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Too Few Physicians, or Too Many?

by Stephen R. Latham

Does the United States need to be training more physicians? One might think not, given that we currently have more physicians—both in absolute terms and as a percentage of the population—than at any other time in the last fifty years.¹

It may, therefore, be a surprise to discover that the Association of American Medical Colleges has been predicting a serious physician shortage over the upcoming decades.² It is calling for a 30 percent increase in U.S. medical school enrollment, an expansion of graduate medical education positions to accommodate the new enrollees, and increased federal funding for GME. It is joined in its prediction by the Council on Graduate Medical Education,³ which forecasts a 10 percent shortfall of physicians by 2020, and by a veritable flotilla of state and specialty medical society workforce reports and papers.⁴

How can the physician-rich United States be facing a shortage? The AAMC's Center for Workforce Studies offers a number of reasons.⁵ First, using data from the American Medical Association's Physician Masterfile, the AAMC estimates that nearly a quarter of practicing physicians (24.7 percent) are over age sixty.⁶ This large percentage means that in the next decade, retirement will take a large bite out of physician supply. Next, the U.S. Census Bureau predicts a population increase of upward of 50 million between 2006 and 2025; this growth will naturally increase demand for physicians. That expanding population is also aging, and older people demand more medical services than younger ones. Finally, if

health reform really does result in more insurance coverage, then that, too, will increase demand for physician services. AAMC estimates that universal health coverage would increase demand by 4 percent.

What would a physician shortage mean for the average American? The AAMC predicts a number of negative effects. Patients might have to wait longer to see physicians or specialists. They might have to travel farther for appointments and spend less time with their overburdened physicians. Because they'll experience more difficulty accessing physicians in their offices, some patients will turn to the emergency room for primary care; this will cause crowding and high-cost, inefficient use of ER resources. Other patients, not wanting to face the logistical problems caused by the physician shortage, will delay or curtail their medical visits, sometimes with terrible results. The AAMC also predicts that a shortage could result in the increased use of foreign medical graduates, osteopaths, and clinicians who are not physicians (like nurse practitioners), especially in primary care. Finally, though the AAMC does not particularly emphasize the point, any economist will tell you that when demand for physician services outstrips supply, physicians will raise their prices.

Of course, as the AAMC recognizes, these effects would not occur uniformly. Shortages will be worse and demand will change more in some parts of the country than in others, and more serious shortfalls will occur within certain medical specialties. The AAMC cites data predicting shortages in family

medicine, general surgery, and emergency medicine, and in specialties that primarily serve the elderly, such as cardiology, oncology, and geriatrics.

Here, then, in sum, is the AAMC's case: A serious physician shortage is in the offing because of demographic changes that will dramatically increase demand as it curtails supply through physician retirement. This will decrease quality of care, raise prices, and cause massive dislocation and inconvenience across the United States. We therefore need to quickly increase the supply of U.S.-trained physicians in multiple specialties. Increasing the productivity of individual physicians can help, as can the greater use of nurse practitioners and physician assistants, but the bottom line is more MDs, and soon. It's a compelling argument. But is it right?

First, as in any important policy argument, there are the usual problems with data. A recent comparative study found that data from the U.S. Census Bureau's Current Population Survey (CPS) indicate 10 percent fewer active physicians than parallel data from the American Medical Association's Physician Masterfile.⁷ Most of the difference was because the CPS data indicated fewer active physicians over fifty-five years old. Delays in updating the Masterfile may result in its overestimating the number of active older physicians—those physicians are still in the file when they have, in fact, already retired or sharply curtailed their practices. The significance is obvious: if there are fewer retirement-aged physicians than the AAMC believes, then retirement will be less of a problem for physician supply. In fact, projections based on CPS data to the year 2020 predict half as many retirement-age physicians in that year as those based on Masterfile data.

Potentially even more significant is a problem that the AAMC recognizes, but that critics of their expand-the-supply approach emphasize: the problem of geographic variability in physician supply. AAMC data show that in 2008, the number of physicians per 100,000 people varied from 405.4 in Massachusetts to only 174.2 in Mississippi.⁸ Researchers have found threefold varia-

tions in physician density among metropolitan statistical areas⁹ and across hospital referral regions.¹⁰ Nor are these explained by variations in patient needs. For example, “age-sex adjusted regional supply of cardiologists is unrelated to the incidence of acute myocardial infarction among Medicare beneficiaries”; and the supply of neonatologists “is not greater in regions where newborns have a higher incidence of low birth weight, prematurity, or any other measure of neonatal risk.” In fact, studies show that physician supply follows an “inverse care law,” with supply lowest in high-need regions. What’s worse, research also suggests that most newly trained physicians practice precisely in the areas that already have the most physicians.

This may spell trouble for the “more physicians” prescription. The projected physician shortage is dwarfed, already, by regional variations in physician supply. This remains true despite years of federal incentive policy designed to entice physicians to settle in underserved areas. Historically, the production of new physicians has not relieved shortages in the areas that are least well served. What reason do we have to believe that it will do so now?

