

Towards the Development of a National Strategic Plan for Graduate Medical Education

COUNCIL ON GRADUATE MEDICAL EDUCATION

23RD REPORT

APRIL 2017

This page intentionally left blank

COUNCIL ON GRADUATE MEDICAL EDUCATION

23rd Report

Towards the Development of a National Strategic Plan for Graduate Medical Education

April 2017

The views expressed in this document are solely those of the Council on Graduate Medical Education and do not necessarily represent the views of the U.S. Government.

Table of Contents

Council on Graduate Medical Education	1
Council Membership.....	2
Acknowledgements.....	4
Executive Summary	6
Introduction.....	7
The Need for Strategic Thinking in GME	8
The Role of GME.....	9
The Funding of GME.....	9
Recommendation: Develop a National Strategic Plan for GME	10
Strategic Planning Committee	10
The Charge of the Committee.....	11
Funding the Committee.....	11
Issues to consider	12
The Path Forward.....	13
Conclusion	14
Appendix 1: Proposed Vision, Mission, and Guiding Principles	15
Appendix 2: Calls for GME Reform.....	16
Appendix 3: COGME Publications	17
Appendix 4: The Role of COGME	19
Acronym and Abbreviation List	20
References.....	21

Council on Graduate Medical Education

In 1986, Congress authorized the Council on Graduate Medical Education (COGME), an independent advisory committee to:

1. Provide an ongoing assessment of physician workforce trends, training issues, and financing policies, and
2. Recommend appropriate Federal and private-sector efforts to address identified needs.

Legislation calls for COGME to advise and make recommendations to: the Secretary of the U.S. Department of Health and Human Services (HHS); the Senate Committee on Health, Education, Labor, and Pensions; and the House of Representatives Committee on Energy and Commerce. In addition, Congress specified that the Council consist of 17 members (see Appendix 4).

Charge to the Council

The charge to COGME is broader than the name implies. Title VII of the Public Health Service Act, as amended, requires COGME to provide advice and recommendations to the Secretary and Congress on the following issues:

- The supply and distribution of physicians in the United States;
- Current and future shortages or excesses of physicians in medical and surgical specialties and subspecialties;
- Issues relating to international medical school graduates;
- Appropriate Federal policies with respect to the matters specified in items 1–3, including policies concerning changes in the financing of undergraduate and graduate medical education (GME) programs and changes in the types of medical education training in GME programs;
- Appropriate efforts to be carried out by hospitals, schools of medicine, schools of osteopathy, and accrediting bodies with respect to the matters specified in items 1–3, including efforts for changes in undergraduate and GME programs;
- Deficiencies in, and needs for improvements in, existing databases concerning the supply and distribution of, and postgraduate training programs for, physicians in the United States and steps that should be taken to eliminate those deficiencies;
- Encouraging entities providing GME to conduct activities to voluntarily achieve the recommendations of the Council as warranted; and
- Development of performance measures, longitudinal evaluations and recommendation of appropriation levels for programs under COGME's charge.

In addition to providing advice and making recommendations to both the Secretary and Congress, COGME shall also encourage entities providing GME to conduct activities to voluntarily achieve the recommendations of the Council.

Council Membership

Immediate Past Chair¹

Gamini S. Soori, MD, MBA, FACP, FRCP, CPE
President & CEO, MIPPA and Medical
Director, MHC ACO
Clinical Professor of Medicine
Creighton University School of Medicine
Nebraska Cancer Specialists
Omaha, Nebraska

Current Chair

Kristin Goodell, MD, FAAFP
Director for Innovation in Medical Education
Center for Primary Care
Harvard Medical School
Boston, Massachusetts

Vice Chair

Lois Margaret Nora, MD, JD, MBA
President and Chief Executive Officer
American Board of Medical Specialties
Chicago, Illinois

Peter B. Angood, MD, FRCS(C), FACS, MCCM
Chief Executive Officer
President
American Association for Physician
Leadership
Tampa, Florida

Erin Corriveau, MD, MPH
Assistant Professor, Department of Family
Medicine
University of Kansas Medical Center
Kansas City, Kansas

Nida F. Degesys, MD
Resident Physician
Emergency Medicine
University of California, San Francisco
San Francisco General Hospital
San Francisco, California

Beth M. Roemer, MPH
Senior Director
Kaiser Permanente Institute for
Health Policy
Oakland, California

Eric J. Scher, MD
Chair
Department of Medicine
Henry Ford Hospital
Vice President for Medical Education
Henry Ford Health System
Detroit, Michigan

Kenneth I. Shine, MD
Professor of Medicine
Dell Medical School
University of Texas
Austin, Texas

David Squire, MPA*
Assistant Dean, Finance
University of Utah
School of Dentistry
Salt Lake City, Utah

D. Keith Watson, DO, FACOS, FAODME
President
Pacific Northwest University of
Health Sciences
Administration, Iron Horse Lodge
Yakima, Washington

¹ COGME Chair during the development of the 23rd report

Past Contributing Members

H. David Reines, MD, FACS
Professor of Surgery
Virginia Commonwealth University
Vice Chair of Surgery
Inova Fairfax Hospital
Director of CME
Inova Health System
Falls Church, Virginia

Kirk Calhoun, MD
President
The University of Texas Health Science
Center at Tyler
Tyler, Texas

Statutory Members

Designee of the Assistant Secretary for Health

J. Nadine Gracia, MD, MSCE
Deputy Assistant Secretary for Minority Health
Director, Office of Minority Health
U.S. Department of Health and Human Services
Rockville, Maryland

