



Impending health workforce shortages and implications for PAs

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Researchers who study trends in the US health care workforce have recently arrived at a consensus that a severe shortage of health care providers is likely in the near future. While most of the research supporting this conclusion focuses on the effects this shortage will have on physicians, the implications for physician assistants are similar.

The history of health workforce predictions

Accurate health care workforce predictions can prove difficult to make. Many factors that impact such forecasts are in a state of flux, and important factors may emerge that did not exist at the time of the prediction.

Post-Flexner physician workforce projections began in 1933 with the publication of the report of the Committee on the Cost of Medical Care (CCMC) entitled *The Fundamentals of Good Medical Care*.¹ Chaired by the Secretary of the Interior and heavily influenced by the secretary of the American Medical Association, the CCMC believed that organized medicine should provide “the delivery of adequate, scientific medical service to all the people.”¹ The report concluded that this meant providing 140.5 physicians per 100,000 population—10% more than the existing supply at the time—and that 18% should be specialists.¹

Physician shortages were obvious after World War II, and allopathic medical school enrollments doubled from the 1950s through the late 1970s.² In the late 1970s, however, the medical community became concerned that the expanded enrollments would result in future physician surpluses. In 1980, the Graduate Medical Education National Advisory Committee concluded that in light of its projected 30% surplus of physicians by 2000, medical school enrollment should be decreased 10% by 1990.¹ Similarly, the Council on Graduate Medical Education (COGME) was predicting physician surpluses in specialties as recently as 1996.³ Consequently, medical school enrollment was held in check for a couple of decades.

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In 2002, Cooper and colleagues used an economic and population growth model to predict that the combination of an increasing population of elderly Americans, longer life expectancies, and growing expectations for universal health care would increase the demand for medical care in the future.⁴ Cooper has predicted that by 2020, there will be a 20% shortage of physicians if the training of physicians, nurse practitioners, and PAs remains at current levels.⁴ When this work was published, Cooper’s was the lone voice in predicting future health care workforce shortages, but over time even COGME has concluded that shortages are likely and that medical educators should concentrate on addressing these shortages through increased enrollment.⁵

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How will shortages affect the PA community?

An increased demand for health care providers will likely first become evident in an increasing availability of PA clinical positions, followed by an increase in the salaries offered as more positions remain vacant longer. Starting salaries for new PA graduates rose 61% from 1989 to 1996, considered a time of high demand for PAs, compared to a 24% increase from 1996 to 2003, considered a time of lower demand for PAs.⁶ However beneficial increased employment opportunities and higher salaries appear, an increasing demand for PAs in the health care workforce will likely have consequences that may threaten the profession in the future.

The most profound effect will be pressure to increase the number of students enrolled in PA educa-

tional programs. Preliminary data from a Physician Assistant Education Association survey of PA programs indicate that approximately half of programs are planning for enrollment increases in response to a robust application pool and anticipated health care provider shortages.⁷ PA program enrollment expansion calculated from this survey is estimated to be 526 slots over the next 5 years if programs were to admit to capacity; this is a 10.9% increase from the 2006-2007 PA first-year enrollment capacity of 4,853 students reported by the 119 programs (88%) that responded to the survey. In comparison, the Association of American Medical Colleges Center for Workforce Studies recommended that US medical schools

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increase their enrollment 30% over the next decade and that residency positions be increased to accommodate the additional graduating physicians.⁸

Increasing enrollment in PA educational programs will pose many challenges, as will increasing physician enrollment. A major concern of the PA programs planning expansion is a shortage of clinical rotation sites.⁷ At the current level of enrollment, both PA and physician educational institutions already struggle to provide an adequate number of supervised clinical rotations or clerkships, so any enrollment increases will require the creation of more clinical training. The potential exists for substantial conflict between the professions (and between the residencies) as each increases enrollment while competing for an inadequate number of clinical sites. This problem will continue as long as a permanent solution to the general shortage of training sites is not addressed. If increases in enrollment result in a dilution of clinical training, all the health professions could end up with a decrease in the quality of providers.

Additionally, to increase enrollment, programs will have to dig deeper into applicant pools. The enrollments of students in various health care professions are somewhat related to one another, and the number of qualified potential students is more or less constant. As a result, increased enrollment in one profession's educational programs may mean that there are fewer good applicants for another's—and that simultaneous increases in

enrollments in PA programs and allopathic and osteopathic medical schools will likely thin the pool for all three professions. Currently, the ratio of applicants to those enrolled is about the same for PAs, MDs, and DOs (2.25:1, 2.25:1, and 2.21:1, respectively).⁹ Will enough capable applicants be available to allow several health professions to expand simultaneously? If not, the quality of future graduates will surely decrease.

Finally, the increased employment opportunities and the higher salaries experienced by practicing PAs in an environment of provider shortages present a challenge for PA education. These conditions lure PA faculty from teaching positions back into clinical practice, while they also make it more difficult for PA programs to attract clinicians to faculty positions. From 1989 to 1996, rapidly increasing salaries for PAs were accompanied by a doubling of faculty attrition from PA programs.⁶ A similar effect is likely if clinical salaries substantially increase again since most education programs find unexpected budgetary demands challenging. Currently, a shortage of qualified educators exists in PA education, and increasing clinical salaries will likely worsen this at a time when schools are trying to increase enrollment.

The implications of future health care workforce shortages are numerous and complex, and the complexities only increase when we consider that many health care professions will respond to workforce shortages by increasing enrollment in their educational programs. PA professional organizations must monitor the situation carefully. Data collection and analysis are more important than ever, and all segments of the profession will have to work together to ensure that we are able to increase enrollment in PA programs while continuing to produce high-quality health care providers. □

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