



Tomorrow's Doctors, Tomorrow's Cures®

Optimizing Graduate Medical Education

*A Five-Year Road Map for America's Medical Schools,
Teaching Hospitals and Health Systems*



Graduate medical education (**GME**) in the United States, also known as residency and fellowship training, is at a critical juncture. Recent and emerging trends, such as an aging and growing population, exponential growth in medical discovery, and increasing reliance on technology, are demanding rapid and simultaneous changes in medical education and health care delivery.

GME is perhaps the most formal intersection of medical education and care delivery. Therefore, it must play a vital role in adapting to these external forces and leading health care change to yield our ideal: a health care system that provides the highest quality, most affordable, patient-centered care every time and enhances the overall health of the patients it serves. Achieving these goals requires physicians who are well equipped to focus on issues such as systems thinking, population health, health equity, continuous improvement, and interprofessional collaboration. Education and training programs are adapting to meet these needs, but they need support from the broader systems in which they operate.

For decades, the AAMC (Association of American Medical Colleges) has been engaged in efforts to assist the country's medical schools, teaching hospitals and health systems meet the challenges facing GME, from helping institutions establish and support residency programs to helping medical educators think about how to prepare physicians to provide the highest quality of care possible—both during residency and afterwards, in practice through continuous learning.

Today, the systemic challenges confronting GME are converging, and the solution requires a concerted effort to align medical education to current and future health care and societal needs. **Driven by our desire to rise to these challenges and by our mission to serve and lead the academic medicine community to improve the health of all, the AAMC, working with the nation's medical schools, teaching hospitals and health systems, is undertaking a comprehensive and sustained five-year plan to optimize GME in the United States.**

Developing the Plan and Putting it Into Action

Recognizing the urgent need to optimize GME to meet the nation's changing health needs, the AAMC Board of Directors in 2014, under the leadership of A. Lorris Betz, MD, PhD, called on the association to create a formal plan to address the challenges in GME.

With this mandate, the AAMC engaged in a comprehensive process to determine the priorities and goals for the Optimizing GME initiative, which included discussions with the AAMC Board of Directors, the administrative boards of the AAMC's Council of Deans, Council of Teaching Hospitals and Health Systems, and Council of Faculty and Academic Societies, the AAMC Leadership Team, and the 20 AAMC affinity groups. From these discussions, the association identified seven priorities and requisite goals and objectives in three broad strategic areas for optimizing GME:

- Investing in future physicians
- Optimizing the environment for learning, care, and discovery
- Preparing the physician and physician scientist for the 21st century

Implementation of the Optimizing GME initiative is being led by AAMC President and CEO Darrell G. Kirch, MD, and Chief Health Care Officer Janis M. Orłowski, MD. Throughout the process, the AAMC will continue to engage constituents, colleague organizations, and nonconstituent thought leaders and experts as appropriate to ensure the success of these efforts.

This document outlines the priorities and goals for each area of focus.

Investing in Future Physicians

The United States faces a nationwide physician shortage expected to become more acute as demand for health care accelerates because of a growing, diversifying, and aging population. GME plays a crucial role in preparing physicians to meet this increased demand, as all physicians must receive residency training prior to entering medical practice. Therefore, establishing a physician workforce able to meet the nation's future health care needs requires adequate investment in GME.

Training doctors who are well prepared to provide preventive, acute, chronic, rehabilitative and highly specialized, lifesaving critical health services requires wise investment of resources. Meeting the nation's growing health care needs requires a more nuanced understanding of our complex GME system and how it can yield both the trainees and the care that the American public expects and deserves.

It is crucial to ensure that our nation's investment in GME yields adequate access to physicians who provide the high-quality health care patients deserve. Unfortunately, today's federal investment in GME is far from adequate and threatened by federal budget cuts. Currently, the federal government provides

financial support for a portion of GME with Medicare payments, which are intended to offset some of the direct costs of training physicians and the indirect costs associated with maintaining critical health services (such as Level 1 Trauma Centers and burn units) for the nation's sickest and most vulnerable patients.

Since 1997, federal support for GME has been effectively frozen because Congress placed caps on the number of Medicare-funded residency training positions. As a result, the nation is rapidly approaching a point in which there will not be enough residency training positions for all the newly graduating physicians who must complete a residency before being able to enter practice.

At the same time that more federal investment in GME is needed, so too, is a meaningful, reliable, and unburdensome system of accountability for producing high-quality physicians to meet the nation's growing needs.

Priority: Refine the metrics of accountability in GME

GOALS

The AAMC will articulate the costs of services and activities that Medicare GME dollars support, as well as the cost of services and activities for trainees that Medicare fails to cover.