Designee of the Administrator of the Centers for Medicare & Medicaid Services

Miechal Lefkowitz
Technical Advisor, Division of Acute Care
Centers for Medicare & Medicaid Services
U.S. Department of Health and Human Services
Baltimore, Maryland

Designee of the Chief Medical Director of the Department of Veterans Affairs

Karen M. Sanders, MD
Deputy Chief Academic Affiliations Officer
Veterans Health Administration
810 Vermont Avenue, NW.
Washington, District of Columbia

Federal Staff

Candice Chen, MD, MPH
Director
Division of Medicine and Dentistry
Bureau of Health Workforce
Health Resources and Services Administration
U.S. Department of Health and Human Services
Rockville, Maryland

Kennita R. Carter, MD
Designated Federal Officer
Division of Medicine and Dentistry
Bureau of Health Workforce
Health Resources and Services Administration
U.S. Department of Health and Human Services
Rockville, Maryland

Raymond J. Bingham, MSN, RN
Technical Writer/Editor
Division of Medicine and Dentistry
Bureau of Health Workforce
Health Resources and Services Administration
U.S. Department of Health and Human Services
Rockville, Maryland

Acknowledgements

This report is the result of a collaborative effort of current and past members of the Council. The Council would like to acknowledge the efforts of the following federal staff within the U.S.

Department of Health and Human Services:

Candice Chen, MD, Director, Division of Medicine and Dentistry, Health Resources and Services Administration

Kennita R. Carter, MD, Designated Federal Official for COGME, Division of Medicine and Dentistry, Health Resources and Services Administration

Joan Weiss, PhD, Senior Advisor, Division of Medicine and Dentistry, Health Resources and Services Administration

Ray Bingham, MSN, RN, Technical Writer, Health Resources and Services Administration

Andrew Sanderson II, MD, Medical Officer, Office of Minority Health

COGME would like to acknowledge the assistance of several stakeholder organizations whose responses to a COGME survey contributed to the planning and development of this report:

Accreditation Council for Graduate Medical Education

American Association of Colleges of Osteopathic Medicine

American Board of Medical Specialties

American Dental Education Association

American Medical Association

Association for Hospital Medical Education

Association of American Medical Colleges

Association of Osteopathic Directors and Medical Educators

Council of Medical Specialty Societies

Educational Commission for Foreign Medical Graduates

Federation of State Medical Boards

National Partnership for Women & Families

*In memoriam

The Council recognizes with much gratitude the tremendous contribution made by David Squire, MPA, Assistant Dean, Finance, University of Utah School of Dentistry, who passed away unexpectedly. Mr. Squire served the Council with distinction for several years as a valued member. His outstanding work will be remembered for many years to come, and he will be greatly missed.

Executive Summary

The members of the Council on Graduate Medical Education (COGME) call for the development of a **national strategic plan for graduate medical education**. Furthermore, we call for the creation of an independent, non-partisan strategic planning Committee to formulate this plan. Lastly, we offer draft vision and mission statements and a set of core guiding principles as a potential starting point.

Graduate medical education (GME), commonly referred to as residency, is the critical phase of physician training that follows graduation from medical school. It is intended to prepare the resident physician with the knowledge, skills, and attitudes necessary to enter clinical practice, and can last anywhere from three to five-plus years. During this time, the resident physician works under the supervision of experienced physicians, taking on increasing responsibilities for patient care. Resident physicians provide many of the healthcare services that low-income or other vulnerable populations depend on.

GME significantly influences the composition, distribution, knowledge base, and skills of the physician workforce. Having a diverse and well-trained physician workforce is widely considered vital to enhancing the quality and accessibility of health care, and thus benefits public health. Given the positive social impacts, the federal government currently appropriates roughly \$15 billion each year to support GME.

However, there is a growing national concern related to the state of GME and the return to the taxpayer on this significant investment. The healthcare system is rapidly evolving, creating a growing gap between how physicians are trained and the practice environment they will enter. Funding for GME lacks consistency, coordination, transparency, and accountability. The allocation process for residency training slots relies on an outdated model. The physician workforce lacks diversity and is poorly distributed in terms of both geographic location and specialty mix. There are questions about the efficiency of GME in terms of the duration and the cost of training. GME has been slow to accept innovation and adapt new technologies.

With its charge to oversee GME and physician workforce issues, COGME has concluded that the current GME system is ill equipped to meet the changing needs of the nation. Many GME stakeholders, including the United States Government Accountability Office, the Institute of Medicine (now the National Academy of Medicine), the Association of American Medical Colleges, and the Josiah Macy Jr. Foundation, have examined the current state of GME and reached a similar conclusion. By calling for a national strategic plan for GME, we are adding our voice to the growing chorus supporting GME reform.

GME represents a significant federal investment in the health care system and in our future physicians. We all have an interest in helping it meet the needs of doctors in training and the patients, families, and communities they serve.

Introduction

Educating a doctor is complex and expensive. Medical students and their families incur a significant portion of this debt during the four years of medical school. After graduating from medical school, all prospective physicians wishing to practice medicine in the United States must complete an accredited graduate medical training program. This phase of training is known as *residency* or *graduate medical education (GME)*.

Teaching hospitals, medical professionals and educators, health professions associations, health care organizations, federal and state agencies, philanthropic foundations, and other stakeholders have worked in wide-ranging but generally uncoordinated ways to develop and advance GME. Through their efforts, the current GME process regularly produces competent, well-trained, high-quality physicians.

