

**COUNCIL ON GRADUATE MEDICAL EDUCATION**  
Twentieth Report

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Advancing  
Primary Care

DECEMBER **2010**



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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.

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# The Council on Graduate Medical Education

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 Department of Health and Human Services (DHHS); the Senate Committee on Health, Education, Labor, and Pensions; and the House of Representatives Committee on Commerce. Since 2002, COGME has been extended through annual appropriations. The legislation specifies 17 members for the Council. Appointed individuals are to 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 representation includes the Assistant Secretary for Health, DHHS; the Administrator of the Centers for Medicare and Medicaid Services, DHHS; and the Chief Medical Director of the Veterans 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 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; and

6. Deficiencies in, and needs for improvements in, existing data bases 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 graduate medical education 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.

In addition to providing advice and making recommendations to both the Secretary and Congress, the COGME shall also:

- Encourage entities providing graduate medical education to conduct activities to voluntarily achieve the recommendations of the Council.

## COGME PUBLICATIONS

### Reports

Since its establishment, COGME has submitted the following reports to the DHHS Secretary and Congress:

- First Report of the Council (1988);
- Second Report: The Financial Status of Teaching Hospitals and the Underrepresentation of Minorities in Medicine (1990);
- Third Report: Improving Access to Health Care Through Physician Workforce Reform: Directions for the 21st Century (1992);
- Fourth Report: Recommendations to Improve Access to Health Care Through Physician Workforce Reform (1994);
- Fifth Report: Women and Medicine (1995);
- Sixth Report: Managed Health Care: Implications for the Physician Workforce and Medical Education (1995);
- Seventh Report: Physician Workforce Funding Recommendations for Department of Health and Human Service's Programs (1995);

- Eighth Report: Patient Care Physician Supply and Requirements: Testing COGME Recommendations (1996);
- Ninth Report: Graduate Medical Education Consortia: Changing the Governance of Graduate Medical Education to Achieve Physician Workforce Objectives (1997);
- Tenth Report: Physician Distribution and Health Care Challenges in Rural and Inner City Areas (1998);
- Eleventh Report: International Medical Graduates, The Physician Workforce and GME Payment Reform (1998);
- Twelfth Report: Minorities in Medicine (1998);
- Thirteenth Report: Physician Education for a Changing Health Care Environment (1999);
- Fourteenth Report: COGME Physician Workforce Policies: Recent Developments and Remaining Challenges in Meeting National Goals (1999);
- Fifteenth Report: Financing Graduate Medical Education in a Changing Health Care Environment (2000);
- Sixteenth Report: Physician Workforce Policy Guidelines for the United States, 2000–2020 (2005);
- Seventeenth Report: Minorities in Medicine: An Ethnic and Cultural Challenge for Physician Training, an Update (2006); and
- Eighteenth Report: New Paradigms for Physician Training for Improving Access to Health Care (2007).
- Nineteenth Report: Enhancing Flexibility in Graduate Medical Education (2007)

## **OTHER COGME PUBLICATIONS**

- Scholar in Residence Report: Reform in Medical Education and Medical Education in the Ambulatory Setting (1991);
- Process by which International Medical Graduates are Licensed to Practice in the United States (September 1995);
- Proceeding of the GME Financing Stakeholders Meeting (April 11, 2001) Bethesda, Maryland;
- Public Response to COGME's Fifteenth Report (September 2001);
- Council on Graduate Medical Education and National Advisory Council on Nurse Education and Practice: Collaborative Education to Ensure Patient Safety (February 2001);
- Council on Graduate Medical Education: What Is It? What Has It Done? Where Is It Going? 2nd edition (2001);
- 2002 Summary Report (2002).

For more information on COGME, visit the Council's Web site at: <http://www.cogme.gov> or contact:

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\* Dr. Retchin resigned from the COGME on September 30, 2010, to assume his new role as Vice-Chair of the National Health Care Workforce Commission, created by the Affordable Care Act of 2010.

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This report is the result of a collaborative effort by the members of the Council. The members of the Council's writing committee played a key role in drafting the recommendations and associated supporting material. To develop the report, the writing committee created two writing groups.

