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PREPARING THE NURSING WORKFORCE FOR FUTURE PUBLIC HEALTH CHALLENGES



National Advisory Council on
Nurse Education and Practice

18th Report

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National Advisory Council on Nurse Education and Practice
18th Report to the Secretary of Health and Human Services and the U.S. Congress

January 2023

The views expressed in this report are solely those of the National Advisory Council on Nurse Education and Practice and do not represent the perspectives of the Health Resources and Services Administration nor the United States Government.

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The National Advisory Council on Nurse Education and Practice

The Secretary of Health and Human Services (HHS) and, by delegation, the Administrator of the Health Resources and Services Administration (HRSA), are charged under Title VIII of the Public Health Service Act, as amended, with responsibility for a wide range of activities in support of nursing education and practice including: enhancement of the composition of the nursing workforce; improvement of the distribution and utilization of nurses to meet the health needs of the nation; expansion of the knowledge, skills, and capabilities of nurses to enhance the quality of nursing practice; development and dissemination of improved models of organization, financing, and delivery of nursing services; and promotion of interdisciplinary approaches to the delivery of health services, particularly in the context of public health and primary care.

Authority

Authority is granted through section 851 of the Public Health Service Act, as amended (42 U.S.C. 297t). The Council is governed by provisions of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 1-16), which sets forth standards for the formation and use of advisory committees.

Function

The National Advisory Council on Nurse Education and Practice (NACNEP, or the Council) advises and makes recommendations to the Secretary and Congress on policy matters arising in the administration of Title VIII, including the range of issues relating to the nurse workforce, nursing education, and nursing practice improvement. The Council may make specific recommendations to the Secretary and Congress regarding programs administered by the Division of Nursing and Public Health, particularly within the context of the enabling legislation and the Division's mission and strategic directions, as a means of enhancing the health of the public through the development of the nurse workforce.

Additionally, the Council provides advice to the Secretary and Congress in preparation of general regulations and with respect to policy matters arising in the administration of this title including the range of issues relating to nurse supply, education, and practice improvement.

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Executive Summary

The COVID-19 pandemic has highlighted the central role of the nursing profession in the nation's emergency response. As the largest group of health care professionals, nurses have taken their place front and center caring for patients with COVID-19 while maintaining access to care for others, supporting efforts to slow the spread of the coronavirus, and promoting measures to keep themselves, their co-workers, and their patients safe. The rapid and unpredictable changes to the health care environment throughout the course of the COVID-19 pandemic have exacted a toll on both the current nursing workforce and the schools of nursing preparing the next generation of nurses, while exacerbating existing stresses in the health care system. The nursing workforce must remain well-prepared to respond during all public health emergencies.

The pandemic has also revealed the lack of investment in public health infrastructure in general, and public health nursing in particular. This underfunding has placed enormous stress on the current nursing workforce, as well as nursing faculty and students. Increasing the pipeline of nurses into public health practice requires strengthening the capacity of both faculty *and* clinical preceptors in the areas of public health and population health, expanding the number of nurses prepared to address public health needs, and supporting resilience among the current workforce, new learners, and nurse educators, faculty, and preceptors. Programs should be developed that use creative academic partnership models or residency and fellowship options. However, these kinds of programs will require sustainable funding models to support the training and build the capacity of future public health nurses.

Current nursing workforce data do not adequately reflect the public health nursing workforce distribution and needs. Additional data are needed to determine the full role of public health nurses in the health care system, down to the level of local health departments. Funding should be directed for data collection and analysis to capture workforce and education needs for public health nurses. This data could inform the work of a public health summit, bringing together nursing leaders and leaders of other institutions and organizations that are working to improve public health and build public health nursing capacity.

In its 2021 advisory letter, the National Advisory Council on Nurse Education and Practice (NACNEP) urged the Secretary of Health and Human Services to bolster federal efforts to mitigate stressors on the nursing workforce and invest in primary care efforts to improve health care access. This report from NACNEP outlines further recommendations to support retention, replenishment, and expansion of the public health nursing workforce to prepare for future public health emergencies, with a focus on two central themes:

- **Improving Nursing Education to Advance Public Health Nursing:** These recommendations are aimed at maximizing the number of nurses who have the necessary competencies to pivot into public health oriented nursing practice in the event of a public health emergency.
- **Supporting Public Health and Public Health Nursing:** These recommendations are aimed at providing longer term support to recruit, retain, and expand the public health nursing workforce, and to generate strategic priorities to build an interprofessional consensus regarding public health nursing.

NACNEP 18th Report Recommendations

Improving Nursing Education to Advance Public Health Nursing

Recommendation 1:

The U.S. Congress, through the Department of Health and Human Services and the Department of Education, should allocate funding to create educational pathways within academic nursing programs that will enhance and expand the public health nursing workforce, and address the broader needs of the nursing workforce in public health competencies.