Nevertheless, GME faces an ever-growing list of persistent and deepening challenges, including:

- High levels of medical student debt that may influence future career choices away from family medicine and primary care toward higher-paying specialties;
- An inadequate supply of primary care physicians, general surgeons, and psychiatrists compared to other medical specialists;
- A rapidly evolving system of healthcare delivery and financing;
- Poor geographic distribution of physicians that limits access to health care for many individuals and communities in both rural and urban settings.
- Under-representation of racial and ethnic minorities among medical students, and subsequently within the physician workforce; and
- Learning environments and training curricula that have been outpaced by advances in medical technologies, teaching methods, and healthcare informatics.

GME shapes the physician workforce, which in turn influences the quality of and access to health care. Because a strong physician workforce is seen as a vital public good, a substantial portion of the cost of GME is supported by Federal and other public funding through a complex network of funding streams. However, this funding does not cover the true cost of GME, and it lacks consistency, accountability, and transparency (Heisler, Jansen, Mitchell, et al, 2016).

After lengthy deliberations on the status of GME, the Council on Graduate Medical Education (COGME), the only federal advisory panel charged with overview of GME and the physician workforce, lends its voice to the growing call for GME reform by recommending the development of a **national strategic plan for GME**. The COGME members envision a strategic plan that would work to develop a broad, coherent, and coordinated GME system, better equipped to produce a physician workforce that meets the nation's healthcare needs and provides greater value for the taxpayer.

The Need for Strategic Thinking in GME

The U.S. healthcare system is undergoing a period of unprecedented change. There is an increasing emphasis on primary care, health promotion and disease prevention, population health outcomes, stewardship of limited resources, and new payment models. These changes have a profound impact on day-to-day healthcare practice at all levels. Physicians entering the workforce will need to lead the way in improving health delivery systems, promoting population health, and lowering costs. However, many employers, payers, national organizations, foundations, and health profession and advocacy groups have noted a widening gap between how physicians are prepared and changing healthcare system needs (Skochelak and Stack, 2017).

Today's medical profession must take responsibility to prepare the next generation of physicians who can continue to provide high-quality care. Physicians progressing from GME today will practice into the 2050s. Anticipating all of the knowledge and skills they will require over the course of their careers is not realistic. Thus, the GME system must prepare current students with the basic knowledge of medicine, along with the flexibility to adapt as research increases our understanding of health and wellness; technology advances our ability to diagnose and treat disease; and the healthcare system as a whole evolves (Nasca and Thomas, 2015).

There will likely always be a talent pool of dedicated students attracted to medicine in the pursuit of knowledge and the desire to improve the lives and ease the suffering of others. However, the current pathway to the practice of medicine requires students to commit to years of education and training while taking on huge debt. According to the Association of American Medical Colleges (2016), upon graduation, over three-quarters of medical students have educational debt, owing an average amount of roughly \$190,000. These barriers may suppress student recruitment, especially from low-income or minority populations, and influence future career choices toward higher-paying specialties (DeWaay, Clyburn, Brady, and Wong, 2016).

Medical education in the United States reflects the model promoted in 1910 through the seminal Flexner Report, which stressed a rigorous grounding in the biological sciences as the basis for medical practice (Thibault, 2013). In both undergraduate medical education (UME) and GME, teaching methodologies remain centered on academic work and clinical rotations within universities and teaching hospitals. In medical school, the first two years cover rigorous studies of basic health sciences, while the second two years focus on clinical sciences and clerkships. Upon graduation, training shifts to the GME phase that includes learning bedside clinical care under faculty supervision, lecture hall didactics, medical rotations in a variety of primarily inpatient settings, and medical research. Depending on the specialty, GME typically lasts from three to five-plus years (in some subspecialties, training lasts nine years or more) (Grover, Orłowski, and Erikson, 2016).

In today's evolving healthcare system, though, an emphasis on science is no longer sufficient to prepare effective practitioners and leaders. Modern healthcare professionals must also develop an understanding of systems of care, quality improvement and safe practice, population health, health economics, ethics, and the social determinants of health. They must understand not only their own role, but the roles and responsibilities of other professionals on the healthcare team.

Thus, many educators and other experts believe that the training physicians must now move beyond Flexner to meet the needs of the 21st century delivery of healthcare (Thibault, 2013).

The Role of GME in the United States

In the United States, all graduates of medical school must complete an accredited GME program (i.e. a residency) to become a licensed physician. GME is intended to prepare the resident physician with the knowledge, abilities, and attitudes necessary to enter independent clinical practice. GME significantly influences the composition, distribution, knowledge base, and skill set of the physician workforce. While training, medical residents provide much of the free or low-cost care that many at-risk or underserved patient populations rely upon. They promote health, conduct preventive screenings, and manage both acute and chronic medical conditions. GME represents the final common pathway toward clinical medical practice for all physicians. Thus, national physician workforce policies aimed at meeting future public health demands are best directed at GME (Nasca and Carlson, 2016).

GME programs have expanded over the past decades to include more content, while increasing specialization and sub-specialization within the practice of medicine has resulted in the need for longer training periods. These changes have introduced incremental growth in both training time and costs that impact the medical trainees and the society in general. Medical education has become increasingly difficult to afford by undergraduates and graduates alike. The financial sustainability of high quality, innovative training programs is of serious national concern.

