



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

The Evolving Role of Nurse Leadership in the Fight for Health Equity



Kristen M.J. Azar, RN, MSN/MPH, FAHA

Devastating disparities in COVID-19 infection and outcomes among socioeconomically marginalized groups have resulted in a public outcry to address longstanding societal inequities that have contributed to the present situation. Nurse leaders have an opportunity and an obligation in this moment to lend their skills as scientists, innovators, advocates, and educators to lead in these efforts, advancing health equity for all.

The year 2020 began with a celebration of nursing, coinciding with the bicentennial of Florence Nightingale's birth, and was declared the International Year of the Nurse and the Midwife by the World Health Organization (WHO).¹ It ended with the most destructive and life-altering global pandemic in modern history. The Sars-CoV-2 virus has claimed over 600,000 lives² in the United States alone and infected over 33 million worldwide. Devastating disparities in COVID-19 infection and outcomes among socioeconomically marginalized groups^{3,3} have resulted in a public outcry to address longstanding societal inequities that have contributed to the present situation.

Against this backdrop, it seems fitting that the National Academies of Science, Engineering, and Medicine (NAM) and Robert Wood Johnson Foundation recently released their joint report "The Future of Nursing 2020–2030: Charting a Path to Achieve Health Equity,"^{4,5} articulating the crucial role nurses are called to play in the advancement of health equity for all. Health equity has been defined as "the absence of systematic disparities in health (or in the major social determinants of health) between social groups who have different levels of underlying social advantage/disadvantage."⁴ It means that everyone has a fair and just opportunity to be as healthy as possible, which requires the removal of obstacles to health such as poverty, discrimination, and their consequences.⁶ While timely, this reinvigoration and call for action is not new. More than a decade ago, the WHO called for health equity for all with emphasis on the need to address the social determinants of health (SDOH).^{7,8}

As the nation undergoes a renewed commitment to ensuring health equity and combating the societal inequities, such as systemic racism, that give rise to health disparities, nurses are called to help lead the charge. As the largest health care profession in the United States,

with approximately 4 million registered nurses,⁹ nurses have much to offer as leaders in the fight for health equity and nurse leaders must have a seat at the decision-making table. Throughout the pandemic nurses have played a central role on the front lines—at the bedside, as scientists, advocates and as health care leaders. Yet, despite the crucial roles filled by nurses and their contributions to seeing our nation through this unprecedented disaster, the voices of nurse leaders were often absent at the highest levels of strategic public health and national response.¹⁰ The late addition of nurse Jane Hopkins, a nurse with over 20 years of experience at both the bedside and in health equity, to the White House Coronavirus Task Force in November 2020¹¹ underscores the need for nurse leaders to make their presence known¹² and also recognition of the unique perspectives and expertise nurses have to offer in public health crises and beyond.

Equity is a central tenet of nursing practice.^{13,14} If nursing is to realize the lofty goals set before it by the NAM, to chart a path to health equity for our patients, communities, and the nation; we must identify ways to amplify the voices of nurse leaders moving forward, reflecting on missed opportunities of the recent past. To do this, we must recognize and leverage the

KEY POINTS

- Nurse leaders play a crucial role in the nation's goal of achieving health equity for all.
- Nurse leaders are scientists, innovators, advocates, and educators, and often serve in multiple roles.
- Nurse leaders can take concrete actions to promote health equity regardless of their practice setting.

various roles nurse leaders currently play in advancing health equity as scientists, innovators, advocates, and educators.

NURSE LEADERS ARE SCIENTISTS

Nurses have been generating new knowledge through research for decades, independently leading clinical and public health research studies, and also working in partnership with scientists in other fields, such as pharmacy, nutrition, medicine, and engineering.^{15,16} Nursing research has a long history of advancing theoretical perspectives and research regarding health disparities.¹⁷⁻²¹ In May 2021, the National Advisory Council for Nursing Research issued recommendations for potential future National Institute of Nursing Research (NINR) focus areas that include dismantling structures that perpetuate racism and impede health equity, and using nursing science's multilevel perspective to develop and implement interventions to address SDOH across the lifespan.^{22,23} Over 75% of studies funded through the NINR involve clinical research, and 32% of NINR's funding supports research focused on eliminating health disparities.²⁴