Recommendation 2:

The U.S. Congress should fund public health nursing workforce development, specifically continuing education, to support enhancement of nurses with public health competencies including but not limited to emergency preparedness and response. Funding should support all nurses, including faculty, preceptors, and frontline nursing professionals, and should encompass training events and the time away from practice to participate in training.

Recommendation 3:

The U.S. Congress should allocate specific funding for the Department of Health and Human Service and the Health Resources and Services Administration to develop and enhance faculty education in public health nursing, to increase the number and enhance the expertise of nurses prepared to teach public health competencies and lead public health initiatives.

Recommendation 4:

The U.S. Congress should allocate sustainable funding for the establishment and continuation of post-graduate public health education programs (e.g., entry-level nursing residencies and advanced-level nursing fellowships) that address public health competencies and leadership strategies.

Supporting Public Health and Public Health Nursing

Recommendation 5:

The U.S. Congress should allocate funding for scholarships, loan forgiveness, and public health role support for entry-level or advanced-level nurses interested in or currently employed in public health as a mechanism to support recruitment and retention efforts within the public health nursing workforce, particularly in medically underserved and critical need areas.

Recommendation 6:

The Department of Health and Human Services should support and convene within the next year a summit of diverse and representative public health organizations, foundations, schools of nursing, and others to delineate the required leadership, training, and professional development required to advance the field of public health nursing.

Recommendation 7:

The U.S. Congress and the Department of Health and Human Services should prioritize funding to establish and expand data collection initiatives that characterize the public health nursing workforce needs.

Preparing the Nursing Workforce for Future Public Health Challenges

The ongoing COVID-19 pandemic has highlighted the central role of the nursing profession in the nation's emergency response – registered nurses (RNs) adapted to rapidly elevating risks and changing workplace demands to provide care and promote safety, while advanced practice registered nurses (APRNs) demonstrated remarkable adaptability and flexibility in taking on expanded roles in a crisis. As the largest group of health care professionals, nurses across all levels of education and practice settings have been front and center caring for patients with COVID-19 while maintaining access to care for others, supporting efforts to slow the spread of the coronavirus, providing accurate and trusted health information, promoting access to vaccines and other preventive measures, and keeping themselves, their co-workers, and their patients safe. As highlighted by the challenges of the pandemic, the nursing workforce must remain well-prepared to respond during all public health emergencies, including pandemics and other infectious disease outbreaks, natural or man-made disasters, intractable issues such as the opioid epidemic, or other surge events.

Nurses face ongoing issues of demoralization, moral distress, and ethical dilemmas.

The National Advisory Council on Nurse Education and Practice (NACNEP) notes that the rapid and unpredictable changes to the health care environment during the COVID-19 pandemic have exacted a toll on both the current nursing workforce and the schools of nursing preparing the next generation of nurses, while exacerbating existing stresses in the health care system. The pandemic has revealed the systemic challenges facing public health care and the specialty of public health nursing and laid bare health inequities within the United States that the nursing profession needs better preparation to address.

In 2021, Health Resources and Services Administration (HRSA) conducted listening sessions focused on the nursing workforce during the COVID-19 pandemic and in the post-pandemic period, with several NACNEP members in attendance. HRSA received critical feedback from practicing nurses and nurse leaders across the country:

- Nurses face ongoing issues of demoralization, moral distress, and ethical dilemmas.
- Rapid changes within the health care system and concerns over workplace safety resulting from the pandemic and the ongoing response have led to stress and burnout. Many nurses are leaving jobs involving direct patient care, or are considering leaving the profession all together.
- An exodus of nurses will create a critical void of experience and expertise, worsening health care access and creating a potential crisis in public health.
- Because of restricted access to acute care clinical sites for training, nursing students may be entering practice with inadequate preparation.
- Nursing needs to have more seats at the table in leadership roles.

In an advisory letter to the Department of Health and Human Services (HHS) on the development of the Department's post-pandemic Health Workforce Strategic Plan, NACNEP (2021) urged HHS Secretary Xavier Becerra to bolster federal efforts to:

- Mitigate stressors associated with the expectations placed on frontline nurses in providing patient care during the COVID-19 pandemic which threaten to bring an increase in turnover and burnout, thereby destabilizing the nursing workforce.
- Prepare and deploy a diverse health care workforce that reflects the communities it serves to address health disparities and promote health equity.
- Engage diverse stakeholders to maximize the impact of HRSA investments and help HRSA programs adapt to the changing health care environment.
- Invest in primary care efforts in the community to improve both the access to and the quality of primary care.
- Strengthen and equitably distribute the public health workforce to promote a strong, capable, agile, and globally informed response to public health concerns and emergencies.