The Funding of GME

Because a well-trained physician workforce is seen as benefitting public health, a substantial portion of GME funding comes from public sources. The federal government provides roughly \$15 billion each year to support GME. Most of this support is provided through Federal Medicare allocations to teaching programs in the form of Direct Medical Education (DME) and Indirect Medical Education (IME) payments that currently total over \$9 billion per year. The remainder comes primarily from Medicaid, the Veterans Health Administration, and the Health Resources and Services Administration (HRSA) (American Academy of Pediatrics, 2016; Institute of Medicine, 2014; Heisler, Jansen, Mitchell, et al, 2016; Veterans Health Administration, 2015). State and local governments may also contribute to GME funding.

However, current funding does not reflect changes in the healthcare system. Most Federal support relies on an allocation formula tied to the number of residents that the hospital trained in 1996, and a per-resident amount (PRA) that was determined by the Centers for Medicare and Medicaid Services (CMS) in the 1980s. Although updated each year by an inflation factor, the PRA reflects historical costs. For many hospitals and other training venues, these payments are inadequate to cover resident training costs (Association of American Medical Colleges [AAMC], 2013). The appropriation of federal funds for GME has only modestly increased since a federal cap was instituted through the Balanced Budget Act of 1997 (Heisler, Jansen, Mitchell, et al, 2016).

Teaching hospitals receive Medicare DME and IME funds based on a formula that depends on inpatient care. Thus, hospitals see care of in-patients by residents as the principal mission of

their GME programs, while training time that residents may spend in an outpatient clinic, ambulatory care center, or community-based health center is less financially beneficial (Council on Graduate Medical Education, 2014). However, the focus of the healthcare system is shifting away from costly acute care toward an emphasis on primary care, prevention, and disease self-management.

Recommendation: Develop a National Strategic Plan for GME

COGME concludes, after much deliberation and in consultation with key stakeholders, that the many challenges facing GME are best addressed comprehensively. In other words, a national strategic plan for GME is needed to build a dynamic and agile GME system that better addresses the nation's physician workforce needs, evolving processes in medical education and practice, and healthcare transformation. As the federal advisory panel that monitors the nation's medical education and physician workforce trends, recommending the development of a national strategic plan for GME lies within COGME's charge.

Several stakeholder organizations and institutions are making efforts to change physician training and curricula. Without a national strategic plan, however, each institution is left to its own devices, without overarching guiding principles, consistent priorities, or mechanisms to measure achievement. Despite the best of intentions, the incentives in the current GME system may not align with the efforts and intentions of the individual programs.

The expectation of a national strategic plan for GME is to find areas of common ground among all GME stakeholders, including students, educators, employers, and patient advocates. A coherent and unifying vision is needed to advance the mission of GME in producing physicians who are competent, well-trained, and flexible and adaptable to changing conditions.

A national strategic plan for GME would build on existing research, available data, and the findings of recent analyses and reports published by several organizations with an interest in GME (see Appendix 2).

Strategic Planning Committee

To develop the strategic plan, COGME recommends the formation of an independent, ad hoc, non-partisan Committee, appointed for a limited period of time. This Committee would reside within the Department of Health and Human Services (HHS), and work with, but be independent of, the National Center for Health Workforce Analysis (NCHWA) in HRSA's Bureau of Health Workforce. This placement will facilitate easy access to physician and healthcare workforce data and analytical resources to support evidence-based strategic policy, while also providing opportunities for collaboration and public accountability.

The process of developing this plan must have the support of the GME community. COGME therefore recommends the Committee be composed of independent, nonpartisan experts and representatives of the healthcare and the health services research communities, including:

- Medical educators from UME, GME, and continuing medical education programs,
- Practicing physicians, along with healthcare providers from related disciplines,

- Organizations that finance and regulate GME programs on the federal and state levels,
- Hospitals, community health clinics, and private practices,
- Public and private healthcare payers, and
- Training program and medical specialty accreditation and licensing bodies.

In developing this recommendation, COGME also proposes a Vision Statement, a Mission Statement, and a list of guiding principles, summarized in Appendix 1. COGME expects that these statements and principles, created with the feedback of multiple GME stakeholders, might help guide the work of the Committee.

The expected outcomes from the Committee would include suggestions about the long-term structure of a GME system at the national, state, and local levels with both public and private support, based on a careful analysis of the nation's needs and opportunities, and recommendations on implementation. COGME recognizes that reliable data about workforce needs and opportunities is not available in several areas and recommends that the Committee suggest how, and who, might be tasked with securing such data for future analysis.

The Committee should be empowered to establish subcommittees in areas it deems of particular need for innovative thinking, such as GME finance, curriculum development and assessment, specialty and geographic distribution of training programs, and training program accreditation. Committee and subcommittee members could be identified through a nomination process that seeks expertise in specific areas of workforce development, health policy, and GME.

The Charge of the Committee

COGME proposes the following charge statement. The GME strategic planning Committee will:

- Recommend methods for a 21st century curriculum consistent with society's needs and how to achieve it, to include the sites of education and training such as inpatient and ambulatory locations;
- Provide a tactical plan for developing strategies that address geographic maldistribution of medical specialists, workforce diversity, and curriculum innovation consistent with securing public and private funding, and promoting physician professionalism, commitment to lifelong learning, and resiliency;
- Recommend public and private funding options for GME;
- Solicit input from stakeholders and others to ensure comprehensive analysis, inclusiveness, and awareness of potential and real conflicts of interest; and,
- Identify informational gaps and recommend methods for obtaining data.

