Creative solutions are needed to address the future of medical education. The survival of medical schools and their financial success are meaningless if the core mission and values are not preserved. Priority should be given to academic rather than business values. Practices that are best for teaching, research, and patient care should trump practices that are most efficient or profitable. Medical schools, not drug or medical education companies (MECs), should educate students and residents. Drug companies or MECs should be minimally used or forbidden. Schools should require faculty members to disclose their commercial interest as they do in continuing education programs.

Learner-centered training (LCT) should be used wisely since it is a logical and persuasive educational philosophy and methodology. What learners learn trumps what teachers teach, and what we learn and retain best is that which requires being confronted with challenging “real-life” problems. This requires that we think about and construct theories and collaborate about causes and solutions. LCT can include good medical teachers and lecturers who:

- prepare courses that take into consideration what students need to learn and apply
- interact extensively with students and have them interact with each other
- solicit extensive post-course feedback to improve subsequent courses

We should ensure acceptable preclinical class attendance without requiring it. There is no evidence that mandatory lecture attendance yields higher class achievement. Most important, medical education must be patient-centered and authentic. This should be from the first week of medical school through clinical relevance of what is taught and learned by using preclinical discussions of recorded or live patients.

In addition, students should be exposed to physician role models by professionalism in all four years of school. By the third year, all core competencies should have been addressed so students can assume meaningful patient-care roles. The tenure system also should be maintained to promote long-term development of new ideas and challenge conventional wisdom rather than be employees who toe the company line. Such principles and values are not profoundly expensive.

According to the Association of American Medical Colleges (AAMC), there will be a need for 45,000 primary care physicians. Currently, the number of first-year medical school enrollees is growing at less than one percent annually. This is even with an enrollment of students in allopathic and osteopathic medical schools that will rise to 26,550 by 2015; up 36 percent from 2002. In an article in The Huffington Post, it was suggested that the best way to meet the needs of the health care system is to limit the numbers of specialty residencies. It also is reported by the AAMC that there is increasing competition for specialty residency positions.

Despite Gains, Need for Primary Care Physicians Continues
Analyzing the Need for Expanding General Surgery Residencies

Since 1980, there has been an overall growth of resident positions; however, general surgery positions have remained stagnant. In 1997, the Balanced Budget Act established a cap on Medicare funding for GME positions. Medicare currently funds the training of 93,200 residents. There has been a steady growth in the number of resident positions even though these new positions do not receive Medicare funds. This may be due to the limit in the amount of hours residents work under new work rules and because residents may be more cost effective than hiring additional faculty/attending physicians or mid-level practitioners. Teaching hospitals, however, can only add more resident positions with permission from the Accreditation Council for Graduate Medical Education (ACGME).

In spite of a population increase of more than 33 percent, accredited surgical residency programs have remained constant since the 1980s with slightly more than 1,000 chief residents per year. Residency programs in surgery centered in major teaching and safety-net hospitals are challenged with an increasing volume and complexity of surgical caseloads. The Third Report of the Council on Graduate Medical Education (COGME) indicated an imbalance between primary and specialty physicians. However, while the report proposed capping Medicare-funded first-year GME positions at 110 percent of medical school graduates, it made an exception to the surplus of specialty physicians for general surgery.

This is due to an aging of the population, a growing need for trauma care, and the decrease in the number of general surgeons practicing in rural areas. (Russell JC, Nelson MT, and Fry DE. The case for expanding general surgery residencies. Academic Medicine. 85:749-751;2010.)

Health/Education Reconciliation Act of 2010: Impact on Medical Education

Medical students will find that by expanding the Income-Based Repayment (IBR) Program, it may make their loans more affordable. On or after July 1, 2014, the IBR Program will put a cap on student loans. This will result in a cap resulting in 10 percent of adjusted income; a reduction from 15 percent. It also forgives any remaining balance after 20 years rather than 25 years as is now the case. The federal government also will become the sole originator of federal loans to college students. It will provide $61 billion for Pell Grants and other higher education programs. (Association of American Medical Colleges. April 2, 2010.)

Skilled Nursing Facilities and Medical Training

A UCLA investigation revealed that most primary care physicians have little training in the care of patients in skilled nursing facilities (SNFs). Internal medicine residents when queried did not know the requirements for admission to such facilities. In fact, more than two thirds did not even know what a SNF is, and 67 percent were unaware of the type of nursing staff that provides care in a skilled nursing facility. Regardless of whether residents were in the first, second, or third year of an internal medicine program, their knowledge of skilled nursing facility care was poor.

It was concluded that there is an urgent need to train medical residents about SNF care. This urgency was identified since about a quarter of older adults requiring hospitalization require SNF care and the population of those in this age category is rapidly expanding. Furthermore, most primary care physicians, hospitalists, physicians in training programs, and hospital discharge planners have not received much exposure to sites of care other than their own.