The AAMC, in partnership with other organizations, will refine measures of accountability in GME for institutions and policymakers, including both macro-system metrics (workforce, quality) and micro-system metrics (institution, program, and individual).

Priority: Align residency training positions with societal needs and student aspirations and desires

GOAL

The AAMC will study, evaluate, and recommend strategies to align the health care workforce more closely with societal needs for physicians and physician scientists, including recommendations for residency programs.

Priority: Make the case to ensure public funding of GME

GOAL

The AAMC will take appropriate steps to solidify Congress' commitment to public funding of GME by building a body of evidence on the societal good of supporting GME and by strengthening every aspect of the association's advocacy.

Optimizing the Environment for Learning, Care, and Discovery

The prized foundations of academic medicine are the talented professionals within America's medical schools, teaching hospitals and health systems who transform bricks and mortar into spaces for innovative teaching that enhances learning, groundbreaking discovery, and compassionate, world-class care. Creating an environment that celebrates and fosters shared goals of advancing learning, care, and discovery is of primary importance. Given that today's learners engage in classroom- and practice-based learning in clinical environments, and knowing that they will contribute to these various missions in the future, this area of focus requires consideration of the entire medical education continuum (e.g., medical students, residents, fellows, and faculty) and the environments in medical schools, teaching hospitals and health systems.

In 2014, the AAMC Board of Directors affirmed the value of fostering a positive learning environment with a formal statement that reads in part:

"We believe that the learning environment for medical education shapes the patient care environment. The highest quality of safe and effective care for patients and the highest quality of effective and appropriate education are rooted in human dignity."¹

Understanding how people learn, create, and care for others and for themselves is only the beginning of optimizing the environment for learning, care, and discovery. More exploration and evaluation to define and yield the optimal environment for learning, care, and discovery are needed.

Priority: Define and foster optimal learning environments in AAMC-member institutions

GOAL

The AAMC will engage constituents and external experts in defining the critical elements of the optimal learning environment for the continuum of medical education, and in identifying effective practices in each of the critical areas to inform improvement.

Priority: Improve the environment for teaching faculty

GOAL

The AAMC will define and publish the critical components for an optimal environment for faculty at academic medical centers to allow them to thrive while fulfilling expectations related to the institutional missions.

¹ AAMC. AAMC Statement on the Learning Environment. November 2014. aamc.org/learningenvironment

Preparing the Physician and Physician Scientist for the 21st Century

What it means to be a physician today and what it will mean to be a physician in the future is dramatically different than what it meant at the turn of the 20th century, when the landmark Flexner report transformed American medical education.

Since 1911, the scope of practice and complexity of science and medicine has grown exponentially. Today, medical information is on pace to double every 73 days by 2020.² Care delivery is also changing, as practice settings and reimbursement structures shift to reflect patient and payer desires. Physician scientists are partnering for team-based investigation to explore the application of foundational scientific discoveries to patient care and are expanding the “laboratories” for inquiry to include community-based settings. Technology is changing the way patients and physicians communicate and share in decision making, as well as their expectations of each other.

Public expectations of physicians are different as well. Today, the public demands that physicians not just provide care when an individual is sick. Rather, patients want physicians to partner with them and to engage with the community to ensure they stay well. In addition, the public needs and expects the physician to be a caring, professional voice and to

advocate in helping to guide the patient and their loved ones through transitions in levels of health and end-of-life decisions. The imperative for physicians to be compassionate champions for health has never been stronger.

Training physicians and physician scientists who are well prepared and nimble enough to practice in this broad and fluid environment requires concomitant educational transformation. Already underway, this reform of educational programs must accelerate to ensure that physicians are ready to not only demonstrate competence in medical knowledge and patient care, but also in interpersonal and communication skills, practice-based learning and improvement, systems-based practice, interprofessional collaboration, professionalism, and personal and professional development.

The system must ensure that each trainee is fully prepared for the next phase of his or her education, be it medical school, residency, fellowship, or practice. Adequate preparation requires full consideration of the spectrum of future practice for our learners (clinical care, discovery, and educating the next generation of providers) and the current and emerging needs of our patients.

Priority: Elevate the performance of entering residents and new practitioners

GOAL

AAMC efforts will impact student and trainee preparation to ensure that entering residents and new practitioners are ready to meet the demands for 21st century physicians and physician scientists.

Priority: Develop models and demonstrate ways to optimize the duration of education and training

GOAL

The AAMC will evaluate existing and emerging educational models to accumulate evidence to support decision making about the readiness of learners to transition between the stages of education, training, and practice.

² Densen P. Challenges and Opportunities Facing Medical Education. *Transactions of the American Clinical and Climatological Association*. 2011;122:48–58.



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