NACNEP is not alone in calling for efforts to support and enhance the nursing workforce and address an already challenging shortage of nurses, nurse faculty, and preceptors. In September 2021, the American Nurses Association (ANA, 2021a) issued a letter urging HHS and the HHS Secretary "to acknowledge and take concrete action to address the current crisis-level nurse staffing shortage that puts nurses' ability to care for patients in jeopardy." In the accompanying press release, ANA President Ernest Grant, PhD, RN, FAAN, stated that "the nation's health care delivery systems are overwhelmed, and nurses are tired and frustrated as this persistent pandemic rages on with no end in sight. Nurses alone cannot solve this longstanding issue." (ANA, 2021b).

This report from NACNEP specifically outlines recommendations to support retention, replenishment, and expansion of the public health nursing workforce to address future public health emergencies. The recommendations from NACNEP offered in this report address to these central themes:

- Improving Nursing Education to Advance Public Health Nursing.
- Supporting Public Health and Public Health Nursing.

Many of the recommendations in this report echo recommendations from prior NACNEP reports. NACNEP urges action on these recommendations to address the challenges presented by the pandemic and its impact on the nursing workforce, and improve the ability of the health care system to handle current, new, and emergent public health challenges.

Impact of the COVID-19 Pandemic on the Nursing Workforce

During the pandemic, nurses remained frontline workers, innovators, and tireless providers of health care to those in need. In facing these challenges, nurses demonstrated commitment, creativity, and innovation to support care delivery. However, nurses’

The pandemic has exacerbated existing problems of nurses leaving the workforce due to retirement, exhaustion, fear, moral distress, and perceived lack of support by the healthcare system.

ability to have some control over their practice environment to support delivery of safe and effective professional nursing care has become untenable, resulting in risks to provider safety, physical and emotional exhaustion, and moral distress. Nurse staffing in the quickly evolving nature of the pandemic challenged nurse leaders to create dynamic, flexible solutions to allocating nurse resources to meet patient care needs (Phillips, LaFond, Stifter, et al, 2021).

The International Council of Nurses (ICN) noted emerging evidence that the pandemic was causing “mass trauma” among nurses due to high patient mortality, occupational burnout, inadequate availability of personal protective equipment (PPE), fear of spreading the disease to family members and loved ones, and even violence and discrimination against nurses amid virus disinformation. The ICN noted that the trauma resulting from the pandemic could potentially impact the nursing workforce for generations to come if left unaddressed (ICN, 2021).

The longstanding nursing shortage has worsened during the pandemic because of the emotional, physical, and moral challenges nurses have faced. Further degradation of the practice environment across all care settings resulted from lack of sufficient staffing, essential supplies such as personal protective equipment, and viable treatment options. Thus, the pandemic has exacerbated existing problems of nurses leaving the workforce due to retirement, exhaustion, fear, moral distress, and perceived lack of support by the healthcare system.

Trends in nursing employment

The nursing workforce is experiencing a period of instability. The pandemic forced many nurses to explore leaving the profession. A recent survey of five thousand nurses on the impact of the pandemic (Raso, Fitzpatrick, & Masick, 2021) found that over 30 percent of nurses in direct patient care positions indicated a potential intent to leave their position. This intention to leave was highest among nurses with more than 25 years of experience. Sheppard, et al (2022) found that the moral distress experienced by nurses during the pandemic from work stress, physical and mental fatigue, and patient care demands contributed to intent to leave the profession. Loss of experienced nurses, coupled with an influx of new nurses lacking appropriate training and guidance, can have long lasting impacts on quality of care as well as nurse staff retention. These trends are not limited to nurses practicing in acute care environments.

Buerhaus, et. al. (2022) examined employment data of the U.S. nurse workforce in the first fifteen months of the pandemic and found a large drop in employment of nursing personnel across care settings in early 2020. Unemployment rates were higher among non-hospital settings

and among racial and ethnic minorities. Long-term care facilities have experienced a continuing decline in employment of nursing. The impact of insufficient staffing in these settings threatens the health and well-being the nation's aging and vulnerable populations.

Furthermore, the American Association of Colleges of Nursing (AACN, 2021) reported that current enrollment in nursing schools, although growing, is insufficient to meet the projected demand for nursing services, and nursing schools are “struggling expand capacity to meet the rising demand for care.” High turnover, low retention, and low enrollment do not bode well for the resilience and replenishment of the nursing workforce. A study by Auerbach, et al, (2022) found that the supply of RNs fell by almost 100,000 from 2020 to 2021, the largest one-year decrease in over 40 years, with the decline led by nurses under 35 years of age.

In other ways, market forces of supply and demand have resulted in nurses leaving full-time, permanent staff positions for higher-paying, temporary positions as “travel nurses.” Hospitals, especially in rural areas, have felt the brunt of these market forces at work. While many nurses may seek higher compensation for their work and expertise, they not necessarily realizing better working conditions to support their nursing practice. Provision of acute care nursing services cannot be sustained in a system of temporary front line providers resulting in distress and inequalities for other health care providers and unsustainable financial stress to health systems.