Funding the Committee

The Committee to develop the strategic plan could be funded one of three ways: 1) publicly, through HHS, 2) privately, through philanthropic support, or 3) jointly through a consortium of public and private stakeholders. COGME recommends the development of a consortium of

contributing stakeholders, with staff support provided by HHS. There is a need for robust staff support with expertise in health economics, data analytics, health law and educational accreditation among others, to support the Committee. COGME anticipates that the Committee should accomplish its work of strategic and implementation plan development within a period not to exceed two years. At the conclusion of this implementation period, the Committee would recommend to HHS whether the strategy development and implementation effort should be continued, strengthened, or terminated.

Issues to consider

COGME believes development of a strategic plan for GME will foster the alignment of national efforts to address a host of physician training and workforce development issues. These areas include:

Physician Supply, Diversity, and Distribution: The size and composition of the physician workforce has been a topic of numerous studies often coalescing around certain themes:

- An insufficient number of primary care physicians and select specialists.
- A maldistribution of the physician workforce with a relative oversupply in many urban areas and a sparse supply in most rural settings and low socioeconomic urban areas.
- A physician workforce that does not represent the population served, with a particular shortage of African-American/Black, Latino, and Native American physicians.

Many communities across the country face physician shortages and patients lack timely access to medical specialists including family medicine physicians, general internal medicine physicians, general surgeons, and pediatric subspecialists. Projections developed for the Association of American Medical Colleges (AAMC) indicate that current shortages will deepen, with demand growing faster than supply. By 2025, the AAMC estimates a shortfall of between 67,100 and 94,700 physicians. Population growth and aging account for much of the growth in demand for physician services, leading to a shortfall of 14,900 to 35,600 primary care physicians and 27,400 to 60,300 non-primary care physicians. Shortfalls may be most severe among surgical specialties (excluding obstetrics and gynecology) due to both poor growth in supply and limitations on the ability to augment staffing with other types of clinicians (IHS, Inc., 2016). A recent study by HRSA also predicts a shortage of primary care physicians of over 23,000 by 2025 (Streeter, Zangaro, and Chattopadhyay, 2017).

Moreover, the physician workforce does not mirror the diversity of the U.S. population, nor does it reflect changes in healthcare financing and delivery. GME needs creative strategies to engage and retain rural, racial and ethnic minority members, and individuals from lower socioeconomic status in undergraduate and graduate medical education and develop innovations in program content (AAMC, 2015).

GME funding: Of all the discussions around changes in GME, none have been more contentious than those focused on the funding of the enterprise as a whole. Virtually every professional society that touches medical education has offered comments on this topic with most arguing for continued state and federal support and/or an all-payer system. Adequate and sustainable program funding is necessary to ensure that GME programs are able to produce a well-trained and diverse physician workforce.

The significant cost of UME, while not the focus of this analysis, cannot be overlooked. This cost, like the cost of U.S. higher education in general, results in high levels of student debt and may discourage entry into medicine, exacerbating the underrepresentation of low- and moderate-income students within medical schools.

Program innovation and alignment with delivery system transformation: As articulated by the Macy Foundation report and others (see Appendix 2), innovations in both UME and GME are critically necessary. However, many programs and sponsoring institutions have been slow to adopt emerging technologies and other innovative instructional design strategies. GME has lagged behind UME in adopting new pedagogy. GME has not capitalized on opportunities to standardize high quality educational material, introduce new training technologies, develop economies of scale and expense reduction, and promote remote learning. The existing GME funding model and the accreditation system do not adequately foster such innovation.

To fully prepare residents for practice in an evolving healthcare system, GME must reflect changes underway in health care financing and delivery. Residents need training in new learning environments and system based-settings, along with experiences in inter-professional team-based practice, informatics, and other essential competencies. Opportunities should be sought to improve accountability and transparency, and secure broader engagement among GME stakeholders in program financing and improvement.

The issues above do not represent an exhaustive list of the needs facing GME. However, COGME believes that a strategic plan provides an opportunity to address these issues and develop mechanisms to continuously update the data and projections of need as health care and health professions education evolve, and provide for ongoing analysis to identify the policies, incentives or other mechanisms to address future issues. Ultimately, such a plan would provide a much-needed roadmap that would help to align GME with the needs of the population it serves.

The Path Forward

For more than two decades, leaders, policy-makers, educators, consumers, and learners from within and outside of the medical education and the healthcare industries have been calling for reform in GME. The need is more urgent today than ever, due to the rapid changes in the healthcare system, advances in technology, the rising costs of medical education, and the complex health needs of the nation's population. The development of a national strategic plan for GME should include discussions and recommendations about the physician workforce, educational funding, and oversight.

The path forward requires a national commitment and broad, stakeholder support. A clearly outlined strategy is necessary to identify and articulate national GME policy priorities, align programmatic objectives, and guide public and private investments in the operations and improvement of GME programs. Barring a strategic plan, the nation's GME programs will be unable to address the country's physician workforce needs, improve medical practice and fashion a sustainable system.

Conclusion

The efforts of many entities, including teaching hospitals, professional organizations, and public agencies, have worked to develop a GME process that produces a highly trained, high quality physician workforce. Nevertheless, GME faces persistent challenges in funding, training, need for innovation, workforce composition and geographic distribution.

COGME calls for the urgent development of a comprehensive strategic plan for GME, to ensure that the nation's GME system best serves the public interest. Towards this goal, COGME recommends formation of an independent, ad hoc and non-partisan Committee dedicated to strategy and plan development. COGME further recommends that the Committee sit within HHS, working with, but independent of, NCHWA to provide access to data and analytical resources to support evidence-based policy, opportunities for collaboration, and public accountability. A strategic plan for GME would build on existing research, available data, and the findings of recent analyses.

