

COUNCIL ON GRADUATE MEDICAL EDUCATION

Fourteenth Report

COGME PHYSICIAN WORKFORCE POLICIES:

Recent Developments and Remaining Challenges in Meeting National Goals

MARCH 1999

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March 1999

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Health Resources and Services Administration

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 Health Resources and Services Administration nor 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 Labor and Human Resources, and the House of Representatives Committee on Commerce. The Health Professions Education Partnerships Act of 1998 reauthorized the Council through September 30, 2002.

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 Health Care Financing Administration, DHHS; and the Chief Medical Director of the Veterans Administration.

Charge to the Council

The charge to COGME is broader than the name would imply. 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.
6. Deficiencies and needs for improvements in 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.

In addition, the Council is to encourage entities providing graduate medical education to conduct activities to voluntarily achieve the recommendations of the Council specified in item 5.

COGME 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)
- Scholar in Residence Report: Reform in Medical Education and Medical Education in the Ambulatory Setting (1991)
- 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 Services' 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)

COGME Resource Papers

- Preparing Learners for Practice in a Managed Care Environment (1997)
- International Medical Graduates: Immigration Law and Policy and the U.S. Physician Workforce (1998)

Members, Council on Graduate Medical Education

Chair

David N. Sundwall, M.D.
 President
 American Clinical Laboratory Association
 Washington, D.C.

Vice Chair

Lawrence U. Haspel, D.O.
 Senior Vice-President
 Metropolitan Chicago Health Care Council
 Chicago, Illinois

Paul W. Ambrose, M.D., M.S.P.H.

Resident
 Dartmouth Family Practice Program
 Concord, New Hampshire

Macaran A. Baird, M.D., M.S.P.H.

Associate Medical Director for Primary Care
 Health Partners
 Bloomington, Minnesota

Regina M. Benjamin, M.D., M.B.A.

Family Practice
 Bayou La Batre, Alabama

JudyAnn Bigby, M.D.

Division of General Medicine
 Brigham and Women's Hospital
 Boston, Massachusetts

F. Marian Bishop, Ph.D., M.S.P.H.

Professor and Chairman Emerita
 Department of Family and Preventive Medicine
 University of Utah School of Medicine
 Salt Lake City, Utah

Jo Ivey Boufford, M.D.

Dean
 Robert F. Wagner Graduate School of Public
 Service, New York University
 New York, New York

Sergio A. Bustamante, M.D.

Neonatology Associates Limited
 Phoenix, Arizona

Richard D. Cordova, M.B.A.

Senior Vice President
 East Bay Service Area Manager
 Kaiser Permanente Health Plan
 Oakland, California

Ezra C. Davidson, Jr., M.D.

Professor
 Department of Obstetrics & Gynecology
 King/Drew Medical Center
 Los Angeles, California

Carl J. Getto, M.D., M.P.H.

Dean and Provost
 Southern Illinois University School of Medicine
 Springfield, Illinois

Kylanne Green

Senior Consultant
 Coopers and Lybrand
 Washington, D.C.

Ann Kempfski

Assistant Director Health Policy
 American Federation of State, County and
 Municipal Employees
 Washington, D.C.

Designee of the Assistant Secretary for Health

Nicole Lurie, M.D., M.S.P.H.

Principal Deputy Assistant Secretary for Health
 U.S. Department of Health and Human Services
 Washington, D.C.

Designee of the Health Care Financing

Administration

Tzvi M. Hefter

Director
 Division of Acute Care
 Center for Health Plans and Providers
 Health Care Financing Administration
 Baltimore, Maryland

Designee of the Department of Veterans Affairs

David P. Stevens, M.D.

Chief Academic Affiliations Officer
 Department of Veterans Affairs
 Washington, D.C.

Statutory Members

David Satcher, M.D.

Assistant Secretary for Health and Surgeon
 General
 Department of Health and Human Services
 Washington, D.C.