With advances in health information technologies, nurse scientists are increasingly generating and using large and complex datasets for health services research. In recent years, the National Institutes of Health, including the NINR, have placed increasing emphasis on enhancing and integrating the data sciences into the health research enterprise.²⁵ This is especially relevant and timely given the dire need to consider the impact of social determinants on health equity. The socioeconomic consequences of the pandemic are severe and will have long-lasting effects, even as the pandemic abates.²⁶ These include a widening of existing disparities as a result of lack of mental health access, barriers to telehealth, greater barriers to health care overall, and income disparities. Nurse scientists are well positioned to leverage analytic skills independently and as members of multidisciplinary research teams to ask important questions to identify the causal mechanisms that perpetuate inequities with a lens and perspective that is unique to nursing.

To do this, they will need SDOH data. In 2014, the NAM (formerly Institute of Medicine) recommended SDOH information be collected within electronic health records (EHR).²⁷ In addition to analyses, nurse scientists can help to ensure the development and implementation of safe, effective, and ethical data systems, and clinical data collection procedures.²⁶ Nurses are often the keepers of important information about the social conditions affecting health for their patients,²⁸ in part because of the therapeutic relationship that is established. This experience can be used to inform ways to include this information within EHRs, in order to facilitate population health research and program development. Nurse scientists can use data

science to enhance the efforts to understand contributors to disparities and develop equitable and effective strategies to help individuals and caregivers manage, for example, chronic illness.²⁵

NURSE LEADERS ARE INNOVATORS

Post-pandemic, health equity work is entering a new era—one that is focused on solutions and change. To date, much work has been done to identify, with evidence, long-standing and persisting disparities. More recently, there has been more of an emphasis on the development and deployment of solutions that can produce real change toward achieving equitable health care outcomes for all. Nurse leaders are uniquely poised to aid in these efforts as well. Nurses have always been innovators and are responsible for innovations which include the crash cart, feeding tube, pediatric pain scale, and neonatal phototherapy.²⁹ The formal role of a nurse innovator has been described as cultivating and advocating for the development of concepts and processes that elevate health care,³⁰ and roles are emerging in health-care systems and private industry for nursing innovation specialists and officers.²⁹ Additionally, nurse innovators build partnerships with other health care professionals and institutions for collaborative work involving interdisciplinary and multidisciplinary team members across the disciplines of engineering, design, and medicine.

Over the past decade, numerous initiatives have emerged, all intended to catalyze nurse-led innovations. Examples include the Johnson & Johnson-sponsored initiative to support nurse-led innovation, “J&J Innovation 101,” highlights the potential for nurses to lead in the development of new models of care, safety practices, more efficient processes, as well as innovations that tackle social challenges to improve patient outcomes.³¹ In 2016, members of the 2014 Robert Wood Johnson Executive Nurse Fellow Cohort produced “The Innovation Road Map: A Guide for Nurse Leaders,” with the intention of equipping nurse leaders with the means to introduce innovation into their practice settings and organizations.³² The guide articulates the characteristics and components of innovation, emphasizing the necessity of divergent thinking, risk taking, failure tolerance, agility, and autonomy to make change.³²

In 2018, the American Nurses Association (ANA) established an annual “Innovation Award” aiming to highlight, recognize, and celebrate nurse-led innovation that improves patient safety outcomes.³³ The awards are presented to a nurse or a nurse-led team whose product, program, project, or practice best exemplify nurse-led innovation in patient safety and/or outcomes. The recently revamped website affirms the ANA's stated dedication to building a culture of innovation across the nursing profession.³³ The initiative seeks to connect nurses with educational and aspirational content, and events, and even has an

accompanying podcast³³ dedicated to inspiring nurse-led innovation. Nurse leaders can seize these opportunities to contribute to innovations that will advance the science of health equity as well as incubate novel and effective health equity solutions.

