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# Strengthening the Rural Health Workforce to Improve Health Outcomes in Rural Communities

Council on Graduate Medical Education  
24th Report

COGME

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# **COUNCIL ON GRADUATE MEDICAL EDUCATION**

## **Strengthening the Rural Health Workforce to Improve Health Outcomes in Rural Communities**

**Twenty-Fourth Report to the Secretary of the U.S. Department of  
Health and Human Services and the U.S. Congress**

**April 2022**



The views expressed in this document are solely those of the Council on Graduate Medical Education and do not necessarily represent the views of either the Health Resources and Services Administration or the United States Government.

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## **Council on Graduate Medical Education: Charge**

The Council on Graduate Medical Education (COGME) was authorized by Congress in 1986 to provide an ongoing assessment of physician workforce trends, training issues, and financing policies and to recommend appropriate Federal and private-sector efforts to address identified needs. The 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. The legislation specifies 18 members for the Council. Appointed individuals are to include representatives of practicing primary care physicians, national and specialty physician organizations, foreign medical graduates, medical student and house staff associations, schools of medicine and osteopathy, public and private teaching hospitals, health insurers, business, and labor. Federal representation includes the Assistant Secretary for Health (or designee), HHS; the Administrator (or designee) of the Centers for Medicare and Medicaid Services, HHS; the Chief Medical Director (or designee) of the Department of Veterans Affairs and the Administrator (or designee) of the Health Resources and Services Administration.

### **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:

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 foreign 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 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;
7. Encouraging entities providing GME to conduct activities to voluntarily achieve the recommendations of the Council as warranted; and
8. Development of performance measures, longitudinal evaluations and recommendation of appropriation levels for programs under COGME's charge.

## Council Membership

### *Chair*

**Erin Fraher, PhD, MPP**

Director, Carolina Health Workforce  
Research Center  
University of North Carolina at Chapel  
Hill  
Chapel Hill, North Carolina

### *Vice Chair*

**Thomas C. Tsai, MD, MPH**

Surgery Fellow  
Brigham and Women's Hospital  
Boston, Massachusetts

**Andrew Bazemore, MD, MPH**

Senior Vice President, Research and  
Policy  
American Board of Family Medicine  
Washington, District of Columbia

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Family Medicine Residency of Idaho, Inc.  
Boise, Idaho

**R. Armour Forse, MD, PhD**

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System  
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Chief Medical Officer  
Brown Medicine  
Brown Physicians, Inc.  
Providence, Rhode Island

**Beulette Y. Hooks, MD, FAAFP**

Physician Team Leader  
Victory Team Family Medical Home  
Martin Army Community Hospital  
Ft. Benning, Georgia

**Warren A. Jones, MD, FAAFP**

Medical Director  
Provider Resources, Inc.  
Erie, Pennsylvania

**+Byron Joyner, MD, MPA**

Vice Dean Graduate Medical Education  
University of Washington School of  
Medicine  
Seattle, Washington

**John J. Norcini, PhD**

President Emeritus  
Foundation for Advancement of  
International  
Medical Education and Research  
Philadelphia, Pennsylvania

**Ashruta Patel, DO, MS**

Resident, Internal Medicine  
Cleveland Clinic – Main Campus  
Cleveland, Ohio

**+Linda Thomas-Hemak, MD, FACP,  
FAAP**

President & CEO  
The Wright Center for Community Health  
and its affiliated entity, The Wright  
Center for Graduate Medical Education  
Scranton, Pennsylvania

**Surendra Varma, MD**  
Executive Associate Dean  
Graduate Medical Education & Resident  
Affairs  
Texas Tech University Health Sciences  
Center School of Medicine  
Lubbock, Texas

**Kenneth Veit, DO, MBA, FAOFP**  
Dean and Senior Vice President,  
Academic Affairs  
Philadelphia College of Osteopathic  
Medicine  
Philadelphia, Pennsylvania

**\*Lois Margaret Nora, MD, JD, MBA**  
Past Chair, COGME  
Past President  
American Board of Medical Specialties  
Chicago, Illinois

**\*Kristen Goodell, MD, FAAFP**  
Past Chair, COGME  
Assistant Dean for Admissions  
Boston University School of Medicine  
Boston, Massachusetts

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

**\*Beth M. Roemer, MPH**  
Assistant Dean for Admissions, Outreach,  
Diversity and Inclusion  
Kaiser Permanente School of Medicine  
Oakland, California

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

## **Statutory Members**

### ***Designee of the Assistant Secretary for Health***

**Leith J States, MD, MPH**  
Deputy Chief Medical Officer  
Office of the Assistant Secretary for  
Health  
Department of Health and Human Services  
Washington, District of Columbia

### ***Designee of the Administrator of the Centers for Medicare and Medicaid Services***

**Joseph Brooks**  
Health Insurance Specialist  
Centers for Medicare and Medicaid  
Services  
Windsor Mill, Maryland

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

**John Byrne, DO**  
Director, Medical and Dental Education  
Office of Academic Affiliations  
Veterans Health Administration  
Department of Veterans Affairs  
Washington, District of Columbia

### ***Designee of the Administrator of the Health Resources and Services Administration***

**Paul Jung, MD, MPH, CAPT, USPHS**  
Director  
Division of Medicine and Dentistry  
Bureau of Health Workforce  
Health Resources and Services  
Administration  
Rockville, Maryland

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

**\*Miechal Kriger, MBA**

Technical Advisor, Division of Acute Care  
Center for Medicare  
Centers for Medicare and Medicaid  
Services  
Windsor Mill, Maryland

**\*Monica L. Lypson, MD, MHPE, FACP**

Director, Medical and Dental Education  
Office of Academic Affiliations  
Veterans Health Administration  
Department of Veterans Affairs  
Washington, District of Columbia

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\*Denotes new member who joined COGME in 2021.

\*Denotes former COGME member who was active in the development of the rural health issue briefs and report.