Nancy-Ann Min DeParle
 Administrator
 Health Care Financing Administration
 Department of Health and Human Services
 Baltimore, Maryland

Kenneth Kizer, M.D., M.P.H.
 Undersecretary for Health
 Veterans Health Administration
 Department of Veterans Affairs
 Washington, D.C.

Former Members Contributing to the Report

Robert Knouss, M.D.
 Director
 Office of Emergency Preparedness
 Health Resources and Services Administration
 Rockville, Maryland

Barbara Wynn
 Former Director
 Plan and Provider Purchasing Policy Group
 Center for Health Plans and Providers
 Health Care Financing Administration
 Baltimore, Maryland

GME Financing and Policy Work Group Members and Staff

COGME MEMBERS

Lawrence U. Haspel, D.O.
Work Group Chair
 Senior Vice President
 Metropolitan Chicago Health Care Council
 Chicago, Illinois

Sergio A. Bustamante, M.D.
 Neonatology Associates Limited
 Phoenix, Arizona

Richard D. Cordova, M.B.A.
 Senior Vice President
 East Bay Service Area Manager
 Kaiser Permanente Health Plan
 Oakland, California

Barbara Wynn, M.S.
 Former Director
 Plan and Provider Purchasing Policy Group
 Center for Health Plans and Providers
 Health Care Financing Administration
 Baltimore, Maryland

Carl J. Getto, M.D.
 Dean and Provost
 Southern Illinois University School of Medicine
 Springfield, Illinois

OTHER MEMBERS

John J. Whyte, M.D., M.P.H.
 Mountain View, California

STAFF

P. Hannah Davis, M.S.
 Staff Liaison

Jerald M. Katzoff
 Staff Liaison

COGME Staff

Carol Bazell, M.D., M.P.H.
 Acting Director
 Division of Medicine

Stanford M. Bastacky, D.M.D., M.H.S.A.
 Acting Executive Secretary
 Chief
 Special Projects and Data Analysis Branch
 Division of Medicine

F. Lawrence Clare, M.D., M.P.H.
 Deputy Executive Secretary
 Deputy Chief
 Special Projects and Data Analysis Branch
 Division of Medicine

P. Hannah Davis, M.S.
 Staff Liaison
 Graduate Medical Education Financing and
 Policy
 Minorities in Medicine Issues

C. Howard Davis, Ph.D.
 Staff Liaison
 Medical Credentialing and International Medical
 Graduate Issues

Jerald M. Katzoff
 Staff Liaison
 Graduate Medical Education Financing and
 Policy
 Physician Workforce Issues

Helen K. Lotsikas, M.A.
 Staff Liaison
 Competencies for A New Environment

John Rodak, M.S. (Hyg.), M.S. (H.S.A.)
Staff Liaison
Geographic Distribution Issues

Eva M. Stone
Committee Management Assistant

Velma Proctor
Secretary

CONTRIBUTIONS

The Council gratefully acknowledges Lawrence U. Haspel, D.O., Chair, COGME Work Group on Graduate Medical Education Financing and Policy, for his leadership in the preparation of this report, and David N. Sundwall, M.D., Chair, COGME, for his leadership, informative perspectives and insights. The Council is grateful to Jerald M. Katzoff and P. Hannah Davis, M.S., of the Division of Medicine, Bureau of Health Professions, HRSA, for their

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Executive Summary

The past decade has seen changes in the American health care system that have the potential to significantly impact on the nation's physician supply and requirements. In addition, in the past two years there have been a number of statutory and non-statutory policy changes related to graduate medical education (GME), including the passage of the Balanced Budget Act (BBA) in 1997 and an expansion of State GME activities.

