

4. A Perspective from Osteopathic Medical Schools

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Forecasting is very difficult—especially if it is about the future.
Anonymous

EVIDENCE ABOUND TO SUGGEST THAT AN IMBALANCE exists between the supply of and demand for allopathic and osteopathic physicians in this country, a discordance that will increase in the future. However, experts also disagree about the definition and the extent of the problem: Do we have too many doctors? Too few generalists? Too many specialists? Too few doctors in some areas? Or is it somewhere in between? Ironically, past government forecasts of physician supply and demand are partly responsible for placing us in this dilemma.

Workforce planning and the care and feeding of an accurate database on physician manpower are essential activities for developing sound public policy. However, the anonymous adage on forecasting cited above contains an important message for academics, policy makers, and legislators studying graduate medical education (GME) reform: projecting into the future is extremely difficult. In predicting many things—the weather, the effect of a drug on an illness, even a roll of the dice—one can rely on

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certain laws of nature. Human behavior, however, is not subject to immutable rules of nature; most of its variables thus are beyond our control.

For example, a report by Coggeshall (1965) to the American Association of Medical Colleges (AAMC) suggested the unlikelihood of the United States ever producing all the physicians it would like, and yet some experts now claim a significant oversupply of doctors. To complicate matters further, some experts suggest that in fact we do *not* have an oversupply, citing evidence to support their claim: no unemployment of physicians and numerous geographic areas that show a significant *undersupply* of physicians.

Similarly, in 1981, the Graduate Medical Education National Advisory Committee (GMENAC) reported that the supply of generalists and specialists was in balance; it even projected surpluses in certain areas of primary care by 1990. For example, GMENAC forecast an oversupply of 5,000 pediatricians by 1990; the American Academy of Pediatrics forecast an even larger surplus (Johnson et al. 1993). Experts now assert that we will have a serious undersupply of pediatricians if universal coverage is enacted. In addition, GMENAC anticipated an oversupply of surgeons, and yet the Council on Graduate Medical Education (1992) cited a shortage of general surgeons, particularly in small and rural communities. Currently, the Physician Payment Review Commission (PPRC), the Council on Graduate Medical Education (COGME), and other authorities are predicting surpluses of specialists and shortages of generalists in the physician workforce. Some estimate that we will be unable to meet the national goal of a 50/50 split of generalists and specialists until the year 2040 (Kindig, Cultice, and Mullan 1993). If we have learned anything from history, it is that we should be wary of these forecasts.

The Limitations of the Mullan Model

In their article, Mullan et al. (1994) seek to make projections about the specialty distribution of physicians that would result from COGME's reform recommendation on GME for "50/50-110" (50 percent of residents entering primary care fields; limiting first-year residency positions to 110 percent of U.S. medical graduates). Mullan and his colleagues do an excellent job of advancing the debate about the physician workforce, and they present an interesting modeling approach to the GME reform question. Although the authors did not say so explicitly, we were pleased to note that

their model—which pegs generalist output at 30 percent—represents, in fact, a weighted average between 27 percent of the allopathic graduates versus 60 percent of the osteopathic graduates. Nevertheless, the model does not fully consider four important variables in its forecast of physician supply:

1. Patterns of physician distribution.
2. Impact of the growth in the number and percentage of women physicians.
3. Changing technology, new diseases, and the reorganization of the delivery system.
4. Elasticity of the physician workforce in terms of how physicians are choosing to practice (independent, solo, or group versus employment by larger corporations).

Individually and in combination, these factors are significant because they will have a notable effect on future physician supply and demand.

The first variable that must be accounted for by any output-based workforce forecasting model is geographic distribution. Predicting output and supply provides an aggregate number of physicians; however, having sufficient *numbers* of primary care physicians is irrelevant if they all choose to practice in well-served areas. Geographic distribution is another critical factor in workforce planning. Reforming the system to attain the best mix and number of physicians is an appropriate objective for reform. Equally important in addressing the problem of universal access, however, is the objective of reasonably uniform distribution of physicians across different communities, particularly smaller, rural, and medically underserved areas. In its fourth report to Congress, the Council on Graduate Medical Education noted that “osteopathic physicians *overall* and allopathic *family* physicians continue to distribute uniformly throughout all community sizes, including small rural towns” (1994, 5; emphasis added).