In a 2017 report, the HRSA National Center for Health Workforce Analysis (NCHWA) projected the national nurse workforce to grow by 795,700 full-time equivalents between 2014 and 2030, based on pre-pandemic health care utilization patterns (NCHWA, 2017). According to the Bureau of Labor Statistics (2022), employment of registered nurses was projected to grow by around 6 percent from 2021 to 2031, about as fast as the average for all occupations. However, these data do not account for the impact of the pandemic on the nursing workforce over the last two years, and level of replenishment that will be needed.

Changes to practice laws during the pandemic

The COVID-19 pandemic has created the need for substantial investments to support both the education of nurses as well as structural changes to our system that can improve nurses' ability to practice at their fully licensed scope, and shape and control their practice environment. Due to new demands on APRNs, there was an acceleration of changes to nursing practice across the country. Some of these regulatory changes provided an expansion of the authority of APRNs to practice more independently and contribute to health care access at the height of the crisis. APRNs were vital in providing lifesaving care during the pandemic in hospitals, clinics, and community settings (Stucky, Brown & Stucky, 2020).

At the federal level, President Biden established the Public Health Workforce Program in 2021, which provided directions in dealing with the pandemic, mobilizing personnel, establishing a budget, and collaborating with the Public Health Service Commissioned Corps. Along with changes to Medicare reimbursement for provision of services using telehealth modalities, the National Compact for Telehealth Reimbursement accelerated the use of telehealth by nurses across all care settings. The pandemic also provided added support for the APRN Campaign for Consensus, the movement for the full scope of practice for APRNs across the country. The nurse

e-notify system was created to speed up nurse licensing times. The effect of these policy changes on practice should be examined to evaluate whether regulatory changes such as those affecting advanced practice nurses and use of telehealth should be permanently codified.

Impact of the COVID-19 Pandemic on Nursing Education

The pandemic not only wreaked havoc on practice environments but required nursing education programs to develop new and innovative strategies to support ongoing education of future nursing professionals, especially in the first year of the pandemic when many clinical environments could no longer support in-person practicum experiences. Restrictions arising from the pandemic response forced nurse educators to identify creative solutions to address the inability to conduct face-to-face didactic teaching, and to compensate for the loss of in-person clinical placement options. As noted by Gazza (2022),

We need greater investment to help ensure that all nurses are well prepared to respond during any national public health crisis.

the pandemic disrupted working conditions in nursing education, as nursing faculty and preceptors confronted chaotic and unplanned changes in the wake of the closing of college campuses for in-person instruction and the closing of acute care sites for clinical training. Klar (2020) noted the rapid shifts required by educators to move the educational environment on-line in a matter of days, and the challenges experienced by both faculty and students. Meanwhile, newly graduated nurses facing the unaccustomed challenges in the transition to the rapidly shifting work environment reported experiencing fear, anxiety, and uncertainty (Kovanci, & Atlı Özbaş, 2022). These educational impacts have placed stress on both nursing faculty and students. As the nation moves through the pandemic, solutions with greater breadth and depth will be necessary to ensure that academic nursing is well prepared to enhance the pipeline of RNs and APRNs to manage the national healthcare needs of the future.

Beyond the challenges faced by nurse educators in having to pivot to online and other modalities during the pandemic, the need to attract and retain nursing faculty and provide mechanisms to support nurses who serve as clinical preceptors has worsened. As highlighted in the NACNEP 17th Report on the nurse faculty shortage (NACNEP, 2021), substantial investment in high quality nursing education will be necessary to increase the pipeline of nurses into profession, create sufficient infrastructure to prepare and support nursing faculty and clinical preceptors with skills to prepare future nurses to effectively promote health equity, and prepare the next generation of nurses to respond to future public health emergencies.

Preparing nurses to address public health challenges

Many of the nation's nurse leaders have advocated for a stronger emphasis on public health preparedness in nursing education and have taken steps to identify gaps in nursing knowledge and preparedness. A review of the literature revealed large gaps in nursing knowledge regarding emergency preparedness and workforce development, variations in educational content in nursing curricula, and low perceived competency regarding emergency preparedness among nursing students, practicing nurses and nurse leaders (National Academy of Sciences,

Engineering and Medicine [NASEM], 2021). Kellogg, Schierberl Scherr & Ayotte (2021), found the experiences of nurses working in the midst of the pandemic fell into common themes of feeling overwhelmed and helpless, feeling distress of patient deaths and the lack of family present, difficulties with access to and the use of PPE, and overall lack of preparedness for providing patient care in pandemic conditions. In addition, results from an ANA survey of over 32,000 nurses across the U.S. found that only 11 percent of respondents felt well prepared to care for a patient with COVID during the pandemic. (ANA, 2020). These findings underscore the need to ensure that all nurses, including nurse leaders, have the necessary knowledge, skills and competencies needed to respond during any public health crisis.