NURSE LEADERS ARE ADVOCATES

Americans have rated nurses as the most ethical and honest profession, according to the most recent Gallup poll,³⁴ for the 19th year in a row.³⁵ Nurses have been the number 1 ranking profession since the inception of the Gallup list in 1999 with the exception of 1 year, and the most recent 2020 poll revealed record setting numbers, where 89% of Americans rated nurses' honesty and ethical standards as "high" or "very high."³⁵ Given the public's trust in nursing, nurse leaders have an obligation to be good stewards of that trust, serving as healers as well as advocates.

Nurses are called to be advocates by virtue of our profession, and advocacy is a standard of practice for public health nursing.³⁶ In 2014, The Association of Public Health Nurses (APHN) established a Health Equity and Social Justice Committee for the purposes of updating the Association's position on these important principles in order to continue to provide guidance to practicing public health nurses.¹⁵ APHN defines health equity as "an ideal state marked by fairness and the achievement of optimal health and well-being for all populations, where disparities in health status are eliminated across populations by race, ethnicity, gender, gender identity, geography, disability, religion, sexual [orientation] and mental status."¹⁵ Public health nurse leaders often find themselves in roles that compel them to communicate information about communities, including the importance of language and culture, to policy makers in a way that catalyzes strategic mobilization to improve the health status of people living in those communities.¹⁵

In January 2021, President Biden and Vice President Harris released a National Strategy and COVID-19 Health Equity Task Force specifically aimed at addressing COVID-19-related health and social inequities.³⁷ A nurse, Mary Turner, was named as 1 of the 12 task force members to contribute to policy development intended to address COVID-19-related inequities. While this is a step in the right direction, it is imperative that nurses continue to embrace their potential to advocate and lead in times of public health crises such as the health equity crisis that will persist long after the COVID-19 pandemic abates. Nurse leaders must confidently assert themselves on matters of health policy, extending the role of patient advocate beyond the bedside and into the community.

NURSE LEADERS ARE EDUCATORS

Nursing faculty carry the important responsibility of ensuring that tomorrow's nurses and nurse researchers

are ready to care for and conduct research with diverse and sometimes marginalized or vulnerable populations. In 2018, although 19.3% of nurses completed graduate school training, only 1.9% of the nation's registered nurses held a doctoral degree as their highest educational preparation,³⁸ and the current demand far exceeds supply.^{9,39} According to the American Association of Colleges of Nursing report on 2019-2020 Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing, nursing schools in the United States (U.S.) turned away more than 80,000 qualified applications from baccalaureate and graduate nursing programs in 2019 due in part to an insufficient number of faculty and the majority of respondents identified faculty shortages as a top reason for not accepting all qualified applicants into their programs.⁹ This shortage has prompted multiple efforts to increase support for more nursing faculty to meet demand.⁹

More than a decade ago, nursing education experienced a refocusing of efforts from training alone to education that incorporates health disparities and SDOH.⁴⁰ Given the recognized and central role racism, stereotyping, segregation, and classism play in health equity and SDOH, nurse educators must address through nursing training the complex relationships that exist between the individual, interpersonal, institutional, social, and political factors that influence health.⁴⁰ Strategies to promote cultural humility⁴¹ and community-based participatory methods play a key role in continued progress and future efforts to realize the role of nursing in advancing health equity. Towards this end, nurse educators must support, foster, and broaden these opportunities.

In addition to training upcoming generations of nurses and nurse scholars, nurse leaders are called to critically assess and combat institutionalized racism within the nursing profession itself.⁴² Recent statistics reported in the Health Resources and Services Administration National Sample Survey of Registered Nurses,³⁸ reveal that the nursing population in the U.S. consists of 10.2% Hispanic, 7.8% Black, 5.2% Asian, and 0.3% American Indian/Alaska Native nurses. By contrast, the race/ethnic distribution of the US population, based on the 2020 Census, is 18.5% Hispanic or Latino, 13.4% Black, and 5.9% Asian.⁴³ Additionally, according to the most recent National Nursing Workforce Survey performed by the National Council of State Boards of Nursing, while the proportion of male nurses has increased to 9% compared to just 2% in 1970⁴⁴, it continues to reflect an opportunity for diversification of the profession. Nurse leaders, especially in education, have a crucial role to play in diversifying the nursing workforce and, in doing so, ensuring diversity in nurse leadership for the future. Some recommendations for how nurse leaders may facilitate this include strengthening a commitment by

nurse leadership in academia and nursing schools to increase the diversity within the nursing workforce by implementing and evaluating innovative recruitment strategies.⁴²

