



INNOVATION FOR A HEALTHIER PLANET

**Senate Committee on Health, Education, Labor and Pensions (HELP)**

**Subcommittee on Primary Health and Retirement Security**

**Hearing Title: A Dire Shortage and Getting Worse: Solving the Crisis in the Health Care Workforce**

**Thursday, May 20, 2021**

**SD-430 of the Dirksen Senate Office Building**

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**President, University of New England**

Thank you for the opportunity to speak with you today. It's a sincere honor to share some thoughts on strategies for addressing our nation's healthcare workforce crisis.

My name is James Herbert, and I am the president of the University of New England (UNE). UNE is Maine's largest private university, with campuses in Biddeford and Portland Maine and in Tangier Morocco. We are a comprehensive university that houses Maine's only medical school and only physician assistant program, and northern New England's only dental school. We're the largest provider of healthcare professionals to the state of Maine,<sup>1</sup> and we take great pride in being a private university with a public mission.

As you probably know, Maine is the oldest state in the nation<sup>2</sup>, and is tied with Vermont as being the most rural<sup>3</sup> state. We also have one of the oldest healthcare workforces in the country.<sup>4</sup> The challenges

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<sup>1</sup> UNE offers programs in 14 health professions, including osteopathic medicine, dental medicine, pharmacy, physician assistant, nursing, nurse anesthesia, dental hygiene, occupational therapy, physical therapy, social work, nutrition, athletic training, applied exercise science, and public health.

<sup>2</sup>Maine has the highest median age in the U.S.: 45.1 relative to the national average of 38.5 (US Census Bureau, 2019a). At 21.3% Maine also has the highest percentage of citizens over 65 in the U.S. (US Census Bureau, 2019b).

<sup>3</sup>US Census Bureau, 2019b

<sup>4</sup> At 36%, Maine ranks 5<sup>th</sup> in the nation for the percentage of active physicians who are age 60 or older (AAMC, 2019). In 9 of 16 Maine counties, 50% or more of physicians are 55 or older (Skillman & Stover, 2018). Over 50% of Maine's registered nurses are 50 or older (Maine Nursing Action Coalition, Center for Health Affairs NEONI, 2017). Approximately 60% of Maine's dentists are older than 55 (State of Maine Board of Dental Practice, 2019). Maine ranks in the top quartile of states with geriatrician shortages (Maine Senior Guide, 2019).

we face are in some sense harbingers of what the rest of the country will increasingly confront as our nation ages and as urbanization creates pockets underserved populations in our cities as well as in our vast remote rural areas.

I won't repeat the testimony of my colleagues about the growing shortage of healthcare professionals across our country, as I'm sure you already appreciate the scope of the problem. Rather, I will offer **five specific strategies** that I believe can go a long way to addressing the crisis. I will also offer some examples of how we at UNE are attempting to implement each of these strategies. This is not to imply that we've figured out all the best solutions, but rather to provide some specific examples of how higher education can partner productively with government, business, and nonprofit sectors to move the needle in important ways on this critical problem.

First, ***we need to increase the number of doctors, nurses, and other healthcare professionals we educate***. Although there are a number of challenges to doing so, by far the most important is the availability of clinical training experiences, which has been well documented by the Department of Health and Human Services Health Resources and Services Administration (HRSA).<sup>5</sup> As financial margins have tightened and clinician workloads have increased over the past three decades, practicing clinicians in various healthcare settings have less time to devote to training students.<sup>6</sup> The single most important thing we can do to increase the number of healthcare providers is to support partnerships between universities and healthcare systems to develop additional residencies, clerkships, practica, and other training opportunities.

At UNE, one way we have expanded clinical training opportunities is by working with partners in rural and underserved primary care sites and Federally Qualified Health Centers. One advantage of such placements is that students learn how to deliver compassionate care to Maine's most vulnerable residents, many of whom are uninsured and also navigate chronic physical and mental health conditions. The precepting clinicians in these settings are dedicated to treating underserved patients, sometimes with limited access to specialized professional support.<sup>7</sup> These settings afford students

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<sup>5</sup> U.S. Congress: Advisory Committee on Interdisciplinary, Community-Based Linkages. (2018).

