GUEST EDITORIAL

Physician Surplus and Its Remedies

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"The problem with a kitten is that one day it becomes a cat."
—Ogden Nash

Through the passage of time (and the passing of an examination or two), resident physicians transform themselves into unrestricted practitioners. Whether you see this as a good thing depends on your perspective. To the residents themselves, this metamorphosis is no less beautiful than a chrysalis becoming a butterfly. Others, though, may deem it a variation of the kitten/cat problem articulated by Ogden Nash—residents are nice, but they one day become attending physicians, and of them we have too many.

In the 1960s, the government embarked on a mission to mint more physicians. It rewarded medical schools for training doctors and paid residency programs for providing graduate medical education (GME). These systems are still in place today. Through an elaborate scheme, created ostensibly to compensate teaching hospitals for tertiary care and unpaid services, the government's Medicare program subsidizes the direct and indirect costs of GME. The word "subsidize" may give the impression that this payment is small. Even by government standards, it is far from that. In 1997, the Medicare GME allocations totaled about $7 billion. This amount is enough to cover the tuition and living expenses of every medical student in the United States, with enough left over to send them all to business school as well.

At a time when increasing the number of medical practitioners received universal acclaim, this program was a boon to all. Hospitals got the cash. Residents got the jobs. And society got the work done. Now we have a surplus, some say, and the governmental funding of GME is open to question.

It may be worthwhile wondering whether we do indeed have a surplus of physicians. Surplus labor is typically defined as an excess of job seekers, relative to the amount of work available. But in medicine, this may not be the best definition, for there is always work to be done; it is just not always clear whether there are funds to pay for that work.

PHYSICIAN SURPLUS

The assessment of surplus in orthopedic services is especially difficult, for two reasons. To start, our professional mandate overlaps with those of our colleagues: neurosurgeons, podiatrists, rheumatologists, and chiropractors, among others, treat "orthopedic" problems. A shortage or excess in any of those fields will perforce alter the need for orthopedic surgeons.

The second issue is the effect of medical progress on altering future demand. You can imagine the changes in orthopedic surgery if the cox-2 inhibitors successfully palliate all but the worst cases of arthritis. Similarly, if we discover a gene therapy for cartilage regeneration or osteoporosis prevention, our practice will be vastly different. Progress may simply put many of us out of business. Consider: dentists have seen demand for their services decrease, once fluoride in the water decreased the incidence of dental cavities. On the other hand, general surgeons discovered all sorts of uses for the laparoscope, now that peptic ulcers—formerly their bread and butter case—are managed successfully by internists. Either fate—obsolescence or opportunity—may befall orthopedic surgery.

With the aging of the population, and in turn increases in the prevalence of arthritis and hip fractures, I would gamble that there would be an even greater need for more orthopedic surgeons. But let's assume there is an

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impending surplus; if not among orthopedic surgeons (who number <5% of all physicians), then at least in general medicine. What does it mean?

At first glance, a surplus of physicians may seem like a good thing. If many Americans go without medical care, having more doctors to provide that care would seem to be beneficial. Moreover, the principles of Economics 101 dictate that a large labor pool should depress the price of labor, that a surplus of physicians should make medical care cheaper.

In practice, neither supposition has been proven true. Even though we have more doctors than ever, the traditionally underserved communities remain underserved, while the rich get richer. Residents establish their practices where they want to live and where the financial opportunities are, not necessarily where the medical need is. Thus, the issue of surplus is intertwined with the issue of distribution, and one can experience the consequence of a shortage despite an overall excess.

As for the savings in professional costs from competition, we haven't seen that either. This is because the principles of economics do not apply in normal ways to medical care. In general, when the labor supply grows relative to the demand for labor, wages go down. But in medicine, we see a phenomenon of supply-induced demand—as the number of physicians grows, the amount of medicine practiced also grows. Doctors create or discover demand for their services.

The essential problem of a physician surplus is not related to price but rather to too much overall spending. In 1997, health-care spending was about one seventh of the country's gross national product (GNP), about $1 trillion. Although the spread of managed care has decelerated the rate of growth in health-care spending, both the aggregate amount and the percentage of GNP have never been higher and continue to grow.

The problem goes beyond doctors and their fees. But doctors are part of the problem in that they control the financial spigot, so to speak; they determine, in large part, the total amount of medical spending, even though this amount is spent throughout the system. Physicians not only generate demand for their own services, they also create a demand for ancillary services as well. In some specialties, the amount of ancillary spending exceeds the amount spent on the physicians' fee by a factor of more than 10. A surplus of doctors leads not so much to increased spending on physicians' fees (the small problem), but to too much ancillary spending (the big problem).

In orthopedics, increasing the numbers of surgeons may lead to increasing the number of procedures performed. This may lead to more physician charges for surgery, but the net effect on total spending will far exceed the amount paid directly to the physicians. For example, for total hip replacement, Medicare pays physicians approximately $2000 for the surgery, but the DRG payment to the hospital is nearly $20,000. Moreover, that amount does not include many related charges, such as anesthesia, medical consultants, and physical therapy. One more doctor doing hip replacements can do a lot of damage to a health-care budget beyond his or her $2000 fee. Accordingly, to constrain total spending, one may argue, we must reduce the number of physicians in practice.

REDUCING THE NUMBER OF PHYSICIANS

The first solution that comes to mind would be to reduce the number of seats in medical schools: attack the problem at the source. American medical schools constantly lament the high costs of educating students and rely on federal support to remain in business. If the federal government wanted to cut the number of graduates, it could simply rescind its support and the number of graduates would decline at once.

