ISSUE BRIEF

Building a Workforce for Health in North Carolina

Hugh H. Tilson, Jr.

COVID-19 exposed and exacerbated the historical shortages and maldistribution of the health workforce in North Carolina. This edition of the *North Carolina Medical Journal* highlights the work being done in our state to address these needs, and calls for an intentional and persistent approach to planning for and developing the workforce needed to produce health.

Introduction

Despite local, regional, state, and national efforts, historical shortages and maldistribution of health care workers in North Carolina are well-documented and unrelieved [1]. The COVID-19 pandemic has exposed and exacerbated many of the underlying challenges faced by community health systems, which cannot provide services or implement programs without an adequate, well-trained, and well-supported workforce.

Even before the pandemic, many in the health care workforce were experiencing burnout and fatigue [1]. During the pandemic, many health care workers were deemed "essential" and rightfully called "heroes" for risking their and their families' health, doing their jobs when others wouldn't or couldn't, and working long hours in new environments that required different skills. These factors added stress to an already struggling workforce; high levels of patient deaths and national politicization of the response to COVID-19 increased the burden experienced by this workforce [2].

Workforce needs are too often assumed, not planned, and only rise to attention when essential health care delivery is stressed beyond capacity. As we widen our focus on the social drivers of health, the workers who produce health have already expanded to include more than the traditional health care workforce. North Carolina needs an organization to provide a persistent, coordinated, and intentional process of health workforce planning if we are to develop and sustain the workforce for health.

Early in the pandemic, the North Carolina legislature enacted the COVID Recovery Act [3]. It recognized the challenges to the health workforce, and tasked the North Carolina Area Health Education Centers Program (NC AHEC) to conduct a study to "focus on the impact of the COVID-19 pandemic, issues that need to be addressed in the aftermath of this pandemic, and plans that should be implemented in the event of a future health crisis" [3]. The legislation identified 15 areas of study (Table 1).

The legislature also specified a group of stakeholders from which information about these topics should be obtained, including educational organizations, state and local government agencies, and "geographically disbursed rural and urban hospitals, ambulatory surgical centers, primary care practices, specialty care practices, correctional facilities, group homes, home care agencies, nursing homes, adult care homes, and other residential care facilities" [3].

To respond, NC AHEC established a Project Team consisting of AHEC representatives and health workforce researchers from the UNC-Chapel Hill School of Nursing, and developed and deployed a survey for the specified stakeholders. This was made possible through funding received from the Jerry M. Wallace School of Osteopathic Medicine

TABLE 1.
North Carolina Area Health Education Centers Program Areas of Study Under COVID Recovery Act

1. Workforce pandemic preparedness
2. Workforce surge preparedness
3. Health care workforce training
4. Preexisting workforce shortages
5. Personal protective equipment (PPE)
6. Sufficiency of support mechanisms
7. Impact of postponing nonessential services on the workforce
8. Impact of postponing nonessential services on hospitals
9. Impact of interruptions to routine health care
10. Impact on behavioral health services
11. Quality of telehealth services
12. Impact of telehealth on hospitals
13. Restoring health care delivery to prepandemic levels of care
14. Supporting special populations
15. Impact on current and future health sciences students

Source. s.L. 2020-3.

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Address correspondence to Hugh H. Tilson, Jr., NC AHEC, 145 N. Medical Dr, CB 7165, UNC-Chapel Hill, Chapel Hill, NC 27599 (hugh_tilson@ncahec.net).
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at Campbell University, which had been appropriated from CARES Act funding in support of community- and rural-based workforce in response to COVID-19 [4]. Even though the survey was distributed during the first resurgence of COVID-19, we obtained almost 150 responses, including responses from all stakeholder categories geographically distributed across North Carolina. Although grateful to be asked to provide relevant information, one respondent reflected a general sentiment by stating that, "it is difficult to reflect on the workforce needs for a pandemic while you are still in the middle of a pandemic and can't see an end in sight" [5].

