The Future of Nursing 2020-2030: Global Applications to Advance Health Equity

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Editors
Susan Hassmiller
Sulu Coaching (formerly Robert Wood Johnson Foundation)
Cary, NC, USA

Kenya Beard
Dean and Chief Academic Officer School of Nursing
Mercy College
Dobbs Ferry, NY, USA

Ashley Darcy Mahoney
Professor and Neonatal Nurse Practitioner
The George Washington University School of Nursing
Washington DC, WA, USA

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Foreword

We claim nurses are everywhere but how can we be sure they are making the impact we need for everyone, to promote health, prevent illness, respond in emergencies, and deliver care to the ill, disabled, and dying? To achieve a culture of health for all?

The declaration of health as a human right is three quarters of a century old [1]. The World Health Organization, a specialized agency of the United Nations, in 1946, committed to a definition of health and principles of a human rights-based framework in its Constitution preamble that asserts every human being should enjoy the highest attainable standard of health void of any discrimination of race, religion, political belief, economic or social condition (WHO Constitution preamble) [2–4].

One of the biggest steps forward in advancing this human right came in 1948 with the adoption by the United Nations' General Assembly of the Universal Declaration of Human Rights (claimed to be the most translated document in the world) with 48 affirmative votes and 8 abstentions [2]. Then, in 1966, the UN General Assembly adopted the International Covenant on Economic, Social and Cultural Rights which stated in Article 12, "The States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health [5]." The Covenant, which required 10 years to be in force, and another 11 years to reach ratification by 157 states, further expands the understanding about the right to health as one that is an inclusive right with underlying determinants such as safe drinking water and food, sanitation, adequate nutrition, housing, healthy working environments, health-related education and gender equality as well as freedom from coercion for unwanted care, entitlement to prevention and treatment of conditions including medicines, and equal access to good quality basic health services, including maternal, child, and reproductive health, all free of discrimination. Unfortunately, we fall far short in some countries or communities so these rights are only a dream and not reality.

The Future of Nursing 2020–2030; Achieving a Path to Health Equity (NAM 2021) made evident, the unparalleled opportunity for nurses to lead change and advance health, in a sequel to the 2011 Future of Nursing report [6], by taking action to address the social determinants of health and counteract the forces making health equity elusive. Focusing on the future requires us to confront the flaws of the past, most notably the generations of inequity perpetuated by systemic racism and bias. Nurses were never blind to the health and social challenges of the poor, rather they were poorly positioned to influence the power dynamic that could halt the continued

practices that disadvantaged people who were already suffering from social and economic deprivation.

Advancing the profession by building capacity, raising the level of education and expertise, and increasing influence through advocacy efforts have situated nurses to exert more power and deliver on the commitment to improve health outcomes through a fair, just, and equitable public health and care system. These positive accomplishments were in motion long before the catastrophic events of 2020 when COVID-19 put its deathly grip on the world disproportionally taking the lives of people of color, exposing the greater vulnerability of those who had historically experienced health inequities. At the same time, violent deaths of people of color at the hands of law enforcement individuals unmasked widespread racial injustice and triggered worldwide outrage that would no longer be silenced. The convergence of these two phenomena succeeded in rupturing the complacency of the masses who had been complicit in accepting systemic racism in nursing, health care, and society writ large.

The recommendations of the 2020–2030 report serve as catalysts for action. The timeline for these actions also coincides with the due date for the United Nations' Sustainable Development Goals. Goal #3, *Ensure healthy lives and promote well-being for all at all ages*, focuses on preventing premature deaths and diseases that erode health as well as ending epidemics of communicable diseases. Achieving this goal is linked to pursuing universal health coverage (UHC), or ensuring that people receive the care they need, have access to quality services that include prevention and treatment across the lifespan, and guard against financial hardship from receiving healthcare services. The current state of the world is that half the people do not receive the health services they need, the pandemic has stalled progress toward UHC, there are 5 million excess deaths due to poor quality care, and 100 million people are pushed into extreme poverty due to medical expenses (Kruk; WHO) [7, 8]. There are new and persistent humanitarian crises, more people are suffering from poor mental health, many preventable noncommunicable diseases cause more than two thirds of deaths, gender alone predisposes individuals to violence or lack of care, and socioeconomic shifts may put new groups at risk such as increased aging populations.

The enormity of these challenges calls for an oversized response. Nurses, who comprise 59% of the world's healthcare workforce, are an obvious solution, but cannot be expected to take up the mantle on these issues without greater support across all domains of nursing to advance health equity. The world is already facing a shortage of six million nurses, primarily in low and low to middle income countries. Given the attrition from the workforce during the pandemic, and continued lack of investment, the projected shortfall could double. The needed support includes investment in jobs, leadership, education, and protection of nurses' well-being as stressed in the WHO Global Strategic Directions for Nursing Midwifery 2021–2025 report [9].

In the pages that follow, you will see the vision to advance health equity unfold. As is often true, we know *what* must be done, but we may lack the will to act or the information or resources about *how* it should be done. The path to achieve health

equity, laid out in the recommendations to achieve the 2030 goals, demands that nurses be a social, economic, and political force. Multiple actors in all sectors—clinicians, educators, scientists, leaders, associations, accreditors, regulators, employers, policy makers, and governments—are needed to step up and support nurses as key partners for improving health outcomes.

Nurses have already been stepping up. US nurses care for many marginalized populations such as the homeless, individuals with substance use disorders discouraged from seeking care by stigma and discrimination, and the poor who are uninsured and do not know how to access community resources. Nurses in South Africa take a train into rural disadvantaged communities to perform vision screenings and primary preventive screenings. Nurses in Australia board bush plains to bring mental health services to remote communities. Public health nurses in India use a digital platform to collect data and bring prevention, screening, and treatment for noncommunicable diseases (hypertension, diabetes, and breast, cervical, and oral cancers) to underserved communities. Nurses everywhere muster forces to vaccinate children and adults and overcome vaccine inequities. There is no limit to nurses' creativity and problem solving to provide care wherever it is needed. These are but a few examples, but they give hope to a future that realizes nurses are the center of a web of solutions [10]. Imagine the breadth and depth we can reach when nurses and the profession are supported to transform health care and eliminate disparities.

While the recommendations to achieve health equity were framed in the context of the US healthcare system, we live in a global society where both the enabling and restraining forces affecting health are universal. Racism and discrimination hold all of us back and demand multisectoral action in doses appropriate for each nation. Ensuring support to diversify the nursing workforce, transform education to address social determinants of health, remove barriers to full practice, assure the health and well-being of nurses, and enhance the understanding of the economic value of nurses to enact reforms that support greater delivery of nursing care is work we all must do. With an eye to the future, there is urgency to minimize the threats of natural and man-made emergencies, utilize technological advances to address population needs, build the evidence base, and work with communities to implement practice models that advance health equity.

Developing an equity mindset and taking action to achieve health for all is an agenda for hope. It is also an agenda that calls for courage to resist political push back to embracing equity, diversity, and inclusion, and insist that our healthcare organizations and leaders affirm a right to health equity and commit to eliminating practices that perpetuate racism or discrimination. Without question, there are headwinds but by using our collective strength we can try to defy gravity that has restrained our efforts to elevate health for all. Read on for lessons that inspire, inform, and invoke the passion, innovation, and strength we know are hallmarks of nursing.

International Council of Nurses
Geneva, Switzerland

Pamela F. Cipriano

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The WHO recommended citations start with the title of the document, and not WHO so they may seem out of order.

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Contents

Introduction: The Goal for 2030—Health Equity for All

Susan Hassmiller, Ashley Darcy Mahoney, and Kenya Beard

The unrelenting COVID-19 pandemic exacerbated long-existing health disparities both within countries and between wealthier and lower-income nations. The disease disproportionately affect the poor and vulnerable, who are less able to recover economically, get vaccinated, and face increasing learning and wealth gaps. The pandemic caused extreme poverty to increase for the first time in more than 20 years, resulting in 100 million more people living on less than $2 a day, according to the World Bank [1]. In fact, the International Council of Nurses notes in a recent report that the United Nation's Sustainable Development Goals to promote long-term well-being and survival are unlikely to be achieved by 2030 unless world leaders make a renewed commitment and action to "ensure that no one is left behind" [2]. Oxfam International cautions that as wealthier nations recover from the pandemic, "the biggest rise in inequality since records began" could materialize [3].

It does not have to be this way. World leaders can change this trajectory by prioritizing health equity, defined as giving everyone a fair and just opportunity to be as healthy as possible. Health equity requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe

S. Hassmiller
Robert Wood Johnson Foundation, Princeton, NJ, USA

A. Darcy Mahoney (✉)
The George Washington University School of Nursing, Washington, DC, USA
e-mail: adarcymahoney@gwu.edu

K. Beard
Chief Academic Officer and Inaugural Dean, Mercy College, Broadway, NY, USA
e-mail: kbeard@mercy.edu

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environments, and health care [4]. Prioritizing health equity will take unprecedented collaboration and the formation of multisector partnerships from stakeholders both within and outside of healthcare, including the nursing field. The nursing profession is perfectly positioned to take leading roles in addressing the root causes of poor health, reducing health disparities, and improving the health and well-being of people throughout the world. As the largest and most trusted group of health professionals providing critical care around the world, nurses are everywhere people are, and they have a grounding in the root causes of poor health [5]. They work at all levels and across all settings to provide primary care, coordinate care, manage chronic conditions, offer vaccinations, and promote health for individuals, families, and communities. In many places throughout the world, they are the only health provider available. In fact, nurses in general deliver 80–90% of healthcare worldwide [6]. Achieving universal health coverage, one of the World Health Organization's Triple Billion Targets, is contingent upon a sufficient number of highly-qualified nurses who can provide primary care [7].

Nursing leaders throughout the world understand the potential for the field to advance health equity. The International Council of Nurses' *Nurses: A Voice to Lead Invest in Nursing and Respect Rights to Secure Global Health* [2], the World Health Organization's *Global Strategic Directions for Nursing and Midwifery 2021–2025* [8], and the National Academy of Medicine (NAM) report, *The Future of Nursing 2020–2030: Charting a Path to Achieve Health Equity* [9], call for systemic changes and clear policies to unleash the potential for the nursing profession to improve people's lives. All three sentinel reports lay out comprehensive strategies to enable the nursing workforce to advance the common good.

While *The Future of Nursing 2020–2030: Charting a Path to Achieve Health Equity* focuses on the United States, we believe that many of the report's recommendations are applicable worldwide. Consequently, this book is intended for nursing leaders throughout the globe who are interested in applying the concepts and recommendations of *The Future of Nursing 2020–2030: Charting a Path to Achieve Health Equity*. Nurses throughout the world can adapt the recommendations to the specific needs within their country to address the root causes of poor health, reduce health disparities, and improve health and well-being.

1 The Priority Areas to Achieve Health Equity

The Future of Nursing 2020–2030: Charting a Path to Achieve Health Equity recommends that the systems that educate, pay, and employ nurses: (1) permanently remove barriers to care; (2) value their contributions; (3) prepare nurses to tackle health equity; and (4) diversify the workforce. The report emphasizes that nurse well-being is crucial to advancing the recommendations. Each of these areas will be discussed below, along with an explanation of how prioritizing these areas will improve health throughout the world.

2 Permanently Remove Barriers to Care

Far too many people throughout the world do not have universal health coverage and cannot see a health provider when they need one. Timely access to healthcare is inhibited because people cannot afford it; there is a lack of providers and services in rural and underserved areas; there is a lack of health literacy; and in some countries, a fundamental mistrust of the healthcare system and providers. Delays in seeking care can cause people to experience worse symptoms and to be substantially sicker when they do see a provider [10]. Nurses can be utilized to expand healthcare access. In the United States, for example, the nurse practitioner field is growing significantly, while the number of physicians entering primary care has remained stagnant [11, 12]. Numerous studies show that nurse practitioners provide equivalent care to physicians for common ailments [13, 14]. They are less expensive to employ than physicians and more likely to care for marginalized populations, particularly in rural areas [15].

Yet, state and federal laws, institutional barriers, and restrictive health system policies prohibit nurses—including registered nurses and licensed practical nurses—from working to the full extent of their education and training and expanding access to care [9]. Nor is scope of practice restrictions limited to the United States. Nearly 80% of nurses say that they are overqualified for the roles they are performing, according to the Organization for Economic Cooperation and Development [16]. The International Council of Nurses notes that there will be an increased return on investment by utilizing nurses to work to the full scope of their practice [2]. All three reports call for nurses to be able to practice to the fullest extent of their education and training. The Future of Nursing report recommends that all public and private organizations remove regulatory and payment limitations, as well as restrictive policies and practices. Examples of restrictive policies and practices include restrictions on providing telehealth services and workplace policies that inhibit nurses from providing care. Enabling nurses to practice to the full extent of their education and training is crucial to removing preventable gaps in access to care and will further the World Health Organization's goals of one billion more people benefiting from universal health coverage by 2030; one billion more people enjoying better health and well-being; and one billion more people better protected through improved emergency preparedness and response [7].

3 Value Nurses' Contributions

Nurses can advance health equity through their roles in care management and team-based care; preventative care; public health and school nursing; and providing telehealth services. School nurses, for example, are a lifeline in the United States for 56 million students, particularly children from low-income families. About one-third of student health visits to school nurses were related to mental health before the pandemic, a need that has expanded significantly. Students of color face more

barriers to accessing mental health treatment than others, and structural racism can exacerbate these conditions [17]. However, 25% of schools in the United States do not employ a school nurse, and 35% of schools only employ one part-time [18]. The United States government has also underfunded the public health system for over a decade, which has undermined the ability of public health professionals to respond to the pandemic as effectively as possible [19]. The NAM report calls for federal and state governments to ensure sufficient funding for school and public health nursing, including paying public health nurses competitive wages compared with similar nursing positions in other healthcare organizations and sectors.

Beyond adequately funding public health and school nursing, the NAM report calls for payment systems to support nurses in addressing social needs, the social determinants of health, and health equity. The U.S. payment systems often reimburse physicians' services and include the services of nurses and other team-based care providers under generic facility charges. Nurses, with financial support, can significantly expand efforts to advance health equity through their roles in preventative care; public health and school nursing; care management and team-based care; and by offering telehealth services.

The International Council of Nurses Chief Executive Officer Howard Catton has noted the importance of valuing nurses: "We can no longer afford to undervalue and underfund the nursing profession, not only for the sake of nurses, but for the protection and sustainability of our entire global health system" [2]. ICN says that many countries' pay rates for nurses have either remained flat or decreased in real terms [20]. The organization calls on governments to "incentivize the attractiveness of nursing as a career option" [2].

4 Prepare Nurses to Tackle Health Equity

Nurses entering the field must be prepared to advance health equity and improve the health and well-being of everyone. Nurses throughout the world will need to understand and identify the social determinants of health, effectively care for an aging and more diverse population, engage in new professional roles, use new technology, collaborate with other sectors to address the root causes of poor health and adapt to a changing policy environment. Broad and deep collaboration with multisector partners, including groups focused on housing, transportation, social isolation, climate change, and food insecurity, will be critical during the next decade. Yet, a current and impending nursing shortage of up to 13 million nurses worldwide (including 4.7 million nurses retiring from the profession in the next 10 years and 2.5 million nurses leaving the profession as a result of the COVID pandemic) will make educating and retaining the next generation critical [21]. The departure of experienced nursing faculty from the workforce will result in an unprecedented knowledge gap [22]. All three reports stress the importance of nursing education, with both the International Council of Nurses and the World Health Organization calling for an investment in nursing education to meet the health needs of populations.

The NAM report recommends that schools of nursing revamp the curricula to integrate content related to the social determinants of health, health inequities, and population health. Content and competencies should be integrated throughout coursework, and schools should expand community learning opportunities. Schools should offer clinical education experiences that offer direct engagement with individuals and families from diverse backgrounds, as well as communities affected by the social determinants of health [9]. These learning experiences can take place in schools, workplaces, home health care, federally qualified health centers, public health clinics, homeless shelters, prisons, public housing sites, public libraries, residential addiction programs, and telework settings. These student experiences should offer opportunities for meaningful engagement with other health and non-health professionals to address the social determinants of health. These clinical experiences can build a strong foundation in health equity, teach students how to care for diverse populations with compassion, and allow them to build the requisite competencies and skills to achieve health equity [23]. The NAM report also recommends increasing the number of nurses with doctoral degrees to teach the next generation of nurses and to build the evidence base around the connection between the social determinants of health, health equity, and overall well-being.

The NAM report recommends that nursing schools and employers expand disaster preparedness educational and training opportunities for nurses in all sectors and at all levels, with particular attention to vulnerable populations. Disasters and other public health emergencies are more likely to impact people of color, those with low incomes, those experiencing housing insecurity, and those with limited access to health care and transportation [24]. The ICN report notes that nurses provide the bulk of humanitarian aid in crises worldwide and states that a record number of people in 2022 will require humanitarian aid due to forced displacement, famine, the concentration of vaccine inequity, an increase in conflict and violence, and the growing intersection between climate, hunger, and conflict [2, 25]. As noted above, the World Health Organization has a target of one billion more people being better protected from health emergencies by 2030 [7]. Advancing the NAM recommendations could help to further the World Health Organization's goal.

5 Diversify the Profession

Developing a more diverse nursing workforce in the United States is necessary to achieve health equity. The NAM report urges the nursing profession to dismantle systemic racism and bias within nursing education and practice and to prioritize diversity and cultural humility, defined as a lifelong approach to learning about diversity, and recognition of the role of individual bias and systemic power in healthcare interactions [26].

The nursing profession must identify and address structural racism and systemic barriers within the field that contribute to the profession remaining mostly white and female. Despite calls to improve diversity, the nursing field remains roughly 80% white, even though white people make up 60% of the U.S. population. The gap widens

for nurses in academic and practice leadership positions. The American Association of Colleges of Nursing determined in early 2021 that roughly 10% of nursing faculty and 4% of deans were people of color. The American Organization of Nurse Leaders stated that under 10% of chief nursing officers were people of color [27].

The U.S. National Commission to Address Racism in Nursing released the results in January 2022 from a survey of over 5600 nurses showing that racism is a substantial problem within the profession. Sixty-three percent of nurses surveyed said that they have personally experienced an act of racism in the workplace, with the perpetrator being a peer (66%), patients (63%), or manager or supervisor (60%). Over half of the nurses said that racism in the workplace affected their professional well-being [28].

The nursing profession as a whole should undertake meaningful and sustained efforts to ensure that nursing students and faculty reflect the diversity of the population that everyone feels included and welcome and that barriers of structural racism are removed from nursing education, including in the curricula, institutional policies and structures, and the formal and informal distribution of resources and power [29]. Nurses in all practice settings must be able to connect and communicate effectively with people of different backgrounds and be aware of how their own biases affect the care they provide.

Diversifying and strengthening the student body—and eventually the nursing workforce—requires cultivating an inclusive environment; recruiting and admitting a diverse group of students using holistic admissions that evaluate applicants on their academics, experiences, attributes, potential contributions, and the fit between the applicant and the institutional mission; and providing students with support and addressing barriers to their success throughout their academic career and into practice. Schools should offer economic, social and emotional, and academic and career progression supports. Workplaces should similarly recruit, retain, mentor, and promote nurses from underrepresented backgrounds.

The NAM report offers several recommendations to diversify the profession. They include: (1) identifying and eliminating policies, procedures, curricular content, and clinical experiences that perpetuate structural racism and discrimination among faculty, staff, and students; (2) increasing academic progression for geographically and socioeconomically disadvantaged students through academic partnerships that include community and tribal colleges located in underserved areas; and (3) recruiting diverse faculty with expertise in health equity and using evidence-based training to develop the health equity skills of faculty.

Nursing leaders throughout the world could adapt these recommendations to ensure that their workforce reflects the population and that all nurses can provide culturally relevant care.

6 Fully Support Nurses

The past two-and-a-half years of the COVID pandemic have devastated the nursing profession throughout the world. The World Health Organization estimated that 180,000 healthcare workers have died from the virus—a figure considered

conservative [8]. Many nurses throughout the world have been without personal protective equipment, vaccine access, and the support to perform their work in a safe and healthy environment. Nurses are 16 times more likely to experience violence in the workplace compared with other service workers. Nurses are overwhelmed, burned out, and facing moral injury. They have been forced to make complicated decisions over an extended period and are experiencing high levels of exposure to acute psychologically traumatic events [9]. A recent study in the U.S. found that the total supply of registered nurses decreased by more than 100,000 in 2021—an unprecedented drop. Nurses left the workforce due to early retirements, pandemic burnout and frustration, interrupted work patterns from family needs such as childcare and elder care, COVID-19 infection and related staffing shortages, and other disruptions throughout healthcare delivery organizations [30]. Patients suffer when nurses are unwell. Nurses who experience poor physical and mental health are more likely to make medical errors, which harms patients [31]. Nurses cannot realize their potential to advance health equity unless policies are implemented that prioritize the safety and well-being of nurses.

All three reports underscore the need to fully support nurses. The NAM report states the need to address the systems, structures, and policies that result in workplace hazards and stresses that lead to poor nurse well-being. It includes a number of recommendations directed at improving nurse well-being. The main one is that nursing education programs, employers, nursing leaders, licensing boards, and nursing organizations should initiate the implementation of structures, systems, and evidence-based interventions to promote nurses' health and well-being, especially as they take on new roles to advance health equity. Examples could include requiring employers to realign their budgets to improve nurse well-being and redesigning work so that nurses are supported with sufficient staffing levels, appropriate workloads, job control, a healthy physical environment, and peer and mental health support services. Healthcare organizations could limit staff time on site or specific shifts to keep nurses from being overworked. They can reach out to their nursing staff directly for feedback and recommendations about the types of resources and structures that they may find most helpful in promoting their well-being.

7 Joining the Movement to Achieve Health Equity

The pandemic has shone a spotlight on widespread and unacceptable, long-existing inequities in healthcare. The status quo cannot continue, and the nursing profession should do its part to address inequities in healthcare and outcomes. *Global Application to Advance the Future of Nursing: Charting a Path to Achieve Health Equity* provides program and policy recommendations intended to empower nurses throughout the world to understand and act to achieve health equity. The pages that follow provide readers with an opportunity to clearly see the need for an equitable, just, and fair society—one that promotes racial equity as well as equity across circumstances, communities, and abilities. The tools, tips, exemplars, and storytelling that follow for each of the key recommendation areas are intended to inspire nurses at all levels and from every country in the world to get involved in achieving health

equity. As a strong and capable profession, nurses must step up now to address the world's greatest healthcare inequities. Indeed, there has never been a more urgent call to action.

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Nursing's Role in Advancing Health Equity

Lorretta Lee, Dalmacio Dennis Flores, Katherine Tucker, C. Ann Gakumo, and Martha A. Dawson

Future of Nursing 2020–2030: Recommendation 2

By 2023, state and federal government agencies, healthcare and public health organizations, payers, and foundations should initiate substantive actions to enable the nursing workforce to address social determinants of health and health equity more comprehensively, regardless of practice setting.

1 Introduction

Health equity means everyone has a fair and just opportunity to be as healthy as possible, regardless of race, ethnicity, gender, sexual orientation, or physical location [1, 2]. For many people across the globe, the opportunity to achieve a high level

L. Lee · M. A. Dawson (✉)
Family, Community and Health Systems Department, University of Alabama at Birmingham School of Nursing, Birmingham, AL, USA
e-mail: llee@uab.edu; madawson@uab.edu

D. D. Flores
Family and Community Health Department, University of Pennsylvania, Philadelphia, PA, USA
e-mail: dalmacio@nursing.upenn.edu

K. Tucker
Heart and Vascular Center, Yale New Haven Health, New Haven, CT, USA
e-mail: Katherine.Tucker@ynhh.org

C. A. Gakumo
University of Cincinnati School of Nursing, Cincinnati, OH, USA
e-mail: gakumoa@ucmail.uc.edu

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of health has been an unattainable goal at an unaffordable price. As a result, healthcare disparities continue to inflict devastation on populations across communities from the poorest to the wealthiest nations. Too often, factors such as social determinants of health (SDOH) informed by structural determinants of health can challenge the ideals of health equity.

SDOH are "nonmedical factors influencing health, including health-related knowledge, attitudes, beliefs, or behaviors" and contribute to economic instability, poor education, lack of access to quality healthcare, under-resourced neighborhoods, and environmental injustices ([2], p. 32). Structural racism contributes to SDOH in racially marginalized communities and leads to healthcare disparities among minority populations. The vision for 2030 is to achieve health equity, a challenging task. Affirming the right to health equity will require actions by stakeholders internal and external to healthcare systems and an agenda that unmasks structural racism as a barrier to health equity.

2 Inequities

Although the Patient Protection and Affordable Care Act helped many Americans gain insurance coverage and increase access to health care, the COVID-19 pandemic illuminated the impact of social, structural, and political determinants of health that produce healthcare disparities [3]. While the proportion of Americans who received the COVID-19 vaccine was significant, a sizable number of underserved Americans did not, due to inadequate access to health care, SDOH, and the lack of vaccine confidence related to perceived racist health policies and mistrust of healthcare providers [4]. While healthcare disparities exist for numerous chronic diseases, the COVID-19 pandemic provides a glaring example of the devastating effect of healthcare disparities among minority populations [3].

Diabetes mellitus is consistently one of the most common comorbidities in patients with COVID-19 [3]. During the peak of the COVID-19 pandemic, non-Hispanic blacks accounted for 52% of those infected and 58% of the deaths associated with the virus [3]. In 2020, the Centers for Disease Control and Prevention reported that diabetes prevalence in non-Hispanic blacks was nearly 16.4% compared with 11.9% for non-Hispanic Whites. Also, diabetes prevalence was higher in men than in women across all races in the US [5]. The gap in diabetes prevalence between minority and majority populations has not lessened significantly over the last 8 years. If this disparate trend continues, particularly for non-Hispanic Black men, by 2050, people with diabetes and its related complications will constitute the sickest population [6, 7]. Despite the volume of evidence for healthcare disparities, health systems continue to focus on downstream issues rather than the SDOH and structural racism [8].

Diabetes is a chronic disease that lifestyle changes can manage. However, in many racially marginalized communities, it is difficult to find fresh fruit and vegetables and clean air that supports a healthy exercise regimen. Some Native Americans live in housing with no or incomplete plumbing [8, 9]. According to Pindus et al.

[9], 10% of tribal area households had plumbing and kitchen deficiencies; "another 13.0% that did not have plumbing/kitchen had some mix of heating, electrical, and condition problems" ([9], p. 67). Basic practices such as handwashing and having means for safe storage and preparation of food are foundational to disease prevention and improved health outcomes.

3 Nursing and the Future

National nursing organizations should develop a shared agenda for addressing SDOH, eliminating structural racism, and achieving health equity. This agenda should include explicit priorities across nursing practice, education, research, leadership, and health policy engagement [2]. Using an antiracism lens, nurses could make a significant difference in advancing health equity for all populations.

4 Strengthening Diversity in Nursing

Diversifying the workforce is a critical way to advance health equity. Diversity initiatives, although successful in some ways, have not significantly increased the number of Black and Brown nurses. Whether programs lack sustainability when funding ends or pipeline programs bring students in, only to have students depart due to attrition, innovative recruitment and retention efforts are still needed. One of the authors, a chief nursing officer (CNO) and faculty member designed a novel program that has strengthened the racial diversity of the profession. The program, The Black Nurse Recruitment Pledge, requires each nurse who is Black to commit to recruiting, mentoring, and supporting at least one nurse who also identifies as Black, until they graduate. The Black Nurse Recruitment pledge is a model that has increased diversity exponentially and provides an illustration of an effective way to recruit and retain minority nursing students.

5 Antiracism Efforts in Nursing: A Health Equity Imperative

Based on a national Gallup poll released in January 2022, nursing was rated the most trusted profession for the 20th year in a row [10]. Approximately 2 weeks later, the National Commission to Address Racism in Nursing, launched by leading professional nursing organizations across the United States, released their findings from a landmark national study indicating widespread racism within the profession [11]. The Commission defines racism as "assaults on the human spirit in the form of actions, biases, prejudices, and an ideology of superiority based on race that persistently causes moral suffering and physical harm of individuals and perpetuate systemic injustices and inequities" ([10], p. 6). To maintain societal trust in an increasingly racially and ethnically diverse society, the nursing profession must

assert its commitment to identifying, dismantling, and transforming policies and practices that have perpetuated healthcare inequities, especially for communities of color. This work requires leveraging combined, large-scale efforts across sectors toward achieving action-oriented goals in the nursing profession and with patients and communities serving as a driving force.

When discussing efforts to identify and eliminate racism in nursing, the focus must address structural, systemic, and interpersonal racism to get to the origins of interconnected systems that work together to foster and reinforce inequities. Indeed, structural racism and ideologies can be so deeply embedded in institutional policies that they could persist in the absence of interpersonal racism [10]. In an integrative review of institutional racism, Thurman and colleagues [12], indicated that of published articles specifically addressing racism in nursing peer-reviewed journals, less than 10% identified structural/systemic or institutional racism by name or listed it as a secondary concept; scholars instead relied on individual-level solutions for addressing larger and more complex structural racial issues [12]. Scally and colleagues [13] challenge those who lead in this area and pose that explicitly acknowledging racism and racial inequity is essential to identifying root causes and driving change on a structural level [13]. Of all the health professions, nurses are in the best position to lead and influence the essential changes due to their direct contact with patients, families, and colleagues. In addition, nurses are the largest healthcare workforce in the US and work in all practice sites and specialties. Currently, it is estimated that the US has 4.3–5.3 million licensed registered nurses, outnumbering licensed physicians by 4–1 [14, 15].

In 2022, the American Nurses Association (ANA), the largest professional nursing organization representing the interests of all registered nurses in the US, issued a statement apologizing to nurses of color and ethnic minority nursing organizations for the organization's role in contributing to systemic racism [16]. Furthermore, the ANA outlined actionable steps moving forward to hold itself accountable in what they refer to as their "Journey of Racial Reconciliation." These actions include advocating for established guidelines on reporting race and ethnicity in professional journals and publications and supporting appropriate representation and inclusion in textbooks and other educational material, among other actions. However, more professional nursing organizations must follow suit, moving beyond diversity, equity, and inclusion statements that lack concrete antiracism efforts and measurable outcomes [16]. Many academic and practice environments are responding to this call to action by recruiting, hiring and/or appointing diversity, equity, and inclusion (DEI) officers [17].

Advancing health equity includes establishing equitable work environments. Nurse leaders must work and commit to creating work environments where equity in recruitment, pay, and promotion serve as the norm. Leaders must also allow nurses to have a voice, even if they agree to disagree. Examples of building an inclusive workplace include involving staff in resource allocation discussions, including staffing, pay and compensations, and review of hiring practices. Possibly one of the most challenging leadership changes that are needed includes the leader's ability to self-evaluate their level of honesty, fairness, and openness to change and

commitment to building better bi-directional relationships between the top and bottom layers of their leadership teams and staff. Practice and education leaders cannot resolve injustices by appointing DEI officers. Diversity issues are c-suite issues that call for c-suite-level changes. DEI officers must have the independence and power to make changes, even when necessary changes are painful and uncomfortable [17].

6 Unhealthy Work Environment

Beyond the hospital safety climate, emphasis must also be placed on bolstering the nurse work environment to address health equity for all patients fully [18, 19]. Before the COVID-19 pandemic, a meta-analysis revealed that better work environments are associated with lower odds of adverse nurse outcomes, poor safety or quality ratings, and adverse patient outcomes [20]. A poor or undesirable work environment includes strong and pervasive feelings of burnout among many nurses. Burnout is the overwhelming exhaustion, cynicism, and low self-efficacy that result from occupational demands that outweigh resources [21]. Nurses who are burnt out feel less autonomy, have strained relationships at the workplace, and do not feel supported by management [20, 22–24]. Also, moral distress arises when nurses cannot perform in ways that align with standards of care due to system constraints or resource limitations [25]. Moral distress occurs when nurses are mandated to continue working in considerably under-resourced or dangerous conditions, placing staff and patients at risk. Also, increasing the patient-per-RN ratio is associated with nursing burnout, job dissatisfaction, and intent to leave. Similarly, adverse nurse schedules (e.g., working overtime, longer working hours) have been associated with adverse patient outcomes and working more than 12 h a day and more than 40 h a week had detrimental effects on patients' health. How these outcomes vary by nurses' race, ethnicity, and other demographic factors is not readily known, but it provides leaders and researchers with opportunities to correct these practice environment issues.

During the early part of the pandemic, nurses appeared to assume a higher level of risk than other health professionals. Race-based data revealed that non-white populations were disproportionally contacting and dying from COVID-19 [26]. Deaths in most states were greater for those who identified as Latino than the total population [26]. In addition, Black and brown nurses that comprise a minority percentage of the nursing population in the US, may have accounted for slightly higher workplace morbidity and mortality among healthcare workers. During the height of the pandemic, Asian Americans endured great incivility due to unfair labeling of COVID-19 as a "Chinese Virus" [26]. Carthon and colleagues [27] reported that Black registered nurses (RNs) had higher job dissatisfaction and intent to leave than their white counterparts [28]. Further, non-Hispanic black nurses had higher odds of being dissatisfied with job advancement opportunities. Nurses from minoritized groups, in addition to living with stressors external to their place of employment, are living with the impact of structural racism in the work environment. Intentional efforts must be made to examine institutional factors that contribute to job dissatisfaction and intent to leave, and the data should be disaggregated by race and ethnicity.

7 Best Practice

Nursing's recent spotlight on social justice has triggered multiple efforts to examine the ways that nursing can support all nurses. Exemplars of thorough and far-reaching nursing projects to advance health equity abound. At the national level, DEI efforts of varying foci have been noted. The National League for Nursing (NLN), whose mission is to promote excellence in nursing education, has amplified the need to diversify the nursing workforce and improve patient outcomes. In 2021, NLN released a living document to guide equitable access to COVID-19 vaccine distribution [4].

A groundbreaking report, Racism in Nursing, was released in 2022 at the behest of the American Nursing Association, the National Association of Hispanic Nurses, the National Black Nurses Association (NBNA), and the National Coalition of Ethnic Minority Nurse Associations [10]. The report provides a thorough account of the history of racism within nursing, covers the exclusion of Black and brown nurses in nursing's origin, and details the subsequent minoritization of RNs from diverse racial and ethnic groups in the US. From these leading minority organizations, there have also been focused calls for nursing to become more involved in policies that protect lives and the environment. For example, the NBNA conducts annual *awakening events* at Capitol Hill that inform congressional representatives and their staff about laws and regulations that impact underrepresented and underserved communities. For 35 years, NBNA's Health Policy Committee has organized its Capitol Day in Washington DC, and each year, a list of policy priorities is developed to address healthcare disparities and health equity. NBNA members receive a health policy toolkit, including a list of supporting resources. NBNA also has an active resolution committee that includes writing op-eds, supporting congressional laws, and advocating for health equity and community engagement [29].

Cognizant of policies that perpetuate power imbalances, NBNA leaders likewise advocate for a true awakening in the public policy realm and demand meaningful actions such as reallocating funds for research within Black communities, fixing problems that cause injustices, and holding individuals accountable for their actions [22]. Events such as the lead contamination in Flint, Michigan, poor plumbing infrastructure and water issues in rural Alabama and Mississippi, and senseless mass shootings/killings in schools and churches and unjust killings of Black individuals at the hands of police are examples that cause adverse health and trauma that require continuous nursing vigilance and involvement.

The National Association of Hispanic Nurses (NAHN) is at the forefront of eliminating barriers to healthcare and the root cause of healthcare disparities. NAHN and many other national nursing organizations, through networks and coalitions, are collaborating to update healthcare coverage for the medical treatment of chronic diseases that disproportionately harm communities of color. Their collective voices through the Health Equity Coalition for Chronic Disease and the Nurses Obesity Taskforce are producing a paradigm shift in addressing and treating obesity.

DEI activities that promote health equity extend beyond the clinical arena. Nursing schools have spearheaded DEI efforts to advance health equity. At a

top-tiered University School of Nursing, faculty and staff banded together to create a suite of initiatives ranging from awareness-raising podcasts to a health equity-guided checklist that embedded principles of social justice throughout the research life cycle [30]. Similarly, other universities and colleges have devoted resources to transforming their work environment into more inclusive workspaces.

University and college initiatives also include creating inaugural Associate Deans of DEI positions and the development of stakeholder counsels to focus solely on health equity through the lens of DEI. However, these new roles must come with the power to influence and measure change. Fields et al. discussed the scope of work for DEI practitioners and their leaders and underscored that they must be able to design policies and practices, interpret and conduct research, develop nursing curricula and address resource allocation [17]. These authors also suggested that leaders must evaluate the type and level of support this emerging role will need to become effective change agents. They noted that there are no quick fixes. DEI positions must be at the leadership level with allocated time to do the work, which could mean a reduction in teaching workload [17].

8 Race-Based Health Disparities

Race-Based Health Disparities continue to be a significant focus in healthcare delivery. Race is a socio-political system of categorization designed to devalue people of color without a biological basis [29]. There is a 0.1–0.5% variation between socially constructed racial groups and is the greatest between members of the same racial group [31]. Although widely debunked, race as a descriptive category continues to be present in medical and nursing curricula without clarifying that race is poorly associated with genetics [29, 32]. The use of race in medicine also positions non-Hispanic whites as the control group, reinforcing the notion of superiority in this group. The subgroups and variations within racial categories (black and white) are seldom accounted for when generalizing the research results. The race and ethnicity of an individual must clearly be understood concerning its impact on healthcare, not because of biology, but instead from its association with racism and the impact of social determinants [29, 32].

While some disease states may continue to be prevalent within racial groups, the association between race and various disease states demonstrates how race and genetics are often poorly correlated. The commonly used categories of race used by the US Census Bureau's Office of Management and Budget (OMB) have changed over time, along with the subgroups that fit into these categories [32]. It is poor practice to associate race, a socio-political construct, with genetic ancestry or to base clinical decision-making on generalizations about race [29].

There is a need to educate all healthcare disciplines on the impact that racism and SDOH have on the health of populations. In addition, evidence indicates that racial discrimination is a risk factor for disease and contributes to racial health disparities [29]. Implicit biases and care providers' attitudes during clinical care delivery and decision-making may also place patients at risk. Bias can lead to incorrect diagnosis

and treatments, poor health outcomes, and perpetuate healthcare disparities. The use of race to explain health differences is flawed and must be qualified from the lens of racism and its impact on individuals [22]. Social determinants of health, like the individual's place of residence, remain more powerful indicators associated with health than race [8, 33].

Many concepts have been applied to clinical care guidelines and are used in algorithms that inform artificial intelligence and the associated logic without being supported by evidence. Despite the lack of evidence, these concepts can be found to have been codified into clinical practice guidelines with widespread use in clinical decision-making. These concepts contribute to racial stereotypes and can lead to misdiagnosis and incorrect treatment, negatively impacting minoritized populations and perpetuating health disparities. One example is the use of the race multiplier in calculating the estimated glomerular filtration rate (eGFR) in non-Hispanic blacks with chronic kidney disease (CKD). This approach to eGFR calculation assigns a lower CKD stage for non-Hispanic blacks, which may delay dialysis. It may also impact the criteria for transplantation priority, further perpetuating health disparities for African Americans [34]. Transplantation listing and time affect the likelihood of kidney allocation [35]. If this race multiplier were not used in the assessment of CKD for African Americans, the eGFR would lead to a significantly greater number of African Americans being classified with more severe stages of CKD, resulting in more timely treatment [35].

9 Social Justice

Workforce diversification is critical for changing how healthcare is interpreted and how individuals interact with the systems where they receive healthcare and those who provide the care. Employers must hire leaders of color and diverse backgrounds and ensure they have a voice and seat at the tables where decisions will impact the who, what, when, where, why, and how of healthcare delivery and the associated resource allocation. Acknowledging that race is a social construct is paramount to changing how race is represented in education, research, clinical practice, clinical decision-making, and health-related artificial intelligence. This acknowledgment is important because it will shift the focus of the conversation from whether racism and its structural nature are real to developing antiracist praxis environments. Nursing and the approach to medical care should shift from race-based to race-conscious approaches in clinical care [36]. Future research should include further study on the impact of racism on the SDOH. Race-based tools should be recreated without the race category but with greater emphasis on the associated impact of racism.

Equity in the workplace means that every person has access to and receives the resources they need to perform their job and achieve professional growth and career progression. Equality and interactional justice address how leaders administer policies and laws that protect and treat employees and/students equally and fairly [37, 38]. For example, posting a position for 2 days when the decision has already been

made on who will be placed in the position or the preselected candidate is already hired, fails to meet the external legal requirements of the Equal Employment Opportunity Commission relative to a job posting. There are three types of organizational justice concepts that employees use to determine if the workplace is fair: (1) distributive justice focuses on the perceived fairness of distribution of recognition and resources, (2) procedural justice focuses on how processes and procedures are used to make resources and support allocation decisions, and (3) interactional justice focuses on decision-makers and leaders' behavior in making decisions [37]. Interactional justice infers that leaders' practice of fairness is examined and measured using the lens of both equity and equality. These two constructs are not the same. Organizational equality is a state of being treated equally in professional status, progression in one's career, promotional opportunities, salary, rights to share in all the benefits and be heard [37]. Kuh [38] and other non-nursing academicians have studied and written extensively about organizational theory in higher education providing nurses with another opportunity to gain experience from non-healthcare colleagues [38].

10 Recommendations

There are critical steps that nursing can take to advance health equity. Nurses should not use old models that lead to high costs in health care with little or no change in output to create healthy lives. Healthcare needs bold, transformative, and sustainable interventions that disrupt the status quo, and nurses can become leaders in this space. Below are three recommendations to move the profession forward.

1. Do more than review the FON 2020–2030 and the Commission to Address Racism in Nursing reports; use these groundbreaking reports to develop blueprints to assess, design, implement and evaluate nursing education, practice, research, and advocacy roles.
2. Leaders and nurses in the profession need to lead the charge for a more diverse and inclusive workforce by dismantling institutional and professional barriers addressing diversity, equity, equality, and inclusion.
3. When building coalitions to advance health equity, develop interprofessional research teams that focus on social justice, antiracist praxis, and political determinants of health across healthcare and educational settings.

Case Study
Improving Access and Quality of Mental Health Care for Racially Marginalized Individuals

The deep south is not immune to national mental healthcare challenges. A shortage of mental healthcare providers and cultural norms for many racially marginalized communities make access to quality mental health services

increasingly challenging. This case study illuminates challenges to advancing health equity.

Most of Alabama's 67 counties are situated in a designated healthcare provider shortage area, including mental healthcare. In 2021, almost one million adults in Alabama had mental health conditions, and more than half did not receive treatment due to a lack of access to care. Lack of access to care coupled with the stigma associated with mental healthcare can often end in little to no mental health treatment, particularly for African Americans. Sammie lives in rural Alabama, where mental health care is provided at one local health department. Sammie has a history of arrests for misdemeanors, often acts irrationally, and complains of abdominal pain. Sammie tells his mother that he often feels sad, and his girlfriend said that he is depressed. His mother states that "Black people do not have those problems." His dad says, "you just need to toughen up, boy, it's time to be a man." Twenty-three-year-old Sammie says, "okay," but it is not okay. Sammie is finally diagnosed with depression when he is 33 years old, after his second divorce and losing three jobs. Lack of access to mental healthcare and cultural norms can contribute to poor outcomes and protracted physical and behavioral health issues. Advanced Mental Health Nurse Practitioners given full practice authority could help to address and reverse the mental crisis in rural Alabama and other states.

Study Guide Questions

1. What assessment strategies should be used to determine resources needed in rural communities to address health inequities?
2. Identify two examples of how SDOH are influenced by political systems and describe how nurses could advocate for change in the above example?
3. What skills do nurses need to improve health equity and how can a diverse workforce help to achieve better health outcomes?
4. How can DEI leaders demonstrate the impact of their role to advance organizational justice?

11 Conclusion

The Institute for Healthcare Improvement framework, coupled with the Future of Nursing 2020–2030: Charting a Path to Achieve Health Equity Report were used to guide the development of this chapter. Actionable steps to improve health equity for racially marginalized groups were highlighted. The call to action along with examples is intended to move the profession forward in addressing upstream factors that influence health and health outcomes. Strategies to improve the health of all Americans were suggested and align with the FON 2020–2030 reports. It is recommended that the US and global health systems refocus attention and resources from an illness model of care to promotion, protection, and prevention across the life span for all people. This chapter provides intentional actionable strategies to dismantle structural injustices that translate to health inequities.

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Diversifying the Nursing Workforce

Sheldon D. Fields and Mitchell J. Wharton

Future of Nursing 2020–2030: Conclusion 3.1

A substantial increase in the number, types, and distribution of members of the nursing workforce and improvements in their knowledge and skills in addressing social determinants of health are essential in filling the gaps of care related to sociodemographic and population factors.