One writing group focused on the overall context for the report and the recommendations related to the ideal number of primary care physicians and primary care physician reimbursement. Members of this writing group included:

- Dr. Jerry Kruse, Chair
- Dr. Mark Kelley, Co-Chair
- Dr. Tom Keane
- Dr. Carol Pillinger
- Dr. Russ Robertson
- Dr. Vicki Seltzer
- Dr. Bill Thomas
- Ani Turner<sup>1</sup>
- Dr. Leana Wen

The other writing group focused on the recommendations related to primary care physician education (graduate and undergraduate) and primary care physician distribution. This group also focused on issues of

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<sup>1</sup> Ms. Turner and Dr. Roehrig are not members of the Council, but provided technical support to the writing groups as health workforce researchers with Altarum Institute.

management of educational debt and the role of mid-level providers. Members of this writing group included:

- Dr. Sheldon Retchin, Chair
- Dr. Robert Phillips, Co-Chair
- Dr. Denice Cora-Brambles
- Dr. Wendy Braund
- Dr. Joseph Hobbs
- Dr. Spencer Nabors
- Dr. Kendall Reed
- Dr. Russ Robertson
- Charles Roehrig PhD<sup>1</sup>
- Dr. Jason Shu
- Dr. Winston Liaw<sup>2</sup>

The two groups developed working papers to address their respective areas of focus. The writing committee, led by Dr. Robertson, then worked to develop a consolidated set of draft recommendations based on the work of the two groups. After the draft recommendations were developed, the committee worked to develop the draft report that supported these draft recommendations. This work was conducted over a series of conference calls and involved many hours of work developing sections of the report.

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<sup>2</sup> Dr. Liaw is not a member of the Council, but assisted Dr. Phillips through his role at the Robert Graham Center.



## Preface

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This report has been written in and through a time of dramatic change in the health care environment in the United States. The beginnings can be traced to November of 2008 and coincident with the arrival of a new administration in Washington DC. Members were acutely cognizant of the role the Council could play in this process of health reform and so worked to emphasize past reports, particularly the 19th, *Enhancing Flexibility in Graduate Medical Education*, and expressed a desire to be consonant with the efforts that unfolded as the report was being written of which the capstone was clearly the new Affordable Care Act. Where appropriate, we have referenced the Affordable Care Act in our report as evidence of the Council's direction as well as citations from this legislation consistent with our recommendations. We also referenced the recent June publication of the Medicare Payment Advisory Commission's report to Congress entitled, "Aligning Incentives in Medicare" as evidence of the Council's work and desire to collaborate with another governmental entity where there is alignment with specific aspects of the Council's efforts. Last, we note the Secretary of Health and Human Service's new program, the Affordable Care Act Primary Care Residency Expansion (PCRE) Program. This is a \$168 million, five-year program, aimed at increasing the number of residents trained in a primary care specialty (family medicine, general internal and general pediatric medicine). The program's purpose is to increase the number of primary care physicians by expanding enrollment in primary care residency programs. The new residency training positions must be **over and above** the number currently being trained, even if a program is already over its Centers for Medicare and Medicaid Services (CMS) authorized Graduate Medical Education (GME) cap.

### ABSTRACT

As a result of a number of factors including compensation, practice environments, and experience in medical school, there is a shortage in the number of primary care physicians that is accelerating. At the present time, 32 percent of physicians in the U.S. are primary care providers, of which 12.7 percent are family physicians, 10.9 percent general internists, 6.8 percent general pediatricians, and 1.6 percent in general practice. In addition, a percentage of obstetricians/gynecologists serve as primary care providers, particularly among their younger female adult patients. While there are real shortages in general surgery and key pediatric and internal medicine subspecialties, the shortage in primary care providers, particularly those

capable of caring for adults with chronic disease, overshadows the deficits in all other specialties. This shortage is especially critical in the context of health care reform objectives that have the potential of adding 32 million newly insured individuals that will only further increase the need for primary care physicians.

The current U.S. primary care physician workforce is in jeopardy of accelerated decline because of decreased production and accelerated attrition. A review of questionnaires administered to all 2008 allopathic and osteopathic medical school graduates revealed that only 17 percent chose any of the primary care specialties as their first choice. This decreased medical student interest in primary care is caused by multiple factors including the high workload and insufficient reimbursement of this field of practice relative to the earnings of many specialists. These factors, in addition to the "hidden curriculum" in many medical schools that actively discourages student interest in the adult primary care specialties, the lack of strong primary care role models, and dynamic practice environments in other specialties often absent onerous administrative requirements, contribute to the reluctance to enter primary care disciplines. This workforce is also in jeopardy because of the substantial reduction in the production of primary care physicians from graduate medical education. Expansion of subspecialty training options, loss of primary care training positions (especially in family medicine), and alternate career options (such as general internal medicine graduates choosing to work as hospitalists) have effectively reduced primary care production by one-third over the last decade. Additive is the overall aging of the current primary care workforce and its anticipated retirement, particularly should the economy continue to improve.

