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Debating The Supply Of Physicians: The Authors Respond

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It has been widely accepted in recent years that the nation will soon face a massive surplus of physicians. The Graduate Medical Education National Advisory Committee (GMENAC) estimated that there would be a surplus of some 150,000 physicians by the year 2000. Other analysts have subsequently forecast values that are even larger. An alternative analysis, which we published nearly a year ago, reached the quite different conclusion that there would be little or no surplus of physicians between now and the year 2000.

Three primary differences led to these disparate results. First, previous studies ignored the fact that the demand for physician services has grown steadily for several decades and that this trend is likely to continue in the future. Second, no correction was made for the large and growing number of physicians involved in areas other than patient care. Finally, previous analysts used physician-to-population ratios drawn from health maintenance organizations (HMOs) without correcting for the fact that such plans serve a much smaller proportion of patients age sixty-five and over relative to the fee-for-service sector.

Eli Ginzberg is critical of our study on three grounds, none of which appear to us to be valid. First, he questions the validity of our assumptions and of the resulting corrections. Second, he suggests that the range of our estimates is too wide to be of any policy relevance. Finally, he questions the value of any forecasts of physician supply and demand, arguing that it is “futile to pose the question whether the nation will have too many, too few, or just the right number of physicians a decade or two in the future.” In the following discussion we deal with each of the issues Ginzberg has raised.
The Validity Of Our Analysis

Virtually all of Ginzberg's criticisms of our analysis are based on erroneous statements or inaccurate interpretations of our results. The following are examples.

(1) Ginzberg erroneously gives a figure of 52,000 as the number of physicians that will be required to compensate for the reduction in hours of work by residents and for the fewer hours worked by an expanding pool of female physicians. He then describes the correction as one that "on its face appears excessive." In fact, our adjustments for these factors reduced the anticipated supply by only 19,000 physicians.

(2) Ginzberg suggests that our estimate of future demand is too high because of the relatively high physician-to-population ratio on the West Coast, and because physician supply in the country as a whole was growing rapidly during the years on which we based our projections. But these factors should have virtually no effect on our projections, because our estimate of both baseline demand and future increases were based on physician-to-population ratios in HMOs; such plans hire physicians in response to increased demand for services, not in response to aggregate supply or changes in supply. Moreover, it appears that our value of 1.3 percent per year growth in demand, drawn again from HMOs but applied to the country as a whole, is quite conservative; not only is this value 60 percent as large as the growth observed in the country as a whole, but it also omits the potential influence of many factors promising to increase future demand, such as a move toward insurance coverage for the poor, an accelerating rate of technologic change, and growth in the number of cases of acquired immunodeficiency syndrome (AIDS).5

(3) Ginzberg also contends that our projections of increased demand are in error because we “failed to utilize more recent information about the demand for physician services,” namely, that the average number of patients seen by a physician each week decreased during 1982–1986. This, he suggests, indicates that demand is falling. Despite the superficial appeal of this interpretation, a closer examination of the data reveals that demand actually grew. At the same time that patient visits per physician fell by almost 9 percent (the figures cited by Ginzberg are incorrect), the supply of physicians in patient care grew by over 13 percent.6 This indicates that the total number of patient visits actually increased by over 3 percent. Ginzberg also ignores the fact that the hours worked by physicians during this period remained virtually constant—the time spent with each patient increased by about 9 percent. These additional hours spent with patients presumably reflect an increase in demand resulting from the provision of more complex services. It is also worth
noting that despite the substantial growth in physician supply during this period, real physician income actually increased by almost 8 percent.\(^7\)

(4) Ginzberg asserts that we “place considerable weight on the additional demand for physician services due to the aging of the population.” To the contrary, we simply make two adjustments for age. The first is a small correction to account for the increase in number of individuals over age sixty-five between 1983 and 2000, and the second for the fact that HMOs serve a much smaller proportion of elderly patients relative to the fee-for-service sector. The failure of previous analysts to correct for this latter fact led to an overstatement of the future surplus by about 40,000 physicians.

(5) Ginzberg states that we “contend that the proponents of a coming surplus miscalculated by nearly 100,000 the number of physicians required to treat patients not enrolled in managed care plans.” We made no such correction. We did subtract some 100,000 physicians from the supply of patient care physicians to account for administrators, researchers, and others who spend little or no time in practice.

(6) Ginzberg criticizes what he calls a “questionable exclusion of an additional 60,000 physicians from the pool available to render patient care.” We can identify neither the source of his figure in our report nor the meaning of his comments.

The Role Of Uncertainty In Our Analysis

There is some degree of uncertainty associated with any forecast, and it is for this reason that we carried out sensitivity analyses to determine the robustness of our projections. The extreme upper and lower bounds we derived are a surplus of 40,000 physicians and a shortage of 83,000 physicians. Ginzberg contends that this is an “excessive” range of estimates that opens our projections to serious criticism. Is he correct in suggesting that our range of uncertainty is so large as to vitiate the policy relevance of the projections? We think not. In fact, this range seems highly relevant to public policy in that it portrays a future very different from that projected by the conventional wisdom. Instead of a huge surplus of 150,000 or 200,000 physicians or more, we forecast that even in the extreme case of extensive rationing, the surplus is not likely to exceed 40,000 physicians.

Moreover, a surplus of this magnitude could almost certainly be absorbed without major hardships to either physicians or patients, because there are many ways in which a new balance between supply and demand might be achieved. Physicians might be stimulated to migrate to smaller communities that are currently underserved. Additional physi-
cians could turn to activities such as drug abuse programs and nursing home care. And an increased demand for physicians in administrative posts could reduce the supply of practitioners. In any case, even if our upper-bound projection of a 40,000 physician surplus becomes a reality, we need not look forward to physicians driving taxicabs and pumping gas!

Our finding concerning a possible deficit of as many as 80,000 physicians also provides important policy insights. If such a shortage should occur, it undoubtedly would create serious problems for patients, such as delays in obtaining appointments, increased waiting times in the doctor’s office, and even higher fees.

Given the projected values ranging from a small surplus to a substantial deficit, we have concluded that policymakers should make no attempt to slow the rate at which the physician supply is expanding. If there is no intervention, the most likely outcome would be a rough balance between supply and demand by the year 2000. In essence, we do not feel that our range of uncertainty is “excessive” but rather that it serves to inform the policy debate.

Alternative Approaches To Formulating Health Personnel Policy

Ginzberg’s final point is that “the future of the physician supply cannot be resolved simply by recourse to numbers.” He even suggests that “it may be futile to pose the question whether the nation will have too many, too few, or just the right number of physicians a decade or two in the future.” We are puzzled by this statement. He seems to suggest that flying blind is a better path to policy formation than laying out an analytic framework and applying it the best available data. Clearly, there may be instances in which the degree of uncertainty is so great that forecasts serve no useful purpose, but such is not the case in our projection of the future balance between supply and demand. Ginzberg, while highly critical of this strategy, offers no constructive alternative. Rather, he concludes that “all that we can hope to do is to address selected facets of the supply problem as they force themselves onto the nation’s agenda.” We do not believe that such a policy of crisis intervention is a wise approach to health personnel policy.

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NOTES

8. GMENAC, Report to the Secretary, DHHS; Ellwood, “Shaping the Irreversible Revolution;” Iglehart, “How Many Doctors Do We Need;,” and Tarlov, “HMO Enrollment Growth and Physicians.”