**Federal Support Staff**

**Shane Rogers**

Designated Federal Official  
Division of Medicine and Dentistry  
Bureau of Health Workforce  
Health Resources and Services  
Administration  
Rockville, Maryland

**Kennita R. Carter, MD**

Subject Matter Expert  
Division of Medicine and Dentistry  
Bureau of Health Workforce  
Health Resources and Services  
Administration  
Rockville, Maryland

**Raymond J. Bingham, MSN, RN**

Technical Writer/Editor  
Division of Medicine and Dentistry  
Bureau of Health Workforce  
Health Resources and Services  
Administration  
Rockville, Maryland



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### Presenters

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### Panelists

John S. Andrews, MD, American Medical Association; Cheryl A. Peterson, MSN, RN, American Nurses Association; Reamer Bushardt, PharmD, PA-C, The George Washington University; Lauren Block, MPA, National Governors Association; Eric Holmboe, MD, Accreditation Council for Graduate Medical Education; Atul Grover, MD, PhD, Association of American Medical Colleges; Robert A. Cain, DO, American Association of Colleges of Osteopathic Medicine; William Pinsky, MD, Educational Commission for Foreign Medical Graduates; Humayun J. Chaudhry, DO, Federation of State Medical Boards; Maryann Alexander, PhD, RN, National Council of State Boards of Nursing; and Robert Phillips, MD, MSPH, Vice President, Research and Policy, American Board of Family Medicine.

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Sincerely,

Erin Fraher, PhD, MPP  
Chair, COGME

## Executive Summary

Almost one in five Americans live in a rural area. While rural communities have many strengths, rural residents have significantly worse health outcomes than their urban counterparts, including higher rates of heart disease, respiratory disease, cancer, stroke, unintentional injury, and suicide; an increased risk of dental problems; and higher risk of maternal morbidity and mortality. Health disparities between rural and urban areas tripled between 1999 and 2019.

At the heart of many of these disparities is the lack of access to quality health care. Many rural counties lack a critical access hospital or other safety-net provider. Rural hospitals have closed at an accelerated rate in the last 10 years, further reducing access to basic health services. Even when the necessary facilities exist, they frequently experience health workforce shortages. Workforce shortages and difficulty accessing services result in unnecessary trips to the emergency room, further straining the resources of rural hospitals.

The COVID-19 pandemic has exacerbated national shortages of healthcare workers over the past two years. Hospitals across the nation have reported staff burnout and trauma as well as staffing shortages due to high turnover and competition. In addition, many health care workers have had to face the stress of their own exposure to infection and the risk of exposing family members and loved ones. These factors have exacerbated pre-pandemic conditions that were already leading to high levels of exhaustion and burnout. Rural communities are particularly vulnerable.

While the pandemic has had many detrimental impacts, it also presents an opportunity to reconsider and restructure healthcare delivery to build a more robust, resilient, and sustainable healthcare workforce and system. Even before the pandemic, the U.S. health care landscape was changing rapidly. The health care system can take advantage of the opportunity to implement policies that build the health workforce and increase access to care in rural communities during the pandemic and in the post-pandemic phase.

Combating the nation's rural health challenges in the context of rapid health system change requires redesigning the way we invest in the rural health workforce to place patients, families, and community needs at the center. The U.S. healthcare system would be able to improve access to care for rural communities through a restructuring that followed five basic principles:

- Assessing and Planning for the Specific Needs of Rural Communities
- Focusing on Generalism and Team-Based Care
- Integrating the Community into the Workforce
- Developing Outcome Measures that Align Workforce Investments with Population Health Needs in Rural Communities
- Creating Financing Mechanisms that Sustain Rural Training and Practice

Recognizing the care inequities and the changing needs of rural America, the Council on Graduate Medical Education provides this report and recommendations to strengthen rural health workforce training and improve access to health care through evidence-based, patient- and community-centered health workforce investments spanning education, training, and practice. While focused on rural communities, many of the recommendations in this report are applicable to our national healthcare workforce and delivery system as a whole.

## COGME Recommendations

To address the crisis in access to care for rural populations and develop a health professional education system that increases rural health workforce capacity, COGME developed a series of three issue briefs on the rural health workforce, each with its own set of recommendations. These briefs form the basis of the COGME 24<sup>th</sup> Report.

From these briefs, COGME calls on Congress and the Department of Health & Human Services to prioritize the following six (6) recommendations:

### **Recommendation 1:**

**COGME recommends federal funding for a comprehensive assessment of rural health needs to identify gaps in essential care.** This assessment will serve to update and modify existing programs, such as the National Health Service Corps (NHSC), which targets and recruits physicians matching the needs of rural communities. HRSA's National Center for Health Workforce Analysis (NCHWA) can undertake the data collection and analysis needed to interpret and translate findings on rural community health and workforce gaps into actionable recommendations to HRSA and the Centers for Medicare and Medicaid Services (CMS) regarding future training investments.

### **Recommendation 2:**

**COGME recommends that federal training investments should follow the National Academy of Medicine recommendation to link GME funding to population health needs.** Future investments should be targeted toward programs that yield a high return on investment in rural communities, including the NHSC, the Rural Residency Planning and Development, and other training programs funded by HRSA.

### **Recommendation 3:**

**COGME recommends directing the HHS Secretary to develop a set of measures that ensure value and return on public investment in GME financing with a focus on rural areas, to include the following steps:**

- a) Utilize workforce measurement and health systems expertise at HRSA and the Agency for Healthcare Research and Quality. Draw on experience gained from the Children's Hospital Graduate Medical Education Quality Bonus System, the Teaching Health Center Graduate Medical Education program, and other programs.
- b) Develop measures of the diversity and cultural competence of the workforce, to ensure that the workforce is concordant with the communities being served.
- c) Require CMS to create mechanisms of financial accountability for GME payments, for all GME programs, and link financial accountability to downstream training outcomes including patient outcomes, population health, and health professional wellbeing and resilience.
- d) These and other measures should be used to ensure that changes to GME financing actually improve care quality in rural and other settings.

#### **Recommendation 4:**

**COGME recommends that HHS invest in sustainable solutions that focus on building a stable healthcare workforce in rural communities, including:**

- a) Additional funds for pipeline programs through scholarships for individuals from rural communities to pursue professional qualifications as well as additional training opportunities for existing licensed personnel in these communities, such as the Health Careers Opportunity Program.
- b) A program to support the relocation and resettlement of practitioners and their families to rural locations, including:
  - i. Support for the establishment and integration of the practitioner and their family in the community.
  - ii. Support for the retention of the practitioner in the community.
- c) Specific investment in developing community-based public health assets that advance public and population health.