There is one essential caveat that should be addressed. While this report's emphasis is on the overall need for primary care physicians, it must be clearly stated that this reflects the need to increase the numbers of physicians capable of caring for adults and their associated chronic disease burden. This does not appear to be the case for general pediatrics. In fact, student interest remains high and has led to a surplus, relative to other areas of primary care, in the supply of general pediatricians. During the last decade, there have been increases in the numbers of medical students who are choosing general pediatrics. With regard to the supply of general pediatricians and in the context of this report, the major challenge is their geographic maldistribution. For example, in Idaho there are 32 general pediatricians per 100,000 children, whereas in the District of Columbia the ratio is 186.6 per 100,000.

The Council on Graduate Medical Education met in April and November 2009 and April 2010 to review the current environment and develop recommendations. The Council identified four challenges and developed five recommendations as presented in this report.

The challenges are:

- 1) The practice environment
- 2) The environment in medical schools
- 3) The graduate medical education environment
- 4) The geographic maldistribution of physicians in practice

Recommendations to address these challenges are presented in five categories:

- 1) The number of primary care physicians
- 2) Mechanisms of physician payment and practice transformation for primary care
- 3) The premedical and medical school environment
- 4) The graduate medical education environment
- 5) The geographic and socioeconomic maldistribution of physicians

## EXECUTIVE SUMMARY

There is compelling evidence that health care outcomes and costs in the United States are strongly linked to the availability of primary care physicians. For each incremental primary care physician (PCP), there is 1.44 fewer deaths per 10,000 persons. Patients with a regular primary care physician have lower overall health care costs than those without one. In the U.S., primary care physicians are in short supply, particularly in certain regions of the country, as discussed in Section 1 of this report.

As a result of a number of factors including compensation, practice environments, and experience in medical school, there is a shortage in the number of primary care physicians, particularly those with the ability to care for adults and their associated chronic disease burden. This shortage is especially critical now in the context of health care reform objectives that will increase the need for primary care physicians. As a result of reform, as many as 32 million previously uninsured Americans will be eligible for coverage. Such an influx of previously uninsured and likely underserved individuals will undoubtedly increase the demand for primary care services nationwide.

At the present time, 32 percent of physicians in the U.S. are primary care providers, of which 12.7 percent are family physicians, 10.9 percent general internists, 6.8 percent general pediatricians, and 1.6 percent are in general practice. In addition, there are a percentage of obstetricians/gynecologists that serve as primary care

providers, particularly among younger female adults. The current U.S. primary care physician workforce is in jeopardy of accelerated decline because of decreased production and accelerated attrition, as described in Section 1. Decreased production from graduate medical education is a reflection of the choices made by young physicians and by teaching hospitals that are associated with a growing income disparity between primary care physicians and other specialties. Over the last several years, a variety of policies have been adopted to reduce disparity and the new Affordable Care Act takes steps to reduce this disparity. Decreased medical student interest in primary care is caused by multiple factors including heavy workload, insufficient reimbursement, the hidden curriculum in medical school, and a lack of strong primary care role models. Declining reimbursement relative to specialties, increasing workloads, and associated administrative requirements contribute to accelerated attrition.

Attrition will also be augmented as the primary care physician workforce continues to age, currently averaging 47 years old. At the present, there are 242,500 primary care physicians in the U.S. and almost one quarter (55,000) are age 56 or older. The likelihood is that many of these physicians will retire within the next decade.

## The Challenges

There is a shortage of primary care physicians in this country and that shortage is likely to worsen. The Council on Graduate Medical Education (COGME) reviewed four aspects of key challenges contributing to the shortage and approaches for addressing them. These include the practice environment, medical student experience, graduate medical education, and maldistribution of physicians.

- **Challenges in the Practice Environment:** In the practice environment, there are not enough primary care providers to serve the growing and aging U.S. population. Moreover, on average, compensation of primary care providers is less than 55 percent of the average compensation of other medical specialties. For this reason and others, primary care physicians are dissatisfied with their careers as compared to other physicians. Many are struggling with relatively low reimbursement rates, high overhead costs, and increasing burdens of complex care. The responsibility for coordinating all the patient's care also creates significant administrative burdens for primary care physicians; they face a number of certification and paperwork burdens associated with federal initiatives aimed at deterring fraud among durable medical equipment suppliers and home health agencies. When medical students are exposed to this practice environment through contact with primary care faculty members in medical

schools and community-based mentors, it has the effect of discouraging student interest in becoming a primary care physician, specifically among those caring for adults.

