

A Health Workforce Equity Review Series: Introduction & Executive Summary

Introduction to the Framework

There is no healthcare without the people who provide care. In its broadest definition, the health workforce mediates almost all health policies and their effects on who receives health services and their quality. That is why understanding the link between the health workforce and health equity is important.

The Fitzhugh Mullan Institute for Health Workforce Equity (Mullan Institute) focuses on that link, providing research, education, and advocacy to improve the contribution of the health workforce to health equity. Ultimately, the Mullan Institute's vision is a diverse workforce with the competencies, opportunities, and courage to ensure that all people attain their full health potential. We call this Health Workforce Equity (HWE).

This series of evidence reviews aims to introduce readers to six domains of HWE, understand how they are deeply intertwined, and consider some of the policy levers available to improve HWE. The six domains span: (1) who enters the workforce, (2) how they are educated and trained, (3) how they are distributed, (4) whom they serve, (5) how they practice, and (6) under what conditions they work. These interrelated questions are represented in Figure 1.

Moving inward, the framework posits a relationship of these health workforce domains (via outcomes such as patient access, quality, costs, and patient-centered services) to health equity, or what we have termed Health Workforce Equity. Moving outward, it depicts a relationship with structural determinants of these domains, specifically the policies, programs, and market forces, the vested interests that drive them, and the broader social context that determines the distribution of power and resources.

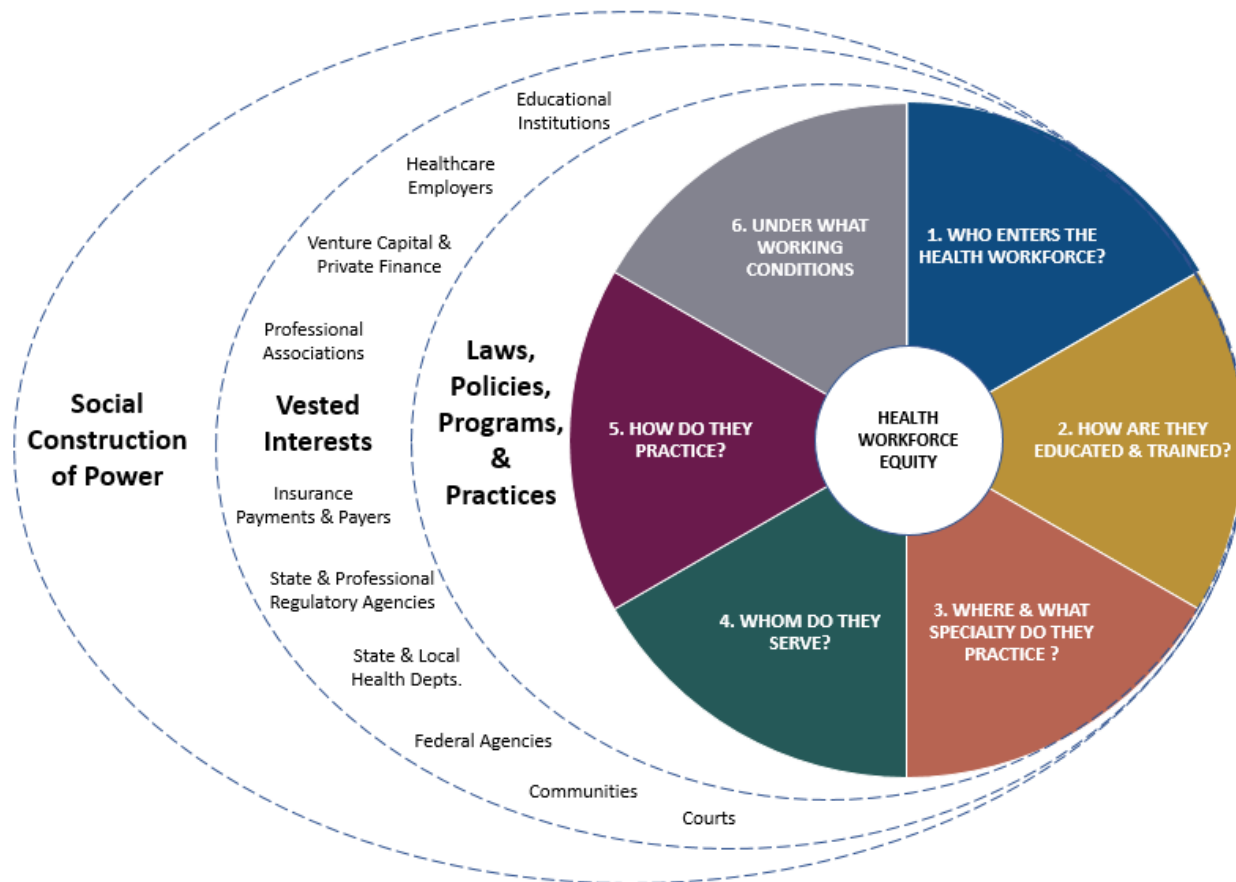


Figure 1: Health Workforce Equity Framework

Each of the six reviews examines the evidence on three questions, as follows:

- What is the nature and magnitude of the health workforce problem?
- How does the workforce problem affect health equity?
- What policies and programs have the greatest effects on this domain?