This report assesses recent developments and policies related to the physician workforce and GME, and their potential impact on the supply, demand and training of physicians in the coming years. Among the significant developments reviewed in the report are: the increasingly competitive marketplace for health services; the 1997 Balanced Budget Act; expanded State GME financing activities; the growth in the supply of non-physician clinicians; and new GME policies at the Department of Veterans Affairs. As part of this assessment, the report calculates the progress that has been made towards the goals of the Council on Graduate Medical Education (COGME) for decreasing the total number of new physicians and increasing the percent in generalist specialties. Based on the assessment of recent developments, the report recommends a new framework for Federal GME policies and programs.

KEY FINDINGS

FINDING 1: The rate of growth in the physician supply has moderated slightly but is still likely to lead to a surplus of physicians. To help avoid a surplus of physicians, particularly specialists, the Council previously recommended that the number of new physicians entering training be equal to 110 percent of the number of U.S. medical school graduates in 1993 (COGME Fourth Report, 1994; Eighth Report, 1996). The Council finds that only limited progress has been made to date in reducing the number of physicians in training and in 1997, 129 percent of the number of 1993 U.S. medical school graduates entered residency training. The number of specialists being trained exceeds the target established by COGME by 41 percent, more than 4,000 physicians per year.

The number of physicians in training appears to be leveling off and is likely to decrease for the next few years. The number of new entrants, particularly international medical school graduates

(IMGs), has decreased moderately over the past five years. The recent trends may reflect anticipation of reduced support for GME in general, the growing concern with surpluses in some specialties, and/or declining hospital inpatient use. Many of the most recent developments, particularly marketplace pressures, the Balanced Budget Act, and the Federal Medicare resident reduction demonstration in New York, encourage downsizing the number of residents. Despite these developments, it seems unlikely that the 110 percent goal will be reached within the next five years.

FINDING 2: The number of generalist physicians is increasing. Despite concern about a general oversupply of physicians, the Council has consistently recommended an increase in the number of generalists being trained. This reflects concerns about existing physician shortages, particularly in underserved areas, and the expectation that the expansion of managed care would lead to an increase in demand for generalists. The Council finds that substantial progress has been made in increasing the number of physicians entering or planning to enter generalist specialties.

The Council's goal for the number of generalists to be produced each year is usually expressed as a percent of the goal for the total physician supply for each year: 50 percent (generalists) of 110 percent of the 1993 graduates of U.S. medical schools. The Council concludes that 40 percent of the current entering residents are likely to go into generalist specialties. However, this is 40 percent of the 129 percent of the 1993 graduates entering training. In absolute numbers, this translates into a modest under-production of generalists compared to the COGME goals. The Council finds that the nation is producing 9,217 generalists each year compared to a goal of 9,879, a shortfall of 662, or about 7 percent. This represents significant progress from earlier years. Although the nation is still falling short, the generalist goal appears to be within reach and is likely to be achieved in the next few years.

The marketplace, particularly a growing surplus in some subspecialties, may be contributing to the increase in interest of new physicians in generalist specialties. State policies, private sector initiatives and new VA policies also appear to be contributing. Recent surveys of medical students and the results of the National Residency Match Program

document the increased interest in generalist specialties by U.S. medical school students.

FINDING 3: Recent developments may support more training in ambulatory settings; however, additional policy initiatives may be needed. Medical schools, residency review committees, States and foundations are promoting increased training in ambulatory settings. The expansion of the settings and arrangements under which Medicare will recognize the costs of training outside of the hospital authorized by the Balanced Budget Act should also help. However, there are concerns that the changes authorized by the BBA do not adequately address the policy goal of optimal use of ambulatory training and few, if any, non-public payers provide enhanced reimbursement for physician training in these settings. It remains to be seen whether the recent pressures to shift training to ambulatory settings and the more supportive Medicare payment policies will be sufficient to overcome numerous financial, logistical and other barriers impeding the expansion of quality ambulatory training opportunities.