Of course, this approach would not solve the problem. The rate-limiting step for the production of practicing physicians is not the graduation rate from medical school but rather the graduation rate from residency programs. And residency programs would be more than happy to import talent from abroad to compensate for a shortage of American-trained physicians. They already do so.

Unlike any other domain in which American expertise is supreme, medicine is unique in that it imports talent rather than exports it. Some graduates of our best schools of engineering, law, and business routinely move abroad, spreading American know-how. On the other hand, even though our physicians may be the best and their medical expertise unsurpassed, foreign-trained physicians flow here and not the other way around. This is because some residency positions, deemed undesirable by American graduates, provide needed services to the communities. These posts remain available even though American students would not take them willingly.

Rather, international medical graduates (IMGs) are encouraged to come here and fill these positions and provide those services. The fact that these IMG physicians eventually leave the residency, set up shop in town, and contribute to the overall physician surplus is not considered by those making the decisions to hire them.

Given that the surest method to reduce the number of practitioners is to limit the number of residency slots, perhaps we should look toward the accrediting boards, the residency review committees, to reduce the number of training positions. This has happened on a small scale, but probably will not continue. Residency review committees are designed to evaluate the educational merits of a given program, not to forecast manpower needs or resolve problems of health-care economics.

These committees could drastically reduce the number of residency pro-

grams in the country by simply making ever-increasing educational demands on hospitals. It is unlikely, however, that residency review committees will take this step because it will be perceived as political. Their credibility—and therefore their existence—would be placed at risk.

One may also look to the specialty societies to reduce the number of resident positions, but this will not happen either. The American Academy of Orthopaedic Surgeons, for example, is an educational organization. It exists solely to help educate practitioners, for the betterment of patients. Once it tries to limit physician supply, it may appear more like a trade association or union. As such, it would run afoul of antitrust regulators. Its steps to control manpower may be seen not as a move to ensure quality but rather to ensure its members' incomes. Accordingly, such organizations are also hampered in their ability to influence outcomes in this realm.

Residents as Cheap Labor

Hospitals may be the logical targets for any program seeking to reduce resident training slots, but there are financial reasons why they would not do this on their own accord. To start, using residents for hospital labor is the cheapest modus operandi. Because residents are compensated not only with money but also with a well-needed credential for licensure, they are willing to work long hours for low wages.

The low wages of residents drives the so-called "80-40 rule." According to the 80-40 rule, a hospital in need of workers faces two employment options: it can hire either a resident to work 80 hours at $40,000 a year, or a paraprofessional to work only 40 hours at $80,000. To supply an equal amount of work, two such workers would be required, at a total cost of $160,000— four times the cost of one resident.

The second financial hit is that the hospital would lose its GME payments were it to exchange residents for other workers.

Residency GME Demonstration Project

To help hospitals wean themselves from their dependence on resident trainees, the New York Medicare GME Demonstration Project was established by the Health Care Financing Administration. This program was established only for hospitals in New York State (where 15% of all residents train), but Congress has passed legislation that will apply this concept nationally. Under the program, hospitals will cut the number of residency position, and in return receive a decreasing fraction of the Medicare subsidy they would have received had the positions been kept. This payment would begin at 100% of the GME subsidy in 1998 and decrease over a 5-year period, at which point the subsidy would end.

There are many reasons to believe why this program won't work. Indeed, many of the initial participants have dropped out. The reasons cited are varied, but it is my belief that this program is not working simply because the incentives are insufficient. For example, consider the predicament of a hospital that serves an underinsured population. Its outpatient clinic is essential to the health of its community. It currently staffs this clinic with a resident physician willing to work whatever hours are required. The alternative is to staff the clinic with two expensive nurse practitioners. If the hospital employs the resident, its net cost is below zero, because the GME subsidy exceeds its expenditure. The resident is thus a profit center for the hospital.

Contrast this with hiring nurse practitioners, with salaries in excess of $100,000 once benefits are included. Under this scenario, the hospital would spend about a quarter of a million dollars more by using nurses instead of a resident. The hosptial administration would hardly be assuaged with subsidy payments, even if the subsidies are very generous, totaling tens of thousands a dollars a year.

It is not hard to imagine that some fiscal conservatives would respond to that logic dismissively and try to cut the payments unilaterally—"If they won't cut spots in return for these generous subsidies, then let's make them do it without any subsidy at all." This is philosophically legitimate but tactically impractical. One cannot cut residency positions in general; one must cut specific hospitals, serving specific communities, who have specific and vocal representatives. The abolishment of the GME subsidy for resident training may induce a hospital to abolish its clinics. This would harm the community, and Washington would be blamed. The residency demonstration offers political cover. Under this program, cuts in training physicians would not be dictated by the Congress, but rather initiated through enlightened self-interest, by the hospital themselves. So far though, this has not worked.

It is not clear what needs to be done next. Fine-tuning the supply of practitioners in each individual specialty area is ill advised. Students are better than bureaucrats at discerning where the opportunities lie. On the other hand, since the government purchases more than one third of all health care and since the total number of physicians influences the amount of medicine practiced and the total amount of money spent, it may be in the government's interest to regulate the total number of physicians. But controlling physician supply is, after all, just another indirect form of rationing. It is clear, however, that if the goal is to limit the number of residency posts in an equitable fashion, the government will have to invent incentives more effective than those offered by the residency demonstration project. As currently constructed, these incentives are inadequate.■