- **Challenges in the Medical School Environment:** The percentage of U.S. medical graduates choosing family medicine decreased from 14 percent in 2000 to 8 percent in 2005. These career choices are strongly shaped by the medical school experience. In U.S. osteopathic medical schools, graduating seniors' intent to pursue primary care dropped from 34 percent in 2001 to 29 percent in 2008.

One reason for this decline in interest levels is exposure to what has been termed the “hidden curriculum.” During clinical training, medical students work shoulder-to-shoulder with residents, interns, and their supervising faculty. This is their first glimpse of the “real world” of medical practice where they are exposed to a disproportionate number of specialists. This is because most medical schools have, in one form or another, a faculty practice plan anchored to a large hospital that attracts unusually complex patients not representative of the general population.

- **Challenges in Graduate Medical Education:** Medical school deans and university presidents have traditionally been judged on their ability to build large medical research enterprises focused on discovery and innovation, truly laudable aspirations. Most academic medical centers focus on complex care to pursue these institutional goals, emphasize basic science and clinical investigation, and provide relatively greater rewards to those offering subspecialty care. In addition, many large hospitals have developed graduate medical education (GME) programs to support their complex care and are often more highly remunerative programs. The GME programs of these large teaching hospitals are effective in recruiting physicians to the medical staff and building subspecialty clinical care. This disconnect between meeting the needs of the population versus meeting the needs of the academic health center was the focus of an Institute of Medicine report in 1989 and has recently been an area of concern for the Medicare Payment Advisory Commission.
- **Challenges in the Maldistribution of Physicians:** Primary care physician geographic and socioeconomic maldistribution in the U.S. is a chronic public policy challenge. Despite persistent efforts to address the problem through various initiatives, approximately 50 million Americans live in health professional shortage areas (HPSAs).

## RECOMMENDATIONS

The Council on Graduate Medical Education met in April and November of 2009 and April 2010 to examine these challenges and develop recommendations. The Council's review of the challenges and their recommendations are presented in this report. The recommendations are presented here in five categories. Analyses of these recommendations are detailed in the discussion sections of this report. The five categories are: the number of primary care physicians, mechanisms of physician payment and practice transformation for primary care, the premedical and medical school environment, the graduate medical education environment, and the geographic and socioeconomic maldistribution of physicians.

The recommendations are summarized below. The recommendations are designed to work in a complementary fashion, and in some cases, we suggest that implementation should be sequenced to maximize effectiveness. Mechanisms for payment to address compensation disparities should be implemented prior to improving capacity in the medical school and graduate medical environments. Recommendations for increasing the supply of primary care physicians should be implemented in parallel with recommendations for addressing maldistribution of physicians.

**Preamble:** Policies and programs should be implemented to enhance and support the practice of primary care, and to increase the supply of primary care physicians. Payment for physician services is biased in favor of hospital-based and procedural services and does not provide appropriate incentives to enhance and support the practice of primary care, or to increase the supply of primary care physicians. Policy changes should be dramatic to remedy these legacy biases and have immediate effect. COGME recommends against policies that favor slow and incremental change.

### 1. The Number of Primary Care Physicians

**Recommendation:** Policies supporting physicians providing primary care should be implemented that raise the percentage of primary care physicians (general internists, general pediatricians, and family physicians) among all physicians to at least 40 percent from the current level of 32 percent, a percentage that is actively declining at the present time. The achievement of this goal should be measured by assessing physician specialty once in practice, rather than at the start of postgraduate medical training.

**Congress and the Department of Health and Human Services should:**

1. Implement policies that raise the percentage of primary care physicians among all physicians to at least 40 percent.

2. Implement policies that increase the supply of physician assistants, nurse practitioners, nurses, and other staff positions necessary for coordinated, integrated practice in primary care teams.
3. Provide incentives and regulatory reform so that clinicians and staff have the opportunity to “work at the top of their degree” regardless of specialty or setting.
4. Encourage and support the roles of other physicians who provide comprehensive, longitudinal primary care.