WHAT NURSE LEADERS CAN DO TODAY TO ADVANCE HEALTH EQUITY

Nurse leaders have an undeniable opportunity to lead the way on the path towards achieving health equity for all. Regardless of the specific leadership role(s), nurse leaders can take tangible steps to move the nation towards this goal. For example, nurse scientists can ensure SDOH are not only present in the EHR but also that the information is utilized for improving care and care outcomes. Nurse innovators can use patient information and an understanding of patient experience to identify and develop new solutions to address inequities in health care both within clinical settings and communities. As advocates, nurse leaders must be active in local and national legislative discussions to ensure that nursing's voice is heard, and unique perspectives are shared. Finally, nurse educators and administrators of nursing schools have an opportunity to remove barriers to nursing education for students from socioeconomically disadvantaged groups. Further, leaders in nurse education can prioritize the creation and integration of educational content intended to reduce racism and other forms of systemic discrimination.⁴²

CONCLUSION

Nurse leaders are scientists, innovators, advocates, and educators—and often a combination of many or all of these roles. As such, now is the time to realize our full potential as leaders and change-makers toward advancing health equity for all.

REFERENCES

1. World Health Organization. Year of the Nurse and the Midwife 2020. World Health Organization Web site; 2020. Available at: <https://www.who.int/campaigns/annual-theme/year-of-the-nurse-and-the-midwife-2020>. Accessed June 18, 2021.
2. Centers for Disease Control and Prevention. COVID Data Tracker Weekly Review. Centers for Disease Control and Prevention Web site; 2021. Available at: <https://covid.cdc.gov/covid-data-tracker/#datatracker-home>. Accessed June 18, 2021.
3. Reitsma MB, Claypool AL, Vargo J, et al. Racial/ethnic disparities in COVID-19 exposure risk, testing, and cases at the subcounty level in California. *Health Aff (Millwood)*. 2021;40(6):870-878.
4. Braveman P, Gruskin S. Defining equity in health. *J Epidemiol Community Health*. 2003;57(4):254-258.
5. National Academies of Sciences, Engineering, and Medicine. *The Future of Nursing 2020-2030: Charting a Path to Achieve Health Equity*. Washington DC: National Academies Press; 2021.
6. Braveman P, Arkin E, Orleans T, Proctor D, Plough A. What Is Health Equity? Robert Wood Johnson Foundation; 2017. Available at: <https://www.rwjf.org/en/library/research/2017/05/what-is-health-equity-.html>. Accessed June 19, 2021.
7. World Health Organization. *Closing the Gap in a Generation: Health Equity Through Action on the Social Determinants of Health*. Geneva, Switzerland: World Health Organization (WHO) Press; 2008.
8. World Health Organization. Social Determinants of Health. World Health Organization Web site; 2021. Available at: https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1. Accessed June 18, 2021.