Education provides the foundation for strengthening and expanding the public health nursing workforce. A 2020 report by Johns Hopkins University, *Recommendations for Improving National Nurse Preparedness for Pandemic Response: Early Lessons from COVID-19*, found that “schools of nursing should develop robust metrics for evaluating nurse preparedness, which should be implemented across academic and life-long learning programming” (Veenema, Meyer, Bell, et al, 2020, p. 4). Additional educational pathways with greater breadth and depth in public health nursing are necessary to ensure that the pipeline of RNs and APRNs can manage national healthcare needs of the future.

The AACN has revised its core competencies for professional nursing education to include a stronger focus on population health, surveillance, prevention, and containment of factors known to perpetuate a public health emergency, to enhance nursing’s ability to respond with confidence and competence during any emergency event (AACN, 2020). In support of the need to strengthen faculty preparedness to teach public health content, the National League for Nursing (NLN, 2020) convened a series of webinars, “Nurse Educator’s Teaching Disaster Preparedness,” to provide nurse educators with tools and resources for use when teaching disaster preparedness, response, and recovery to nursing students. Additional programming like this is warranted to support individual nurses who are not currently enrolled in a nursing program, or who may not have received this content during professional development opportunities, will need to have access to formal or continuing education programs in public health measures and emergency preparedness.

As a nation, we need greater investment to help ensure that all nurses are well prepared to respond during any national public health crisis (e.g., prevention, response, recovery) regardless of role or practice setting. Federal support for nursing education should place greater emphasis on the development of public health competencies within existing degree programs and the creation of new graduate nursing programs, to ensure that nurses are well-prepared and supported to address future pandemics or other public health challenges or emergencies.

Preparing nurse faculty in public health competencies

Beyond the challenges faced by nurse educators in having to pivot to online and other modalities during the pandemic, the need to attract and retain nursing faculty and provide mechanisms to support nurses who serve as clinical preceptors has worsened. In its 17th Report, NACNEP (2021) discussed the long-standing and severe shortage of nurse faculty and clinical preceptors, which stifles the development of the current workforce and hinders the preparation of the next

generation of nurses. This shortage is especially problematic in the ambulatory and public health practice settings.

The ongoing faculty shortage and its impact on the ability to replenish a worsening nursing shortage must not be overlooked. Therefore, substantial investment to prepare faculty will be necessary to address current and future public health nursing shortages. To that end, these faculty need to be well versed in public health principles and disaster response systems. Additional funding should be directed to specifically advance faculty training to expand the number of faculty with public health focused practice skills and knowledge to support education of the future public health nursing workforce. These investments should include scholarship and loan forgiveness programs to support graduate preparation with advanced degrees in nursing as well as public health.

Increasing the pipeline of nurses into public health practice requires strengthening the capacity of both faculty *and* clinical preceptors in the areas of public health and population health. Strategies are needed to support resilience among new learners, faculty, and particularly preceptors, who were often challenged with stresses of providing care and supporting learners while also carrying patient care responsibilities. Programs could include use of creative academic partnership models or residency and fellowship options. However, new models will require sustainable funding to support training and build capacity of future public health nurses.

Support for nursing education in public health

Nurses must be highly educated on both clinical and operational management of public health challenges and crises. While practice based entry-level nursing residencies and advanced-level nursing fellowships have increased in number over the past decade, there has been limited focus on nursing workforce development and retention in the specialty of public health. More specifically, the onset and duration of the COVID-19 pandemic has resulted in entry-level and advanced-level nurses expanding their professional roles within public health departments with limited preparation in public health competencies or leadership. Sustainable support is needed for new workforce training programs specifically targeting the post-graduation training of nurses in the specialty of public health. According to the Institute of Medicine (IOM, 2011), the goal of residencies and fellowships should be to provide the knowledge and skills for nursing graduates to deliver safe, quality care that meets the standard of practice.

More investment is needed to prepare nurses to effectively serve in clinical and leadership roles in community, clinical, and public health settings; implement outcome-based nursing practice; guide system quality improvement strategies; and manage and transform microsystems of care. Investments in nursing education and preparation must be in response to the needs of the evolving 21st century healthcare arena—including greater emphasis on community-based nursing practice, systems leadership, and development of specific skills to ensure that nurses and nursing support staff are adequately prepared and supported to address future pandemics or other public health disasters or emergencies (Cummings, Lee, Tate, et al, 2021).

NACNEP (2009) previously underscored the needs for emergency preparedness and response in its 7th Report to the Secretary of Health and Human Services and the U.S Congress. The Council

highlighted the need for support for initiatives to integrate public health emergency or disaster care-related coursework into nursing curricula and continuing education on nursing care. These recommendations are now more important than ever.