Future of Nursing 2020–2030: Recommendation 2.1

Rapidly increase both the number of nurses with expertise in health equity and the number of nurses in specialties with significant shortages, including public and community health, behavioral health, primary care, long-term care, geriatrics, school health, and maternal health.

1 Introduction

The nursing profession is largely a homogeneous group (globally 90% of all nurses are identified as females, and in the United States, 80% are racially categorized as white) that reflects neither the gender distribution of the global population nor the

S. D. Fields (✉)
The Ross and Carol Nese College of Nursing, The Pennsylvania State University, State College, PA, USA
e-mail: sdf5275@psu.edu

M. J. Wharton
School of Nursing, University of Rochester, Rochester, NY, USA
e-mail: mwharton@urmc.rochester.edu

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Table 1 Provisions of the Code of Ethics for Nurses with interpretive Statements[a]

Provision	Interpretive statement
Provision 4	The nurse has authority, accountability, and responsibility for nursing practice; makes decisions; and takes action consistent with the obligation to promote health and to provide optimal care.
Provision 8	The nurse collaborates with other health professionals and the public to protect human rights, promote health diplomacy, and reduce health disparities.
Provision 9	The profession of nursing, collectively through its professional organizations, must articulate nursing values, maintain the integrity of the profession, and integrate principles of social justice into nursing and health policy.

[a] Adapted from the Code of Ethics for Nurses with Interpretive Statements (2015)

burden of health disparities experienced by persons of color [1]. Despite this fact, organizations such as the World Health Organization (WHO) and the National Academies of Science, Engineering and Medicine identified the nursing workforce as having a central role in achieving Sustainable Development Goal 3 (ensure healthy lives and promote well-being for all at all ages) and more broadly, health equity [2, 3]. Achieving these goals across systems of health care requires a workforce that is diverse and empowered to dismantle structures and practices that undermine the principles of justice, equity, and inclusion [4].

Diversifying the nursing workforce is a moral and ethical obligation of the nursing profession that is enshrined in the profession's code of ethics. Provisions 4, 8, and 9 of the American Nurses Association Code of Ethics for Nurses, respectively, outline the nurse's authority, accountability, and responsibility for their practice; responsibility to protect human rights and reduce health disparities; and integrate principles of social justice into nursing and health policy [5] (see Table 1).

Diversifying the nursing workforce is intertwined with how the nursing profession (1) builds an adequate supply of nurses, (2) creates safe, empowering, and healthy work environments for nurses, (3) develops public policy that supports quality health care, and (4) enacts laws and regulations that enable nurses to practice at the full extent of their education and licensure [6]. The Future of Nursing (FON) 2020–2030 report recommends that employers and nurse leaders must support diversity, equity, and inclusion across the nursing workforce, and identify and eliminate policies and systems that perpetuate structural racism, cultural racism, and discrimination in the nursing profession, recognizing that nurses are accountable for building an antiracist culture, and employees are responsible for establishing an antiracist, inclusive work environment. The capacity of the nursing workforce to effectively address the SDOH will be greatly enhanced by increasing its diversity, thus, making the goals of improving the health of the nation and achieving health equity possible.

2 Nursing Around the World

According to a report released by the World Health Organization [3], the nursing workforce constitutes the largest occupation subset in the global healthcare sector. This fact underscores the global importance and impact of the profession. It also supports the needs as well as the commission's recommendations to ensure that the workforce is truly diversified in a myriad of ways that reflects its extensive reach (see Table 2).

The configuration of the nursing workforce in the United States in many ways resembles that of the global workforce in its size, importance, and impact. Nurses in the United States outnumber physicians by a ratio of 3:1 and constitute the largest segment of the healthcare workforce [7]. It is highly gendered and primarily made up of those who identify as female. The domestic U.S. nursing workforce is not significantly racially or ethnically diverse with the vast majority of nurses identifying as White and non-Hispanic (See Table 3 for U.S. Nursing Workforce Statistics). Thus, the nursing workforce in the United States currently does not reflect the gender or growing racial/ethnic diversity of the country and diversity in nursing has changed only incrementally over the past 10 years.

Table 2 The status of nursing globally[a]

Nursing status statement	Statistic
Percentage of Nurses in the Global Health Sector	59%
The Global Nursing Workforce	27.9 million
Number of Professional Nurses Globally	19.3 million (69%)
Number of Associate Professional Nurses Globally	6 million (22%)
Number of other Classified Nurses Globally	2 million (9%)

[a] Adapted from the 2020 WHO State of the Worlds Nursing Report

Table 3 U.S. Nursing Workforce racial and gender distribution

Number of nurses/race/gender group	U.S population 2010/2019	Nursing workforce population[a, b] 2010/2019
Population/number of nurses	308.4 M/331.4 M	3.5 M/4.2 M
White	72%/60.1%	83%/80%
Black/African American	13%/13.4%	6%/6.2%
American Indian/Alaskan	0.9%/1.3%	>1%/0.4%
Asian	5%/5.9%	6%/7.5%
Hispanic/Latino	16%/18.5%	3%/5.3%
Native Hawaiian/Pacific Islander	0.2%/0.2%	>1%/0.5%
Female identification	50.8%/50.5%	93%/90.6%
Male identification	49.2%/49.5%	7%/9.4%

[a] USDHHS [8]
[b] Budden et al. [9], Smiley et al. [1]

3 Why Diversify the Nursing Workforce

It is well documented and accepted that the healthcare disparities that disproportionately impact Black and other people of color communities can be mitigated by increasing the racial as well as the ethnic diversity of the nursing workforce [10–12]. The landmark Sullivan Report (2004) spoke to the importance of racial concordance with improved outcomes when black patients especially have black healthcare providers. Glaring and persistent example of healthcare disparities are the rates of Black maternal death in the United States which is one of the most concerning health disparities. Black and other women of color die at 2.9 times the rate of non-Hispanic White women [11]. In 2020, the overall maternal mortality rate was 23.8 deaths per 100,000 live births. In that same year, the maternal mortality rate for non-Hispanic Black women was 55.3 deaths per 100,000 live births compared to 19.1 deaths per 100,000 live births for non-Hispanic White women [11].

To correct this most egregious healthcare disparity, direct intentional actions are needed to dramatically diversify the maternal nurse workforce. Legislation and funding are needed to develop programs that will increase the number of trained Black community-based nurse midwives and other Black nurse maternity care providers [2, 13]. This is especially important given all the research that has demonstrated that patients respond to health care to a higher degree when delivered by providers of the same race or ethnicity [14]. A more diversified nursing maternal care workforce will be better equipped in rural, underserved, and low-resource areas with no obstetrical providers to address the population's social and cultural needs [15].

The FON 2020–2030 report centers on the achievement of health equity, and increasing the diversity of the nursing workforce will do much to advance this goal [2]. Additionally, in the wake of widespread civic protests in the United States after the death murder of George Floyd on May 25, 2020 [16] in the United States, many major corporations and institutions (including those in healthcare) reiterated their commitment to diversity as a core value. Nursing schools and national nursing organizations have also issued position statements recognizing both the effects of racism on health and their responsibility to support antiracist policies and practice. While such statements enshrine institutional commitments to eliminating racism within academic nursing and among nursing students, the nursing profession has more work to do in this and many other areas.

Full implementation of the nursing workforce recommendations in the 2020–2030 report will require a multipronged, multi-year approach with intentional actions such as (1) advocacy to increase funding for Title 8 nursing programs, (2) increased involvement from ethnic minority nursing associations, (3) increased involvement from male nursing organizations, (4) funded recruitment pathway plans focused on historically under-represented gender and racial/ethnic minority groups, (5) student-centered school policies that are more inclusive and foster a sense of belonging, and (6) evidenced-based models with demonstrated effectiveness at diversifying specific segments or specialties of the nursing workforce that can be scaled up, and (7) the incorporation of nursing antiracist action items in the strategic plans of all nursing schools, accrediting bodies, professional nursing organizations, and healthcare work settings (Hospitals, clinics) that employ nurses.

4 The Future of Nursing (FON) 2020–2030 Report

Recommendation 2 of the FON 2020–2030 report states that: "By 2023, state and federal government agencies, health care and public health organizations, payers, and foundations should initiate substantive actions to enable the nursing workforce to address social determinants of health and health equity more comprehensively, regardless of practice setting" ([2], p. 359). The actions and work needed to be done to diversify the nursing workforce are further embedded in this recommendation. Box 1 states those recommendations in the report related to diversifying the nursing workforce, some of which will be highlighted in this chapter.

Box 1 Recommendations for Diversifying the Nursing Workforce

1. Rapidly increase both the number of nurses with expertise in health equity and the number of nurses in specialties with significant shortages, including public and community health, behavioral health, primary care, long-term care, geriatrics, school health, and maternal health.
2. Provide major investments for nursing education and traineeships in public health, including through state-level workforce programs; foundations; and the U.S. Department of Health and Human Services' (HHS's) HRSA (including nursing workforce programs and Maternal and Child Health Bureau programs), CDC (including the National Center for Environmental Health), and the Office of Minority Health.
3. State governments, foundations, employers, and HRSA should direct funds to nurses and nursing schools to sustain and increase the gender, geographic, and racial diversity of the licensed practical nurse (LPN), registered nurse (RN), and advanced practice registered nurse (APRN) workforce.
4. In all relevant Title 8 programs, HRSA should prioritize longitudinal community-based learning opportunities that address social needs, population health, SDOH, and health equity.
5. Foundations, state government workforce programs, and the federal government should support the academic progression of socioeconomically disadvantaged students by encouraging partnerships among baccalaureate and higher-degree nursing programs and community colleges; tribal colleges; historically Black colleges and universities; Hispanic-serving colleges and universities; and nursing programs that serve a high percentage of Asian, Native Hawaiian, and Pacific Islander students.
6. HHS should establish a National Nursing Workforce Commission or, alternatively significantly invest in and enhance the current capacity of HRSA's National Advisory Council on Nurse Education and Practice. The membership of this body should comprise public and private healthcare payers, employers, government agencies, nurses, representatives of other health professions, and consumers, all from diverse backgrounds and sectors.
7. State and federal governments should provide sustainable funding to prepare sufficient numbers of baccalaureate, APRN, and PhD-level nurses to address SDOH, advance health equity, and increase access to primary care.

5 The National Commission to Address Racism in Nursing

The National Commission to Address Racism in Nursing released the Racism in Nursing report. Report #5, which addresses racism in nursing practice, offers some guidance and recommendations for diversifying the workforce (see Box 2 for recommendations). The recommendations specifically outline ways to address diversity, equity, and inclusion in the nursing workforce, the work environment, and nursing schools [17].

Box 2 BIPOC Workforce Recruitment, Retention, and Career Progress

1. Establish a curriculum for the non-BIPOC leader that teaches management skills needed for a multicultural workforce. This should include pointers on antiracism practices, managing raced-based conversations to avoid "tip-toeing" behavior, communication triggers in a diverse environment, culture-based interpretations of valued organizational behaviors to increase recognition of the BIPOC employee with potential.
2. Monitor and increase BIPOC hires from internships, fellowships, and workforce development programs.
3. Designate a DEI officer to oversee strategy and serve as a specific employee resource.

Racism in Nursing Practice (Report 5 of 6), Pg. 7.

It will be almost impossible to increase the diversity in the nursing workforce without finding meaningful ways to address the issues of institutional and structural racism that have led many to feel that they do not belong in the profession. The commission found that over 60% of all nurses reported that they had personally experienced racism in the workplace along with an alarmingly high 92% of back nurses [17]. Racism has also affected the professional well-being of over 50% of nurses (see Table 4 for commission rates of racism). The high rates of racism in the nursing profession underscores the urgency of the workforce recommendations put forth by the commission and dovetails synergistically with those in the FON 2020–2030 report.

Table 4 Commission rates of racism in nursing

Racism experience in nursing	Percentage/ number
Percentage of nurses that say racism in the workplace has negatively impacted their professional well-being	56%
Percentage of nurses that have personally experienced racism in the workplace	63%
Number of nurses have witnessed racism in the workplace	3 out of 4
Percentage of Black Nurses who have experienced racism in the workplace	92%
Percentage of Asian Nurses who have experienced racism in the workplace	73%
Percentage of Hispanic Nurses who have experienced racism in the workplace	69%
Percentage of white Nurses who have experienced racism in the workplace	28%

Many colleges and schools of nursing have begun to implement the commission's third recommendation and have hired a dedicated DEI officer (Director, Assistant/Associate Dean) to lead its DEI strategic plans and initiatives. The results of this hiring have yet to be codified as many schools struggle with several aspects of standing up a DEI office [18].

6 The Role of Ethnic Minority Nurse Associations

Ethnic minority nursing associations such as the Asian American Pacific Islander Nurses Association (AAPINA), National Association of Hispanic Nurses (NAHN), Native American Native Alaskan Indian Nurses Association (NANAINA), National Black Nurses Association, Inc. (NBNA), and Philippine Nurses Association of America, Inc. (PNAA), all play important roles in the efforts to diversify the nursing workforce. They do the necessary work of educating their key ethnic minority communities about the benefits of pursuing a career in nursing. Thus, they have provided an essential bridge in the process of building pathways for ethnic minority populations that have historically been under-represented in the nursing workforce. The associations, all in some form or fashion, provide crucial resources such as mentors and scholarships to directly support their members. They also provide a sense of belonging, networking opportunities, and continuing education sessions via their annual conferences, symposiums, and other gatherings (see Table 5 for association descriptions).

Table 5 National Coalition of Ethnic Minority Nursing Associations (NCEMNA)

Group Year founded	Mission and website
NBNA	*Organization*: **National Black Nurses Association, Inc.**
1971	*Mission*: To serve as the voice for Black nurses and diverse populations ensuring equal access to professional development, promoting educational opportunities and improving health.
	Website: **https://www.nbna.org/**
NAHN	*Organization*: **National Association of Hispanic Nurses**
1975	*Mission*: NAHN is committed to advancing the health in Hispanic communities and to lead, promote, and advocate the educational, professional, and leadership opportunities for Hispanic nurses.
	Website: **https://www.nahnnet.org/**
PNAA	*Organization*: **Philippine Nurses Association of America, Inc.**
1979	*Mission*: Uphold and foster the positive image and welfare of its constituent members. Promote professional excellence and contribute to significant outcomes to healthcare and society.
	Website: **https://www.mypnaa.org/**
AAPINA	*Organization*: **Asian American Pacific Islander Nurses Association**

(continued)

Table 5 (continued)

Group Year founded	Mission and website
1992	*Mission*: AAPINA strives to positively affect the health and well-being of AAPIs and their communities by:
	1. Supporting AAPI nurses and nursing students around the world through research, practice, and education.
	2. Facilitating and promoting networking and collaborative partnerships.
	3. Influencing health policy through individual and community actions.
	Website: **https://aapina.org/**
NANAINA	*Organization*: **Native American Native Alaskan Indian Nurses Association**
1993	*Mission*: NANAINA unites American Indian/Alaska Native nurses and those who care for AN/AI people to improve the health and well-being of American Indian/Alaska Native people.
	Website: **https://nanaina.org/**
NCEMNA	*Organization*: **National Coalition of Ethnic Minority Nursing Associations**
1997	*Mission*: Be the unified body advocating for equity and justice in healthcare
	Website: **https://ncemna.org/**

In the United States, the National Coalition of Ethnic Minority Nursing Associations (NCEMNA) was formed in 1997 to combine the collective impact of five national ethnic minority nursing associations. The NCEMNA's initial directors were Dr. Betty Smith Williams, Dr. Betty Keltner, Dr. Kem Louie, and Dr. Antonia Villarruel. Early work of NCEMNA focused on increasing the cadre of ethnic minority nurse researchers, preparing minority nurses to compete successfully for NIH funding opportunities, and establishing a plan to increase health disparity research conducted by nurses [19].

7 The Role of Male Nursing Associations

Since its founding in the early 1970s, the Association of Men in Nursing (AAMN) has championed the inclusion of men in the nursing workforce (see Table 6 for AAMN history). Its stated mission is *"To shape the practice, education, research, and leadership for men in nursing and advance men's health."* AAMN fosters the involvement of those who identify as male in the nursing profession through its scholarship fund, annual conference, and society of Luther Christman Fellows. While these activities have most likely helped to increase the number of men in the nursing profession, more does need to be done as men currently only account for 10% of the total nursing workforce [1, 8].

Table 6 History of the American Association of Men in Nursing (AAMN)

Year	AAMN historical note
1971	Steve Miller formed a group of male nurses in Michigan
1974	Dr. Luther Christman convened a group of men nurses in Chicago, and the Men in Nursing in Michigan group was reorganized as the National Male Nurses Association (NMNA)
1977	NMNA membership grows to 2300 nationally. Holds annual meeting
1980	NMNA revitalized under the direction of Dr. Luthter Christman and Edward Halloran adding new chapters in Wisconsin, Michigan, Illinois, Indiana, Ohio, New York, and California
1981	Name changed to the American Assembly for Men in Nursing (AAMN)
2018	Name updated to be the American Association of Men in Nursing—still AAMN
2022	AAMN currently has 70 chapters including 2 internationally in Canada and the Philippines. Membership is over 3000

8 The Aging Nursing Workforce

The median age of a registered nurse (RN) in 2020 was 52, up from age 51 in 2017 [20]. RNs 65 and older make up 19% of the workforce and represent the largest age category of RNs. This percentage is up from 14.6% in 2017 and from 4.4% in 2013. According to the 2020 National Nursing Workforce Survey, one-fifth of all nurses indicated that they intend to retire within the next 5 years [20]. As older generations of nurses continue to retire, diversifying the workforce in terms of age will require addressing the flexible work needs of generation Z (those born between 1995 and 2012), along with the training and compensation needs of millennials (those born between 1980 and 1994) in an ever-changing healthcare delivery system [20].

9 The Role of Entry-Level Nursing Education Programs in Diversifying the Nursing Workforce

Recommendation #4 of the original IOM future of nursing report 2010–2020 was to "Increase the proportion of nurses with a baccalaureate degree to 80% by 2020" [6]. This recommendation was not achieved, and by 2020, 48.1% of RNs held the baccalaureate in nursing as their highest degree with a total of 65.1% holding a baccalaureate or higher degree overall [20]. This was an increase of 7.8 percentage points between 2013 and 2020 [20]. In the United States, there are five entry-level pathway programs (See Table 7) to initial licensure as a registered professional nurse: (1) Diploma program, (2) Associates Degree program, (3) Traditional Baccalaureate Degree program, (4) Accelerated Second-Degree Baccalaureate Degree program, and (5) The Entry-Level Master's Degree program (ELM). Some may look at these various pathways as diversity in the types of entry-level programs, but the

Table 7 Pre-licensure entry-level nursing programs

Type of program	Length of program	Description of type of program	Percent first U.S. degree for RN 2013/2022
Diploma Program	20 months–3 years	A program of study that is usually based in a hospital setting. A diploma is awarded at graduation. Graduates are eligible to take the NCLEX-RN exam.	17.6%/11.1%
Associate Degree Program	2–3 years	A program of study in nursing that is based in a community college. An associate degree is awarded at graduation. Graduates are eligible to take the NCLEX-RN exam.	38.7%/37.7%
Traditional Baccalaureate Program	4 years	A program of study based in a traditional college or university. A Bachelor's degree is awarded at graduation. Graduates are eligible to take the NCLEX-RN exam.	36%/41.8%[a]
Accelerated Second-Degree Baccalaureate Degree program	15 months–2 years	A program of study in nursing for those who are college graduates, typically with a bachelor's degree in another field of study. A bachelor's degree in nursing is awarded at graduation. Graduates are eligible to take the NCLEX-RN exam.	36%/41.8%[a]
Entry-Level Master's Degree program	3 years	A program of study in nursing for those who are college graduates with a range of undergraduate and graduate degrees and many other disciplines. A Master's degree in nursing is awarded at graduation. Graduates are eligible to take the NCLEX-RN exam.	2.9%/3.6%

[a] The percentage for all Baccalaureate programs is combined

profession has struggled for a long time with the question of just what degree is the optimal one for entry into initial licensure/practice. Amidst a growing body of evidence as to the benefits of the baccalaureate degree in nursing [21–23], many have advocated for setting it as the minimum standard level of education for entry to practice. However, there are also many who believe that setting the baccalaureate as the minimum standard for the preparation of RNs would actually decrease diversity in the nursing workforce by eliminating the associate degree pathway [24]. Currently, there are more students enrolled in entry-level associate degree nursing programs than baccalaureate nursing entry programs [25]. These programs tend to enroll higher percentages of first-generation students and low-income students all of whom tend to be more racially/ethnically diverse [24, 26]. Lastly, many cite the success of associate to baccalaureate (RN to BSN) completion programs as further evidence for not setting the baccalaureate as the only initial entry-level RN licensure pathway [26, 27].

Even with the different types of entry-level pre-licensure programs in nursing, according to the data released by the American Association of Colleges in Nursing in 2021, there were 76,140 qualified applications not accepted at 4-year colleges

and universities alone. This is despite a 3.3% overall increase in student enrollment in entry-level baccalaureate nursing programs [28]. The following reasons are often given for not being able to accept all applications, (1) budget cuts, (2) lack of faculty, (3) insufficient clinical placement sites, (4) insufficient preceptors, and (5) lack of classroom space [28]. More efforts should be placed into finding innovative solutions to overcome these obstacles as a direct means of increasing diversity in the nursing workforce. A focus on increasing enrollment in accelerated second-degree baccalaureate degree programs, and entry-level master's degree programs, both of which enroll higher numbers of non-traditional nursing students (older students, more racial/ethnic diverse students, men) will potentially have a dual effect. Students in these programs also come into the profession with a range of other professional experiences that help us to innovate while integrating diversity of thought into the nursing profession.

10 Case Study Exemplars in Diversifying the Nursing Workforce

10.1 Case Study: Increasing Male Student Enrollment at the University of Nevada Las Vegas

The school of nursing at the University of Nevada, Las Vegas (UNLV-School of Nursing) began in 1965 with its first cohort of 27 students enrolled in an associate degree program. There was one male student in that first cohort of nursing students. Over the years, the percentage of men in the entry-level pre-licensure program at the UNLV-School of Nursing has continued to grow averaging 25% a year between 2017 and 2022 (see Table 8 enrollment data). That average percentage is well above most nursing programs in the country and represents intentional efforts on the part of the school to actively recruit, retain, and graduate more men in nursing. The current dean of the school, Dr. Angela Amar, PhD, RN, FAAN attributes the increased male enrollments to the following efforts, (1) Targeted outreach efforts, (2) An undergraduate student population that is 60% non-White allowing for designation as a Hispanic serving institution (which requires a full-time equivalent (FTE) in nursing undergraduate student enrollment that is at least 25% Hispanic), (3) Student friendly nonrestrictive inclusive policies related to things like hair color/style similar to the CROWN act legislation [H.R. 2116] that works to ensure protection

Table 8 UNLV-School of Nursing male nursing student enrollment

Year	Total students percentage of males enrolled
2017	139/30.94%
2018	147/30.61%
2019	182/27.47%
2020	222/23.87%
2021	215/20.47%
2022	239/21.76%

against discrimination based on race-based hairstyles by extending statutory protection to hair texture and protective styles such as braids, locs, twists, and knots in the workplace and public schools, [29] that foster an open environment, and (4) an impressive 20% male faculty that provides first-hand examples and role models of successful men in nursing (Personal Communication, 2022).

Even with its success, the school is still facing challenges with how best to continue to increase its male enrollment in the same proportion to which it has been able to increase its overall cohort size as is seen in the data in Table 8. The data show what appears to be a decreasing trend in male enrollments as the overcohort numbers have grown signaling that there is still some work to be done around the admission of those who identify as male. It is also important to point out that this case study with its focus on how to foster gender diversity in the nursing workforce is in support of the FON 2020–2030 report recommendations regarding finding ways to combat institutional racism as most of the men enrolled at UNLV are racial minorities.

10.2 Case Study: The Immersion Model to Diversify the Nurse Anesthesia Profession

One has only to look on the website (https://diversitycrna.org/) of "The Diversity in Nurse Anesthesia Mentorship Program" (DNAMP) to begin to understand the vision and mission of Dr. Wallena Gould, EdD, CRNA, FAANA, FAAN, the founder and CEO of DNAMP, to diversify the Certified Registered Nurse Anesthetist (CRNA) workforce. The program's mission is driven by the fact that there are 124 nurse anesthesia programs in the United States, including Puerto Rico. However, the majority of these graduate programs are housed in predominantly White institutions; eight are in Hispanic-Serving Institutions (HSIs) and none are in Historically Black Colleges & Universities (HBCUs). The lack of diversity in the Nurse Anesthesia profession started in 1931 when the National Association of Nurse Anesthesia was founded with an all-White membership and exclusion of Black members as a matter of policy until 1944 [30]. This and other structural racism barriers created a CRNA workforce that in 2008 was only 6% non-White among the 37,000 licensed CRNAs at the time [30]. To diversify the CRNA nursing workforce directly and intentionally, Dr. Gould founded the DNAMP as a grassroots pathway mentoring program targeting marginalized racially diverse nursing students, nurses, nurse anesthesia students, and CRNAs. This program introduces nurse anesthesia and PhD and subspecialty CRNA professions grounded by early professional socialization, access, and mentoring. Most nurse anesthesia programs still accept, matriculate, and graduate predominantly white CRNA nurse cohorts, underscoring the need for the DNAMP program. To date, the DNAMP program has mentored 658 racially diverse nurses who have successfully matriculated and graduated from 92 nurse anesthesia programs [30].

By 2021, due in no small part to the success of the DNAMP program, 12% of the country's 59,000 licensed CRNAs were non-White. That is double the percentage since 2008. Dr. Gould attributes the success of the DNAMP program to

implementing an immersion model that supports students for the long term (see Box 3 for key components of the model).

Box 3 Key Components of the CRNA Immersion Model

- Assigned mentors for each student
- Early professional socialization (Networking)
  - Review of all application materials submitted, especially the personal statement
- **Diversity CRNA Information Session & Airway Simulation Lab Workshop**s
  - Admissions, clinical preparedness, and balancing family and finances
  - Mock Interviews
  - Hands on simulation
- **Diversity CRNA Historically Black Colleges & Universities and Hispanic-Serving Institutions (HBCU & HSI) Schools of Nursing Tour**
  - Inform nursing students earlier in their careers about the nurse anesthesia profession
  - Exposure to racially and ethnically diverse CRNAs
- **Diversity CRNA Advanced Practice Nurse Doctorate Symposium**
  - Choosing the right Degree: PhD, EdD, DNP, or DNAP
  - How to build a body of scholarly work
  - Pathways to Fellowship in the various academies

It is important to note that in 2022, the American Academy of Nursing selected the DNAMP CRNA Immersion Model as an evidenced-based initiative that could be replicated for other nursing and Advanced Nursing Practice specialties [31]. Thus, this case study focused on a workforce program that has been developed intentionally to combat historically racist admission, matriculation, and graduation policies of a specific segment of the nursing workforce (CRNA) and is right in line with the FON 2020–2030 report that recommends the development of innovative workforce programs as a means to diversify the nursing workforce.

11 Conclusions

Diversifying the nursing workforce is a critical necessity to the goal of achieving health equity through the nursing profession as proposed in the FON 2020–2030 report. Thus, it is of the utmost importance that nursing work together at all levels to implement the host of recommendations found in the report. Full implementation of the recommendations will take years, but nursing must remain dedicated and focused on its goal and will need to work together. According to its code of ethics, nursing has a moral and ethical obligation to diversify the workforce. The FON 2020–2030 report provides a unifying guideline in which to move this work forward. The use of the National Commission to Address Racism in Nursing report as a companion

guiding document will be central to this work especially given the need to combat the long historical depths of structural and institutional racism in the United States.

Employers and nurse leaders must support innovative and emerging initiatives that could assist with the challenges of diversifying the nursing workforce. They will also need to work to identify and eliminate policies and systems that perpetuate structural racism, cultural racism, and discrimination in the nursing profession. Nurses are accountable for building an antiracist professional culture, and employers are responsible for establishing antiracist, inclusive work environments. If we are successful in these endeavors, we will shift the notion of diversity away from quantitative confinement that could dangerously reify tokenism and undermine its ideals to something that is rooted in the affirmation of antiracism policies and practices that uphold the principles of justice, equity, and inclusion. Illuminating how employers and nurse leaders eradicate policies and practices that have fueled structural racism and systemic inequities and the metrics used to determine progress will be critical to producing a workforce that is prepared to advance health equity. Finally, sustained financial and human resources will be needed at multiple levels to enact the recommendations that will lead to a more diversified nursing workforce.

12 Call to Action

It will be encumbered upon all in our society but especially all nurses, nursing students, and social health justice advocates, to heed a call to action for doing intentional work to diversify the nursing work. This call to action might include but is not limited to:

1. Actively advocating for increased resources to support all Title 8 nursing programs in the annual federal budget.
2. Collaborating with ethnic minority and male nursing organizations to support their programs and initiatives that focus on increasing the diversity of the nursing workforce.
3. Educating yourself and others on the FON 2020–2030 workforce diversity recommendations along with the recommendations from the national commission to address racism in nursing.
4. Supporting the implementation of antiracist and inclusive nursing school admission policies.
5. Committing to serve as a mentor for racial/ethnic minorities and men who have historically been under-represented in the nursing workforce.
6. Committing to foster antiracist hiring policies in your institutions.
7. Support plans to hire dedicated DEI nursing experts at all levels with the resources to enact sustained programs that are designed to intentionally dismantle long-standing institutional racist hiring and promotion policies.

Study Guide Questions

1. What antiracist actions do you think are reflected in the FON 2020–2030 report that you can use to increase diversity in the nursing workforce?

2. The journey to diversifying the nursing workforce is going to take a multi-prong, multi-year approach. What financial and human resources at the local, state, and federal levels do you think will need to be enacted in order to achieve the goals of nursing workforce diversity?
3. All nursing must work together to develop, cultivate, and disseminate effective educational and workforce programs that have proven to increase the diversity of the nursing workforce. What specific policies do you believe your program or institution will need to change in order to increase diversity in the nursing workforce?

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Strengthen and Protect Nurses Well-Being

Georgina Willetts and Kylie Ward

Future of Nursing 2020–2030: Recommendation 3

By 2021, nursing education programs, employers, nursing leaders, licensing boards, and nursing organizations should initiate the implementation of structures, systems, and evidence-based interventions to promote nurses' health and well-being, especially as they take on new roles to advance health equity.

1 Introduction

The health and well-being of the nursing profession is in crisis. To start to understand what health and well-being in the nursing profession looks like, we first need to understand the context of working nurses and their day-to-day pressures. This chapter will explore the current challenges nurses experience in maintaining their health and well-being. The authors discuss an Australian context that translates globally. Health and well-being will be discussed considering the heterogeneity of the profession, limitations to the scope of practice, the complexities of enabling psychologically safe working environments, and compassion fatigue/satisfaction. This will also include a discussion of appropriate models of care and a call to

G. Willetts (✉)
Nursing and Practice Development, Institute Health and Wellbeing, Federation University Australia, Ballarat, VIC, Australia
e-mail: g.willetts@federation.edu.au

K. Ward
Australian College of Nursing, Deakin, ACT, Australia
e-mail: Kylie.Ward@acn.edu.au

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empowerment of the most significant healthcare profession globally. Solutions are proposed and finally a call to action. Throughout this chapter we have included vignettes of what has and is being done by the Australian College of Nursing to address the health and well-being of our nursing profession.

There are almost 24 million nurses and midwives in the world, and 400,000 registered nurses in Australia. Nursing [1] is one of the oldest and most commonly known professions, dominated by the participation of women, and the most geographically dispersed clinical profession. Nurses work across at least 52 specialist areas, requiring tertiary education as an entrance point, and bringing a professional perspective that spans across health systems including preventative, primary, and community health systems.

Nurses are consistently rated the most "trusted and ethical" profession by the public [2] but nursing is not a homogenous group, rather a profession who understands the power of standing together for the common cause and goals for individual and societal well-being.

Nurses are at the front line of the issues facing society and are impacted daily by discrepancies in education, socioeconomic status, income, family structures, health policy, research, public health directions, science, research and more. The COVID-19 pandemic has thrown into the spotlight that nurses are at the axis of where society, medicine, social and health policy, and government intervention meet.

The traditional notion of a nurse is one that is a female whose practice is secondary to that of the doctor, hospital bound, subservient, quiet, and self-less. Nurses are not always consulted for their opinions or seated at the decision-making table—despite their hands on, "front-row-seat" to modern health care. In fact, nurses even today in 2022 tell of working in cultures in which they are expected to deal with patient scenarios without concern for their own health and safety [3]. This depiction of nursing could be rooted in a Western culture that plays directly into what nurses perceive they have a right to ask for regarding their own health and well-being.

Furthermore, the perception of nursing and nurses has translated into systemic barriers; scope of practice limitations; a professional culture that inhibits paid time to undertake research, leadership training, mentoring (giving and receiving), clinical supervision and education in many areas [4, 5]. In fact, many nurses report that one of the greatest stressors in their professional careers is having to fight to be heard, included in decision-making, and valued across the entire health service [6].

Vignette 1

The need to address the health and well-being of the nursing profession has long been acknowledged by the Australian College of Nursing (ACN). ACN has taken a multi-pronged approach to address the concerns that continue to plague the nursing profession in the twenty-first century—at both an individual level and a national and system-wide level. It should no longer be tolerated that the system does not protect nurses, and instead lets them give so much personally that they run empty. Through initiatives started long before the COVID-19 pandemic there are examples of ACN addressing the health and well-being of nurses. Most significantly has been the raising of the nursing profile in the public arena whilst also focussing on nurse's well-being at an individual level.

The ENL initiative is one example of this*:*

The ACN Emerging Nurse Leader (ENL) program has been designed to support the recognition and development of leadership skills in early career nurses from third year undergraduate students through to sixth year registered nurses. The ACN ENL Program is a career kick-starter for up-and-coming nurse leaders to fast-track their leadership journeys. Participants receive invaluable opportunities to develop and profile themselves, building connections with senior nurse leaders through mentoring, career coaching, leadership workshops, and webinars. Fifty Registered Nurses and ten Enrolled Nurses are selected each year nationally and places are also specified only for Aboriginal and Torres Strait Islander nurses to further support the development of First Nations nurses. This leadership journey of personal and professional development is celebrating 10 years with great success. Not only has it been invaluable in profiling leadership at every stage of a nurse's career, but it has also challenged preconceived notions of hierarchy and leadership intrinsically only in senior nursing positions. Dispelling this myth has been key to the professions ability to advance and challenge our own cultures, behaviours, and limitations. The vision of this remodelled program in 2017 is to invest in early career nurses with the belief and expectation that the graduates will go on to be key leaders and significant influencers of health reform throughout their careers.

With the success of the ENL program it became apparent that other groups of nurses also required investing in. This had become evident with the shift through the past two decades of nursing leaders in organisations throughout Australia loosing operating budgets and responsibilities of financial resources to more generic general and operation management positions, leaving the most senior nurses in professional advisory roles inherent within their position descriptions with significant accountability but no responsibility for budgets—and it is no secret that those who hold the money hold the power. An Executive Director of Nursing and Midwifery and Chief Nursing and Midwifery Officers are the only positions in their organisations and jurisdictions, making it difficult and lonely to be constantly advocating for the nursing profession in competitive executives and governments. Moreover these positions require exceptional skills and understanding of what nursing professionalism is and how to demonstrate this leadership—but with these positions reporting to Chief Executives and government officials who are predominantly non-nursing and non-clinical the ability of nursing leaders to passionately advocate for the integrity of the profession, as well as patient outcomes—could easily be eroded. This inspired the ACN to develop the Nurse Executive Capability Framework so that every nurse executive could understand what their role requires, compared to health care executives that are not nurses. It has also been a tool to educate CEOs and employers as to the expectation ACN has nationally of these positions that are embedded in the industrial award, and hence may not always be perceived as valuable. In 2019 the ACN established the ACN Institute of Leadership which would come to house the ENL program and the Nurse Executive Capability Framework, as well as develop, design, and deliver bespoke programs for leaders at every stage of their career. The ACN Institute of Leadership now delivers the Mid-Career Leadership

Program, the Nurse Executive Leadership Program, and has this year launched the Nurse Unit Manager Leadership Program—all with an intense residential module, mentoring, and ongoing development to consolidate required skills.

2 Heterogeneity of Nursing as a Complex Diverse Profession

With our profession deeply entrenched in a traditional image and with our gendered history, nursing in Australia often exhibits the pathology of socio oppressed groups, where we have the numbers but don't have the power and often don't unite in a way that would give us that power [7, 8]. Whilst we have our own cultures and social environments, we are not a homogenous group and we do not exist in a vacuum from our societies.

Boundaries both professionally and industrially have not been well established through the modern history of nursing as we have had to fight consistently and persistently for equity and equality [9]. This could contribute to nurses feeling the need to compromise. Current examples of this are scope of practice limitations, no time allocated during paid work for research, reflection, and variable allocation of time for education.

In recent years, never-before demands have been placed on healthcare systems and people [4, 9]. Together with unsustainable working conditions, and major workforce shortages, nursing is in fierce competition with other professions to attract, recruit, and retain nurses. The challenges of the health and well-being of nurses sit within the context of trying to engage people in a highly driven and purposeful service industry that is struggling with its day-to-day practice in disaster-like conditions with minimal or inappropriate funding. The nursing landscape is complex, multi-faceted, and multi-layered and exists between all health systems, operating at the federal and state level, and in the context of the burgeoning and strained aged care industry. The development of solutions to address the health and well-being of nurses needs to take into consideration the complexities of context to ensure solutions are effective and sustainable.

Nurse health and well-being is the hub of the health system. It requires proper resourcing to affect systemic inefficiencies that include lack of resources and training for staff. One of the major pressures on nurses is workforce shortages, and nurse well-being has been linked to workforce retention, as cited in the "Fit for the Future" survey of Australian nurses and midwives report [10]. The report revealed that 22.1% of nurses intended to leave their jobs within the next year due to quality-of-life factors impacted by their job [10].

But further still, the system needs to understand and acknowledge all that a nurse can and does do in a shift—regardless of context—and the complexities and ramifications of doing multiple things at once. This is the starting block for the design of solutions to make a difference, through systems, digital and workforce innovations.

Vignette 2

Through its work with policy and Government the ACN has tackled issues across the spectrum of the profession acknowledging complexities and heterogeneity of nursing and the many environments in which we work, always looking to raise the voice of nursing as a whole and improving healthcare outcomes.

Since the launch of this first White Paper in Parliament House in 2016 the ACN has significantly invested in nursing policy leadership in Australia. We held our inaugural annual Policy Summit in 2017, introduced Policy Chapters since 2018 and in 2020 launched a Nurse Policy Fellows Program to invest in developing future careers for nurses in policy leadership, funded through the ACN Foundation. These initiatives have created national opportunities for nursing experts in industry and academia in Australia to take leadership roles developing policy and position statements to present to governments that can influence and shape policy reform, health service delivery, and nurse-led models of care and service delivery. To further invest in the nursing profession all those who contribute to policy paper development are acknowledged and ACN issues ISBN numbers, creating another channel for nurses to gain publications for their personal professional development and exposure. We cannot continue to rely on the world only knowing the name of Florence Nightingale as the only nurse of influence. We want industry, governments, and the public to know and understand thousands of nurses are impacting the health and well-being of all Australians, every day, every shift, everywhere. This promotion and exposure has been remarkable in lifting the esteem of the profession and role modelling to nurses at every level of their career of what a nurse today, and in the future, should be.

Policy papers have offered governments an alternative to more effective usage of taxpayer dollar whilst improving access and equity to health care. Demonstrating that nurses are essential to health equity has been foundational in our work. Nurses have always been efficient and effective at the service delivery level and are known for doing "work arounds" to ensure this works, but this has not translated to being seen as essential in delivering health policy, or for our opinion to be sought without lobbying, advocacy, or media attention. This often results in nurses needing to implement government initiatives that have lacked the nursing profession's input, influence, and co-design.

Some papers have been launched in Parliament with key politicians including the Federal Minister for Health endorsing recommendations. Others have been used as key evidence documents in Royal Commission inquiries, Senate and Parliamentary inquiries. Having these evidence-based policy documents launched with media attention and key leader's endorsement has both a conscious and unconscious effect on the nursing profession, especially millennials and new graduate nurses in understanding our worth, and thus contributing to wellness at a macro, responsible level. Understanding and observing our professional opinion and voice deserves to be heard—and can only have a positive impact considering diversity and inclusion. Appendix 1 is a list of the ACN white papers.

3 Scope of Practice

Globally, nursing is the largest health profession [4]. There is a nurse in almost every healthcare context. However it has been identified that "80% of all nurses worldwide are only accessible to 50% of the global population" [11, p. 9]. This of course needs to change, there is however another issue that if addressed will undoubtably improve accessibility to nurses. That is, enabling nurses to do all that they can do by working to their full scope of practice. Enabling nurses to work at their full scope is determined in part by legislative frameworks that support the dominance and control held by the medical profession. This is clearly exemplified in the differing legislative frameworks pertaining to nursing scopes of practice in the USA. There is also increasing evidence to support that enabling full scope of practice has a direct correlation with job satisfaction [12].

Understanding the scope of practice in nursing is complex. However, put simply, it refers to the actions and procedures that by law are permitted to be undertaken based on specific professional experience and appropriate educational qualifications [13]. The scope or parameters of practice of both nurses and midwives can be quite fluid due the dynamic nature of their practice, and the many and varying contexts and environments in which practice occurs [14]. ICN has long recognised that if educated, competent, and authorised to perform, nurses can meet many of the increasingly complex needs of patients/clients and community and the influences on enabling full scope of practice are the result of political, social, and environmental issues [15]. "Decision-making frameworks are increasingly being used to assist the individual nurse to make decisions about their own scope of practice" [15, p. 23]. Over the last four decades, scope of practice has been changing and expanding due to specialisation, diversity, and increasing acuity of the population. This has naturally and gradually expanded nursing practice, but it has also caused some blurring of roles between health professions and challenged the traditional understanding of what a nurse does.

> "Nurses hold a professional responsibility to practice safely and within their scope of practice. In determining one's scope of practice, the nurse must make a judgement as to whether they are competent to carry out a particular role or function. They must also take measures to develop and maintain the competence necessary for professional practice" (ICN 2005 [15, p. 25]).

The challenges to ensuring that the full scope of practice is authorised and supported need to be addressed as we move forward into the twenty-first century, this will improve efficiencies, accessibility, and effectiveness in health care, whilst also ensuring job satisfaction within the nursing profession [12].

The way forward in enabling nurses to fulfil their scope of practice is complex and will require changes to legislative regulatory bodies [16] and strong visible nursing leadership through policy development [17]. It has been evidenced that when legislation is restrictive it creates an artificial barrier to effective care and there is no evidence to show that enabling nurses to work to their full scope of practice is harmful to healthcare outcomes [18].

The ongoing opposition by the medical profession to changes or perceived expansion to nurses scope of practice needs to be addressed within the context of a values-based healthcare approach looking at the population's healthcare needs and better patient outcomes [16]. Mobilising the support of the community, the key stakeholders of health care, will be important. Important also will be a more comprehensive debate inclusive of lower-income countries and groups who are significantly disadvantaged when nurses cannot perform to their full scope of practice. Nursing needs to articulate their needs by leading the debate in scope of practice to improve both healthcare outcomes and their own job satisfaction. Nurses also need to ensure they are prepared to inform required change to evidence-based policy where appropriate [15].

> "Optimizing nurses' enacted scope of practice to its full potential is an important integrated strategy for improving organizational performance, patient care and nurses' satisfaction and well-being" [12, p. 206].

Vignette 3

Affecting sustainable systemic change has required a significant focus on developing capacity and capability within the nursing profession, as well as opportunity. The ACN is determined to make transformational change to the Australian landscape; this needed to occur at several levels. Firstly, it involves influencing politicians, politics, and policy. In 2016 we set out to challenge the amount of medical representation on government national committees, in comparison to the underrepresentation, disproportionate representation, or in fact no representation of the nursing profession. ACN developed a white paper called "Nurses are Essential to Health and Aged Care Reform" and in an Australian first it was released at a breakfast function in Parliament. We secured the then Prime Minister, the Honourable Malcolm Turnbull, to release the White Paper, along with the Health Minister, the Shadow Minister, the Leader of the Greens Party, and other prominent politicians. This was an Australian first and an important moment in our modern history to secure so many influential leaders all discussing the value of the nursing profession. ACN secured media coverage, including television; this was again another first. It was time the public heard from nurses that we had solutions.

4 Compassion Fatigue Versus Compassion Satisfaction

Compassion Fatigue (CF) can be described as the convergence of "secondary traumatic stress, and cumulative burnout, a state of physical and mental exhaustion caused by a depleted ability to cope with one's everyday environment" [19, p. 1]. Healthcare, emergency, and community workers are susceptible to developing compassion fatigue, which can directly impact patient care and outcomes, relationships, and lead to more serious conditions such as "posttraumatic stress disorder, anxiety or depression" [19, p. 1].

