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Recruiting and Training a Health Professions Workforce to Meet the Needs of Tomorrow's Health Care System

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Abstract

The quality of any health care system depends on the caliber, enthusiasm, and diversity of the workforce. Yet, workforce research often focuses on the number and type of health professionals needed and anticipated shortages compared with anticipated needs. These projections do not address whether the workforce will have the requisite social, intellectual, cultural, and emotional capital needed to deliver care in an increasingly complex health care system.

Building a workforce that can deliver care in such a system begins by recruiting individuals with the requisite knowledge, skills, and attributes. To address this and other workforce needs, the authors argue that health professions education programs must make purposeful changes to their admissions criteria, such as focusing on emotional intelligence and diversity and recruiting students from the communities where they will return to work; partner with communities; ensure that accreditation systems support these goals of fostering diversity; recruit students who can bridge the gap between public health and health care; and invest in health professions education research.

In this article, they contemplate how health professions education programs can recruit and educate talented health professionals to create a high performing workforce that is capable of serving in the complex health care system of tomorrow. They provide examples of successful programs to highlight the potential effects of their recommendations.

The quality of any health care system depends on the caliber, enthusiasm, and diversity of the workforce. Yet, workforce research often focuses on the number and type of health professionals needed and anticipated shortages compared with anticipated needs. These projections do not address whether the workforce will have the requisite social, intellectual, cultural, and emotional capital needed to deliver care in our increasingly complex health care system. Despite growing evidence that a diverse workforce leads to greater innovation and higher quality patient-physician interactions, actual trends show a decrease in diversity in the workforce.^{1,2} We believe that this trend may impede efforts to achieve the Quadruple Aim of enhancing the patient experience, improving population health, reducing health care costs, and improving the well-being of providers.³

Others have echoed these and larger problems by emphasizing that health professions education has not kept pace with changes in the health care delivery system.⁴ Gaining momentum are calls for a third wave of reform that moves education beyond the traditional science- and problem-based curricula to a new model of systems-based training that prepares health professionals to practice in locally responsive teams as part of patient- and population-centered health care systems.⁴ With a commitment to the Social Accountability Initiative,⁵ wherein institutions demonstrate their responsibilities to their communities, institutions can address persistent disparities between the composition of the workforce and that of the communities they serve. The Association of Canadian Medical Colleges' Working Group on Social Accountability, in describing what would become national policy, stated that:

The public and patients expect that governments and the health care professions will work collaboratively to ensure that the Canadian health care system continues to provide the necessary access and quality to meet the needs of the population. By identifying and responding to the health needs of the community and by

ensuring that individual graduating physicians understand their role in society, Canadian medical schools along with their partners, such as academic health care centres, governments, communities and other relevant professional organizations, have a major role to play in influencing the changes in the health care system that are necessary to ensure an effective, efficient, accessible, equitable and sustainable system.⁶

While Canada's efforts have led to an international movement to this end, that movement has yet to gain significant momentum in the United States.⁷

Building a workforce that can deliver care in the health care system of tomorrow begins by recruiting individuals with the requisite knowledge, skills, and attributes. Not since the 1960s has health care needed so many new types of providers to meet the needs of patients.^{8,9} Yet these workforce needs stand in contrast to the growing evidence that neither diversity in the workforce nor access to care in underserved communities is improving. To address these and other workforce needs, we must make purposeful changes to admissions criteria for health professions training programs, such as focusing on emotional intelligence and diversity and recruiting students from the communities where they will return to work; partnering with communities; ensuring that accreditation systems support these goals of fostering diversity; recruiting students who can bridge the gap between public health and health care; and finally investing in health professions education research. In this article, we contemplate how we can recruit and educate talented health professionals to create a high performing workforce that is capable of serving in the complex health care system of tomorrow. We provide examples of successful programs to highlight the potential effects of our recommendations.