The second element or variable that may impact workforce planning is the increasing number of women who are choosing careers in medicine. Currently more than 40 percent of medical school enrollees are women, and that number appears to be creeping closer to 50 percent (American Medical Women’s Association 1994). What effect will an increasingly gender-balanced workforce have? There are few available hard data that compare the full-time equivalent (FTE) status, productivity, practice

styles, and years of career practice of female physicians with their male counterparts. Some data, however, suggest that female physicians tend to work fewer hours during their childbearing and child-rearing years, preferring the structure and predictability of generalist practice. Anecdotal evidence also suggests that female doctors tend to spend more time with patients and to have different practice styles than their male counterparts. We need to devote in-depth, quantitative research to these questions, and we must also take into account the possible impact of women physicians in workforce planning.

The questions of technology advances, disease patterns, and changes in the health care delivery system are areas that are not described in the model presented by Mullan et al. These factors will produce fundamental changes in the practice of medicine and thus will affect the supply and demand for physicians by specialty and in the aggregate. Who could have predicted HIV/AIDS, or the sudden reemergence of tuberculosis? What new diseases or viruses await us in the future? Or, conversely, what pharmaceutical discoveries and biotechnological advances will occur? How will diagnostic and treatment advances affect our health care system? Additionally, what will be the impact of the explosion in information systems technology and the developing information "superhighway"? These are major areas of uncertainty that make it impossible to predict their impact accurately, and yet we know they will have a profound effect on both the physician workforce and our health care system. Changes in health care delivery and financing are similarly hard to predict. While we can say with some certainty that managed care will increase, we have no way of knowing or predicting at what rate or to what extent these changes will occur, nor do we know if they will spread uniformly throughout the country.

Fourth, and finally, the way in which physicians are choosing to practice is also changing, and the impact of these changes on supply and demand is unknown. Traditionally, physicians practiced independently, often working 60 hours in a standard week. However, as solo practices are bought up by larger health care organizations, as more physicians join large group practices, and as many physicians choose to become employees of managed care companies, the independent practitioner prototype (and its assumptions regarding hours of practice) falls by the wayside. Many physicians today are seeking a better quality of life, which often means working fewer hours. How many physicians are moving away from solo practice? How does employment (versus independence) affect

the workloads of physicians? If more physicians are working fewer hours, do we then need more physicians to maintain a proper balance in the system? Unfortunately, the evidence is primarily anecdotal, but there is little doubt that this continuing elasticity of the physician workforce will affect future supply and demand.

Positive Steps for the Future

There is a need for workforce planning, and a variety of reform measures will be necessary to meet the health care needs of the nation. Changes in the physician workforce, however, will require more than caps and limits on GME. We fully agree with the closing paragraphs of the article by Mullan et al., which point out that in order for reform of GME to be permanently successful, it will have to be accompanied by changes in undergraduate medical education (UME), the degree of student indebtedness, the procedures for medical school admissions, and the size of the generalist faculty.

In fact, we believe that most proposals for health care reform place too much emphasis on GME, as opposed to UME. We say this because most osteopathic and allopathic medical students decide on their career paths long before they select their internships and/or residency programs. It is at the undergraduate level that students learn and develop an interest in and dedication to primary care service. A recent study on career choices, funded by the American Association of Colleges of Osteopathic Medicine (AACOM), confirmed that “only a small percentage” of students have not decided what they want to do by the end of their third year (Sprafka and Hagan 1994).

The study—conducted at Michigan State University/College of Osteopathic Medicine—was based on in-depth focus group interviews with 88 junior and senior osteopathic medical students and residents, who revealed that the key to their career choices was the quality of their undergraduate clinical experiences. “In most instances,” the researchers observed, “choice for or against a career path was the result of a clinical experience—positive or negative” (Sprafka and Hagan 1994). If we want to create more primary care physicians, both allopathic and osteopathic medical schools will need to increase their emphasis on high-quality and carefully supervised clinical training in the undergraduate curriculum.

