



GRANTS PROVIDE FUNDS FOR CHANGES IN MEDICAL EDUCATION

With funds totaling \$11 million, 11 medical schools received grants to create ways to prepare students to deliver health care. New York University School of Medicine will improve health data analysis in a way that makes a difference to patients and improves community health. Students will be provided access to about 2.5 million patient visits per year from the state of New York's 227 hospitals with information on the ethnicity of patients, the reason for admission, procedures performed, and charges incurred. Students will learn the common reasons patients were admitted and the differences in charges from one hospital to another, as well as the differences in quality and length of stay. During a five-week period, students will become more knowledgeable about the meaning of the data and how to improve quality.

Brown University medical students are able to pursue a dual degree that includes an M.D. as well as a master's in population medicine—a program that is integrated through the four years of medical school. Paul George, M.D., program director, said the new program allows students to address a third science in addition to the clinical and basic sciences called health care delivery.

In addition to courses in health disparities, biostatistics, and

epidemiology, students take courses in leadership and quality improvement. They also learn to deliver continuity of care to patients while working with the same physician for a 32-week period.

Another grantee is East Carolina University Brody School of Medicine in Greenville, North Carolina, which focuses on faculty members through a Teachers of Quality Academy. One of the competencies available is how to work with other health professionals. As a result, 10 of the 39 faculty members are from disciplines other than medicine, such as nursing, public health, and allied health.

Faculty members choose a clinical project in the outpatient area and are expected to work with a team. The program worked with the East Carolina College of Education to develop a class in medical education, training faculty members to develop new curricula. The Oregon Health & Science University in Portland developed a competency-based curriculum, which is time-variable and outcomes-fixed. The college estimates that about 10 percent of students will be able to graduate in less than four years. Because the program is self-paced, graduations are held four to six times a year.

(Frieden J. The changing face of medical education: big data, self-paced learning. MedPage Today; August 6, 2015).



SURVEY ANALYZES MEDICAL STUDENTS' ATTITUDES TOWARD CIGARETTES AND TOBACCO ALTERNATIVES



Hookahs/waterpipes, chewing tobacco/snus, e-cigarettes, kreteks (clove cigarettes), and cigars are available alternative tobacco products (ATPs). Some ATPs such as hookahs deliver tar, nicotine, and carbon monoxide in even higher doses than cigarettes. While no studies have been done in the United States, in some other countries as many as 20 percent of medical students use ATPs.

A New York University (NYU) School of Medicine study analyzed 720 enrolled students using surveys validated by the National Youth Tobacco Survey and Global Health Professionals Student Survey, as well as a Canadian medical school student hookah habit survey. NYU medical students were asked questions about their personal use of ATPs, perception of the harms of the ATPs—including their role in disease causation, their level of education about ATPs, and self-reporting cessation training and practices related to both cigarettes and ATPs.

Completing the full survey were 431 medical students (59.9 percent) and 103 who partially completed it. Results revealed a significant percent of the students use tobacco products and did not have the skills, education, or knowledge to provide accurate information about ATPs

to patients or themselves. Four times more medical students than physicians currently smoke (i.e., 1 percent of U.S. physicians smoke). Among the medical students, 15 percent use a smoking or tobacco product.

The data showed that medical students do not learn as much about ATPs as they do about cigarettes. This was identified as a gap in the medical students' education in that meta-analyses have shown that hookah use has been linked to lung cancer, low infancy birth rate, esophageal cancer, stomach cancer, poor birth outcomes, and endothelial dysfunction.

The study showed that the medical students received poor ATP cessation education, which the investigators indicated should be remediated so that future physicians will be informed about the dangers of all tobacco use, reducing its prevalence among the public as well as among physicians. The recommendation includes learning about available cessation techniques tailored to ATP use.

(Zhou S, Van Devanter N, Fenstermaker M, Cawkwell M, Sherman S, and Weitzman M. A study of the use, knowledge, and beliefs about cigarettes and alternative tobacco products among students at one U.S. medical school. Academic Medicine; published online August 2015).

INTERPROFESSIONAL RAPID RESPONSE TEAMS IMPROVE RESIDENTS' TRAINING

The goal of rapid response teams (RRTs) is the treatment of severely ill patients before they develop adverse events. The Joint Commission on Health Care Organizations requires systems for prompt response to changes in the condition of patients.

In the United States, more than 95 percent of hospitals have RRTs. At Christiana Care Health System in Newark, Delaware, a 3-phase interprofessional RRT was developed for first-year residents. In phase 1, weekly didactic lectures were conducted by attending physicians and senior internal medicine residents for one month. The lectures included RRT scenarios, triage, and in-hospital processes, along with evaluations that were case-based, a multiple choice pretest, and a multiple choice posttest. A survey was also conducted comparing the participants' confidence in running RRTs before and after the lectures.