New Admissions Criteria to Foster a Diverse Workforce

Emotional intelligence

Using formal emotional intelligence testing in addition to traditional entrance exams is a promising strategy to identify those applicants who are most likely to develop the skills needed to practice in complex health care systems—being engaged, compassionate, effective team members and leaders with strong relationship-building skills.¹⁰ One example of such a program is the SELECT (Scholarly Excellence, Leadership Experiences, Collaborative Training) admissions criteria and curriculum, which are designed to identify candidates with high emotional intelligence then to expose them to a specific training approach enabling them to become leaders capable of accelerating health care change.¹¹ In 2011, the University of South Florida Morsani College of Medicine partnered with Lehigh Valley Health Network to admit its first joint class using the SELECT criteria.¹¹ Their SELECT curriculum incorporates a professional development curriculum including baseline personal and leadership assessment, faculty coaching, peer coaching, an immersion field experience (e.g., shadowing various clinical team members and patients rather than just physicians), and a capstone project that integrates leadership, values, and health care analysis.

The efficacy of the SELECT approach is supported by the findings of a formal study of the emotional intelligence of medical students. While emotional intelligence did not predict students' performance in medical subject courses, it did predict their ability to regulate their emotions as well as predict their communication skills and interpersonal sensitivity.¹² Being able to regulate their emotions often indicates that health professionals will be able to combine scientific knowledge with emotional intelligence and social awareness.¹³

Recruiting for setting

Rural areas continue to be underserved. The “recruiting for setting” approach has been a fruitful way to increase the likelihood that health professional training program graduates will practice in rural settings where they are needed. Programs that specifically recruit students from rural areas or those who indicate a high preference for practicing in a rural area place a larger number of their graduates in rural practice than programs that do not.¹⁴ While the effects of nature versus nurture in these studies are difficult to disentangle, most evaluators agree that the combination is potent. While having a rural background independently increases the likelihood of a graduate practicing in a rural area nearly fourfold, that nature is complemented by the nurturing that programs do to support students’ interest and predilection.¹⁵

Graduates of three long-standing medical school rural programs in the United States that give preference to students from rural backgrounds were ten times more likely to practice in a rural area than international medical graduates.¹⁴ A comprehensive analysis of nearly 25 years of MD student data demonstrated that students with a stated intention to serve the underserved at matriculation were nearly four times more likely to choose rural practice than their peers, and those born in a rural county were more than twice as likely to choose rural practice.¹⁵ International medical school rural programs have demonstrated similar outcomes, particularly when students from rural backgrounds participated in longitudinal rural opportunities.^{16,17}

Further supporting a recruiting for setting approach, the University of California, Los Angeles (UCLA)/Charles R. Drew University Medical Education Program has attempted to recruit students who exemplify their mission to “conduct education and research in the context of community service in order to train physicians and allied health professionals to provide care

with excellence and compassion, especially to underserved populations.”¹⁸ Compared to peers at UCLA, graduates of the UCLA/Drew program are more than twice as likely to practice in underserved areas.¹⁸

Diversity is key

In 2008, the Josiah Macy Jr. Foundation recognized that medical schools must build their social mission into the admissions process.² They also called on medical schools to reduce their reliance on traditional metrics in selecting applicants for admission and instead to use a more balanced, comprehensive set of criteria.² Per the World Health Organization, institutions can both recruit applicants with strong academic credentials and achieve a balanced composition of rural, ethnic, and sociocultural backgrounds among students.¹⁹ Consciously reaching out to disadvantaged and underrepresented students at the primary and secondary education levels has been shown to increase their competitiveness as medical school applicants.^{18,20-22}

The Urban Universities for Health collaboration recently surveyed health professions schools in the United States to better understand if their admissions criteria were changing to incorporate more than grades and standardized test scores and how this change was taking place. The survey began with a set of stated principles for the admissions process: It should include the consideration of (1) broad selection criteria that are clearly linked to the school’s mission and goals; (2) applicants’ experiences, attributes, and academic achievements; (3) applicants’ potential contributions to the school’s learning environment and to the profession; and (4) applicants’ race and ethnicity.²³ This survey found that the majority of schools have moved to a holistic admissions process. A study from the Association of American Medical Colleges (AAMC) found that this shift has resulted in an increase in the diversity of students by race, ethnicity, and gender as well as experience and socioeconomic status.²⁴