HRSA collects data on approximately 36 HHS-funded health professions training programs, including workforce development programs supported by Title VIII funding (HRSA, 2021). Many of these programs are focused on the recruitment and retention of entry-level and advanced-level nurses through workforce development or residency training programs. The programs emphasize the top priorities in 2021 of the HHS Secretary to improve the overall health status of our nation, which include tackling the COVID-19 pandemic, expanding access to care, addressing health disparities, and strengthening behavioral health care (HHS, 2021).

Unlike medicine, which has embedded financial support mechanisms for precepting learners through the Graduate Medical Education program, the profession of nursing is limited largely to grant funded mechanisms through HRSA to support nursing education. Congress and HHS should consider development of similar funding and sustainable mechanisms for nursing focused residency and fellowship programs. Post-graduate programs will require progressive planning and curricular design that recognizes the autonomy and flexibility in practice required in public health. Curricula should include instruction in public health competencies, leadership skills, role transition, and other topics that address the broad depth of direction and management in public health. More importantly, it is imperative that funding allocated by Congress not only establishes these programs but also provides sustainable funding mechanisms to prepare for future public health crises and to replenish and strengthen the nursing workforce.

The Underfunded Public Health System

As the most recent public health crisis, the COVID-19 pandemic has highlighted the nation's chronically underfunded public health system.

Significant investments are needed to educate and expand the public health nursing workforce.

The lack of capacity by public health systems to respond has subsequently impacted other areas of healthcare, including primary care practices such as federally qualified health centers. The burden of the pandemic on primary, acute and long-term care settings highlighted the need for investment in the public health infrastructure in the United States. Lack of sufficient nursing staffing required some health departments to abandon contact tracing and limited their ability to control the spread of infection. To maximize the impact that professional nurses can make on public health, significant investments are needed to educate and expand the public health nursing workforce.

NACNEP has provided prior recommendations on the need for investments to build up the public health system. These recommendations are even more important today. To reiterate one of the recommendations from the 12th NACNEP Report, federal support for nursing education should “provide an increase in the resources and opportunities solely aimed at the education, training, and workforce development of public health nurses” (NACNEP, 2014, p. 3).

Providing support for students through scholarships and loan forgiveness programs is critical to attract nurses to public health focused nursing practice. Funding to support these types of programs help nurses develop the knowledge, skills, and competencies required to respond during times of any public health crisis or surge event especially for outreach to critically underserved communities and population groups.

Previous approaches to incentivize and support development of nursing faculty and preceptors have included loan repayment programs and grants providing training for preceptors and faculty. In 2021, HRSA expanded the Nurse Faculty Loan Repayment Program to include clinical nurse preceptors who met program requirements. However, the impact of this intervention has yet to be realized. Nurse Corps, another HRSA loan repayment program, has limitations. For example, a nurse who may be serving as a clinical preceptor may not qualify, unless working specifically in an underserved area or specific type of agency. Other examples include nurses who are in important leadership positions, such as nurses who may be serving in local or state public health leadership positions, who also do not qualify for this program.

Many local health departments, especially in rural counties are challenged to recruit, hire, and retain public health nurses. We must reinvest in public health infrastructure and develop strategies to align the public health and health care delivery systems. One method to replenish the public health nursing workforce would be to expand Nurse Corps eligibility and program expansion to include support for state and local health departments beyond public health emergency and disaster declarations and expand scholarships. Additionally, loan forgiveness programs should be expanded for nurses who plan to practice in the public health sector.

Current nursing workforce data does not adequately address public health nursing workforce needs. Additional data is needed to determine the full role of public health nurses at the level of local health departments. This funding should be directed to capture workforce and education data for public health nurses and should inform the expansion of public health nurses. This data could support the work of the public health summit, and other institutions and organizations that are working to build public health nursing capacity.

Conclusion: Preparing the nursing workforce to lead in public health emergencies

As the largest group of health care professionals, nurses across all levels of education and practice settings have been front and center in caring for patients with COVID-19, preventing the spread of the coronavirus, promoting vaccination, and protecting the health and safety of patients and others during the COVID-19 pandemic. In both acute and community clinical practice settings, nurses had to stay abreast of the multiple fluctuations in infection control guidelines. However, issues related to the nursing profession's ability to respond with confidence and efficiency to public health emergencies and natural disasters remain of concern. Practice settings must recognize and support nurses' ability to practice at their fully licensed scope in a safe and supportive work environment, with appropriate compensation.