Phase 2 included an 8-hour experiential training in which residents supplied with pagers responded to all RRT calls in the intensive care unit (ICU). First-year residents could respond to the RRT under the supervision of senior residents or observe the RRTs. Phase



3, conducted at the end of the first year of residency, divided residents into interprofessional teams.

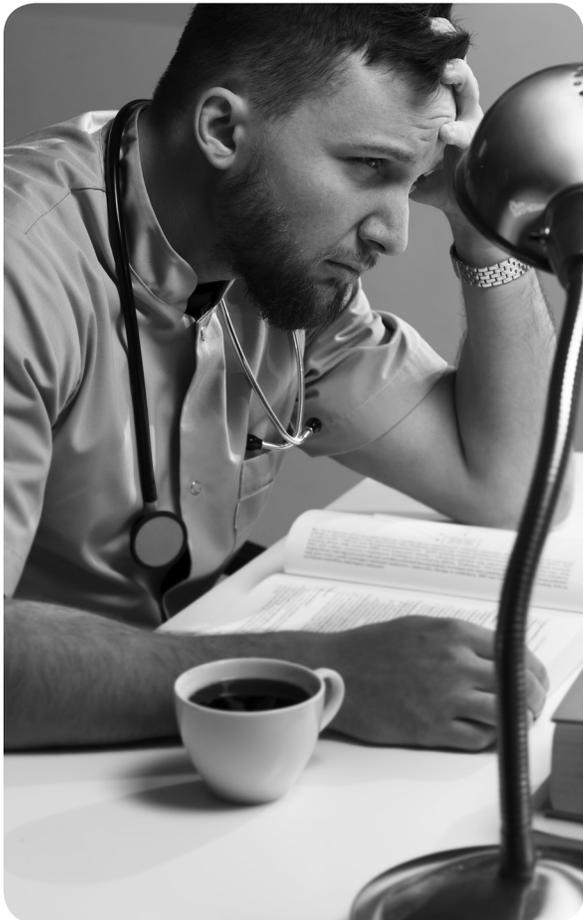
Simulations using mannequins were employed to represent common RRTs. Five simulations representing RRT events included supraventricular tachycardia, change in mental health state, bradycardia, ventricular tachycardia, and a hypertensive emergency that included a seizure. The team included an RRT leader, an ICU nurse, and a floor nurse/respiratory therapist. The team was then evaluated by two internal medicine attend-

ing physicians and a third-year resident, followed by a debriefing session.

The exercise concluded that resident RRT training improves global RRT performance and resident education as a result of interprofessional education. Furthermore, team-based interprofessional RRT simulation training is predicted to enhance resident education.

(Burke PA, Vest MT, Kher H, Deutsch J, and Daya S. Improving resident performance through a simulated rapid response team: a pilot study. Journal of the American Osteopathic Association. 115 (7), 444-450; 2015).

RESEARCH SUGGESTS REASSESSMENT IN USE OF USMLE STEP 1 SCORES IN SELECTING RESIDENTS



While the United States Medical Licensing Examination (USMLE) is used to determine qualification for licensure, it is also used to screen applicants for residency. USMLE Step 1 correlates with failure on subsequent in-training and certification examinations. No evidence exists, however, to identify medical students who are likely to succeed in developing the range of competencies expected in residencies.

In spite of that, residency program directors use the USMLE to filter applicants selected for interviews, especially for the more competitive disciplines (e.g., orthopedic surgery, radiation oncology, dermatology, ophthalmology, and otolaryngology). The USMLE scores were not directly validated to be used for that purpose, yet they are a major factor in the offer of interviews. It continues to be used as an easy way to reduce large applicant pools. Furthermore, the USMLE Step 1 is perceived to meet this need even though its use is not supported by strong evidence.

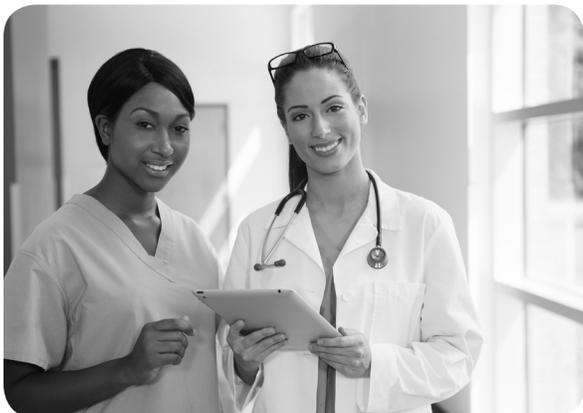
It is suggested that the USMLE be pass-fail to redirect program directors to create new knowledge-based exams.

The authors believe that the USMLE Step 1 scores should be abandoned, but they do not believe the scores should be major determining steps in selecting students for graduate medical education program interviews.