At one California medical school, researchers found that including socioeconomic status on medical school applications may be a race-neutral way to increase diversity, and a study of AAMC data supported this finding.^{25,26} Yet there is still significant progress to be made as the median family income of matriculants is considerably higher than that of the general population.²⁴

Community Partnerships

In addition to changing admissions criteria, partnering with communities to develop a pool of eligible trainees can have a powerful effect on improving workforce diversity and distribution and on building a workforce that is accustomed to working with community partners.^{4,27} In New Mexico, for example, every county produces a health report card that includes the number of health professionals in training who are from that county.²⁷ This report card is part of a larger process of ensuring that every county has a workforce that is prepared to return to that area to practice. That process begins with pipeline programs to identify and support students who are interested in a health professions career. These students are then exposed to various health care careers and supported as they prepare for the career of their choice. Finally, students return to their home counties during training. New Mexico's annual workforce report continues to show improved workforce distribution in the state, at least in part due to these efforts.²⁸

Establishing community partnerships, such as the one in New Mexico between the county and health professions schools, could be an important part of the process of identifying and cultivating those talents or traits that are desirable in future health professionals in potential students. These partnerships, for example, could be integrated into community health needs assessments, which are now required every three years for tax exempt hospitals and at regular

intervals for community health centers, so that workforce considerations become part of any regular assessment and planning that takes place.²⁹

Changes to Accreditation

Revising accreditation standards could help achieve our proposed changes to the admissions process. The Josiah Macy Jr. Foundation pointed out that “medical schools are not entirely free to make the kinds of changes needed if they are to meet their education mission more effectively.”² The Macy Foundation also suggested that the Liaison Committee on Medical Education (LCME) and the Commission on Osteopathic College Accreditation (COCA) could further support existing diversity requirements and educational innovations by implementing changes to their standards and requirements, and the World Health Organization and the Institute of Medicine both have suggested that accreditation is an important mechanism for supporting and monitoring social accountability.⁴ Thomas Nasca, president and CEO of the Accreditation Council for Graduate Medical Education, has called for legislated antitrust relief so graduate medical education program accreditation can play a larger role in supporting workforce policy.³⁰ This call may likewise encourage the LCME and COCA in making needed changes in undergraduate medical education accreditation.

As we noted earlier, tax-exempt hospitals now have to complete a community health needs assessment every three years, as indicated in the Affordable Care Act. This assessment must include community stakeholders, explain how the hospital will address community health needs (or why it will not address those needs), commit resources to meeting those needs, and evaluate outcomes. We mention this assessment again to emphasize the need for changes to Internal Revenue Service rules and to Centers for Disease Control and Prevention guidelines to make workforce outcomes a specific part of this assessment. Assessing community health needs and

the pipeline together would help drive changes to the admissions process and motivate institutions to form community partnerships to increase diversity in the workforce.

Bridging the Gap Between Public Health and Health Care

Another factor driving diversity in admissions and meeting community health needs is the increasing pressure to heal the longstanding schism between public health and health care, which has been identified as one reason why the United States continues to spend more on health care than any other developed country while health outcomes worsen.³¹ We need to recruit and train health professionals to bridge the gap between public health and health care with the goal of improving population health.^{32,33}

Such students likely will have experience with community organizations, participate in civic and service organizations, and have leadership experiences that have taught them how to affect public policy change. These students may be older, coming to medicine as a second career, and more likely to have grown up as beneficiaries of social welfare programs. They may come from poorer homes and schools, which have left them less prepared to compete with other applicants to health professions training programs. These students must demonstrate a capacity to overcome challenges, a willingness to serve, and possess the ability to turn empathy into action.

Community health workers and others increasingly are being employed at the interface of health care and public health, working to address the social and other factors that affect health.^{8,9}

Students must understand this interface, have the capacity to work with teams in both realms, and have the mental flexibility to adapt to this way of thinking, which is necessarily interdisciplinary and intersectoral. Targeting mature students with real-life work experience and students with graduate training in another field is another possible route to bridge this gap.