CF is distinct from Burnout (BO), which results from 'assertiveness-goal achievement response and occurs when an individual cannot achieve his or her goals and results in 'frustration, a sense of loss of control, increased wilful efforts, and diminishing morale' [19, p. 1]. However, burnout and secondary trauma stress (STS) which is the result of a rescue-caretaking response and occurs when an individual cannot rescue or save someone from harm and results in guilt and distress [19] can lead to Compassion Fatigue. More needs to be done to create healthy nursing workforces that can return quickly to "high-functioning behaviours" at home and work, after exposure to traumatic experiences.

Whilst nursing comes with the inherent risk of exposure to trauma, interventions that promote individuals' coping strategies such as clinical supervision and colleague support are "likely to have significant health and economic benefits, as they reduce not only STS, BO, and CF, but also the risk of more serious mental health disorders such as anxiety and depression" [19, p. 3]. With nursing becoming front and centre to the sustained impact of the COVID-19 pandemic, combined with compassion fatigue and burnout due to inherent challenges of dealing with the pandemic, and a lack of resources, nurses are leaving the profession in unprecedented numbers [20].

To support the health and well-being of nursing, much can and should be done at the individual level to immediately address the collective trauma experienced. Clinical supervision is very much needed for all nurses, understanding how important it is for every nurse to have access to this by 2030. Managers need to be trained and resourced to allow for staff to have access to clinical and professional supervision, regular debriefing and mentoring for every nurse, regardless of where they are working. Managers need to have debriefing for stress management, and coaches to support their leadership journeys.

Vignette 4

It was becoming more apparent that whilst nurses took care of the health and well-being of the nation, they were putting their own self-care needs aside. The ACN recognised this long before the COVID pandemic. It took up initiatives to address the then increasing fatigue. One initiative was in 2017 the ACN launched NurseStrong on national TV. This initiative was designed solely for nurses to prioritise themselves and ACN secured 1000 free 12-week online fitness programs to announce at the launch. Complimentary places in this offering were taken up in 24 h which showed the desire for personal investment by nurses. A further 500 nurses took up a discounted offer in the days ahead, prior to the launch.

NurseStrong's intention has always been for nurses to invest in their emotional, physical, spiritual, and mental health and well-being in a safe and supported environment. ACN then created the NurseStrong Facebook site for ACN members and non-members. There are now over 7000 participants, mainly from Australia but from other countries including Northern Ireland, UK, and Africa. Since the launch ACN has offered free courses in yoga, meditation, and mindfulness as well as collaborating with organisations like the Heart Foundation to promote walking with others to promote community connections emphasizing the importance of fresh air

and time out, as well as meeting new people. Nurses have posted hundreds of photos of their morning walks to keep connected with others and have shared photos from cities to the remote areas of Australia. This connection through a safe and supported platform has been invaluable to address feelings of isolation and loneliness that some of our profession can experience. This site became even more important during COVID-19.

5 Safe Working Environments

Health and well-being of nurses cannot only be a discussion centred on self-care and individual choices of diet, emotional health, and exercise. The health and well-being of nurses requires a systemic approach, whereby one's professional, personal, emotional, and educational needs are identified, supported, and enriched throughout their career.

The health industry has been so heavily demanded in recent years that there has been limited time to reflect on best practice in leadership, to consider how and what we need to engage people in a highly driven service industry. Nurses are currently profoundly in demand, limited in supply, and have been working in disaster-like conditions for several years with minimal or inappropriate funding. It is now that we need to look at the system that has not been able to care for the carers. The profession of nursing has historically worked in environments that have been unsafe [21]. The COVID-19 pandemic has highlighted this with the frontline exposure to a pandemic where many of the profession succumbed to the virus with sometimes catastrophic outcomes [22]. The focus on safe working environments for nurses during the pandemic has been managing the most basic of needs with insufficient personal protective equipment (PPE), and when PPE is available, the distress caused by long hours wearing PPE, inability to get sufficient nutrition and fluids during their shift, and the emotional exhaustion of caring for the very sick COVID-19 patients [23, 24]. The fallout of COVID-19 on the healthcare system and its workers is now being seen. Urgent attention is needed to address the concepts of a safe working environment and many of the underlying issues that have been there for a long time and now require urgent attention before further harm ensues.

Vignette 5

Safe work environments for nurses have and continue to be fundamental in the work undertaken by ACN. Whilst ACN has invested in enabling individual nurses to be educated, empowered, and developed, this has not been for the sole reason of continuing to tolerate a system that demands more, minimises the risk nurses face, nor recognises value through pay equity and conditions. Rather these initiatives have been designed to assist individual nurses within the profession to develop skills to understand their worth, find their voice, and unite to advocate for system change, as opposed to continuing to take on more before realising the breaking point is close—and even before it is too late.

There are many individual examples where ACN has supported the individual nurse particularly through COVID to maintain their momentum and promote individual health and well-being. In 2020 when the pandemic hit, the postings on NurseStrong were raw and real, with nurses expressing their fears, concerns, pressures, and guilt. This was an important real-time source of truth for work we would do to advocate for system change and better conditions for the nursing profession. It was through reading these posts, and their pain and truth and not being able to travel the country to meet and support nurses that ACN decided to source products to send to nurses to remind them of their worth and need for self-care. Initially one pack was going to be sent to a NurseStrong member in Australia for 3 months, totalling 12. In the end a very small team packed and sent almost 1500 packs during 2020 through to 2022. We purchased goods from bushfire affected areas following Black Summer and rural and remote areas with the intention to show Australians that the ACN was investing in small business and local communities to thank nurses, as so many Australians were unable to work in the way they had known, yet nurses were in ever increasing demand. It was another way of showing how the nursing profession was investing in the health and well-being of communities. Other businesses soon came on board and offered significantly discounted products for us to purchase, whilst others like Shh Silk and Qantas donated products for us to include in the care packs, totalling hundreds of thousands in donations. We promoted all of the organisations on our website.

5.1 Gender Inequities

Nurses are mainly female despite efforts to change this [25], and could be considered in part due to "gender regimes and gender equality policies" [26]. The distinction that nursing is feminine work means that nursing is impacted by a socioeconomic and political environment that does not equally consider female personal and professional needs [27]. There are many feminine stereotypes that negatively impact nursing and stigmatise practice [28]. In addition, nursing work is intrinsically connected to activities that require a close relationship with the patient's body and as a result, the practice is seen as dirty work or menial work [28]. As a result, nursing continues to struggle with society's idea of nursing as a complementary vocation to medicine [28]. There is an urgent need for advocacy for policy change to strengthen the nursing workforce policies that affect nursing both nationally and globally [26]. When nurses are enabled to function as a profession, healthcare and patient outcomes improve [29].

5.2 Incivility in the Workplace

The concept of incivility is considered a social process and an antecedent to bullying and violence [30]. Horizontal violence which is an extension of incivility is a well-researched phenomena in nursing and is linked to the disempowered position of nurses

within the healthcare hierarchy. The insidious nature of incivility has been linked to poorer patient outcomes [31] and burnout and increased intention to leave the profession [32]. It has been known long before the COVID-19 pandemic that healthcare organisational structures and the leaders within these have the power to create teams that are empowered and promote civility [32]. It is also known that during the COVID-19 pandemic many teams fell apart and incivility was widespread when leadership and organisational structures were disempowering and task focused [33]. It is time to empower nurses through change to organisational systems and leadership.

5.3 Occupational Violence

Before the COVID-19 pandemic, occupational violence towards healthcare workers was significant and acknowledged by those who worked in these areas [34, 35]. As many as 38% of healthcare professionals had experienced this at some point in their career [36]. Since the COVID-19 pandemic this has increased [37]. Occupational violence is a complex phenomenon. Extreme acts of violence are acknowledged as occupational violence whereby more subtle acts such as verbal abuse and intimidating behaviour can be overlooked. In a study published in 2010 "one third of nurses participating perceived emotional abuse during the last five shifts worked" [21, p. 13]. The result of occupational violence is profound, including missed care [38], medication errors [21], and moral distress [39]. The outcome of moral distress may result when the nurse struggles with the dichotomy of protecting their own welfare and caring for the aggressive patient [39]. These are systematic and systemic failings and directly impact nurses' experiences every day. This can be further extended to a community failure where there is complacency towards behaviours resulting in occupational violence.

Vignette 6
In 2020 ACN established a taskforce comprising four subcommittees to address the issue of Violence and Nursing:

Nurses experiencing domestic violence; Nurses caring for people experiencing domestic violence; Occupational violence; Nurses and child protection. There have been many recommendations, position statements, and now lobbying government to change policy and law. This work is having a direct impact on the health and well-being of nurses. Workplace safety is at the core of this work but there is also a focus on the well-being of the individual nurse. Information can be found at https://www.acn.edu.au/nurses-violence-taskforce.

5.4 Moral Distress

Moral distress has been identified as the accumulation of moral residue, a "long-lasting and persistent result of facing repeatedly distressing and unresolved ethical quandaries" [40, p. 69]. Influential factors that contribute to moral distress include an unsupportive workplace, problems with leadership, bullying, and poor

workplace practices [40]. To create real and sustainable solutions, we need to define and understand the ramifications of accumulative moral distress being experienced right across the health system and in aged care and address this with urgency and enable moral resilience. Developing safe working environments has now become ever more important to the sustainability of the nursing workforce.

5.5 Psychological Safety

Psychologically safe workplaces empower nurses and enable them to speak up when there are concerns. The hierarchical structures that exist in health care have not promoted the nursing voice and therefore potentially compromise patient safety [41] as well as nurses psychological health [42]. It has been identified in an Australian review into Work Health and Safety laws that psychosocial safety climates are a predictor of work conditions, worker health and engagement [42]. The Nursing Now movement clearly highlighted the importance of maximising nurses' potential [43]. If workplaces are not safe the nurse's potential will be compromised and ultimately health care will be compromised.

6 Models of Care

For a very long time health care has been underpinned by the medical model that focuses on an illness discourse. Assumptions of this model focus on illness and disease having a single cause and the removal of such will result in health [44]. This model reduces an individual to their disease and conflicts with the holistic focus of nursing practice which identifies the individual as a complex physical and psychosocial entity. Nurses desire the holistic approach to care creating conflict with the structures and systems on which our healthcare systems have been built. The desire to find models of care that have the patient in the centre has led to two appropriate models of care. The first model "person centredness" is based on the work of McCormack and McCance [45]. The second is the evolving focus on values-based health care [46].

6.1 Person Centredness

The nursing focus on the care experience of patients promotes the concepts of person centredness [47]. Person-centred models of care focus on the care environment, person-centred processes, nurse attributes, and expected outcomes [48]. The development of a shared understanding and trust with the patient or client is core [47]. This model acknowledges the vulnerability of the patient when engaging with the healthcare system and addressing this has increased nurses' satisfaction with their work [47]. The biggest challenge to enacting person-centred models of care is the care environment [49]. It is time that our systems recognise the need to improve care processes. This will not only result in improved patient outcomes but also increased satisfaction with the delivery of care.

6.2 Values-Based Health Care

Values-based care is defined as "health outcomes that matter to patients relative to the resources or costs required, over a full cycle of care" [50, p. 4]. In many countries health care is modelled on activity-based funding or fee for service. Prevention and low-cost management is not incentivised; episodic hospital care is the focus of funding [51]. Building on the concepts of person-centred care models, the concept of values-based care as a patient-focussed model is more aligned to outcomes rather than payment models that reward specific activities or episodes of service. The current models are often punitive, rewarding specific healthcare practitioners and systems that have the ability to benefit financially. Enabling values-based healthcare models will also benefit the progression of nurses' roles and scope of practice, breaking down barriers that restrict the ability of nurses to deliver care. Core to this model is the required by-in from providers, patients, and payers [50].

7 Call to Action

The health and well-being of the nursing profession directly correlates with the health and well-being of our populations [52]. Promotion and solutions cannot lie solely on the individual nurse. Significant change is required at the organisational, jurisdictional, and societal level. Nurses need to be heard and nursing can no longer be the silent profession [53, 54]. For nurses' well-being to be enabled, the voice of the profession must be heard, practices enabled, and workplaces made safe [55]. If this is not enacted, the profession is at risk of eroding progress. Ensuring a nurse workforce of the future requires changing the way the profession is understood, respected, and supported at all levels, through, "nursing education programs, employers, nursing leaders, licensing boards, and nursing organizations" [56] recommendation 3. Nurses are part of the societies in which they live and work and therefore tackling the inequities that exist within a society will inadvertently promote the health, well-being, and safety of the profession. Nursing is predominantly female and tackling gender inequality and other social injustices must be at the forefront of change. To achieve the change that is needed, social impact and influence are needed across many different fronts. Health care needs to be seen through the lens of a nurse, how nurses see the world, our patients, the healthcare system, and how we see our own health and well-being.

Nurse leaders are pivotal in advancing our call to action through lobbying and speaking up at every possible opportunity, empowering those who are emerging as our future leaders and workforce. Hearing the voice of nursing to drive health care and influencing the decision makers is now urgent to ensure the health and well-being of the profession and ultimately our communities. COVID-19 has shown just how essential nursing is and how the community will support nurses if they understand what is required. This chapter has used vignettes from ACN demonstrating the emerging ground swell that started well before the COVID-19 pandemic but one that has now been pushed to the forefront because of the pandemic. The initiatives and innovations of the ACN are representative of what is happening in Australia, but

as exemplified by the Nursing Now [43] initiative this is happening across the globe and we need to continue this momentum, not only for our own health and well-being but the well-being of populations now and into the future.

Study Guide Questions

1. Describe the current situation in your country in relation to enabling nurses to work at their full scope of practice.
2. In your work environment identify the culture of safety and specific needs for improvement.
3. What are the models of care which you most commonly work? Do they support well-being?

8 Appendix

The ACN Policy Chapters have been pivotal in creating opportunities for nurses from different parts of Australia to come together to collaborate and learn the skills to develop and publish policy documents that are above and beyond the confinements of their position descriptions within their employed capacity.

During this time we have published the following White Papers:

- Reimagining the community and primary health care system
- Regulation of the unregulated health care workforce across the health care system
- Achieving quality palliative care for all: The essential role of nurses
- A new horizon for health service: Optimising advanced practice nursing
- Establishing a nurse-led palliative care service in Australia: An implementation toolkit
- A national minimum dataset for nursing workforce planning and decision making
- Value-based health care through nursing leadership

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Transforming Nursing Education: The Hong Kong Experience

Pui Hing Chau, Edmond Pui Hang Choi, Mandy Ho, Kor Yee Chan, Siu Ling Chan, Suk Fun Lam, Man Ping Wang, and Chia-Chin Lin

Future of Nursing 2020–2030: Recommendation 7

Nursing education programs, including continuing education, and accreditors and the National Council of State Boards of Nursing should ensure that nurses are prepared to address social determinants of health and achieve health equity.

Nurses play a vital role in improving health by addressing the underlying health and social inequities at both individual and population levels. Nurse educators share a major responsibility in shaping the future of nursing by preparing nurses to better understand and address health equity. According to the *Future of Nursing 2020–2030* Report [1], it is recommended that:

> Nursing education programs, including continuing education, and accreditors and the National Council of State Boards of Nursing should ensure that nurses are prepared to address social determinants of health and achieve health equity. (Recommendation 7)

In this chapter, we will demonstrate how the School of Nursing of The University of Hong Kong (HKU) prepares the students to understand, recognize, and address social determinants of health and health equity.

P. H. Chau · E. P. H. Choi · M. Ho · K. Y. Chan · S. L. Chan
S. F. Lam · M. P. Wang · C.-C. Lin (✉)
School of Nursing, University of Hong Kong, Pokfulam, Hong Kong
e-mail: phpchau@hku.hk; chia.chin.lin@hku.hk

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1 Background

Hong Kong has a rapidly ageing population with 7.29 million residents. As of 2022, over one-fifth of the population is aged 65 years or above [2]. By 2046, it is projected that over one-third of the population will be aged 65 years or above [3]. In Hong Kong, age is a social determinant of disparities in health-related outcomes. The older population is prone to health threats due to their low education level and limited financial resources [4]. Their weak social support networks and low health literacy further jeopardize their health [5, 6]. Meanwhile, it is well documented that poverty leads to health inequity. As of 2020, as high as 23.6% of the population is living in poverty; after taking into account policy interventions (including recurrent cash, nonrecurrent cash, and means-tested in-kind benefits), 7.9% of the population still live in poverty [7]. Older adults have the highest poverty rate (after policy intervention) of 14.5% as compared to the other age groups.

Poverty also comes with food insecurity, poor living environment, and limited access to healthcare, all of which worsen the health of the individuals [8]. While the population is predominantly Chinese, 8.4% of the population is from ethnic minorities, as of 2021 [9]. Over half of these ethnic minorities are foreign domestic helpers, and the remainder, particularly those from South and Southeast Asia, usually engage in elementary work. Their poverty rate (after policy intervention) was 17.6% as of 2016, and for some of the ethnic groups, the rate could be as high as 22.4% (Thais), 33.2% (Indonesians), and 48.6% (Pakistanis) [10].

In addition to health threats related to poverty, cultural differences, and language, a lack of access to necessary translation services acts as a barrier when attempting to access health and social care services. While Hong Kong is a bilingual city where almost everyone can speak Chinese or English, this makes those who cannot speak either language face even greater challenges in seeking health. On the other hand, some of the Chinese people in Hong Kong are new migrants from mainland China. As of 2021, about 1.9% of the whole population was residents from mainland of China having resided in Hong Kong for less than 7 years [11]. The residents of both mainland China and Hong Kong share the same written form of Chinese. However, there are still language barriers as the former speak Mandarin and use simplified Chinese characters while the latter speak Cantonese and use traditional Chinese characters. Moreover, the new immigrants often are not aware of their health needs, have low utilization of healthcare services due to their daily chores and hardship, and have different health values, practices, and expectations [12].

In Hong Kong, academic institutions and hospital-based nursing schools offer different levels of preregistration nursing training programs, such as professional diplomas, bachelor's degrees, and master's degrees. The study duration of these programs varies. For example, the study duration of a bachelor's degree in nursing is 5 years, while that of a master's degree is 3 years. Upon successful completion of the program, graduates are eligible to apply for registration as registered nurses in Hong Kong. Besides, to prepare registered nurses for advanced practice and to equip them with competencies in theoretical, methodological, and analytical approaches for knowledge discovery, there are a variety of postregistration

training programs, such as Master of Nursing and Doctor of Nursing in Hong Kong.

Traditionally, social determinants of health have been incorporated into the community and public health nursing courses [13], and Hong Kong is not an exception. The Hong Kong Nursing Council, the statutory body for nurse registration, has a clear requirement on the curriculum such that contact hours for key theoretical inputs and practicum are standardized across institutions [14]. The concept of social determinants of health is embedded in various courses of the curriculum. Yet, apart from coursework and practicum, institutions have the autonomy to offer other education components so as to provide holistic education to the student nurses.

Back in the early nineteenth century, the concept of incorporating experience into education was proposed by Dewey [15]. This forms the fundamental theory of experiential learning, which describes the process of learning through experience. In brief, it has been conceptualized as learning by doing, but more precisely, it should be "learning through reflection on doing" ([16], p. 1003). Kolb further developed this concept in the experiential learning cycle, which involves four stages, namely experiencing, reflecting, thinking, and acting (Fig. 1) [17, 18]. The cycle starts with the concrete experience, on which the learners perform reflections. Then, the reflections are digested and processed, from which new concepts are developed. Next, new implications to further actions will initiate the next cycle. Experiential learning can be adapted to different disciplines. The application of experiential learning in nursing education is not an exception. Experiential learning has been recognized as an important component of nursing education [19].

To nurture students to develop their awareness toward social determinants of health, experiential learning, which enables students to get a holistic understanding

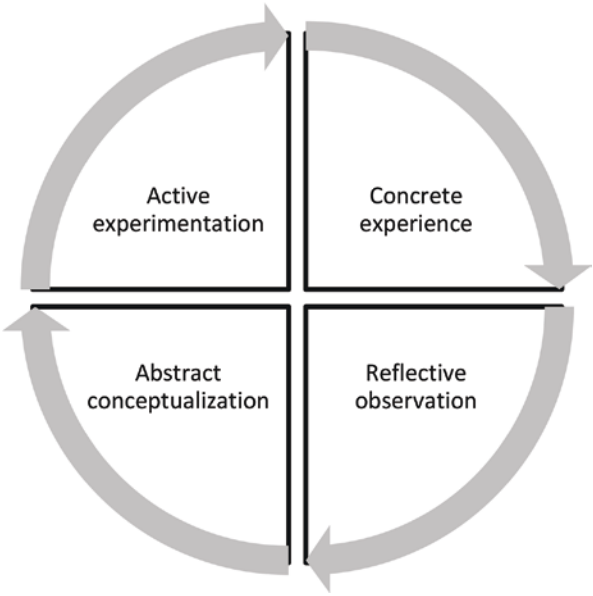

Fig. 1 The Kolb experiential learning cycle

of the population facing this threat, can be considered an efficient way. A scoping review reported that educational benefits in terms of cognitive, affective, and psychomotor domains were identified from experiential learning, such as community service-learning [20]. Another integrated review also reported benefits in terms of both educational and noneducational outcomes; the former included theoretical and practical learning, communication skills and teamwork, and the latter included empathy, questioning prejudices, and commitment [21].

Take the HKU School of Nursing as an example, a wide variety of experiential learning activities are offered to undergraduate students. These take the form of planned learning activities within the curriculum, as well as opportunities that emerge beyond the planned curriculum. Through experiential learning, our students get first-hand experience by understanding and addressing the needs of the older adults, the ones living in poverty and those ethnic minority groups and new immigrants.

2 The HKU Nursing's Experience of Addressing Social Determinants of Health and Health Equity

2.1 Theoretical Inputs in the Curriculum

The role of the nursing profession in addressing the social determinants of health must be strengthened to improve health equity. Therefore, nursing curricula should be developed to provide students with the necessary skills to accomplish this role. In the HKU School of Nursing, topics related to social determinants of health and health equity are incorporated into various courses related, but not limited, to health promotion, global health, epidemiology, and public health nursing in both preregistration and postregistration programs. The overall pedagogical approach aims at building knowledge from basic to advanced levels and training nursing students with theory and emphasis on nursing practice and advocacy.

For students at advanced levels, they are provided opportunities to develop nursing interventions and promote change in context or policy that address health equity. A holistic perspective is employed so that challenges to both the local and global contexts, as well as those at present and in the future, are discussed. All these education components cultivate nurses in different settings to lead the service to achieve health equity. To ensure study outcomes are achieved, different assessments are employed. For instance, preregistration undergraduates undertaking health promotion and education select a topic related to social determinants of health as their group projects. The students work together to assess the needs of the target population at the community level and conduct related health education to the targeted group. For postregistration undergraduates, they form groups to conduct a community assessment for their selected communities, which are prone to challenges such as aging and poverty. Applying theories acquired from lectures, the students systematically assess the population needs, set priorities, and develop action plans to address the identified barriers.

Another example is geriatric nursing. For preregistration undergraduates, theoretical inputs on the changes in biological, physiological, and psychosocial functions of the older adult, as well as the spiritual, cultural, and socioeconomic impacts on the aging population, are incorporated into the curriculum. Particularly in the Hong Kong context, the challenges rooted from the low education level and low financial resources are highlighted, and resources available from the society that can help the older population to tackle these challenges are covered. The awareness toward elderly abuse as well as legal and ethical issues is also included such that students can advocate for the protection of the vulnerable older adults. As part of the learning activities, students are given an opportunity to participate in a simulation activity organized by a local non-governmental organization to experience the impairments that may occur in older adults. By using special gadgets, students can experience the difficulties an older adult faces in daily living due to the reduced vision, hearing, and mobility. While this kind of experience is not hard to find in the community, even the general public can have a chance to visit such facilities, what make the experiential learning experience unique for the students is the opportunity to reflect. Apart from merely paying a visit to the facility, students complete a reflective journal to relate the age-related change to aging theory and make suggestions to improve current nursing practice and service provision.

2.2 Aligning with Global Development in Curriculum Planning

Nursing specialization is a global trend. The post registration master's program provides various study tracks to prepare registered nurses for advanced nursing practice in selected specialty areas. The study tracks include emergency nursing, gerontological and palliative nursing, perfusion science and cardiac nursing, infection control nursing, pediatric nursing, advanced surgical nursing, community and public health nursing, critical care nursing, and healthcare management and leadership. Among them, community and public health nursing play a leading role in addressing health equity. Students learn advanced-level epidemiology, critical appraisal, community diagnosis, and health promotion skills in the core courses and apply these knowledge and skills in their capstone projects to develop evidence-based programs to support the health and well-being of individuals, families, and communities.

The core courses for all clinical tracks, such as gerontology nursing, pediatric nursing, advanced surgical nursing, and critical care nursing, emphasize empowering students with advanced nursing skills, research skills, critical thinking skills, and leadership skills to tackle the complex healthcare challenges and address the physical, psychological, and social needs of patients. In addition, the curriculum includes advanced-level courses on clinical and professional leadership, healthcare systems and policy, health economic, and application to prepare graduates to be nursing leaders and promote health equity in their practice areas.

Meanwhile, innovations in teaching, such as co-designing the curriculum, are adopted. For example, students enrolled in the gerontology course engage in a

co-teaching approach, whereby students design and prepare the teaching contents related to healthy aging and teachers act as facilitators. This co-lecture approach maximizes students' active learning capacity and enhances students' knowledge, attitude, and competence in health promotion to the aging population. The students treasure this active mode of teaching and learning as compared to the traditional passive mode of learning, as this gives them more in-depth exposure to gerontology issues.

2.3 Practice Through Poverty Simulation

The use of simulation to provide nursing students with the experience of critical thinking and clinical judgment has been advocated as a form of experiential learning for nursing education [22]. To support students in clinical practice, many institutions are equipped with simulation facilities. There is a growing demand for community nursing, particularly in a rapidly aging population. It is critical for the students to familiarize themselves with the home environment of the population they are going to serve. While most of the simulation scenarios are developed for the hospital setting, there is a lack of simulation scenarios for the community settings. It has been noted the importance of community-based scenarios for the nursing curriculum [23], in particular, and the use of simulation has been shown to be effective in helping nursing students understand poverty [24].

Hong Kong is a densely populated city. For the under-resourced population, the home environment is always suboptimal, and a subdivided flat or very crowded environment is common [25]. Students may find it difficult to imagine the situation. Yet, a one-to-one scale simulated home environment can give the students a more impactful experience on the challenges of performing quality nursing care in the suboptimal environment. Among the few institutions equipped with this facility, the HKU School of Nursing set up community-based simulation facilities, the first of its kind in Asia. The community-based simulation facilities cover settings from a subdivided flat and public rental housing flat, to the nursing home setting. Students have the opportunity to practice nursing care in various settings that the older adults and families in poverty commonly live in. The students need to exercise their critical thinking and judgment to tackle the challenges of these limited physical spaces as well as the low health literacy and low compliance of these residents. Besides the physical setting challenges, students learn to conduct home environment assessments for health risk factors, such as fall risks, medication risks, and home safety risks, and make recommendations to the residents to reduce the risks. Through these simulation activities, students have to role play the residents and the community nurses according to the scenarios provided. Ongoing feedback to students is provided for reflective learning. The intended learning outcomes for students are to facilitate the development of their empathy toward the residents and to empower their future role as community nurses. Students find this simulation experience very realistic. Nevertheless, literature shows that while poverty simulation might help to groom students' positive attitudes to some extent, lasting effects should be achieved

by additional activities throughout the curriculum [26]. Therefore, the poverty simulation is a first step to prepare the experiential learning activity of actual home visits to the under-resourced groups.

2.4 Practice Through Real-Life Engagement

Real-life first-hand experience cannot be substituted by simulation. To provide nursing students with hands-on experience in a real-world setting, they need to go through a community practicum in which they organize health promotion activities in a community setting. Some of the practicum sites are non-governmental organizations targeted at serving the older adults, ethnic minority groups, or under-resourced groups. There, students tailor the health promotion activities to their target service clients. Through the interaction with the service provider andservice clients, students have an opportunity to adopt a broader perspective regarding the needs and challenges of service clients, who may have different backgrounds and obstacles in the pursuit of good health.

In addition to the community practicum, other experiential learning activities are offered to the students. However, the organization of these activities is not easy due to the tightly packed timetable of the nursing curriculum. Despite the challenge, HKU School of Nursing has been able to organize the Patient Care Project for students. Nursing students join other students under the Faculty of Medicine, including medicine, pharmacy, and traditional Chinese medicine, to provide interprofessional patient-centered care for patients with chronic illnesses, who are mostly older age, with poorer health literacy and/or with limited resources. The interprofessional student groups arrange visits for their clients, identify their clients' barriers in following the health advice from the medical consultation and educate the clients how this in turn affects their health. Through the interprofessional education, students from different healthcare disciplines understand their unique roles and develop synergistic collaborations, which will enhance better care of the older clients when they graduate. The students speak highly of the program in terms of the valuable experience in boosting their competencies in healthcare provision [27]. These experiences allowed our students to understand the diverse needs and challenges of the population.

Students also take part in local and non-local services and engage in exchange activities. For example, some students volunteer at non-government organizations serving the ethnic minority and new immigrants. Through their participation, students learn more about the cultural health practice of their service targets and attempt to address these physical and psychosocial health needs by applying their nursing knowledge while taking into account their cultural beliefs. To allow students to have more time for experiential learning, the HKU School of Nursing revamped the timetable of the full-time undergraduates in 2019, such that a whole semester in the third year of study is reserved for the life enrichment-learning program, which becomes a credit-bearing component of the nursing curriculum. The students have more flexibility in terms of the scheduling of the activities, and longer

overseas/mainland service trips can be arranged. The program not only offers opportunities for students to comprehend social determinants of health from a local perspective, but also a global one.

For example, a group of students visited an organization, which takes care of orphans and women in Uganda, Africa. Students widened their horizons by experiencing cross-cultural life, and poverty situations that could exist outside of their imagination. Students realized that basic needs for daily living can be perceived differently among different population groups in different places, which are very much shaped by social determinants of health. Through the activity, empathy toward those living in poverty was fostered. When the students graduate as nurses and take care of people from different parts of the world, they will keep in mind the cultural and contextual differences, and therefore be able to deliver culturally sensitive nursing care to people in need.

2.5 Embracing Equality, Diversity, and Inclusion

Ethnic minority groups in Hong Kong, particularly those from Southeast Asia, are reported to be disengaged from the healthcare system due to multiple factors, ranging from attitude and awareness, sociocultural factors, time constraints, financial burdens, and inadequate interaction [28]. Barriers in terms of language, culture, and communication hindered their health-seeking behavior. On the other hand, healthcare professionals also reported difficulties in providing healthcare to ethnic minority patients; apart from the system-level barriers, there are huge gaps in terms of patient-provider interaction, patient-provider perceptions of illness and care, and patient-provider sociocultural discordance [29]. While healthcare professional education and training in cultural competency should be strengthened, introducing cultural diversity to the nursing profession would help to achieve health equity [30]. Therefore, it would be beneficial to have nurses who are ethnic minorities themselves [31].

Not until recent years, there were very few locally trained nurses with an ethnic minority background, perhaps largely restricted by the language barrier. Nevertheless, there is a growing trend in admitting nursing students from diverse cultural backgrounds. Such a move is beyond the benefit of nurturing a nurse that can better serve the ethnic minority groups or advocate health equity toward them. Instead, it also gives an opportunity for the local students to learn more about the sociocultural background of different ethnic groups, such that this cohort of nursing students can develop a better understanding towards culturally sensitive issues when interacting with their clients in their practice [32]. To overcome the language barrier, potential students are well informed of the admission policy of welcoming students with diverse cultural backgrounds. Admission policies have to make it clear to potential students that Chinese language is not a mandatory subject, but a good working knowledge of spoken Chinese, that is Cantonese, is required. By understanding the clear admission standards, students can prepare ahead.

All students attend a prepracticum workshop on communication before they have practicum. This will prepare students to communicate with their service clients who may have different communication abilities and/or different cultural backgrounds.

2.6 Opportunities Brought by the Pandemic

The world was seriously affected by the coronavirus disease (COVID-19) pandemic. All face-to-face teaching activities had to be suspended, not to mention the various life enrichment activities. In the fifth wave of COVID-19 in Hong Kong, the older population was the most affected group. While only one quarter of the infected people were from the population aged 60 years or above, 96% of the deceased patients were older adults [26]. A large number of affected older patients required medical care. Meanwhile, the under-resourced population also faced challenges. Individuals with low information technology and health literacy may find it difficult to navigate the massive amount of information that is essential to facilitate health-seeking or self-help behavior. Those with milder symptoms required information to support their home quarantine and help them make health-seeking decisions.

This public health issue offered good opportunities for students to support the community to overcome this crisis situation. First, students were trained and deployed to Community Testing Centers. They explained the sampling procedure and performed the polymerase chain reaction (PCR) test for the public. Students also helped maintain order and crowd control to prevent infection. Occasionally, students encountered people of different races or people with communication problems, and they found ways to simplify the message to be conveyed or used other communication means. Nurses must serve all kinds of people, so communication skills and methods are worthy of students' reflection and learning.

In addition, our students supported COVID-19 vaccination at Community Vaccination Centers. They evaluated the suitability of people for vaccination, explained the vaccination process, prepared, and gave injections to the people, and observed whether they experienced any adverse reactions after vaccination.

The nursing students were also dispatched to the Community Isolation Facility to provide 24-hour care for the older patients, who were mostly from nursing homes. Due to insufficient bed space, the patients with COVID-19, especially those who were older and in stable physical condition, were discharged early from hospitals because there was not enough bed space to accommodate the sudden surge of patients. This created a difficult situation to groups that were socially deprived and who lived in an old-age home or nursing home. These groups of patients were referred by the Hong Kong Hospital Authority to the Community Isolation Facility, which was renovated from a sport center or the cruise terminal to a temporary residential area for those with stable conditions but in need of some basic care. These facilities alleviated the pressure of public hospitals, which could then care for the more severe cases. However, it placed the older patients in a less desirable environment. In the Community Isolation Facility, the students took care of the patients'

physical and mental health needs and addressed urgent needs by formulating care plans and procedures. Despite the limited resources in these temporary facilities, students strived to achieve higher quality patient care, advocated for the patients, and provided effective advice for improving the center. For instance, there were no bathing facilities at the center, so the students suggested the use of wet wipes to maintain personal hygiene and dignity of the patients. The center took their recommendations and arranged the requested materials, and the patients appreciated such effort. This experience could remind students about the needs of elderly groups that are disadvantaged and the humane care that is needed throughout their future nursing career.

Meanwhile, the younger generation might be more native in surfing the internet in search of the latest and most reliable information about the pandemic. It could be hard for them to imagine there is a cohort of the population who may get lost in the flooding pool of information or who do not have access to or know how to access the internet. The COVID-19 pandemic led our students to understand the needs of groups who were at an internet disadvantage. Therefore, our students supported the phone hotline set up by the Hospital Authority. This hotline was to answer calls from individuals who were COVID-19 positive and underwent home isolation. The patients inquired about information related to the COVID-19 and quarantine, as well as post-infection anti-epidemic arrangements. This experience was an excellent opportunity to polish students' communication skills and try to disseminate information in a simple and easy-to-understand way. Additionally, students also engaged in another hotline service for arranging home vaccination by the Department of Health. They actively followed up on the vaccination status and arranged door-to-door COVID-19 vaccination for those aged 70 years or above who had not been vaccinated, as well as those who could not go out for vaccination due to illness or disability. Through the hotline services, students understand that in addition to professional nursing knowledge, correct information, and clear and effective communication skills are also core competencies of nurses.

3 Call to Action

As nurse educators, a comprehensive curriculum with experiential learning components helps to bridge the gap in students' understanding of social determinants of health. On the other hand, nurse educators shall remain flexible and act promptly to treasure the opportunities or challenges that can provide valuable experience to nursing students. Immersing in a real-life situation followed by debriefing and reflection are important to nursing students' learning. Through these experiences, students can have a better understanding of the situation and build up their capacity in tackling the challenge of health inequity in the future. Riding on our experiences, we humbly offer the following recommendations for nurse educators:

1. Review the curriculum to ensure health equity and cultural diversity are well addressed in the curriculum.
2. Offer theoretical inputs about health equity from both the local and global perspectives.

3. Tailor curriculum contents related to health equity for undergraduates and postgraduates, as well as preregistration and postregistration programs.
4. Set hierarchical learning outcomes ranging from awareness of the issue to how to address the issue when students advance to the next level.
5. Adopt innovative teaching strategies to enhance students' preparedness to address health equity in their professional life.
6. Provide simulation scenarios that include community settings.
7. Arrange community practicum opportunities that cover a wide spectrum of service clients who are impacted by health inequity.
8. Offer experiential learning to students, which follow Kolb's experiential learning cycle.
9. Create an environment that welcomes students with diverse cultural backgrounds.
10. Seize every opportunity to incorporate the concept of health equity into students' teaching and learning activities.

Study Guide Questions

1. What are the core components of nursing education for health equity?
2. What are the different levels of learning outcomes in educating undergraduates and postgraduates to address health equity?
3. What are the facilitators to nurture nurses with diverse cultural backgrounds?

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Strengthening Nursing Education to Address Social Determinants of Health: Systems Leadership

Beverly Malone and Sandra Davis

Future of Nursing 2020–2030: Recommendation 3

By 2021, nursing education programs, employers, nursing leaders, licensing boards, and nursing organizations should initiate the implementation of structures, systems, and evidence-based interventions to promote nurses' health and well-being, especially as they take on new roles to advance health equity.

Future of Nursing 2020–2030: Recommendation 7

Nursing education programs, including continuing education and accreditors and the National Council of State Boards of Nursing, should ensure that nurses are prepared to address social determinants of health and achieve health equity.

1 Introduction

The Future of Nursing 2020–2030: Charting a Path to Achieve Health Equity is an urgent *call to action* for nurses, over the next decade, to concentrate on the social and structural determinants of health to advance health equity [1, 2]. With health

B. Malone (✉)
National League for Nursing, Washington, DC, USA
e-mail: ceo@nln.org

S. Davis
NLN/Walden University College of Nursing Institute for Social Determinants of Health and Social Change, National League for Nursing, Washington, DC, USA
e-mail: sdavid@nln.org

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equity inextricably tied to our earth's most complex existential threats, the report calls for rapid and aggressive actions to transform nursing education [2, 3]. Addressing social, economic, and environmental conditions that impact health **is not** new to nursing education, but a broader perspective that focuses on (1) systems and structures, (2) policy and politics, (3) historical drivers of inequity, (4) climate change, and (5) structural racism as a root cause of health inequities **is** new [1, 2]. As the nation's largest healthcare profession, nurses play a vital role in leading change so that everyone *has an opportunity to live the healthiest life possible* [2]. While updating the curriculum and developing advocates for social change are critical, they are not enough. Cultivating critical consciousness and building structural competency are the new and necessary developmental underpinnings. In addition, there must be an intensification of the focus on the health and well-being of nurses leading in these new roles to advance health equity [2]. Hope, healing, and finding one's truth are now essential aspects of health and well-being for nurses leading the transformation of nursing education and healthcare delivery.

2 Leading the Organization: Moving Beyond Resistance to an Updated Nursing Curriculum: It Starts with the Culture

The triple existential threat of the COVID-19 pandemic, structural racism, and climate change has brought us to a defining moment in history [3, 4]. As a nation, we are now acknowledging and discussing the root causes of inequity found in the social and structural determinants of health [4]. With this recognition, we are poised at the nexus of resistance, truth, and transformation [4]. Transforming nursing education requires moving past reluctance and resistance to broaden the scope of the curriculum. An updated curriculum must include the historical and contemporary truths that identify structures, systems, and institutional policies and practices that produce injustices and inequities and maintain the status quo. Indeed, curriculum change requires a culture change.

Changing culture in any system is a challenge requiring leadership, co-creativity, and fortitude. Leaders must be authorized to courageously lead and to step into their own authority to transform social and health inequity from a frightening and uncomfortable dilemma to an opportunity for promoting excellence in nursing education that results in a strong and diverse nursing workforce prepared to advance the health of the nation and the global community [5]. Even with facing the reality of the gaps in our culture related to health equity and its corollaries of social and structural determinants of health, the mention of a curriculum change, an example of a culture change, invokes both mild and aggressive resistance. Yet every school wants to be awarded the title of excellence. The majority of faculty, from the instructor to the professor and dean, are yearning and continually stretching toward excellence as a goal. If the school's culture does not address social determinants of health, structural determinants of health, and the issues of diversity, equity, inclusion, belonging, social justice, climate change, and structural racism consistently, throughout every

level of the nursing curriculum, there is a critical need for an update. It is the belief of the National League for Nursing (NLN) that without these central drivers as a qualitative lens for health equity, there is no excellence.

The usual strategy for curriculum change is integrating new concepts, recent research, and best academic and clinical practices into the existing curriculum that is under the ownership of the faculty. The authors suggest a different approach to describing the process of transforming the curriculum and thereby the culture. The curriculum deserves an "update" to approach the requirements of preparing nursing to address the social and structural determinants of health and achieve health equity. This implies that the existing curriculum is no longer relevant and timely. In the same manner that our phones, computers, and iPads are updated continuously for more efficient, effective use, our curricula need an automatic reset button. This curriculum update is a proposition for the educational preparation of nurses to provide quality care to various populations with cultural differences, the impact of climate change, and the historical burdens of racism while recognizing the harmful impact of micro and macro aggressions and the gentle but dangerous unspoken, unidentified biases that consciously or unconsciously work to nullify health equity. Eliminating health inequities and achieving health equity will not occur without a broad-based substantive change in our culture and how we teach in nursing education.

The NLN offers a template for overcoming resistance to achieve this revisionist cultural strategy for a twenty-first-century view of who, what, and how we teach [6]. The first step is positioning the school's mission statement as the North Star pointing in the direction the school intends to travel. The mission statement has served as the light in the darkness during budget cuts, faculty vacancies, student upheaval, and other crisis like events wherein the school can lose its sense of direction. Now, like never before, the mission statement must be the guiding principle that challenges resistance, drives culture change, and situates excellence to advance health equity.

The NLN's mission statement [5] is: Promoting excellence in nursing education to build a strong and diverse nursing workforce to advance the health of the nation and the global community. This statement of intent, aspiration, and action of promoting with the related goal of building a strong and diverse nursing workforce is underpinned by four core values: caring, integrity, diversity with inclusion, and excellence [5, 7]. Perhaps it is the combination of the mission statement with the core values that illuminate the necessary steps of the journey and nursing education's destination to advance, nationally and globally, the health of families and communities.

In the mission, one must find an undeniably clear commitment to addressing the social and structural determinants of health to advance health equity by focusing on diversity, equity, and inclusion, belonging, social justice, antiracism, excellence, our own well-being and the health and well-being of all those we serve. How does one begin the journey? Let's begin with a review and if needed, updating the school's mission statement. Next, bring in an experienced external consultant of color to work with an internal core task group. This work group also provides an opportunity for involvement with representation from other university/school departments and

the underrepresented community at large. An experienced external consultant of color is usually essential in helping to face the challenging realities about the organization's present diversity, equity, inclusion, social justice, and antiracism status and the required journey of transformation. The external consultant not only can bring experience, but the ability to create safe and brave places for courageous discussions within the work group. It is equally important for those courageous conversations to be transported into the rest of the organization. It is also important to have a high-level administrator as part of the work group to acknowledge the authority and significance of the DEI, social justice and antiracism work and its alignment with the organization's overall strategic plan. Use the mission statement and core values as a frame of reference for the strategic plan. The goals should be clearly delineated with projected times, dates, numbers, and identification of the primary individuals responsible for implementation and evaluation.

Using the strategic process, the budget is the annual model for allocating resources to meet goals identified in the strategic plan. The visibility of funded activities and resources to facilitate the transformation process should be clear. The budget is a realistic indicator of linkages between the organization's mission, core values, strategic plan, and actual organizational behavior. Adequate resources plus a contingency fund should be allocated to support the implementation of the strategic plan.

Next, a mixed review process with both qualitative and quantitative data is useful in highlighting unwritten standards and barriers that minimize the potential success of those from different racial/ethnic backgrounds. A standing line item should be on the annual review of each faculty, staff, and administrator's individual evaluation related to their involvement and/or support in updating the school's culture to becoming a more inclusive system. This type of evaluation speaks to the organization's level of commitment to developing an inclusive culture of diversity, equity, social justice, and antiracism. This evaluation strategy would also extend to the criteria for promotion and progression. The transformational process would have ownership not only by a few but by the entire organization. A designated, periodic process of evaluating and refining the efforts made around culture change must become part of the school's basic organizational processes. A focus on regularly rewarding/celebrating the faculty, staff, and students' growth in this area of excellence is critically important. There is no quick turnaround mechanism for this work. It may take 3–5 years to begin to see the cultural change, which is the expected time for most transformational initiatives.

