

Testimony for Senate Committee on Health, Education, Labor and Pensions Hearing May 22, 2018 Health Care Workforce: Addressing Shortages and Improving Care

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Statement of the Problem

At present and increasingly, our health care workforce is not adequately meeting the needs of our citizens. Population aging and growth ensure that our country will require significantly more medical care. Expanded insurance means that more citizens will be able to access the care they need. Of particular concern are

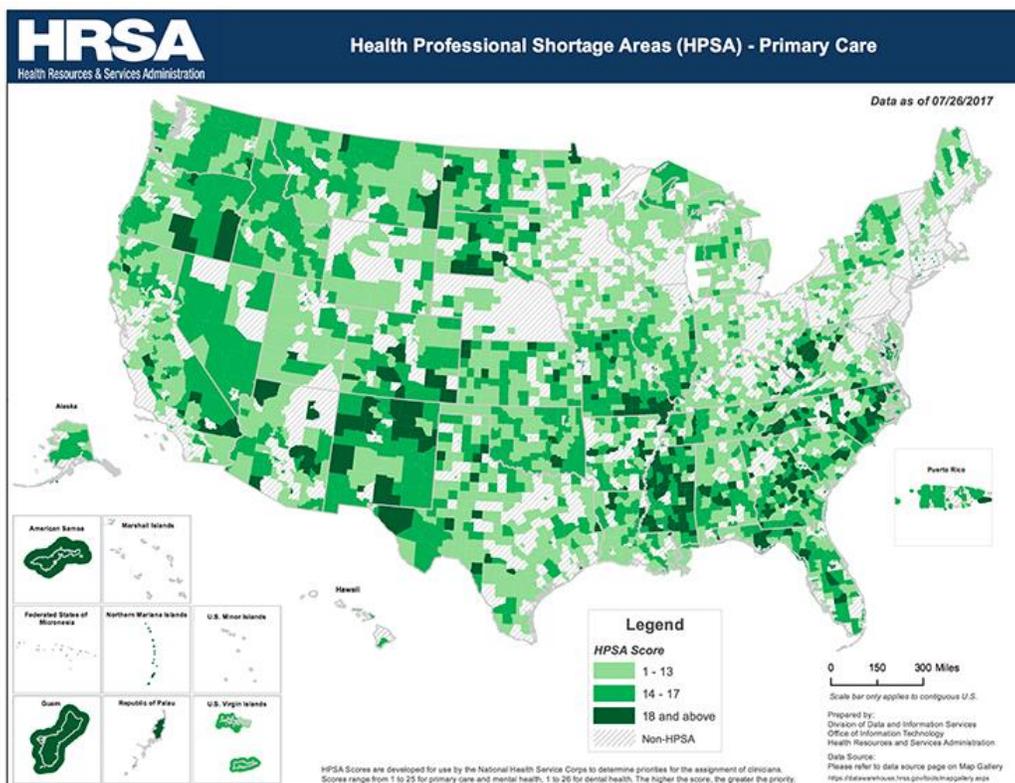
- Rural areas of the country which have had an inadequate healthcare workforce for 80 years and counting
- The proportion of primary care providers because they
 - a) Improve health outcomes, decrease health care costs, and reduce health disparities
 - b) Care for the majority of the health care needs of a population
 - c) Provide care to underserved populations at higher rates than non-PCPs
- Diversity of our physician workforce
- Preparedness of physicians to practice in new care delivery models, to address patient safety concerns, and to ensure that the quality of their care is improving over time

Introduction and Background

The most recent projections from the Association of American Medical Colleges describe a shortage of 42,600-121,300 physicians by 2030. Included in this number is a shortage of 14,800-49,300 primary care physicians. These careful, thorough, and highly sophisticated prediction ranges account for many scenarios of care provision – increasing presence of physician assistants and advance practice nurses, increased efficiencies from team-based care, shorter work hours/earlier retirement among younger physicians, and different rates of health insurance¹. Despite the uncertainty and the variation between these predictions and others²⁻⁴, there are no major models which suggest that the supply of physicians at current levels will be adequate.

