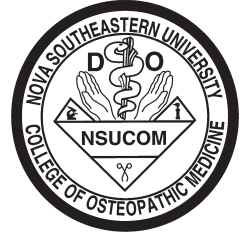


Medical Education Digest



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Shortage of Physicians, Especially in Primary Care, Continues to Grow

While major medical centers are looking for neurosurgeons, urologists, pediatric oncologists, and other specialists to fill the physician shortage gap, the largest and most immediate need in the nation is primary care. This includes family medicine, internal medicine, pediatrics, gynecology, and general surgery. It is estimated that while currently there is a shortage of 13,700 physicians nationwide in all specialties, that figure is predicted to increase to 63,000 by 2015 and 130,000 in 2025. Atul Grover, the chief advocacy officer for the Association of American Medical Colleges, provides several reasons for the current and anticipated physician shortage problem:

- cap on slots in medical schools and residencies for the past 34 years while the U.S. population grew 31 percent
- federal money now assisting in the payment of graduate medical education may be cut by Congress
- elderly population is anticipated to double in the next decade and use twice the amount of health care services as younger people
- a third of currently practicing physicians are expected to retire in the next 10 years
- about 30 million people without health insurance will be insured by health reform legislation by 2014

While medical schools in the nation agreed to increase enrollment by 30 percent by 2015, it only increased by 7.5 percent between 2006 and 2010. Four new M.D. schools opened in 2009 and 13 new D.O. schools opened in the last decade. Catherine Lucey, the vice dean of education at Ohio State University College of Medicine, said, "Primary care doctors are on the front lines in a demanding job where they're highly responsible for coordinating care, but they're

paid less to do more and under more scrutiny." It is pointed out that the median annual income for a practicing family physician is \$173,000 compared to \$292,000 for a urologist and \$400,000 for a cardiothoracic surgeon.

In 1977, since there was a fear there would be too many physicians at that time, Congress froze the number of residencies at 110,000. Grover pointed out that Congress must increase the number of residencies it supports. However, the number of residency positions is in danger of being cut because of the nation's debt issues. Current graduate medical education funding could be reduced from between 20 to 60 percent if there are cuts in Medicare, which currently pays \$9.1 billion yearly to teaching hospitals to support the salaries of residents and fellows.

(Kleinerman E. Doctor shortages threaten the U.S. and Ohio: the changing face of medicine. The Plan Dealer. August 29, 2011.)



"Medical Education Highlights for Primary Health Care"

Association of American Medical Colleges Projects Physician Shortage to Quadruple



A shortage of 91,000 physicians is expected by 2020, including 45,000 primary care physicians and 46,000 surgeons and medical specialists, as indicated in a report from the Association of American Medical Colleges (AAMC). The shortage is being reported as the worst in 30 years. In fact, the number of physicians per capita will begin to drop for the first time since the 1930s.

This situation will be more acute since the proportion of the aging is rapidly increasing. In addition, this population will have more chronic illness. Because of supply and demand, the predicted shortage will result in Americans without health care or with insufficient care. The worst affected areas will be rural and inner-city communities. The overall reason for the shortage will have less to do with health reform than it will with the aging of America. Referred to as a silver tsunami, the need for health care is going to be much higher on a per-capita basis than younger adults.

The AAMC offers the following solutions:

- increase federal support for residency programs
- subsidize graduate medical education by increasing Medicare support by 15 percent
- use health care providers more effectively by including advance practice nurses and physician assistants and team-based approaches such as the medical home model

(Cheung C. Physician shortage to quadruple within decade, AAMC says. NEJM Careers. The New England Journal of Medicine. March-April 2011.)

Educational Debt Associated with Low Resident In-Training Exam Scores

The *Journal of the American Medical Association* recently reported an association between low scores by internal medicine residents and high educational debt. Included in the study were 16,394 internal medicine residents in 2008 and 2009 who took the Internal Medicine In-Training Examination (IM-ITE)—a test for the purpose of determining a resident's progress and identifying his or her deficiencies. In addition to the test, a survey was performed. Almost 19 percent of the residents who had greater than \$200,000 in debt indicated their quality of life was either as bad as it could be or somewhat bad. However, those with no debt indicated this to be the case only 12 percent of the time. Residents with greater than \$200,000 in loans scored five points lower than those who were debt free.

Traits associated with lower IM-ITE scores were quality of life, emotional exhaustion, and educational debt. Foreign medical graduates were less likely to report high burnout compared to those who attended American medical schools. Race, socioeconomic status, and marital status were not taken into account in the study.

(West CP, Shanafelt TD, Kolars JC. Quality of life, burnout, educational debt, and medical knowledge among internal medicine residents. The Journal of the American Medical Association. 306 (9): 92-960;2011.)

More Physicians with M.B.A.s Than Ever Before

There are 65 joint M.D./M.B.A. programs in the United States today compared to only 5 or 6 in the late 1990s. However, some business graduates later earn their medical degree. Today, there is an association of M.D./M.B.A. programs, and its president, Maria Y. Chandler, M.D., M.B.A., a pediatrician and associate clinical professor in both the medical and business schools of the University of California, Irvine, estimates there are 500 students in these programs.