The 2020 report from the National Academy of Sciences, Engineering and Medicine, *The Future of Nursing 2020-2030: Charting a Path to Health Equity*, aptly describes that “nurses live and

work at the intersection of health, education, and communities.” (NASEM, 2020, p. 355). During the COVID-19 pandemic, the need for more nurses to serve in care coordination roles was highly evident. More nurses were needed to focus on community education on health preventive measures, surveillance of diseases training, COVID-19, and planning of how to disseminate vaccines. The role of nurses in public health, health equity, and population health will be called into service to turn the tide in the fight against the COVID-19 pandemic (Sullivan-Marx, 2020). Expansions also are needed to support a public health nursing presence in ambulatory care, occupational health, and school health settings. Efforts to address health equity will require significant investments to redeploy nurses into the community to address the health needs of individuals, families, communities, and society.

A well-prepared nursing workforce must be ready to respond during disasters, public health emergencies and other surge events. Many of the nation’s leading authorities on nursing and others have advocated for a stronger emphasis on public health preparedness in nursing education. They have taken steps to identify gaps in nursing knowledge, strengthen nursing competencies, and equip faculty with the necessary tools and resources to teach disaster preparedness content. Furthermore, nursing professionals need to be recognized as valued members of the interprofessional care team, which includes a need to include nursing professionals in high level leadership roles and engaged in high level decision-making activities.

NACNEP 18th Report Recommendations with Rationale

Many of the recommendations below echo recommendations from prior NACNEP reports. Given the long-standing pressures in the health care system and the wide-ranging challenges presented by the pandemic, NACNEP is calling for immediate attention to these concerns.

- **Improving Nursing Education to Advance Public Health Nursing (1-4):**
These recommendations collectively are aimed at maximizing the number of nurses who have the necessary competencies to pivot into public health oriented nursing practice in the event of a public health emergency.
- **Supporting Public Health and Public Health Nursing (5-7):**
These recommendations collectively are aimed at providing longer term support to recruit, retain, and expand the public health nursing workforce, and to generate strategic priorities to build an interprofessional consensus regarding public health nursing.

Improving Nursing Education to Advance Public Health Nursing

Recommendation 1:

The U.S. Congress, through the Department of Health and Human Services and the Department of Education, should allocate funding to create educational pathways within academic nursing programs that will enhance and expand the public health nursing workforce, and address the broader needs of the nursing workforce in public health competencies.

Rationale:

Education provides the foundation for enhancing and expanding this public health nursing workforce. Additional educational pathways with greater breadth and depth in public health nursing are necessary to ensure that the pipeline of registered and advanced practice nurses can manage national healthcare needs of the future. Congress and HHS should support greater emphasis on the development of public health competencies within existing degree programs and the creation of new programs focused in this area, to ensure that nurses are well-prepared and supported to address future pandemics or other public health disasters or emergencies. Competencies and corresponding curriculum related to the National Response Plan, public health preparedness and response strategies must be integrated into all levels of nursing education, along with new innovative programming to support the public health nursing workforce.

Recommendation 2:

The U.S. Congress should fund public health nursing workforce development, specifically continuing education, to support enhancement of nurses with public health competencies including but not limited to emergency preparedness and response. Funding should support all nurses, including faculty, preceptors, and frontline nursing professionals, and should encompass training events and the time away from practice to participate in training.

Rationale:

The nursing workforce must remain well-prepared to respond during disasters, public health emergencies or other surge events. Many of the nation's leading authorities on nursing and

others have advocated for a stronger emphasis on public health preparedness in nursing education. Investments are needed to develop programs to support the continuing education needs of practicing nurses and nurse leaders across all settings who may not have access to state of the art public health emergency preparedness and response educational offerings provided in a formal nursing education program. Individuals who are not currently enrolled in a nursing program, those who may not have received this content during their educational preparation or nurses who do not have access to professional development opportunities will need to have access to continuing education programs that include public health preparedness and response content.

Recommendation 3:

The U.S. Congress should allocate specific funding for the Department of Health and Human Service and the Health Resources and Services Administration to develop and enhance faculty education in public health nursing, to increase the number and enhance the expertise of nurses prepared to teach public health competencies and lead public health initiatives.

Rationale:

The pandemic brought unprecedented challenges to nurse educators in having to pivot to online and other modalities during the pandemic. The ongoing faculty shortage hinders the ability to replenish a nursing workforce experiencing a worsening nursing shortage. Therefore, substantial investment to prepare new nurse faculty trained in public health competencies will be necessary to address current and future public health nursing shortages. Additional funding should be directed to specifically advance faculty training to expand the number of faculty with public health focused practice skills and knowledge to support education of the future public health nursing workforce. These investments should include scholarship and loan forgiveness programs to support graduate preparation with advanced degrees in public health as well as nursing.

Recommendation 4:

The U.S. Congress should allocate sustainable funding for the establishment and continuation of post-graduate public health education programs (e.g., entry-level nursing residencies and advanced-level nursing fellowships) that address public health competencies and leadership strategies.