FINDING 4: There is no system for health workforce planning and guidance. Although the nation has made some progress towards specific workforce goals, there has been very limited progress on other goals. Furthermore, there is no system in place to monitor progress and provide long-term guidance to the health and education sectors. The lack of firm data and information on supply and demand by specialty by region also makes it difficult for medical educators and medical students to respond to the nation's needs. Furthermore, while the Council provides important guidance to the medical education community, the recent sharp rise in the number of new non-physician clinicians, whose scopes of practice overlap with physicians, demonstrates the need for a planning system that includes both physicians and non-physician clinicians.

There has been a significant increase over the past few years in the numbers of nurse practitioners, physician assistants, chiropractors, and other health professionals who provide extensive patient care services. The number of these non-physician clinicians will continue to grow in the foreseeable future. This growth has major implications for physician workforce planning.

The Council finds that specialty selection by medical students and the number of positions offered by residency programs are at least somewhat responsive to supply and demand. The recent growth in interest in generalist specialties and drop in interest by graduates of U.S. medical schools in crowded specialties, such as anesthesiology, dem-

onstrates their responsiveness to the market. When supply exceeds demand and graduates encounter difficulty finding a satisfactory position, some residency programs respond by downsizing positions.

FINDING 5: The dependence on hospital patient care payments to support the GME infrastructure in an increasingly competitive environment poses a threat to the nation's physician training sites. The available data on the financial health of the nation's academic health centers and other teaching hospitals do not indicate a general fiscal crisis at the present time. However, many of the recent developments raise serious concerns about their future fiscal viability. The competitive marketplace and the drive for payers to contain costs are likely to put increasing fiscal pressure on most hospitals and ambulatory service sites as managed care plans and other payers seek to limit their expenses.

Health care is more costly in hospitals and ambulatory care sites that are engaged in residency education. In addition, teaching hospitals, particularly academic medical centers, provide many related public goods that can add even more to costs, including care for the uninsured, research, teaching of medical students and other health professionals and the development and testing of medical innovations. The reliance on add-ons to patient care services to support GME is unsound in a period of increasing competition and growing cost cutting efforts.

FINDING 6: Recent developments do not bode well for safety net providers that train physicians. Safety net providers face the same pressures as other teaching hospitals and ambulatory care sites, but they serve significant percentages of uninsured patients and have less leverage negotiating with managed care plans and other payers. Physicians in training are important providers of care in these institutions. To the extent that GME reimbursement is reduced through the competitive marketplace without an increase in funding for care for the uninsured, services for the uninsured and the fiscal viability of safety net teaching hospitals will be endangered.

FINDING 7: Recent developments have the potential to significantly impact the supply and demand for physician services. There are several recent developments that have the potential to significantly impact on the supply and demand for physicians. They include: the changing marketplace; the increasing percent of physicians that are female; the 1997 Balanced Budget Act; changes in testing procedures for international medical school graduates wanting to enter training; changes in VA training policies; and the Medicare GME downsizing

demonstration in New York. All of these need to be considered when developing recommendations for tomorrow's physician workforce.

FINDING 8: Many States are developing new GME financing policies and some are promoting health workforce goals. A survey of State GME policies conducted for the Council revealed that over the past several years, many States have developed new policies related to financing GME. As of October 1998, nineteen States removed GME from their Medicaid managed care payments and channeled the money more directly to support physician training. About half of these States distribute some portion of the GME funds to teaching sites based on performance in achieving workforce goals. These State workforce goals are consistent with the COGME goals, particularly an increase in generalist physicians.

RECOMMENDATIONS

OVERVIEW

These recommendations are designed to create a new framework for health workforce planning in America. This new system would be built on the premise that the marketplace for the production of physicians and non-physician clinicians will work more effectively if better data and information on supply, demand and needs are compiled and made available to the education community and current and prospective students. But the system would not rely totally on the marketplace to meet all workforce goals. This market-oriented approach would be strengthened by an integrated planning system for physicians and non-physicians and through collaboration with States. It would also include the development of financial incentives for priority health workforce goals and the expansion of the National Health Service Corps to help safety net hospitals that reduce residents. In addition, the new system would provide a more stable source of funding for GME.

