

# New research projects shortage of general surgeons by 2010

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In less than two years, there may not be enough surgeons in U.S. hospitals to treat the critically injured or chronically ill.

A new study suggests that the number of available general surgeons, who often perform life-saving operations on patients in emergency rooms, will not keep up with public demand. As the population continues to grow, there will be a shortage of 1,300 general surgeons in 2010. That shortage will worsen each decade, reaching a deficit of 6,000 by 2050.

That means people will have to wait longer for emergency treatment and for elective general surgery, said Thomas E. Williams, co-author of the study and clinical associate professor of surgery at Ohio State University.

"People may wait hours in an emergency room if there is a shortage of surgeons. But the problem is that if you're not operated on within a few hours, your disease progresses and that can create more serious problems in other areas of the body. These are problems that you would not have had with prompt surgical attention," said Williams, who is also a retired thoracic and cardiac surgeon.

In emergency rooms, general surgeons are called upon to determine whether or not to operate on a patient. But an increasing number of medical professionals choose to specialize in other fields such as cardiac or orthopedic surgery. So the shortage of general surgeons will directly impact emergency rooms around the country, which rely on general

surgeons.

The projections were made based on data from the U.S. Census Bureau and The American Board of Surgery. The data included population statistics and projections, medical school graduation rates, and information on the number of surgeons currently practicing.

The study was published in a recent issue of the journal *Surgery*. Williams conducted the study with E. Christopher Ellison, professor and chair for the department of surgery at Ohio State. The pair has co-authored a book with fellow Ohio State professor Bhagwan Satiani, entitled "The Coming Surgeon Shortage: Who will fix our hearts, your hip, and deliver our grandchildren?" The book is expected to be released late next year.

The shortage was calculated by taking the difference between the number of retiring surgeons and those entering the workforce. This number is then compared to the expected need for general surgeons. Previous research has shown that 7.53 general surgeons are needed for every 100,000 people to keep the current level of care. The current study shows this number will not be met as early as 2010.

There are about 21,500 general surgeons practicing in the United States today. Each surgeon practices for an estimated 30 years and about 705 surgeons die or leave the workforce every year for personal reasons or retirement.

Meanwhile, nearly 1,000 new surgeons enter the workforce each year. But of that number, only 850 will practice general surgery. After accounting for retiring surgeons, that means only 145 new general surgeons will enter the workforce annually, far less than is needed given the continuous rise in the population.

But some authorities have suggested that as many as 600 of these 1000 surgeons are entering other surgical specialties each year, creating an even larger shortage of general surgeons than the current study projects.

"Many doctors today want to specialize in areas such as vascular, colon, or thoracic surgery. They'll train for one or two more years beyond general surgical residency so they have more professional expertise, and probably won't take the general surgery calls in emergency rooms," Williams said.

"But if even more surgeons are getting these specialized certificates, the problem will just get worse. We'll see fewer available doctors for patients in the emergency rooms who depend on these general surgical procedures for their care."

Williams estimates that it will cost \$62.5 million per year (\$750 million total) to train the additional 1,875 general surgeons needed by 2020. Because training is 5 years in duration, each year of training costs approximately \$80,000, including salary, benefits, and other direct and indirect costs.

Despite recent attempts to increase the number of medical students and establish new medical schools, there are several barriers standing in the way.

Attracting students to the medical field is a growing problem, Williams said. The overwhelming costs of obtaining a medical degree are a large deterrent for many young students, despite scholarships and financial aid. The cost of obtaining a medical degree leaves many students with \$125,000 to \$150,000 in debt after completing medical school.

In addition, students required to train as residents are often underpaid for their work, Williams said. The average resident earns between

\$40,000 and \$45,000 per year for three to seven years before they are board-certified. Compare that to the average salary of a first-year associate at a New York law firm, who will earn \$150,000 to \$200,000 per year.

The lawyer will typically work on weekdays, with some evening and weekend work when needed. The resident, on the other hand, will work nights, weekends, and uneven hours for up to seven years for lesser pay.

"This lifestyle can serve as a deterrent for many who might otherwise choose surgery. When you are married and have children you need a more predictable schedule. Someone has to take the kids to music lessons or football practice. One of the problems in surgery is that it's often unpredictable and that makes it hard to lead a scheduled lifestyle," he said.

"What we need to do is make this profession more attractive through programs to help reduce costs and arranging the 80 hour work weeks to more manageable schedules. Without these changes, we simply won't keep up with the increasing demand."

Source: Ohio State University

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