Given the internal breadth of each of these six domains, in some cases, the evidence reviews focus on one component of the issue that is particularly salient while acknowledging that additional areas are also important. For example, the first review focuses on who enters the workforce but narrows this question for the review to the question of racial and ethnic diversity. The intent is not to diminish the importance of other types of diversity; it is simply a practical choice, to begin with, one prevalent issue. Similarly, Evidence Review #3 focuses on one aspect of how the workforce is distributed: the problem of too few primary care practitioners in rural areas. Finally, evidence Review #4, which focuses on whom the workforce serves, examines Medicaid beneficiaries while recognizing that other groups are frequently shunned, including those with no insurance and complex chronic conditions. Over time, additional reviews may be added to this series.

Summary Findings

Domain 1: Who Enters the Health Workforce? An Examination of Racial and Ethnic Diversity

Black, Hispanic, and Native American individuals are underrepresented in health professions that require post-secondary education compared to their representation in the general population. A substantial body of literature suggests that a diverse and inclusive workforce can help increase access to care and improve health care outcomes among underserved populations. Conversely, the lack of diversity in the health workforce contributes to poorer health status for underrepresented populations and perpetuates historical health inequities. Numerous strategies can support the recruitment, matriculation, retention, and graduation of underrepresented minority students entering the health workforce. The literature suggests that the most effective strategies involve a multifaceted and comprehensive effort, spanning pipeline programs that offer academic support and mentorship to underrepresented minorities (URMs), URM-specific recruitment practices, holistic review in admissions processes, and federal programs and funding that support URMs.

Domain 2: How is the Health Workforce Educated and Trained? An Examination of Social Mission in Health Professions Education

Institutions that provide health professionals with education and training play a critical role in determining whether clinicians graduate with the knowledge, skills, and courage to improve health equity. In the United States, there is still wide variation in their performance. The education pipeline plays an important role in determining the future workforce –who enters it, which professions are produced, and whether graduates choose high-need specialties, practice in underserved populations, and have the skills and courage to advance health equity. Among the policies and programs key to improving social mission goals are HRSA's Title VII and Title VIII workforce development programs, authorized under the Public Health Service Act, the Teaching Health Center Graduate Medical Education (THCGME) program, accreditation standards that influence educational institutions' policies and practices, certification and licensing exams which may or may not include topics such as health disparities, systems-based practice and social determinants of health in health professions exams or competency assessments; community-based, experiential clinical or service-learning experiences; and, lastly, the inclusion of social mission in governance documents and processes.

Domain 3: Where and What Specialty Does the Health Workforce Practice? An Examination of the Geographic Distribution of Primary Care Providers

The primary care workforce tends to reside and practice in well-resourced communities. As a result, the primary care provider to population ratio is 93/100,000 in metropolitan areas, compared to 55/100,000 in non-metropolitan areas, leaving many rural and underserved communities with challenges in accessing care. There is strong evidence that this maldistribution contributes to health disparities. In addition, some policies and programs exacerbate the problem, including the current graduate medical education (GME) allocative system and unnecessarily restrictive scope of practice laws. While the methodology for designation of Health Professional Shortage Areas (HPSAs) is outdated and leads to a loss in allocative efficiency, many

programs appear to help improve distribution, including recruitment of medical students from rural areas, partnerships between medical schools and community colleges, rural training tracks, career counseling and mentorship in rural and underserved areas, scholarships and loan repayment programs, and hub-and-spoke models of care in rural settings.

Domain 4: Whom Does the Health Workforce Serve? An Examination of Provider Participation in Medicaid

Lack of access can be attributed to provider shortages and geographic maldistribution and the degree to which available clinicians provide service to communities made vulnerable. This evidence review focuses on provider service to low-income and publicly insured patients through Medicaid and the Children's Health Insurance Program (CHIP). Individuals with Medicaid are more likely to report access barriers than those with private insurance or Medicare, exacerbating inequities. 12 to 30% of primary care providers, depending on the state, do not serve Medicaid patients. Evidence suggests that state-level Medicaid policies, including lower payment rates relative to other payers and administrative burdens for reimbursement, represent barriers to provider participation in Medicaid. Other policies, such as the Primary Care Fee Bump, demonstrate mixed results. Policies that can increase provider participation in Medicaid include reimbursement fees and alternative payment models; expanded scope of practice and full reimbursement for advanced practice clinicians; increased funding for safety-net clinics; and Medicaid expansion under the Affordable Care Act.