RECOMMENDATION 1

ENCOURAGE A MORE EFFECTIVE MARKET FOR PHYSICIAN SPECIALTY AND GEOGRAPHICAL LOCATION CHOICES. The Federal government, the medical education community and the States should foster a more effective marketplace for the training of physicians by expanding the collection and dissemination of data on supply, need and demand for physicians by specialty and region. This information should be shared in a systematic manner with medical schools, teaching hospitals, residency programs, medical students, policy makers, States, payers, and the general public.

Evidence suggests that U.S. medical students and residency program directors respond to information on career opportunities and workforce needs. Yet, in the absence of more accurate and more timely information on the current and projected supply and demand for physicians, it is difficult for the GME marketplace to work effectively. The systematic collection and dissemination of data on supply and demand will promote the training of a physician workforce more consistent with the needs of the nation. Several recent developments increase the likelihood that the marketplace for training physicians will work effectively to reduce the total number of physicians being trained. This includes the BBA that reduces the financial incentives to hospitals to train more physicians, and new testing procedures for international medical school graduates (IMGs) that may reduce the number of IMGs applying for and entering residency training. Better information would also help address issues of specialty choice and geographic mal-distribution of physicians.

As a first step in this direction, the Council will reassess the appropriateness of the COGME goal that the future number of physicians entering residency be 110 percent of the number of graduates of allopathic and osteopathic medical schools in the United States in 1993 and that the percentage of those graduates who complete training and enter practice as generalists should be 50 percent (herein referred to as the 110/50-50 recommendation). This report identifies several recent developments that impact on supply and/or demand for physician services. They include: the evolving nature of managed care, the growth in the supply of non-physician clinicians, and the growing percent of women in medicine. These developments may warrant a modification of the Council's targets.

RECOMMENDATION 2

INTEGRATE WORKFORCE PLANNING FOR PHYSICIANS AND NON-PHYSICIAN CLINICIANS. A new national system for integrated health workforce planning should be established. This could include an advisory committee or forum that encompasses a wide variety of health professionals in a collaborative planning process and expanded data collection on all health professions. This could also include a system to track and monitor the impact on residency training of the Balanced Budget Act, the marketplace, State GME policies and other recent developments.

Over the years, the Council has provided general guidance to the medical education community and identified broad goals for the physician workforce of the future. However, as documented

in this report, the sharp growth in the number of non-physician clinicians, supports the development of a broader planning process that includes non-physician clinicians as well as physicians. Non-physician clinicians have the potential to improve and strengthen health care delivery through expanded collaboration with physicians. On the other hand, when combined with the growing supply of physicians, there is a real danger of growing surpluses and wasteful competition for authority and control. It is in the public interest to promote a national health workforce planning process and collaboration among health professionals.

This process should provide a forum for discussion across major health professions and should encourage expanded data collection and evaluation of outcomes for all health professions. An advisory committee, with representation from a wide array of health professions, could be established to monitor trends in supply, demand and utilization, to promote collaboration among professions, and to promote education and training to meet the health care needs of the nation. Alternatively, existing national advisory committees on the health professions workforce, such as the COGME, and the National Advisory Council on Nursing Education and Practice (NACNEP), could coordinate to carry out integrated analyses and assessments of the health professions workforce supply.

RECOMMENDATION 3

PROVIDE FINANCIAL INCENTIVES FOR PRIORITY NATIONAL WORKFORCE GOALS. *A portion of the GME carve out from the Medicare+Choice payments should be distributed based on performance consistent with national physician workforce goals.*

While progress is being made toward the COGME workforce goals for the nation, progress has been slow and there are some important gaps. There is a continued need to ensure adequate support for quality training in ambulatory settings', there are still significant shortages in many rural communities, and there has been little progress in increasing the diversity of the physician workforce. The implementation of the carve out of GME funds from Medicare+Choice, payments authorized by the 1997 Balanced Budget Act, is an opportunity to support these health workforce priorities using existing funding streams.

