychological counseling to promote positive birth experiences, successful bonding with the newborn, and enhance maternal caregiving capacity.	Mental health training is given to general health workers in maternity units. Non-specialist health workers receive training as counselors. 2. A stepped-care model is used in prenatal and postnatal clinics: - Women are screened for psychological distress during their first routine visit to the prenatal clinic. - Those with distress are referred for individual counseling by an on-site counselor. Women can also be referred to complementary services such as HIV/AIDS counseling, social workers, or relevant NGOs. - Severe and non-responding cases are referred to the supervising psychiatrist.
Massachusetts Child Psychiatry Access Program [35]	Novel model: state-wide improved expert consultation and provider training initiative	Children with behavioral health needs and their families in Massachusetts	Improve access to treatment by making child psychiatry services accessible to primary care providers across Massachusetts.	System of regional children's behavioral health consultation teams designed to help primary care providers and their practices to promote and manage the behavioral health of their pediatric patients as a fundamental component of overall health and wellness.
SUMMIT Integrated Care for Alcohol and Substance Use Disorders in	Adapted SBIRT approach	People with opioid or alcohol use disorders in two federally qualified health centers	Self-reported abstinence from opioid or alcohol at 6 months. Secondary aims included improved engagement, abstinence from other	System-level intervention, designed to increase the delivery of either a 6-session brief psychotherapy treatment and/or medication-assisted

Table 1 (continued)

Model	Mechanism	Target population	Aims	Intervention
Primary Care [36]			substances, reduction in heavy drinking and improved quality of life.	treatment with either sublingual buprenorphine/naloxone for opioid use disorders or long-acting injectable naltrexone for alcohol use disorders. Usual care participants were told that the clinic provided opioid and alcohol treatment and given a number for appointment scheduling and list of community referrals.
Addiction Health Evaluation and Disease Management (AHEAD) [37]	Adapted SBIRT approach	Adult patients admitted to the units with alcohol or other substance use disorders	Self-reported abstinence from opioids, stimulants, or heavy drinking.	A collaborative care model incorporating care coordination with a primary care clinician; motivational enhancement therapy; relapse prevention counseling; and on-site medical, addiction, and psychiatric treatment, social work assistance and referrals (including mutual help).

Abbreviations *CCM* Collaborative Care Model, *SBIRT* Screening, Brief Intervention and Referral to Treatment

expert consultation [35], provider skills training [61], and colocated services [58]. For example, in Massachusetts, the Mental Health and Child Psychiatry Access Approach has enabled primary care clinicians to have rapid phone access to mental health experts. The aim is to better inform care decisions from diagnosis to treatment and follow-up in primary care. Anecdotal evidence suggests clinicians feel better to able to meet their patients' mental health needs although more robust evidence is lacking [62].

Alcohol and Substance Use Disorders

Alcohol and substance use disorders (ASUD) have a substantial influence on behavioral and physical health morbidity, healthcare utilization, and health outcomes [63, 64]. An emerging focus is on the delivery and sustainability of substance misuse screening and treatment in a primary care setting [64, 65]. While early attention focused on identification of substance use disorders through brief screening and intervening promptly to minimize harm [66], as operationalized by the SBIRT model, these have been extended to more fully integrated treatment offers in a primary care environment [67]. The potential benefits include reducing the stigma associated with ASUD thus potentially improving treatment and abstinence rates and minimizing transfers between providers through comprehensive service delivery and so reducing the risk of disengagement.

Feasibility and efficacy of these enhanced integrated efforts specifically for opioid and alcohol use disorders have been demonstrated in primary care [68, 69], although outcomes from RCTs have been mixed. The AHEAD trial [37], for example, which compared a comprehensive collaborative care intervention for people with ASUD in primary care with a routine primary care appointment and signposting to local ASUD services, did not increase self-reported abstinence over 12 months. In contrast, a more recent application of the CCM among adults with opioid and alcohol use disorders in primary care, the SUMMIT trial [36], found that the collaborative care intervention resulted in significantly more access to treatment and abstinence from alcohol and drugs at 6 months, than usual care. Although both trials relied heavily on a blended approach consisting of counseling, psychosocial, and psychiatric interventions in primary care, the SUMMIT trial was designed to increase the delivery of either a 6-session brief psychotherapy treatment and/or medication-assisted treatment for opioid and alcohol use disorders [70]. This targeted approach may have selected a more motivated treatment-seeking population than in the AHEAD trial.