Rationale:

While entry-level nursing residencies and advanced-level nursing fellowships have increased in number over the past decade, there has been limited focus on nursing workforce development and retention in the specialty of public health. The onset and duration of the COVID-19 pandemic has resulted in entry-level and advanced-level nurses expanding their professional roles within public health practice, with limited preparation in public health competencies or leadership. Sustainable support is needed for new workforce training programs specifically targeting the post-graduation training of nurses in the specialty of public health. Curricula should include instruction in public health competencies, leadership skills, role transition, and other topics that address the broad depth of direction and management in public health. It is imperative for funding allocated by Congress to both establish and sustain these programs to avert future public health crises and exhausting the nursing workforce.

Supporting Public Health and Public Health Nursing

Recommendation 5:

The U.S. Congress should allocate funding for scholarships, loan forgiveness, and public health role support for entry-level or advanced-level nurses interested in or currently employed in public health as a mechanism to support recruitment and retention efforts within the public health nursing workforce, particularly in medically underserved and critical need areas.

Rationale:

The pandemic has highlighted the need for investment in the public health infrastructure in the United States. Providing support for nursing students through scholarships and loan forgiveness programs is critical to attract nurses to public health focused nursing practice, and to help more nurses develop the knowledge, skills, and competencies required to respond during times of any public health crisis or surge event. Programs that have been used to incentivize and support development of nursing faculty and preceptors include scholarship and loan repayment programs. One method to replenish the public health nursing workforce would be to expand Nurse Corps eligibility and program expansion to include support for state and local health departments. Loan forgiveness programs should be expanded for nurses who plan to practice in the public health sector.

Recommendation 6:

The Department of Health and Human Services should support and convene within the next year a summit of diverse and representative public health organizations, foundations, schools of nursing, and others to delineate the required leadership, training, and professional development required to advance the field of public health nursing.

Rationale:

NACNEP has recommended the convening of a public health summit in the past. This summit should be focused on an expansion and revitalization of public health nursing. Part of the purpose would be to review and evaluate the changes to the health care system, as well as to nursing education and practice, resulting from the pandemic response. The goal of this summit is to have leaders from a broad array of backgrounds to determine what public health nursing needs to meet the challenges of the next ten years.

Recommendation 7:

The U.S. Congress and the Department of Health and Human Services should prioritize funding to establish and expand data collection initiatives that characterize the public health nursing workforce needs.

Rationale:

Current data on the nursing workforce does not adequately address public health nursing. Additional data is needed to determine the full role of public health nurses in federal, state, and local public health systems. This funding should be directed to capture workforce and education data for public health nurses and should inform the expansion of public health nurses.

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List of Abbreviations

AACN	American Association of Colleges of Nursing
ANA	American Nurses Association
APRN	Advance Practice Registered Nurse
HHS	Department of Health and Human Services
HRSA	Health Resources and Services Administration
ICN	International Council of Nurses
IOM	Institute of Medicine (now the National Academy of Medicine (NAM))
NACNEP	National Advisory Council on Nurse Education and Practice
NASEM	National Academy of Sciences, Engineering and Medicine
NCHWA	National Center for Health Workforce Analysis
NLN	National League for Nursing
PPE	Personal Protective Equipment
RN	Registered Nurse

Appendix: Summary of Prior NACNEP Recommendations on Public Health Nursing

The National Advisory Committee on Nursing Education and Practice (NACNEP) is charged with providing recommendations to HHS (Health & Human Services) and the Congress related to the enhancement of the composition of the nursing workforce, improvement of the distribution and utilization of nurses to meet the health needs of the nation, and expansion of the knowledge, skills, and capabilities of nurses to enhance the quality of nursing practice.

Prior NACNEP reports over the past two decades have addressed nursing workforce needs related to an endemic nursing shortage, which has worsened since the COVID-19 pandemic began in 2020. In its first report, NACNEP (2001) identified strategies to address the “severe and evolving nursing shortage” (p. 5). This critical shortage of nurses was further reinforced in the second (NACNEP, 2002), third (NACNEP, 2003), sixth (NACNEP, 2008), seventh (NACNEP, 2009), and eighth (NACNEP, 2010a) reports.

Prior reports have also focused on the need for strategies to address faculty shortages in the ninth (NACNEP, 2010b) and 17th (NACNEP, 2021) reports. To provide obvious and relevant context, the 2021 faculty shortage recommendations were issued ten months into the Covid-19 Pandemic. The Council realizes that the federal government was challenged to address the public health crisis, which may have limited the ability to address these recommendations.

Many of the prior recommendations made by NACNEP continue to be relevant and even more pressing today. For example, following Hurricane Katrina, NACNEP addressed the need to address public health surge capacity and emergency preparedness (NACNEP, 2009). Prior reports also have addressed the need to address public and population health (NACNEP, 2014; and NACNEP, 2016). along with the need for more diversity in the nursing workforce (NACNEP, 2003 NACNEP, 2013) to address health equity.