The national strategy for GME must have the support of the GME community. COGME therefore recommends the Committee be composed of independent, nonpartisan experts and representatives of the health care and health services research communities. Committee members could be identified through a nomination process that seeks expertise in specific areas of workforce development, policy and GME. The Committee may establish subcommittees in areas of particular need, as it deems necessary.

The work of the Committee would involve wide-ranging discussions on all issues that affect GME and the future of the physician workforce. The path forward requires a national commitment and broad, stakeholder support to create a roadmap for success. Barring a strategic plan, the nation's GME programs risk becoming unable to address the country's physician workforce needs, improve medical practice, or create a sustainable system.

Appendix 1: Proposed Vision, Mission, and Guiding Principles

National Strategic Plan for GME: Proposed Vision, Mission, and Guiding Principles

Vision

A dynamic graduate medical education system that will prepare an exceptional physician workforce that meets the health and health care needs of *all* individuals and communities.

Mission

To ensure that public funds for graduate medical education support a coherent, dynamic, accountable, and transparent system designed to prepare physicians to provide competent, compassionate, person-centered care, and work within interprofessional teams to meet the health and health care needs of individuals, communities, and the broader society.

Guiding Principles

Theme

A well-functioning graduate medical education system should:

High-Quality Interprofessional Care

Produce physicians who can practice high quality, patient-centered, value-based medicine.

Aim to meet the health needs of all communities. This includes:

- Addressing social justice and health disparities;
- Increasing diversity in the physician workforce; and
- Addressing physician specialty and geographic mix.

Actively engage in analyzing and defining the characteristics of the physician role in the constantly evolving healthcare system.

Facilitate the integration of care along the training continuum, within healthcare systems and within communities.

Promote interprofessional team care, including training and working with oral health professionals, pharmacists, physician assistants, nurses and advanced practice nurses, public health professionals, and social workers.

Collection and Use of Data

Coordinate governance and policies across state and national entities – increasing state-level data collection, analysis, planning, and implementation, coordinated at the national level to ensure equitable distribution.

Use data to determine the needs of society and support for research.

Transparency and Accountability

Provide transparency and accountability for GME funding.

Integrate and coordinate all funding sources, including the alignment of all federal GME funding sources.

Provide stewardship for healthcare and educational resources, including seeking innovations to improve the efficiency of the GME system in terms of both cost and duration.

Responsiveness and Adaptability

Promote flexibility of the system to ensure responsiveness to the country's needs over time, incorporating continuous quality improvement to evaluate the system's processes.

Support flexibility for physician trainees to adapt to an evolving healthcare environment over time.

Maintain a commitment to physician and trainee wellness.

Appendix 2: Calls for GME Reform

Summary of Selected Reports on Graduate Medical Education (GME)	
<p>United States Government Accountability Office (GAO) Recommendations from the 2015 report, <i>Health Care Workforce: Comprehensive Planning by HHS Needed to Meet National Standards</i></p>	<ul style="list-style-type: none"> • Develop performance measures that clearly determine the extent to which HHS’s health care workforce development programs – including education, training, and payment programs – are meeting the its strategic goal of strengthening health care • Assess the gaps between HRSA’s existing workforce programs and future national needs • Identify actions to close these gaps • Communicate to Congress the legislative authority that HHS needs to implement the identified actions
<p>Institute of Medicine [note: now the National Academy of Medicine, (NAM)] Comments and recommendations from the 2014 report, <i>Graduate Medical Education That Meets the Nation’s Health Needs</i></p>	<p>GME financing system lacks of transparency and accountability</p> <ul style="list-style-type: none"> • Change GME financing and governance to address current deficiencies • Eliminate separate direct and indirect GME payments • Redesign the GME payment system to reward desired outcomes and program performance • Maintain current funding levels adjusted for inflation <p>There is a need to optimize the effectiveness of the public’s investment in GME</p> <ul style="list-style-type: none"> • Establish a council within the Office of the HHS Secretary for policy development and decision making • Establish an operations center within the Center for Medicare and Medicaid Services to administer payment reforms and manage demonstration projects • Create a two-part Medicare GME fund <ul style="list-style-type: none"> ○ Operations: To cover ongoing residency training activities ○ Transformation: To cover finance development of new programs, infrastructure, performance methods, and other priorities
<p>Association of American Medical Colleges (AAMC) Recommendations from the 2015 AAMC report, <i>Medicare’s Graduate Medical Education Policy: Its Inception and Congress’s Clear and Persistent Commitment</i></p>	<ul style="list-style-type: none"> • Maintain a clear distinction between Federal financial responsibilities for GME and clinical expenses • Develop a coordinated, comprehensive approach to GME with regular updates to both Congress and the Executive Branch • Assure flexibility and adaptability for policies affecting the physician workforce and GME • Direct GME payments only to the entities that bear the costs of teaching • Establish a transparent process for the development, selection, application, evaluation, and refinement of accountability measures • Share responsibility for financing GME among all private and public payers, to provide for dedicated, stable, and predictable revenues
<p>The Josiah Macy Jr. Foundation Recommendations from two conferences on GME convened by the Josiah Macy Jr. Foundation</p>	<ul style="list-style-type: none"> • Expand sites of training to reflect current and future patient care needs. • Incorporate interdisciplinary and interprofessional education into GME to expand education across historic professional boundaries • Allow and encourage flexibility at both the program and individual trainee levels to enhance training for the varied physician roles required to meet the full spectrum of society’s health care needs

Appendix 3: COGME Publications

Since making its first report and recommendations to HHS in 1988, COGME has explored issues of workforce supply and training quality, seeking to ensure that the nation's programs for GME support timely access of all Americans to high-quality medical care. COGME's previous reports have focused on critical concerns, including training program quality, program innovation and accountability, workforce diversity and the underrepresentation of minorities in medicine, and physician distribution and patient access in urban and rural areas.