The results fell into the following five categories. The workforce-related recommendations within each category are also described here.

Staffing: Ensuring an Adequate Health Care Workforce for Current and Future Crises [5]

Address the state's immediate health workforce needs for the COVID-19 pandemic. Our results indicate that North Carolina's health workers most urgently need child care assistance, as well as behavioral health services—such as counseling and wellness care—to deal with anxiety, stress, and burnout; and employers bore substantial costs to provide the services their employees needed.

Develop a statewide plan to address long-term health workforce needs. Respondents recommended tasking the AHEC Program with working with key stakeholders to create a long-term plan that aligns the recruitment, retention, training, and deployment of North Carolina's health workforce with the health care needs of North Carolinians. To address chronic workforce shortages, survey respondents suggest we need to reconsider our core approach to patient care. Team-based care is a promising solution that also provides better patient outcomes. We must support interprofessional collaboration throughout workers' careers, beginning in school and carrying through to the hospital floor and other care settings. Finally, the statewide plan should incorporate strategies for increasing workforce racial and ethnic diversity that reflects the populations of North Carolina's communities.

Develop health workforce training to improve care for North Carolina's most vulnerable populations. Health care workers expressed the need for targeted guidance on how best to care for vulnerable and marginalized populations—both general care and care specific to a pandemic or other health crisis. Guidance should help combat provider bias, stereotyping, and prejudice as well, in efforts to overcome minority patients' distrust of the health system.

Structure: Addressing Structural Issues That Impede the Delivery of High-Quality Health Services

Develop a statewide strategy to improve workforce flexibility and support team-based care. Dramatic shifts in the health care landscape require responsive shifts in how and where the health care workforce is deployed. A statewide plan is necessary to increase the health care workforce and improve its flexibility.

Assess the impact of delays in seeking or receiving care. During the pandemic, many patients delayed or avoided seeking health care services for urgent or routine needs. Additionally, many providers reported delayed or suspended health care services due to limited staff capacity, limited facility space, safety concerns, and other realities, such as supplies and protective gear. Respondents suggested the need for an evaluation of both clinical and population health outcomes that resulted from such delays to provide crucial insights into preparing for future pandemics.

Telehealth: Strengthening Systemwide Capacity for Telehealth Services

Telehealth holds great promise for improving the quality and efficiency of nonurgent services, in both normal and crisis conditions. During the COVID-19 pandemic, telehealth was deployed broadly and quickly. Respondents suggested that a deeper assessment is needed to learn from health care teams, patients, and other stakeholders about what worked well, what needs improvement, and how best to learn from this experience. In addition to best practices in virtual patient care, the workforce also needs models that describe the roles and responsibilities of various types of health care workers on the interprofessional telehealth team, as well as training and support to perform those roles and responsibilities.

Behavioral Health: Enhancing Behavioral Health Services Across the Health Care System

Expand access to behavioral health services. Respondents said North Carolina would benefit from a thorough, broad-scale plan to increase behavioral health services and patients' ability to access them. Recommendations listed in the survey report include: increasing insurance coverage, reforming payment and reimbursement processes, growing the health care workforce, improving workforce training, establishing multidisciplinary team-based care, and developing telehealth services [5].

Integrate behavioral health into primary care and other health care services. Respondents believe behavioral health care should be integrated into other services provided by the health care system (e.g., primary and specialty care providers, emergency departments), by first responders (e.g., police, EMS), and by community organizations (e.g., counselors, social workers, chaplains).

Build health workforce capacity to deliver high-quality behavioral health care. In the survey, behavioral health counselors and psychologists were among the most commonly reported occupations to be in short supply. The state should confirm these findings and support efforts to increase the number of providers in psychiatric specialty care services,

such as psychiatrists, psychologists, social workers, counselors, substance-use professionals, and psychiatric-mental health nurse practitioners (PMH-NPs), especially in rural areas.