Questions remain, however, on how and for which patients with ASUD integrated care models should be applied in primary care. Likewise, there are still unanswered questions as to whether or not a more integrated approach to ASUD in the primary care setting has a meaningful effect on clinical outcomes [71, 72]. Further research is needed on how to

overcome barriers to implementation [73, 74], critical factors for successful models [75, 76], and how to sustain quality and efficacy after implementation support ceases [77, 78].

Integration Beyond Clinical Care

In many health care systems, interventions to address the social determinants of health have been posited outside the scope of clinical care—with numerous structural, financial and legislative barriers obstructing direct partnerships between primary care practices, social services, and not-for-profit community organizations [79, 80]. Barriers and solutions to coherent patient-centered pathways where social, physical, and mental health needs are addressed concurrently is a growing theme in the current literature [81, 82].

Efforts to connect community-based organizations that support interventions around education, housing, employment, and food security to health care providers are emerging in numerous different forms [83–85]. A recent mapping exercise explored core elements and critical success factors in partnership models serving low-income and other vulnerable populations with complex needs [86]. The authors found a range of innovation with varied models usually built around shared goals between providers. Most partnerships had some sort of formal agreement, but the degree of formal integration varied. Targeted outcomes from the arrangements were noted to commonly focus on immediate needs such as reducing length of hospital stay, likely reflecting a funding environment with incentives for cost saving. Promising observations include the effects of these collaborations on expanding skills, capacity, quality of programs, and generating new funding sources. Challenges include maintaining conditions for building and sustaining successful collaboration, particularly sustainable funding sources once grants had expired [86]. Substantially, more research is needed to draw conclusions on which interventions and partnerships are effective, how they should be configured and to whom they should be targeted.

Integrated Care Landscape: Fostering an Enabling Environment

Successful implementation of integrated care must be supported at multiple levels—policy, practice and provider. Across health care systems, payment reforms are accelerating as integrated service delivery and payment models are being promoted and operationalized. A recent study by Bao et al. showed that value-based payment approaches can improve the effectiveness of implementation of CCM and achieve clinically significant improved patient depression outcomes [87]. However, the extent to which behavioral and primary health care are actually being integrated clinically, organizationally,

and financially across systems seems to be lacking. In the USA, for example, only 14% of Accountable Care Organizations (ACOs) reported having nearly complete or fully complete integration of behavioral health programs in primary care delivered [88]. A survey of practices recognized under the US National Committee for Quality Assurance (NCQA) PCMH (Patient-Centered Medical Home) program revealed “lack of time” (92%) and “lack of reimbursement” (91%) as the two leading obstacles that limit the implementation of behavioral health and substance use care services into primary care [89]. In England too, behavioral health is considered an after-thought (if considered at all) in the new Integrated Care Systems being implemented based on ACOs and PCMH as developed in the USA [50•].

These observations point to a series of underlying issues that pose broader challenges to the advancement of integrated care—those that are not necessarily limited to a specific model of care. Most current models of integrated care have been facilitated by research funding, pump primed grants, or other time-limited financial levers. There remains a significant risk that gains could be lost without development of sustainable funding mechanisms coupled with longitudinal evaluations. Experience in the UK has demonstrated the risk that activity in primary care may not be sustained after removal of specific pay for performance incentives [90, 91]. Payments should recognize the added value of behavioral health service as part of integrated care strategies, whether delivered by a primary care physician or by added behavioral health clinicians as members of the team. In the USA, carved out funding streams (i.e., the administration of behavioral health reimbursements through independent payment systems) often impede reimbursement of primary care physicians for diagnosis and (early) treatment of mental health issues, or adding behavioral health clinicians to the team. On both sides of the Atlantic, new payment models should combine shared savings/ risk arrangements with quality incentives. Depending on the specific design of integrated care models, these payments may consist of a per-member per-month primary capitation or bundled payments for a specific set of behavioral health and primary care services [92].