Updating the curriculum should not be delayed. Commensurate with the journey to change culture is the process of updating the nursing curriculum. A mission-driven change in culture works in tandem with a transformational initiative to update the nursing curriculum. Mission-driven curricular efforts informed by ongoing culture change work allow educators to develop and deliver content that integrates social needs, social and structural determinants of health, population health, environmental health, trauma-informed care, and health equity as core concepts and competencies throughout coursework, clinical, and experiential learning [2]. However, faculty must be adequately prepared to address the social and structural determinants of health to advance health equity.

3 Leading Faculty, Learners, Staff and Engaging the Community: Let's First Be Clear About the Social and Structural Determinants of Health

Preparing a workforce with the knowledge, skills, and attitude to eliminate health and societal inequities rests with each educator, scientist, and administrator. However, nursing faculty often express hesitancy in engaging students, colleagues, and staff in dialogue about these highly complex and inextricably connected issues of inequity. Through raising awareness, understanding the issues, and engaging in dialogue, the work of changing culture provides the foundation for updating the curriculum. Core concepts and competencies should be commensurate and seamless with the academic level and included in continuing education [2]. However, faculty must first have a clear understanding of what social determinants of health is, what it is not, and its connections.

Nurse educators may teach the social determinants of health as the conditions in which people are born, grow, live, work, and age, including factors such as income, education, employment, housing, and neighborhood conditions. While this description captures societal factors that account for up to 80–90% of health and health outcomes, this definition is incomplete [8, 9]. There is a second part to the definition of social determinants of health that is often omitted or not discussed [9, 10]. The World Health Organization (WHO) describes the social determinants of health as the conditions in which people are born, grow, live, work, and age, **and the wider set of forces and systems shaping the conditions of daily life** [11]. This definition adds the structural determinants of health to the social determinant of health construct. Economic policies, social norms, policies, and political systems all influence the distribution of money, power, and resources locally, nationally, and globally and are the forces that create social and health determinants [12]. In addition, the WHO's definition is critical to recognizing how important both historical and contemporary policies, politics, and practices are to the creation of social determinants of health, and health inequity/equity [13–15]. When it comes to teaching social determinants of health, nursing education is often ahistorical. The present is disconnected from the past and this must change. Using the full and correct definition of social determinants of health clarifies the structural forces past and present that gave rise to social determinants of health in the first place and accounts for how racialized groups are disproportionately burdened by the social determinants of health [13–16]. It also lends insight into root causes and conveys the importance of advocating and intervening through policy [13–15, 17]. We must realize that health inequities are the systematic, unnecessary, and avoidable differences in health between groups of people who have different relative positions in social hierarchies based on wealth, structural racism, power, or prestige, all of which can be shaped by policy [18, 19]. The NLN/Walden University Institute for Social Determinants of Health and Social Change is an innovative national initiative launched in 2022 to develop leaders with the leadership competencies to integrate social and structural determinants of health and social change into nursing programs and curricula [20].

Cultivating critical consciousness or the ability to identify, critique, and challenge the structural forces past and present that produce inequities in the social determinants of health, is a prerequisite to teaching for transformative learning [21, 22]. While this may be difficult and uncomfortable, Mezirow [22] highlights the importance of the learner being uncomfortable for transformative learning to occur: *"We do not make transformative changes in the way we learn as long as what we learn fits comfortably in our existing frames of reference."*

In addition to cultivating critical consciousness, building structural competency is essential. Building a structural competency lens allows nurse educators to not only recognize the systems, institutional norms, practices, and policies that produce inequity and unjust health situations but also engage in an on-going process of learning, self-reflection, collaboration, and advocacy to address the multifaceted social and structural determinants of health inequities [23, 24]. Community engagement is integral for building structural competency. Further, community involvement and support are essential to educating learners to address and intervene in the social and structural determinants of health. It is important to develop mechanisms for the community to collaborate with and advise the school as it moves toward its goal of transforming its culture to upgrade the curriculum. Ways to involve the community include special meetings to gain input from community leaders, questionnaires, focus groups and the establishment of partnerships with community agencies and corporations. The two following examples provide a potential pathway to engage the community.

At North Carolina Agricultural & Technical State University (A&T), a historically Black school of nursing, the dean decided to recruit more strongly from the surrounding community. She was forewarned that the high schools would not be receptive to establishing a relationship with the school of nursing. Irrespective of these warnings, she initiated contact with the school's principal who surprisingly warmly welcomed her into the school. With the dean's leadership team, a decision was reached as to where to focus the recruitment efforts. It was with the high school counselors. Once a month, the school would provide breakfast for the counselors and update them about the profession of nursing, using the analogy that nursing was the student's gold card to the world. One could travel, change the focus of their work from children to older adults, from surgery to psychiatric mental health or rise to become an educator in the field of nursing. Nursing provided a landscape of opportunities. The counselors held the keys to the students and teachers who provided directions as to the professions students should choose. In addition, there was the opportunity to share the types of courses high school students needed for success in a nursing program. As the relationship with the counselors and principal progressed, senior nursing students, for course credit, began giving presentations on different nursing topics to those high school students interested in a healthcare career.

The second example is the road less traveled. Our nation has the highest incarceration rate in the world [25]. Fifty percent of Americans have had an immediate family member who has been incarcerated [26]. This is correlated to a life expectancy that is 2 years less than those without a family member who has been incarcerated. Black Americans tend to be incarcerated five times than that of White

Americans [27]. In 2018, for every prisoner per 10,000 adults 18 and older, in the White American group, it was 268, while in the Black American group, it was 1501 [27]. This raises the question of appropriately preparing nurses to work in a community that includes the prison population with its high concentration of young Black men. There are few schools whose clinical rotations in the community include the prison system. This is another area requiring curriculum transformation as our schools in all professions desperately search for clinical settings.

It is not enough for nursing administrators and faculty to lead in updating the curriculum to prepare nurses for now and the future. A systems approach implores accreditors and the National Council of State Boards of Nursing to partner in the process of implementing, assessing evaluating, and updating efforts to transform nursing education.

4 Leading Self: Health, Well-Being Through Hope, Healing, and Finding One's Truth

As nurses assume new roles in addressing the most pressing societal and health issues, health and well-being cannot be overlooked or taken for granted. The compounding effects of societal and nursing workforce issues demand that leaders, organizations, and systems support nurses in their health and well-being. Moreover, leading the self during this defining moment in our nation's history calls for serious attention to be given to hope, healing, and finding one's truth. In organizations, the individual nurse or nurse educator needs a global positioning system (GPS) to ensure a safe, efficient, quality career journey. The educational program is the first stop along the trip to acquire an appreciation and understanding of the power clarity of mission and core values provide the professional nurse [5, 7]. By necessity and with gratitude, academia joins with the clinical realm in touching and healing the lives of individuals, families, and communities here within the United States and beyond. Within each of the core values lies the essence of health equity [7]. Transformation embodies health and well-being through hope, healing, and truth. The following is a more in-depth view of the NLN Core Values:

CARING is the promotion of health, healing, and hope in response to the human condition. These three nouns, each beginning with H, represent the transformational desires of our nation and the world. During the recent and lingering multi-wave Covid pandemic, as millions died, the nations cried out for a return to health. In the United States (U.S.) people of color (Black, Latinx, and Native American) were more profoundly affected by the pandemic than others [28, 29]. Overall, among combined states, the prevalence of non-Hispanic Black deaths from COVID-19 is disproportionately higher than the non-Hispanic Black U.S. population [30]. Among the Black community, it is frequently stated that when White America catches a cold, Black people catch pneumonia.

The longstanding health disparities and inequities speak to the challenges of being healthy and receiving adequate "caring" by the healthcare system. In a 2021 survey by U.S. News & World Report and the Harris Poll, it was found that 53% of

Americans do not believe racism is a problem in the United States [31]. In stark contrast, a 2022 study by the Commonwealth Fund found one in four Black and Latinx patients reported experiencing healthcare discrimination in the past year [32]. These health disparities are outstanding in the areas of oncology, cardiology, long-term care, and maternal health [33, 34]. Of equal concern a 2020 Kaiser Family Foundation report, The Undefeated Survey on Race and Health, polled 1769 adults including 777 Black Americans [35]. They found Black Americans to have low levels of trust in their doctors and the healthcare system and reported higher rates of being disbelieved and denied tests, treatments, or pain medication they thought they needed. Obviously, these concerns extend beyond the medical profession and include areas of care delivered by nurses as well as other disciplines [35].

Nurses are healers, magnets that attract those in need of caring and the gift of healing. Nurse after nurse share the story of sitting on a bus, train, or airplane and the person next to him or her pours out their stories with the healthcare issue that is a personal struggle. The power of healing involves strategies of communication as well as the dedication of being there for all regardless of differences. With the same power, each nurse carries his/her own self-generating mechanism of hope knowing not to wait for the patient or family during the transaction of care to search out who has brought the hope. As nurses, we always bring the hope, that is the ability to declare future possibilities along the journey of life. Should we only allocate caring according to race or other differences? As clinicians of the world, are we healers of only those who remind us of ourselves and our families of origin? Are we products of the bias, unconscious as it may be that was sewn into our frame of reference from our family, the first system we encountered as we entered the world? As nurses we must engage in the on-going processes of self-reflecting and reflecting-in-action to find our own truth by examining our own individual history, our own beliefs, and our own values.

Moving onto INTEGRITY that implies respecting the dignity and moral wholeness of everyone without condition or limitation. Carl Rogers [36], a well-known psychologist, spoke of unconditional regard for all patients and people with whom he worked. In many ways, this is the essence of without diversity, there is no excellence [37]. In our careers, we all aim for the descriptor of excellence, but integrity pushes back at our dream with the reality of our humanity. Reality tops rhetoric and shakes it to its core. Whether it is our schools, hospital, faculty, or clinical leadership team that has few or no representations of differences, particularly differences of color, the arrow points directly at us and our unwillingness or lack of knowledge as to how to gain and maintain a necessary measure of diversity and inclusion.

Amazingly, nurses solve other's problems. Nurses are incredibly adept at solving problems. As a profession, nurses understand strategic planning and repackaging our philosophy, developing work groups, hiring consultants, assigning budgetary resources, and elevating the participants along with the outcomes produced. Yet this simple plan of action and evaluation of our work faces implicit and, at times, explicit bias. An often-stated and widely held belief is that increasing diversity proposes obstacles like lowering standards, not successfully passing boards and/or detracting

from the overall level of nationally recognized excellence. This is a leadership challenge. With respect to integrity, the leader must strive to build a culture where organizational principles of shared communication and ethical decision-making are encouraged, expected, and demonstrated. When the description of an excellent program includes racially diverse faculty, staff, and students with evidence of involvement, engagement, and progression, the goal of excellence can become a reality.

NLN's third core value is DIVERSITY, but not diversity without INCLUSION. Diversity with inclusion affirms the uniqueness of people and the differences among them—their ideas and values as well as their ethnicities. The educator can achieve a culture of diversity when inclusiveness, willingness, and a desire to understand one's self and one another moves beyond simple tolerance to embracing and celebrating the richness of each individual. This requires abandoning the idealization of "color blindness" and moving from equality to equity. With clear vision acknowledging the differences not just in the other, but the clinician's response to those differences. Harry Stack Sullivan [38] emphasized we are more similar than different. Reaffirming this from a scientific perspective, the Human Genome Project completed in 2003 revealed that humans are 99.9% identical in their genetic ++make-up [39]. Strong, excellent teaching and leadership develops the capacity to hold both similarities and differences with other individuals, groups, and organizations.

One must consciously choose professional intentional behavior through rigorous and regular self-reflection making the implicit explicit, the unconscious, conscious and identifying micro-aggressive acts in self as well as in others. There are times when one is unable to move directly into self-examination, and it requires a shared review of one's behavior by another. The other may be a therapist, coach, or colleague who can provide transparent, direct feedback that will facilitate the initiation of self-examination and self-discovery of old patterns of behavior that have been closeted and covered with false perceptions. They may even equate to institutionalized racism that refers to the structures, policies, practices, and values resulting in differential access to goods, services, and opportunities by race [4]. It is sometimes difficult to believe that this level of racism has any connection to one's individual beliefs or actions, thereby refuting any responsibility or ability to change oneself or the culture. This is a breeding ground for White privilege, which is an unearned advantage and the unrecognized benefit of being identified as White [40, 41]. The idea that institutional racism was formed and erected before one's existence has any relationship to the values and behavior of those in the present time is challenging to grasp. It is like convincing a fish that it is swimming in water [42]. The water has always been there and the connection to establishing, maintaining, and consistently contributing to its existence is difficult to understand from an individual perspective.

Truly the issue of race and differences has been amplified from educational school rooms to the incarceration of young black men into for-profit prisons, placing an unusual strain on our healthcare system and our nurse educators. As professionals who oversee the education of clinicians dedicated to providing care to everyone in the nation and global community, there is a special obligation to

acknowledge, teach and apply lessons in humanizing the culture creating healthy equitable space for all. This provides quite a conundrum. Are prisons good or even appropriate clinical settings for nursing students? Is it institutional racism at work that Black men are disproportionately channeled into the criminal justice system [43]? Is this a healthcare education community denial that the prison system is part of the society that nursing is dedicated to serve?

Nursing is a microcosm of the world with our family history and individual flaws submerged, and our rhetoric of caring for everyone with unconditional regard challenges the reality of sharing space with those who are different including people of color. There is a great need for truth-telling within Nursing: nurses are not color-blind [44]. We fear losing our excellence with the admission of students from underrepresented, under-resourced groups, thereby justifying the rejection of these students as a lowering of standards. Nurses have a professional and ethical obligation to dismantle systems that have been structurally designed to harm [2].

5 A Call to Action

At this defining moment in history, this chapter challenges nursing to change culture and move beyond resistance to update the nursing curriculum and transform nursing education. Building structural competency and cultivating a critical consciousness that fosters an understanding of social determinants health and structural determinants as root causes of societal and health inequities are the new and necessary developmental underpinnings. As nurses prepare to take on new roles to advance health equity, the focus must be hope, healing, and truth to promote nurses' health and well-being. Table 1 broadly summarizes the strategies for transformative change in nursing education created by the authors of this chapter, Malone and Davis. It is followed by a detailed outline of the necessary steps for action. Figure 1 depicts the connectedness of these strategies and through a schematic diagram developed by the authors, Malone and Davis, emphasizes the systems perspective that nursing leadership must consider as they embark on the journey of transformative change in nursing education. The NLN core values are aspirational and provide a road map for excellence that celebrates the brilliance and struggle of the nursing profession. Nursing will not travel this road alone, but with other professions, colleagues, fellow clinicians dedicated to professionalism and delivering quality care to the people

Table 1 Summary of a model for transformative change in nursing education

Transformative change in nursing education	Leading the organization: moving beyond resistance to an updated nursing curriculum: it starts with the culture
	Leading faculty, learners, staff, and engaging the community: let's be clear about the social and structural determinants of health
	Leading self: health, well-being through hope, healing, and finding one's truth

Davis and Malone [1]

Fig. 1 A model for transformative change in nursing education Davis and Malone [1].

we serve. The time to begin is now. As nurse leaders, as nurses, we are born for times like these.

6 A Model for Transformative Change in Nursing Education

6.1 Leading the Organization: Moving Beyond Resistance to an Updated Nursing Curriculum: It Starts with the Culture

- Mission Statement—the North Star
  - Review and update the central drivers of diversity, equity, and inclusion, belonging, justice, antiracism, and excellence
- Authorizing Leaders to Lead
  - Courageous leadership to push past resistance for changing culture and curricular upgrade
  - Leaders must transform social and health inequity from a frightening and uncomfortable dilemma to an opportunity for promoting excellence in nursing education to build a strong and diverse nursing workforce to advance the health of the nation and the global community
- Lining up the system

- Defiling current reality—review of policies, practices, and organizational culture for:
  - Diversity of students, faculty, and staff
  - Inclusive teaching and environments
  - Sense of belonging
  - Commitment to equity, justice, and antiracism
- Co-creating a vision of the desired future state
  - Dreaming, envisioning, and building with the team an outline of possibilities
- Developing organizational processes to bridge the gap between the real and desired states:
  - Strategic plan: Use the mission statement and core values as a frame of reference
    - The goals should be intentional and clearly delineated with projected times, dates, numbers, and identification of the primary individuals responsible for implementation and evaluation
  - Budget
    - The budget is the annual model for allocating resources to meet goals identified in the strategic plan. The visibility of funded activities and resources to facilitate the transformation process should be clear. The budget is a realistic indicator of linkages between the organization's mission, core values, strategic plan, and actual organizational behavior. Adequate resources plus a contingency fund should be allocated to support the implementation of the strategic plan.
  - Evaluation
    - A mixed review process with both qualitative and quantitative data is useful in highlighting unwritten standards and barriers that minimize the potential success of those from different racial/ethnic backgrounds. A standing line item on the annual evaluation of each faculty, staff and administrator's individual evaluation related to their involvement and support in updating the school's culture to becoming a more inclusive system. This type of evaluation speaks to the organization's level of commitment to developing an inclusive culture of diversity and equity. This evaluation strategy would also extend to the criteria for promotion and progression. The transformational process would have ownership not only by a few but by the entire organization.

- External Consultant with Internal core work group
  - An experienced external consultant of color to work with an internal core task group including community members is usually essential in facing challenging realities about the organization's present (DEI), social justice and antiracism status and required journey of transformation

Malone [6].

7 Leading Faculty, Learners, and Staff and Engaging the Community: Let's First Be Clear About the Social and Structural Determinants of Health

- Educating faculty on the social and structural determinants of health
- Cultivating critical consciousness among faculty to identify, critique, and challenge the structural forces past and present that produce inequities in the social determinants of health
- Building structural competency
  - Recognizing and responding to health and illness as downstream effects of broad social, political, and economic structures
  - Shifting attention to forces that influence health outcomes at levels above individual interactions
- Community involvement and support
- The role of accreditors and the National Council of State Boards of Nursing

8 Leading Self: Health, Well-Being Through Hope, Healing, and Finding One's Truth

- Leading with a clarity of mission and core values
- Advancing health and well-being through hope, healing, and finding one's truth

9 Case Study

9.1 Beginning a Cultural Transformation to Strengthen Nursing Education

The Dean and leadership at a predominately White Northeastern university noted that their school of nursing was surrounded by a very diverse neighborhood while their student population was less than 5% diverse. Current newsworthy topics of diversity, inclusion, and equity were occurring nationwide while locally the healthcare system and the educational preparation of the workforce were being discussed. With examples of the influences of structural racism, social determinants of health and unconscious biases highlighted, the timing seemed to be appropriate to re-ignite work on these issues. The goal over a 3-year period was to increase the diversity of the student body and the faculty by 15%.

The first step was to review the mission statement not only of the school of nursing but also of the university. Both mission statements clearly charged the institution and all its entities with a commitment to diversity, inclusion, and equity. The school of nursing's core values of quality, social justice, and educational excellence were clearly and concisely defined. The Dean appointed one of the school's three

African American faculty to provide the leadership for this initiative and identified access to resources requiring budgetary support. These resources included funding to hire an experienced external consultant with a diverse racial/ethnic background and expenses (e.g., travel, food, lodging) related to establishing an internal core ten-member work group that included diverse participants from the local community, clinical sites, and alumnae association. Also validating the importance of the work, the Associate Dean for Academic Affairs and the chair of the promotion and tenure review committee were appointed as members of the internal work group.

Within the first year, a two-page strategic plan was developed, and additional subcommittee work groups were formed to oversee and operationalize various components of the plan.

9.2 Reflections on the Case Study

This Case Study raises some of the following concerns:

1. There is the implication that previous work had been initiated related to issues of diversity, inclusion, and equity. A brief autopsy of what worked and did not work for this particular school of nursing may be important.
2. Involving the entire nursing school from the beginning is essential. Therefore, not only the Dean and leadership must be involved but also a faculty meeting/retreat with staff participation is needed to establish ownership of the work across the organization.
3. Leadership for the initiative was placed in the hands of one of the three African American faculty whose professional promotions and career may be jeopardized by the increased workload. Is this appointment not valued by other faculty and not counted as a significant contribution to the school in terms of promotion and tenure criteria? Should a co-chair be appointed to attenuate the responsibility placed on the African American faculty member?

These reflections are worthy of consideration by the school leadership and the external consultant. In addition, the timing of when the consultant is brought into the work is important.

10 Closing Summary

This chapter is dedicated to strengthening nursing education by identifying a pathway to the North Star of diversity, equity, and inclusion. While not the only path forward, it represents an intentional implementation package for the beginning actualization of the Future of Nursing Recommendations #3 and 7 noted at the beginning of this chapter. This journey requires nursing leadership to be innovative and courageous; thoughtful and persistent, deliberately utilizing the university and school's mission statement, core values, and the uniqueness and integrity of its

faculty, staff, and students. The process, as outlined, does not guarantee immediate success but is a way forward acknowledging looming delays and deterrents underlined by the history of structural and social determinants of health, including racism. This leadership journey is not a solo endeavor but requires the overall system to be aligned in moving forward together in its determination to provide a framework of nursing education that promotes excellence in nursing education building a strong and diverse nursing workforce advancing the health of the nation and the global community. There must be bridges crossed from academe to practice and from identities as white majority schools, faculty, and students to more representative groups of the communities and populations served by the profession of nursing. The landscape has high mountains and low valleys that are difficult to navigate, but with bold and united leadership and followership, it is time to embark on the journey. The Future of Nursing is not inevitable, it is "inventible". Together we will co-create our Future.

Study Guide Questions

1. Upgrading the curriculum to focus on the social and structural determinants of health for advancing health equity requires a change in an organization's culture. What is a strategy for overcoming resistance to change?
2. Why should building structural competency be synonymous with building the knowledge, skills, and attitude for teaching about the social determinants of health to advance health equity?
3. Why is the need for truth-telling within nursing an essential part of health, healing, and well-being?

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Capitalizing on Nurses' Potential to Improve Consumers' Access to Care

Winifred V. Quinn, Susan C. Reinhard, and Patrice F. Little

Future of Nursing 2020–2030: Recommendation 4

All organizations, including state and federal entities and employing organizations, should enable nurses to practice to the full extent of their education and training by removing barriers that prevent them from more fully addressing social needs and social determinants of health and improving health care access, quality, and value. These barriers include regulatory and public and private payment limitations; restrictive policies and practices; and other legal, professional, and commercial impediments.

1 Introduction and Overview

People's direct access to advanced practice registered nurses (APRNs) has been an evolutionary process, with rapid growth in the last decade. APRN practice in the United States started in the nineteenth century with nurses providing anesthesia

W. V. Quinn (✉)
Advocacy & Consumer Affairs, Center to Champion Nursing in America, Public Policy Institute, AARP, Washington, DC, USA
e-mail: WQuinn@aarp.org

S. C. Reinhard
AARP Public Policy Institute & Center to Champion Nursing in America and Family Caregiving Initiatives, AARP, Washington, DC, USA
e-mail: SReinhard@aarp.org

P. F. Little
Mercer University, Georgia Baptist College of Nursing, Atlanta, GA, USA
e-mail: plittle@aarp.org

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services during the Civil War. By the end of the nineteenth century and into the early twentieth century, nursing midwifery grew out of the historical midwifery practice [1, 2]. As nursing midwifery grew into a profession, so did clinical nurse specialists, who started as psychiatric nurses [3, 4]. The nurse practitioner field also had its early roots in the early twentieth century and was firmly established in the 1960s [5]. Subsequently, state regulations governing their profession developed as each advanced nursing specialty gained traction.

The National Academy of Medicine (NAM), in its 2021 Future of Nursing 2020–2030: Charting a Path to Health Equity, called for the federal government, state governments, health systems, and insurers to recognize nurses' full potential [6]. The NAM reiterated and expanded upon the initial 2010 Future of Nursing report's recommendation for state and federal governments to modernize their laws pertaining to nursing practice [7]. The 2021 report emphasized the need for nurses and other stakeholders to focus on health equity, diversity of nursing, social determinants of health (SDOH), and laws and institutional policies pertaining to APRNs' and registered nurses' scope of practice.

Before exploring the scope of practice-related public and institutional policies, here is a brief explanation of the four APRN roles. As noted earlier, all four APRNs have important roles in providing high-quality clinical care to patients and support for families (see Table 1).

Table 1 Description of APRNs in the United States [8]. Campaign for Action, 2022.

Types of Advanced Practice Registered Nurses

FUTURE OF NURSING™ Campaign for Action

Who are they?	How many in the U.S.?	What do they do?
Nurse Practitioners (NP)	355,000+	Take health histories and provide complete physical exams; diagnose and treat acute and chronic illnesses; provide immunizations; prescribe and manage medications and other therapies; order and interpret lab tests and X-rays; provide health teaching and supportive counseling.
Clinical Nurse Specialists (CNS)	89,000+	Provide advanced nursing care in hospitals and other clinical sites; provide acute and chronic care management; develop quality improvement programs; serve as mentors, educators, researchers, and consultants.
Certified Registered Nurse Anesthetists (CRNA)	71,250+	Administer anesthesia and related care before and after surgical, therapeutic, diagnostic, and obstetrical procedures, as well as pain management. Settings include operating rooms, outpatient surgical centers, and dental offices. CRNAs deliver more than 65% of all anesthetics to patients in the United States.
Certified Nurse-Midwives (CNM)	13,515	Provide primary care to women, including gynecological exams, family planning advice, prenatal care, management of low-risk labor and delivery, and neonatal care. Practice settings include hospitals, birthing centers, community clinics, and patient homes.

Campaign for Action [Internet]. Four types of APRNs 2019 [updated 2022 Dec 16; cited 2022 Dec 16] Available from https://campaignforaction.org/resource/types-advanced-practice-registered-nurses/

2 Primary Care and Nurse Practitioners: A Decade of Change

In 2007, AARP Foundation, AARP, and the Robert Wood Johnson Foundation created a joint initiative, the Center to Champion Nursing in America (CCNA) [9]. Its mission is to ensure that all Americans have access to highly skilled nurses when and where we need them. CCNA, working closely with AARP government affairs and policy staff and leaders, decided to support and advocate for APRNs' full practice authority. Full practice authority (FPA) is defined as "the authorization of nurse practitioners (NPs) to evaluate patients, diagnose, order and interpret diagnostic tests, and initiate and manage treatments—including prescribing medications—under the exclusive licensure authority of the state board of nursing" [10]. By doing so, these policies would increase patients' access to care and support for family caregivers. AARP tracks this public policy win annually in its dashboard measure. Henceforth, AARP and CCNA worked on this policy through the lens of the consumer and eventually helped frame this issue from other perspectives, including free enterprise and most recently health equity.

In 2010, AARP Foundation, AARP, and the Robert Wood Johnson Foundation announced a second joint initiative, Future of Nursing: *Campaign for Action*. Administered through CCNA, the *Campaign* was responsible for building a national movement to implement the 2010 Institute of Medicine (IOM), now known as the National Academy of Medicine, Future of Nursing recommendations. As noted earlier, the IOM included FPA for APRNs, and therefore, the *Campaign* would prioritize this recommendation. Through the *Campaign*, CCNA provided technical assistance to AARP state offices and nursing coalitions to advocate for FPA. CCNA helps with coalition building and messaging training to help broaden the network of supporters—both grassroots and policymakers.

This strategy reflects Kingdon's (1984) policy stream model [11]. Kingdon's model starts with the problem stream and underscores the importance of framing the problem. His model then moves into the policy stream, which demonstrates that multiple stakeholders often share an interest in an issue from various perspectives. The model wraps up with the political stream, which is when the decision-makers agree with the problem and policy streams and make a change. Kingdon underscored that stakeholders do not achieve these political wins randomly [12]. Instead, it takes entities and coalitions many attempts at the problem, policy, and political streams, before succeeding. For CCNA, by building the consumer strategy (framing the problem) and helping nursing broaden its reach (policy stream), the *Campaign* and CCNA have helped nurse practitioners (politics stream) in 14 states achieve FPA since 2011 [11–13]. Figure 1 illustrates the progress of the states with access to care. Later are two examples of states that have made advancements as well as a case study that describes the potential for institutional-level advancements.

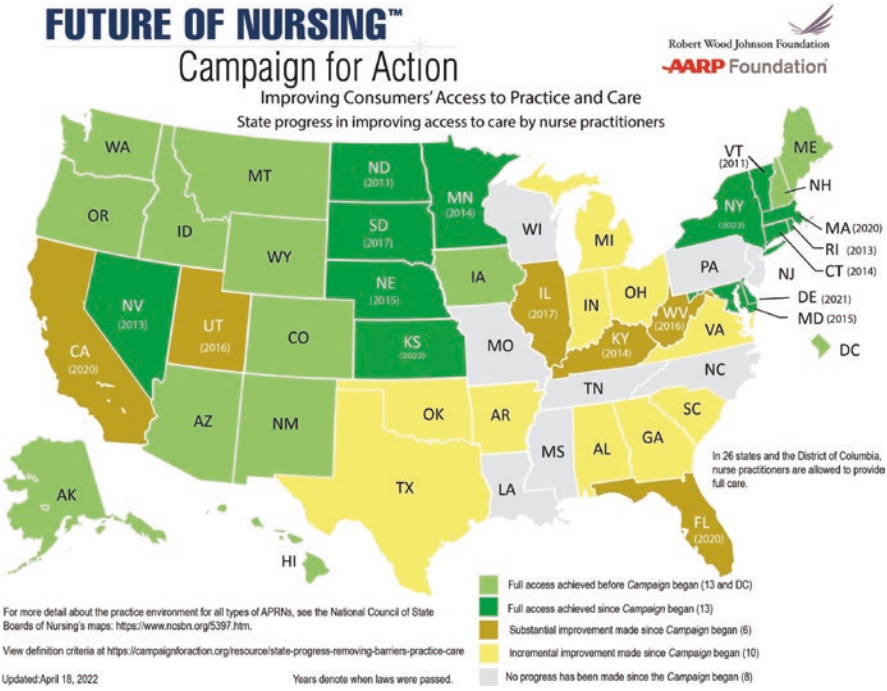

Fig. 1 State progress in improving access to care

3 Case Studies

Case Study A: West Virginia and the Business Case

In 2016, West Virginia achieved an important win. Although it fell just short of recognizing NPs' FPA, it is close. The state still requires NPs to have a written protocol with a physician to prescribe some controlled substances [14]. The reason it is important to highlight West Virginia relates to their coalition and their messaging.

In the early part of the decade, a prominent change among state legislatures occurred. A majority became conservative, favoring smaller government, less bureaucracy, and consumer choice. In 2015, Nebraska achieved FPA, and a new prominent conservative grassroots organization, Americans for Prosperity, supported it.

Then, in West Virginia in 2016, this issue made headway in the state legislature when the Senate appointed a new Health Committee Chair. The prior one, a physician, held the seat for numerous years and suppressed the scope of practice bill for a vote. With the new Chair, numerous stakeholders, including AARP WV, saw this change in leadership as an opportunity to advance the legislation. Recognizing Americans for Prosperity's role in Nebraska the year before, AARP invited the conservative organization's WV chapter to work with each other and with the nursing organizations on NPs' FPA.

The messaging that the coalition used emphasized removing red tape from health care, consumer choice, and a rural economic case. The coalition argued that NPs would likely open small businesses in rural areas and would hire local people as registered nurses, administrative employees, and medical technicians. These small businesses would help improve the health and well-being, as well as the financial security, of the communities they served.

The law was passed in 2016. In 2018, The Future of Nursing of West Virginia, a nonprofit nursing organization, secured a *Campaign for Action* $25,000 Nursing Innovations Fund. They raised matching funds from the Greater Kanawha Valley Foundation. Their goal was to teach NPs how to open and run small health-related businesses. The Future of Nursing of West Virginia leveraged this funding to apply for federal funds. In 2021, the Appalachian Regional Commission, which supports sustainable community and economic development, awarded the coalition $630,000 to establish the West Virginia Center for Nurse Entrepreneurship. The coalition has, so far, raised $1.3 million after the original $25,000 from the 2018 Nursing Innovations Fund. Their project partners include the West Virginia Small Business Development Center and the West Virginia Chamber of Commerce. The U.S. Economic Development Administration and the Claude Worthington Benedum Foundation also provided funding [15].

Four years following West Virginia's passage of its law, a global pandemic, in the form of COVID-19, created a public health emergency. To improve people's access to care, several states granted waivers for APRNs' temporary FPA.

Seven states administered these waivers in 2020. Kansas, Louisiana, Massachusetts, New Jersey, New York, Virginia, and Wisconsin [16]. Of the seven, three states passed laws recognizing APRNs' FPA. They are Kansas (2022), Massachusetts (2020), and New York (2022). Louisiana, Tennessee, and Wisconsin all let their emergency laws expire. New Jersey retired most of its COVID-19 pandemic emergency laws, but the governor, as of this writing (August 2022), has maintained some executive orders—including APRNs' temporary FPA.

Case Study B: Kansas Makes Permanent Their Temporary Law

The following is a summary of a presentation that Kansas coalition leaders, *Michelle Knowles and Amy Siple*, provided during AARP's Access to Care Learning Collaborative, on May 2, 2022. Ms. Siple is the president of the Kansas Association of Nurse Practitioners. Ms. Knowles is a member of the Kansas Advanced Practice Nurse Strategy Team.

Kansas achieved FPA in April 2022, making them the 26th state to fully modernize its APRN laws. The Kansas law recognized the FPA of nurse practitioners, clinical nurse specialists, and certified nurse midwives. The fourth APRN group, certified registered nurse anesthesiologists, had prior recognition from Kansas policymakers. Kansas's statute also allows APRNs, who have their respective and legal degrees, licenses, and certifications, to immediately practice without unnecessary contracts with physicians.

The Kansas coalition leaders underscored several important tactics they incorporated into their overall strategy. They are:

1. Changing the debate from doctors vs. nurses turf battle to one about access to care was key as was building a broad coalition including AARP, Chamber of Commerce, and Americans for Prosperity.
2. Building trust with legislators, as one APRN group, was the first step to strategizing for FPA. The broad coalition also kept patients as the focus.
3. Nurse leaders familiarized themselves with the "gatekeepers" and how they functioned by studying the hearing processes. Gatekeeper was a term used interchangeably to describe Kansas' stakeholders and key politicians.

The two leaders also shared the following lessons.

(a) Focus on the patient. The current governor has physicians in her family, so there was concern she would veto the bill. However, the governor understood the needs of Kansans (the patients) and signed the bill.
(b) Learn the key decision-makers. The Speaker of the House assigns who the Chair will be for the health and human committees.
(c) Use smaller and simpler bills. Past bills that were presented to the legislators were complex.
(d) Study opposing stakeholders and figure out what they are doing and where their interests lie.

Regulations Promulgation. Within 2 months of the governor signing the law, the Kansas Board of Nursing started drafting regulations. Organizations that opposed the legislation challenged the draft regulations. In July 2022, the Board of Nursing's regulations was temporarily implemented for 120 days, and in September, they permanently implemented regulations reflecting the intent of the legislation. Now, all APRNs in Kansas have full practice authority.

Future goal(s): After finalizing the regulatory negotiations in 2022, the Kansas coalition leaders hope to work on legislation in the next year or so to work on global signature authority. This would ensure that APRNs can sign forms such as death certificates and license plate applications for people with disabilities. This type of law is very important for family caregivers. If families are unable to obtain signatures from qualified clinicians on death certificates, they could be forced to wait to have funeral services for their departed loved ones. The next step they will seek is updating the state's global signature authority law [17].

Case Study C: Health Equity—Midwest-Based Nurse Practitioner Serving a Homeless Shelter

In a call for stories, a nurse practitioner in a Midwestern state described in an email how the law amplifies barriers to care for people who are homeless and other vulnerable populations [18]. The state's law requires APRNs to contract with physicians to provide clinical care—including APRNs who volunteer at homeless shelters.

If we look at this issue from the perspective of those who experience homelessness, we can look at their experience from a more holistic perspective. Their care is almost always delayed for multiple reasons.

- The primary issue is people who are homeless rarely have health insurance, and it is almost impossible to find a clinician to care for them.
- The person's care is potentially more at risk when a volunteer NP's contracted physician stops practicing. The NP then needs to seek out another one to contract with. This could take a long time—and in her case, it took 6 months—which delays the care the vulnerable population receives.
- Then, if the person needs to see a specialist, such as an oncologist, the volunteer NP needs to help the person find a physician or medical team who would care for someone without coverage or the ability to provide co-payments.
- Another barrier to care this population often experiences is the lack of available affordable transportation.
- The person lacks access to consistent healthy daily meals and experiences food insecurity, which could lead to malnutrition, which causes poor healing.
- Of course, underlying all of this is the person's unstable housing situation magnifies all other barriers to their care and well-being.

Such barriers that vulnerable people, like those who are homeless, experience will discourage them from following through on care. This further diminishes their quality of life—and results in putting an enormous strain on the health care system once they finally access a medical team. Because of a lack of transportation, unstably housed people may not be able to make it to appointments, such as chemotherapy for breast cancer. Their health issues are exacerbated, which leads to hospitalizations for their primary needs until they are stabilized. Keeping in mind that this person is likely uninsured, the system (the state and taxpayers) then absorbs the costs of all care for this person.

Now, assume this person is stabilized and starts to receive the chemotherapy she needs. She continues to access specialty services and the volunteer NP regularly tracks her needs to ensure that the person receives her care as needed. But, what happens if the volunteer NP's physician no longer practices and their contract ends? As this was the case with the NP in the Midwestern state? The NP cannot attend to any of the people in the shelter, including the woman with breast cancer. It took the NP 6 months before she secured another contract with a physician. Luckily, over those 6 months, the health system that was treating the woman with breast cancer was able to find her nearby stable housing.

Clinical bias is another barrier that many patients, including the unstably housed, experience. In other words, clinicians who are motivated by biases and assumptions often treat assuming such patients are not compliant or will follow through with care. In turn, unstably housed patients mistrust clinicians. It is important for clinicians to understand the social determinants of health impacting vulnerable individuals and treat them through that lens, rather than their own assumptions. That would help achieve health equity.

Case Study D: Institutional Policy and Maximizing APRN and RN Care at Mt Sinai Cancer Center

The senior director of nursing for oncology and clinical quality at Mount Sinai's Cancer Center in New York City, Toby Bressler, RN, PhD, FAAN, had identified potential efficiencies for improved care in her department over a multiyear period. These efficiencies involved optimizing the skills of both APRNs and RNs. When the COVID-19 pandemic hit New York City in 2020, Dr. Bressler, like all healthcare delivery leaders, recognized that all healthcare workers needed to be deployed in new and different ways than their current systems allowed. If the department's entire workforce was fully deployed to provide the level of care they were each prepared for, all of their patients would receive better and more equitable care. The clinical team would be able to provide patient-centered care—in other words, the patients would be equitably served. She worked with Mt. Sinai's leadership and implemented a new set of processes. Rather than the APRNs reporting to physicians, they reported to the nursing director—her. And the RNs reported to the APRNs. In other words, Mt. Sinai Cancer Center implemented a nursing system based entirely on nursing leadership.

All people associated with this new system have reported high satisfaction. The physicians are grateful to focus on patient care and research, and no longer being encumbered by managerial duties. The APRNs and RNs are happy that the care system has less bureaucracy and are especially happy about how patient care has improved. The patients who transition from cancer treatment to post-treatment care are now able to see an advanced clinician within 1 week of discharge—rather than needing to wait months before seeing a physician [19].

4 Capitalizing the Potential of APNs Globally: An Emerging Change

This section discusses the emerging role of international advanced practice registered nurses (APRNs) and explores the standardization of practice to improve global health outcomes. While most states use the term "advanced practice registered nurse" or "APRN," the International Council of Nursing (ICN) uses the term "advanced practice nurse" or "APN." Over the past half-century, numerous countries have introduced APNs to increase access to care and reduce poor health outcomes in individuals and families [14, 20, 21]. In addition, APNs demonstrated their potential in securing global health during the COVID-19 pandemic by delivering high-quality care in remote and underserved communities [21, 22]. The world began to understand the social determinants of health (SDOH), its variation in countries, and its role in health outcomes. Systemic barriers that prevented APNs' from addressing SDOH were also brought to light, and global conversations to achieve health equity were initiated.

The implementation of APNs across the globe relies on the support of ICN. It is the first international healthcare organization and has led nursing practice since 1899. ICN's priorities include focusing on the central role of nurses in primary care

and advocacy for global health through policy [22, 23]. ICN also shares an interest with the World Health Organization (WHO) and the American Association of Nurse Practitioners (AANP) in supporting the development of the nursing workforce to improve world health.

In 2020, ICN released its first *Guidelines on Advanced Nursing Practice* as a resource for countries to address barriers to APN practice. CNSs and NPs were identified as the most common APNs in developing countries and the only APNs highlighted in the guidelines [4, 24]. There are over ten countries with CNSs who serve as clinical leaders to improve healthcare systems. Many countries with CNSs still face challenges with recognition, regulation, and licensure [3, 25]. For example, CNSs in the United Kingdom face barriers to title protection, educational requirements, and safe patient workload [24, 26].

ICN's Nurse Practitioner and Advanced Practice Network (NP/APN) was established for ANPs to share best practices that could produce optimal outcomes and educate other interest groups to support their role [20, 25]. NPs can bridge health and social determinants by promoting health practices that prevent the international spread of infections in communities. Although the NP role is defined in many countries, there is a growing need for them to assist with the shortage of providers in Africa and South Asia. In 2011, Nigeria attempted to integrate NPs into its healthcare system but was unable to progress due to the lack of funding and policy [27].

The nurse anesthetist's education, title, and responsibilities vary from country to country. The International Federation of Nurse Anesthetists (IFNA) leads the world in nurse anesthesia [28]. There are 40 countries with nurse anesthetists with differences in education, training, and anesthesia-related tasks and responsibilities [29].

The International Confederation of Midwives (ICM) oversees education, licensure, regulation, and practice for midwives throughout 119 countries. However, there are variations of certified midwives who improve maternal and infant outcomes. According to the State of the World's Midwifery Report, midwives could prevent 2 million neonatal deaths and save the global economy 4.3 million dollars per year by 2035. Norway and Iceland have the greatest maternal-infant outcomes with midwives per 1000 births. Africa and South Asia also have the least number of midwives contributing to their high infant and maternal mortality [30].

The future of improved global health outcomes entails the integration of APNs in health care systems. Health outcomes have greatly improved in countries where APNs have been successfully utilized and have greater practice authority [31, 32]. Improving health equity across the globe would take standardization in practice, advocacy, research, and leadership [33]. Nations could consider studying the efficacy of utilizing APNs to achieve health equity. The areas of study would include what Rosa et al. recommend, the standardization of practice, and the potential for APNs in leadership roles [34]. An important leadership role for APNs is having policy knowledge and expertise and how to advocate. Another important leadership role is for APNs to develop research skills and to create a body of evidence demonstrating their efficacy to achieve health equity. To help explain the deployment of APNs globally, later is a case study.

Case Study E: Japanese Model for Aging Societies

The need for APNs in Japan coincides with the growth of the aging population and the shortage of physicians [20, 35, 36]. The three APN groups that practice in Japan are midwives, clinical nurse specialists, and nurse practitioners (see Table 2). The first Japanese APN group was midwives and was established in 1948 to provide perinatal care to women and newborns [29]. Although the term "certified nurse midwives" is commonly used in the U.S., "midwife" is the preferred term in Japan to describe the traditional role of service to the community [36]. In 2006, the Japanese government revised its law to lift some barriers that prevent midwives from practicing to their full extent of education and training. There are over 40,000 midwives who practice in clinics, hospitals, or midwifery homes. Today, there are fewer employment opportunities for midwives because of Japan's low birth rates.

CNSs were established in 1996 [27]. CNS' roles in Japan seem to be similar to their original intent in the U.S. As described by Kondo [37], CNSs provide

Table 2 Global description of APRNs

APNs	Established	Definition	Education and training	Specialties
Midwife	1948	A nurse licensed by the Minister of Health, Labor, and Welfare with specialized training in providing perinatal care to women and newborns.	• Midwifery education program based on the International Confederation of Midwives (ICM) essential competencies for midwifery practice • Pass the national midwifery examination	Women's Health and Newborn Infants.
Clinical Nurse Specialist [26]	1996	A nurse with specialized training in providing high-quality care for complex cases.	• Master's Degree • Pass CNS examination in an area of specialty	Oncology, Psychiatric Mental Health, Critical Care, Child Health, Chronic Care, Gerontology, Women's Health, Community Health, Infection Control, Family Health, and Home Care
Nurse Practitioner	2015	A nurse with specialized training in diagnosing, prescribing, performing some medical tasks, and treatment of acute and chronic conditions.	• Master's Degree • Pass Examination • A protocol with a physician is required to practice	Emergency Services, Primary Care, Gerontology, Nursing Home, and Pediatrics

high-quality nursing care for complex cases that requires consultation, coordination, and research. They serve as a liaison between the nurse and physicians. This is an important role when they look holistically at the care being provided to patients.