9. American Association of Colleges of Nursing. Nursing Fact Sheet. American Association of Colleges of Nursing Web site; 2019. Available at: <https://www.aacnnursing.org/news-Information/fact-sheets/nursing-fact-sheet>. Accessed June 19, 2021.
10. Kiger AJ. Voiced without volume: was the voice of nursing missing from the COVID-19 pandemic? *Nurse Leader*. 2021;19(3):255-258.
11. Brusie C. Nurse Jane Hopkins Joins Biden's COVID-19 Advisory Board. 2020. Available at: <https://nurse.org/articles/biden-covid-task-force-needs-nurses/>. Accessed June 19, 2021.
12. Brown T. Nurse Added to President-Elect Biden's COVID Task Force! We Won! 2020. Available at: <https://www.change.org/p/president-elect-joe-biden-biden-transition-team>. Accessed June 19, 2021.
13. Rooddehghan Z, ParsaYekta Z, Nasrabadi AN. Equity in nursing care: a grounded theory study. *Nurs Ethics*. 2019;26(2):598-610.
14. American Nurses Association. View the Code of Ethics for Nurses. American Nurses Association Web site; 2015. Available at: <https://www.nursingworld.org/practice-policy/nursing-excellence/ethics/code-of-ethics-for-nurses/>. Accessed June 19, 2021.
15. Association of Public Health Nurses. Position Paper: The Public Health Nurse's Role in Achieving Health Equity: Eliminating Inequalities in Health. Association of Public Health Nurses Web site; 2016. Available at: https://www.health.state.mn.us/communities/practice/resources/equitylibrary/docs/2015_APHN-The-Public-Health-Nurse-s-Role-in-Achieving-Health-Equity.pdf. Accessed June 18, 2021.
16. Sullivan-Marx E. Nurses Are Also Scientists. 2021. Available at: <https://www.scientificamerican.com/article/nurses-are-also-scientists/>. Accessed June 18, 2021.
17. Yanicki SM, Kushner KE, Reutter L. Social inclusion/exclusion as matters of social (in)justice: a call for nursing action. *Nurs Inq*. 2015;22(2):121-133.
18. Henly SJ. Global migrations, ethical imperatives for care, and transcultural nursing research. *Nurs Res*. 2016;65(5):339.
19. Leininger M. Culture care theory, research, and practice. *Nurs Sci Q*. 1996;9(2):71-78.
20. Leininger M. Culture care theory: a major contribution to advance transcultural nursing knowledge and practices. *J Transcult Nurs*. 2002;13(3):189-192. discussion 200-181.
21. Kneipp SM, Schwartz TA, Drevdahl DJ, et al. Trends in health disparities, health inequity, and social determinants of health research: a 17-year analysis of NINR, NCI, NHLBI, and NIMHD funding. *Nurs Res*. 2018;67(3):231-241.
22. Zenk SN, National Institute of Nursing Research. Director's Message: The Future of Nursing Science. 2021. Available at: <https://www.ninr.nih.gov/aboutninr/directors-message>. Accessed June 19, 2021.
23. Grason J, Conley Y, Barr T, et al. *National Institute of Nursing Research Strategic Plan Working Group Draft Framework for 2022-2026*. NINR; 2021. 2020. https://www.ninr.nih.gov/sites/files/docs/strategic_planning_working_group_framework_report_051021_v1_508c.pdf. Accessed June 19, 2021.
24. National Institute of Nursing Research. Mission & Strategic Plan: NINR Strategic Plan (2022-2026) – Under Development. 2021. Available at: <https://www.ninr.nih.gov/aboutninr/ninr-mission-and-strategic-plan>. Accessed June 19, 2021.