<sup>6</sup> Benbassat, 2020; Cox & Desai, 2019; Hanna, 2019; Graziano et al., 2018; Konrad et al., 2010; Krehnbrink et al, 2020; de Villiers et al., 2018; Rodriguez, 2013

<sup>7</sup> Hempel et al., 2015; Lee et al., 2016

exposure to a broad range of conditions and allow them to perform a wider variety of procedures than they might in more specialized urban settings.

Clinical training opportunities are not the only infrastructure limitation to producing more healthcare professionals. Standing up new educational facilities, or expanding existing ones, involves considerable start-up costs. Recognizing the region's significant unmet oral healthcare needs and the fact that there was no dental school in all of northern New England, in 2013 we partnered with both federal and state governments, regional industry, non-profits, and philanthropists to establish a dental school. Senator Collins was critical in helping to secure federal support for that project. And the people of Maine passed a \$3.5 million bond to support not only creation of the school itself, but also community dental clinics around the state to help them increase their capacity to provide dental care and to take our students on rotation. The school was created with an explicit focus on addressing underserved populations, as reflected in its mission statement: *"...to improve the oral health of northern New England and rural and underserved populations."*

Another barrier to training more healthcare professionals is the difficulty hiring and retaining qualified faculty members, who can typically earn more in direct care clinical settings and yet require a higher level of training and credentialing than those working clinically.<sup>8</sup> At UNE, we are developing a specialized track within our dental program to educate students who are interested in pursuing an academic career.<sup>9</sup> Support such as that displayed by Senators Collins, Sanders, and others for strategic loan repayment programs targeting those assuming faculty positions in dentistry, nursing, and other allied health professions is critical to ensuring the future of the healthcare workforce. Loan repayment programs improve access to graduate/doctoral education by encouraging qualified individuals to advance their education and subsequently become employed as faculty.

Second, ***we must intentionally recruit more students who look like the communities we need to serve.***

It is well established that individuals from underrepresented groups are more likely to seek out practitioners who share their identities and backgrounds.<sup>10</sup> Studies have found that minority patients

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<sup>8</sup> Christmas et al., 2010; Feldman et al., 2015; Girod et al., 2017; Nauseen et al., 2018

<sup>9</sup> McAndrew et al., 2011

<sup>10</sup> Shen et al., 2018; LaVeist et al., 2003

who are treated by race/ethnic-concordant clinicians are more likely to use needed health services and are less likely to delay seeking care.<sup>11</sup>

In Maine, we have a growing immigrant population, especially from Central and Eastern Africa, and not surprisingly, this community experiences significant healthcare discrepancies relative to the broader population.<sup>12</sup> To address this issue, not only has UNE increased recruitment efforts targeting students of color across the entire university, we recently began “Advanced Standing” programs in dentistry and pharmacy, designed to accelerate the time it takes for foreign-trained immigrant professionals to achieve a U.S. degree and become eligible for licensure. We have also developed partnerships with local community colleges to matriculate students from our immigrant communities into certain healthcare programs (e.g., dental hygiene).<sup>13</sup>

Third, it’s not enough merely to train more professionals, ***we must encourage them to practice in underserved areas following graduation, such as in rural, medically underserved, and tribal communities.*** Like Maine, most states have vast rural areas with highly distributed populations, and these communities have far less access to healthcare.<sup>14</sup> The U.S. government has invested in programs, administered through the Health Resources and Services Administration, that provide financial support in the form of loan repayment to graduates who serve in disadvantaged areas. These programs are absolutely critical, and we thank Congressional leadership for their ongoing support.

At UNE, we have successfully used various strategies to encourage our graduates to practice in rural areas. We intentionally recruit students from rural areas, both from Maine and around the country. Students from small towns and other nonurban areas are more likely to return to such communities after graduation.<sup>15</sup> Regardless of where they come from, we place students in clinical training sites in underserved rural areas as part of their education to give them a taste of rural practice and lifestyle.