NPs are the newest APNs that Japan introduced into its health care system in 2015. The nation now has more than 450 certified NPs [35, 38, 39]. The Japanese NP (JNP) model is similar to that in the U.S. In 2005, 12 Japanese faculty members observed the NP education system in the United States. The first post-graduate NP program was established at Oita University of Nursing and Health Sciences (OUNHS) in 2008. In 2010, 17 students graduated from the first NP program at OUNHS. Today Japan has 11 nurse practitioner programs [40].

In Japan, multiple professional nursing and governmental organizations regulate APNs. The Japanese Association of Nursing Programs in Universities (JANPU) accredits CNS programs. JANPU also adopted the American NP practice competencies for all their APNs [37]. The Japan Nursing Association is the professional organization that is responsible for the certification of JNPs [39]. The Ministry of Health, Labor, and Welfare is responsible for the certification and regulation of midwives and public health nurses [28, 32].

In Japan, APNs have what the U.S. described as a restricted practice environment. JNPs are required to be supervised by physicians and have a protocol on file to provide patient care [27, 39]. Current regulations prevent APNs from expanding their scope of practice to meet other provider shortages such as anesthesia. In the interim, Japan continues to educate and train nurses to provide anesthesia care until the nurse anesthesia role is developed and introduced [20]. The implementation of APNs in Japan was created as a model to ensure care for their aging society. Over time it would be important to learn how Japan accomplishes that goal and encourages other nations to adopt its model.

5 Conclusion and Next Steps

In the United States, to ensure that all people have access to care when and where they need it, it is important for all 50 states, districts, territories, and institutions to recognize FPA as the full potential of APRNs and RNs. FPA for APRNs should include their ability to prescribe all medications in which they are trained, including selected opioids (hydrocodone and morphine are examples), buprenorphine, and naltrexone. The latter two drugs are life-saving antidotes for people who are opioid dependent. Some patients require access to opioid analgesics for severe pain [14, 41]. APRNs who are trained in pain management should not be limited in prescribing them. In some states, patients do not have access to benzodiazepines, a controlled medication used for anxiety, through their APRNs. And therefore, APRNs who provide psychiatric and mental health services should be able to prescribe them when necessary.

Also, as noted earlier, it is important for families to have closure when a loved one dies. Any clinician who is trained in and competent to sign death certificates should be able to do so. When Florida still required NPs to have approval from their

contracted physician to sign off on death certificates, one NP's family, for example, had to wait 30 days for a death certificate after their older adult father passed away. The family could not afford the cost of a private medical examiner to declare death. In many states, NPs are not authorized to certify a death [42].

The NAM Future of Nursing report underscored to achieve health equity, it is imperative that all public and institutional policies fully modernize the roles of APRNs, RNs, and LPNs. This should also be done with regulations pertaining to unlicensed staff like certified nurse aides, home health aides, and others [43]. In addition, nurses are encouraged to get involved in their state and national organizations.

The COVID-19 pandemic laid bare our nation's health disparities among underserved communities. With FPA in each state and in every healthcare system, we can help improve health equity. However, modernizing workforce scope of practice policies is only one set of strategies that are necessary to achieve health equity. Another very critical component to achieving health equity is to have a nursing workforce that reflects the nation's population. This includes having nurses of color at all levels of care, including in leadership positions in care delivery, academia, research, and on boards.

Globally, capitalizing on APNs' potential would help countries care for those most in need of care, in addition to containing costs. Countries without associations are encouraged to join international organizations for steps to achieve and sustain health equity.

Study Guide Questions

1. How does increasing access to care for nurses help achieve health equity?
2. How would you frame the access to APRN care issue with policymakers from the conservative and the liberal perspectives?
3. Describe the importance of coalitions when seeking policy changes.
4. How are barriers to care more challenging for people who are experiencing homelessness versus those in the general population?
5. The youngest baby boomer in the United States will be 65 years of age in 2030. What can we learn from Japan's story in preparation for 2030?

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Fully Support Nurses by Designing Better Payment Models

Betty Rambur and Erica Liebermann

Future of Nursing 2020–2030: Recommendation 5

Federal, tribal, state, local, and private payers and public health agencies should establish sustainable and flexible payment mechanisms to support nurses in both health care and public health, including school nurses, in addressing social needs, social determinants of health, and health equity.

1 The Problem

The shortcomings of the U.S. healthcare system are now well recognized. The most expensive healthcare system in the world consistently performs last among wealthy nations [1]. Safety and quality problems abound, with medical error profiled as the third leading cause of death in the U.S. pre-COVID [2]. Nurses and other healthcare workers are demoralized [3]. Waste is rampant [4] and overuse of low-value care creates both cost and harm [5],[1] even as others are without access to basic services. Profoundly disturbing health and healthcare inequities are etched deeply into the system. And, the nation was unprepared for the COVID-19 pandemic, and despite COVID lessons, remains unprepared for the next pandemic [6].

[1] These authors found that nearly half of low-value services had high direct harm potential, while 62% had high potential for cascades of downstream services.

B. Rambur (✉) · E. Liebermann
College of Nursing, University of Rhode Island, Kingston, RI, USA
e-mail: brambur@uri.edu; eliebermann@uri.edu

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Antecedent to these U.S. outcomes is healthcare reimbursement. Consider a hospital visit. In the current system, physician services and procedures are *revenue generators*; nursing care is a *labor cost*. Thus, the economic model offers financial incentives to keep the former as abundant as possible and—even with mandated staffing ratios—the latter as low as possible. Wang and Anderson found that even when hospitals had more abundant revenue, financial resources were not channeled to things that directly impact patients, including enhanced staffing ratios [7]. The disincentive to adequately address the nursing workplace is paradoxical, given that the reason a person is hospitalized is because they need nursing care—otherwise they would be treated in an outpatient setting. Moreover, hospitals' incentives are not aligned with societal need; writ large, all of that care represents cost, paid for through insurance premiums (which is ultimately borne by workers in the form of reduced wages) and taxes (again, borne by workers). U.S. real wage growth continues to stagnate secondary to healthcare costs, with cost of care being a serious burden that disproportionately impacts people of color [8]. Across demographics, the availability and affordability of healthcare consistently represented American's greatest worry in the pre-COVID era [9] and these concerns continue in the COVID era. In 2020, for example, 1 in 11 U.S. adults reported delaying or forgoing treatment due to costs [10]. The cost and quality problems are imbedded in the reimbursement strategies that form the bedrock of the current U.S. system. Understanding the historical antecedents to today's challenges lays the foundation for change.

2 A Brief Spin Through History: The Importance of Looking Back to See Ahead

A kaleidoscope of forces in the early 1900s set the stage for the poorly performing healthcare system we have today. Employer-based insurance was initiated to ensure reimbursement to hospitals and physicians, with little attention to cost or value. Unlike the consumer-driven initiative in Europe, development of health insurance in the United States was not designed to address broader social needs but instead to address a different circumstance deemed a problem; ensuring hospital and physician revenue [11–13]. In the same era, the Flexner Report of 1910 codified what constituted "medicine" within a biomedical reductionist model and shaped the closure of educational programs that were open to women and people of color [14]. Medical school became longer and more expensive, creating a socio-economic divide to educational access that continues to this day [15]. Organized medicine pushed states to create a broad scope of practice for physicians and, by 1927, the American Medical Association convinced the federal government that "private doctors were the appropriate and the exclusive guardian of *all* matters of health."[2] (p. 143). Nurses were largely unprepared to address the physician monopoly. Based in hospital "training schools" of nursing, nurse education was directed by

[2] Rothman, cited in Group T. & Roberts J. *Nursing physician control and the medical monopoly.* Indiana University Press. 2001, p157.

physicians and consisted of long hours to meet the needs of the hospital; "graduates were a byproduct rather than the purpose of the training school" [16] (para 7). Most nurses had relatively short careers, stepping aside for family responsibilities as a fresh cadre of young nurses took the helm. Arguably, this laid the foundation for the wage compression that continues to this day. Given the centrality of hospitals in U.S. payment mechanisms, it perhaps should not be surprising that Medicare subsidized nursing education, but only if it took place in a hospital-based school of nursing.

Enacted in 1965 as amendments to the original Social Security Act, Medicare and Medicaid represent policies to address unintended consequences of employer-based insurance. The problem? If retired or otherwise unemployed, unless wealthy, financial access to health insurance was difficult or perhaps impossible. Medicare is an entitlement program for those 65 and above, with coverage for end-stage renal disease and Amyotrophic Lateral Sclerosis regardless of age added in 1983 and 2001, respectively. Medicaid for the poor or disabled is a federal program largely under state control and thus subject to dramatic variability by state. Both programs reflected the design of employer-based insurance. For example, Medicare Part A covers hospital care, just like Blue Cross; Medicare Part B covers physicians services, just like Blue Shield. Likely reflecting the populations to be served, Medicaid (designed to serve low-income individuals and families, pregnant women and people with disabilities) covers a broader range of services, such as "custodial care," whereas Medicare coverage is limited to "skilled nursing" services. Nevertheless, just like commercial insurance, Medicare and Medicaid were largely reactive, addressing illness or injury with little attention to upstream social determinants of health, care coordination, team-based care, or distributive justice. Reimbursement was given to hospitals and physicians who provide medical diagnoses and procedures; nurses remained a labor cost.

History has also illustrated the way changes in reimbursement shape provider behavior. Prior to 1984, for example, hospitals were reimbursed retrospectively "per diem" for each day of hospitalization. This created a financial incentive for long lengths of stay. Recognizing the financial infeasibility of this, the Medicare Prospective Payment System (PPS) using diagnosis-related groups (DRGs) as a strategy was launched as a reimbursement mechanism in 1984. In this manner, Medicare retained financial risk for the number of hospitalizations; the hospital assumed financial risk for length of stay. This change created the obverse incentive, very short hospital stays. Initially, hospitals were reimbursed for readmissions as well as for hospital-acquired conditions. Again, the financial incentives were not aligned with quality care, given that poor care could easily result in reimbursement higher than high quality care.

The Patient Protection and Affordable Care Act of 2010 (ACA) modified payment laws to address such perverse incentives. Examples include the Hospital Acquired Condition Reduction Program and Hospital Readmission Reduction Program, in which hospitals must publicly report these metrics and are fined if rates are excessive. Another hospital-based program has the somewhat curious name of Hospital Value Based Purchasing (HVBP). Hospital PPS reimbursement is modified

based on composite measures in four domains, with nurse-sensitive or fully nurse-driven metrics being predominant (see https://qualitynet.cms.gov/inpatient/hvbp/resources for a list and weights of current measures in the HVBP).Similar value-based purchasing reimbursement also exists for skilled nursing facilities and home health. Across payers and settings, nearly 60% of healthcare reimbursement is directly or indirectly linked to value metrics [17]. Achieving these metrics and optimizing reimbursement requires effective nursing care including care coordination and discharge transitions to post-acute care. Yet, nurses are generally not on the financial receiving end of such reimbursement. Payment reform, reflecting nurses' role as value creators, is essential, particularly to address the vexing challenge of health equity in the United States.

Specifically, payment reform offers not only fresh hope, but a strategy by which to advance health equity [18]. As Bryan and colleagues note: "equity-focused payment reform can help move the needle" ([19], para 2) to advance health equity. Linking payment metrics directly to strategies that demonstrably decrease disparities creates financial incentives for the delivery system to act. It offers a marriage between altruism and economics that does not exist in traditional fee-for-service. For example, hospital leadership may be concerned for the homeless community in their services area, but view housing as a social issue rather than a hospital responsibility. Hospital and health system payment metrics that directly reflect the needs of individuals who are homeless can create the financial incentives to integrate healthcare and housing. Such a model can provide the resources to address the lack of connection and capacity many health systems experience as barriers that impede such efforts [20]. Nurses' broad, holistic orientation to the human condition places them in an ideal position to masterly contribute to health equity; yet these efforts will be hampered if nurses remain a "labor cost" buried in a hospital room fee.

Previous efforts to untangle nurses from the hospital room rate met with some success [21], but were relatively short lived and evaporated when there was turnover in supportive hospital administration (personal communication, Rhonda Anderson, September 13, 2022). A recent U.S. initiative aims to better identify nurses' unique and individual contributions to care though a "digital fingerprint," a defined code for each nurse [22]. Such unique nurse identifiers (UNIs) and, instead or in addition, universal use of National Provider Number (NPIs)[3] for all registered nurses may allow new opportunities to quantify the contribution of nurses and direct compensation accordingly. A more granular view of care than system-level quality and safety metrics allow has also been deemed essential [23] and UNIs or universal adoption of NPIs could illustrate nurses' contributions. Use of these individual nurse identifiers may also create the impetus for explicit attention to care redesign to maximizing

[3] An NPI is unique identification number now used by providers who are reimbursed, such as physicians and nurse practitioners, but rarely used by most RNs. See Chan et al. for an explication of the similarities and difference between UNIs and NPIs in the U.S. Chan, G. K., Cummins, M. R., Taylor, C. S., Rambur, B., Auerbach, D. I., Meadows-Oliver, M., Cooke, C., Turek, E. A., & Pittman, P. P. (2023). An overview and policy implications of national nurse identifier systems: A call for unity and integration. Nursing outlook, 71(2), 101892. https://doi.org/10.1016/j.outlook.2022.10.005.

scores, and thus reimbursement, on the value-based metrics described above. One strategy to ensure that nurses are financially compensated for their contribution to value could parallel the medical loss ratio orientation in the ACA whereby commercial insurance companies must spend 80–85% of their premiums on medical care and quality improvement. Such wage pass throughs [24–27] and minimum spending limits [28, 29], although infrequently used in the United States, have demonstrated promise and offer one mechanism to ensure that revenue consistently goes to those providing the care. Financially rewarding nurses for their contribution to value in an organization may also create more organizational loyalty and job embeddedness, similar to other industries in which employee ownership is associated with a cooperative culture that can foster "employee commitment, training, and willingness to make adjustments when economic difficulties occur" ([30], p. 3). Such cultural shifts may be particularly valuable at this time of organizational financial duress and nurse disengagement and burnout. Moreover, given that one in five people in the United States reside in a state with cost trends targets with intended attention to accountability and transparency—a number that is expected to grow—,[4] the accountability and transparency offered by UNIs or NPIs for all nurses holds promise. When linked to reimbursement, the use of either or both of these identifiers is also likely to shape differentiated practice (i.e., clearly different, defined roles for AD vs. BS, RN vs. LPN, etc.), yet perhaps not by educational level per se, but by individual nurse practice capacities along the measured domains. The UNI or NPI may also foster easier expansion of nursing services in key areas. School nurses, for example, are well documented to provide needed services and have a positive impact on children's health as well as school performance [31]. Although a few states have directed Medicaid payments to allow direct reimbursement of these nurses, it remains relatively uncommon [32], with taxes being the typically funding source. Specifically, most U.S. states' fund public school kindergarten through grade 12 with property taxes (over 44% nationally but varying by municipality) and state tax revenue (48%). The reliance on property tax creates an inherent tension; as property taxes rise, home ownership—oft cited as the "American Dream"—becomes less affordable. Understandably, people do not seek higher taxes and the link between property taxes and child health status is not an economically-aligned orientation, particularly because many taxpayers do not have children and thus see little direct benefit from higher taxes. Moreover, in these funding models, nurses are a line item that is more easily cut from a budget than teachers and coaches. The UNI or universal use of the NPI by nurses may offer a route to financial support for school nurses via Medicaid and, more broadly, as a key tool in the value-based population-focused reforms detailed later in this chapter, specifically, ACOs and global budgets.

The case for value-informed nursing practice has been well detailed [33–38] and several payment models create distinct opportunities for nurses to better meet societal need as well as provide nurses with career enhancement avenues. Two such

[4] Ario J, McAvey K, Seltz D, Barthelmann S. State health care cost growth benchmarking: new strategies to drive change and accountability. Manatt July 21, 2022 webinar available for download at https://www.manatt.com/insights/webinars/state-health-care-cost-growth-benchmarking-new-str.

payment models will be described here: risk-bearing accountable care organizations (ACOs) and global budgets.

3 Accountable Care Organizations

Accountable care organizations are groups of providers (hospitals, physicians, other providers) who agree to accept accountability for the outcomes of care as well as the cost of that care. There are many varieties. In each, either the cost of care is projected based on fee-for-service or some other baseline benchmark. If designated quality measures are reached and cost of care is less than projected, that savings is shared with the payer (in shared saving ACOs) or fully held by the ACO. Some models of ACOs are "upside only" meaning that there is no financial risk for care that is more expensive than projected (also called "one-sided risk" even though there is no financial risk at all, just the option for financial bonuses). Two-sided models can be risk sharing (sharing financial gains and losses) with the payer (commercial insurance, Medicare, or Medicaid) or full risk bearing, meaning the ACO team is fully financially responsible for the total cost of care and excessively expensive care will be borne as a financial loss. Take a moment to contrast this with traditional fee-for-service models in which excessive, unnecessary care creates additional revenue for providers at the expense of the patient, and ultimately for all in the insurance pool and for taxpayers.

Nurse practitioner (NP) and physician assistant involvement with ACOs has increased dramatically, from 18% in 2013 to nearly 40% in 2018 [39]. Yet full analyses of cost and outcomes have been scant. Studies have been hampered by "incident to" billing, which allows practices to bill services provided by an NP as "incident to" a physician and thus obscures the NP's work. Also complicating the analyses are Medicare rules that were in effect when the Medicare Shared Saving Program (MSSP) was enacted with the passage of the ACA. These rules did not allow NPs to be attributed providers in Medicare ACOs; Medicaid and commercial insurance attribution is subject to state Medicaid rules and the commercial insurance policy. Thus, NP participation as an attributed provider is hampered in states with restrictive practice laws.

NPs in ACOs Huang and colleagues found greater involvement [40] of NPs to be associated with lower rates of readmission and better scores on preventative care, but not chronic condition and medication management [40],[5] suggesting opportunities for NPs to hone these skills for better outcomes. O'Reilly-Jacob and colleagues describe the potential for NPs in value-based arrangements, as well as the challenges NP-owned practices face when intending to participate in risk-bearing value-based arrangements, with small practice sizes being a major challenge [41]. It is typically assumed that a patient population of 5000 is the minimum number needed to be of

[5] "Involvement" was operationally defined as defined as the proportion of clinical efforts per 10,000 Medicare beneficiaries.

sufficient size to accept financial risk. This is because in healthcare insurance pools, "the well carry the sick" meaning there need to be enough "well" people using few healthcare resources to balance the high cost of frequent utilizers. The American Nurses Foundation Reimagining Nursing Initiative includes a focus on reducing barriers to NP practice in value-based arrangements like ACOs [42]; optimally, a road map to enhance NP's participation and leadership in ACOs will emerge within the next few years. Registered nurses in primary care can and should play a key role in ACOs, particularly given the centrality of teamwork and collaboration in effective ACOs. A recent report using a rapid review methodology of 59 primary studies and one systematic review found that, relative to fee-for-service, ACOs could reduce costs without reducing quality, mostly due to reductions in low-value services and outpatient expenses for medically complex patients [43]. Arguably, greater engagement with ACOs by nurses at all levels of preparation could further enhance outcomes, reduce unnecessary care and waste, and contain costs. Finally, ACOs have the potential to shift from reactive care to proactive, upstream interventions to address social determinants of health. In this way, they can address the goals of accountable health communities that aimed to focus on health rather than health care.[6]

Murry and colleagues detailed the challenges faced by 22 early ACO adopters and found significant difficulties integrating social and medical care. Challenges include the lack of data on patients' social needs as well as ambiguity about the capacity of potential community-based service providers. The authors provocatively titled these challenges as being "upstream with a very small paddle" [44]. Baccalaureate nurses with an interest in social determinants of health who understand and can connect payment models, community resources, and management of chronic conditions, are in an ideal position to drive the ACO further upstream, and with a much larger, more effective paddle.

4 Fixed-Revenue Global Budgets

There is an array of fixed revenue budget models in the United States, sometimes termed "global budgets," and all differ dramatically from traditional fee-for-service or PPS payments via DRGs. A familiar model is the Program for All-Inclusive Care for the Elderly (PACE), which operates within fixed revenue monthly Medicare and Medicaid capitation payments (most PACE beneficiaries are "dual eligible, that is," covered by Medicare and Medicaid…see https://www.medicaid.gov/medicaid/long-term-services-supports/pace/programs-all-inclusive-care-elderly-benefits/index.html). An interdisciplinary team coordinates and delivers the care, increasingly aided by predictive analytics to identify modifiable patterns before illness

[6] The Accountable Health Community initiative of CMMI authorized under Section 3021 of the Affordable Care Acts is no longer active. See https://innovation.cms.gov/innovation-models/ahcm.

exacerbations. Contemporary tools like predictive analytics[7] and natural language processing have particular utility in value-based care, especially in full risk-bearing or global budgets models, because keeping people healthy enhances the financial health of the organization. Again, this is unlike fee-for-service models in which less morbidity equates to lower facility revenue.

Perhaps the most well-known statewide global budget model in the United States is Maryland's "all-payer rate setting" model that has been in place for many decades but was modified in 2014 through a new Medicare waiver. Although all payers (Medicare, Medicaid, and commercial insurance) participate, the regulatory and payment design is focused on hospitals. Hospitals are paid retrospectively, with rates fluctuating up or down based on the volume of services provided. If volumes are higher, the reimbursement rate shifts lower; if volumes are lower, reimbursement rates shift higher. Taken as a whole, this reimbursement model creates an incentive to decrease unnecessary use of services. To date, outcomes have been somewhat mixed. Offodile and colleagues found a modest decline in 30-day readmissions, but no changes in spending, emergency department visits, and selected clinical outcomes in the first 4 years [45]. Conversely, Aliu and colleagues found that patients who had common surgical procedures had lower hospital costs and fewer avoidable complications [46]. Patrick Dooley, Director at Berkeley Research Group LLC and Former Senior Director, Executive Director and Vice President at the University of Maryland Medical System, noted that the fixed revenue model helped them avoid some of the layoffs and furloughs that occurred in many states as revenue from elective procedures evaporated as COVID-19 emerged,[8] a circumstance that affected many nurses and likely accelerated the shift to travel nurses and exacerbated animosity between travelers and existing staff.

The state of Pennsylvania, which adopted a voluntary global budget model for rural hospitals, did indeed report greater fiscal stability due to the fixed revenue model. Kurtz, cited in Brady [47], noted that the drop in revenue secondary to the decline in elective procedures during COVID-19 would have "wreaked havoc" on their system in the fee-for-service world yet did not because they had joined the fixed revenue reimbursement model. The Pennsylvania rural hospital model differs from Maryland's model. Rather than a retrospective payment that still has volume in the equation,[9] the Pennsylvania model is prospective, with an all-payer lump sum given at the beginning of each year that must cover all inpatient and hospital-based

[7] "Predictive analytics in healthcare refers to the analysis of current and historical healthcare data that allows healthcare professionals to find opportunities to make more effective and more efficient operational and clinical decisions, predict trends, and even manage the spread of diseases." Petrova, B. 2021. Predictive analytics in health care. Reveal. Available at https://www.revealbi.io/blog/predictive-analytics-in-healthcare#:~:text=Predictive%20analytics%20in%20healthcare%20refers,manage%20the%20spread%20of%20diseases.

[8] Bailit Health. Hospital global budgets. Presented to the Rhode Island Cost Trends Steering Committee, (2022, January 10). Video recording available at https://www.youtube.com/watch?v=H4CWvrFDyWo.

[9] This creates revenue flow problems when volumes drop dramatically as they did during COVID. In the authors' view, a fixed revenue model disentangled from volume offers more promise.

outpatient services. Again, this creates incentives for judicious use of high-value services. Such models can foster nurse innovation to ensure these ends, including adoption of contemporary analytic and machine-learning strategies. This payment model also aims to ensure a community's access to care and facility/organizational financial stability. It is for these reasons that it has been suggested that COVID-19 may accelerate interest in such value-based delivery arrangements [48], particularly given that hospital use, and thus revenue, continued to lag behind pre-pandemic levels even as acute COVID-19 levels declined [49].

Still other payment reform models can be conceptualized as falling within the global budget, fixed-revenue orientation. The state of Vermont, for example, has implemented an "all-payer model" designed as a risk-bearing ACO that includes Medicare and Medicaid (both through waivers) and Blue Cross/Blue Shield (which covered 90% of commercially insured lives in the state when the model was launched so, although technically a "multi-payer" model, in essence it is all-payer). Unlike the Maryland model that focuses on hospitals—and thus may incentivize a shift to expanded non-hospitals services, both necessary and unnecessary or low value—the Vermont model is designed to be not only all-payer, but all-settings [50]. As this text goes to press, the states of Rhode Island and Oregon are considering global budgets as part of a voluntary multi-stakeholder compact in relationship to their state's cost growth targets (Michael Bailit, Bailit Health, personal communication, August 28, 2022. Also, see Murray [51] for a primer on U.S. health care global budgets). Finally, as previously noted, 20% of Americans reside in states that have specified healthcare expenditure targets as a strategy to contain costs and enhance transparency. Although "targets" are not "caps," they may represent iterative steps toward caps or global budgets. Identification and tracking of individual nurse contributions to care via the UNI and/or universal NPI is a logical complement to these initiatives.

5 Looking to Other Nations

We now present global examples of healthcare programs that represent alternative models of healthcare financing and delivery, and also contrast with the U.S. health system in their emphasis on wellness and health promotion across the lifespan. Such approaches are particularly relevant for nurses and are an arena in which nurses can influence new directions for healthcare delivery and improvements in population health.

6 Brazil

Brazil has a tax-funded system, with contributions at all levels of government: municipal, state, and federal. Care delivery is decentralized and administered by states or municipalities. All residents as well as undocumented individuals are eligible to receive care without cost-sharing such as deductibles or copayments at the

point of service. Additional private insurance is an option selected by nearly 25% of residents, mostly middle- and higher-income families [52]. Arguably, the palpable link between taxes and healthcare creates an incentive for family-focused population-based care. Brazil has made tremendous progress towards universal health coverage with its *Sistema Único de Saúde* (Unified Health System) [46, 48]. Central to this system is the *Estratégia Saúde da Família-ESF* (Family Health Strategy). The ESF is a community-based model of primary care that involves teams of health professionals assigned to a given geographic area and pre-defined number of households in that catchment area. Healthcare teams consisting of 1 physician, 1 nurse, 1 nurse's aide, and 4–12 community health workers provide home-based and community-based care [53]. Started in 1994, rapid scale-up of the ESF led to 63% population coverage by 2015 [54, 55], improving access to health promotion and preventive care, especially in rural areas and poorer communities [51, 56]. Improved health outcomes have been observed, particularly in reductions in child/infant mortality [57, 58] and in decreased hospitalizations for primary-care sensitive conditions, e.g., diabetes, hypertension, asthma, etc. [59].

7 The Netherlands

A direct link to tax-funded healthcare is not the only route toward a comprehensive orientation. The health system in the Netherlands is financed through individual mandates; all must have health insurance that is purchased through a private company.[10] The Netherlands' focus includes a healthy start to life. They have largely avoided the medicalization of birth and have much lower rates of C-sections and epidurals than in the United States. Doulas are common companions to the birthing process [60] and at the opposite arc of life, there are doulas for end-of-life care as well. The greatest lesson for the United States, however, may be their approach to elder care. The Netherlands has invested heavily in health generally and in care for older adults, specifically, with 4% of the GDP spent on long-term care [61, 62]. Workers themselves are required to contribute 9.6% of their pay to long-term care. This investment reflects a commitment to healthy aging and has enabled the Dutch to reimagine what care to seniors looks like, with a focus on independent living, community supports, and a sense of wellbeing as people age. In a person-centered approach, with an eye to the whole picture of health and wellness rather than strictly custodial care and management of chronic diseases, some nursing home facilities have reconfigured their physical space to offer private rooms with communal areas to encourage a sense of community [49]. Many countries have looked to these examples and to alternative models of dementia care, in which village-like environments are created to foster a sense of normalcy and allow people chances to engage

[10] The individual mandate as one strategy toward universal insurance coverage was part of the ACA. It survived a Supreme Court review of its constitutionality in 2012, but now is functionally defunct because the Tax Cuts and Jobs Act of 2017 rendered the penalty for non-compliance with this mandate to be zero dollars.

in the community [49, 50]. Nurses in these facilities help foster intergenerational opportunities through engagement with schools and other community organizations. Nurses also facilitate outreach to other elders in the community who are still living independently but might benefit from the social activities and supports of the nursing homes. Given a growing population of people over 65, rising costs of nursing home care, and an anticipated shortage of nurses and other skilled health professionals, the need for supportive care outside of the nursing home is also recognized and creative solutions are emerging. Nursing homes have initiatives to engage families and community volunteers to help support elders in their homes [54]. The nurse-led Buurtzorg homecare model (Dutch for "neighborhood care") has garnered attention because of its positive health outcomes, but also as a novel model in which all-nurse teams provide coordinated medical and support services. Nurses are responsible for patient assessment, planning and implementing care and coordination of services as well as documentation and billing. As a result, care is delivered at a lower cost than traditional homecare models and with high levels of satisfaction for both clients and nurses [63].

8 New Zealand

Yet another nation, New Zealand, has focused on elders with cognitive impairments in their Dementia Care Pathway. This program is co-led by nurses and the families of those with dementia. Noting the financial and social costs of dementia, a national effort administered by district health boards provides regional alignment with the population served, within the overall national framework. Specifically, "the framework aims to provide the person with dementia with the services they need, from diagnosis to the end-of-life stage. The framework encourages different health and social services to work together to provide people with integrated care. It emphasizes services that take into account a person's wishes, cultural preferences and lifestyle. It also encourages health professionals to diagnose dementia earlier to ensure people can get the help they need as soon as possible" ([64], p. iii). The emphasis on early diagnosis creates a prominent role for RNs in New Zealand, who routinely conduct cognitive assessments in the primary care setting and direct plans of action. Caregivers receive 28 days of paid respite care in addition to ongoing services to their family member and other family support services. Community responses include designated "dementia- friendly" shopping sites and other strategies to reduce stigma. Unlike in the United States, specialty services are reserved for those who truly need them or atypical cases such as early-onset dementia [65, 66]. Further contrasting the fragmented payment and delivery system in the United States, whereby people may be covered by employer-based insurance when working, Medicare when retired, and Medicaid when financially impoverished (and may have a financial incentive to "spend down" for Medicaid eligibility), the New Zealand system offers universal publicly-funded health services within an annual budget and benefits package. As such, there is great incentive to provide support proactively, to limit costly downstream care. Nurses play a substantial role in the management of other chronic conditions as well, financially incentivized by governmental funding

for chronic condition management [67]. These models also have the potential to address an oft muted healthcare inequity: gender. Long-term care in general, and dementia care specifically, are care burdens disproportionally borne by women. Women are more likely to be caregivers for aging others and also more likely to develop dementia themselves, often after depleting family assets through time spent providing unpaid labor as a caregiver.

9 A Call to Action

1. Demand payment and delivery reform to ensure universal all-inclusive total cost of care models that address social needs, build on family strengths, and avoid excessive medicalization of birth, illness, and aging. Nurses can play a leadership role in both advocacy for and organization and delivery of such care supported by interprofessional teams and contemporary tools like predictive analytics, machine learning, and virtual-care.
2. Short-term: Ensure value-based reimbursement to nurses reflective of individual nurse and aggregate nursing contribution to short- and long-term outcomes. At the organizational level, analyze the metrics that drive reimbursement. Then, identify missing metrics (for example, staffing ratios are currently not part of HVPB) that must be included for fair representation of contributions (e.g., a poorly staffed unit may, understandably, have poorer outcomes). Devise an organization-specific proposal for nurse reimbursement (for example, wage pass throughs or minimum spending ratios). Long-term: Advocate for elimination of the reactive fee-for-service payment model and support implementation of a proactive all-inclusive total cost of care approach that is not volume driven, but instead relies on a per-member/per-month or per-member/per year bulk payment that incentivizes addressing upstream social determinants of health, equity, and primary care and minimizes the use of low-value and unnecessary care. Act to ensure that payment models reflect nurses' work as a value generator rather than a labor cost. In fee-for-service models, this likely requires disentangling nursing care from, for example, hospital room charges and modernization of the Medicare cost report to clearly demarcate nursing expenditures and revenues.
3. Contact Congress to end "incident to" billing that obscures the work of nurse practitioners and may allow physicians to receive "volume bonuses" based on the work actually done by NPs and PAs. The Medicare Payment Advisory Commission has recommended removal of "incident to" billing; however, Congress has not acted. Incident to billing allows an additional 15% charge to be levied and has resulted in an additional $194 million in Medicare spending in 2018 [68]. Given that the average salary of NPs and PAs is approximately $115,000, the added reimbursement is not reaching the people delivering the care but is instead borne by patients as an unnecessary additional expense.
4. Ensure that all nurses are fluent in the language of payment and economics as well as the ethical dimensions of this orientation in the context of healthcare.

Infuse all levels of nurse education with practical skills to apply these domains in everyday clinical practice. Develop a personal and organizational ongoing learning strategy that includes not only payment models, but also experience with progressively more sophisticated tools to support value-based population approaches. These include predictive analytics, and an array of evolving artificial intelligence tools such as machine learning, deep learning, and natural language processing (see Rambur, pp. 127–134 [10] for further details on the relationship of such tools to payment reform).

Study Guide Questions

1. Detail the differences among upside only-risk, risk-sharing, and full-risk bearing models. Describe innovations nurses can lead to maximize equity, access, and affordability in these delivery models.
2. Discuss how nursing services are reimbursed in fee-for-service payment models and how value-based payment models do or do not account for care provided by nurses. Discuss possible strategies to track the contributions of nurses in both hospital and outpatient settings.
3. Propose strategies to translate promising nurse-led international payment and delivery models to the United States.

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The Nurse's Role in Achieving Health Equity in Disasters and Public Health Emergencies in Asia

Sakiko Kanbara, Apsara Pandey, and Sonoe Mashino

Future of Nursing 2020–2030: Recommendation 8:

To enable nurses to address inequities within communities, federal agencies, and other key stakeholders within and outside of the nursing profession should strengthen and protect the nursing workforce during the response to such public health emergencies as the COVID-19 pandemic and natural disasters, including those related to climate change.

1 Introduction

Sociodemographic issues such as urbanization, climate change, rural–urban migration, population decline, and aging pose significant challenges for small and medium-sized cities and rural areas in many countries. Increasing cascading and complex systemic hazards make "living with uncertainty" the new norm in disaster management. There is a need for nursing to strengthen its commitment to cultural diversity and health equity in the global environment, especially in times of disasters and public health emergencies. The Future of Nursing: Charting a Path to

S. Kanbara (✉)
Kobe City College of Nursing, Kobe, Japan
e-mail: s-kanbara@kobe-ccn.ac.jp

A. Pandey
Tribhuvan University—Maharajgunj Nursing Campus, Kathmandu, Nepal

S. Mashino
Research Institute of Nursing Care for People and Community, University of Hyogo, Kobe, Japan
e-mail: sonoe_mashino@cnas.u-hyogo.ac.jp

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Achieve Health Equity states that more should be done to strengthen and protect the nursing workforce beforehand by increasing their knowledge and enhancing workforce development to address community inequities during disasters and public health emergencies [1]. This chapter explores the role of local nurses as global citizens in disasters and health crises in achieving health equity, focusing on disaster nursing efforts in Japan and Asia.

2 Nursing on Frameworks related Disaster and Health

Nurses are on the front lines of increasingly complex health problems in a society at risk of disasters, conflicts, and political divisions. In contrast to definitions of disaster medicine that emphasize prioritizing treatment based on the possibility of survival [2], nursing integrates the humanities and sciences more comprehensively. Nursing is constantly faced with the interrelationship of ideals, ideas, ethical attitudes, perceptions, and the care of individuals and communities. In particular, nurses are responsible for ensuring that care disparities are addressed. Both caregivers and recipients have the right to pursue self-fulfillment while pursuing healthy lifestyles, regardless of how disasters and society evolve. Disaster activities can be long-term engagements outside peacetime hospitals, relief centers, evacuation centers, temporary housing, and communities where people are rebuilding their lives close to the affected population. Observing the chaotic nature of ever-changing health concerns, making needs visible in order to engage with volunteers and healthcare providers, understanding government and donor structures, and frequently negotiating on behalf of vulnerable populations are required.

The Sustainable Development Goals (SDGs) reflect a triple approach to the well-being of humanity and the planet: economic development, environmental sustainability, and social inclusion. There are 17 goals and 169 targets from 2015 to 2030 [3]. In the same document, the United Nations members agreed upon two other major global frameworks: the Sendai Framework for Disaster Reduction (SFDRR) and the Paris Agreement on Climate Change (hereafter, the Paris Agreement). The SFDRR differed from the previous framework (the Hyogo Framework for Action) in its focus on "health" issues. In order to strengthen the resilience of national health systems, the framework stated that countries should (1) integrate disaster risk management into primary, secondary, and tertiary health care, especially at the local level; (2) develop the capacity of health workers to understand disaster risk and implement and apply disaster risk reduction (DRR) approaches in their health work; (3) promote and strengthen training capacity in the field of disaster health; (4) promote and strengthen DRR in health programs approach, and support and train community health groups in the approach, and (5) work with other sectors to strengthen the resilience of national health systems [4]. Shaw et al. [5] note the significance of the term "local" in this otherwise global framework and use it to mean authorities, communities, culture, material, knowledge, priorities, and adaptive actions.

In 2019, the World Health Organization (WHO) launched the Health Emergency Disaster Risk Management (Health-EDRM) Framework [6]. The framework

emphasizes the importance of a risk-based and an all-hazard, proactive approach and outlines the need for shared responsibility. Another key document is the Health Supplement to the United Nations Disaster Risk Reduction (UNDRR) Resilience Scorecard [7], which comprehensively integrates health issues into urban resilience. The WHO's 2020 World Nursing Report [8] recommends continued investment in employment, education, and leadership opportunities for nurses and the support of international cross-sector partners. The WHO's Director-General Margaret Chan referenced the long history of nurses' inability to demonstrate their knowledge and skills during her keynote address at the International Council of Nurses (ICN) conference in June 2015 [9] when she made a convincing case that nurses should be able to fully show the results of their education and training in the future, and play an active role in the policy process, given the very complex health challenges facing the world in the post-2015 era referring to the 2011 report "The Future of Nursing: Leading Change, Advancing Health" [10].

WHO designated 2020 as the Year of the Nurse and Midwife, which significantly increased nurses' global status and visibility. Subsequently, nurses' global status and visibility have improved, supported by international campaigns such as *Nursing Now* [11]. In the context of the global trends described above, addressing the social determinants of health requires a global commitment by the health sector to play a decisive role in community development, including disaster management. Partnerships with governments and policymakers to advocate for investment in nurses and in nursing is key.

3 Transition and Evolution of Disaster Nursing

In England, during the middle of the nineteenth century, the first industrial revolution caused a massive influx of workers into cities and rapid urbanization. An environment and institutions were not yet established to guarantee all individuals' health and well-being. The most outstanding example that epitomizes this period of health disparities is Nightingale's efforts to improve the Scutari Hospital environment [12]. During the Crimean War, which broke out in 1854, facilities to care for injured soldiers were inadequate, and many wounded frontline soldiers were left untreated. Consequently, infectious diseases, contagious diseases, and malnutrition killed more soldiers than in real combat. After Nightingale's focus on hygiene and nutrition, mortality rates plummeted to 5.0% from a high of 42.0%. More noteworthy is that Nightingale's experiences during the Crimean War led to unique ways of presenting data, including infographics. When pie charts and even bar charts were uncommon, she created the "coxcomb" pie charts, which helped policymakers understand the disparities that existed through health data [13]. This new way of visualizing real-time outcomes through data, especially the effects of nursing care, contributed to positive policy decision-making. In essence, Nightingale's work during the Crimean War was the starting point for disaster nursing [14].

In modern times, there was a "Joint Informal Meeting of Emergency Health Partners and Nursing Professionals," held by the WHO Regional Office for the

Western Pacific and Southeast Asia and the International Organization for Migration (IOM) in Bangkok, Thailand, in 2007 where the formation of the Asia-Pacific Emergency and Disaster Nursing Network was developed [15]. In 2008, the World Society for Disaster Nursing (WSDN) was established in Kobe, Japan [16]. Disaster nursing in the primary nursing education curriculum began in 2009. The objectives of disaster nursing education are (1) to acquire the ability to develop nursing practice creatively in collaboration with many other related professionals at disaster sites where human resources and supplies are limited and (2) to cultivate the foundation for human relations by treating disaster survivors with an attitude of respect for others, an ethical perspective, and mutual support [17]. Now, nursing education must emphasize students' understanding of social determinants of health, trauma-informed care, health equity, and associated public and private policy engagement measures [1].

The 2011 Great East Japan Earthquake exposed the consequences of delayed tsunami evacuations, including people who were left behind or went unnoticed [18]. People managed to save their lives but had to maintain their health and rebuild their lives in a harsh environment where they practically lost everything. In addition to the loss of loved ones and homes, living conditions changed rapidly, and people were forced to endure long periods deprived of necessities, including water and food. In the process, officials discovered that traumatic injuries had adverse effects, chronic illnesses, and psychological damage [19]. This problem was not only because of the delayed escape but also because of the insufficient information and planning from the disaster preparedness phase and the inaccessibility of facilities and services related to health and other issues. People left behind suffered from a lack of resources, infrastructure, and public services. Long-term health and livelihood disparities grew as people rebuilt and reconstructed their lives, risking a vicious cycle of poverty [20]. In Japan, the 1995 Great Hanshin-Awaji Earthquake led to the Japan Society of Disaster Nursing establishment in 1998. The Japan Society of Disaster Nursing defined disaster nursing as "the systematic and flexible use of knowledge and skills unique to disaster nursing and the development of activities to minimize the damage to life and health caused by disasters in collaboration with other disciplines" [21]. In addition to natural disasters and public health emergencies, the United States has seen a marked increase in gun-related violence, civil unrest against institutional racism, and social upheavals associated with growing political polarization [1]. This has created an additional burden on health disparities at times of disaster.

Health disparities as disaster risk require considering not only where the hazards are but also who is vulnerable. In the same way that it is critical to assess the damage caused by collapsed or flooded houses, it is also essential to consider survivor's health and the safety of their living environment when forced to live in shelters and become immediately unsafe. When disaster strikes, community health issues change rapidly. Infectious disease outbreaks, climate change, environmental degradation, migration pressures, and limited health services, among others, require assessing which community health is secured or threatened. It depends on the disaster's type, scale, location, and timing; social, health, and economic conditions; characteristics of the local population; and emergency relief systems and responses. These include social isolation, loss of income, and lack of legal knowledge. To account for such a

variety of determinants requires a community-based response by health professionals who can consider the wide range of health impacts that can result from natural disasters, many of which are outside the purview of traditional emergency response departments. Traditional epidemiological and statistical studies in medical health are inefficient. There is an urgent need to develop a mutual understanding of the concepts and principles underlying actions to assess vulnerability and capacity. Identifying conditions and factors that influence population-level outcomes following disasters is essential (Fig. 1).

COVID-19 is a clear example of how two approaches, disaster risk and sustainable development, which were thought to be different, have merged and been found to have a common challenge and system: resilience. The COVID-19 pandemic lasted as long as any sudden disaster, and over time, the phrase evolved into the contradictory term "routine emergency." There was a gradual shift from immediate initial response to long-term emergency medical care. During the spread of COVID-19 infection, the challenges were more compounded and complicated when earthquakes and torrential rains struck a particular area. Nursing in unnatural conditions, where people have experienced isolation and self-restraint and their living space has been narrowed, requires public health thinking as well as the nursing profession's ability to make ethical judgments, and contributions to protecting people's peace and dignity.