Therein lies the irony, because one of the best ways to introduce more undergraduate clinical experiences would be to expand the number and

quality of clerkships in ambulatory care settings—as opposed to hospitals, particularly tertiary hospitals. The need to extend and expand those ambulatory clerkships, however, comes at the very time that ambulatory care settings are being drawn into managed care systems where the pressure to control costs is increasing. In the osteopathic community, the long-standing tradition of utilizing hundreds of volunteer primary care preceptors is in danger of disappearing as health care reform presses those practitioners to enter the managed care sector—where competitive pressures force them to reduce costs.

It is generally agreed that the training of residents increases the cost of patient care, at least until the postgraduate years (PGY) 3, 4, and 5, when some allow that residents' services are a net gain to the institution. However, there is no question that on-site clinical training of students is an unequivocal cost and a drain in the managed care setting because the student's purpose on site is primarily to learn *how* to provide patient care rather than actually to do it. Consequently, efforts have been made to persuade Congress to include special support for Undergraduate Medical Education in health care reform. This has been an uphill battle at best because the congressional committees have been focusing on the central questions of health care reform, such as universal coverage, uniform benefit packages, employer mandates, and cost containment, have engaged in only limited discussion of GME, and have given even less consideration to UME.

Moreover, congressional staffers and members have expressed surprise at proposals to provide new federal support for UME, responding that the surer way to change the career paths of medical students is to restrict their residency training via the "50/50-110" formula. Although we believe that the 50/50-110 method might indeed force significant numbers of graduating students into primary care practice, we do not consider it the best way to approach the problem because it fails to focus on how to get the right kind of generalist physician. Will physicians *forced* into generalist positions be as capable and comfortable as they would be in another, freely chosen role? This raises the question of whether they are likely to be good primary care physicians.

Of equal importance is the likelihood that some percentage of each graduating class will not be accepted into their preferred specialty training. These individuals could accept primary care training as a second choice and then gamble with the system by competing again the following year for their preferred specialty. This increased demand for specialty slots will likely result in the establishment of rogue residencies: training

positions *not* in the approved number allocated under the 50/50-110 system. For example, a residency program could be approved for six first-year residents by the federally regulated GME system. The residency director, however, could elect to admit eight PGY-1 residents even though the system will only reimburse for the six approved residents. Thus, the number of specialists would continue to grow in excess of the number projected by the assumed model.

We believe it would be more productive for federal policy to assure that greater numbers of generalist physicians are produced by systematically recruiting and training in an appropriate fashion a designated percentage of students who demonstrate the personality and behavioral characteristics most appropriate to primary care physicians: an orientation to people rather than procedures (Singer 1994). Additionally, new federally sponsored financial incentives should be created to keep the students geared to their articulated goals.

Accordingly, AACOM recommends a two-pronged approach. First, expanded loans and scholarships should be available to students with a commitment to primary care to help finance the high cost of their medical education. This would mean increased appropriations for scholarship and loan programs tied to primary care service, particularly the National Health Service Corps and the Primary Care Loan Program and Disadvantaged Students.

Second, both AACOM and the AAMC advocate new, direct support for medical schools as a set-aside of the all-payer fund to support the education of medical students, especially in ambulatory settings and preventive medicine. Such a proposal was contained in several health reform bills considered by the Congress (at the time this commentary was written in June 1994). This direct funding will help medical schools compensate for the costs of health care reform, especially the increased costs of clinical training of students in ambulatory settings and the projected loss of clinical revenues that now cross-subsidize academic functions in medical schools.

Besides attention to UME, we advocate another important component of health care reform: the separate treatment of the osteopathic and allopathic professions, especially in relation to the proposed federal allocation of GME training slots. Policy makers need to recognize the heritage of osteopathic medicine, including its separate educational structure and its exemplary performance in responding to national needs for more generalist physicians and rural practitioners. It is important to promote integration in the continuum of the doctoral/postdoctoral educational

process, and this is best accomplished within the *individual* professions. In light of this, the allocation of positions to osteopathic GME programs must be carefully considered. We urge that a separate allocation of slots for osteopathic GME be instituted.