While the total number of physicians needed is uncertain, it is abundantly clear that we have a physician workforce distribution problem in terms of geography, specialty mix, and workforce diversity. In addition, the very nature of the practice of medicine has shifted from largely intervening in acute and serious injuries and illness, often in hospital settings, to emphasizing health maintenance and care of chronic diseases, and doing as much as possible in the outpatient setting. Because of the rapid evolution in how medicine is practiced and health care is delivered, physicians may complete residency training and find themselves ill-equipped to practice in the settings where patients most need them.

- Geography
Wide swaths of the United States, mostly in rural areas, are designated as Health Professional Shortage Areas⁶. Small but population-dense urban regions are often designated medically underserved because of the high prevalence of poverty and elderly patients and high infant mortality rates⁶. HRSA estimates



- Specialty Mix

Primary care is defined as the provision of integrated, accessible health care services by clinicians who are accountable for addressing the large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community. It is the foundation of high-quality and cost effective health care systems. Among OECD countries, those with stronger primary care systems have better health outcomes than those with weaker primary care systems¹⁰. Comparison of counties within the US showed the same correlation between improved quality/lower cost care and a higher proportion of primary care physicians¹⁰. A review of 35 studies showed that higher ratios of primary care providers led to reduced mortality from 5 major causes (infant, stroke, heart, cancer, total). Adults who see a primary care provider have a 19% lower risk of premature death. Patients who see a primary care provider first save 33% compared to their peers who see only specialists, and it's estimated that if everyone in the US saw a primary care provider first it would save an estimated \$67 billion per year¹¹. Unfortunately, fewer than 30% of physicians in the United States practice primary care. Generally, predictions of physician shortages assume maintenance of our current specialty mix, but if we are to achieve the triple aim of improved quality, lower costs, and more patient satisfaction, we must increase the proportion of primary care physicians. Furthermore, primary care physicians are what is needed in rural America, where low population density won't support multiple specialists. As the emphasis in health care shifts from treatment of acute and serious illness and injuries to prevention and chronic disease management, the need for primary care providers will only increase.

- Diversity

Racial and ethnic diversity in the healthcare workforce has been shown to increase access to health care and to improve outcomes for underserved populations¹². African-American, Hispanic, and Native-American physicians are much more likely than are white physicians to practice in underserved communities and to treat larger numbers of minority patients, regardless of income¹³. African-American

and Hispanic physicians are more likely to provide care to the poor and those on Medicaid¹⁴. Racial and ethnic minority patients are generally more satisfied with their care, and are more likely to report receiving higher-quality care, when treated by a health professional of their own racial or ethnic background^{15,16}. A 2015 report from the National Center for Workforce Analysis described diversity in the health workforce overall, noting that racial and ethnic diversity is greatest (and increased over the preceding 10 years) among the least paid, lowest-income, lowest-prestige occupations. In contrast, graduating physicians are about 6.5% black or African-American (compared to 14.3% of Americans) and 8% are Hispanic (compared to 17% of the US population)¹⁷. The AHRQ tracks health care disparities between groups with its annual National Healthcare Quality and Disparities Report, and demonstrates the persistence of lower quality care (based on 250 outcome measures) for minorities underrepresented in medicine¹⁸. In order to address deficiencies in health care access and quality among poor Americans and those from minority groups, we must improve the diversity of the physician workforce.

- Changing healthcare delivery models
Graduate Medical Education programs are not adequately preparing new MD graduates to practice in the future. Despite the fact that fewer than 1 person per thousand in a population is hospitalized in an Academic Medical Center (AMC) each month, and despite the fact that 60% of procedures are performed in the outpatient setting, residency training focuses heavily on inpatients in large AMCs. Residents have inadequate opportunities to care for patients with chronic diseases longitudinally, and topics like health systems, quality improvement, and practice transformation are consigned to the margins of an intensive curriculum¹⁹.

Effectiveness of Interventions

The problems described here are neither new nor unknown. For decades, the federal government has funded programs to address these needs and others as a way to try and encouraged improved health outcomes for our country. Currently, 80 programs are largely administered through HRSA's 5 bureaus and 10 offices, and run the gamut from loan repayment programs, pipeline programs, direct support for residencies and fellowships, and advanced training initiatives for new models of care, among others²⁰. The key question is which of these programs are the most effective and should be supported? What can be changed, and what should be dropped?