Reports

Since its establishment, COGME has submitted the following reports to the HHS Secretary and Congress.

Read and download the reports online at:

<http://www.hrsa.gov/advisorycommittees/bhpradvisory/cogme/Reports/index.html>

- Twenty-Second Report: The Role of Graduate Medical Education in the New Health Care Paradigm (2014)
- Twenty-First Report: Improving Value in Graduate Medical Education (2013)
- Twentieth Report: Advancing Primary Care (2010)
- Nineteenth Report: Enhancing Flexibility in Graduate Medical Education (2007)
- Eighteenth Report: New Paradigms for Physician Training for Improving Access to Health Care (2007)
- Seventeenth Report: Minorities in Medicine: An Ethnic and Cultural Challenge for Physician Training, an Update (2006)
- Sixteenth Report: Physician Workforce Policy Guidelines for the United States, 2000–2020 (2005)
- Fifteenth Report: Financing Graduate Medical Education in a Changing Health Care Environment (2000)
- Fourteenth Report: COGME Physician Workforce Policies: Recent Developments and Remaining Challenges in Meeting National Goals (1999)
- Thirteenth Report: Physician Education for a Changing Health Care Environment (1999)
- Twelfth Report: Minorities in Medicine (1998)
- Eleventh Report: International Medical Graduates, The Physician Workforce, and GME Payment Reform (1998)
- Tenth Report: Physician Distribution and Health Care Challenges in Rural and Inner City Areas (1998)
- Ninth Report: Graduate Medical Education Consortia: Changing the Governance of Graduate Medical Education to Achieve Physician Workforce Objectives (1997)
- Eighth Report: Patient Care Physician Supply and Requirements: Testing COGME Recommendations (1996)
- Seventh Report: Physician Workforce Funding Recommendations for U.S. Department of Health and Human Services' Programs (1995)
- Sixth Report: Managed Health Care: Implications for the Physician Workforce and Medical Education (1995)
- Fifth Report: Women and Medicine (1995)
- Fourth Report: Recommendations to Improve Access to Health Care Through Physician Workforce Reform (1994)
- Third Report: Improving Access to Health Care Through Physician Workforce Reform: Directions for the 21st Century (1992)

- Second Report: The Financial Status of Teaching Hospitals and the Underrepresentation of Minorities in Medicine (1990)
- First Report of the Council (1988)

Letters to Congress

Read the letters online at:

<http://www.hrsa.gov/advisorycommittees/bhpradvisory/cogme/Publications/index.html>

- COGME Letter Concerning Development of a Comprehensive National Strategic Plan for GME (2015)
- COGME Letter Concerning 22nd Report to Congress (2014)
- COGME Teaching Health Center Graduate Medical Education (THCGME) Support Letter to Congress and the Secretary, HHS (2013)
- COGME Letter to HHS Secretary and Congress Concerning Primary Care Crisis and COGME Recommendations Letter to Congress (2011)
- Health Care Reform (2009)

Resource Papers

Access the resource papers online at:

<http://www.hrsa.gov/advisorycommittees/bhpradvisory/cogme/Publications/index.html>

- Supporting Diversity in the Health Professions (2016)
- State and Managed Care Support for Graduate Medical Education: Innovations and Implications for Federal Policy (2004)
- Summary Report to Congress and Secretary U.S. Department of Health and Human Services (2002)
- Proceedings of the GME Financing Stakeholders Meeting, Public Response to COGME's Fifteenth Report (2001)
- COGME: What Is It? What Has It Done? Where Is It Going? (2000)
- Assessing Physician Specialty Imbalances (1987)
- Compendium: Update on the Physician Workforce (2000)
- Evaluation of Specialty Physician Workforce Methodologies (2000)
- Collaborative Education to Ensure Patient Safety (2000)
- The Effects of the Balanced Budget Act of 1997 on Graduate Medical Education (2000)
- International Medical Graduates (1998)
- Preparing Learners for Practice in a Managed Care Environment (1997)
- Report on Primary Care Workforce Projections (1995)
- Process by which International Medical Graduates are Licensed to Practice in the United States (1995)
- Physician Assistants in the Health Workforce (1994)
- Reform in Medical Education and Medical Education in the Ambulatory Setting (1991)
- COGME, Public Hearing (1987)

Appendix 4: The Role of COGME

Authorized by Congress in 1986, COGME is charged with monitoring the nation's physician workforce trends, and identifying public and private sector strategies for addressing identified needs of training, policy and program financing. Specifically, Title VII of the Public Health Service Act, as amended, requires COGME to provide advice and recommendations to the Secretary of Health and Human Services (HHS) and Congress on the following issues:

1. The supply and distribution of physicians in the United States.
2. Current and future shortages or excesses of physicians in medical and surgical specialties and subspecialties.
3. Issues relating to international medical school graduates.
4. Appropriate federal policies with respect to the matters specified in items 1-3, including policies concerning changes in the financing of undergraduate and graduate medical education (GME) programs and changes in the types of medical education training in GME programs.
5. Appropriate efforts to be carried out by hospitals, schools of medicine, schools of osteopathy and accrediting bodies with respect to the matters specified in items 1-3, including efforts for changes in undergraduate and GME programs.
6. Deficiencies and needs for improvements in databases concerning the supply and distribution of, and postgraduate training programs for, physicians in the United States and steps that should be taken to eliminate those deficiencies.