**Rationale:** The current U.S. primary care physician workforce, critical to effective health care delivery, is in jeopardy of serious decline because of decreased production, accelerated attrition, and contraction of effort. There is a dramatic shortage of primary care physicians for adult care and a maldistribution among primary care physicians across the nation. Decreased medical student interest in primary care is caused by multiple factors including heavy workload and insufficient reimbursement. These same factors are leading to accelerated attrition from primary care practice. Additionally, the large cohort of physicians born between 1940 and 1960 is nearing retirement: in 2005 more than 250,000 active physicians were over 55 years old.

## 2. Mechanisms of Physician Payment and Practice Transformation for Primary Care

**Recommendation:** To achieve the desired ratio of practicing primary care physicians, the average incomes of these physicians must achieve at least 70 percent of median incomes of all other physicians, as discussed in Section 2 of this report. Investment in primary care office practice infrastructure will also be needed to cope with the increasing burdens of chronic care and to provide comprehensive, coordinated care. Payment policies should be modified to support both of these goals.

### Congress, CMS, and private insurers should:

1. Address mechanisms to increase payments immediately to primary care physicians and practices. Such mechanisms should include:
  - Preferential increases in fee-for-service payments to primary care services. Institute further measures, such as the 2007 Centers for Medicare and Medicaid Services (CMS) implementation of the American Medical Association (AMA)/Specialty Society RVS Update Committee (RUC) recommendation to increase the work relative value unit (RVU) valuation. This will correct any inequities in the fee-for-service system and will provide higher payments for primary care services. The recently passed Affordable Care Act provides for a 10 percent bonus in Medicare payments for primary care practices that provide at least 60 percent of their services in primary care.

- Financial rewards for care coordination in primary care practices. Dramatically expand payments for care coordination. Congress and CMS should expand Medicaid programs and institute Medicare programs with payments that appropriately reflect the true aggregate costs for care coordination to primary care practices that emphasize the four essential functions of primary care. Private insurers should institute similar care coordination payments to primary care physicians in primary care practices.
  - Financial rewards for improvements in performance measures. Authorize study of systems of pay-for-performance to ensure simplicity and to make certain that they are based on evidence that measures improvement of patients’ symptoms, problems, functioning, resiliency, and slow progression of ill health.
2. Reward the Patient-Centered Medical Home (PCMH) financially when its physicians meet the four essential functions (first contact access, patient-focused care over time, comprehensive care, and coordinated care) and the three corollary functions (family orientation, community orientation, and cultural competency) and when measures of process and quality are met and improved. The PCMH should be supported as the construct for the practice environment that achieves optimal care coordination and integration, for use of health information technology, for enhanced access, and for appropriate payment. Study levels of funding necessary to sustain the PCMH model and its impact on costs in settings other than physicians’ offices.
  3. Implement payment models that bundle payments for full-service accountable care organizations and/or incentivize the development of community health care organizations that provide the four essential functions of primary care through collaboration of primary care physicians, public health, care coordination organizations, and mental health organizations.

**Rationale:** The current payment system contributes to several key challenges, including disincentives for students and providers considering primary care and a fragmented health care system wherein different providers provide care to a patient with little integration or coordination. Addressing these challenges would lead to improved outcomes and better containment of costs.

## 3. The Premedical and Medical School Environment

**Recommendation:** Medical schools and academic health centers should develop an accountable mission statement and measures of social responsibility to improve the health of all Americans. This includes strate-

gically focusing and changing the processes of medical student and resident selection and altering the design of educational environments to foster a physician workforce of at least 40 percent primary care physicians and a health system that meets societal needs, as outlined in Section 3.

**Medical Schools and Academic Health Centers should:**

1. Allocate resources to:
  - Increase and/or sustain the involvement of primary care physicians through all levels of medical training;
  - Support student primary care interest groups;
  - Recruit, develop, and support community physician faculty members; and
  - Require student participation in rural, underserved, and/or global health experiences.
2. Expand medical school class size strategically to address the primary care physician deficit and maldistribution issues.
3. Reform admission processes to increase the number of qualified students more likely to choose a primary care specialty and to serve medically vulnerable populations.
4. Recruit and retain underrepresented minority students and faculty members.
5. Require block and longitudinal experiences of sufficient length that medical students clearly understand the essential functions of primary care and the medical home.
6. Collaborate with local communities and distribute resident training accordingly, support reductions in physician income disparities, and lead in the development of new models of practice.

**Medical Schools, Academic Health Centers, the Association of American Medical Colleges, American Association of Colleges of Osteopathic Medicine, the Liaison Committee for Medical Education, the Commission on Osteopathic College Accreditation, the Accreditation Council for Graduate Medical Education, the American Osteopathic Association, Congress, regulatory agencies, and licensing agencies should:**

7. Reform the continuum of medical education, from premedical training through continuing education, to impart general competencies most efficiently and promote the choice of careers in primary care.