#### **Recommendation 5:**

**COGME recommends that the Centers for Medicare and Medicaid Services work with the Health Resources and Services Administration and other agencies within the Department of Health and Human Services to identify and eliminate regulatory and financial barriers and create incentives to health professional education, training expansion and innovation that promote rural population health, to include the following steps:**

- a) Direct CMS to eliminate regulatory and financial barriers that inhibit the development of rural residency programs.
- b) Enable rural-specific training expansion for disciplines identified as in shortage and offer regulatory flexibility in rural training programs that promote rural health access.
- c) Offer Medicare GME cap flexibility or exceptions for sponsoring institutions starting new rural-based training programs, such as Rural Training Tracks, in needed specialty and geographic areas.
- d) Craft regulations that permit rural hospitals to establish fair ‘total resident amounts’ consistent with their higher costs of training.

#### **Recommendation 6:**

**COGME recommends that CMS support and test sustainable alternative payment models (APMs) that enhance the delivery of team-based interprofessional education and practice by:**

- a) Increasing the number of community and team-based rural training programs receiving public graduate medical education financing.
- b) Creating pathways for financing innovative GME payment models that support rural health teams and sustainable team-based care models.
  - i. Design and coordination should be organized at the level of the HHS Secretary to encourage the involvement of all HHS agencies with GME interests, and specifically involve enhanced coordination between HRSA, the Veterans Administration (VA), and state governments across their portfolio of GME funding initiatives.
  - ii. Specific funding should be directed through HRSA, the Center for Medicare & Medicaid Innovation (CMMI), and the VA to encourage innovative payment

- mechanisms to achieve national and community level goals for the health workforce.
- iii. Mandate coordination between HRSA and CMS to develop and deploy pilot tests of APMs that support team-based, rural interprofessional training and practice.
  - iv. Align CMMI alternative payment models for practices (e.g. the Primary Care First model) with those initiated for rural training.
- c) Engaging GME and other health professions accreditation bodies and key stakeholders to address the needs of new rural training enterprises and their faculty.
  - d) Working collaboratively with public (i.e. Medicare and Medicaid) and commercial payers to develop innovative population health payment strategies, such as per member per month (PMPM) models, that encourage team-based care, enhance provider well-being, and lower burnout.
  - e) Requiring that new APMs encourage interprofessional teams and networks, and contain plans to ensure sustainability.

## Rural Health Disparities

Almost one in five Americans, or roughly 60 million people in the United States, live in a rural area.[1] While rural communities have many strengths and offer a high quality of life,[2] rural residents experience significantly worse health outcomes than their urban counterparts. Compared to those living in urban areas, rural residents have higher rates of mortality from heart disease, respiratory disease, cancer, stroke, and unintentional injury, which are the five leading causes of death in the U.S.[3] They have higher rates of death by suicide.[4] Rural residents are less likely to receive screenings for diabetes, more likely to experience preventable hospital stays [5], and are at an increased risk of preventable permanent tooth loss.[6] Health disparities between rural and urban areas tripled between 1999 and 2019.[7]

An area of significant concern is maternal health. Fewer than half of rural women of reproductive-age live within a 30-minute drive of a hospital or other health care facility with a labor and delivery unit.[8] Pregnancy-related deaths are significantly higher in rural areas. In the nation's most rural areas, there were 23.8 maternal deaths per 100,000 live births; this ratio was 14.6 in large metropolitan counties.[9] By some estimates, [more than half of all rural counties](#) in the United States lack a single local hospital where a pregnant woman can access prenatal or labor and delivery care.[10],[11]

At the heart of many rural-urban health disparities is the lack of access to quality health care. Of the roughly 2,000 U.S. counties classified as rural, more than 170 lacked an in-county critical access hospital, Federally Qualified Health Center (FQHC), or rural health clinic—facilities collectively referred to as safety-net providers.[12] For many rural residents, travel to the nearest hospital or clinic can take over an hour.[13] The problem of health care access is worsening, as the rate of [rural hospital closures has accelerated](#) in the last 10 years, further reducing access to emergency care, behavioral health care, ambulatory care, and other basic health services.[14]

Even when the necessary facilities do exist, they are frequently understaffed and experience health workforce shortages. According to data from the Health Resources and Services Administration (HRSA), in March 2020 almost [70% of areas designated as primary medical health professional shortage areas](#) were considered rural or partially rural.[15] Rural hospital closures are associated with long-term decreases in the supply of physicians in multiple specialties, including primary care physicians, medical specialists, and surgeons.[16]

Compounding this problem, shortages among one profession or specialty have a domino effect on others. For example, lack of access to a general surgeon as backup limits the availability of other hospital services such as trauma care, oncology treatment, and colonoscopy screening. This interdependence is not limited to general surgeons. Recent reports have highlighted declining access to maternity care in rural communities, in part because hospitals face chronic shortages of maternity-care providers such as family physicians, obstetricians, certified nurse midwives, and labor and delivery nurses, as well as surgeons and anesthesiology providers.[17],[18] Primary care workforce shortages and difficulty accessing specialty services result in unnecessary trips to the emergency room, further straining hospitals that are already underfunded and understaffed.[19]

## ***The Impact of the COVID-19 Pandemic***

The COVID-19 pandemic has further exposed and intensified national shortages of healthcare workers over the past two years, presenting additional challenges to an already strained healthcare workforce and highlighting vulnerabilities in our current structures and systems. During the pandemic, over 1,000 hospitals across the country have faced critical staffing shortages, which made it especially challenging for these institutions and their staff to provide necessary care to both COVID and non-COVID patients.[20] Many hospitals were forced to mobilize reserve staff, including retired healthcare professionals, and rely on temporary staffing agencies to bolster their workforce capacity and adequately care for patients. States relaxed scope of practice regulations, expedited processes for licensure of new health professionals and reactivating expired licenses, and waived restrictions on the provision of telehealth across borders to ensure rapid deployment of health care workers where infections were soaring.

Hospitals interviewed by the Office of the Inspector General of the U.S. Department of Health and Human Services (HHS) reported staff burnout and trauma as well as staffing shortages due to high turnover and competition as the leading challenges in health care delivery during the pandemic.[21] Over the course of the pandemic, almost two-thirds of hospitals faced critical occupancy rates, with intensive care units at over 90% capacity.[22] The repeated waves of the pandemic have continued to strain the existing healthcare workforce while creating new demands and pressures. In addition to the work-related burden, many health care workers have faced the stress of their own exposure to infection, the risk of exposing family members and other loved ones, and the need for quarantining and social isolation.[23] These factors have exacerbated pre-pandemic conditions that were already leading to high levels of exhaustion and burnout.