Planning: Responding to Changing Needs and Preparing for Potential Health Crises [5]

Address barriers for health sciences students. In the survey, the teaching of health sciences students—across all professions—was affected by the COVID-19 pandemic in the way of decreased preceptors, insufficient supplies of protective equipment, closed clinical site facilities, and dangerous circumstances. The survey responses demonstrated a need for educational institutions, health care organizations, and other key stakeholders to jointly develop a plan to ensure health sciences students are considered essential workers, so that future disaster response utilizes their human capital to support the health care workforce.

One respondent emphasized the need for intentional, persistent health workforce planning, forewarning that the inability to plan and provide for the workforce needed during good times prognosticates the inability to meet these needs in challenging times. A related perspective arose—unless we are intentional in planning for and producing the workforce that produces health (not just health care), we cannot be sure it will be available when it is needed.

In This Issue

Great work is underway to build and support North Carolina's health workforce. This edition of the *North Carolina Medical Journal* features some of that work and highlights lessons learned, including opportunities to spread evolving practices and areas for deeper engagement. Many of these articles include recommendations consistent with the themes identified in the NC AHEC study.

I had the privilege of interviewing North Carolina Commerce Secretary Machelle Baker Sanders and North Carolina Department of Health and Human Services Secretary Kody Kinsley to discuss their approaches to building a strong and inclusive workforce for health. Our discussion, featured in this issue, includes the unique challenges of our current health workforce shortage, how we might reach a different outcome than we have in the past, what the secretaries are prioritizing over the next 12–24 months, and what we can learn from other sectors as we respond to this crisis [6]. Their answers reflected a deep appreciation for the important challenges faced by the health care workforce in our state. Addressing these challenges is a priority for both leaders, and they expressed their commitment to work together, emphasizing the importance of equity, the pressures the workforce has faced during COVID-19, and the need to ensure the workforce is available so that essential services are accessible throughout North Carolina.

Provider well-being and burnout is a common thread in many of the articles in this issue. Tatyana Kelly of the North Carolina Healthcare Association describes how North Carolina's health systems are responding to the needs of their workforce [7]. She describes the immediate actions that health systems have taken to support their workforce during the pandemic, including creating new positions like a Chief Well-Being Officer to lead this response. She reminds us that these efforts began prior to the pandemic and have now assumed even higher priority. Protecting the safety of the workforce is essential, and Kelly highlights actions health systems are taking to address workplace safety and violence. She also emphasizes that well-being requires addressing the whole-person wellness needs of the workforce including family life, financial stressors, and emotional health.

The need for a diverse and inclusive workforce is another common thread through many of the articles. Dr. Cedric Bright and coauthors from ECU provide historical perspectives on the efforts of our state's medical schools to recruit and train first Black physicians and now members of other underrepresented communities [8]. Although the courts intervened in the 1950s, it wasn't until the 1970s that deliberate interventions within North Carolina's medical schools occurred and the pace of desegregation at historically White institutions began to increase. The authors describe the benefits of a diverse physician workforce to patient care and the importance of effective pathway/pipeline programming to recruit and support students from marginalized and lower socioeconomic populations.

Robin Cummings and coauthors from UNC-Pembroke reflect on the challenges North Carolina's rural and economically distressed communities face with health, health workforce, and training [9]. They assert that rural areas—especially those with large, underserved populations—continue to face critical shortages in primary and specialty care due to those communities' unique combinations of socioeconomic and cultural norms and lack of access to basic services. These challenges are best addressed through intentional planning that builds on the strengths of those communities and develops programs specifically targeting areas of concern. The health workforce innovations the authors describe include innovations in education, addressing burnout, and community-academic partnerships.