Nurses have been integral to community recovery and reconstruction after various crises and social changes at home and abroad. From this viewpoint, they have adopted a transformative strategy to foster healthy communities by bringing people and health systems together. It is the primary platform for strengthening community members' daily and emergency resilience. These circumstances require adding a

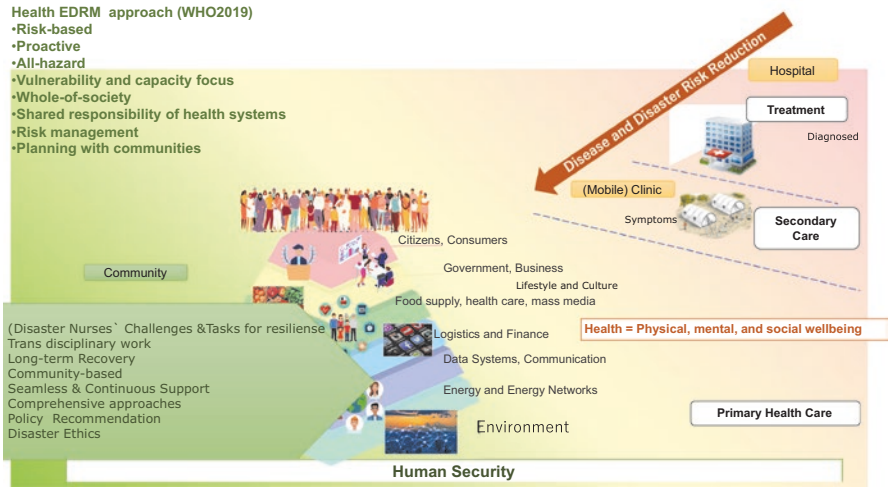

Fig. 1 Paradigm of disaster care to achieve health equity developed by Sakiko Kanbara on Health-EDRM approach [6]

social dimension to health, a crisis management review of universal health coverage, and regional and micro-human security. For human security, as an all-hazards approach, citizen participation and empowerment are urgently needed.

Based on the competencies required to address the vast needs during disasters and public health emergencies, the ICN [22] identified nursing practice level requirements. The levels include:

Level I: Any nurse who has completed a primary, generalized nursing education program and is authorized to practice by the regulatory agency of their country. Staff nurses in a hospital, clinic, or public health center; all nurse educators are examples.

Level II: Any nurse who has achieved Level I competencies and is or aspires to be a designated disaster responder within an institution, organization, or system.

Level III: Any nurse who has achieved Level I and II competencies is prepared to respond to various disasters and emergencies and serve on a deployable team.

4 The Nurses' Role Within a Transdisciplinary Framework: A Case Study

Addressing health equity in communities requires comprehensive knowledge, individual self-care practices, and social innovation. A team of nurses, called EpiNurses, worked with local nurses to execute ICT (information, communication, and technology) to collect and assess data in an effort to change people's values and behavior patterns. This case study from Nepal illustrates how a disaster-prone area identifies the potential health threats associated with different kinds of disasters in the community and reduces such health risks.

After the 2015 Gorkha earthquake in Nepal, many local nurses were active in shelters and affected areas. Epidemiologists from the government asked the local hospitals to assess the risk of infectious diseases with a surveillance system. Additionally, an attempt was made to collect location-based data from shelter locations, time stamps, geotagged photos, and geotagging, all with the goal of introducing new ways of thinking, behaving, and organizing for risk reduction. Instead of dispatching foreign nurses, an EpiNurse team, expert in epidemiology, trained local Nepalese nurses to ask questions in plain language via an Excel spreadsheet and save the data using affordable smartphones [23]. The EpiNurse team believed that local nurses were in the best position to observe critical care behaviors and help people understand the importance of proactive care not only to individual subjects, but also to society as a whole with the benefit of informing community policies.

The EpiNurse team, along with local nurses, worked diligently to improve the system in order to achieve its "visualization of care" objective. For example, the team developed extensive data analysis, open data, and open governance, adopted brand-new technology, and used a web service to create Virtual Reality spaces without requiring prior knowledge. Transforming nursing education to break down the barriers of time, space, language, occupation, digital literacy, and diverse cultural

values was the common ground for exploring the equilibrium point of health disparities and universal health coverage.

It was crucial that the information be saved locally in case of a poor internet connection where data was being collected. To achieve the goal of "evidence-based policymaking" combined with participation, it was required to establish it at a level that could be successfully managed by local governments, district authorities in the living area, and students. Major development stakeholders and private companies have the capacity, but the real benefits of interoperable and convergent data and analysis are missed. There is often a disconnection between "knowing" something with an app, making it "available and accessible," and users applying what they know and taking action. It is critical that data will not lose its freshness and that a collaborative and integrated global community be able to generate and use data for their benefit.

The EpiNurse team has supported the Nursing Association of Nepal (NAN) in accurately implementing the tool to collect data (Fig. 2).

Mobile applications used during the earthquake aftermath increased healthcare workers' sense of responsibility and commitment to care. Women, including nurses, had a low map reading literacy, which made it difficult for them to share information outside their familiar area, even though they had much to share. Therefore, a certain amount of time was spent on their training to read maps before the application. The mobile application effectively reported epidemiological health and safety information regardless of the time or system. It also made visible a number of challenges, such as a lack of geographic information during monitoring and data collection, poor IT infrastructure, and nurses' lack of technical knowledge. However, access and response rates varied depending on geographic and social conditions. The obtained data was neither disaster nor medical preparedness, missing the digital divide and people at risk. Several newly discovered shelters consisted of women caring for elderly parents and their children and grandchildren, whereas men remained migrant, displaced and mobile, isolated, and often unaware of nearby

Fig. 2 EpiNurse team teaching Nepalese nurses using Excel spreadsheet. (Photo taken by Apsara Pandy)

resources. With the entry of one nurse, they could work together in that community to solve their health issues by connecting them to nearby health services and coordinating the delivery of supportive supplies. Nurses' increased communication during uncertainty could be viewed as social capital to health equity.

5 Cultivating Social Capital for Inclusion

Opportunities to link, coordinate, and collaborate with disaster networks were made visible as an effort by nurses to improve Nepal's healthcare system through ICT. For example, they collaborated with the local nurses who had provided health services to the earthquake survivors at an ad hoc clinic in a camp in Bouddha, Kathmandu. They also collaborated with the NGO helping rural Nepalese communities improve their health by using low-cost interventions for all people in Nepal, especially the poor, vulnerable, deprived, and socially excluded, to have equal access to safe and affordable health services. The team shared their vision to improve health through changing behaviors, using health promotion techniques, and strengthening existing services. The team also communicated with the National Society for Earthquake Technology (NSET), a community of Nepalese professionals belonging to various technical and social aspects of earthquake disaster management, and a prominent organization working in DRR in Nepal. Alongside, representatives from the Ministry of Health and Population (MoHP), Nursing and Social Security Division (NSSD), Epidemiology and Disease Control Division (EDCD), National Health Training Center (NHTC), Health Emergency Operation Center (HEOC) under MoHP were frequently consulted during the project implementation phase. Some local community leaders, nurses, and school teachers were also voluntarily involved as supporters. Numerous marginalized people were covered by nurses within two years of the project's duration. Among them, there were children, the elderly, pregnant women, the disabled, and injured. During project implementation, they used social media, local/national newspapers, online news, and meetings with local leaders, female community health volunteers, and school teachers to disseminate project activities among the local population who were not directly involved in the project.

This project in Nepal was the first step in creating an innovative approach to action for health and well-being. Until now, disaster response nursing has emphasized aid workers' leadership, flexibility, coordination, and cultural competence outside the disaster area. Most nurses dispatched to disaster sites are hospital emergency nurses unfamiliar with community-based care in the local community. Community management was crucial to ensure that health professionals and nurses living in the affected region were familiar with the community [24]. One of the added values of this project was that by providing relevant, actionable, and up-to-date information from local nurses to stakeholders and community residents, it significantly shifted the paradigm of the nursing profession's role and thus changed community attitudes. The development of ICT made various data available and enabled researchers to use various methods to make discoveries in an exploratory manner. Data scientists could identify cases of deviance, and the observations of

nurses and practitioners working on the front lines could provide deeper insights into why such health disparities were occurring. EpiNurse Nepal initiated and continued disaster risk management activities related to the project even after the project ended. EpiNurses were dispatched as first responders during the Melamchi (Sindhupalchok) floods and landslides in 2021.

6 Multiple Disaster Risk and Primary Health Care

The case study illustrated in this chapter provides an analysis of risk classification into different categories (economic, environmental, social, and technological). It indicates their likelihood and impact: since 2011, environmental hazards (climate change, extreme weather events, disasters, and biodiversity loss) have been in the top three to the top five regarding both likelihood and impact. Climate change has increased the hydrological cycle of rainfall and evaporation, causing seasonal and localized hazards, such as monsoon floods, cyclones, and disease outbreaks in some areas. However, many regions experience drought. There has also been an increase in deaths and illnesses due to heat waves associated with environmental degradation. Infectious diseases were ranked first in impact in the 2021 Risk Outlook [25].

The following risk formula is often used in disaster risk reduction [26]:

$$\text{Disaster risk} = \text{Hazard}(\text{H}) \times \text{Vulnerability}(\text{V}) / \text{Coping Capacity}(\text{CC}).$$

In public health, it is vital to identify the high risks and vulnerabilities of the population. In addition, community health initiatives should examine problems with relevant targets and indicators that threaten the human security. Focusing on human vulnerabilities and capacities can help reduce the severe impact of disasters on health and well-being.

When natural hazards such as floods and landslides occur, disaster risk is minimized if there are no people or homes in the region and no one suffers damage or loss. DRR is a concept that emphasizes citizen-led measures to minimize damage, based on the premise that it is challenging to reduce the damage caused by major natural disasters as well as minor human errors. Therefore, a population approach by nursing is highly compatible with DRR. This approach is practical because disaster risk can be viewed as "the statistical probability that a person exposed to a certain factor will develop a certain disease." Disasters can affect community health through various mechanisms. Some impacts, including heat waves, floods, and storms, are relatively direct. However, some pathways are more complex, such as changes in infectious disease patterns, ecological degradation (e.g., agriculture), and potential population shifts due to depleted resources, namely, g water, fertile land, and fisheries [27]. Conversely, people's views regarding health change in response to diverse social factors rather than remaining consistent. For example, social determinants of health share factors such as human connections, technology (e.g., medical mechanisms and information technology), occupation, education level, self-realization, or quality of life. The evidence suggests that, at least in

relative terms, health vulnerability hazards are prevalent and growing. When managing the risks of large-scale disasters, the need to take action to mitigate them and their underlying causes is more urgent than ever. These risks are socially generated and inequitable, but preventable. Therefore, new vigilance is required to monitor their impact. They should be noted and tracked in light of the disaster and community characteristics.

In recent years, the critical phrase "Volatility, Uncertainty, Complexity, Ambiguity (VUCA)" is often used to describe increasingly complex systems and environments [28]. To tackle health problems in today's VUCA environment, nurses must return to the principles of Nightingale's nursing and collect data through careful, patient and situational observation. Furthermore, the foundation for data collection must be strengthened. The data raises awareness of the risk of illness and basic self-care activities to improve health status while strengthening family and community resilience and providing a foundation for emergency response.

COVID-19 forced physical distance and lifestyle changes, leading to healthcare as well as information disparities and social isolation. The technology to solve these issues is underdeveloped, but the challenges of social structures that affect utilization, such as age and gender differences, have not yet been visualized. Today's communities are composed of one-person households and nuclear families, which often move across countries due to their work and lifestyle. This situation illustrates the importance of self-care, which is self-help, and primary health care, which is co-help, at the individual, family, and community levels. At the core of primary health care, people, including children, who have lived in the area for many years, know the area best and can use their own experience to "care" in their own words in times of disaster.

It is also vital to share awareness of available technologies and issues and to support the provision of information to create a "fair" and "resilient" environment. Problem-solving in communities requires comprehensive knowledge of people's health and living needs within their particular culture and environment and the ability to respond appropriately to these needs. On the other hand, various cross-border relationships also need to be understood as more cross-sectoral and comprehensive for health and care within the community. The burden of medical care and illness will increase without a shift to prevention and risk-reduction measures at home and in the community. In addition to individual and geographical inequities, it is critical to investigate disaster education and policy from independent human security and health equality perspectives.

7 Need for Nursing Research on Disaster Pre-Planning to Recovery to Achieve Health Equity

Based on the lessons learned to date, including the case study, and given the wide range of expertise of nurses around the world involved in the complex domain of disaster health—from pre-planning to recovery—there is a significant need for nursing research. Nursing research related to the SDGs is increasing; however, there

is a critical need to link nursing practice, research, and policy development in order to achieve health equity and the 2030 goals [29]. Particular attention has been given to culture, psychological distress, and social determinants of health, suggesting the need for nursing researchers in each country to conduct secondary analysis of multi-country data [30]. Nurses and researchers should also share the concept of disaster nursing and disseminate research results from nurses' perspectives to the world.

The following commitments attempt to explicate the SFDRR 2015–2030 so that nurses can understand how to contribute to DRR globally across disciplines by incorporating disaster nursing research and practice. These targets might elaborate on more specific actions as guidelines for nurses to contribute to health equity.

Required disaster nursing research and capacity building for health equity based on Sendai Framework for Disaster Risk Reduction 2015–2030 [31]

1. Promote coherence and the continued development of local and national policies and strategies, legal frameworks and regulations, and institutional arrangements: From an academic perspective, identify consistent policies at each level of government for medium- and long-term health risks, as well as acute treatment immediately after a disaster, and the appropriate processes and regulations. During normal times, propose disaster mitigation measures through disaster response capability, health promotion, and lifestyle improvements.
2. Incorporate disaster-related mortality, morbidity, and disability data into multi-hazard early warning systems, core health indicators, and national risk assessment: Identify the vulnerable population and develop disaster risk management indicators from the perspective of health risk management. Through data sharing, disaster assistance can be prioritized for those in need based on the social resources available during the disaster.
3. At the federal and local levels, nurses with expertise in people's health and lifestyles routinely attend meetings and work with related professionals and local disaster management organizations. They also continuously assess how health aspects are integrated into research, framework, planning, and evaluation and propose necessary plans.
4. Enhance cooperation between health authorities and other relevant stakeholders: There should be a forum at each level of government where health risk management authorities can hold meetings to discuss the status and challenges of new emergencies (health crises), such as natural disasters and infectious diseases. In such a setting, nurses familiar with local difficulties in such a setting will encourage collaboration among stakeholders from a life and health viewpoint.
5. Integrate DRR into health education and training, and enhance DRR-related health worker capacity building: Reinforce disaster nursing specialist training and develop advanced personnel at graduate schools and other institutions who can comprehend complicated disaster circumstances with limited knowledge and resources and exercise leadership in partnership with other professions. Collaborative training is encouraged across all disaster-related sectors.
6. Advocate and support cross-sectoral and transboundary collaboration for information sharing, science, and technology: Encourage research and information

dissemination on big data, social networking sites, such as Twitter, location information, and translation services that can be utilized for health equity in recent years. A community alert and continuous monitoring system can be developed using daily information. Nurses who can collaborate with technicians and commercial telecommunications businesses must be trained to accomplish this target.

8 Call to Action

To enable nurses to address inequities in the community, federal agencies and other key stakeholders within and outside the nursing profession should take heed of the lessons learned during the COVID-19 pandemic and work with governmental agencies and other key stakeholders within and outside the nursing profession to ensure that nurses can address inequities in their communities. In order to help nurses address inequities in their communities, federal agencies and other key stakeholders within and outside of the nursing profession need to be strengthened and protected. Based on the nurses' expertise, local community insights, and work for sustainability, it is recommended that the communities collaborate with nursing for a global social change. As global citizens, nurses must promote transdisciplinary collaboration among stakeholders engaged in stakeholder decision-making and the development of sustainable health communities. They also could encourage mutual understanding among stakeholders and local populations to decrease disaster risk. Formal healthcare policy and primary nursing education are indispensable. The types and scales of such places are diverse, and each region and university should accumulate know-how and knowledge through trial and error. From a common-sense perspective, the concept of seeking a solution to issues specific to each "community" as a "local" unit and the process of "co-creation" within that scope can be generalized.

Study Guide

1. Reflecting on current disasters, where, how, and when can nurses address health equity?
2. What is the role of nursing education in preparing nurses to address health equity during disasters and public health emergencies?
3. What kinds of activities can a nurse be involved with ahead of time, related to health equity, that might proactively impact DRR?
4. What kind of nursing research is needed during the pre-planning through recovery phases of disasters for risk reduction?

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Enabling Techquity in Nursing Practice: Informatics, Technology, and Innovation

Victoria L. Tiase and Mollie Hobensack

Future of Nursing 2020–2030 recommendation 6:

All public and private healthcare systems should incorporate nursing expertise in designing, generating, analyzing, and applying data to support initiatives focused on social determinants of health and health equity using diverse digital platforms, artificial intelligence, and other innovative technologies.

1 Introduction

Healthcare is amid a digital transformation. Emerging technologies are being deployed into the healthcare setting at a rapid pace with the promise of helping clinicians work smarter, faster, and more efficiently. Patient care and, more specifically, nursing practice, have already felt the impact. It is difficult to find a situation where a nurse is not using technology during the workday. As the use of new technology continues to increase, it requires nurses to have the skills to not only use new technologies, but also educate patients and families on how to utilize technologies to support their health. As key stakeholders in technical innovations, nurses are positioned to lead in the creation and deployment of new care tools that improve the health and well-being of all.

V. L. Tiase (✉)
Department of Biomedical Informatics, University of Utah, Salt Lake City, UT, USA
e-mail: Victoria.Tiase@utah.edu

M. Hobensack
Columbia University School of Nursing, New York, NY, USA
e-mail: mxh2000@cumc.columbia.edu

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However, not all nurses have a clear understanding of how to best leverage technology within nursing practice, and moreover, healthcare systems do not always leverage the data generated to provide greater access to care and patient-specific recommendations, which ultimately support the reduction of inequities in health care. Alongside this, nurses are constantly being tasked with new responsibilities without the offloading of other tasks. Closing this technology, care gap will require a multipronged approach. The decade ahead will require the nursing profession to consider enhancements to nursing education, nursing leadership, practice models, and community and clinician partnerships that strategically use technology and data to achieve health equity—commonly referred to as techquity [1].

In this chapter, we will present the conclusions from the National Academy of Medicine's consensus study report, *The Future of Nursing 2020–2030*, related to the role of technology, data, and innovation in achieving health equity [2]. Then, we will discuss each component of the sixth recommendation and describe how technology can be used to support the integration of social determinants of health (SDOH) data into nursing practice. Real-world examples and international case studies will be provided to illustrate potential interventions. We will also consider the role of informatics and innovation to support the nursing profession as a whole. In closing, we will initiate a call to action for nurse-led, multi-stakeholder efforts that use innovative and technical solutions to enable all individuals to live their healthiest lives.

2 The Digital Transformation

Since the establishment of the Health Information Technology for Economic Clinical Health Act (HITECH) in 2009, the state of technology in patient care has radically changed. HITECH incentivized the adoption of electronic health records (EHRs), which in turn has led to an exponential growth in healthcare technologies and health data in the electronic format. Also, HITECH introduced the "meaningful use" program, now relabeled as promoting interoperability, to encourage the safe sharing of health data across the patient's care team for improvements in the quality of care. In addition to improved outcomes, priorities such as reducing health disparities, including patients and families in their care, and improving care coordination and public health emerged.

Over the past decade, technological advances have also changed the way healthcare services are delivered. Now, nurses can track the status of their patients at both individual and population levels. Care coordination can occur through a mobile device where patients can access, share, and gather their health data using mobile health apps. During the pandemic, technology broke down barriers further, with the increase of telemedicine visits and remote patient monitoring affording access to care to those who wouldn't have otherwise. In addition, new technologies have been developed to collect data on environmental factors and other SDOH, highlighting an area for emerging innovations.

3 Health Equity Opportunities

Although technology has advanced, process improvements are needed. Integrating SDOH data into EHRs can identify and support clinical–community linkages, but there is insufficient infrastructure for standardized data capture and interoperable exchange between the clinical and community settings. Community-based organizations can improve the SDOH data collection in their communities if provided the technology to do so. And once collected and shared, SDOH data must be incorporated into nursing practice in a meaningful way. Since EHRs in their current form do not adequately support nursing care delivery models that can influence SDOH and improve health equity, transforming SDOH data into operational knowledge will require healthcare settings to routinely employ nurse informatics professionals to assist with such efforts. Nurses have a responsibility to promote access to and assist individuals with patient-centered health information technology such as telehealth and mobile health, but not all programs of nursing education provide technology training beyond the EHR. And although some large technology companies driving healthcare innovation efforts have placed nurses in leadership positions, roles for nurses in the corporate technology sector remain undefined.

The above conclusions led to the development of the sixth recommendation of the Future of Nursing 2030 report, which focused on the informatics, technology, and innovation needed to achieve health equity: "...healthcare systems should incorporate nursing expertise in designing, generating, analyzing, and applying data to support initiatives focused on SDOH and health equity using diverse digital platforms, artificial intelligence, and other innovative technologies." [2] The recommendation includes five sub-recommendations: (1) Accelerate interoperability projects, (2) ensure collaboratives improve visualization of SDOH data and associated decision-making by nurses, (3) employ nurses with requisite expertise in informatics, (4) give nurses in clinical settings the responsibility and clinical resources to innovate and use technology, and (5) facilitate the provision of telehealth by nurses. In the pages that follow, each of the sub-recommendations will be described briefly along with examples where nurses are leading the way in using technology to advance health equity.

4 Accelerating SDOH Interoperability

Nurses are at the forefront of providing longitudinal care allowing them to identify and partner with patients to address their holistic care needs. However, there are limitations in the integration of current technologies creating disjointed care and perpetuating health inequities. Inviting nurses into policy conversations on meaningful data exchange can advance the acceleration of interoperability projects aimed at reducing health disparities. Partnerships among government, hospital, and vendor stakeholders can support standardization around SDOH documentation, fostering an EHR that holistically reflects a patient's health journey. Ultimately, this work can

remove duplicate documentation and bridge the silos between hospital and community settings.

In the United Kingdom, providers are able to prescribe social resources in the community to improve health [3]. Locally, this idea has manifested through organizations like Health Leads, whose mission is to identify SDOH needs (e.g., food, heat, and housing) and connect communities to local resources [4]. As the Nurse Practitioner workforce continues to grow in the primary care setting, educating and equipping advanced practice nurses with tools to screen and intervene for SDOH needs could radically transform health. In a recent study at the University of California San Francisco, Nurse Practitioner students expressed discomfort in screening for SDOH and creating treatment plans around unmet social needs; in addition, students identified knowledge gaps around navigating community resources [5]. Simulated experiences to screen for SDOH were then incorporated into nursing curriculum to support earlier reflection, practice, and intentionality. Education can be further augmented through instruction on the use of Z codes, which are a set of ICD-10 codes that standardize the documentation of SDOH [6].

Within community health centers, previous studies have integrated SDOH documentation in the EHR [7, 8]. Other studies have recognized the potential of SDOH data capture through partnerships with patients [9, 10]. Together, both highlight opportunities for increased collaboration among stakeholders to reduce the duplication of documentation. Hatef et al. [11] illuminate the potential of building an infrastructure of SDOH data through the integration of community-level SDOH (collected by public health offices) and individual-level SDOH (collected by patients) to guide patient-specific clinical decision-making and health policies. Strengthening the collaboration between community and acute health can also pave the way for novel innovations integrated into the EHR (e.g., clinical decision-support) such as identifying patients at risk for deterioration or connecting patients to local resources [12]. Ultimately, as interoperability related to SDOH accelerates, we anticipate advances in health equity and fortuitously, a reduction in the documentation burden placed on nurses.

5 SDOH Data Visualization

As SDOH data are collected from and shared with various sources, a related task is to incorporate them into nursing practice in a meaningful way. This requires proper visualization and contextualization such that nurses can efficiently make use of the data as part of personalizing care. Local health leaders have reported challenges in accessing and using SDOH to monitor and addressing disparities [13]. Some of the challenges include staff expertise and resources, especially related to displaying and communicating data. Although implementation and utility are in the early stages, there are some promising examples of efforts that make SDOH data accessible and visible in practice settings.

Case Studies

1. The Gravity Project is an open public collaborative that is developing consensus-based standards to facilitate SDOH data capture, exchange, and use [14]. One of the initial participants and lead clinical informaticist for the collaborative is a rural nurse practitioner and doctoral prepared nurse researcher, Sarah DaSilvey. Since 2019, the Gravity Project has developed data sets for 14 SDOH domains, published value sets in the National Library of Medicine Value Set Authority Center, and submitted its first SDOH Clinical Care Fast Healthcare Interoperable Resources Implementation Guide. Later this year, the Gravity Project will facilitate testing and validation through real-world pilots [14]. This is an opportunity for healthcare organizations to test the use of SDOH data and improve the visualization and use of these data in practice. Additionally, nurses can participate in these upcoming activities and test the meaningful collection of SDOH through nursing documentation, ultimately influencing the use of standardized SDOH data elements in patient care.
2. Backonja et al. designed an interactive visualization dashboard, named SHARE-NW (Fig. 1), for rural local health departments in the northwestern United States to address health disparities [15]. The dashboards were developed using principles of user-centered design and in practice, are accompanied by training resources to assist public health professionals with relatively little data experience. At this time, the data are compiled from publicly available resources, but there is great potential to use the lessons learned from these dashboards to incorporate patient-level SDOH data and extend to other care settings.

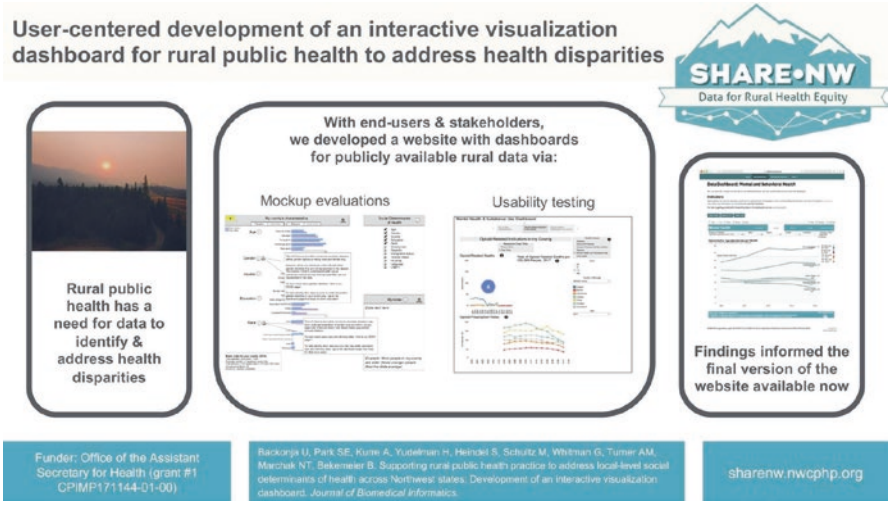

Fig. 1 SHARE-NW Dashboard [15]. (Reproduced with permission)

6 Employ Informatics Expertise

An increase in trained nursing informaticists with the ability to leverage artificial intelligence and summarize and contextualize SDOH data in a way that provides actionable insights is needed globally. Even nurses who don't consider informatics as a specialty must conceptually understand how the analysis of massive data sets can influence care outcomes. Required competencies for nurses should include the skills to enhance caring relationships through technology and the ability to personalize care based on patient preferences, social needs, and technology access.

As of 2021, there were approximately 3000 certified nurse informaticists in the United States to support an overall nursing workforce of over four million [16]. It is unclear how many other countries identify with having informatics nurses, but the Nursing Informatics Special Interest Group of the International Medical Informatics Association reports that in addition to the United States, the following countries are society members: Australia, Austria, Belgium, Brazil, Canada, Chile, Croatia, Denmark, Finland, Germany, India, Ireland, Israel, Japan, New Zealand, Norway, Philippines, Republic of Korea (South Korea), Romania, Slovenia, Sri Lanka, Sweden, Switzerland, Taiwan, United Arab Emirates, and United Kingdom [17]. In 2020, the Hospital Information Management Systems Society (HIMSS) Nursing Informatics Workforce Survey reported that a majority of nurse informaticists (68%) work for a healthcare system while the remainder of nurses work for a vendor, government agency, or academia [18]. This accentuates the need for more trained informaticists, especially in community settings.

To support an increase in informatics training, as of 2021 the American Association of Colleges of Nursing added "Informatics and Healthcare Technologies" as a required competency for nursing school accreditation [19, 20]. This landmark decision will help to standardize and qualify all nurses to enter the profession with a familiarity to informatics. This creates opportunities for nurses with informatics expertise to lead initiatives in the community targeted at the integration of SDOH data.

7 Providing Resources to Innovate

Empowering nurses to embrace a culture of innovation by harnessing their clinical expertise in the development of new technologies will lead to more rigorous patient- and nurse-centered technologies [21]. However, as new technologies are introduced to care environments, technological stress must be carefully considered so that efficiencies are realized rather than creating additional burdens. This must be a real, measured approach that requires nursing innovation.

Innovation can come in the form of projects aimed at using artificial intelligence to improve outcomes or the optimization of EHR functions (e.g., clinical decision-support). For example, nurse researchers developed a clinical decision-support (CDS) tool that identifies patients who are at risk for deterioration entitled "Communicating Narrative Concerns Entered by RNs (CONCERN)" [22]. This tool, situated into a nurse's routine workflow, was the result of a nurse's observation that increased nursing surveillance is often a signal of a nurse's concern for a patient

[23]. The implementation of this CDS into the EHR required the expertise of a diverse group of nurses (e.g., informatics, standards, governance, bedside, advanced practice) to enable effective development, implementation, and utilization. This work also highlights the importance of narrative documentation by nurses in the early identification of patients who are at risk for experiencing a rapid response event or mortality [24]. Expanding into the home-care setting, the CONCERN model has been adapted to proactively identify patients at risk for hospitalization or visiting the emergency department through the utilization of artificial intelligence to analyze narrative notes [25]. These teams include nurses at the forefront of research focused on innovation and the intersection of clinical care and informatics.

Innovation in nursing can be defined as producing information, protecting health, preventing disease, and offering personalized care to deliver quality care [26]. Nurses are well equipped to develop new solutions targeted at addressing these areas. In order to do this, Sensmeier recommends that nurse leaders encourage divergent thinking, support risk-taking behavior, value learning from failure, embracing flexibility, and promoting autonomy in innovation [27]. At the bedside level, championing nurses at every stage of the technology life cycle will help to increase uptake and integration of technology into the nursing workflow [28]. Routinely consulting with clinicians throughout the development of innovations is lacking [29]. However, there are some examples where nurses are not only a part of the research team but also are consulted at each stage of the development life cycle. One example from Switzerland is the creation of a nursing app at the University Hospitals of Geneva [30]. Details of the case study are found below.

Case Study

3. At the University Hospitals of Geneva in Switzerland, Ehrler et al. (2021) designed and developed a tool to increase the efficiencies of nurses by providing access to EHR data at the bedside. The authors used a participatory design approach and added detail in the design phase to ensure nurse participation at an early stage to maximize user acceptance. Nursing involvement and feedback at every stage of the development life cycle was an important factor in tailoring the product to the needs and workflows of the nurses. Focus groups consisting of nurses were used to identify the information needs that could be addressed with the tool and consequently the main interactions between the nurses and EHR data. Through iterative user-centered design cycles, nurses provided feedback on the proposed concepts and whether user needs were met. The nurses discussed their satisfaction and impressions at the end of the usability evaluation. Nurse participation in the pilot testing was voluntary, but the tool was offered to all nurses. At the end of the study, the nurses completed a technology acceptance questionnaire. Nurses were involved at every stage of the process and identified new functions, such as a camera for wound assessment and a team communication tool for future iterations.

Globally, others have demonstrated the value of championing nurse innovations. In China, researchers evaluated the effectiveness of a nursing innovation workshop to enhance innovation ability and found that nurses' reported improvement in

innovation and research ability following attendance in the workshop [31]. A similar study conducted in Saudi Arabia found that nurses benefited from innovative educational programs and were receptive to engaging in innovation [32]. In New Zealand, Krishnamurthi et al. successfully tested the feasibility of using the Stroke Riskometer App with diverse ethnic groups, a tool used to address gaps in primary stroke prevention [33]. In the United Kingdom, National Health Services nurses in the community are trialing virtual reality goggles allowing them to transcribe appointments into the EHR to reduce time spent conducting administrative tasks. In addition, the goggles support nurses in performing wound assessment [34]. Overall, the literature emphasizes the importance of entrepreneurial leadership and the environment in encouraging nurses to innovate [35–37].

In the United States, there have been multiple initiatives aimed at increasing opportunities for nurses to share their innovative ideas across the industry, hospital, and academic settings. While not an exhaustive list, Table 1 presents organizations

Table 1 Nurse innovation opportunities in industry

Organization	Event	Link
Johnson and Johnson; Microsoft; Sonsiel	Nurse Hack 4 Health: Pitch-A-Thon	https://nursehack4health.org/
Johnson and Johnson	QuickFire Challenge	https://nursing.jnj.com/innovate-with-us/nurses-innovate-quickfire-challenge
Johnson and Johnson	Nurse Innovation Fellowship	https://nursing.jnj.com/innovate-with-us/nurse-fellowship
American Nurses Association/HIMSS	NursePitch	https://www.nursingworld.org/practice-policy/innovation/events/nursepitch/
American Nurses Association (ANA)	Innovation Award	https://www.nursingworld.org/practice-policy/innovation/events/awards/
Alliance for Nursing Informatics (ANI)	ANI Emerging Leaders	https://www.allianceni.org/programs/ani-emerging-leaders
The Queen's Nursing Institute	Community Nursing Innovation Programme	https://qni.org.uk/explore-qni/nurse-led-projects/partnerships-for-innovation/
Innovation Norway, Business Finland & Business Sweden	Nordic Health 4.0—the Amplified Nurse in Singapore	https://www.businessfinland.fi/en/whats-new/events/2022/nordic-health-4.0-the-amplified-nurse-in-singapore
National Health Service England	NHS Innovation Accelerator	https://nhsaccelerator.com/about-us/
Society of Nurse Scientists, Innovators Entrepreneurs, and Leaders (SONSIEL)	Networking	https://www.sonsiel.org/
Campaign for Action	The Nursing Innovations Fund	https://campaignforaction.org/our-network/grantee-and-award-programs/the-nursing-innovations-fund/
Robert Wood Johnson Foundation	MakerNurse	http://makernurse.com/

Table 2 Nurse innovation opportunities in the healthcare setting

Organization	Center	Link
Mount Sinai	Center for Nursing Research and Innovation	https://www.mountsinai.org/locations/mount-sinai/about/health-professionals/nursing/center-for-nursing-research-and-innovation
Mass General Hospital	The Center for Innovations in Care Delivery at Massachusetts General Hospital	https://giving.massgeneral.org/stories/nursing-innovation-enters-new-era/
University of Florida Health	Nursing Research and Innovation	https://nursing.careers.ufhealth.org/shands-at-uf/nursing-research-innovation/
Cleveland Clinic	Nursing Research and Innovation	https://my.clevelandclinic.org/departments/nursing/about/specialties/nursing-research
Taiwan Adventist Hospital	Collaboration with Tzu Chi University of Science and Technology	https://www.tahsda.org.tw/en/DepartmentOfNursing_NI.php

Table 3 Nurse innovation opportunities in the academic setting

Universities	Link
University of Connecticut	https://nursing.uconn.edu/research-innovation/innovation-new-knowledge/#
University of Pennsylvania	https://www.nursing.upenn.edu/innovation/
Drexel University	https://catalog.drexel.edu/graduate/collegeofnursingandhealthprofessions/nursinginnovation/
The Ohio State University	https://nursing.osu.edu/offices-and-initiatives/center-healthcare-innovation-and-leadership
Duke University	https://hil.nursing.duke.edu/
Emory University	https://www.nursing.emory.edu/pages/project-nell
John Hopkins University	https://nursing.jhu.edu/faculty_research/research/nora/discovery-innovation-fund.html
New York University	https://nursing.nyu.edu/innovation
University of Michigan	https://nursing.umich.edu/HiiP

that support nursing innovation at the industry level. Health systems have also begun creating or partnering with innovation centers (see Table 2). Other research has explored the creation of nursing innovation centers in the academic setting (see Table 3).

For example, the Cleveland Clinic Nursing Innovation Center was founded in 2013 and remains focused on educating nurses on innovation opportunities and recognizing innovative ideas. Alternatively, New York-Presbyterian Hospital resourced the creation of an "iUnit" to encourage innovation amongst nurses and other staff members using new technologies (e.g., iPhones, tablets) and provide training on design thinking [38]. Nurses were highly satisfied with the ability to generate new ideas and see them come to fruition on the iUnit [38]. Some of these ideas can be easily scaled and replicated across multiple institutions for cross-collaboration.

The development of a clinical idea into an actionable product requires expertise that is not always intuitive. We encourage nurses to explore opportunities that include collaboration with interdisciplinary and industry teams to advance a shared vision that will strengthen quality care [39]. At the industry level, nurses can engage in hackathons, incubators, and accelerators which offer a space for nurses to innovate alongside experts in entrepreneurship [34].

8 Facilitate Telehealth

Over the past few years, telehealth services have been on the rise as the lack of primary care in rural areas and an aging and more chronically ill population put demands on the healthcare system. Incorporating virtual visits and remote monitoring tools into patient care necessitates an increasing role for nurses in telehealth activities. To support the nurse's role, modifications to licensure and scope of practice along with the development of new care models and competencies are warranted. From a health equity lens, telehealth is more than an add-on to traditional access to care; it provides a new way of caring for patients outside of the traditional care setting. With this paradigm shift, nurses must be prepared to not simply support telehealth efforts but to lead in its integration within longitudinal healthcare processes.

An example of telehealth contributing to new models of care is evident with its use in school-based health centers. In South Carolina, a school-based asthma telehealth program implemented a team-based approach to asthma, including the use of nurse telepresenters, in over 70 schools throughout the state [40, 41]. Since the need was higher in rural areas with increased underserved populations, specific marketing and implementation strategies were put in place to scale the program. Details of the program are found below.

Case Study

4. In South Carolina, a telehealth program to care for children with acute exacerbations and chronic asthma management (e.g., education, symptom monitoring, risk factor mitigation, and medication delivery) was implemented. The interdisciplinary team included physicians, nurse practitioners, respiratory therapists, and school nurses. The school nurses were supported by telepresenters—typically locally situated, licensed prepared nurses—who assisted with scheduling, technology issues, and/or home visits. Implementation strategies that contributed to its success included building relationships, marketing and providing technical assistance, and educating and supporting program delivery. Evaluators reported that key facilitators were strong nurse leadership and partnerships between the telehealth and school teams. Schools with a nurse dedicated to serving as the program "champion," demonstrated higher levels of success.

Due to COVID-19 pandemic needs, in 2020 the Australian government made funding available to support general practice nurse (GPN) telehealth consultations in certain communities. Consultations were limited to health assessments for Aboriginal and Torres Strait Islander people, and chronic disease management consultations [42]. The rapid implementation of telehealth required GPNs to redesign their current roles and pivot to a new care delivery model. However, although GPNs were reported to have embraced telehealth quickly, this could not have been accomplished without support for the needed training and funding for the technology.

9 Call to Action

Technology implementations, mHealth app development, and machine learning models continue to be developed largely without nursing input. Biases in the end products and in the way that they are implemented can exacerbate inequities unknowingly. Nurses have the skills, knowledge, and patient perspective needed to combat this issue and create technology that can be used for good. Organizations that hire and support nurses must mount a coordinate response over the next decade. As an example, HIMSS established a task force that created a Future of Nursing Informatics Action Plan primarily centered on the scaling of innovation activities. To enable techquity in nursing practice and more generally in healthcare, we suggest the following call to action related to informatics, technology, and innovation:

- Nurses and organizations that employ nurses should engage in the piloting and testing of developed standards from the Gravity Project.
- Research describing how nurse leaders engage with staff nurses in technology-related discussions about striking the balance between increased SDOH data capture and avoiding additional burden should be disseminated [43].
- Nurse leaders should advocate for protected time for nurses to engage in informatics opportunities (e.g., governance boards) to reflect the value of the nursing voice.
- Nurse educators should encourage and incorporate design thinking into the nursing curriculum and partner with practice settings to test prototypes. Prior to purchasing innovative tools, nurse leaders should inquire whether the technology vendor incorporates nursing knowledge into their design and development processes.
- Healthcare organizations should incorporate nurses into telehealth implementations. Nurse-led care models for virtual care should be developed.

To stay connected to new initiatives, the Alliance of Nursing Informatics (https://www.allianceni.org/) and the International Medical Informatics Association's Nursing Informatics Special Interest Group (https://imia-medinfo.org/wp/sig-ni-nursing-informatics/) are relevant resources.

In conclusion, the future of healthcare demands the proliferation of nurse-led innovation that leverages technology to achieve techquity. A coordinated effort across all of nursing is paramount to envision a future where high-touch and high-tech care is provided to all.

Study Guide Questions

1. Discuss a clinical gap you have seen in practice and how you would go about solving the problem through an innovative solution. Think through what venues you would take to develop your idea, who would need to be part of the team, and what skills you would seek to gain.
2. Discuss how you have previously seen technology used to address health equity in nursing practice. What are the ways you think it could be improved? Do you have any ideas for future innovations?
3. What are other uses in telehealth where nurses could play a key role? How might this impact patient care? What new technology solutions may be needed?

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Creating a Shared Agenda to Achieve Health Equity

Jing Wang and Carli Zegers

Future of Nursing 2020–2030 Recommendation 1:

In 2021, all national nursing organizations should initiate work to develop a shared agenda for addressing social determinants of health and achieving health equity. This agenda should include explicit priorities across nursing practice, education, leadership, and health policy engagement. With support from the government, payers, health and healthcare organizations, and foundations, the implementation of this agenda should include associated timelines and metrics for measuring impact.

The Future of Nursing 2020–2030: Charting a Path to Achieve Health Equity report published by the National Academies of Sciences, Engineering, and Medicine [1] presented a key recommendation for all national nursing organizations to create a shared agenda on health equity, as detailed below "Recommendation 1: In 2021, all national nursing organizations should initiate work to develop a shared agenda for addressing social determinants of health and achieving health equity. This agenda should include explicit priorities across nursing practice, education, leadership, and health policy engagement. The Tri-Council for Nursing and the Council of Public Health Nursing Organizations, with their associated member organizations, should work collaboratively and leverage their respective expertise in leading this agenda-setting process. Relevant expertise should be identified and shared across national

J. Wang (✉)
Florida State University College of Nursing, Tallahassee, FL, USA
e-mail: jingwang@nursing.fsu.edu

C. Zegers
University of Kansas School of Nursing, Kansas City, KS, USA

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nursing organizations, including the Federal Nursing Service Council and the National Coalition of Ethnic Minority Nurse Associations. With support from the government, payers, health and healthcare organizations, and foundations, the implementation of this agenda should include associated timelines and metrics for measuring impact."

This recommendation, at its core, has signified the importance of aligning all national nursing organizations toward a shared agenda in advancing health equity through nursing. Addressing health inequities requires significant and sustained efforts across all sectors to eradicate systematic and structural barriers, especially social barriers to health. Nurses, as the most trusted and largest healthcare professionals, are the best advocates for patients, families, and communities to address holistic care needs including social determinants of health. The significance of a shared agenda across all national nursing associations is powerful; however, it requires efforts toward education, practice, research, and policy to be made in an overlapping manner, not independently. Its core should be focused on putting nursing in the bigger context of health and health care. The emphasis on aligning not just nursing sector, but also other health and healthcare sectors in balancing quality- and safety-driven, versus revenue-driven healthcare systems and emphasizing nurses' and clinicians' work environments shall be addressed by all shareholders in advancing this shared agenda broadly and effectively.

1 National and Global Context in Creating a Shared Agenda

Nursing professional organizations creating an alliance is key to creating a shared agenda for advancing health equity to provide explicit priorities across practice, education, leadership, and policy leaders for agenda setting. Key alliances within national nursing professional organizations include: (1) the **Tri-Council for Nursing**, an alliance between the American Association of Colleges of Nursing, the American Nurses Association, the American Organization for Nursing Leadership, the National Council of State Boards of Nursing, and the National League for Nursing; (2) The **Council of Public Health Nursing Organizations**, a coalition of the nation's leading public health nursing organizations (The Alliance of Nurses for Healthy Environments (ANHE), American Public Health Association—Public Health Nursing Section, Association of Community Health Nursing Educators, Association of Public Health Nurses, Rural Nurse Organization, National Association of School Nurses); (3) **National Coalition of Minority Nurses Association**, a unified force advocating for equity and justice in nursing and health care for ethnic minority populations, including Asian American/Pacific Islander Nurses Association, Inc. (AAPINA), National Alaska Native American Indian Nurses Association, Inc. (NANAINA), National Association of Hispanic Nurses, Inc. (NAHN), National Black Nurses Association, Inc. (NBNA), and Philippine Nurses Association of America, Inc. (PNAA), and 4) **Federal Nursing Service Council**, consists of U.S. Army, Navy, Air Force, including Guard and Reserve,

Public Health Corps, American Red Cross, Department of Veteran's Affairs, and the Uniformed Services University of the Health Sciences Graduate School of Nursing.

Globally, the World Academy of Nursing Sciences, the International Council of Nurses (ICN), and the World Health Organization (WHO), are all key partners that had a huge interest in creating a shared agenda through nursing and supporting efforts toward equity-minded nurses, nurse educators, and nurse scientists to achieve health equity for all.