The healthcare workforce in rural communities is particularly vulnerable to the challenges of the COVID pandemic. Rural health systems are already short-staffed and can ill afford to lose any of their current providers. Rural communities tend to have a less robust healthcare infrastructure overall, with fewer hospitals, intensive care unit beds, and critical care physicians.[24] During the peak of the pandemic, some rural hospitals resorted to transferring patients to urban area hospitals that were already overwhelmed and operating at capacity.[25] Through the combination of illness, risk of infection, burnout, and isolation from family and loved ones, the COVID pandemic has put immense strain on healthcare workers and the health system more broadly, particularly in areas where the healthcare system was overburdened and underresourced prior to the pandemic. Thus, the pandemic has further magnified the urgency of augmenting and strengthening the rural health care workforce.

## ***Adapting to a Changing Landscape***

The pandemic has had many devastating and detrimental impacts on the health and well-being of our country and our health workforce. However, it also presents an opportunity to reconsider and restructure healthcare delivery to build a more robust, resilient, and sustainable healthcare workforce and system. Several promising changes to our healthcare system have been implemented, including the expanded use of telehealth and broadened regulatory flexibility. As the grip of the pandemic wanes, the health care system can use this opportunity to expand upon the changes that have proven beneficial and implement additional policies that increase access to care in rural communities in the post-pandemic phase.

Even before the COVID-19 pandemic struck, the U. S. health care landscape was changing rapidly. New health and payment incentives are shifting care away from acute care facilities like hospitals to non-acute outpatient settings. The move from fee-for-service toward value-based reimbursement, along with an intensified focus on addressing health equity and the social determinants of health, have increasingly shifted care “upstream” to community- and home-based settings.

As the Council on Graduate Medical Education (COGME) developed this report, written legislation was being enacted or proposed that would have both short- and long-term impacts on the healthcare delivery system nationally and in rural communities. The Center for Medicare & Medicaid Innovation (CMMI) was launching an alternative payment program specific to rural communities.[26] The National Academies of Sciences, Engineering, and Medicine released reports on implementing high quality primary care and on integrating social needs care into health care delivery to improve population health.[27] These are especially critical developments to the rural healthcare workforce and rural health. A robust primary care infrastructure improves population health and increases health equity across communities. When rural communities cannot attract and retain an adequate primary care workforce, the health and well-being of their citizens is jeopardized. Even the best healthcare systems cannot optimize the health of the rural communities unless the social determinants of health are also addressed, including poverty, educational attainment, communication technologies and transportation.

Combating the nation’s rural health challenges in the context of rapid health system change requires radically redesigning the way we invest in the rural health workforce to place patients, their families, and their community needs at the center of policy interventions.[28] **Recognizing the care inequities and the changing needs of rural America, the COGME provides this report and recommendations to strengthen rural health workforce training and improve access to health care in rural communities.** The recommendations address the health and social care needs of rural America through evidence-based, patient- and community-centered health workforce investments spanning education, training, and practice. While focused specifically on rural communities and populations, many of the recommendations in this report are applicable more broadly to our national healthcare workforce and delivery system as a whole.

### ***Bright Spots for Rural Health***

At first glance, addressing persistent workforce shortages and health inequities in rural communities may seem an intractable problem. COGME recognizes, though, that significant momentum for its recommendations already exists. Several recent reports have identified ways in which the rural workforce can be strengthened, as well as “bright spots” for the future of rural health.

#### **Teaching Health Center Graduate Medical Education**

The [Teaching Health Center Graduate Medical Education](#) (THCGME) Program, launched by HRSA in 2011, has had significant success embedding medical and dental residency training opportunities in community-based, rural primary care settings.[29] Most THCGME training sites are located in rural or other underserved areas, and provide training to residents in the full range of primary care specialties – including family medicine, internal medicine, pediatrics,



obstetrics and gynecology, and general and pediatric dentistry. Analyses suggest that residents who train at THCGME sites are more likely to remain in primary care and work in shortage areas such as rural communities than their non-THCGME peers.[30]

Studies also suggest that the THCGME program has the potential to yield up to \$1.8 billion in public program savings—an estimated \$1.5 billion in Medicaid savings and \$284 million in Medicare savings—between 2019–2023. These savings would result from THCGME-supported residents providing needed access to primary care to underserved populations at low cost during their training, and going on to practice in more cost-efficient ways due to their training in low-resources settings.[31] In 2021, HRSA announced plans to invest a combined total of approximately \$76 million in the THCGME program. This funding encompasses \$46 million to expand the number of new resident positions at new and existing THCs, \$25 million to create 50 new community-based residency programs, and \$5 million to fund a technical assistance center for THCs.[32]

### **Rural Residency Planning and Development/Rural Training Track Technical Assistance**

The [Rural Residency Planning and Development](#) (RRPD) Program expands the number of rural residency training programs, with the goal of increasing the number of physicians choosing to practice in rural areas. Rural residencies are defined as allopathic and osteopathic physician residency training programs that primarily train in rural communities. Under the RRPD, the Rural Training Track Technical Assistance (RTT-TA) consortium, funded through the HRSA Federal Office of Rural Health Policy, supports communities, educational institutions, and others interested in developing rural training tracks.[33] RTT graduates are twice as likely to practice family medicine in a rural setting as compared to family medicine residents trained in an urban program. A 2016 review of the RTT-TA consortium found that more than 35% of graduates were practicing in rural areas through seven years post-graduation, demonstrating a stable yield of physicians in rural practice.[34] Building on the RTT-TA strategy, HRSA has continued to invest in RRPD grants, awarding \$6.7 million in 2021 to a total of 46 organizations to grow the rural workforce through the creation of new rural residency programs.[35] HRSA plans to further expand the RRPD program in 2022 with an investment of \$10.5 million to create 14 additional rural residency programs.[36]

### **Area Health Education Centers**

One vital resource already in place in many rural areas of the United States is the [Area Health Education Centers](#) (AHEC) program, which provides grants to schools of medicine and nursing to develop and enhance education and training networks within communities, academic institutions, and community-based organizations.[37] The AHEC networks focus on training programs to improve the supply, distribution, diversity, and quality of healthcare providers, and in turn increase access to health services in rural and other medically underserved areas. A redesign in FY2017 introduced the AHEC Scholars Program, which supports educational and training activities for health professions students in six core areas: inter-professional education, behavioral health integration, social determinants of health, cultural competency, practice transformation, and current and emerging health issues. The Scholars Program enhances recruitment and training by promoting community-based experiential training in rural areas through field placements and clinical rotations, facilitating continuing education for health professionals already in practice, and developing statewide outcome-focused evaluation methods.