This testimony focuses primarily on programs administered through the Bureau of Health Workforce funded through Title VII of the Public Health Service Act, though the goals of some programs align or even overlap with programs administered through other centers. Because of the wide variety of program types and their respective goals, it is difficult to make a comparative assessment about program efficacy. Some programs have outcomes that are easy to measure. For example, the Health Careers Opportunity Program establishes pipeline programs which nurture students from backgrounds underrepresented in health professions. Success can be determined by counting the ultimate number of health professionals produced and by monitoring the attrition rate. Evaluation of other programs is more challenging, for example Centers of Excellence. Such centers can count the number of people they "touch" but because their mission is to collect and provide resources and enhance training opportunities it can be difficult to produce data that describes their success. Finally, many of the intended outcomes are years away from the inception of any program. Initiatives to increase diversity among physicians may begin in high school; with a minimum of 8 years before becoming a physician and another 3 before participants are ready for independent practice. Loan repayment and other inducements to increase the number of physicians in rural areas may look effective at one year after the commitment is repaid, but the true need is physicians with an enduring commitment to their community – and that's not measureable until years later. Our ultimate goal is improved health for people, however those effects are sufficiently downstream that collecting information is extremely challenging, and proving causation even more so given the dozens of factors in addition to workforce programming that are likely to influence an individual's health. Despite the difficulty of tracking and measuring, however, it is essential that Health Workforce and other

programs be monitored so that we can eventually determine which programs are functioning most effectively. Examples of the kind of outcomes being currently monitored are below:

Program Metrics for 2016-2017

Program Name	Number of Awardees	Number of Trainees	Trainee Characteristics	Program Characteristics
Area Health Education Centers Develop and enhance training networks that provide pipeline programs and advanced training to expand diversity, enhance health care quality, and improve access in rural and underserved areas.	52	437,267 at all levels	30.9% URM 39.7% disadvantaged	62.8% MUC 62.5% Primary Care 42% Rural
Primary Care Training and Enhancement Training for primary care providers in new models of care delivery	68	7,344 residents	23.4% URM 34.2% disadvantaged	63.5% MUC 61.7% Primary Care 29.7% Rural
Teaching Health Centers Direct funding for new residencies designed for improved care delivery models in MUCs or primary care settings *Funded under Title III	57	771 residents	20% URM 23% from rural backgrounds 20% disadvantaged 68% of completers are practicing primary care (30% national average) 55% are practicing in rural settings or MUCs	99% train in a primary care setting 600,000 patient-contact hours 83% train in a rural setting or MUC
Health Careers Opportunity Programs Multiple initiatives to increase diversity and provide care to underserved communities	17	1,284	83% URM 97% disadvantaged	36% trained in MUCs 68.2% trained in primary care settings

Fortunately, significant effort is being made to clarify and monitor program outcomes. HRSAs strategic plan for 2016-2018 lists clear goals, breaks the goals down into measurable objectives, and describes strategies for reaching the objectives. For each goal, performance measures are spelled out. This is an excellent strategy that will allow monitoring for success, and could be replicated at smaller scale for individual programs. In addition, there is solid data that in the big picture, Title VII is having the desired effect. Exposure to a Title VII program during medical school increases the likelihood of working in a Community Health Center or joining the National Health Service Corps. 50% more students chose family medicine as a specialty (the specialty most likely to produce primary care physicians) in schools where there is Title VII funding compared with schools where there is no such funding. Students from Title VII schools are also 30% more likely to practice in a rural area, and 30% more likely to practice in a physician shortage area. On the whole, then, and for perhaps our

most significant health workforce problem (the maldistribution problem) Title VII programs are having a positive effect²¹.