The BBA authorizes the phase in of the carve out of GME dollars from the Medicare payments for Medicare+Choice enrollees. The Health Care Financing Administration (HCFA) estimates that the dollar value of this carve out will reach \$2.6 billion for Federal fiscal year 2002. The carve out will be a major source of Federal funding for GME. These

funds are to be distributed based on current Medicare GME reimbursement policies.

Several States that now carve out the GME portion of Medicaid managed care payments and distribute the funds to teaching hospitals, link the distribution of a portion of these funds to performance in achieving State workforce policy goals. This includes such goals as increasing the number of generalists being trained and training in ambulatory sites. These State strategies may be models for the Medicare+Choice GME carve out.

Under the Balanced Budget Act, the amount of funds to be carved out of the Medicare+Choice payments is based on historical rates of GME payments and Medicare patients use of teaching hospitals. Payments to teaching hospitals, however, will be based on actual use of teaching hospitals by Medicare+Choice enrollees. Because use of teaching hospitals by Medicare+Choice enrollees is likely to decrease due to changes in patterns of use under managed care, the amount carved out of the payments is likely to exceed the amount to be paid out to teaching hospitals. This difference could form the base for financial incentives to promote priority national health care workforce goals. The implementation of the Medicare carve out is an opportunity to promote workforce goals without raising new funds. The Council recommends legislation to authorize these changes.

RECOMMENDATION 4

PROMOTE FEDERAL-STATE PARTNERSHIPS FOR HEALTH PROFESSIONS PLANNING. *Federal policy and programs should support and encourage the development of State GME policy-making structures and effective workforce policies. The Federal government should explore approaches to collaboration and partnerships with States with workforce planning systems.*

Nineteen States now carve GME funds out of Medicaid managed care payments. Many States are using these funds and/or other State funds to promote and support specific health workforce goals. States have a major interest in GME within their boundaries. GME is a major determinant of the supply and specialty mix of physicians in most States, which directly affects the availability and cost of services. As documented in this report, many States have recently become involved with GME financing and policies. This builds on traditional State commitments to undergraduate medical education (74 of the nation's 125 allopathic medical schools are publicly supported), State supported academic medical centers, and State efforts to address shortages in underserved rural and inner city

communities. State GME policies are still in the early stages of development.

A new Federal initiative to help States build the expertise and capacity for workforce planning would be very timely. This might include the expansion of the Health Resources and Services Administration (HRSA) cooperation agreements for State health workforce distribution studies. Particularly important for States is the willingness of HCFA to support State innovations under the Medicaid program, which is the major source of State GME funding. Permitting the flow of Medicare GME funds consistent with approved State systems and priorities is another option to be explored.

RECOMMENDATION 5

CONTINUE TO PROMOTE A REDUCTION IN THE NUMBER OF PHYSICIANS IN TRAINING, PARTICULARLY SPECIALISTS. *If there is not a significant decline in first year residency positions by the 2000-01 academic year, additional incentives for downsizing should be implemented.*

While there are many encouraging signs, the decrease in residency positions has been slow and the number of specialists in training still significantly exceeds the COGME recommendations. While some fine tuning of the COGME goals may be appropriate, the current level of production of specialists, as documented in this report, is significantly above the COGME targets. Nearly 14,000 physicians entering training in the 1997-98 academic year were expected to enter non-generalist specialties. This was 41 percent more than the COGME goal of 9,879 (50 percent of 110 percent of the 1993 graduates.)

If new entrants into allopathic and osteopathic residency positions do not drop to 20,655 (115 percent of the 1993 U.S. medical graduates) by the 2000-01 academic year (compared to the actual 23,143 in 1997-98), then additional downsizing incentives should be implemented. This might include reduced Medicare funding for non-generalist training.