## **The Children’s Hospital Graduate Medical Education Quality Bonus System**

The [Children’s Hospitals Graduate Medical Education](#) (CHGME) program provides funding to children’s hospitals to help their GME programs train pediatric physicians and dentists, and to provide care for low-income children across the country. CHGME funding supports the training of almost half of all general pediatrics residents, and over half (55%) of all pediatric subspecialty residents and fellows.[38]

In 2019, HRSA initiated the CHGME Quality Bonus System (CHGME QBS), which is designed to distribute bonus payments to CHGME participant program that meet certain standards that focus on quality measurement and improvement, interpersonal and communications skills, delivering patient-centered care, and practicing in integrated health systems and community-based settings. The goal is to incentivize awardees with high quality training to meet the pediatric workforce needs of the nation.[39]

### **Other Bright Spots**

Other notable bright spots include the [Wisconsin Rural General Surgery Residency Track](#), with the goal of “providing excellent training for surgeons who desire to ... practice in rural or community based hospitals.”[40] In addition, [the Idaho Family Medicine Residency](#), one of the original 11 HRSA-funded Teaching Health Centers, focuses on team-based training and practice within its mission to “train outstanding broad spectrum family medicine physicians to work in underserved and rural areas.”[41]

Together, these “bright spots” and other related programs are placing more medical and surgical residents and other health professions trainees in rural clinical sites. The results are manifold:

- Greater exposure of trainees and other health professionals to rural practice and its benefits.
- Increased recruitment of health professions students from rural and other underserved communities.
- Improved access to care for many rural communities.

COGME has noted the success of these programs. They provide examples of best practices and methods that can be adapted and scaled up to address the health care needs of rural communities, and build the rural workforce. Thus, these programs have shaped the thinking of COGME in the development of its recommendations.

## **Restructuring the Rural Health Workforce**

Reducing the substantial health disparities experienced by rural communities will require adaptable, dynamic teams of providers. These teams must be designed and deployed around the specific health and social care needs of local communities. Achieving a workforce that can meet rural health care needs will require a substantial commitment to identifying the unique health care and workforce needs of rural communities, adequate investment in the workforce and infrastructure, and stable and sustainable financing mechanisms.

Restructuring the rural health workforce and workforce training to focus on patients and populations instead of individual provider groups is needed to redefine the crisis from a workforce shortage to a demand-capacity mismatch. This mismatch could be addressed by investing in team-based models of care that integrate primary care, behavioral, social, and community services. Primary care capacity, for example, can be greatly increased by empowering licensed personnel, including registered nurses and pharmacists, to provide more care, as well as by allowing medical assistants to function as panel managers and health coaches to address many preventive and chronic care needs. Primary care settings are a key access point for individuals with behavioral health and substance use disorder needs. Social workers are playing an increasingly important role in primary care, as behavioral health specialists, case managers, and health system navigators.[42]

### ***Principles in Restructuring the Workforce***

Through a restructuring, the U.S. healthcare system would be able to improve access to care for rural communities. This restructuring would follow five basic principles:

- Assessing and Planning for the Specific Needs of Rural Communities
- Focusing on Generalism and Team-Based Care
- Integrating the Community into the Workforce
- Developing Outcome Measures that Align Workforce Investments with Population Health Needs in Rural Communities
- Creating Financing Mechanisms that Sustain Rural Training and Practice

### **Assessing and Planning for the Specific Needs of Rural Communities**

The first principle requires the recognition that rural communities have a range of health care needs that cover care across the lifespan. Furthermore, lacking the resources, facilities, and infrastructure common in more urbanized areas, rural communities often rely on informal health systems and community-based health care delivery. An assessment of local community and population health needs, developed by working with public and private stakeholders invested in the community, would help to shape the development of tailored training tracks for rural clinicians. Training programs preparing health professionals for practice in rural areas must allow for flexibility and adaptability in low-resource environments.

One need for improving care in rural communities is access to telehealth visits through the availability of reliable and affordable communications technology, including telephone, video, and internet broadband infrastructure. The COVID-19 pandemic has accelerated the pace of telehealth development to promote safety and improve access to care. In addition, many state

and local governments relaxed regulations around telehealth delivery and the Centers for Medicare & Medicaid Services (CMS) and many health insurers broadened policies for reimbursement of telehealth services. Retaining this regulatory flexibility, building and maintaining the infrastructure to increase connectivity, and training both clinicians and local residents in its use, would enhance community access to the full range of telehealth direct care and consultative services, and promote the dissemination of accurate health information. However, state licensure has an overriding impact on telehealth access across state borders for rural communities. There is a need to develop a sustainable pathway to maintain telehealth access, in the event that state-level flexibilities are revised or closed in the post-pandemic phase.

### **Focusing on Generalism and Team-Based Care**

Facilitating rural care will require a focus on the interrelated principles of generalist practice and team-based care.

#### *Generalism in Practice*

Rural communities typically have few physical facilities such as hospitals and clinics, as well as a limited number and range of health professionals. With fewer health care professionals available, clinical practice in rural areas demands the generalist skills of a primary care provider who can assess and treat patients with a wide range of complex physical and behavioral health needs. This will require a shift in emphasis toward generalist training and practice, as well as awareness that the generalist needs to have access to external support from specialists.

Rural training programs need to encourage generalism in rural healthcare practice. Clinicians preparing for rural practice need to develop and maintain a broad range of skills that they can adapt to meet the specific needs of the local community. For example, behavioral and mental health training could be incorporated into primary care to address such issues as suicide prevention and the opioid crisis. Included within this principle is the need to promote broader, lifelong learning, not just among physicians but among all rural healthcare providers. However, the United States has seen a decline in generalist training and practice.

#### *Interprofessional, Team-Based Care*

Given the varied mix of both the professional and paraprofessional workforce, rural providers must be capable of working in interprofessional teams. Most rural communities use an “asset-based” approach and adjust team structures and services to make use of local providers. Putting constrained resources to greatest use will require cooperation and coordination among local providers, working together in teams to complement each other’s skills and scopes of practice.