Greater attention should be given to other important qualities such as clinical reasoning, patient care, professionalism, and the ability to function as a member of a health care team. In addition, this review could include research experience and accomplishments, community engagement, leadership role, unique personal attributes, and diversity. Greater attention should also focus on performance during clinical rotations with clinical faculty members, other health professionals, patients, and peers, as well as substantial weight in specialty-specific sub internships and specialty-specific research—all of which would be a more relevant measure of competencies than the USMLE Step 1 alone.

(Prober CG, Kolars JC, First LR, and Melnick DE. A plea to reassess the role of United States Medical Licensing Examination Step 1 scores in residency selection. Academic Medicine. 90(10); October 2015).

STUDY EXAMINES UNDERREPRESENTED MINORITIES AND WOMEN IN GRADUATE MEDICAL EDUCATION



In 2012, women represented 48.3 percent of the 16,835 medical school graduates. Underrepresented minorities (URMs) comprised 15.3 percent of the graduates, including 7.4 percent who were Hispanics and 6.8 percent who were black.

Of the 115,111 trainees in graduate medical education, 46.1 percent were female and 13.8 percent were URMs, with 7.5 percent Hispanic and 5.8 percent black. Of the 688,468 practicing physicians, 30.1 percent were female and 9.2 percent URMs, including 5.2 percent Hispanic and 3.8 percent black.

More than 50 percent, or the majority of the graduate medical education trainees, were female in seven specialties. These specialties were obstetrics and gynecology (82.4 percent), pediatrics (73.5 percent), dermatology (64.4 per-

cent), internal medicine/pediatrics (58.2 percent), family medicine (55.2 percent), pathology (54.6 percent), and psychiatry (54.5 percent).

The lowest percent of female trainees were in orthopedic surgery with 13.8 percent. Otolaryngology had the fewest trainees who were black (2.2 percent), and the fewest Hispanic trainees were in ophthalmology. The highest percent of black trainees were in family medicine (7.5 percent) and obstetrics and gynecology (10.3). Among Hispanics, the highest percent of trainees were in psychiatry (9.3 percent), family medicine (9.0 percent), pediatrics (8.7 percent), and obstetrics and gynecology (8.7 percent).

(Deville C, Hwang WT, Burgos R, Chapman CH, Both S, and Thomas CR. Diversity in graduate medical education in the United States by race, ethnicity, and sex, 2012. JAMA Internal Medicine; online August 24, 2015).



MEDICAL SCHOOLS OFFER MILLIONS TO COMPETITION FOR TOP PROFESSORS

“Academic poaching,” paid for with public funds, is luring outstanding medical school faculty members to other medical schools. There are 11 states that recruit biomedical faculty members from New York using public funds.

Texas, for example, offered \$40 million in research grants to lure faculty members from New York medical schools. In 2011, Texas recruited the head of the Dana Farber Cancer Institute in Boston, Massachusetts, to become

president of the University of Texas M.D. Anderson Cancer Center in Houston (along with 55 researchers) and provided a package worth \$8 million for his wife.

A University of Michigan pediatrics professor was lured by the University of Texas Southwestern Medical Center in Dallas for \$11 million. A lawsuit resulted when the University of Southern California (USC) was alleged to have conspired to acquire a University of California, San Diego (UCSD) Alzheimer’s

researcher, accusing USC of stealing data belonging to UCSD.

The governor of New York is being urged by 16 medical schools in the state to invest \$100 million yearly over 10 years to recruit out-of-state researchers. Medical school leaders want the state of New York to invest more in its medical schools to ensure there is a corps of good scientists.

(The Editorial Board. The battle for biomedical supremacy. New York Times. Sunday Review; August 29, 2015).

PROPOSED LEGISLATION PRESSES FOREIGN MEDICAL SCHOOLS TO MEET U.S. REQUIREMENTS

In May, Democratic and Republican members of Congress joined together to introduce the Foreign Medical School Accountability Fairness Act. The legislation requires all foreign medical schools to have the same quality standards of instruction as medical schools in the United States, if they are to receive U.S. Title IV funding for student loans.

In 2012, a small number of Caribbean medical schools received more than \$450 million in Title IV funding—amounting to two thirds of all

Title IV funds going to foreign medical schools. Among the minimum requirements is that students in schools outside of the United States or Canada have a passing rate of at least a 75 percent on the United States Medical Licensing Examination (USMLE).

One of the sponsors of the bill, Senator Dick Durbin (D-IL), indicated that for-profit Caribbean medical schools that enroll a large percent of American students do not currently meet the same instructional quality standards

as U.S. medical schools and therefore profit from hundreds of millions of taxpayer dollars. Senator Bill Cassidy, M.D., (R-LA), said that some foreign medical schools are using taxpayer dollars inappropriately, and the schools must meet the same standards as every other school.

(Bipartisan, bicameral legislation to ensure all foreign medical schools are held to same standards. <http://www.durbin.senate.gov/newsroom/press-releases/bipartisan-bicameral-legislation-to-ensure-all-foreign-medical-schools-are-held-to-same-standards>; 05.19.15).



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