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<sup>11</sup> Saha et al., 2000; LaVeist & Nuru-Jeter, 2002

<sup>12</sup> Drewniak et al., 2017

<sup>13</sup> National Academies of Sciences, Engineering and Medicine, 2021.

<sup>14</sup>The US Department of Health and Human Services has designated nearly 200 geographic areas in Maine as health professional shortage areas for primary care, dental medicine, and mental health (US DHHS, 2019). Maine also has 51 medically underserved areas/populations, defined as areas having too few primary care providers, high infant mortality, high poverty, and/or a high elderly population (US DHHS, 2019). Nearly all of Maine’s medically underserved areas are in Maine’s Congressional District Two, the second most rural congressional district in the country (US DHHS, 2019).

<sup>15</sup> American Academy of Family Physicians, 2016; Lee et al., 2021; University of Wisconsin, 2020;

Each year, many graduates exposed to these crucial settings during rotations return for employment, inspired by the commitment to quality patient care they witnessed, as well as their love of small-town life.<sup>16</sup> Finally, in concert with state and philanthropic partners, we have developed loan repayment and scholarship programs to incentivize practice in rural settings. These efforts have paid off; over the past decade we have made dramatic inroads in addressing the needs of rural communities. For example, 40% of UNE medical school graduates who practice in Maine do so in health profession shortage areas (HPSAs) designated by the U.S. government, positively impacting the HPSA designation of five counties.<sup>17</sup> And in our dental school's first four graduating classes (2017 – 2020), we educated 250 dentists, 63 of whom are currently practicing in Maine. Nearly one in five is employed in a Federally Qualified Health Center, a non-profit community clinic, or the Veteran's Administration, and four in ten are practicing in Maine's most disadvantaged areas.<sup>18</sup>

Fourth, ***we must leverage the power of technology to reach underserved communities.*** The COVID-19 pandemic has introduced many Americans for the first time to the value of telehealth, as we all learned to access healthcare providers via videoconferencing.<sup>19</sup> Telehealth and digital medicine have enormous potential to transform healthcare delivery, particularly in underserved areas.<sup>20</sup> In addition to patients accessing their providers through secure videoconferencing platforms, primary care providers in remote locations can themselves access specialist colleagues in urban tertiary care hospitals and university health centers for expert consultation. And emerging digital medicine and artificial intelligence technologies will increasingly allow clinicians to monitor patient symptoms and even deliver certain treatments remotely over the internet. These technologies can also enhance the reach and effectiveness of continuing medical education programs. At UNE, we are moving toward integrating robust telehealth training for all of our health profession students in close partnership with our various training sites. Of

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<sup>16</sup> UNE's dental school clinical model is an excellent example of success in this regard. UNE places students in up to two 12-week clinical rotations in settings throughout northern New England, working in collaboration with a network of FQHCs, community clinics, and even private dental offices. Students provide billable services while receiving supervision from the preceptor and most importantly, learning about the community they serve. We are grateful for the U.S. Department of Health and Human Services on-going funding to Maine's network of health centers providing access to many of our marginalized residents, while also offering much-needed clinical placements to students.

<sup>17</sup> NCAHD's Enhanced State Licensure Data, 2016; The Robert Graham Center, 2012.

<sup>18</sup> This is particularly noteworthy given that Maine has the fewest dental providers participating in Medicaid or CHIP in the entire country, according to research by the American Dental Association's Health Policy Institute.

<sup>19</sup>Wosik et al., 2020

<sup>20</sup> Kichloo et al., 2020

course, telehealth and digital medicine services are only as available as the broadband network that supports them, and like much of the country, many of Maine's most rural counties lack sufficient and reliable connectivity. I am delighted that the most recent COVID-19 stimulus legislation included funding for broadband infrastructure, a portion of which is headed to our rural state. This will make an enormous difference in narrowing Maine's digital divide, and will ensure rural Maine residents can benefit from UNE's clinical and educational expertise, regardless of where they live.