Training in community care teams can create a more stable and flexible local healthcare delivery model and reduce the cost per unit of care, while improving professional satisfaction and meeting the needs of the local population more efficiently. Effective models of rural team-based care would link office- and hospital-based clinicians with others practicing directly in the community - e.g. community health workers, social workers, case managers, and others. Training in teams would facilitate an understanding of the roles and benefits of other healthcare professionals, and promote cultural competency (especially for trainees coming from outside the community), adaptability, and resilience – the skills needed for successful practice in a climate of limited resources.

## **Integrating the Community into the Workforce**

A third principle recognizes the need to invest in the recruitment and training of individuals from rural communities into the health professions by developing pipeline programs and promoting opportunities for medical and health professions education. There are also opportunities to recruit and train paraprofessionals such as medical assistants and community health workers, who can contribute to the health care team.

Current investments in workforce training do not adequately address rural health disparities or bolster the rural health workforce. The nation spends significant taxpayer dollars on workforce training – \$14.5 billion alone on graduate medical education (GME) for physicians.[43] Unfortunately, the workforce has maldistributed by specialty, geography, and setting, indicating a need for corrective measures.[44] To date, efforts to better distribute funding to meet rural health workforce needs have been unsuccessful despite the fact that residency location is a known predictor of a physician’s future practice location.[45] One study showed that 56% of family medicine residents practice within 100 miles of where they completed their training.[46] However, the Government Accountability Office estimates that **only 1% of residents train in rural areas.**[47]

Studies have consistently found that physicians who grew up in rural areas are more likely to stay and practice in rural settings,<sup>[48]</sup> and that counties with providers who have strong ties to the local community have better health outcomes.<sup>[49]</sup>

Therefore, scholarships and other incentive programs for those who come from rural communities promise to increase the rural health workforce, and in turn broaden access and improve health outcomes. With the emphasis on and importance of team-based care described above, programs to expand the supply of health care services should capitalize on local resources. For example, primary care capacity can be increased by empowering adequately trained and licensed personnel, such as registered nurses (RNs), advanced practice registered nurses (APRNs), physician assistants (PAs) and pharmacists, to provide a broader range of services within their scope of practice as part of the care team. Access to care can also be broadened by expanding the workforce and developing the skills of community health workers and other paraprofessional, non-licensed personnel, as long as their roles are clearly defined and they work within team-based care.

## **Developing Outcome Measures that Align Workforce Investments with Population Health Needs in Rural Communities**

Reducing rural health disparities can be facilitated by the creation and development of population health outcome measures that encourage better alignment between investments in health care provider and medical residency training programs and the needs of rural areas.[50] For the medical profession, these measures must cover the full range of GME financing, not just funding targeted toward rural programs. The measures would aim to identify workforce gaps to ensure value and return on investment of public funds directed toward training. For example, building on the analytics expertise of the Agency for Healthcare Research and Quality, the National Center for Health Workforce Analysis, and the HRSA-funded Health Workforce Research Centers, along with lessons learned from evolving HRSA initiatives such as the

CHGME QBS, these metrics could serve as goals for residency training programs, and might also be incorporated into the GME accreditation process and financing models.[51, 52]

Measures should focus on outcomes that ensure the appropriate geographic distribution and mix of health professionals needed to meet the diverse health needs of rural communities, and include processes that address competencies specific to rural practice locations such as generalism, comprehensive practice, care coordination, community engagement, and team-based health care.[50] They should also address workforce diversity and cultural competence, so that the local workforce reflects the communities being served. The ultimate goal is to develop and implement measures which assess whether federal investments in training increase the capacity of the rural healthcare workforce to improve and enhance access to health care for rural populations.

### **Creating Financing Mechanisms that Sustain Rural Training and Practice**

Fulfilling these principles will require developing new sources of funding that support the financial health and sustainability of rural training and practice, including possible GME funding from state governments and the private sector. Funding is also needed to support the recruitment and training of clinicians in other disciplines, including RNs, APRNs, PAs, social workers, behavioral health providers, and others. New sources of funding should include local, state, and federal initiatives to be sustainable.

#### *Sustaining Rural Residencies and Practices*

Making rural residency programs both attractive and sustainable, and rural practices more financially viable, requires creating new, innovative, value-based funding streams. CMS directs its GME financing almost exclusively through hospitals. However, many of the place-based training programs described in this report offer care in community-based clinics or other outpatient settings.[53] Also, in the current health care system physicians and other clinicians are most often reimbursed based on the number of services they perform, without regard to patient health outcomes.[54] This volume-based model fails to accommodate the circumstances of rural training, meet the needs of rural populations, or sustain the efficient population-based care employed by many rural practices.

#### *Alternate Payment Models*

There have been calls to update the GME financing models, including trials of alternative payment models (APMs) that link payment to the value of the care provided, and take into account local need and availability of resources.[55] Noting that current models discouraged training in community based settings, the Institute of Medicine called for a GME overhaul to move toward outcomes-based payment, and for the creation of a ‘Transformation Fund’ capable of financing innovative payment models and pilots.[56] There was specific mention of increased funding for educational entities such as community health centers and regional workforce consortiums, which allow multiple community stakeholders to adopt shared ownership for education that meets community need and permits distribution of the benefits associated with residency training across multiple community settings.[52, 57]

Working collaboratively with public and commercial payers, CMS should develop innovative population-based health payment strategies for rural areas. An example might be a model

designed on a capitated Per Member Per Month (PMPM) basis.[58] However, flexible payment models at current levels of spending may not be enough; there is a need for additional reimbursement which should be viewed as an investment in the sustainability of health care providers in rural practice. This transformation in payment mechanisms for rural team-based practices would provide sustainable revenue streams to promote practice viability, and help these practices to leverage technology (e.g. telehealth, telephone, e-mail, and text messaging) to broaden access to care and enhance quality of care, while maximizing health outcomes and controlling healthcare costs. Such health payment models promise to improve well-being and lower burnout for rural health professionals.

Opportunities for immediate agency action could involve CMS tasking its Center for Medicare and Medicaid Innovation (CMMI) to develop and deploy pilot testing for APMs to support team-based rural interprofessional training and practice, along with enhanced coordination between HRSA, the Veterans Administration, and state governments.