**Federal and state governments should:**

8. Provide increased incentives for physicians who practice primary care or other critical specialties in designated health workforce shortage areas.

9. Substantially enhance funding for scholarships, loans, loan repayment, and tuition waiver programs to lower financial obligations for students who plan and pursue careers in primary care.

**Rationale:** Students' future career choices are strongly shaped during medical school. While many students express interest in primary care when they first enter medical school, this interest may erode by the time they choose their graduate medical education specialty in their fourth year of training.

**4. Graduate Medical Education**

**Recommendation:** Graduate Medical Education (GME) payment and accreditation policies and a significantly expanded Title VII program should support the goal of producing a physician workforce that is at least 40 percent primary care, as discussed in Section 4. This goal should be measured by assessing physician specialty in practice rather than at the start of postgraduate medical training. Achieving this goal will require a significant increase in current primary care production from residency training and major changes in resident physician training for the practice environment of the future.

**Congress, the Administration, Department of Health and Human Services, and accrediting agencies should:**

1. Change regulations to support more training in outpatient settings and experimentation with practice models to prepare residents appropriately for an evolving contemporary health care environment.
2. Strategically increase the number of new primary care GME positions and programs to accommodate the increased production of medical school graduates and respond to the need for a workforce composed of at least 40 percent primary care physicians.
3. Increase training in ambulatory, community, and medically underserved sites by:
  - Promoting educational collaboration between academic programs and Federally Qualified Health Centers (FQHCs), rural health clinics (RHCs), and the National Health Service Corps (NHSC);
  - Implementing new methods of funding to include reallocation of existing GME funding, new GME funding that is not calculated according to Medicare beneficiary bed-days, and substantial expansion of Title VII funding specifically for community-based training. The Affordable Care Act authorizes increased funding for Community Health Centers beginning in FY 2011.
4. Provide financial incentives for GME that:
  - Directly provide GME funding to primary care residency programs, educational consortia, or non-

hospital community agencies to provide the proper incentives for ambulatory and community-based training;

- Explore augmenting payments for primary care residents, including differentially higher salaries and early loan repayments, to decrease the negative impact of educational debt on primary care specialty choice;
- Fund all primary care residency programs at least at the 95th percentile level of funding for all programs (using total direct medical education (DME) and indirect medical education (IME) payments as a basis); and
- Reward teaching hospitals, training programs, and community agencies financially on the basis of the number of primary care physicians produced, to be determined by specialty in practice and not at the initiation of training.

**Rationale:** Graduate medical education is central to development of the workforce. Federal policies are needed to redesign GME to meet existing challenges. There are opportunities to improve training paradigms to respond adequately to the primary care physician workforce deficit, which could be further exacerbated by elements of health care reform.

### 5. The Geographic and Socioeconomic Maldistribution of Physicians

**Recommendation:** So long as inequities exist, policies should support, expand, and allow creative innovation in programs that have proven effective in improving the geographic distribution of physicians serving medically vulnerable populations in all areas of the country, as discussed in Section 5.

#### Congress and the Administration should:

1. Ensure funding of the National Health Service Corps at the \$1.15 billion amount authorized by the Affordable Care Act so that the NHSC can recruit more primary care physicians, provide greater support of scholarship recipients, create special learning opportunities and networks for scholarship recipients and early loan repayers, and forge formal affiliations with academic institutions and training programs.
2. Increase the funding for Title VII, section 747, to \$560 million in Primary Care Medicine and Dentistry cluster grants.
3. Implement programs to increase funding by the Agency for Healthcare Research and Quality (AHRQ), National Institutes of Health (NIH), and private research enterprises for projects that stimulate primary care and community-based research and emphasize methodologies such as population-based ecological and cluster studies, qualitative behavioral studies, and comparative effectiveness research.
4. Increase funding for Community Health Centers (CHCs) that are committed to training students and residents, and increase funding for Area Health Education Centers (AHEC) programs to improve existing programs, support new programs, and support innovative funding proposals that promote the practice of primary care in medically underserved areas.

**Rationale:** Primary care physician maldistribution in the U.S. has been a long-standing and persistent challenge in spite of recurrent attempts to ameliorate it with targeted physician workforce and health care financing policies as well as undergraduate and graduate medical education programmatic interventions.