Interprofessional education and collaborative health care are also essential to the success of creating the shared research agenda for health equity. Interprofessional Education Collaborative (IPEC), started in 2009 with six national education associations of schools of the health professions forming a collaborative to "promote and encourage constituent efforts that would advance substantive interprofessional learning experiences to help prepare future health professionals for enhanced team-based care of patients and improved population health outcomes", now including 21 national health professions associations that represent "higher education in allopathic and osteopathic medicine, dentistry, nursing, pharmacy, and public health created core competencies for interprofessional collaborative practice to guide curricula development across health professions schools." Academic nursing education institutions and academic health science centers should leverage national partners such as IPEC, along with the Canadian Interprofessional Health Collaborative (CIHC) and the American Interprofessional Health Collaborative (AIHC) to develop and implement curriculum on bringing all health professionals students to train together to gain knowledge and skills as a team to address social determinants of health and health inequities will significantly ensure the success of the shared agenda as we educate the next generation of health care and social care professionals who will sustain efforts made to implement and disseminate the shared agenda.

2 Creating a Shared Agenda: Work in Progress

2.1 National Nursing Coalitions and Alliances Leading the Way in Creating Shared Agenda

The Tri-Council represents "nurses in practice, nurse executives and nursing educators", through its member organizations, is key in creating the shared agenda, with its "diverse interests encompass the nursing work environment, healthcare legislation, and policy, quality of health care, nursing education, practice, research, and leadership across all segments of the health delivery system [2]. While each organization has its own constituent membership and unique mission, they are united by common values and convene regularly for the purpose of dialogue and consensus building, to provide stewardship within the profession of nursing [2]." American Nurses Association, in collaboration with the National Coalition of Ethnic Minority Nurses Association (NCEMNA) and its member organizations launched the National Commission to Address Racism in Nursing (the Commission) to examine "the issue of racism within nursing nationwide focusing on the impact on nurses,

patients, communities, and healthcare systems to motivate all nurses to confront individual and systemic racism". On June 11, 2022, the ANA Membership Assembly, the governing and official voting body of ANA, took historic action to begin a journey of racial reckoning by unanimously voting 'yes' to adopt the ANA Racial Reckoning Statement. This statement is a meaningful first step for the association to acknowledge its own past actions that have negatively impacted nurses of color and perpetuated systemic racism.

Council of Public Health Nursing Organizations is in prime position in this shared agenda to address social determinants and structural barriers cross communities including rural communities and school settings, as it partners to "collectively and collaboratively strengthen public health nursing as a professional specialty, promoting excellence in practice, education, leadership, and research" and to "advocate for state, national, and global policies that improve the health of the public" [3].

The NCEMNA, since its inception, has been leading the charge of addressing health equity for all. Through its unified voice, NCEMNA is actively participating in the National Commission to Address Racism in Nursing, Campaign for Nursing Action, and through its member organizations such as National Black Nurses Association and National Hispanic Nurses Association for nurses on the hill advocacy. NCEMNA had the policy conference "A Year in Review: Health Equity and Social Justice" in 2021, and the planned 2023 "NCEMNA Leading the Way to Health Equity" featuring keynote speakers from federal government, academic and health system partners to engage nursing scientists, educators, practitioners to effect policy impact of the educational and scientific work. NCEMNA has also led efforts in collectively supporting critical timely issues related to racism for minority nurses including condemnation of anti-Asian hate, racism and violence against Black Men and Asian Americans. In the 7th International Nursing Research Conference of the World Academy of Nursing Science—Nurses Together for Global Challenges—Leading Nursing Science and Knowledge Generation post Global Pandemic, hosted by one of its NCEMNA members, AAPINA and Taiwan Nurses Association, highlighted global DEI work in Asian countries and across the globe as well as National Institute of Nursing Research (NINR) and ICN lending focus and support for health equity agenda through COVID time. Globally, ICN's emphasis on Nurses Together: Influence, Action and Solutions to Global Challenges, highlighted focus on stakeholders including nursing students, with a cohort of nursing students entering the pandemic and unique learning. "Nurses are essential in transforming health care and health systems such that no person is left behind, without access to care or impoverished because of their need for health care," this shared agenda of addressing health equity issues is best achieved through engaging WHO, through advocacy to strengthen and protect the nursing workforce, and through investing in nursing leadership.

Structural alliance with evaluation metrics is key to creating the shared agenda through nursing leading its way. Since the release of the Future of Nursing 2020–2030 report, AARP/RWJF has funded continued efforts for the Campaign for Action. The Campaign is coordinated through the Center to Champion Nursing in

America, also an initiative of AARP Foundation, AARP, and RWJF, through its work with leading nursing organizations, other business, consumer, and health professional organizations, advisers on strategy and diversity to make progress nationwide to improve America's health through nursing and build a Culture of Health. The *Campaign* and nurses leading to achieve health equity has provided the structural platform to create, disseminated, and implement the shared agenda. The Equity Diversity and Inclusion Steering Committee and its incoming Health Equity Summit in 2022 Nov shows continued efforts in sustaining the focus on the shared agenda, through its state action coalitions and readily available tools and templates in guiding the nationwide implementation of the shared agenda, its key to prepare "equity-minded" nurses and their allies to understand key ideas in health equity and take action for justice.

2.2 Advancing Health Policy Efforts in this Shared Agenda

Sustainable change through health policy changes is core to create and implement the shared agenda. The American Academy of Nursing, with its mission to improve health and achieve health equity by impacting policy through nursing leadership, innovation, and science, has continued its efforts through its expert panels in leading health policy dialogues in advancing health equity. From its 2019–2020 policy priorities highlighting that "they have a clear and distinct focus on social determinants of health and uses this lens to advance policies and solutions within each of the three overarching priorities" to its Policy Priorities for 2021–2022 including Advancing Health Equity and Championing Wellness; Promoting Innovation and Sustainability; and Reducing Patient, Provider, and System Burden; American Academy of Nursing through its over 2700 members and expert panels, has been on the forefront leading health policy advances through nursing. An example includes the consensus paper [4] in Defining the Social Determinants of Health for Nursing Action to Achieve Health Equity through its expert panels on Environmental & Public Health; Nursing Theory-Guided Practice; Cultural Competence & Health Equity; Child, Adolescent & Family; and Psychiatric, Mental Health & Substance Use Expert Panels. One example [5] of an important health policy implication of this consensus paper is advocating for a focus on structural racism as a necessary step to advance health equity and improve the health of racialized black and brown populations through sustaining The Patient Protection and Affordable Care Act (ACA) and Medicaid expansion in all states, as evidence showed the rise of insurance coverage in all racial and ethnic groups, especially among Back and Latinx people, since the implementation of the ACA core provisions in 2014 in all states. Evidence showed the rise of insurance coverage in all racial and ethnic groups, especially among Black and Latinx people, since the implementation of the ACA core provisions in 2014, except that there was a sharp decrease for insured status among people of color in the 14 states that have not expanded Medicaid.

2.3 Academic Nursing Institutions and Interprofessional Engagement

Large waves of academic nursing institutions are adding directors, assistants, or associate deans for diversity and inclusion, and Minority Serving Institutions have been focusing on enhanced collaboration to build equal infrastructure to support nursing education, research, and practice. Pipeline programs and philanthropy for academic institutions to dedicate efforts toward health equity and addressing social determinant of health are also gaining attention. IPEC and curriculum with accreditation bodies are also aligning interprofessional curriculum on educating the next generation of nurses and other healthcare professionals on health equity fronts. The eighth Collaborating Across Borders (CAB VIII) conference that will be held virtually in May 2023 will focus on Hope and Trust in Health and Social Care, which signifies the connection of social care and health care through interprofessional education and collaborative healthcare practice.

2.4 Federal Government and Global Organizations on Research and Education Funding in Generating Science to Advance Health Equity and Address Social Determinants of Health

National Institutes of Health (NIH) has initiated The NIH Common Fund's Faculty Institutional Recruitment for Sustainable Transformation (FIRST) awards to support underrepresented minority faculty's success in health sciences research. For the first 12 awards given, several nursing schools are partners with other health professions, Florida State University College of Nursing is the prime awardee among the 12, leading the FLORIDA-BRIGATE program in collaboration with medicine and psychology focused on supporting chronic diseases and mental health focused minority scientists. The newly released NINR 2022–2026 Strategic Plan [6], with a mission to "Lead nursing research to solve pressing health challenges and inform practice and policy—optimizing health and advancing health equity into the future," is putting health equity and social determinants of health from the shared agenda as two core research lenses to guide the federal funding to support nursing research. Advancing this shared agenda requires advancing nursing science in its core. With its new strategic plan focused on addressing social determinants of health to achieve health equity at NINR, the applications and funded nursing research focused on these areas will greatly position nurse scientists and nursing research in advancing the shared agenda of advancing health equity through addressing systematic and structural barriers to health and health care. (See Chap. 11, part 1 for an extensive discussion on advancing nursing research to advance health equity).

Another area of focus on the shared agenda on health equity is in the area of climate change and health equity. In August 2021, the U.S. Department of Health, and Human Services (HHS) has established the Office of Climate Change and Health Equity (OCCHE) in response to President Joe Biden's Executive Order

Tackling the Climate Crisis at Home and Abroad. The National Academy of Medicine also has a heavy focus on and interest in advancing this shared agenda. Nursing communities have been training, educating, studying, and researching disaster preparedness and response. With climate change impacting us more frequently and intensely, this is an area of opportunity for focus we can align with other entities in leading its charge.

Globally, the ICN released a position statement in 2018, "nurses, climate change, and health." In the statement, ICN calls on individual nurses in their roles as clinicians, educators, researchers, policy influencers, and executives to build resilience to the impacts of climate change. Nurses share the responsibility to sustain and protect the natural environment. National nurses' associations are encouraged to support healthcare organizations in implementing environmental policies and sustainable practices [7].

The same year, the WHO and the ICN launched the Global Nursing Now campaign. Global Nursing Now is a 3-year campaign that enables nurses to maximize their contribution to universal health coverage. It is intended to raise the profile and status of nursing, develop nursing and midwifery education, practice, and regulation, as well as improve standards, quality of care, and employment conditions in advancing health equity globally [8].

In 2021, WHO published the global strategic directions for nursing and midwifery (SDNM) 2021–2025. SDNM presented evidence-based practices and policy priorities that can help countries to enable contributions of nurses and midwives toward the following goals, all reflecting the shared agenda in advancing health equity in the global context: primary health care for universal health coverage (UHC) and managing the coronavirus disease (COVID-19) pandemic; mitigating the health effects of climate change; managing international migration and ensuring access in rural remote areas and small island developing states [9].

2.5 Important Considerations for Creating and Disseminating a Shared Agenda

2.5.1 Inclusions: All Voices

A shared agenda is only as strong as those who are included. Inclusion must be intentionally planned. The basic definition of inclusion is creating equal access to opportunities and resources with specific consideration for those historically excluded or marginalized. Expanding on the idea of voice is critical, as the seemingly impossible task of capturing all angles is both necessary and often a barrier. A shared vision focused on health equity is completed by creating and using inclusion-based practices and elevating strategic partnerships.

The critical consideration of voice is necessary at all stages, including development, decision-making, implementation, evaluation, and dissemination. Intentional inclusion is a practice where leadership ensures all voices are accounted for and work is not completed without those impacted. The slogan from the American Disabilities Association, "nothing about us, without us," is a perfect slogan to

consider for any work, especially when considering a shared agenda. The important thing is to be prepared for inclusion, including examples such as the budget for time, uncomplicated recruitment, and sustainability efforts.

To incorporate voices, there are multiple steps, including understanding the stakeholders for any decision or effort. The identification of stakeholders should be completed prior to decision-making. There are different modalities of collecting viewpoints from stakeholders, including examples such as direct involvement and recruitment to a task force, interviews and surveys, community-based participatory strategies, community advisory boards (CABs), and professional advisory committees (PACs). In addition to the consumer perspective, we should also include the voices of frontline nurses at all levels and practices for consideration, such as school nurses, community health nurses, ambulatory care nurses, educators, leaders, policymakers, and researchers. The development of these recommended examples should be created and sustained with the intention of use by the Tricounsel at the very least.

To increase the voice of historically marginalized communities, partnerships with current organizations such as the National Coalition of Ethnic and Minority Nurse Associations are needed to ensure equitable access to the populations they represent. Affinity associations should be included in the development as partners in the shared agenda-making and at least with influence via PACs. Additional work in the communities directly impacted at a local level should include partners such as organizations in the community, religious groups, and other groups with close connections. Essentially, it is important to ensure that all activities for a shared agenda have the consideration of all stakeholders and reasonable opportunities for feedback and input.

The task of inclusion may seem daunting, however, the reason to be inclusive saves time and wasted effort. The key to successful implementation is considering the complexity of any decision and having strong efforts for inclusion to assist in preventing unintended consequences as much as possible. This process takes time but adds value.

2.5.2 Diversity in Numbers

Similar to inclusion, diversity is important when creating and enacting a shared agenda. Diversity is a broad term that includes a traditional definition of ethnicity, race, gender, creed, and socioeconomic status but also includes diversity in lived experiences, professions, and thought. A shared agenda requires consideration from multiple perspectives, and since the conversation around a shared agenda typically impacts many, diversity should be considered. An important note, similar to inclusion, is the notion that any idea will be stronger when viewed by more than those in power positions. Often, it is not enough to have individuals in decision-making positions decide on a shared agenda, especially for decisions that impact more than their affiliations.

One way to improve diversity is to increase the diversity of leadership and decision-makers—representation matters. Currently, US healthcare providers and especially leadership do not reflect the population, and correcting this disproportion

is one way to improve the outcome. A critical step to increasing the numbers and distribution of diversity is creating a pipeline with strong mentorship. In order to create diversity in health care, there must be pathways that increase opportunity by facilitating success. Additionally, and very importantly, current leadership must assess the system for policies and protocols that are embedded in systemic racism and ensure that there are no barriers that undermine any specific set of people. The barriers to any pathway in health care must be assessed to ensure they are not preventing qualified individuals due to technicalities while maintaining rigor. The process of pipelining starts as early as elementary school, and for all levels of nursing, exposure to diversity, encouragement, and support both professionally and fiscally, are needed.

Finally, diversity is not simply a single individual in a role, in fact, when only one person in a group identifies in a certain way, there is more harm. Diversity must be in numbers. Complementary to the amount of diversity is the culture in which a shared agenda is developed. The importance of psychological safety cannot be stressed enough. Psychological safety is a setting where all individuals feel safe speaking up and where conflict or disagreement is welcomed, respect for people is foundational, and power dynamics are addressed and mitigated.

2.6 Integration into Policy and Importance of Health Policy Training of Nurses

The benefits of a shared agenda are sustainable through the early incorporation of policy processes. A shared agenda should incorporate both a review of current policies or the development and integration of new policies. Considering policies related to a shared agenda includes creating sustainability plans such that change is integrated and perpetuated through policies. Additionally, the dissemination of information on successful change must be widely shared, recognized, and celebrated among all sectors engaged in developing the shared agenda.

Nurses, as the biggest and most trusted health professionals, need to be familiar with and heavily involved in all aspects of health policy making in order to advance and sustain health equity efforts. The American Academy of Nursing, through its expert panels and fellow members, can play a key role in such efforts. Signature health policy training programs, such as the Health and Aging Policy Fellows Program and the Robert Wood Johnson Foundation Health Policy Fellows Program at the National Academy of Medicine, should be leveraged to engage and support more nurses in health policy training with a focus on advancing the shared agenda of health equity.

2.7 Theory Versus Practice

An important consideration for a shared agenda is how to apply ideas and integrate change. A method recommended for this is dissemination and implementation

science, which prioritizes a setting and population while maintaining fidelity, sustainability, and the spread of a formidable intervention. In addition, this method is also complementary to deimplementation science, where unnecessary processes are removed from practice. As a shared agenda is developed, strategic and intentional implementation is required, and this method provides context and framework for the best results. Additionally, dissemination science focuses on the process of sharing information with specific populations, examples including the community, nurses, and policymakers. The important takeaway is that having a conversation and discussing ideas or an agenda around a table is good in theory, but integrating into practice requires strategy.

3 Measuring Impact

3.1 Evaluation

Important to consider for work in health equity is evaluation and measurement. The evaluation must be considered in two ways. First, the more traditional sense of evaluation where counts, quantitative analysis, and outcome data are driving factors. The second form of evaluation that needs to be elevated is the qualitative understanding of the impact of work in health equity. This means going to the people impacted by a decision and determining the true meaning of the outcomes. Numbers and measurements are limited and can only tell a part of a story, the qualitative data provides context and impact that are not measurable by numbers but rather by stories.

The process of evaluation in these two ways must be initiated, evaluated, and disseminated to and by diverse individuals. The evaluation process should include the distribution of results, both good and bad, to the nursing community and externally. As demonstrated by the pandemic, information dissemination is vital, especially for our community members. Evaluation results should be distributed in understandable and preferred ways. Simple infographics and creative ways to provide context to results should be prioritized.

Diversity of thought, experience, impact, and profession are all important, as previously stated. For example, when determining a shared vision around children's health, the evaluation should include school nurses, pediatric ambulatory care teams, inpatient care teams, emergency department teams, social workers and community health workers, parents, and children. Additional inclusion would be organizations for community resources such as food pantries or WIC, childcare resources, and interpreters for families, as other examples.

3.2 Use of Established Networks and Common Metrics

Evaluation of the shared agenda is hinged on unity. As previously discussed, the diversity of organizations creates a challenge and an opportunity for aligned and collaborative work. An opportunity resulting from the diversity of nursing

organizations and recommended collaborations through current coalitions is the ability to prioritize evaluation methods and common data elements. Creating common data elements provides a structure for all organizations and the possibility of a repository for big data. Understanding and measuring social determinants of health in a standardized format and unifying and simplifying data collection process is key. Leveraging electronic health records and widely accessible platforms in creating the feedback loop on access and usage of social services and measuring how social determinants change can enable a real integration of addressing social determinants of health in healthcare delivery systems to address health inequities and impact healthcare outcomes for all.

3.3 Perceptions of Nurse's Knowledge, Skills, and Attitude of Health Equity

The impact is more than just the evaluation process. Consideration for a shared agenda should also be given to the nurses perception of their knowledge, skills, and attitudes toward health equity. Well-known in the nursing community is Gallup's poll designating nursing as the most trusted profession. Although trust is a key principle, there is more that needs to be assessed. A part of the call for a shared agenda is integrating health equity. Health equity is a fundamental attribute that any nurse at any level or setting should be mindful of and can impact. Nurses are in a prime position to impact health equity through direct care, advocacy, leadership, policy, and community-based care. Important to the share agenda strategies should include incorporating strategies to increase the knowledge, skills, and attitudes in nurses at all levels to make a difference in health equity, and together small changes can make a big impact.

3.4 Investment in Nurses as a Societal Benefit

Nurses across the continuum provide dynamic value to society. The breadth of impact nurses has spread across all people and can easily be diffused into almost any situation, whereas health is a dynamic intertwined construct. As social determinants of health are expanded in understanding, a shared agenda cannot be completed until the value of nursing is understood. Value needs to be broadly defined to include monetary, personal, community, and societal impacts. For example, in a hospital, quantifying and fiscally assigning value to the work done by nurses. Another example is the impact of a school nurse and the understanding of the potential impact if provided with appropriate resources.

3.5 Dissemination and Implementation

A recommendation to advance the impact of a shared agenda is to expand the science of what? Dissemination and implementation science methods provide effective

options to not only guide the work recommended by creating a shared agenda but also provide a framework for evaluation. The critical components of dissemination and implementation science unique to evaluation include the ability to transform research into usable work for immediate results. Core concepts include creating a structured scientific program for feasibility, sustainability, spread, and dissemination. Additionally, the use of dissemination and implementation science methods provides a unique opportunity to advance health equity through effectively reaching target populations, including those from low socioeconomic backgrounds, racial and ethnic minorities, and sexual/gender minority communities [11].

Additionally, this scientific method provides a framework and opportunity to integrate the recommended diversity of evaluation, including both quantitative and qualitative methods. A dissemination plan should be planned and started with initial conversations. Dissemination is important as work must be shared internally with other nurses but also, and often more importantly, externally with consumers. Internal dissemination includes the delivery of evidence-based and practice-based recommendations to nurses across the continuum to ensure the highest level of care is provided in all settings. This includes practices for self-care and improving health equity. External dissemination is a way to communicate directly with consumers. External dissemination is important as it impacts perceptions of nurses and their abilities, scope, and value, as well as trust. Dissemination can and should occur in many forms, including community-based town hall meetings, scholarship via manuscripts, white papers, executive summaries, and abstracts, but can also take the form in blogs, memos, or policy priorities among national nursing organizations, local media, and social media platforms.

4 Call to Action and Opportunities Ahead of Us

Huge progress has been made in a short time across all sectors of nursing and health care nationally and globally since the release of the Future of Nursing 2020–2030 report. We have only highlighted some of the important progress made across the many sectors in creating, disseminating, and implementing the share agenda. Nevertheless, there are also huge opportunities ahead of us. Leaders of all national and state-level nursing organizations need to leverage the Campaign for Nursing Action and its action coalition groups, along with the existing alliance such as the Tri-Council, Council of Public Health Nursing organizations, NCEMNA, and federal nursing service council to engage all stakeholders and convene regularly to evaluate and measure progress and success. Large scale dissemination and implementation of the share agenda across all nursing and other healthcare professional organizations, academic institutions, federal and state governments, payers, and healthcare systems are required for sustained impact on nursing education, research, practice, and to realize the full potential of the significant work done so far to further its impact on health policy, people, and communities in addressing social determinants of health and health equity. Putting Health Equity front and centered in all conversations, with purposeful inclusion and engagement of all stakeholders, even

sometimes with difficult conversations in a respectful and meaningful manner will ensure a broad dissemination and implementation of our shared agenda on advancing health equity for all.

Study Guide Questions

1. What are important factors to consider as we create and disseminate a shared agenda to advance health equity for all through nursing?
2. What is the role of the national alliance of professional nursing organizations in creating a shared agenda?
3. What is the progress made so far and opportunities ahead of us for within and across national nursing professional organizations in advancing the shared agenda?

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Part 1: Research in Health Equity: Building the Evidence Base

Shannon N. Zenk

Future of Nursing Recommendation 9:

The National Institutes of Health, the Centers for Medicare and Medicaid Services, the Centers for Disease Control and Prevention, the Health Resources and Services Administration, the Agency for Healthcare Research and Quality, the Administration for Children and Families, the Administration for Community Living, and private associations and foundations should convene representatives from nursing, public health and health care to develop and support a research agenda and evidence base describing the impact of nursing interventions, including multi sector collaboration, on social determinants of health, environmental health, health equity and nurses' health and well-being.

Editors Note:
The Future of Nursing 2020–2030 report called on U.S. federal health agencies and other stakeholders to develop and support a research agenda and evidence base that describes the impact of nursing interventions on social determinants of health, environmental health, health equity, and nurses' health and well-being. This chapter (part 1) explains how the National Institute of Nursing Research (NINR), part of the National Institutes of Health, is leading the charge to ensure this recommendation becomes a reality through the research it supports, the training it provides, and the partnerships and collaborations it engages in. This chapter (part 1) will also discuss the United Kingdom's current approaches to assessing and achieving health equity. The Royal College of Nursing has already called for a strategy on health inequalities to be developed within the government Department of Health and Social Care; in part 2 of this chapter, we include three case studies that highlight recent advances where nursing have used their influence to play a major role in extending inclusivity in an effort to achieve greater health equity in the United Kingdom.

S. N. Zenk (✉)
National Institute of Nursing Research, Bethesda, MD, USA
e-mail: shannon.zenk@nih.gov

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1 Introduction

When the National Academy of Science, Engineering, and Medicine [1] released *The Future of Nursing 2020–2030* report, it outlined nine recommendations that, if implemented, would provide nurses with the robust education and training, supportive work environments, autonomy, and evidence they need to help achieve health equity for all.

One of the Academy's recommendations calls on U.S. federal health agencies and other stakeholders to develop and support a research agenda and evidence base that describes the impact of nursing interventions on social determinants of health, environmental health, health equity, and nurses' health and well-being [1]. The U.S. National Institute of Nursing Research (NINR) is leading the charge to ensure this recommendation becomes a reality through the research it supports, the training it provides, and the partnerships and collaborations it engages in. As part of the National Institutes of Health (NIH), the nation's medical research agency, NINR not only directly supports nursing research and training, but it also collaborates across the 26 other Institutes and Centers to expand the reach and multidisciplinary focus of nursing science.

Since its establishment in 1986, NINR has recognized the importance of nursing research to inform practice and policy by supporting scientific investigation into the biological, behavioral, and societal factors that contribute to health problems.

In May 2022, recognizing that nursing science needs to be at the forefront in discovering solutions to addressing our nation's deeply rooted systemic and structural inequities, NINR [2] unveiled a new, 5-year strategic plan that complements *The Future of Nursing* report and boldly communicates a mission and vision that ensure all people have the opportunity—and ability—to achieve optimal health, well-being, and quality of life.

In the strategic plan, NINR lays out its new mission to lead nursing research to solve pressing health challenges and inform practice and policy, ultimately optimizing health and advancing health equity into the future.

2 The Power of Nursing Research

Nursing's earliest pioneers recognized that health must be considered within the context of people's lives and living conditions. Today, the nursing profession is building on the work of these pioneers, with nurses practicing in a multitude of settings: in hospitals and clinics, in schools and workplaces, in homes and justice settings, and in communities across the globe, from urban to suburban to rural. As part of this, nurses approach prevention, treatment, and care holistically and contextually. They do not focus solely on treating a person's disease or condition, but instead, they consider and address a person's overall well-being, especially the conditions in which they are born, live, work, play, and age. Within this context, nursing extends from improving the health not only of individuals but also of entire populations.

It is this holistic perspective that forms the foundation of nursing research. NINR believes that nursing research is the key to unlocking the power and potential of nursing because it leverages nursing's strengths and the unique knowledge and

perspectives inherent in the discipline. Through this perspective, nursing research identifies and studies issues and topics related to the nursing field to build a strong scientific base for advancing practice, shaping and improving policy, and impacting the health of the people nurses serve.

3 The Importance of Building an Evidence Base to Advance Health Equity

As health equity has been increasingly acknowledged as a national health priority within the United States, many definitions and frameworks for understanding this important concept have emerged. NINR recognizes that the concept of health equity may evolve as increased funding leads to more research that better informs our understanding.

NINR's perspective on health equity is informed by definitions used by the Robert Wood Johnson Foundation [3], the U.S. Department of Health and Human Services [4, 5], and the World Health Organization (WHO; [6]). When considered together, these definitions provide the following conceptual framework for health equity that can be applied in the context of nursing research:

> Health equity refers to a state in which every person has a fair and just opportunity to attain their full health potential. Inequities are rooted in systemic and structural factors, including historical and contemporary laws and policies, systems, values, and institutions, that limit access to power, opportunities, and resources for socially and economically disadvantaged groups. Structural and systemic factors, including structural racism, create obstacles to health and can lead to persistent health inequities.
>
> The concept of health equity emphasizes ethical and human rights principles, particularly social justice, and explicitly recognizes that health disparities result from inequitable opportunities and obstacles that prevent everyone from having a fair and just opportunity to live their healthiest lives. Ensuring that every person has a fair and just opportunity to attain their full health potential requires looking upstream to remove obstacles to health such as poverty, discrimination, and their consequences, including lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care.

The magnitude of health inequities in the United States is both alarming and tragic, with the COVID-19 pandemic laying bare and further exacerbating existing inequities. Throughout the pandemic, non-Hispanic Black, Hispanic, and American Indian/Alaska Native people have been 2.1–2.8 times more likely than non-Hispanic White people to be hospitalized and 1.7–2.1 times more likely to die due to COVID-19 [7]. COVID-19 vaccination rates are lower for those living in rural areas than they are for those in urban areas and among those with lower education levels [8, 9]. Multiple studies have found that more income inequality within U.S. counties was associated with higher county-level death rates [10–13]. For example, in Illinois and New York City, counties with higher poverty rates (≥20% of the population below poverty) had 1.7 times higher death rates than did counties with low poverty (<5% of the population below poverty) [14]. Furthermore, greater racial segregation and income inequality combined have been shown to increase the rate of COVID-19 deaths [12].

Although the COVID-19 pandemic has brought such health inequities to the forefront, there is no shortage of evidence and data to demonstrate the extent of health inequities across other diseases and conditions. People of color face higher rates of diabetes, obesity, stroke, heart disease, and cancer than do people who are White. For example, the percentage of U.S. adults diagnosed with diabetes is much higher for people who are American Indian or Alaska Native (14.5%), Black (12.1%), or Hispanic/Latino (11.8%) than for those who are White (7.4%) [15]. And, in 2018, infants born to African American mothers experienced the highest rates of infant mortality—10.8 infant deaths per 1000 births—compared with 4.6 infant deaths per 1000 births for babies born to White mothers [16]. There is also a plethora of data to illustrate how social determinants of health—the conditions in which people live, learn, work, and play—have long impacted people's health and well-being [17]. One startling statistic: In some U.S. cities, life expectancy can differ by as much as 25 years from one neighborhood to the next [18]. In addition, White men and women without a high school diploma have about a 57% chance of reporting fair or poor health, compared to just 9% for college graduates, which is a trend evident across all racial, ethnic, and gender groups [19].

Although research highlighting the stark health inequities that exist is vast, research addressing how nurses can help eliminate them is limited. NINR and many other organizations, including schools of nursing, have begun to develop an evidence base, but until recently, it was not the focus of most research or a priority for many institutions. With its new strategic plan, NINR is changing that.

NINR has brought forth a framework that establishes a research agenda for the future and paves a path for building an evidence base that drives meaningful change. Moving forward, NINR-supported research must be conducted with the goal of eliminating health disparities and improving equity. NINR's commitment to funding this research ensures that the evidence base is continuously evolving, cultivating diversity, improving the field of nursing, and ultimately activating change. It also ensures that nurses and policymakers have the evidence, information, and tools they need to deliver high-quality care. More importantly, it ensures nursing is at the forefront of advancing health equity.

4 How NINR Is Forging the Path Forward

NINR's strategic plan includes five complementary research lenses that leverage the strengths of nursing to promote multilevel approaches, collaboration across disciplines and sectors, and community engagement in research [2]. The research lenses are:

- **Health equity**, which aims to reduce and ultimately eliminate the systemic and structural inequities that place some population groups at an unfair, unjust, and avoidable disadvantage in attaining their full health potential. From NINR's perspective, health inequities are rooted in systemic and structural factors that limit access to power, opportunities, and resources.

- **Social determinants of health**, which aims to identify effective approaches to improve health and quality of life by addressing the conditions in which people are born, live, learn, work, play, and age. From NINR's perspective, social determinants of health include both community conditions and individual and family social and economic circumstances.
- **Population and community health**, which aims to address critical health challenges at a macro level that persistently affect groups of people with shared characteristics. From NINR's perspective, population and community health consider the risk and protective factors associated with the distribution of health outcomes within and across groups.
- **Prevention and health promotion**, which aims to address the continuum of prevention, from primordial prevention, which targets underlying risks, to tertiary prevention, which aims to reduce symptoms, severity, and progression of illnesses. From NINR's perspective, prevention refers to actions taken to reduce the risk of disease, disability, or injury.
- **Systems and models of care**, which aims to discover innovative solutions to clinical, organizational, and policy challenges. From NINR's perspective, systems and models of care consist of coalitions and partnerships that span clinical and community settings and address social factors and needs for populations and individuals.

NINR believes that nursing research is well positioned to address each of these research lenses because of nurses' expertise in biological, behavioral, social, and public health sciences and long-standing values of social justice, holism, and collaboration. The application of these lenses to nursing research will lead to scientific discoveries that contend with pressing and persistent health challenges and positively impact practice and policy in the many settings in which nurses practice. NINR-supported researchers have the flexibility to apply a single lens or a combination of lenses in their study designs and training programs. NINR encourages researchers to view the health equity and social determinants of health lenses as primary foci through which to consider the population and community health, prevention and health promotion, and systems and models of care lenses (Fig. 1). It is important to note that the lenses are not research topics; rather, they are perspectives through which to consider the full spectrum of nursing research topics that encompass health and illness within the context of people's lived experiences.

Below are a few examples of how NINR is supporting research under these research lenses and also supporting the recommendations in *The Future of Nursing* report. These studies, which are all focused on the impacts of the COVID-19 pandemic, demonstrate how NINR is funding research that looks at community-based settings, including schools, longitudinal health outcomes, and technology-based interventions, which reflects NINR's long history of supporting studies of evidence-based interventions that aim to reduce disparities among disadvantaged groups. More information about each study can be found at https://reporter.nih.gov/ by searching the project number (provided below).

Fig. 1 Nursing research through NINR's research lenses

4.1 Understanding How Neighborhood Characteristics Influence Health

NINR is funding research that will create a national resource that compiles data on neighborhood characteristics, with the ultimate goal of facilitating a better understanding of mechanisms underlying risk and resilience, especially in underserved populations. Factors of interest include economic and business factors, job opportunities, broadband access, parks and walkable streets, availability of health care, and others, all of which are important context for understanding trends in COVID-19 outbreaks (Project number: 1U01NR020556-01).

4.2 Helping Communities Meet Social Needs

NINR is funding a nurse-led study that aims to overcome community service barriers during the COVID-19 pandemic, particularly for underserved communities, through the SINCERE Intervention, which leverages low-cost technology to conduct social needs screenings during busy emergency department care, followed up by United Way 211's community referral service. This study uses a pragmatic trial approach to determine whether community service use by those with social needs improves general and COVID-19-related health outcomes, and whether intensive follow-up and collaborative goal setting help overcome barriers to community service use (Project number: 5R01NR019944-02).

4.3 A Longitudinal School-Based Study in New York City

NINR is supporting a study that will look at the long-term effects of the COVID-19 pandemic on public school children in New York City. This research will examine how significant disruptions to children's health, education, and overall well-being during the pandemic affect their health, development, and social trajectories through their life course and influence their risk for long-term health outcomes. The research is looking at health and education changes after the onset of the pandemic compared to before the pandemic; determining how child-level, school-level, and neighborhood-level COVID-19 vaccination rates have influenced the course of the pandemic and examining the role of neighborhood and school resources in exacerbating or mitigating health and educational disparities related to the pandemic (Project number: U01NR020443-02).

4.4 Using Technology to Address Barriers to Care

An NINR-supported nurse researcher co-led the development of the Automated Device for Asthma Monitoring (ADAM; [20, 21]). ADAM is a mobile device that facilitates continuous and objective asthma symptom monitoring to assist patients with the management of their condition through a smartphone app and is being used and tested for monitoring the symptoms of patients with COVID-19. The device can be worn as a flexible patch on the upper body and monitors respiratory conditions and symptoms like coughing frequency. The results are promising in efforts to address barriers to symptom monitoring, such as poor adherence, inadequate methods, and poor symptom perception. This data collection tool provides essential information to patients and their healthcare providers to support managing their asthma symptoms and enhance knowledge of needed care.

4.5 Intervention for African American COVID-19 Survivors and Their Care Partners

An NINR-supported nurse researcher is leading a study to test the real-world efficacy of a telehealth-enhanced intervention meant to improve the quality of life and health outcomes for COVID-19 survivors and their care partners. This dyad intervention is led by registered nurse community health workers and includes elements such as COVID-19 risk mitigation, chronic illness management, and health system navigation. This research integrates community stakeholder feedback, social and structural racial trauma, family illness management, and community-level social and structural determinants of health, with the ultimate goal of improving the quality of life and health outcomes (Project number: 7R01NR020127-02).

5 Preparing the Nursing Workforce to Address Health Equity

The Future of Nursing report also emphasizes the need to review and adapt evidence-based approaches to increase the number and diversity of nursing students and faculty from disadvantaged and traditionally underrepresented groups to promote a diverse, inclusive learning environment and prepare a culturally competent workforce. Further, the report identifies the need to determine evidence-based education strategies for preparing nurses at all levels, including through continuing education, to eliminate structural racism and implicit bias and strengthen the delivery of culturally competent care [1].

Indeed, data show evidence of disparities and inequities in the nursing workforce, both in healthcare practice and in academia. A national 2017 survey revealed that individuals from minority backgrounds comprise 19.2% of registered nurses, compared to 42.2% of the general U.S. population in 2020 [22]. Consider that research-focused doctoral programs in nursing consist of predominately female (88%) and White (66.4%) students, and percentages of students who are Hispanic/Latino (6.1%) are not representative of the U.S. population [23]. The racial demographics of full-time nursing school faculty in 2017 were 80.8% White, 8.8% Black/African American, 3.2% Hispanic/Latino, and 2.7% Asian [24, 25]. Only about 7.4% are male [26]. Evidence of racism in nursing academic programs and nursing practice is equally troubling. In a survey of Black nurse academics, many participants reported an intensifying pressure to further compromise their authenticity by being less sensitive to racism and discrimination as they ascend the career ladder [27]. A survey of Black nurses identified themes of pressure to maintain White comfort, a lack of representation in leadership, and an advanced degree not aiding access to advanced opportunities [28].

These disparities are also present in the nursing workforce supported by NINR. Based on data from 2019, NINR-supported investigators were predominately White (75.6%). Investigators from several racial and ethnic minority groups were underrepresented relative to the U.S. population: Black (4.3%), Hispanic (2.5%), American Indian/Alaska Native (0.2%), and Pacific Islander/Native Hawaiian (0%). Asian investigators (13.4%) were over-represented in NINR-supported research relative to the U.S. population [29]. To address these disparities, NINR formed a working group on Diversity in the NINR-Supported Scientific Workforce under the auspices of the National Advisory Council for Nursing Research (NACNR). The working group was charged with recommending to the NACNR effective strategies that would enhance the diversity of the NINR-supported nursing science workforce. The working group was also asked to recommend how to improve success rates for groups that are underrepresented nationally in biomedical and health research who apply for NINR grants and training funding. Further, NINR supports grants and supplements to enhance the diversity of the research and entrepreneurial workforce by recruiting and supporting students, post-doctoral fellows, and eligible investigators from diverse backgrounds and supports training

grants to help prepare the workforce to study topics through the lenses of health equity and social determinants of health.

NINR recognizes that in order to prepare the nursing workforce to address health equity, the disparities that exist within the field must be examined and mitigated. NINR also recognizes the importance of and has a long history of supporting research that examines the health and well-being of the nursing workforce. For example, NINR funded a study titled "*Chronic Hospital Nurse Understaffing Meets COVID-19: An Observational Study"* that investigated burnout in hospital nurses just before the onset of the COVID-19 pandemic [30]. The study surveyed nurses from 254 hospitals and found that most nurses were burned out because of understaffing in their hospitals, posing a serious risk to patient outcomes even before the pandemic hit. NINR has also funded a longitudinal study to determine the sustainable effects of organizational change and policy interventions on nursing practice and health disparities during the COVID-19 pandemic and other challenges faced by organizations where nurses provide care (e.g., hospitals, nursing homes, primary care practices). (Project number: 2R01NR014855-06.) It is not enough to simply prepare the workforce; we must also investigate the systems and models of care in which nurses practice to ensure that the workforce is supported in its efforts to achieve health equity.

6 Achieving Health Equity Through Partnerships and Collaboration

Although nursing researchers are well positioned to lead scientific discoveries to advance health equity, the nursing workforce cannot achieve health equity without committed partners. To this end, NINR is seeking out partners within the federal government and in both the professional and academic communities to achieve its mission: to lead nursing research to solve pressing health challenges and inform practice and policy—optimizing health and advancing health equity into the future.

Within NIH, NINR has taken a leadership role in several initiatives to accelerate research on health equity and social determinants of health. For example, NINR leadership was pivotal in the development of a new 10-year, $397 million NIH Common Fund program called Community Partnerships to Advance Science for Society, or ComPASS. NIH Common Fund programs address emerging scientific opportunities and pressing challenges in biomedical research that no single NIH Institute or Center can address on its own, but that are of high priority for the NIH as a whole. ComPASS has two overarching goals: (1) develop, share, and evaluate community-led health equity structural interventions that leverage partnerships across multiple sectors to reduce health disparities, and (2) to develop a new health equity research model for community-led, multisectoral structural intervention research across NIH and other federal agencies.

NINR also advocated for the formation of and is co-chairing an NIH-wide Social Determinants of Health Research Coordinating Committee in recognition of the

need to enhance coordination and collaboration among NIH Institutes to accelerate progress in social determinants of health research. The goal of the committee is to advance social determinants of health research across NIH—across diseases and conditions, populations, and life course stages.

As part of NIH, the preeminent biomedical research institution in the United States, NINR is uniquely positioned to collaborate with other federal agencies under the umbrella of the U.S. Department of Health and Human Services (HHS), such as the Agency for Healthcare Research and Quality (AHRQ) and the Health Resources and Services Administration (HRSA), to ensure that research informs evidence-based federal policy and federally supported clinical practice. NINR also has a long history of coordinating with schools of nursing and other academic institutions to ensure that NINR-supported research is both informed by nursing practice and informs the next generation of the nursing workforce. As NINR works to operationalize its strategic plan, the Institute will be expanding on existing partnerships and building new relationships.

7 A Final Thought and Call for Action

NINR is proud to be addressing the recommendations laid out in *The Future of Nursing* report and to be leading the charge in building an evidence base that describes the impact of nursing interventions on social determinants of health, environmental health, health equity, and nurses' health and well-being. With its new strategic plan, NINR is committed to funding research that supports scientific investigation into the biological, behavioral, psychosocial, and societal factors that contribute to health problems, is innovative and cutting edge, and will enable the nursing profession to address today's health challenges while setting nurses up to be better prepared for those to come. NINR calls on nursing researchers to lead studies that discover solutions that span clinical, community, and policy settings, moving the nursing field forward and improving health outcomes for the individuals and communities that nurses serve. Ultimately, these studies will transform the health and well-being of individuals and communities across the country so that nurses are at the forefront of advancing health equity and are creating effective and lasting change.

Study Guide Questions

1. How could nurse scientists design studies that apply NINR's research lenses?
2. What are examples of pressing health challenges that could be viewed through NINR's research lenses?
3. What steps could nurse leaders take to better ensure diversity and inclusion in the field?

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Part 2: Research in Health Equity: Building the Evidence Base

Anne Marie Rafferty and Natalie Sanford

Future of Nursing Recommendation 9:

The National Institutes of Health, the Centers for Medicare and Medicaid Services, the Centers for Disease Control and Prevention, the Health Resources and Services Administration, the Agency for Healthcare Research and Quality, the Administration for Children and Families, the Administration for Community Living, and private associations and foundations should convene representatives from nursing, public health, and health care to develop and support a research agenda and evidence base describing the impact of nursing interventions, including multisector collaboration, on social determinants of health, environmental health, and health equity and nurses' health and well-being.

1 Introduction

The United States' National Academy of Medicine's Future of Nursing Report calls for a research agenda and evidence base on the impact of nursing interventions, including multisector collaboration, on social determinants of health, environmental health, health equity, and nurses' health and well-being. The report suggests that

A. M. Rafferty (✉)
King's College London, London, UK
e-mail: marie.rafferty@kcl.ac.uk

N. Sanford
Florence Nightingale Faculty of Nursing, Midwifery, and Palliative Care, King's College London, London, UK
e-mail: natalie.sanford@kcl.ac.uk

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the development of mechanisms for proposing, evaluating, and scaling evidence-based practice models is required to achieve this and that these models should leverage collaboration among the public health sector, the education sector, social sectors, and health systems to advance health equity. Furthermore, these innovations should be codesigned with individuals and community representatives so that they respond to community health needs.

In the United Kingdom (UK), tackling discrimination and health inequalities are strong themes embedded in the updated Nursing and Midwifery Council (NMC) standards for preregistration student nurse learning outcomes [1, 2]. The Royal College of Nursing (RCN) has mapped these standards to the Public Health Skills and Knowledge Framework, emphasizing the need for nurses to directly challenge discriminatory behavior; to provide and promote nondiscriminatory person-centered care that reflects people's values, beliefs, diverse backgrounds, cultural characteristics, and language requirements; and to acquire understanding of broader epidemiology, demography, and social determinants of health, illness, and wellbeing and apply these to global patterns of health and well-being outcomes [1, 2]. Additionally, in 2021 the RCN produced a report on "leaving no-one behind," targeted at the contribution of nurses to sustainable development goals (SDGs) [3]. As with health equity itself, the role of nurses in achieving SDGs is both under-researched and poorly understood. Though the core function of nursing is front-line clinical care, tackling inequalities invites a more expansive definition of nursing work. Nurses wear many hats: they are advocates, activists, prevention specialists, educators, policy makers, researchers, teachers, academics, leaders, managers, and health navigators. Indeed, many modern nursing roles already combine elements of many of these functions and skills. The place of nurses in the public esteem as the most trusted profession by patients and communities means, we have the social capital to support individuals, especially those who are marginalized or at risk of being underserved from accessing services, in schools, their homes, communities, and workplaces.