## **Creating a Strategic Plan for Rural Health Workforce Financing Reform**

To address these five principles, the recommendations in this report outline a series of actions needed to enhance health workforce capacity in rural communities in the short term. However, COGME believes that a longer-term strategic plan for investing in health workforce training across the professional continuum for rural populations could spearhead greater integration between federal and state efforts and promote lasting innovation in health professional education. Its development should include key rural stakeholders, non-physician professionals, and international medical graduates. Furthermore, it would need to build on the “bright spots” and expand the programs already underway to address rural health needs, such as the THCGME program and RRPD described in this report, along with other programs such as the Health Careers Opportunities Program, and the National Health Service Corps and Nurse Corps. At present, many rural regions have multiple federal programs that operate with little coordination with each other or between other related programs and entities.

The U.S. Government Accountability Office has issued several reports recommending such a national plan.[44, 47, 59] The National Health Care Workforce Commission, authorized in 2010 under the Affordable Care Act but never financed, could serve as a potential pathway to gain expert input into design and oversight from federal and public stakeholders.[60]

COGME previously recommended a national strategic plan for GME to build a dynamic and agile GME system that better addresses the nation’s physician workforce needs.[61] This new recommendation would build on a national plan by specifically focusing on increasing access to essential health care services for rural areas and improving the health of rural populations.

## **Conclusion**

Given the particular challenges that rural America faces in accessing necessary healthcare, as well as the disparities these communities demonstrate in health outcomes, COGME advocates for the restructuring of training programs to better meet rural needs. The COVID-19 pandemic presents a critical juncture at which there is an opportunity to reconsider the way in which

healthcare providers are trained in our country. The COGME members have assembled three issue briefs that outline a path forward to reduce healthcare workforce shortages in rural areas, improve the pipeline for developing care teams, and ultimately, create a more resilient U.S. healthcare system.

The significant and serious health disparities faced by rural inhabitants across the country, and the diverse health care needs of rural communities, should be addressed in a flexible manner.[62] In medical education, rural residencies should focus on training physicians who are comfortable in generalist practice, capable of addressing a wide variety of problems, and willing to adapt their practice in a changing healthcare landscape. Furthermore, investments in the training other healthcare professionals and community members are needed to create effective and cohesive care teams. Training programs must reflect the diverse needs of rural communities, prepare health professionals who can address those needs, and emphasize team-based care, generalism, and adaptability. Health professionals in rural areas must care for a broad range of health issues and problems, be adaptable to local conditions, work collaboratively with other providers, and augment their skills depending on community needs. Strengthening pipeline programs in rural communities would expand opportunities for individuals from these areas to contribute to their own healthcare workforce. Investments from new sources of funding, along with additional support for current programs such as AHEC, hold the promise to expand and improve the rural health workforce, promote rural healthcare access, and improve health outcomes.

To aid in the process of restructuring training programs to address rural health disparities, in this compilation report COGME recommends conducting a comprehensive assessment of the health needs of rural Americans to identify critical gaps, developing measures of rural health outcomes to help assess population health outcomes and return on investment, and testing novel payment structures that invest in programs to train rural healthcare providers and sustain rural practices.

The strategies outlined in this report focus on training physicians and other professionals to have the skills and competencies necessary to serve rural communities, and creating sustainable solutions to improve rural practice and alleviate provider shortages. The ultimate goal is to decrease health disparities in rural areas.



## Appendix 1: COGME 24th Report Recommendations and Rationale

To address the crisis in access to care for rural populations and develop a health professional education system that increases rural health workforce capacity, COGME developed a series of three issue briefs (IBs) on the rural health workforce:

1. [Special Needs in Rural America: Implications for Health Workforce Education, Training, and Practice](#)
2. [Investing in a Health Workforce that Meets Rural Needs](#)
3. [Training Needs to Prepare the Healthcare Workforce for Rural Practice](#)

From these briefs, COGME calls on Congress and the Department of Health & Human Services to prioritize the following six (6) recommendations:

### **Recommendation 1: (From IB1)**

**COGME recommends federal funding for a comprehensive assessment of rural health needs to identify gaps in essential care.** This assessment will serve to update and modify existing programs, such as the National Health Service Corps (NHSC), which targets and recruits physicians matching the needs of rural communities. HRSA's National Center for Health Workforce Analysis (NCHWA) can undertake the data collection and analysis needed to interpret and translate findings on rural community health and workforce gaps into actionable recommendations to HRSA and the Centers for Medicare and Medicaid Services (CMS) regarding future training investments.

#### ***Rationale:***

Rural communities have a range of health care needs that cover care across the lifespan. Lacking the resources, facilities, and infrastructure common in more urbanized areas, rural communities often rely on informal health systems and community-based health care delivery. An assessment of local community and population health needs, developed by working with public and private stakeholders invested in the community, would help to shape the development of tailored training tracks to prepare health professionals for practice in rural areas.

### **Recommendation 2: (From IB1)**

**COGME recommends that federal training investments should follow the National Academy of Medicine recommendation to link GME funding to population health needs.** Future investments should be targeted toward programs that yield a high return on investment in rural communities, including the NHSC, the Rural Residency Planning and Development, and other training programs funded by HRSA.

#### ***Rationale:***

Current investments in workforce training do not adequately address rural health disparities or sufficiently bolster the rural health workforce, indicating a need for corrective measures. Momentum for improving federal investments in rural areas can be found in some successful programs already in place, providing examples of best practices and methods that can be adapted and scaled up to address the health care needs of rural communities, and build the rural workforce.

### **Recommendation 3: (From IB2)**

**COGME recommends directing the HHS Secretary to develop a set of measures that ensure value and return on public investment in GME financing with a focus on rural areas, to include the following steps:**

- a) Utilize workforce measurement and health systems expertise at HRSA and the Agency for Healthcare Research and Quality. Draw on experience gained from the Children’s Hospital Graduate Medical Education Quality Bonus System, the Teaching Health Center Graduate Medical Education program, and other programs.
- b) Develop measures of the diversity and cultural competence of the workforce, to ensure that the workforce is concordant with the communities being served.
- c) Require CMS to create mechanisms of financial accountability for GME payments, for all GME programs, and link financial accountability to downstream training outcomes including patient outcomes, population health, and health professional wellbeing and resilience.
- d) These and other measures should be used to ensure that changes to GME financing actually improve care quality in rural and other settings.

#### ***Rationale:***

The creation and development of population health outcome measures can facilitate a reduction in rural health disparities by fostering better alignment between investments in health care provider/medical residency training programs and the needs of rural areas. For the medical profession, these measures must cover the full range of GME financing, not just funding targeted toward rural programs. The measures would aim to identify workforce gaps to ensure value and return on investment of public funds directed toward training.