COGME's enabling legislation provides that the Council will be composed of 17 members. Fourteen members are appointed by HHS and include representatives of practicing primary care physicians, national and specialty physician organizations, international medical graduates, medical student and house staff associations, schools of medicine and osteopathy, public and private teaching hospitals, health insurers, business, and labor. Federal representatives on the Council include the Assistant Secretary for Health, HHS; the Administrator of the Centers for Medicare & Medicaid Services, HHS; and, the Chief Medical Director of the Department of Veterans Affairs.

The Council also is expected to encourage entities providing GME to conduct activities to voluntarily achieve its recommendations and develop and publish performance measures and longitudinal evaluations for programs under its charge, as well as recommend appropriation levels for these programs.

With members representing the nation's system of medical education, the Council is well prepared to execute its charge and uniquely positioned to recommend the development of a strategic plan and creation of a planning committee. The Council's call for a national strategic plan for GME, and its recommendation that a Committee be established to oversee the plan's development and implementation, falls clearly within the Council's mandate.

Acronym and Abbreviation List

AAMC	Association of American Medical Colleges
ACGME	Accreditation Council on Graduate Medical Education
CMS	Center for Medicare and Medicaid Services
COGME	Council on Graduate Medical Education
DME	Direct Medical Education
GAO	United States Government Accountability Office
GME	Graduate Medical Education
HHS	U.S. Department of Health and Human Services
HRSA	Health Resources and Services Administration
IME	Indirect Medical Education
IOM	Institute of Medicine [Note: now the National Academy of Medicine (NAM)]
NCHWA	National Center for Health Workforce Analysis
PRA	Pre-Resident Amount
UME	Undergraduate Medical Education

References

- American Academy of Pediatrics, Committee on Pediatric Workforce. (2016). Financing graduate medical education to meet the needs of children and the future pediatrician workforce. *Pediatrics*, 137 (4), epub March 28, 2016.
- Association of American Medical Colleges. (2013). *Medicare payments for graduate medical education: what every medical student, resident, and advisor needs to know*. Washington, DC: Author.
- Association of American Medical Colleges. (2015). *Altering the course: Black males in medicine*. Washington, DC: Author
- Association of American Medical Colleges. (2015). *Medicare's graduate medical education policy: its inception and congress's clear and persistent commitment*. Washington, DC: Author.
- Association of American Medical Colleges. (2016). *Medical student education: debt, costs, and loan repayment fact card*. Retrieved from https://members.aamc.org/eweb/upload/2016_Debt_Fact_Card.pdf
- Council on Graduate Medical Education. (2014). *Twenty-second report: the role of graduate medical education in the new health care paradigm*. Rockville, MD: U.S. Department of Health and Human Services.
- DeWaay, D. J., Clyburn, B., Brady, D. W., & Wong, J. G. (2016). Redesigning medical education in internal medicine: adapting to the changing landscape of 21st century medical practice. *The American Journal of the Medical Sciences*, 351, 77-83.
- Grover, A., Orłowski, J. M., & Erikson, C. E. (2016). The nation's physician workforce and future challenges. *The American Journal of Medical Sciences*, 351, 11-19.
- Heisler, E. J., Jansen, D. J., Mitchell, A., Panagala, S. V., and Talaga, S. R. (2016). *Federal support for graduate medical education: an overview*. Congressional Research Service, 7-5700.
- IHS Inc. (2016). *The complexities of physician supply and demand 2016 update: projections from 2014 to 2025*. Prepared for the Association of American Medical Colleges. Washington, DC: Association of American Medical Colleges.
- Institute of Medicine. (2014). *Graduate medical education that meets the nation's health needs*. Washington, DC: The National Academies Press.
- Josiah Macy Jr. Foundation. (2011). *Ensuring an effective physician workforce for the United States: recommendations for reforming graduate medical education to meet the needs of the public*. Atlanta, GA: Author.

- Nasca, T. J., & Carlson, J. D., (2016). Graduate medical education specialty mix and geographic residency program maldistribution: is there a role for the ACGME? *American Medical Association Journal of Ethics*, 18, 258-263.
- Nasca, T. J., & Thomas, C. W. (2015). Medicine in 2035: Selected insights from ACGME's scenario planning. *Journal of Graduate Medical Education*, 7, 139-142.
- Skochelak, S. E., & Stack, S. J. (2017). Creating the medical schools of the future. *Academic Medicine*, 92(1), 16-19.
- Streeter, R. A., Zangaro, G. A., & Chattopadhyay, A. (2017). Perspectives: using results from HRSA's health workforce simulation model to examine the geography of primary care. *Health Services Research*, 52, S1, 481-507.
- Thibault, G. E. (2013). Reforming health professions education will require culture change and closer ties between classroom and practice. *Health Affairs*, 32, 1928-1932.
- U.S. Department of Health and Human Services. (n.d.). *Council on Graduate Medical Education: about the committee*. Retrieved from <http://www.hrsa.gov/advisorycommittees/bhpradvisory/cogme/About/index.html>
- U.S. Government Accountability Office (2015) *Health Care Workforce: Comprehensive Planning by HHS Needed to Meet National Standards*. Washington, DC: Author.
- Veterans Health Administration, Office of Academic Affiliations. (2015). *2015 Statistics: health professions trainees*. Retrieved from http://www.va.gov/oaa/docs/OAA_Statistics.pdf