Value-based payment models that link payments to providers to the results of quality and efficiency measures should hold physicians and other providers accountable for the health care they deliver. The set of quality measures within value-based payment arrangements (categorized as structure, process, and outcomes measures) can have a large impact on where providers focus their efforts and act as levers to incentivize payment, infrastructure, and improvement strategies to sustain integration of care [93•]. Structural measures are often framed as recognition or accreditation programs where clinical organizations demonstrate the capacity to provide effective care based on their policies, their staffing mix, expertise and training, their health information technology functionality,

and other attributes. Process measures assess the extent to which providers effectively implement clinical practices (or treatments) that have been shown to result in high-quality or efficient care. Outcome measures track results of health care interventions such as improvements on the PHQ-9 scale, or patients’ experiences of care. However, few valid and feasible process and outcomes measures exist to support integrated care, and by extension, value-based payment approaches for patients with behavioral health and comorbid general medical conditions [94]. Current quality-outcome measures that do exist tend to focus on single-disease entities or populations [95], rather than reflecting the reality of multimorbidity in this population [96]. Finally, there are considerable gaps in how efficiency of integrated care is conceptualized and measured [97].

In addition to the need for payment reform and the development of quality metrics, other critical bottlenecks to the implementation of integrated care must be addressed. Considerable challenges result from the demands currently facing primary care systems in meeting the increasingly complex needs of people with chronic conditions [98]. In particular, primary care professionals lack the time to assess and manage patients with complex health needs effectively, tend to have minimal training in mental health, and feel ill-prepared to meet mental health needs [98, 99]. Care coordination

between different services, particularly between health and social care services is also lacking [98].

Integrated care seeks to circumvent these problems. An evidence-based framework (see Fig. 1) has been developed to provide guidance to diverse primary care settings on how to approach implementing integrated care, with achievable goals at each step [100]. The framework is supported by a comprehensive systems analysis that has demonstrated that integration between primary care and mental health services does not advance along a single continuum from minimal to full integration; but rather a network of different factors, both internal and external to the organization, influences implementation [30••]. These factors include structural components of care delivery such as co-location of care and information technology infrastructure, process factors such as collaborative practice and case management, and contextual components such as leadership and organizational culture. Integration can, thus, be considered to progress along parallel pathways comprised of these structural, process, and contextual components. Given the variety of practices structures, particularly in the USA, the framework adopts a maturity matrix approach, which can provide a common way of organizing the current thinking about integration and options for implementation. Currently undergoing evaluation, in the future the framework will also be accompanied by clear guidance