Furthermore, if one integrates and intermingles the osteopathic and allopathic training slot allocations, and sets a 110 percent cap on residency slots, there is a substantial risk that many osteopathic graduates would end up not receiving any residency training. Recent experience with the GME match has demonstrated demand for, and placement of, up to 35 percent more PGY-1 residents than U.S. medical school graduates. If allopathic and osteopathic residencies are commingled under the 50/50-110 formula, allopathic, osteopathic, and foreign medical graduates will all be competing for the same limited number of residency slots. There is much anecdotal evidence that osteopathic graduates encounter difficulties in obtaining residencies in many specialties within the allopathic world. This is especially evident in training programs that are in great demand, such as orthopedics and other surgical specialties. We suggest that placement of qualified U.S. medical school graduates, whether allopathic or osteopathic, should be a priority in a national GME program. A separate allocation system for the osteopathic profession would assure osteopathic graduates that they could continue their educational process within the osteopathic profession and encounter reduced risks of inadvertent discrimination and harm.

The most compelling argument, however, for a separate allocation system is the osteopathic profession's proven track record in producing large numbers of generalist physicians and its demonstrated history of distributing them uniformly across different community sizes. If the two professions were aggregated, there is a serious risk that the osteopathic profession's success in meeting national workforce goals would be significantly reduced. The osteopathic and allopathic professions have performed differently in meeting national goals; they should therefore be treated separately under reform.

Conclusions

The debate over workforce reform is a complicated one, and the answers are neither black nor white—they are rather a definite shade of gray. Like the physician's personal credo, the first motto of any type of physician workforce reform process should be to "do no harm." We must guard against becoming overly zealous in our reform efforts and throw

ing the baby out with the bathwater as we delve further into the reform debate. We must ascertain that reform proposals allow the successful aspects of the current system to continue to build and grow. A rational and cautious approach that considers all the variables, and a tempered use of forecasts based on tenuous data, will go a long way to ensure that our current reform efforts "do no harm" to the nation's health care system.

References

- American Medical Women's Association. 1994. *The Status of Women Physicians in the Workforce*. Rockville, Md.: Council on Graduate Medical Education. (Unpublished)
- Coggeshall, L. 1965. *Planning for Medical Progress through Education*. Washington: Association of American Medical Colleges.
- Council on Graduate Medical Education. 1992. *Third Report: Improving Access to Health Care through Physician Workforce Reform—Directions for the 21st Century*. Rockville, Md.: U.S. Department of Health and Human Services.
- . 1994. *Fourth Report: Recommendations to Improve Access to Health Care through Physician Workforce Reform*. Rockville, Md.: U.S. Department of Health and Human Services.
- Graduate Medical Education National Advisory Committee. 1981. *Report to the Secretary of the Department of Health and Human Services* (vol. 1). DHHS pub. no. (HRA) 81-651. Washington.
- Johnson, R.L. 1993. Pediatric Workforce Statement. *Pediatrics* 92:725-30.
- Kindig, D., J.M. Cultice, and F. Mullan. 1993. Elusive Generalist Physician: Can We Reach a 50 Percent Goal? *Journal of the American Medical Association* 270:1069-73.
- Mullan, F., R.M. Politzer, S. Gamliel, and M.L. Rivo. 1994. Balance and Limits: Modeling Graduate Medical Education Reform Based on Recommendations of the Council on Graduate Medical Education. *Milbank Quarterly* 72:385-98.
- Sprafka, S., and T. Hagan. 1994. *Focus on Careers: The Primary Care Choice*. Rockville, Md.: American Association of Colleges of Osteopathic Medicine. (In press)
- Singer, A.M. 1994. *Debts and Career Plans of Osteopathic Medical Students 1993*. Rockville, Md.: American Association of Colleges of Osteopathic Medicine.

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