Examples of Successful Title VII Programs

- **FMR of Western Montana**
This program is a perfect example of how traditional GME funding and HRSA enhancement funding work together to address workforce needs. The FMR of Western Montana is a new residency program (started in 2013) sponsored by the University of Montana, 2 community health centers, 3 primary hospitals, and 9 rural communities. FMRWM serves a population that is so rural it's actually designated as a frontier. Thus far, 90% of its graduates are practicing in rural areas. Recognizing that health care delivery is changing and that its graduates needed to be prepared to practice in the future, the FMRWM received a HRSA Title VII grant for Primary Care Training and Enhancement. Project directors leveraged carefully built and nurtured existing community relationships between schools, hospitals, and the residency program to identify and disseminate innovations and best practices from one site to the whole network. Intensive and longitudinal team training was provided to all participants, including residents, who came to understand quality improvement and innovation as part and parcel of their jobs as rural physicians. Self-reliance and local expertise were celebrated by having participants determine the needs of their communities and decide which projects would be adopted locally. In this example, the PCTE grant took a residency that was successful in mitigating a critical personnel shortage and improved it by giving residents training that they wouldn't have had.
- **BUSM interprofessional teams**
Boston University School of Medicine hosts a Title VII program that trains teams of interprofessional students to provide care to underserved (urban poor) patients with complex medical needs including obesity, diabetes, and eating disorders. Students of medicine, social work, nutrition, and physician assistant programs work with a family medicine resident to see complex patients in a team for an hour at a time to provide care that keeps patients engaged and that addresses their social determinants of health (such as nutrition and housing security) as well as their medical needs. A curriculum for these learners has been developed and is being refined which, once optimized, can be easily disseminated to other interprofessional programs. About half of students' time is spent in direct patient care in this project, and half is in training for how to provide that care including very specific skills like SBIRT (screening, brief intervention, referral, and treatment) and motivational interviewing that are best practices in behavioral health and can be applied in any setting. This project is notable for its emphasis on monitoring patient centered outcomes – in addition to tracking the number of participants that ultimately practice in MUAs and primary care, and measures of patient engagement, this study is tracking patient outcomes such as weight, HbA1c (glucose monitoring for diabetes), and depression index scores.
- **Project ECHO: Opioids**
Project Echo is a successful national program that provides advanced specialized care through primary care providers by connecting specialists at an Academic Medical Center “Hub” with their remote primary care colleagues for education and patient case conferences. In this program, primary care providers meet with a specialist via videolink for two hour weekly conferences, of which the first 30 minutes is a formal educational presentation and the last 90 minutes involves case presentations by PCPs in which the specialists provide consultations. In this way, patients can receive much-needed expertise of specialists without travelling, and the specialists can provide consultations on many more patients in a shorter time (relying on the expert assessment and reporting of their PCP colleagues) than if they were seeing them in their offices. Over time, PCPs develop enhanced expertise in the specific subject being addressed, and are able to provide the needed care without consultation. A 2016 paper¹⁷ reviewed the 10-year substance abuse disorder project ECHO based in New Mexico and found that 950 cases had

been discussed and more than 9000 hours of continuing medical education credits had been awarded to participants. Physicians in that region became licensed to prescribe buprenorphine (currently the best treatment for opioid addiction, but requires special licensure) extremely rapidly, increasing far more than most states, and are now 4th in the nation for the number of licensed buprenorphine prescribers per capita. Currently, a project ECHO focused on Opioids is running nationally, including a hub at Boston Medical Center.

Conclusion

Essentially, physicians do in practice what they were trained to do in school and residency. Hospital vs. Outpatient, urban/superserved vs. rural/underserved, new care models, etc. If you have spent your three most intensive years of training taking care of desperately ill people in a large medical center surrounded by resources and other experts; the idea of moving out to a location where you are the only expert around is terrifying and isolating. If your case conferences and presentation and exams have only dealt with the ins and outs of treating specific illnesses, or on the newest technological advances and you never do a quality improvement project or identify the needs of the community beyond the hospital then you don't have any idea that it's your job to do those things. One of the reasons physicians are so bad at tracking health care quality metrics for our patients is that we didn't see it done, and didn't know we were supposed to. Residents must be trained in the full array (and in the correct proportion) of settings where we need them to practice, and they must be trained in the skills they'll need tomorrow; including team-based care and practice improvement. In addition to strategies for re-allocation of GME funding (which is covered elsewhere in statute) HRSA Health Workforce programs make critical contributions to ensuring an optimally-prepared physician workforce.

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