Tuition at Duke University for both programs totals \$235,244. Tufts and Texas Tech have a combined program that can be completed in four years. John Prescott, M.D., who was the dean at West Virginia University School of Medicine, indicated that physicians want to make a difference, some one patient at a time, while others see a bigger impact in business applications. "Healing is an art; medicine is a profession; health care is a business."

(Freudenheim M. Adjusting, more M.D.s add M.B.A. New York Times. September 5, 2011.)

Josiah Macy Jr. Foundation Report on Graduate Medical Education Reform

A number of forces accelerate the need for the reform of graduate medical education (GME). First are the changes in demographics and associated disease burdens. This includes the doubling of those over age 65, with octogenarians being the fastest-growing group. This results in more chronic diseases and a greater incidence of medical, cognitive, and functional issues.

Furthermore, there is the epidemic of diabetes and obesity as well as increased ethnic and racial diversity. Next is the transformation of the health care system occurring even before the passage of the Patient Protection and Affordable Care Act, which will extend care to 32 million more Americans and move from the hospital into the community and into homes. This requires trainees to prepare to work in teams and in different organizations and sites. Third is the rapidly growing field of technology in health care, which needs to be included in training future physicians so they optimally use information technology and follow principles of patient safety and quality improvement.

Then there is the unsustainable growth in the cost of the current health care

system. At the same time that all this is occurring, there are the expectations by the public that there are enough physicians, a proper specialty mix, and adequate skills to meet societal demands. A Josiah Macy Jr. conference conducted in May 2011 included participants from all regions of the United States and Canada with multiple specialty backgrounds and experiences in GME at medical schools, regional health systems, and national levels. Following is a summary of the conclusions:

- To respond effectively to society's evolving health care needs, GME must create and maintain a dynamic and ongoing exchange with the public through partnerships that engage communities in feedback, analysis, and planning.

- High-quality GME requires experience with a diverse mix of patients, clinical problems, and health care delivery mechanisms to support a curriculum that addresses evolving patients, population, and health care system needs and expectations.

- There is both need and opportunity for greater efficiency in delivering GME. Accomplishing this will also help to address national physician workforce needs, while enhancing the quality of training.

- Medical education represents a continuum of lifelong learning. Phases of medical education should be examined with regard to coordination, efficiency, and appropriate performance assessment (e.g., flexible use but more rigorous use of the final year of medical school; students who have met appropriate milestones might graduate earlier from medical school and enter GME sooner).

- Empowered educational leaders should ensure that the following educational principles and practices serve as the foundation of GME programs:

- program must be designed to develop the knowledge, skills, attitudes, and behaviors for current and future clinical practice

- sufficient continuity of patient care, direct observation, formative feedback, and mentorship

- autonomy of thought should be maximized through training

- educational value should be determined by how an experience moves the learner along the continuum from novice to expert

- regular systematic program evaluation should be done to ensure continual improvement

- To best leverage the large public investment in medical education for the greatest good of society, a National Institute of Health Professions Education should be established and charged with coordinating, prioritizing, and funding research on health professions education, with a substantial focus on GME.

(Conference Summary. Josiah Macy Jr. Foundation. Ensuring an Effective Physician Workforce for the United States: Recommendations for Reforming Graduate Medical Education to Meet the Needs of the Public – The Second of Two Conferences – The Content and Format of GME.)



Unconscious Race and Social Class Bias by Johns Hopkins Medical Students

Johns Hopkins School of Medicine administered a survey of 211 entering medical students in 2009 and 2010 to determine unconscious social class bias and the relationship with assessments they made in clinical vignettes. An Implicit Association Test (IAT) was employed assessing unconscious preferences, and direct questions were used to determine students' explicit race and social class preferences. Also used to determine

whether responses were associated with unconscious race or social class preferences were eight clinical assessment vignettes focusing on

- pain assessment
- informed consent
- patient reliability
- patient trust

It was found in the IAT scores (202 completed the survey) that the majority of

the first-year students had scores consistent with an implicit preference for white persons and possibly for those considered upper class. Overall vignette-based clinical assessment, however, was not associated with patient race or occupation.

(Haider AH et al. Association of an unconscious race and social class bias with vignette-based clinical assessments by medical students. The Journal of the American Medical Association. 306 (9):995-996;2011.)

Middle School Students Experience a Medical Career

To increase students being more familiar with a medical career as well as enhance their competitiveness, 26 Virginia hospitals have established medical camps that are attended by 760 middle

school students. Each camp experience lasts five days and includes providing opportunities for the students to learn how to suture skin, take blood pressure, insert an IV, and type blood. The program

hopes to encourage the students to take science courses.

(Dermatology Daily. Special camp offers middle-schoolers chance to sample a medical career. Tuesday, July 26, 2011.)



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