HOW MEDICAL EDUCATION IS CHANGING

ISSUE SUMMARY

Medical education promotes a commitment to learning across the professional lifespan to ensure physicians are prepared to respond to the country's changing health needs. At both the national level and at individual institutions, medical educators are implementing innovations across the continuum of education and training to reflect the changing context of patient care delivery.

Issue

Over the last two decades, shifts in demographics, science, and federal policies have had a major impact on health care, a phenomenon that will persist. Accordingly, the education and training of physicians and other health professionals have changed significantly and continue to change. Initiatives are under way to enhance admissions processes, policies, and practices to better identify and select tomorrow's doctors for the health care system of the future. The structure, content, and delivery of medical education continues to be refined as medicine improves, new public health challenges emerge, learning and teaching are better understood, and educators strive to ensure more seamless transitions between the phases of medical education. These and other developments reflect the dynamic nature of health care and the corresponding commitment of medical education to prepare physicians that can adapt and respond to an ever-changing environment.

Background

Following a highly selective admissions process, medical education is divided into three phases: medical school (undergraduate medical education), residency training (graduate medical education [GME]), and continuous education and improvement (continuing medical education).

Admissions committees at each medical school use broad-based selection criteria, including prior academic achievement and assessments, as well as evidence of the values and attitudes necessary to be an excellent and compassionate physician. Medical schools are testing new ways to consider personal characteristics, such as how well applicants work in teams, how they interact with diverse people, and their ability to be resilient, adapt to different situations, and think critically. Many medical schools use holistic review, a flexible, individualized way of assessing applicants' capabilities with balanced consideration of experiences, attributes, and academic metrics.

Recent changes to the AAMC-sponsored Medical College Admission Test® (MCAT®) added two new sections covering critical thinking as well as behavioral and social sciences, in addition to the existing content on biological sciences, physical sciences, and verbal reasoning, among other areas. Additionally, many institutions are implementing recruitment initiatives to address emerging national and local health care needs. According to a 2015 survey of all medical school deans, 84 percent of respondents reported specific admissions programs or policies designed to recruit a diverse student body interested in caring for underserved populations—including programs and policies geared toward minorities underrepresented in medicine, students from disadvantaged backgrounds, and students from rural and underserved communities.

Upon acceptance, students begin undergraduate medical education, usually four years. Medical education programs leading to an MD are accredited by the Liaison Committee on Medical Education (LCME), jointly sponsored by the AAMC and the American Medical Association and certified by the U.S. Department of Education. Each medical education program establishes a curriculum aligned with its own missions and educational objectives within the framework of general competencies required for LCME accreditation. Medical schools have centralized curriculum management and governance structures in a schoolwide executive committee with oversight responsibility. Traditionally, students receive grounding in the biomedical sciences and an introduction to basic clinical skills in the first two years, with required hands-on patient interactions via clinical rotations or clerkships in the last two years.

The content of medical student education is continually revised to reflect scientific advancements, medical breakthroughs, delivery-system changes, and social issues. For instance, the emphasis in medical care has shifted from treating acute conditions to managing more chronic illnesses, and physicians now increasingly treat problems related to aging. As a result, while maintaining a fundamental basic science and clinical curriculum, educators have modeled instruction around the management of chronic illness and have incorporated topics and themes such as geriatrics, pain management, palliative care, and others in the curriculum. Schools also include enhanced instruction on topics such as disease prevention and health promotion, population health, addiction, communication skills, social determinants of health, emergency preparedness, and medical informatics, among others.

The structure of medical school is also changing, with themes such as earlier clinical experiences, curricular structures integrating the basic and clinical sciences, emphasis on interprofessional educational opportunities, and case-based learning. Learners are exposed to a broad variety of health care settings and instructional modalities capitalizing on new technologies and capabilities. Increasingly, they are expected to achieve milestones in broad foundational domains of competency rather than merely amassing a litany of facts. And they have opportunities to better appreciate the societal and community factors that affect their patients' health. Schools are also reporting innovative approaches to advancing their specific missions, such as requiring students to complete nonmedical community service in the surrounding neighborhood, establishing dedicated tracks in primary care and rural health, promoting medical research experiences, or founding regional medical campuses at sites distant from the main campus.

Medical school graduates then must enter GME or residency training if they seek medical licensure and/or board certification in a medical specialty or subspecialty. This phase is conducted in clinical settings, with major teaching hospital systems training 74 percent of all residents. Residency programs vary in length depending on specialty but generally last three to seven years for initial board certification, while subspecialty training via fellowships may extend the GME period to as long as 11 years after students have received the MD. As part of their education, residents participate fully in the spectrum of diagnosis and treatment. However, residency is an educational program, and residents complete a multiyear period of learning in practice, with gradually increasing responsibility and decreasing levels of faculty supervision, to gain competence and earn eligibility for unsupervised practice.

In GME, too, innovations abound. Educational experts are designing curricula and programs in response to community health needs. They are exploring opportunities to optimize the duration of GME by, for example, shortened educational pathways. An AAMC pilot project is currently testing the feasibility of moving away from a "one-size-fits-all" model of time-based advancement to competency-based advancement across the continuum from medical school through residency and practice. According to data from the Accreditation Council for Graduate Medical Education (ACGME), which includes the AAMC and four other organizations in its not-for-profit membership corporation, 88 percent of pipeline programs in both primary and nonprimary care specialties place residents in nonhospital and ambulatory settings for some of their training. And educators are reviewing the feasibility of holistic review for residency positions.

Aside from innovations in medical education, academic medicine is also at the forefront of leading innovations in medical discovery and health care delivery. Medical schools' and teaching hospitals' leadership in propelling such innovations goes hand in hand with the educational experience for the next generation of physicians. No environment is better suited and more committed to preparing the physician workforce for the health care system of the future than the very institutions pioneering such transformations. As new performance metrics are created, tested, and evaluated, these data will demonstrate the increasing ability of new physicians to work in teams, facilitate system changes to improve population health, and foster continuous quality improvement in care delivery.

After completing medical school and residency training, physicians must continue their professional development over the course of their careers. They do so in a variety of ways: by learning from their practice, by participating in educational activities, and by completing formal, institutionally sponsored continuing medical education. These experiences reinforce and update the content physicians studied in medical school and residency training and are essential for physicians to maintain board certification, to remain competent to practice medicine, to teach the next generation, and to provide the best quality of health care to their patients and communities.

AAMC Policy Recommendation

- Policymakers should support the roles of medical schools and teaching hospitals as they train the next generation of physicians.

Related Issues

- Health Professions Programs (Title VII)
- Diversity and Inclusion
- Physician Workforce Issues
- Medicare Mission Payments to Teaching Hospitals

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Web Resources

Medical Schools Address Opioid Epidemic Through Innovations in Curricula and Other Methods
www.aamc.org/opioidresponse

Interprofessional Education Collaborative
https://ipecollaborative.org/About_IPEC.html

The Core Entrustable Professional Activities for Entering Residency
www.aamc.org/initiatives/coreepas