It also was concluded that internal medicine residents could use didactic and hands-on sessions to educate themselves about SNFs. This needs to be ensured by the Accreditation Council for Graduate Medical Education as well as the American Board of Internal Medicine so physicians have the knowledge and skills to transfer hospitalized patients to a skilled nursing facility, the investigators stated. (Boschert S. Medical trainees know little about skilled nursing facilities. MD Consult News. April 9, 2010.)
Baccalaureate-M.D. Program for Students from Medically Underserved Communities

In 1994, Baylor College of Medicine (BCM) established a partnership with the University of Texas-Pan American (UTPA). However, it was not until July 1, 2009, that the Liaison Committee on Medical Education (LCME) adopted in its standards for accreditation a requirement that all medical schools develop programs or partnerships to broaden diversity among qualified applicants for medical school admission. This includes the Health Professions Partnership Initiative summer enrichment activities and baccalaureate/M.D. programs.

The BCM/UTPA partnership established a Premedical Honors Program (PHC) creating an eight-year high school through medical school pathway for students from South Texas. It provides academic support and enrichment experience for promising students and conditional acceptance to BCM upon satisfactory completion of a B.S. in Biology or Chemistry. Major aims are to increase access to medical education of students with underrepresented and disadvantaged backgrounds.

From 1994 through 2008, 87 percent of the 242 students who completed the special undergraduate program matriculated at Texas medical schools, with 82 percent being underrepresented minorities. When the program began in 1994, the overall and science GPAs were 3.2 and 3.0, respectively, and the MCAT score was 24. Now, the overall GPA must be 3.4 with a 3.2 in the sciences. MCAT scores must total at least 28 with no section less than 8. As of 2008, 65 M.D.s have been produced by the program, 83 percent of whom are Latino. Of the 20 who completed residency, 12 remain in South Texas, with six practicing at academic medical centers with faculty appointments.


Three-Year Medical Degree Gains Traction

While McMaster University in Canada and the Lake Erie College of Osteopathic Medicine have three-year options to acquire the medical degree, Texas Tech has introduced another paradigm and the Carnegie Foundation for the Advancement of Sciences is about to release a major study including an option for all medical schools to have a three-year degree.

It will recommend that there be a focus on learning outcomes and milestones. Students may enter residency training after three years or focus on research or specialties. David Irby, Ph.D., vice dean for education at the University of California at San Francisco School of Medicine and co-director of the Carnegie Study, indicates that while there is no shortening of expectations, there is no reason why the curriculum cannot be three years in duration.

At Texas Tech, the vice president for medical affairs stated that since the fourth year is focused on electives in various medical specialties, this may not be necessary for those committed to primary care. The curriculum in outline form is summarized below:

- First year – no change
- Summer after first year – course in family medicine
- Second year – normal curriculum, but integrated into the year is a clinical experience in family medicine
- Third year – regular core rotations

Spending time in electives draws student away from primary care, which is now in great need. Tuition and living expenses for one year is spared. Texas Tech currently has only 10 or so of its 140 students interested in primary care, and this model may double that. It is warned that many students may not be ready to commit to a path early on and may find the fourth year an essential component to make them a well-rounded physician.

(Jaschik S. The Three-Year M.D. Inside Higher Ed. March 25, 2010.)
An Overview of Homeless Patients and Medical Student Attitudes

It is critical that students cultivate ethical practices, attitudes, and values to guide their development as physicians who can treat all patients equitably. The physician-patient relationship should not be disrupted by the patient’s background, socioeconomic status, mental illness, substance abuse, personality disorder, or low social and intellectual function.

A study appearing in Academic Medicine in 2000 reported that students who opt for careers in the subspecialties have a significantly lower score on the empathy scale than students who choose family practice, pediatrics, or internal medicine. A Longitudinal Ambulatory Care Experience elective for homeless health care, which Baylor began in 2001, consists of a team supervised by a medical faculty preceptor and is led by a third-year Baylor College of Medicine student with two first-year medical students as well as a pharmacy and public health student. It includes students from Baylor, the University of Texas Schools of Medicine and Public Health, and the University of Houston Colleges of Pharmacy and Social Work.

Each session ends with students sharing a meal with homeless persons and is concluded by reflecting with peers as they work together to process, communicate, and resolve strong and emotionally challenging elements of the experience. The authors conclude by stating that students are better able to serve “difficult” patients, making them better physicians. They state that medical educators need to design substantial and effective ways of transmitting professional, empathetic, and culturally sensitive attitudes that will improve relationships with estranged patient populations.

(Buck DS and King BT. Medical student self-efficacy and attitudes toward homeless patients. Virtual Mentor. 11:32-37;2009.)