25. National Institute of Nursing Research. Advancing Nursing Research Through Data Science. 2021. Available at: <https://www.ninr.nih.gov/researchandfunding/datascience>. Accessed June 19, 2021.
26. Pickler RH, Abshire DA, Chao AM, et al. Nursing science and COVID-19. *Nurs Outlook*. 2020;68(5):685-688.
27. Institute of Medicine, Board on Population Health and Public Health Practice, Committee on the Recommended Social and Behavioral Domains and Measures for Electronic Health Records. *Capturing Social and Behavioral Domains in Electronic Health Records: Phase 1*. Institute of Medicine Web site; 2014. Available at: <https://www.nap.edu/catalog/18709/capturing-social-and-behavioral-domains-in-electronic-health-records-phase>. Accessed June 19, 2021.
28. Pauly BM, MacKinnon K, Varcoe C. Revisiting "Who gets care?": health equity as an arena for nursing action. *ANS Adv Nurs Sci*. 2009;32(2):118-127.
29. Spader C. The New Normal: Nurses as Innovators. American Nurse Association. American Nurse Web site; 2020. Available at: <https://www.myamericannurse.com/the-new-normal-nurses-as-innovators/>. Accessed June 19, 2021.
30. University of Louisiana at Lafayette. What Is a Nurse Innovator? 2020. Available at: <https://degree.louisiana.edu/online-programs/nursing/rn-to-bsn/what-is-nurse-innovator/>. Accessed June 19, 2021.
31. Johnson & Johnson. Innovation 101. Johnson & Johnson Nursing Web site; 2021. Available at: <https://nursing.jnj.com/innovation-101>. Accessed June 19, 2021.
32. Cianelli R, Clipper B, Freeman R, Goldstein J, Wyatt TH. The Innovation Road Map: A Guide for Nurse Leaders. 2016. Available at: <https://www.nursingworld.org/globalassets/ana/innovations-roadmap-english.pdf>. Accessed June 19, 2021.
33. ANA Enterprise. ANA Enterprise Innovation. American Nurses Association Innovation Web site; 2021. Available at: https://www.nursingworld.org/innovation/?utm_campaign=301410%202021%20Innovation%20Newsletter&utm_source=email&utm_medium=PCimage&utm_content=ANA%20Innovation%20Newsletter%20April. Accessed June 19, 2021.
34. Saad L. U.S. Ethics Ratings Rise for Medical Workers and Teachers. Gallup Web site; 2020. Available at: <https://news.gallup.com/poll/328136/ethics-ratings-rise-medical-workers-teachers.aspx>. Accessed June 19, 2021.
35. Gaines K. Nurses Ranked Most Trusted Profession 19 Years in a Row. 2021. Available at: <https://nurse.org/articles/nursing-ranked-most-honest-profession/>. Accessed June 19, 2021.
36. American Nurses Association. *Public Health Nursing: Scope & Standards of Practice. 2nd Edition*. Silver Spring, MD: American Nurses Association; 2013.
37. Psaki J. President Biden Announces Members of the Biden-Harris Administration COVID-19 Health Equity Task Force. White House Press Briefings Web site; 2021. Available at: <https://www.whitehouse.gov/briefing-room/press-briefings/2021/02/10/president-biden-announces-members-of-the-biden-harris-administration-covid-19-health-equity-task-force/>. Accessed June 19, 2021.
38. U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. 2018 National Sample Survey of Registered Nurses. 2019. Available at: <https://bhwh.hrsa.gov/sites/default/files/bureau-health-workforce/data-research/nssrn-summary-report.pdf>. Accessed June 19, 2021.
39. Smiley RA, Lauer P, Bienemy C, et al. The 2017 National Nursing Workforce Survey. *J Nurs Regul*. 2018;9(3 suppl):S1-S54.
40. Deatrck JA, Lipman TH, Gennaro S, et al. Fostering health equity: clinical and research training strategies from nursing education. *Kaohsiung J Med Sci*. 2009;25(9):479-485.
41. Tervalon M, Murray-Garcia J. Cultural humility versus cultural competence: a critical distinction in defining physician training outcomes in multicultural education. *J Health Care Poor Underserved*. 1998;9(2):117-125.
42. Nardi D, Waite R, Nowak M, Hatcher B, Hines-Martin V, Stacciarini JR. Achieving health equity through eradicating structural racism in the United States: a call to action for nursing leadership. *J Nurs Scholarsh*. 2020;52(6):696-704.
43. United States Census Bureau. Quick Facts. 2021. Available at: <https://www.census.gov/quickfacts/fact/table/US/PST045219>. Accessed June 19, 2021.
44. National Council of State Boards of Nursing. National Nursing Workforce Study. 2021. Available at: <https://www.ncsbn.org/workforce.htm>. Accessed June 19, 2021.

Kristen M.J. Azar, RN, MSN/MPH, FAHA, serves as the scientific medical director of the Sutter Health Institute for Advancing Health Equity in California (www.sutterhealth.org/about/health-equity), is a research scientist within Sutter Health's Research Enterprise in Sacramento, California, and a doctoral student at the Department of Epidemiology and Biostatistics, University of California, in San Francisco, California. She completed her nursing education at the Johns Hopkins University School of Nursing and public health training at the Johns Hopkins Bloomberg School of Public Health. She can be reached at azark@sutterhealth.org.

Note: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

1541-4612/2021/\$ See front matter
Copyright 2021 Published by Elsevier.
<https://doi.org/10.1016/j.mnl.2021.08.006>