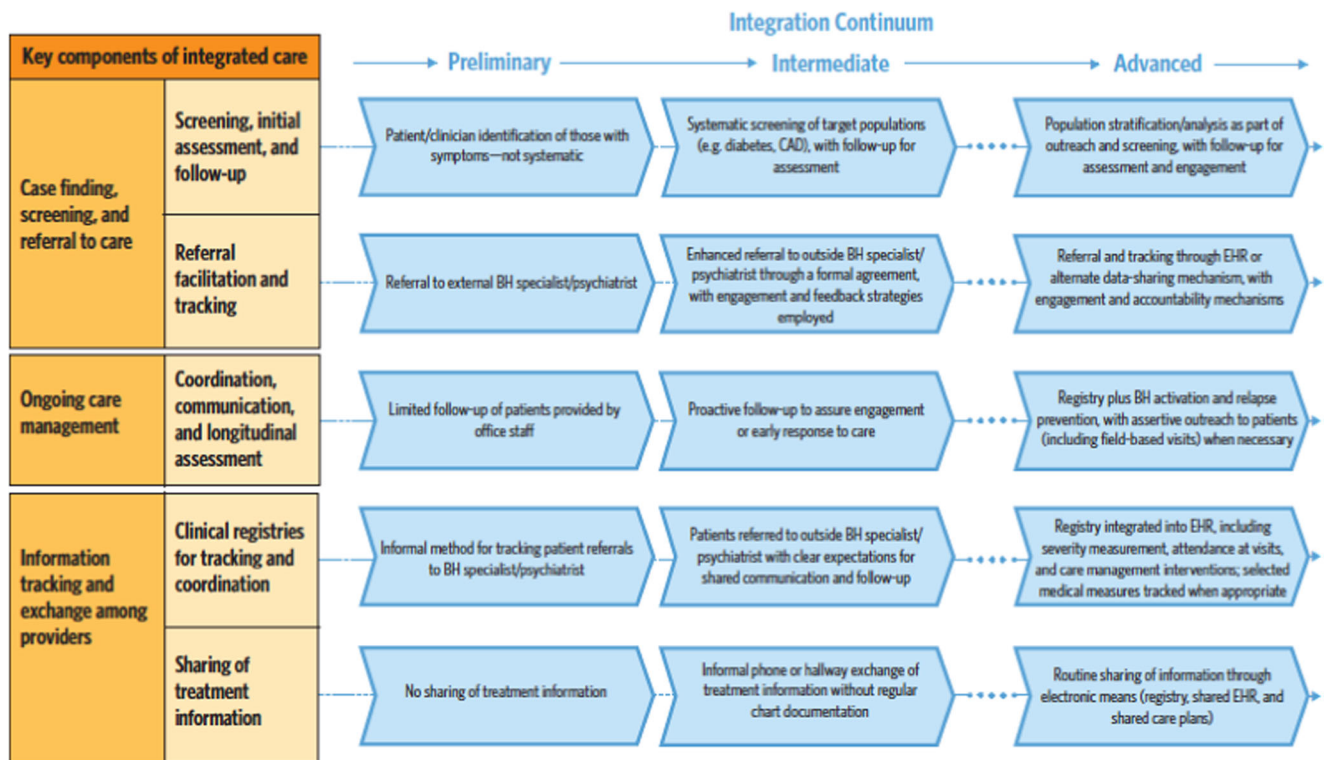


Fig. 1 Continuum based framework for integrated care. The figure shows three of the eight domains of the framework; the other five being multidisciplinary professional team working, systematic quality improvement, measurement-based, stepped care, culturally adapted self-management support, and linkage with community and social services.

Abbreviations: BH, behavioral health; CAD, coronary artery disease; EHR, electronic health record. Adapted from Chapman E, Chung H, and Pincus HA using a continuum-based framework for behavioral health integration into primary care in New York State. *Psychiatr Serv.* 2017;68:756–8

based on practice context, workforce capacity, training, reimbursement, and organizational culture change [101••] to enable more widespread integration at scale.

Technology must also play a key role in fostering an environment that supports integrated care moving forward. One potential application of advanced technologies would be in rural and socially deprived areas where efforts to implement collaborative working practices are often hampered by a lack of both primary care and behavioral health specialists [102]. Telemedicine, along with incentives to recruit and retain providers, could be a means to address these workforce challenges [103]. New health information technology (IT) strategies must also be employed to support continuous and coordinated care and monitoring and to identify patients whose care should be escalated or modified for improved outcomes. Integrated electronic health records (EHR), in particular, have the potential to expand patient care beyond the traditional primary care setting by integrating medical and behavioral health information streams with telehealth, social services, prisons, and schools, for example. They offer great potential in linking community networks and primary health practices to develop integrated care as a continuum of prevention, intervention, treatment, and support [91]. With the adoption of new health IT tools, specifically EHR, the volume of clinical data made available electronically will also increase substantially. There are clear opportunities to make best use of this "big data" by using analytics (e.g., on readmissions, decompensation, and treatment optimization) to identify and manage high-risk and high-costs patients [104], but only in the context of clearly understanding the data-generating and analysis processes driving its use [105].

Conclusion

This is a time of great transition in health care and meeting the needs of this complex high-risk, high-cost patient population requires system-wide changes in both policy and practice. Targets of interest for integrated care have become broader and more comprehensive than the original CCM and SBIRT models. These models have now been adopted for a range of populations within primary care settings, targeting individuals living with chronic medical conditions and mental illness, including serious mental illness (SMI). Attention has also been paid to changing needs across the life cycle with maternal, child and adolescent, young adult, and older adult health becoming targets for more coordinated approaches to care. Evidence and experience in implementation are evolving beyond the clinical context because social determinants such as education, housing, and employment play a critical role in health and health care outcomes.

The future of integrated care rests upon the ability to apply new approaches and technologies. In particular, consideration

must be given to the need for flexibility and innovation around implementation. Integrated care must start early in the life course and should be expanded and applied across the different settings of primary care (e.g., schools, workplace, home-based care). Importantly, policy and funding approaches must match these opportunities afforded by innovations in health workforce planning and technology for scaled-up implementation. Any advanced integrated payment model needs to be linked to a system of care delivery that can support high value care in an efficient manner—this requires the creation of organizational structures and adequate availability of workforce, as well as processes to facilitate referral and utilization management at the interface of behavioral and general medical care. In addition, new structure, process, and outcomes measures that reflect these new integrated models and prioritize consumers' experience will be required to support new payment models, and to ensure that future evolutions of healthcare delivery are informed by a meaningful and balanced evidence base. This requires substantial investments by providers in data collection and health information technology capabilities to manage patient data necessary for quality and efficiency measurement and reporting.

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Compliance with Ethical Standards

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