Another problem for the “more physicians” prescription is the well-documented phenomenon of supply-induced medical demand.¹¹ Physicians, like hospitals, find ways to keep busy. An increase in the physician supply—particularly if it causes concentrated pockets of oversupply within particular specialties or regions—will result in an increased provision of physician services, not all of it of discernable benefit to patients. If Dr. Wennberg and his colleagues at Dartmouth have taught us anything in their decades of research into the puzzling regional variations in American medical practice, it is that for even common medical procedures, medical need is not the sole (or even the primary) determinant of health care service provision. Expansion of supply drives utilization.

This issue is closely tied to the deepest question of all for this policy area—namely, whether regions with greater physician supply enjoy better quality of

care. Opinions on the matter vary, to say the least,¹² but the best research seems to indicate that while quality of care is better in regions with more family physicians, there is no similarly significant association of quality with greater numbers of specialists.¹³ Quality of hospital care seems to be reduced by a large supply of physicians; physicians in high-supply regions report more continuity-of-care and communication problems than their counterparts in lower-supply areas.

Finally, there is the issue of cost. A high supply of physicians increases overall spending on health care.¹⁴ Regions with proportionately more general practitioners seem to enjoy lower health care costs, but this does not imply that adding still more general practitioners will reduce costs further, or slow their growth.¹⁵ And of course, primary care can be more economically provided by foreign medical graduates than by those from the United States, and still more cheaply provided by nurses, physician assistants, and other allied health professionals whose education is substantially less costly. Already these nonphysician clinicians are a staple of American primary care: of 35,000 new clinical trainees entering practice in 2006, 32 percent were nurse practitioners or physician assistants, and only 42 percent were U.S.-trained MDs.¹⁶ It may be that increasing the numbers of allied health professionals, rather than those of more expensively trained (and procedure-oriented) physicians, is a better method of addressing a shortage of primary care clinicians.

1. D.C. Goodman and E.S. Fisher, “Physician Workforce Crisis? Wrong Diagnosis, Wrong Prescription,” *New England Journal of Medicine* 358 (2008): 1658-61.

2. AAMC Executive Council, “AAMC Statement on the Physician Workforce,” June 2006, <http://www.aamc.org/workforce/workforceposition.pdf>.

3. Council on Graduate Medical Education, “Physician Workforce Policy Guidelines for the United States, 2000–2020,” sixteenth report, January 2005, <http://www.cogme.gov/report16.htm#sumrec>.

4. See reports collected in AAMC Center for Workforce Studies, “Recent Studies and Reports on Physician Shortages in the U.S.,”

November 2009, <http://www.aamc.org/workforce/stateandspecialty/recentworkforcestudiesnov09.pdf>.

5. M.J. Dill and E.S. Salsberg, AAMC Center for Workforce Studies, “The Complexities of Physician Supply and Demand: Projections through 2025,” November 2008, https://services.aamc.org/publications/showfile.cfm?file=version122.pdf&prd_id=244&prv_id=299&pdf_id=122.

6. AAMC Center for Workforce Studies, “2009 State Physician Workforce Databook” November 2009, <http://www.aamc.org/workforce/statedatabook/statedata2009.pdf>.

7. D.O. Staiger, D.I. Auerbach, and P.I. Buerhaus, “Comparison of Physician Workforce Estimates and Supply Projections,” *Journal of the American Medical Association* 302 (2000): 1674-80.

8. AAMC Center for Workforce Studies, “2009 State Physician Workforce Databook.”

9. L. Baker, “Efforts to Expand Physician Supply Deserve Scrutiny” (Editorial), *Health Services Research* 43, no. 4 (2008): 1121-27.

10. D.C. Goodman and K. Grumbach, “Does Having More Physicians Lead to Better Health System Performance?” *Journal of the American Medical Association* 299 (2008): 335-37.

11. W.P. Welch, M.E. Miller, H.G. Welch, et al., “Geographic Variation in Expenditures for Physicians’ Services in the United States,” *New England Journal of Medicine* 328 (1993): 621-27; E.S. Fisher, J.E. Wennberg, T.A. Stukel, et al., “The Implications of Regional Variations in Medicare Spending. Part 1: The Content, Quality, and Accessibility of Care,” *Annals of Internal Medicine* 138 (2003): 273-87.

12. Compare R.A. Cooper, “States with More Physicians Have Better-Quality Health Care,” *Health Affairs* 28, no. 1 (2008): w91-w102, to K. Baicker and A. Chandra, “Cooper’s Analysis Is Incorrect,” *Health Affairs* 28, no. 1 (2008): w116-w118.

13. J.P. Weiner, “Expanding the U.S. Medical Workforce: Global Perspectives and Parallels,” *British Medical Journal* 335 (2007): 236-38.

14. Goodman and Fisher, “Physician Workforce Crisis?”

15. M.E. Chernew, L. Sabik, A. Chandra, and J.P. Newhouse, “Would Having More Primary Care Doctors Cut Health Spending Growth?” *Health Affairs* 28, no. 5 (2009): 1327-35.

16. Weiner, “Expanding the U.S. Medical Workforce.”

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