2 UK Government Response to Inequalities and Inequities Exposed During the COVID-19 Pandemic

In the UK and worldwide, the COVID-19 pandemic has presented an opportunity to reset health and social care to alleviate deepening inequalities in our society. It has magnified social inequalities that underpin health inequalities, for instance exposing racial disparities in healthcare, with more patients from ethnically minoritized communities dying from the effects of COVID-19 [4]. Nurses had the highest mortality rates of any healthcare workers and likewise, among nurses, those with black and minority ethnic backgrounds (BAME) had the highest mortality rates [5, 6]. This highlights the vulnerability of nurses, especially BAME nurses, and raises questions regarding what the role of the government is and should be in decreasing these inequalities for nurses and the public. It has propelled us to consider how healthcare agents and agencies, including nurses, might contribute to that equation.

In the UK, the pandemic has galvanized the government into setting up an NHS Race and Health Observatory. The remit of the Observatory is to identify and combat health inequities in the UK, through advancing, supporting, and promoting research; developing the evidence base; and mobilizing this evidence by informing policy and recommendations to enact meaningful and lasting change [7]. In the year since its establishment, the Observatory has already produced multiple studies and reviews, hosted webinars and stakeholder engagement exercises, and supported policy development in partnership with bodies like the All-Party Parliamentary Group [8]. Furthermore, with regard to promoting workplace equality for healthcare workers, the NHS has instituted the Workforce Racial Equality Standard (WRES) to monitor progress in this important domain [9]. All NHS Trusts must submit data on achieving key indicators across a range of domains and develop improvement plans where falling short. So far, the WRES has used this data to shed light on existing areas of systemic racism and inequality in the NHS, such as the disproportionate lack of career progression opportunities for BAME colleagues. The hope is that amplifying these statistics and experiences will force long-needed action and intervention.

Along these lines, for health equity to become a reality within the UK, a government-backed strategy is needed to provide a workable framework to monitor and evaluate progress on national strategic goals and priorities. Appointing a minister with responsibility for health equity would provide profile and accountability for the issue. It is significant that Scotland publishes an annual report on inequalities. The latest report at the time of writing, published in 2021, noted advances in narrowing gaps across a range of indicators between the most and least deprived communities (e.g., cardiovascular disease, cancer, and all-cause mortality) [10]. Yet in some areas, such as the healthy life expectancy for males, self-assessed health, and drug-related hospital admissions, the gap has increased to its widest point since measurement began. There is no comparable, handy digest of long-term monitoring of health inequalities in England, Northern Ireland, or Wales as far as we are aware. Inequalities and inequities within the US have long been the focus of government policies and interventions. Still, these inequalities are rooted in the social and economic conditions generating poverty, food, housing, energy, and water insecurity. With a cost-of-living crisis and rising inflation creating a crisis of seismic proportions, these are set to spiral. We need to respond with radical and rapid action to avert an impending crisis, which could threaten not only social solidarity but the fundamental social contract the government has with the electorate.

3 Nursing Contribution to Health Equity

On a global scale, initiatives such as the World Innovation Summit for Health (WISH), an annual summit for health ministers, policy makers, NGOs, entrepreneurs, researchers, and industry representatives, echo these priorities. WISH's "Nurses for Health Equity," a sibling and sequel publication to "Doctors for Health Equity," sets out a series of guidelines to support nurses in pursuing a health equity

agenda within a series of six domains [11, 12]. These resonate with the themes of this book and include: education and training; working with communities; working in partnership across organizations; fostering nurses as advocates; and promoting nurse-driven evidence, evaluation, and monitoring [11]. Nurses for Health Equity refers to utilizing data at the local and international levels to inform service developments and meet community needs via technology to leverage data capture [11]. Nurses work across a broad range of socioeconomic environments and sectors. In addition to mainstream healthcare settings, nurses work at the margins of society, with a practice underpinned by an ethos of social inclusion and social justice. As social inequalities widen, marginalized communities are often hit the hardest. Nurses directly impact social determinants of health for marginalized communities, such as people who are or have been incarcerated, people who have been displaced or who are seeking asylum, people who use drugs, people with sexual health needs, and people without housing. The principles of inclusion and justice are major motivators behind much of what nurses do. Nurses are agents for change, working to improve the conditions into which people are born, grow, develop, work, age, live, and die. From the frontline to community engagement, to policy influence and political advocacy, nurses are actively impacting inequalities in health [13].

Case Study 1: Preparing Healthcare Professionals to Serve a Diverse Population

To foster a professional ethos of equity and inclusion in prospective nurses and healthcare professionals, it is essential that we revisit how these principles are represented in preregistration and ongoing education, so healthcare providers are prepared to treat and care for a diverse population. This will mean proactively revising our approach to educating on a variety of stigmatized topics and ensuring that we are meeting the needs of marginalized communities. One example that illustrates an existing, problematic bias in healthcare education that impedes adequate care for marginalized communities is the presence of pervasive white normativity in nursing and medical educational resources. Previous research has highlighted the "hidden curriculum" of medical education: namely, textbooks, resources, and lectures propagate information that is based predominantly on white patients [14, 15]. Whether intentionally or unintentionally, this impedes medical professionals' ability to accurately recognize signs of disease in other racial groups, leading to diagnostic and treatment inequities. Such studies have not yet been conducted related to nursing textbook content, however, undoubtedly, the same problems exist. As nurses provide skin checks, skin care, pressure injury prevention and treatment, and wound care, the omission of black skin in nurse education is incredibly problematic [16]. While this barrier to achieving health equity is recognized, universities and publishers have yet to uniformly enact change.

As a result, individuals have begun to independently work to reduce these inequities on the ground. For example, in the UK, Malone Mukwende, a medical student at St. George's, University of London, noted the lack of teaching about darker skin tones in his medical education. To combat this gap, he joined together with colleagues at the University to produce a book entitled "Mind the Gap," which presents

side-by-side images of different condition presentations on dark, medium, and light skin tones [17]. This resource is available for free online and has garnered a lot of attention, both in mainstream media and in the medical community. Mukwende and colleagues' work can serve as an exemplar of a meaningful, evidence-based intervention addressing health equity, resulting in direct and immediate implications for real-world clinical practice. Moving forward, efforts to enhance the inclusivity and quality of our educational resources must not rely on the willpower of individuals and rather, should be proactively duplicated and spread across sectors: nursing, medical, and health professional textbooks, mannequins, videos, pamphlets, diagrams, online resources, and teachings must follow Mukwende's lead.

4 Nurses as Data Scientists

As Linda Aiken notes in Nurses for Health Equity [11], nurses are continuing to develop the evidence base of the many ways nursing interventions save lives and money as a "high-value investments in reducing health disparities" (p. 18). It is essential that the impact of nursing care on outcomes is shared so that best practices can be replicated. Yet, much of this work remains invisible on local, national, and global scales. A fundamental tenet of nursing practice is understanding the community with whom you are working but rarely is such data available to nurses at the frontline or clinical microsystem levels. Ideally, nurses should be able to risk profile their patients from broader risk stratification data derived from their population, but often, nurses are operating in a data desert, relying on their own experience and familiarity with their work environment to make these determinations. Developing nurses as data scientists is clearly a priority in this regard, but there is also much to be done in synthesizing evidence and undertaking meta-analyses of what types of interventions might work where and with whom.

It is difficult to track and measure areas that require improvement because doing so requires an array of data systems to be brought together for effective visualization. The lack of investment in such systems means we are poor at monitoring and measuring changes in clinical microsystems. Collating the research evidence base and understanding where improvement efforts can best be channeled would be a good starting point. The World Health Organisation (WHO) hosts a health inequality data repository; funneling nursing science into that repository is essential to synthesizing existing research in this area, increasing understanding of which types of studies might add value, determining how to optimize the evidence base by filling gaps, and setting a research agenda [18]. To jumpstart this process, WHO Collaborating Centers with a nursing focus and supporting nursing research could be engaged in a consensus exercise to come up with priorities. Next, conducting meta-analyses of key topics linked to these strategic priorities in different regions could provide insight into the existing evidence base, from which policy could be developed and implemented.

Scaling nursing interventions for health equity is difficult because these are still limited tools to guide this work. The WHO Global Health Observatory Health

Equity Monitor contains a range of data products such as country health equity profiles, the Health Equity Assessment Toolkit, and interactive visuals that could assist with scaling, but these are not necessarily easy to apply to local or wider health contexts. To drive health equity, nurses need access to data and tools, not only so they can undertake assessments and get to grips with understanding the populations and communities they serve, but also so that they can codesign and tailor tools to the types of interventions they are using. This seems to be one of the major barriers to enabling nurses to optimize their contribution to monitoring and measuring the impact they are having in closing the equity divide. Increasing investment in nursing requires empirical data that evidences the impact that nursing care has on outcomes.

Case Study 2: Nurse Staffing and Inpatient Mortality

Our second case study, on nurse staffing and inpatient mortality in the English NHS, showcases the impact nurses have on patient outcomes and demonstrates potential value of harnessing data to drive evidence-based policy. In collaboration with a powerhouse team of other nurses, healthcare economists, and informatics specialists, we were both fortunate to be involved in a retrospective longitudinal study leveraging existing staffing data and patient outcome data to demonstrate an association between nurse staffing and inpatient mortality [19]. Our data demonstrated that teams with more registered nurses experienced fewer patient deaths. Indeed, for the average team, adding one RN for an additional 12 h reduced the odds of patient death by 9.6%. Senior nurses were found to be particularly impactful; the addition of a senior nurse had more than 2.2 times the impact of the addition of a junior RN. Furthermore, we discovered that the type of contract the RN held mattered: among RNs, those regularly employed by the hospital reduced the odds of patient death, but those who were employed through an agency (a similar contract to travel nurses in America) had no statistically significant effect on mortality. Finally, the impacts of below-target staffing were amplified when a team was short more than one RN, suggesting that a nursing team may be able to temporarily compensate when one nurse is absent, but if more than one nurse is absent, patient outcomes are at risk. This has significant implications for workforce planning and policy. Particularly, we demonstrate the value of training and retaining senior nurses, evidencing how essential it is to promote career progression for nurses at the bedside to improve patient outcomes.

Yet, retaining nurses is no easy task. Another of our previous studies provided insight into the tremendous pressure nurses and healthcare teams are under [20]. The healthcare work environment necessitates that healthcare workers constantly make trade-off decisions, balancing often competing yet equally important priorities like ensuring quality and safety, working efficiently, meeting organizational demands, maintaining a manageable workload, and addressing one's personal needs. In our study on these pressures and trade-off decisions, we found that when faced with pressures simultaneously, most often healthcare teams sacrifice their workload and personal needs to maintain acceptable performance in the other categories [20]. In the short term, this means that patient and organizational needs are

met, but in the long term, this could potentially explain why nurses are burning out and leaving the profession altogether. Self-sacrifice, compensating for missing team members, and tolerating poor working environments for insufficient pay at the detriment of one's own well-being is unsustainable. Although the data from both the study on nurse staffing and the study on healthcare pressures predate the COVID-19 pandemic, it is not insignificant that they have been published at a time of unprecedented crisis for the nursing workforce. A recent article by the BBC highlighted the fact that a record number of nurses are leaving the NHS in the wake of the pandemic [21]. According to the article, more than 40,000 nurses have left the NHS in the last year alone, many of whom were senior nurses [21]. As our data shows, the impact of this is and will continue to be catastrophic to patient care and outcomes [19]. Harnessing nurses' potential as data scientists enable the generation of evidence such as this that can inform policy. Increasing the visibility of the power of nurses to affect patient outcomes provides the impetus needed to increase investment in nurses.

5 Co-Designing Interventions to Improve Health Equity

Although nurses are well-situated to impact social determinants of health, nurses cannot tackle inequalities on their own: doing so requires a complex set of multisectoral partnerships across health and social care [13]. In addition to partnering with other professions and sectors, it is also essential that nurses listen to and partner with the populations we aim to serve. Recently, there has been increasing recognition in the international literature of the importance of involving service users in the decisions and interventions that affect them [22]. Rather than being seen as passive recipients of services, service users should be considered experts by experience, with valuable lived experience that can inform intervention design [22, 23]. Coproduction, or "*the voluntary or involuntary involvement of public service users in any of the design, management, delivery and/or evaluation of public services*" [24], is one way of establishing such partnership. Coproduction has the potential to distribute power among actors to establish meaningful collaboration, decrease ostracization and increase inclusion, and improve the feasibility of interventions, ensuring they meet service user needs. There are several notable challenges with coproduction, especially when engaging vulnerable populations, whose participation may be hindered by structural barriers [23]. It is essential to address these challenges as neglecting to do so risks coproduction processes reinforcing and perpetuating this marginalization [23].

Case Study 3: Co-Designing with Vulnerable and Disadvantaged Populations
Our third and final case study, produced by an international research team from Canada, the UK, and Australia, highlights some of these challenges and offers heuristics to guide future co-design work [25]. The study aimed to increase understanding of co-designing with vulnerable populations to address areas where existing inequities could unintentionally be reinforced by the co-design process. The study

involved a two-day international symposium, during which the research team synthesized the experiences of practitioners, academics, and service users from seven countries who had involved or been involved themselves as vulnerable and disadvantaged populations in co-design work. Leveraging experiences from eight case study examples from three countries, the team identified five challenges to meaningful and lasting involvement of these vulnerable communities. These challenge categories included: "engagement; power differentials; health concerns; funding; and other economic/social circumstances" [25]. For each of these, a set of principles were agreed that may help mitigate risk and guide future co-design work. These provide useful and actionable steps to address challenges in co-design work (for instance, "have flexible participation options (in-person, skype, email, and online) using a variety of media for data (art-based, music, crafts, visual diaries, and photographs)" is suggested as one of several guiding heuristics for addressing recruitment and engagement challenges [25]. These best practice principles should be used and referenced to guide future coproduction work to improve health equity, which inherently involves service users from vulnerable or disadvantaged populations. Failure to meaningfully and sustainably involve them risks further marginalization.

In the time since the article's publication, the research team members out of McMaster University in Canada have gone on to establish the "Co-Design Hub" for vulnerable populations, translating these principles into practice and increasing scalability [26]. The hub works to advance co-design methods, facilitate knowledge sharing, and form partnerships, and does so through providing co-design resources, educational talks, and speaker series; evaluating co-design work in progress; and offering a multi-event symposium, "CoPro," with virtual and in-person opportunities for people interested in co-design [26]. As the coproduction evidence base and methodology grow, it is essential for all individuals, groups, and institutions taking part in health equity research, intervention design, and intervention delivery to be well-versed in and to be guided by these principles to ensure inclusion, fitness-for-purpose, scalability, and sustainability of the work.

6 Conclusion

Nurses impact inequity both directly and indirectly, often in collaboration with multisectoral partners. Determining the direction of future research and intervention priorities in health equity requires access to evidence and data systems. In the UK, there is currently no anchor organization comparable to the NINR in the US that is specific to research in nursing to provide a focal point to mobilize and evaluate this work. Rather, there is a distributed form of leadership amongst a disparate set of bodies and organizations. If health equity is to be taken seriously, there should be leadership on national, regional, and local levels, from which research priorities for commissioning can emerge. The task is daunting, but a first step could be making the potential nursing contribution to closing the health equity gap visible by undertaking a meta-analysis of the evidence base in key priority areas. The National Institute for Health and Care Research (NIHR) invites

priorities to be submitted and bodies such as the RCN Research Society are well-placed to lobby and petition for these advances in data synthesis. The RCN has already called for a strategy on health inequalities to be developed within the government Department of Health and Social Care; this should include establishing research priorities, conducting an evidence review of the nursing contribution in these areas, and scaling these contributions to optimize the work of public health, school, hospital, education sector, community, and mental health nurses on reducing health equities. Aside from national initiatives, there is much that can be accomplished at the local level, via the Integrated Care Systems, which are responsible for population health. Nurse leadership is needed within these and research should be part of that agenda.

7 Call to Action

We can take our cue from Florence Nightingale, much of whose extraordinary life was dedicated to what could broadly come under the banner of poverty alleviation and improving the conditions into which people were born [27]. She referred to infant mortality as the "most sensitive index of humanity" in her research on maternal mortality. She wrote about the education of indigenous populations like Aboriginal children and discussed its impact on their health and that of their communities. Both civilian and military health preoccupied her and telescoped her work on reengineering sanitary and hygienic improvements. These were but some of the prodigious outputs from her pen and advocacy work to achieve better health for all [27]. Likewise, at the bedside and beyond, modern-day nurses are well-situated to alleviate inequalities. They have demonstrated during the COVID-19 pandemic that, above all, community engagement is essential to optimizing the uptake of vaccination. They have advocated for health in voluntary roles in food banks, on mental health crisis lines, and at safe injection facilities. They have championed patient involvement and co-design efforts, demonstrating the benefit of inclusivity and listening to the populations we aim to serve. Across all sectors, nurses on the ground have petitioned, pioneered, advocated, marched, and fought for improved equality and equity. The nursing effort for advancement is there: the task is to convert that considerable effort into evidence to progress the science of nursing and the health of the population in meaningful, measurable, and replicable ways. There is still work to be done at all levels of research, conduct, and commissioning to develop a truly inclusive agenda, to ensure our data does not underrepresent minorities, and to scale effective interventions. Under current conditions, science cannot claim to be universal and its limited generalizability should be called into question. Nurses can use their influence to play a major role in extending inclusivity. But for this to happen, they need to be empowered and given the tools to do so. Though some health equity gaps are narrowing, others are falling further behind; the pace of these improvements needs to quicken via increased collaboration, data sharing, data access, streamlining, synthesis, monitoring, scaling, and funding into health equity and nursing care.

Study Guide Questions

1. Case study one discusses the "hidden curriculum" of healthcare education. What is meant by "hidden curriculum?" Can you think of any examples, besides the one given in the case study, that you have noticed or experienced during your education? How might they be addressed?
2. Case study two presents an interesting paradox: senior nurses are needed at the bedside to improve patient outcomes, but nurses are under tremendous pressure and senior nurses are leaving the profession. What are some of the pressures faced by nurses? How might these pressures be addressed? What other data might be useful in providing the impetus for policy change and additional investment in nursing?
3. Why is co-design beneficial to intervention development? What are some of the strategies/incentives that can be used to engage vulnerable or marginalized populations?

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Concluding Remarks: The Nurses' Role in Achieving Health Equity Through Multisector Collaboration and Workforce Diversity

Karen Cox and Melanie Logue

Nurses have a critical role to play in achieving the goal of health equity. Helping people live their healthiest lives is and has always been an essential role of nurses. According to the *Future of Nursing 2020–2030: Charting a Path to Achieve Health Equity* [1], a nation cannot fully thrive until everyone can live their healthiest possible life. State action coalitions, affiliated with the US-based *Future of Nursing: Campaign for Action*, aim to reduce inequities in people's ability to achieve their full health potential. The goal is to achieve health equity in the United States, built on strengthened nursing capacity and expertise.

This report continues to serve as a national and even an international blueprint on the future of nursing. As we strengthen the nursing workforce's capacity, education, and role, we must focus on actions that move toward health equity. While recognizing the individual strengths of nurses, we also recognize that multisector collaborations must drive community solutions. There are six conditions that, when addressed holistically, can lead to effective system change, including (1) policies, (2) practices, (3) resource flows, (4) relationships and connections, (5) power dynamics, and (6) mental models/ideology [2]. Clear improvements in the system and how those improvements translate into long-term population impacts need to be the focus. We know what the root causes of health inequities are, and now is the time to transform rather than respond to individual causes. The strengths of organizational relationships with a deep commitment to total system change are foundational. When we fully address the systemic community conditions that make people sick, we restore the nation's health [3].

K. Cox (✉) · M. Logue
Chamberlain University, Chicago, IL, USA
e-mail: KarenCox@chamberlain.edu; MLogue@chamberlain.edu

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1 Sustainable Solutions with Multisector Collaborations

At $3.5 trillion, the United States spends the most annually on health care while underperforming on many health indicators [4]. The COVID-19 pandemic exposed serious inequities in the US healthcare system and worldwide, magnifying existing concerns. These colliding forces led to a healthcare and nursing workforce crisis. Racism, bias, socioeconomic status, and living in areas with decreased healthcare access also fueled inequities. Social determinants of health cause many resource disproportions, resulting in poorer health outcomes [5]. Just promoting healthy lifestyle choices will not eliminate these and other health disparities. Medical care access alone is not the solution. Instead, organizations and their partners in different sectors (i.e., education, workforce, housing) need to take action to improve the conditions in which people work, live, and play.

Removing systemic and structural barriers to ensure fair and just opportunities for health and well-being is part of nurses' commitment to care. Nurses and nurse champions can work collaboratively to address pervasive systemic problems. Systemic problems involve the impact of a community's systems (i.e., education, health care, transportation, and economy) rather than one isolated area [6].

For systemic problems, the band-aid approach does not work. Complex problems require cooperation and collaboration throughout a community to make sizable changes. No one person and no one organization can make lasting change without the help of everyone involved in or affected by the issue. Multisector collaboration must occur, and any one organization or sector cannot solve problems of this complexity by itself. Failures occur when competing groups work against one another, do not coordinate resources, or do not lend the necessary support to create practical efforts [6].

Multisector collaboration results when government, public, private, and community groups and members unite to solve community challenges [6]. When solving a systemic problem, we cannot cure one leaf without treating the whole tree. Multisector collaborations can solve systemic problems because they draw on the resources of all organizations and sectors. These partnerships carry more power than one organization or group. However, multisector collaboration is a process that does not always go according to plan. Getting buy-in and collaboration from many people in different sectors is challenging but also invaluable [6].

The need for multisector collaboration is evident and foundational. Multisector collaboration involves collaboration instead of competition. In a competitive ethos, each person or organization works to gain individual recognition and rewards [6]. Conversely, when people collectively gather their resources and use them efficiently and effectively to assist one another, everyone achieves more. This shift from a competitive to a collaborative operating styles profound. The results can be highly beneficial when each group shares power, aims to reach a fair agreement, and uses a collaborative approach to problem-solving by multiplying and maximizing outcomes. Research shows the strength of multisector engagement [7].

Case Study

Urban Networks to Increase Thriving Youth (UNITY) through Violence Prevention asserts that everyone has a role to play and reminds us that the whole is greater than the sum of its parts [8, 9]. Sectors are responsible for coming together and agreeing on the objective, moving in the same direction, and owning the problem. Leveraging diverse expertise, cultivating innovation, fostering a unified approach, and sharing resources decrease duplication of efforts [8]. Additionally, maximizing advocacy and staying power supports sustainable solutions.

The Prevention Institute, as part of UNITY, used the Cure Violence model to facilitate a community planning process to prevent violence in US cities engaging, education, public health, and the criminal justice sectors to collectively use their expertise and skills to solve their communities' challenges [8]. UNITY fostered cross-sector action to prevent violence by creating and disseminating tools focused on sectors within government and community-based programs called the *Collaboration Multiplier*. For these strategies to work, prevention phases are outlined as primary (upfront), secondary (in the thick of things), and tertiary (aftermath). Clarifying the roles and responsibilities of the different sectors helped reach maximum benefits. Data-driven approaches focusing on environmental solutions were more effective than individual interventions. Risk and resilience factors also were essential to inform a multisector solution to preventing violence. Resilience factors are subcategorized into (1) society and community factors and (2) relationship and individual factors [8].

Collaboration Multiplier Implementation Process:

1. Promotes understanding of diverse partners.
2. Clarifies similarities and differences.
3. Supports relationship- and trust-building.
4. Identifies collective strengths and missing expertise.
5. Delineates collective resources at the table.
6. Fosters a shared vision, goals, language, and understanding.
7. Establishes shared outcomes and joint strategies.
8. Identifies solutions that solve multiple problems.
9. Helps clarify the contributions and roles of each partner while helping to manage credit and accountability issues.
10. Establishes a foundation for shared measurement and a vehicle to overcome confidentiality and proprietary considerations [8].

2 Addressing Diversity, Educational Justice, and Nurse Shortages to Alleviate HealthCare Inequities

Nurses are essential for many reasons, ranging from providing quality health care to our nation's economic security and welfare. College degrees are a primary vehicle for reducing poverty, yet the existing disparities are rampant [10]. Awareness is not enough—transformational change is required. Nursing education must transform

and embrace educational justice. Educators should respond to students' needs and remove racial and economic practices of codifying, tracking, and penalizing students by implementing holistic admissions, considering many factors in the admissions decision. The US Supreme Court [11] described a "highly individual, holistic review of each applicant's file, giving serious consideration to all the ways an applicant might contribute to a diverse educational environment" as an outcome in the Grutter v. Bollinger case. Holistic review is often a mission-aligned practice that supports diversity and inclusion through qualitative and quantitative factors.

The literature is clear and compelling. Health inequities decrease as the demographics of health professionals mirror the population as a whole [1]). Thus, the percentage of diverse health professionals is an important measure of the health of the population. As a stark example, maternal morbidity and mortality in the United States continue to rise while there have been improvements in other parts of the world. What is most alarming is that it has decreased among white women in the United States, but it has increased for black women even when controlling for zip code, educational attainment, and frequency of prenatal care [12]. This is shocking and debunks many long-held myths [13]. Add to this the fact that health inequities improve when the healthcare workforce at every level reflects the racial diversity of the community served [14] (Hwang and Tallant).

The nursing workforce still remains largely female and Caucasian. The way to change this is to utilize a holistic admission process—not as a recommendation but as a requirement by accrediting bodies. Utilizing GPA alone leaves many qualified applicants behind and paints the nursing profession as elitist, continuing to contribute to the cycle of health disparities. The AACN published a white paper describing the need to implement a holistic admissions process in 2016, yet there is not nearly 100% adoption. This creates a lack of educational justice.

Many students with lower GPAs don't lack the intellectual capacity to be successful. Rather, they attend lower resourced K-12 schools or make an initial attempt at a community college, and "life happens", resulting in a lower GPA. In addition, students with fewer opportunities need more support from the faculty to graduate and pass the faculty NCLEX examination. A recent article by Muirhead et al. [15] calls out the impact of high stakes testing including NCLEX and HESI in nursing education. They call for improved data collection, reformed licensure processes, and the reframing of standardized testing as one of many tools to determine competency. The nursing faculty shortage has prompted some schools of nursing to lean into the most qualified students based on traditional measures. A substantive change is long overdue. Students with diverse socioeconomic and/or ethnic backgrounds will be champions for incorporating and addressing the social determinants of health in the care provided as it may often reflect their lived experiences.

The Social Determinants of Learning™ (SDOL) Framework was developed as an actionable model to address learning disparities and expand learning opportunities to support nursing student diversity, equity, and inclusion [16]. This framework addresses the student's physical health, physical environment, social environment, self-motivation, economic stability, and psychosocial health. Strategic interventions include creating a sense of belonging, addressing motivation for learning and coaching for success. More can be done in nursing education to address the human circumstances of the student.

In addition, approximately 80,000 qualified applicants to BSN programs were turned away in 2021 [17]. Policymakers and other stakeholders must invest in nursing education and coordinate strategies to address workforce needs and make the healthcare system more equitable. Investments in the nursing profession are lacking, as evidenced by the most considerable constraints in nursing education, a shortage of nurse educators, and reductions in clinical placements needed to educate nurses.

In addition to the healthcare inequities and recent healthcare crisis in our nation described above, the global nursing shortages need urgent and sustainable solutions. This nursing shortage is not about the *number* of nurses but rather nurses who are willing and physically able to practice in all areas where nursing care is needed with an equity-minded approach. In the United States, there may not be enough nurses for the next decade to care for patients, especially, in acute care, in the same way as in the last quarter of a century, with the two age groups leaving in the most significant numbers; those over 60 years and those over 20 years old [18]. Implications from this shift are that the workforce projections counted on the 20+ age group to be practicing for the next 30 years exacerbating the work force challenge.

Complicating the nursing profession's ability to positively influence health disparities is the critical shortage of nurses. The current shortage of nurses is not an actual shortage. There are roughly four million nurses in the United States. It is a shortage of nurses who are willing and/or physically able to work in direct care roles. This situation is not new; however, the global COVID-19 pandemic provided an accelerant to magnify the crisis.

The reasons for this shortage are numerous and complex. First, direct care nursing is hard work. It is physically demanding especially given that approximately 60% of the population is overweight or obese making providing physical support to them more difficult. Second, nurses are on the wrong side of the balance sheet viewed as a cost, not perceived as a driver of quality/revenue. This often leads to a view of nurses as commodities as opposed to valued professionals. Staffing approaches historically have assumed the number of patients/tasks as a proxy for actual work required. Workload needs to incorporate patient acuity and intensity of the necessary nursing work [19].

The role of nurses in hospital governance became much clearer and somewhat striking during the very early days of the global COVID-19 pandemic. As an example, direct care nurses were not routinely engaged in decision making related to personal protective equipment (PPE). Administrators were making decisions with limited or contradictory evidence putting direct care health professional lives at potential risk. Also, creative staffing models employed did not always include direct care nurses in the discussion. This short staffing led to an explosion of travel nurses and increased resignations [20].

The Future of Nursing 2020–2030 report provides the evidence and strategies to bridge the gap between a critical global nursing shortage and the transformative work required to achieve our new healthcare future. Relationships with hospitals and healthcare organizations are foundational to the earlier multisector collaborations and solutions. Identified needs include creating a governance role for nurses, adding nurses to value-based care proposition and tapping into the potential of four million nurses to impact social determinants of health and care transitions [21]. Evidence-based practice, policy oversight, increasing pay, and moving to a salaried

role are also solutions for re-engaging the nursing workforce [22]. Porter-O'Grady et al. [23] state that many nurses experience a lack of engagement, inclusion, respect, and involvement in the dialogue and decisions that influence their practice. Nurses call for organizations and systems to utilize leadership practices that are equity-based, collateral, relational, inclusive, and distributive.

3 Summary: Nursing Outcomes to Achieve Health Equity

This book is a compilation of evidence, expertise, and lived experiences in applying the report and lessons learned. There are numerous examples that address strengthening nursing capacity, promoting diversity, equity, and inclusion, permanently removing nurse practice barriers, valuing nurse contributions, preparing nurses to tackle and understand health equity, and using multisector collaboration to enact a shared agenda. It should all be used to inspire action.

With the implementation of the report's recommendations, the report committee envisioned ten outcomes that position the nursing profession to contribute meaningfully to achieving health equity. We recap these outcomes and ask the reader to reflect on the chapters. What are the key takeaways? What actions can we take as a result?

1. Nurses are prepared to act individually, through teams, and across sectors to meet challenges associated with an aging population, access to primary care, mental and behavioral health problems, structural racism, high maternal mortality and morbidity, and elimination of the disproportionate disease burden carried by specific segments of the population.
2. Nurses are fully engaged in addressing the underlying causes of poor health. Individually and in partnership with other disciplines and sectors, nurses act on a wide range of factors that influence how well and long people live, helping to create individual- and community-targeted solutions, including health in all policies orientation.
3. Nurses reflect the people and communities served throughout the nation, helping to ensure that individuals receive culturally competent, equitable healthcare services.
4. Healthcare systems enable and support nurses to tailor care to meet diverse patients' specific medical and social needs to optimize their health.
5. Nurses' overarching contributions, especially those found beneficial during the COVID-19 pandemic, are quantified, extended, and strengthened, including removing institutional and regulatory barriers preventing nurses from working to the full extent of their education and training. Practice settings that were historically under-compensated, such as public health and school nursing, are reimbursed for nursing services comparable to that of other settings.
6. Nurses consistently incorporate a health equity lens learned through revamped academic and continuing education.
7. Nurses attend to their self-care and help ensure that nurse well-being is addressed in educational and employment settings through implementing evidence-based strategies.

8. Nurses and other leaders in health care and public health create organizational structures and processes that facilitate the profession's expedited acquisition of relevant content expertise to serve flexibly in areas of greatest need in times of public health emergencies and disasters.
9. Nurses collaborate across their affiliated organizations to develop and deploy a shared agenda to contribute to substantial, measurable improvement in health equity. National nursing organizations reflect an orientation of diversity, equity, and inclusion within and across their organizations.
10. Nurses focus on preventive person-centered care and are oriented toward innovation, always seeking new opportunities for growth and development. They expand their roles, work in new settings and ways, and markedly expand their partnerships connecting health and health care with all individuals and communities [1].

4 Call to Action

The vision of the US-based *Future of Nursing: Campaign for Action* is working toward "an America where everyone can live a healthier life, advanced by equity-minded nurses as essential and valued partners in providing care and promoting health equity and well-being" [24]. Meaningful and actionable change begins now. Connect with consumer and health organizations committed to supporting the health and well-being of the regions where you reside. In the US, get connected to state action coalitions. Action coalitions led by nurses and multisector partners drive change locally by working to transform health care through nursing and build healthier communities. Globally, help lead multisector collaborations to address health inequities. The recommendations in the report are generally transferable with some adaptations. The time for bold, innovative leadership is now!

Study Guide Questions

1. Reflecting on our practice, what new models of care could be applied to address the current nursing staffing shortages?
2. Given the need, what care delivery models might be established to use nurses at their highest level of education?
3. What multisector partnerships in your region might positively impact a community's social determinants of health?
4. Which of the report's recommendations are most transferable and useful for your country and region?

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Afterward

Leila McWhinney-Dehaney

"The Future of Nursing 2020–2030 Global Applications to Advance the Future of Nursing" is a bold and inspiring response to the report released by the National Academy of Medicine (NAM), "The Future of Nursing 2020–2030: Charting a Path to Achieve Health Equity." [1, 2] . It sets out nine over-arching recommendations for the nursing profession with considered approaches for implementation that warrants keen attention. As the text in the book conveys, there is no doubt that many of the interventions needed in education and health care settings in the USA to eliminate disparities are equally relevant to nursing and midwifery in developed as well as developing countries. My stated positions herein are based on my education, policy, and regulatory leadership experience in Jamaica, a developing country of 2.9 million citizens with a gross domestic product (GDP) per capita of US 5183.6 in 2021 [1, 3].

In my varying roles in Jamaica, I have learned that a key developmental priority of governments in the Caribbean is that of achieving the sustainable development goals (SDGs) [4]. The United Nations (UN) and its various partners are ambitiously working towards achieving these goals. These interrelated goals address the major developmental challenges faced by Jamaica and other countries globally. Jamaica, in its important role in shaping the global 2030 agenda, established Vision 2030 [5], a long-term strategic development plan (PIOJ, undated) as its framework for priority setting, seamlessly integrating the global agenda with Jamaica's national development plans. This has led to Jamaica's Vision 2030, the Medium-Term Socio-Economic Policy Framework (Planning Institute of Jamaica) and sectoral policies which are strongly aligned with the SDGs. One of the national goals related to health speaks to Jamaicans being empowered to achieve their fullest potential.

L. McWhinney-Dehaney
Nursing Council of Jamaica, Kingston, Jamaica

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One of the national outcomes related to this goal is that by 2030 Jamaica will have a healthy and stable population. A major guiding principle of vision 2030 (of which there are seven) speaks to people and equity. The Ministry of Health and Wellness have identified two supportive components of this vision plan as being important: these are Human Resources and Infrastructure [6].

As small island states like Jamaica seek to attain the sustainable development goals (SDGs) and to achieve Universal Health Coverage (UHC) nurses and midwives have been central to the conversation on health disparities and health equity. A call to action for nurses and policy makers in developed nations is a similar call to action for nurses and policy makers in developing nations. Jamaica has been proactive in putting relevant policies in place to respond to the call for Universal Health Coverage. The Ministry of Health and Wellness 2030 strategic plan [6] includes strategies towards the renewal of primary health care aimed at reducing inequities confronting persons accessing the health sector, particularly more vulnerable populations.

Where nurses work and what nurses do have always been quintessential in situating them to be the real deliverers of care worldwide at the primary, secondary, and tertiary levels of health care systems. In my own country the nursing and midwifery workforce is no doubt the pulse of the health care system. The book identifies critical elements of what needs to be done at the varying levels of the profession and society to ensure that future nurses are successful in what is needed to improve the health of the population globally. The following outlines my thoughts on specific chapters in this book.

Education

The foundation of early nursing in Jamaica has been strong leadership. Leadership has been the hallmark of nursing and midwifery education and practice and is exemplified in the professional lives of three stalwart nurses from 1946 to 1986; Ruth Nita Barrow, Gertrude Hildegarde Swaby, and Julie Symes [7]. These nurses embraced the profession with commitment and courage that set the foundation for nursing leadership in Jamaica. Ruth Nita Barrow was an educator, and matron of the University College Hospital (UCH), who went on to become the Principal Nursing Officer (PNO) for Jamaica. Gertrude Hildegarde Swaby was also an educator, Organizing Secretary for the Jamaica General Trained Nurses Association (JGTNA) and Registrar of the Nursing Council of Jamaica (NCJ). Julie Symes was the President of the JGTNA, Matron of the Kingston Public Hospital, and Registrar of the NCJ. Their collective will between 1946 and 1986 allowed for swift progress in nursing. For example, Hewitt [7] states that "they prepared themselves adequately so that they could wrest control away from non-nurses who had influence over nursing training" (Hewitt, p. 237). These leaders set the pace for dynamism in curricular improvements to accommodate societal changes as it occurred over time. They brought the education of nursing and midwifery professionals from a place of just simply understanding disease and care giving principles, to now a broader

perspective of population health and equity. These nurse leaders worked relentlessly to achieve the goals for registration, reciprocity, and recognition of nurses training in Jamaica (Hewitt, p. 10). The concept of health equity has continued to force educators, curriculum developers, and regulators to address social, and other environmental parameters which lead to ill health and will no doubt invariably continue impact access to care.

In influencing the future of nursing, students must be academically prepared to understand, recognize, and address the social determinants of health and health equity in order to transform care. The aim is to have a nursing and midwifery workforce that is educated and trained and legally facilitated to practice to the full extent of their education and training. Hence the recommendation by the Regional Nursing Body (RNB) which is made up of Government Chief Nursing Officers, and other partners and collaborators to have the BScN as the entry level into nursing has been acted on and to this end there is a policy in place in Jamaica that allows for this level of training [8].

In contrast to the education of nursing students in Jamaica and many other developed countries the book described how Hong Kong used the opportunity during the pandemic to allow the students real life experience during the pandemic. Instead of withdrawing them from the clinical sites during this period they were utilized and became an integral part of care delivery during this time. According to the text the pandemic opened up opportunities for nursing students' involvement to support the community to overcome a public health crisis.

Diversifying the Workforce

Diversifying the nursing workforce is critical, but the world's need to do this has been, many times, at the expense of the workforce in the CARICOM (Caribbean community) countries. CARICOM countries like Jamaica have been targeted by developed countries for the recruitment of nurses and midwives and this practice continues unabated [9]. In fact, it is estimated that more than 1800 nurses emigrated from the English-speaking CARICOM to Canada, the United Kingdom, and the United States between 2002 and 2006 (World Bank 2010). In this same World Bank study of the nurse labor and education market in the English-speaking CARICOM it shows a highly fragile supply side balance that will be increasingly insufficient to meet local demand (World Bank Report 2010, p. 1). The study further posits that this nurse shortage may compromise the region's ability to meet strategic health goals and its global competitiveness (World Bank Report 2010).

Low pay, poor career prospects, and lack of educational opportunities are some of the factors identified as driving nurse resignation. Murphy et al. [10] address the prevalence of migration of health workers from Jamaica and point to the impact of differences in the living and working conditions between Jamaica and destination countries. These differences impact the decisions of health care practitioners and result in what has been reliably identified as push and pull factors for migration. This resultant shortage of nursing personnel is always looming.

Having policies that enable the retention of health workers in rural and underserved areas have been one of the most difficult challenges for developing countries [1]. Many developed and developing countries including Jamaica are signatories to the WHO Global Code of Practice on the International Recruitment of Health Personnel [11] and working collaboratively has been a helpful effort. This framework is aimed at strengthening the understanding and management of the recruitment of international personnel through improved data, information, and cooperation within the international community [1].

Creating barriers to migration is a recommendation by the World Bank (World Bank Report 2010). This, however, has proven to be more difficult than imagined. Policy makers in developing countries should heed the bold call by the International Council of Nurses (ICN) and the International Confederation of Midwives (ICM) to invest in nursing [12] and midwifery [13]. Salmon et al. [14] clearly outline a number of Caribbean approaches to addressing nursing services capacity in light of a 42%vacancy rate in the CARICOM region. The most well-known of these includes the St. Vincent Model. In St. Vincent the Government sought to establish bilateral agreements to receive compensation from institutions that recruit nurses from St. Vincent. The funds received were to be reinvested by the government to strengthen nursing training. Another option presented was the international nurses recruitment: health and tourism model. This model proposed utilizing the Caribbean as a tourist destination and recruiting nurses from developed countries to work in the Caribbean for 6–12 months. An analysis of these approaches is recommended.

The pandemic has, however, made it clearer that a broken health care system widens the breach leading to more disparities.

Lifting Nurse Practice Barriers

Capitalizing on the full potential of a nurse's education and training is a clear and definitive way to have a workforce that is responsive to patient needs [15, 16]. Using the exemplars of West Virginia, Kansas, New York City, and Japan this chapter emphasizes the need for the modernization of laws impacting APRNs. The chapter delves into a multicultural approach to charting a legal path to health equity. This is to be done through proactive regulatory promulgation of laws to allow APRNs to practice.

The recent impact of COVID-19 has catapulted some countries to ensure that nurses and midwives practice to the full extent of their education and training. On the other hand, Jamaica is one such country in which practice barriers significantly affect care delivery. Like Kansas and other states in the USA, Jamaica has had APRNs in its health care system since the 1970s, however, APRNs are yet to achieve prescriptive rights to enable them to practice to the full extent of their education and training. Contrary to the plight of APRNs there is current regulation in place to allow midwives to practice to the full extent of their education in Jamaica [17]. That said, existing models of midwifery care in the health sector place administrative and practice limits on the midwife, thus full practice is actually not being fully facilitated.

Critical partners in health care (law makers, policy makers, and other professionals) can work to meet the goal of health equity. It is the hope that Jamaica and other countries will use opportunities presented by the COVID-19 crises to see the need for collaboration rather than continuing to work in professional silos. The latter inevitably results in poor health outcomes and misses the goal of health equity for all.

Public Health Emergencies and Disaster Management

The dialogue on public health emergencies and disaster management in this book serves as a pivotal point for action. Appreciating the work of nurses and midwives in Jamaica is to understand the magnitude of the role of these professionals in keeping the country safe during emergencies. For example, the Expanded Programme on Immunization (EPI) was established in Jamaica in the 1970s [18]. The work in this area enabled Jamaica to be the recipient of the Henry C. Smith Immunization Award in 2007 and 2011. This is a prestigious award in the region given to the country making the most improvement in its EPI program [18]. Our nurses and midwives can best be described as "warriors in the moment." In Jamaica primary health care is seen as a path forward to help reduce disparities. We realize that if we cannot continually shore up our public health infrastructure, then we risk losing ground in access to care.

The reality of COVID-19 and its impact on nurses and midwives paints a picture of tremendous dedication in the face of adversity. The work and worth of these professionals were reinforced during the pandemic. In fact, 2022 marked the first time that Jamaica ever publicly recognized the work of health care providers and specifically that of nursing and midwifery professionals as having stood strong and weathered the storm of the pandemic. Many of the nurses and midwives had themselves fallen victims to the novel corona virus.

Final Words

The relationship between the global challenges of poverty, discrimination, unhealthy, and unsafe environments at the social level and access to health quality care on the other hand has been established. If we agree that health is a human right [19], then efforts at stabilizing the global health workforce must first start with attending to the critical needs of nurses and other health workers as the purveyors of safe, high quality, and compassionate care. It is my considered belief that in our current global context the profession of nursing sits on the cusps of significant and key changes in the health care landscape. These changes are occurring not only in developed countries like the USA but also in the rest of the international community. Schools of nursing, employers, and organizations in developing states who engage health professionals must consider how they may apply methods from the case studies to implement change. These changes have the great potential to narrowing the equity

gap that exists between groups, especially those impacted by socio-economic conditions like poverty.

As developing countries collectively look to the future of the professions of nursing and midwifery the time is right for a discussion and for action related to issues such as telehealth, research focusing on health equity and of great importance an evaluation of the regulatory response to the COVID-19 pandemic in small island states. Countries like Jamaica must assess any changes to nursing and midwifery education and practice within their jurisdiction in order to improve access to care generally and for dealing with future pandemics.

The future of nursing is in the hands of nurses! This book is indeed poised to meet the needs of educators, practitioners, and researchers and serves as an impetus for action for the future of nursing. There has never been a more important time to step up and follow the recommendations put forward in this book.

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