Supporting Health Professions Education Research

Generally, health professions education research is not well funded, and small pilot studies or evaluations must rely on grants or privately funded initiatives.^{18,23} The cultural and organizational shifts we have described above as necessary to achieving the Quadruple Aim will require changes to the pipeline, recruitment strategies, and training program curricula. Knowing what changes to make and if those changes are meeting workforce needs will require the scientific rigor of formal inquiry and evaluation. Such research would benefit from interdisciplinary evaluation supported by partnerships between funders and researchers in education, anthropology, and organizational development.

An example of such interdisciplinary work is the adoption of the clinical transformation facilitation model in medicine, which is based on a program that has helped reshape agricultural efficiency and effectiveness over the last century.³⁴ Two Department of Health and Human Services agencies have formally attempted to implement elements of the Department of Agriculture's Cooperative Extension program to speed up the transformation of ambulatory care.^{35,36} The Cooperative Extension program, which is an educational and outreach network and partnership between the Department of Agriculture and land-grant universities, has a rich history of knowledge transfer and innovation identification and evaluation, all of which have enabled the Department of Health and Human Services to demonstrate that a similar approach in medicine can improve clinical care.

The University of New Mexico (UNM) is a good example of a land-grant university that has implemented its successful agriculture Cooperative Extension model to support health and health care transformation.²⁷ UNM has partnered with local communities to support health professions education, developed new health care team roles (e.g., community care worker), and developed

extension services to improve provider competency and access to subspecialty services.³⁷ More importantly, the university has evaluated this work. Given their findings that the program has been successful, we argue that the Cooperative Extension program may be an excellent model for changing health care education, ensuring that the responsibility for transformation stays within academic health centers, and developing formal health professions education research programs.

In addition to conducting interdisciplinary research that borrows from other research traditions, developing the academic discipline of health professions education research and supporting new researchers also are important. The National Institutes of Health has a rich legacy of supporting research fellowships, PhD programs, and new investigator awards. Most of these opportunities have focused on the basic sciences, although support is increasing for health professions education research and other work outside the basic sciences. The Health Resources and Services Administration also has supported training program evaluations and education research. Sustaining changes in the pipeline will require a research base, and existing federal research training programs could be viable mechanisms for building and sustaining that base.

Many of the successful innovations we have described here have been supported by Title VII of the Public Health Service Act.³⁸ This important program is administered by the Health Resources and Services Administration and was the main mechanism supporting the last major medical education expansion in the 1970s. Title VII created the Health Careers Opportunity Program and the Training in Primary Care Medicine and Dentistry Program. It is now just a shadow of what it once was, and its existence is often threatened in Presidents' budgets and Congressional appropriations. Given that individual states and institutions have largely financed recent expansions in medical, nursing, and physician assistant education programs, Title VII could be a

logical vehicle for ensuring that this growth is purposefully geared toward meeting the needs of the public.

Many states have used Medicaid funds—more than \$4 billion annually—to support graduate medical education and, in some cases, specific workforce goals.³⁰ After the Affordable Care Act, federal Medicaid waivers were also used to support specific training outcomes.³¹ Many states are now reconsidering how these dollars could support training, and they are moving toward focusing on specific outcomes.³⁹ Thus, we would argue that Medicaid funds and waivers could be used to support pipeline programs that produce providers to meet the needs of the Medicaid population.

Conclusions

With mounting pressures to transform health care delivery models, education programs are at risk of falling behind in preparing the future workforce to meet the needs of these new systems. We need an education system that incorporates holistic admissions to train a diverse workforce that is capable of bridging the gap between health care and public health. Achieving this goal requires new recruitment criteria and methods, partnerships with local communities, support from accreditation agencies, and research into the efficacy of new programs and efforts.

The first wave of education reform in the early twentieth century was led by Abraham Flexner and had the support of policymakers. The second wave—the shift to problem-based learning in the 1970s—required little policy support outside changes to accreditation. However, much of the investment in creating new programs and expanding existing ones to increase the number of providers being trained, which was part of this second wave of reform, must continue. The pressure to create a third wave of health professions education reform, to hold programs

accountable to their communities, is an opportunity to continue to grow the workforce to meet the needs of our changing health care system.

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