

PROFESSIONAL ISSUES

## Physician work force estimates far apart

**All the projections point to a shortage, but none agree on the size.**

By [Myrle Croasdale](#), AMNews staff. June 20, 2005.

---

There's a prediction that a physician shortage looms, but experts disagree on how deep the shortfall will be.

The latest in a line of physician work-force projections comes from the Health Resources and Services Administration's Bureau of Health Professions, which anticipates a shortage as small as 51,000 physicians to as many as 228,000 physicians by 2020.

The Council on Graduate Medical Education earlier projected an 85,000-physician shortfall by 2020, while a study published in the 2002 January/February issue of *Health Affairs* predicts a 200,000-doctor shortage by 2020.

So why are the numbers so far apart?

Supply and demand factor in, but in the simplest terms it comes down to this: How many physicians are needed to prevent significant disruptions to the health care delivery system? That ratio of physicians to patients is somewhat subjective.

For instance, a researcher could decide that the number of physicians in Maryland relative to the population during 1960 was about right and project that ratio forward as the population grows, according to economist Thomas Getzen, PhD, executive director of the International Health Economics Assn. who co-authored the 2002 estimate in *Health Affairs* with Richard Cooper, MD, director of the Medical College of Wisconsin's Health Policy Institute.

"Since there is no real definition or measurement that everyone agrees on, you'll always have numbers all over the map," Dr. Getzen said.

## The supply factor

Quantifying the number of U.S. medical students graduating each year is one constant in the formulas that researchers use.

Although where graduates choose to practice creates regional shortages and surpluses, the number of doctors entering practice has remained fairly stable over the past 20 years with about 20,000 graduates annually. The supply of international medical graduates entering the system also has been steady since the mid-1990s.

**20,000 doctors have entered the work force each year for the past 20 years.**

But the number of hours doctors practice and when they retire make calculating the number of full-time physicians in the work force less straightforward, researchers said.

Ed Salsberg, director of the Center for Workforce Studies at the Assn. of American Medical Colleges, said physicians could be spending more time doing research and teaching than they have in the past. There's also growing anecdotal evidence that the younger physician generation is working fewer hours than their predecessors at the same age. Consequently, they are seeing fewer patients.

There's also a general sense that women physicians tend not to work full time in some stages of their careers. And physician retirement ages are also difficult to pin down.

With researchers estimating these factors in their calculations, the result is wide variations in physician-supply estimates.

## The demand factor

The assumptions researchers make on the demand side also factor into the big swing in their final estimates. The U.S. population is growing faster than the number of new physicians entering the work force, and how people use physicians' services is changing. The degree to which this is happening is open to interpretation, and the researchers' interpretation of those statistics contributes to the differences in work-force projections.

**The U.S. population is growing faster than the number of new physicians entering the work force.**

"If we have more people in the United States, we need more doctors, and as people have more money, they want more medical care," Dr. Getzen said. "Strangely enough, how sick people are doesn't matter. People today are a lot healthier than 50 years ago, but we use a lot more medical care. What really determines demand for medical care is how many people there are and if they feel they have the time and money to seek medical care."

Precisely how much time and money they will spend on health care and physician visits is another unknown. Some models

factor in economic success and the increase of discretionary income. Others focus more on current use patterns like the one from the Bureau of Health Professions.

To get a feel for changes in public demand, Dr. Getzen suggests looking beyond the physician community.

"We can get a sense of demand by looking at how other health care professions are growing," Dr. Getzen said. "The public seems to want more. People don't say, 'It's so easy to get my doctor's attention.' The complaints are on the other side."

That raises another issue: An increase in other health care professions could offset, in part, the need for more physicians. The degree of that influence, though, is unclear. Dr. Cooper suggests that these professionals might take on many of the less-complicated tasks primary care physicians perform, shifting some demand away from physicians.

Others say nurse practitioners and physician assistants make the primary care doctor more efficient and might offset the decline in younger physicians' work hours.

"We really don't know if physicians are less productive than they used to be," Salsberg said in terms of physician hours. "They are using nurse practitioners and physician assistants, and in some ways they may be serving more people than in the past."

Technology is another factor to consider in work-force projections. The advent of laparoscopic technology created demand for bariatric procedures that didn't exist 10 years ago, while highly detailed CT scans may mean fewer cardiology procedures.

No matter what factors researchers use, though, Salsberg says what is important is to keep track of how these factors change.

History agrees.

In the 1980s, there was an expectation that a physician surplus was developing. By 2000, however, it was clear that this hadn't occurred. The U.S. population grew much faster than expected, and managed care organizations failed to restrict patient visits as much as thought, with HMOs eventually falling out of favor as a health insurance model.

"It's so difficult to predict with any confidence a whole set of variables 20 years out, which is why we plan to update our report in the next year," Salsberg said.

At press time, the AMA had a neutral stand on the size of the physician work force as it gives the issue further consideration. A report from the AMA Council on Medical Education on the topic was anticipated at the AMA Annual Meeting this month.

## **ADDITIONAL INFORMATION:**

### **Demand for doctors by 2020**

The Bureau of Health Professions recently released physician work force projections anticipating a shortage of 51,000 to 228,000 physicians by 2020. Previous estimates of note are the Council on Graduate Medical Education's projection of a 85,000-physician shortfall by 2020, and a projection of a 200,000-doctor shortage by 2020 published in the 2002 January/February issue of *Health Affairs*.

	<b>Projected change in doctor supply</b>	<b>Increase needed to meet demand</b>
<b>Cardiology</b>	1,700	6,700-11,700
<b>Family medicine</b>	16,300	20,200-31,700
<b>General internal medicine</b>	21,500	25,700-37,800
<b>Other internal medicine</b>	8,100	16,900-31,600
<b>Obstetrics-gynecology</b>	5,500	4,100-8,100
<b>Pediatrics</b>	8,600	3,900-8,800
<b>General surgery</b>	-600	9,500-18,300
<b>Orthopedic surgery</b>	1,000	5,300-13,300

Note: Total number of general surgeons is expected to decline by 600.

Source: "All Physicians Are not Created Equal: Supply and Demand Projections for 18 Physician Specialties," National Center for Health Workforce Analysis