Finally, ***we must fundamentally change the prevailing educational model.*** Anyone who has recently been a patient in a hospital, or who has cared for a hospitalized loved one, understands how siloed the practice of healthcare tends to be. One often gets the sense that the various professionals are all practicing their respective crafts with little coordination or communication among themselves. This siloed practice is a result, at least in part, of the traditional discipline-centered model of educating healthcare professionals. In 2001, the Institute of Medicine issued a groundbreaking report, *Crossing the Quality Chasm: A New Health System for the 21<sup>st</sup> Century*, which laid out the case for dramatic, systemic changes to health care organization and delivery. In response, stakeholders from academia, health systems, and government convened to determine how best to address the Institute's recommendations. In 2012, these efforts led to the development of a new educational model in which students from diverse disciplines are explicitly trained to work together, across traditional boundaries, in multi-disciplinary teams. Known as "interprofessional education"<sup>21</sup> or "IPE" for short, this training model prepares students with team-based competencies, attitudes, and skills that complement distinctive disciplinary knowledge. Interprofessional health care teams offer more than any one discipline can achieve alone, and this is especially critical as patients' health conditions are becoming increasingly complex.<sup>22</sup> Growing evidence suggests that interprofessional collaborative practice<sup>23</sup> improves clinical outcomes,<sup>24</sup> reduces medical errors,<sup>25</sup> increases patient satisfaction,<sup>26</sup> and decreases provider burnout.<sup>27</sup>

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<sup>21</sup> Interprofessional Education occurs when two or more professions learn about, from, and with each other to improve collaboration and the quality of patient care.

<sup>22</sup> Mayo & Williams-Woolley, 2016

<sup>23</sup> According to the World Health Organization, interprofessional collaborative practice happens when multiple health workers from different professional backgrounds work together with patients, families, care givers, and communities to deliver the highest quality of care (World Health Organization, 2010)

<sup>24</sup> Lutfiyya et al., 2019

<sup>25</sup> Anderson & Lakhani, 2016; Hardisty et al., 2014; Irajpour et al, 2019; Lygre et al., 2017; Wilson et al., 2016

<sup>26</sup> Will et al, 2019

<sup>27</sup> Cain et al., 2017; Dow et al., 2019

The IPE training model, especially when paired with digital health technologies, can be instrumental in meeting the needs of underserved communities. The combination of IPE and telehealth allows doctors, mid-level practitioners, and other primary care practitioners to effectively expand their scope of practice, while also extending specialist care to those for whom it is otherwise out of reach.

One particular area of healthcare that exemplifies the value of this kind of collaborative approach is geriatrics. Diseases of aging often encompass a broad scope of conditions and disciplines: heart disease and diabetes treated by primary care practitioners; mobility issues by physical and occupational therapists; isolation by social workers; oral health by dentists and hygienists, and so on. At UNE, we weave training in geriatrics throughout all of our health profession programs. Thanks to legislation sponsored by Senator Collins and supported by Maine's Junior Senator Angus King, and working closely the University of Maine and multiple statewide partners, UNE is one of 48 organizations nationally to have received funding through HRSA's Geriatrics Workforce Education Program, which aims to create a more age-friendly health system by transforming primary care practices and engaging and empowering older adults.

At UNE, we have been pioneers in IPE over the past decade for all of our healthcare programs, and, once again in close coordination with our clinical partners, we are now standing up a university-wide Institute to deepen our commitment to this training model.

In conclusion, successfully addressing America's healthcare workforce crisis will require not merely acting on each of these five strategies in isolation, but seamlessly integrating them. Although strategic investment of resources will be required, much of the work we confront reflects cultural changes that will require strong leadership, a willingness to innovate, and coordinated partnership between academia, government, industry, and the nonprofit sector.

**I am grateful for the committee's time and attention, and appreciate your efforts to address our nation's healthcare workforce crisis. Thank you.**

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## Appendix

# 2017 Regional Primary Care Physician Needs-to-Supply Distribution Analysis

**In zip codes where there is a shortage (in red), there is a need for 2,571 PC Physicians.**

\* In 2012, The Robert Graham Center created the average annual per person PC physician usage rate (1.6) and number of visits a PC physician could handle annually (2,236). We multiplied that rate to the population in each zip code and divided by 2,236 to get the number of PC physicians needed. We subtracted current supply to determine PC physician shortage.