Domain 5: How Does the Health Workforce Practice? Addressing Root Causes of Health Disparities

There is mounting evidence that the current medical services model does not produce desired health outcomes, in large part because the health workforce has limited capacity to identify and address social determinants of health (SDoH). Evidence shows that this, in turn, can lead to improper care, poor health outcomes, and avoidable health disparities. While the health workforce cannot address the root causes alone, practicing to meet social needs, including eliminating racial disparities in care, helps ensure that everyone has a fair opportunity to attain their full health potential. Studies suggest that the fee-for-service payment model represents a significant barrier to addressing social determinants of health, while alternative payment models promise to address them. These models include value-based payment models such as accountable care organizations (ACOs) and the Comprehensive Primary Care Plus (CPC+). Other policies and programs that have some evidence supporting their use include SDoH screening, community health worker interventions, and interprofessional teams of clinicians and support staff.

Domain 6: Under what Working Conditions? An Examination of Health Worker Occupational Health and Compensation

This review covers two parts: (1) Occupational Health, including injuries and illness, violence, and burnout, and (2) Worker Compensation.

Part 1 notes that the 22 million health workers in the U.S. experience the highest rates of occupational injury, illness, and burnout of any sector. This harm is preventable and in and of itself constitutes a health equity problem. Exacerbating the health inequity within the sector, the adverse effects impact different health occupations, genders, races, and ethnicities differentially and affect patient populations served by those most at risk differentially. Many organizational policies are key to improving health and safety, including ensuring safe staffing levels, team-based models of care, and the inclusion of medical scribes. Federal and state policies are also critical to establishing certain guardrails, including protecting workers' rights to unionize, expanding the scope of practice, and establishing and enforcing occupational safety procedures.

Part 2 focuses on the nearly 7 million healthcare support workers that are severely under-compensated in the U.S., with almost half being paid less than \$15 an hour and many lacking basic benefits like sick leave and health insurance. Poor compensation disproportionately affects women, people of color, and immigrants, exacerbating these communities' financial and social disadvantages. In addition, studies show that low compensation is associated with a high turnover of these workers, which negatively affects patients' health, particularly for Medicaid beneficiaries in long-term care facilities. Key federal policies to address this problem include increasing the minimum wage, protecting workers' right to unionize, and requiring sick leave and health care benefits. Increased Medicaid reimbursement rates could also help improve compensation if there are wage pass-through mandates. Value-based payment models may also facilitate wage increases for lesser-paid support staff.

Research Challenges

These six HWE reviews revealed important challenges for research on these issues, including the need for more and better data and measurement and specific gaps in the evidence.

Domain 1: *Who Enters the Workforce* suggests that more research on the impact of health professions workforce diversity on patient care and outcomes, particularly at the organizational level, is needed. Additional research is also necessary to better understand the barriers and facilitators in developing programs and policies to achieve a diverse health workforce and systematically evaluate these approaches.

Domain 2: *How are they Trained* identifies numerous case studies of successful models but found little generalizable research linking health professions education to long-term outcomes that may ultimately advance health equity. Needed improvements in the field of social mission research include longitudinal study designs that assess long-term outcomes, better data for tracking individuals from their time as a student throughout their careers, and more studies focused on non-physician disciplines, many of which have yet to develop a good system for tracking professionals within their fields.

The review also suggests a need for additional dialogue and coordination to advance standards and measurement. For example, social mission-aligned governance and curricular experiences

can be created by individual schools, but broad uptake can also be promoted by accreditation and certifying bodies. Enhancement of the social mission measurement and accountability of some of the Federal health professions education programs, such as Teaching Health Centers and Titles VII and VIII, is another important area of policy development that could speed progress in this area.

Domain 3: *How are they Distributed*, cites a substantial body of research that describes the problem of provider maldistribution, its effects on health equity, and potential solutions. However, several research and policy questions persist. First, rurality is measured in several ways, making it hard to produce a cohesive body of literature studying this topic. Second, no consensus exists on the right or best ratio of providers to population. Given the variation in state-level healthcare needs, what may be an ideal ratio in California may not apply in Rhode Island. Third, while undersupply is associated with inequitable health outcomes, oversupply is also associated with poor outcomes, sometimes resulting from unnecessary services. New and improved measures of population need should inform these discussions. Finally, future research should examine the impact of training programs developed in rural communities, as they can serve as specialized and regional rural health care systems. The Geisinger health and education system in rural PA, for example, includes a medical school, residency training, school of nursing, and allied health education programs. Similarly, in Cooperstown, NY, the Basset Health System is a rural teaching hospital affiliated with an urban teaching hospital. However, little is known about the impact of these programs on provider distribution or population outcomes.