Dr. Lori Byrd of the North Carolina Community College System Office describes the important role that North Carolina community colleges play in educating the nurse workforce. She reports that, in the 2020–2021 academic year, only 4335 of the 7688 qualified applicants to nursing programs were admitted, and only 3855 were enrolled [10]. The shortage of faculty is one of the greatest factors limiting enrollment. Byrd emphasizes that only a well-planned, systematic effort to educate, empower, and adequately pay nurse faculty will address the faculty shortage and lead to the needed nursing workforce.

Dr. Herb Garrison of ECU describes North Carolina's robust physician residency training programs, and how chal-

lenges and opportunities like burnout, the commoditization of physicians, consolidation and corporatization within the health sector, and digital and virtual medicine, are affecting graduate medical education (GME) programs. He recommends several next steps including boosting leadership training in response to corporatization and commoditization, and encouraging the GME community to champion clinician well-being, and embracing digital and virtual realities while remaining connected with each other, among others [11].

Dave Richard of NC Medicaid describes the workforce challenges facing long-term supports and services (LTSS) providers and direct support professionals (DSPs). Federal and state governments are the largest payors of LTSS, and must work with advocates, industry, and policymakers to address current and future challenges. Richard describes ongoing efforts to address compensation of DSPs as an essential element of stabilizing the workforce. He also articulates a vision for a career path for DSPs, both in general and within their LTSS jobs [12]. Addressing the work environment is an essential element of the approach, as well as other options including paying families as caregivers, increased use of self-direction models for individuals and families, and taking full advantage of assistive and enabling technologies.

Dr. John Jenkins of UNC describes a recently launched initiative by Cone Health in Guilford County's Title One schools to address the drivers of health and educational equity through telehealth [13]. Jenkins describes Cone Health's hotspotting of the intensity of low-acuity visits by children aged 4–12 to its emergency department to identify needs. Cone learned from Atrium Health and The Center for Rural Health Innovation and others and then partnered with Guilford County Schools to implement a facilitated school-based telehealth prototype. Early success has led to the spread of the program to three additional schools. Jenkins summarizes by stating that "providing equitable, on-demand access to health care and behavioral health in our schools can result in healthier, better-prepared students and create value for North Carolina families, health care providers, and the state as a whole" [13].

Dr. Tom Wroth of Community Care of North Carolina and coauthors describe the shifting primary care landscape, current workforce initiatives, and policy options for aligning North Carolina's efforts [14]. They describe the changing models of primary care, including primary care practice ownership, resulting from health care transformation and the emergence of new business opportunities in the value-based care space. They suggest a series of interventions to address the primary care physician shortage, and note that these environmental changes create a new opportunity for the creation of a coalition of interested parties that would provide the sustained focus needed.

Sherry Hay and coauthors from UNC describe their work with Morehead Memorial Hospital in Rockingham, North Carolina, in 2018 to bolster primary care infrastructure in Rockingham and address community health needs [15]. They deployed a five-factor approach that included: engaging community stakeholders in assessing health needs and culturally appropriate solutions; developing interprofessional practices; engaging the community to build the health workforce; advancing patient-centered primary care; and partnering with an academic health system to increase access to resources. The authors describe barriers to success and the importance of partnerships in overcoming those barriers. They also describe metrics for evaluating success and lessons learned to replicate and scale this approach.

Authors from the North Carolina Institute of Medicine (NCIOM), the *NCMJ's* parent organization, summarize the recommendations of two recent NCIOM task force reports to bolster North Carolina's public health workforce [16]. The Task Force on the Future of Local Public Health in North Carolina recognized that our local health departments demonstrated extraordinary commitment and innovation during the pandemic despite foundational concerns that existed long before. The task force recommended steps to strengthen the local public health workforce including developing statewide accountability, valuing the public health workforce, supporting professional development, updating job classifications, and addressing threats and harassment. The task force also made recommendations for developing a network of public health training programs, funding internship opportunities, raising awareness of public health careers, and providing support to new public health training [16]. These workforce recommendations dovetail with others to modernize the data infrastructure and develop greater capacity to communicate with the communities being served.