### **Recommendation 4: (From IB3)**

**COGME recommends that HHS invest in sustainable solutions that focus on building a stable healthcare workforce in rural communities, including:**

- a) Additional funds for pipeline programs through scholarships for individuals from rural communities to pursue professional qualifications as well as additional training opportunities for existing licensed personnel in these communities, such as the Health Careers Opportunity Program.
- b) A program to support the relocation and resettlement of practitioners and their families to rural locations, including:
  - i. Support for the establishment and integration of the practitioner and their family in the community.
  - ii. Support for the retention of the practitioner in the community.
- c) Specific investment in developing community-based public health assets that advance public and population health.

#### ***Rationale:***

Investment in pipeline programs for the recruitment and training of individuals from rural communities could capitalize on local resources and promote opportunities for medical and health professions education. Scholarships and other incentive programs for those who come from rural communities promise to increase the rural health workforce, and in turn broaden access to care and improve health outcomes.

### **Recommendation 5: (From IB2)**

**COGME recommends that the Centers for Medicare and Medicaid Services work with the Health Resources and Services Administration and other agencies within the Department of Health and Human Services to identify and eliminate regulatory and financial barriers and create incentives to health professional education, training expansion and innovation that promote rural population health, to include the following steps:**

- a) Direct CMS to eliminate regulatory and financial barriers that inhibit the development of rural residency programs.
- b) Enable rural-specific training expansion for disciplines identified as in shortage and offer regulatory flexibility in rural training programs that promote rural health access.
- c) Offer Medicare GME cap flexibility or exceptions for sponsoring institutions starting new rural- based training programs, such as Rural Training Tracks, in needed specialty and geographic areas.
- d) Craft regulations that permit rural hospitals to establish fair ‘total resident amounts’ consistent with their higher costs of training.

#### ***Rationale:***

Regulatory and financial barriers often hinder the development of rural residency programs. CMS should review and eliminate regulatory barriers that inhibit expansion and flexibility in rural training programs to allow small, developing residency programs with limited capacity and resources adequate time to build sustainable GME programs. In addition, financial incentives targeted for rural GME programs can decrease the disparities between urban and rural funding.

### **Recommendation 6: (From IB2)**

**COGME recommends that CMS support and test sustainable alternative payment models (APMs) that enhance the delivery of team-based interprofessional education and practice by:**

- a) Increasing the number of community and team-based rural training programs receiving public graduate medical education financing.
- b) Creating pathways for financing innovative GME payment models that support rural health teams and sustainable team-based care models.
  - i. Design and coordination should be organized at the level of the HHS Secretary to encourage the involvement of all HHS agencies with GME interests, and specifically involve enhanced coordination between HRSA, the Veterans Administration (VA), and state governments across their portfolio of GME funding initiatives.
  - ii. Specific funding should be directed through HRSA, CMMI, and the VA to encourage innovative payment mechanisms to achieve national and community level goals for the health workforce.
  - iii. Mandate coordination between HRSA and CMS to develop and deploy pilot tests of APMs that support team-based, rural interprofessional training and practice.
  - iv. Align CMMI alternative payment models for practices (e.g. the Primary Care First model) with those initiated for rural training.
- c) Engaging GME and other health professions accreditation bodies and key stakeholders to address the needs of new rural training enterprises and their faculty.

- d) Working collaboratively with public (i.e. Medicare and Medicaid) and commercial payers to develop innovative population health payment strategies, such as per member per month (PMPM) models, that encourage team-based care, enhance provider well-being, and lower burnout.
- e) Requiring that new APMs encourage interprofessional teams and networks, and contain plans to ensure sustainability.

***Rationale:***

Updating the GME financing models could allow for trials of alternative payment models that link payment to the value of the care provided, and take into account local need and availability of resources. Working collaboratively with public and commercial payers, CMS should develop innovative population-based health payment strategies for rural areas.

## Appendix 2: COGME Publications

### **The COGME Rural Health Issue Brief series:**

Issue Brief 1 (IB1) [published July 2020]: [\*Special Needs in Rural America: Implications for Healthcare Workforce Education, Training, and Practice\*](#)

Issue Brief 2 (IB2) [published February 2021]: [\*Investing in a Health Workforce that Meets Rural Needs\*](#)

Issue Brief 3 (IB3) [published June 2021]: [\*Training Needs to Prepare the Healthcare Workforce for Rural Practice\*](#)

### **Reports**

Since its establishment, COGME has submitted the following reports to the HHS Secretary and Congress. These reports can be viewed at:

<https://www.hrsa.gov/advisory-committees/graduate-medical-edu/reports.html>

- Twenty-Third Report: Towards the Development of a National Strategic Plan for Graduate Medical Education (2016)
- 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**

**These letters can be viewed at:**

<https://www.hrsa.gov/advisory-committees/graduate-medical-edu/correspondence.html>

- COGME Response Letter to the Secretary and Congress on Section 126 of the Consolidated Appropriations Act (2021)
- COGME Letter to DHHS Secretary and Congress Concerning Section 3402 of the Cares Act Amendment (2021)
- COGME Letter to DHSS Secretary and Congress to with Recommendation to Continue and Increase Funding for the Health Careers Opportunity Program (2020)
- COGME letter in Support of the Teaching Health Center Graduate Medical Education (THCGME) Program (2017)
- 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**

**These resource papers can be viewed 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)
- 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)
- Assessing Physician Specialty Imbalances (1987)
- COGME, Public Hearing (1987)

## Acronym and Abbreviation List

AHEC	Area Health Education Center
APM	Alternative payment model
APRN	Advanced Practice Registered Nurse
CHGME	Children’s Hospitals Graduate Medical Education
CMMI	Center for Medicare & Medicaid Innovation
CMS	Centers for Medicare & Medicaid Services
COGME	Council on Graduate Medical Education
FQHC	Federally Qualified Health Center
GME	Graduate medical education
HHS	U.S. Department of Health and Human Services
HRSA	Health Resources and Services Administration
IB	Issue Brief
NCHWA	National Center for Health Workforce Analysis
NHSC	National Health Service Corps
PA	Physician Assistant
PMPM	Per Member Per Month
QBS	Quality Bonus System
RN	Registered Nurse
RRPD	Rural Residency Planning and Development
RTT	Rural Training Track
RTT-TA	Rural Training Track Technical Assistance
THC	Teaching Health Center
THCGME	Teaching Health Center Graduate Medical Education
VA	Veterans Administration



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