In addition, a more reliable national-level provider database would allow researchers and policymakers to track the distribution of the workforce over time in such a way that specific policies and programs could be better evaluated. While the National Plan and Provider Enumeration System (NPPES) is publicly available, it misses valuable information about providers and would benefit from enhancements in several areas. These areas include standardization of fields, improved mechanisms for updating records when providers move or retire, additional fields relating to work setting, and ways to link information on the setting with other national databases such as the Provider Enrollment, Chain, and Ownership System (PECOS). With additional funding, the NPPES could also expand to other health occupations, such as nursing, that do not necessarily bill for services. Improving the reliability and accessibility of national data on the health workforce, both from state and federal sources, could improve our understanding of the nature and magnitude of the problem and the successes and failures of solutions to it.

Domain 4: *Whom do they Serve*, finds that until now, research has been limited due to the lack of timely and consistent Medicaid data. With state data recently made available from the Center for Medicare and Medicaid Services (CMS), research is more feasible. The Mullan Institute is tracking Medicaid participation at the local and state level. This will also help verify whether credentialed providers are actually serving Medicaid patients and understand which services are provided and what volume of patients each provider covers. Given the many factors that can impact Medicaid participation, research designs could use multi-level modeling techniques to explore the directionality and strength of association between these factors and Medicaid participation. This will aid the identification of policy tools that can be directed towards

addressing specific barriers to Medicaid participation at the individual provider or practice level and the broader community/market and Medicaid policy level.

Ultimately, health professional educational institutions, state Medicaid programs, Medicaid Managed Care Organizations, healthcare organizations, and health professionals are all responsible for addressing this problem. Metrics to hold these stakeholders accountable for Medicaid acceptance could help spur more discussion across these groups and lead to policy innovations that incentivize or require Medicaid patients' acceptance under certain circumstances.

Domain 5: *How do They Practice* finds that efforts to address social needs in the health system remain limited due to a variety of issues, including the scale of unmet needs, varying organizational capacity, complex regulations and ambiguity of what services are eligible for reimbursement, lack of direct funding for the social care workforce, concerns about the medicalization of social needs, and underdeveloped processes for identifying and addressing social needs. The review concludes that studying the impact of new and expanded roles addressing patients' social needs is complex because of the variety of roles examined, the overlap between job titles and roles/activities, and the heterogeneity of outcomes measured. Many studies of new workforce roles are "weak" due to selection bias, lack of control groups, and insufficient measurement. Studying new team models and approaches to care is also difficult because of challenges in establishing causal links between care models and patients' health outcomes. New workforce models introduced as parts of broader health system changes, such as Accountable Care Organizations (ACOs), may contain confounding interventions like information sharing via health information technology. New models may also take longer to influence outcomes than can be captured in most evaluations. While there is some evidence of a financial return on investment for social care roles, the prospect of future financial benefits alone may not be sufficient to motivate healthcare organizations to invest in needed workforce roles. More evidence is needed on how value-based payment models can best support addressing the root causes of poor health through new and expanded health workforce roles and new models of care to improve outcomes at a lower cost.

Domain 6: *Under What Working Conditions* finds that, while substantial research has been conducted on describing the problem and subsequent consequences of occupational hazards, including burnout, there has not been sufficient focus on designing evidence-based solutions, especially for moral injury and burnout. In addition, the research on burnout and moral injury suffers from a lack of standardization of terminology used. Consequently, there are no national-level data sources to track these specific occupational problems. Given the abundant evidence that poor work environments result in worse patient outcomes, the absence of progress is concerning. Future research must prioritize building more robust evidence using system science and policy analysis and incorporating findings into learning systems.

Part 2 suggests that solutions to the problem of low support staff and direct care worker compensation may be, in part, constrained by the lack of research showing the direct effects of compensation on worker and patient outcomes. Fortunately, the American Rescue Plan Act

provides a unique natural experiment that will allow researchers to examine the effects of a significant infusion of time-limited funding for direct care workforce stabilization efforts in Medicaid home and community-based services. In addition, studies that compare states' use of these funds will be especially helpful since the approaches they are taking vary significantly.

Conclusion

Over time, the Mullan Institute will continue to add to this series with reviews of additional components of these six domains. The series serves as a foundation for research priorities, developing new measurement tools to increase accountability, and awareness campaigns to help policymakers, students, and the public better understand the complex and critical role that the health workforce plays in determining health equity. Deconstructing the many ways that policies and programs affect the health workforce is key to the work of advancing health equity.



A handwritten signature in black ink, appearing to read 'Patricia Pittman'.

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