The Carolinas Pandemic Preparedness Task Force was convened in partnership with the South Carolina Institute of Medicine and Public Health and issued a report prepared by each state that reflects a shared vision. North Carolina's report includes dozens of recommendations, including five specifically focused on addressing the needs of the health care and frontline essential workforces and the individual workers who comprise these workforces. These include: develop and implement an action plan to respond to urgent and long-term health care workforce needs; assess workforce shortages and other needs of frontline essential workers to support continuity of operations planning; prioritize the health, well-being, and safety of the health care and frontline essential workforces; strengthen workforce recruitment and retention; and provide flexibility to heath care workers to increase surge capacity during public health emergencies [16].

"North Carolina has some of the best state health workforce data in the country, but that data still can't tell the whole story," writes Dr. Hilary Campbell of the Cecil G. Sheps Center for Health Services Research [17]. She describes the North Carolina Health Professions Data System, including the health workforce supply data that are and are not avail-

able in that system. She also describes a new data source for information on health workforce demand, the NC Sentinel Initiative, and demonstrates how data can be used to help model state workforce projections, including through the NC Nursecast project. She reminds us that these data don't tell us how many health workers we should have to meet our state's underlying health workforce need, much less the ideal blend and number of health care workers that would best serve the health of the people of North Carolina—the workforce for health.

Dr. Brianna Lombardi and Dr. Erin Fraher of the Sheps Center posit that the pandemic and new payment and care delivery models point us away from traditional health workforce development models toward a new approach that focuses on the workforce for health [18]. This pivot moves workforce planning from profession-specific approaches to the development of teams that are specifically trained, deployed, and paid to address the physical, behavioral, and social needs of the people of North Carolina. The model they describe includes five As—availability, accessibility, acceptability, accommodation, and affordability—all of which interact to improve the likelihood that those who need care will receive it. They point out that to accomplish these goals, North Carolina needs a workforce planning infrastructure that combines good data and the expertise to interpret it, along with the collaboration of our educators, employers, regulators, workers, and policymakers, to define and implement the related action steps.

Conclusion

This edition of the *North Carolina Medical Journal* offers evidence of the urgency of addressing our immediate health care workforce needs and highlights some of the great work already underway. One theme that threads through many of the articles is the need for intentional and persistent planning for the workforce that produces health.

The NC AHEC Program was established 50 years ago to bridge academia and community to recruit, train, and retain the health care workforce. It is my privilege to be the director of that program, which began by training physicians and now trains and supports most types of health professionals through nine regional AHECs that cover all 100 North Carolina counties. We recently adopted Results-Based Accountability [19] to coordinate our work. The result we seek is that everyone in North Carolina is healthy and supported by an appropriate and highly competent health workforce that reflects the communities it serves. This approach allows us to measure the contribution of each of our services toward that result. It also aligns with the approach Healthy North Carolina 2030 takes to the overall health improvement of our state [20].

We will continue this important work throughout North Carolina while also partnering with the NCIOM and the Cecil G. Sheps Center to stand up the new North Carolina Center on the Workforce for Health. This center responds to the many calls for a more intentional approach to health workforce planning. It will provide a forum for collaboration among educators, employers, health workers, government, and others to share best practices to address today's needs and to plan for and implement actions to align supply with demand for the workforce. We all recognize the urgency of action—the desire for which is also felt in the articles in this journal. We also recognize that workforce shifts can take time and that without a persistent focus—the desire for which is felt in these articles—workforce frequently ceases to be a priority and the shifts don't occur.

Many interventions must occur for all in North Carolina to be healthy, and these interventions require the workforce to plan, develop, implement, and evaluate them. Working together, with vision, intention, persistence, and a focus on equity, we can ensure that workforce is available. NCMJ

Hugh H. Tilson, Jr., JD, MPH executive director, NC AHEC, Chapel Hill, North Carolina.

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