RECOMMENDATION 6

PROVIDE ENHANCED TRANSITION SUPPORT FOR SAFETY NET HOSPITALS THAT REDUCE THE NUMBER OF RESIDENTS IN TRAINING. *This should include the authorization of the use of National Health Service Corps to assist in the voluntary downsizing of residents in safety net hospitals.*

Hospitals that depend the most on residents for service may be the least likely to voluntarily reduce residents. Redesigning services and replacing resi-

dents can be difficult and costly—especially for safety net hospitals in underserved areas. For example, several hospitals with high percentages of uninsured patients in New York State decided against entering the Medicare GME demonstration due to the certain reduction of Medicare GME revenues and the expected cost of replacement staff. The current support available through the Voluntary Resident Reduction Program authorized by the Balanced Budget Act may be insufficient to assure the fiscal stability of safety net hospitals that reduce residents. Additional transition funding targeted to support access to care for the uninsured is needed and appropriate. Additional funding for the National Health Service Corps and authorization to place practitioners (generalists and specialists) at safety net hospitals that reduce residents is also recommended.

RECOMMENDATION 7

RESTORE THE EXCHANGE VISITORS VISA PROGRAM TO ITS ORIGINAL INTENT. *National policies and administrative procedures related to physicians with temporary visas should be revised consistent with the original purpose of these visas.*

The Council previously recommended a 4-year phase out of the policy of granting waivers of the requirement that physicians with J-1 visas return to their country of origin after completion of their residency training. Ending waivers would help restore the exchange visitor program to its original purpose of helping other countries benefit from advances in medical training in America. The Council also continues to recommend that the number of years that J-1 visa physicians are required to live in their originating country after training (but before returning to the U.S.) be increased from two years to five years and that the use of H-1B visa for physician residency training be eliminated. These changes would reduce the drain of physicians from other countries and facilitate more rational physician workforce policies in the United States.

RECOMMENDATION 8

ESTABLISH A STABLE AND EQUITABLE SOURCE OF LONG TERM FINANCING FOR GME. *Graduate medical education is a public good that benefits the whole nation. All payers should share the costs of training. The Council, therefore, recommends the development of an all payer financing system that would spread the costs of preparing a well-qualified physician workforce equitably across all payers.*

Training the future physician workforce is a service that teaching hospitals provide to the benefit of the whole nation. However, the current

marketplace orientation of the health care system is not likely to provide sufficient funding to support a quality education for the nation's future physician workforce. The responsibility for paying for the training should not be the sole responsibility of teaching hospitals nor of Medicare or Medicaid. It is appropriate, therefore, that the cost of training be supported by as broad a base of payers as possible.

The expansion of the competitive marketplace, including managed care, may erode the financial health of teaching hospitals. Many payers appear to have reduced their payments for medical services and do not explicitly pay for GME. This erosion in GME payments is likely to increase as competition increases in the health care industry. The BBA, by reducing the rate in the growth of payments to teaching hospitals, may also contribute to reduced support for GME. Quality medical education and training is costly. If support for training is inadequate, it will be difficult to assure the continuing supply of high quality health professionals expected by both policy makers and the public.

RECOMMENDATION 9

ASSURE ADEQUATE FUNDING FOR TRAINING IN AMBULATORY SETTINGS. *Policies related to financing GME in ambulatory sites should be reviewed closely. If necessary, additional policies and programs should be developed to support quality training in ambulatory settings.*

While a number of recent developments are supportive of increased training in ambulatory settings, these may not be sufficient to encourage a significant shift in training to these settings. This should be monitored closely to determine if current policies are sufficient to support the level of training in non-hospital settings necessary to prepare physicians for a health care system that emphasizes out of hospital care. The Federal government should provide technical assistance and support the development of models for effective training in ambula-

tory settings. Further revisions in financing policies may be necessary.

In 1999, the Council plans to undertake a review of current policies related to GME financing, including ambulatory care settings, and issue a report on the adequacy of current policies.

CONCLUDING COMMENTS

On a number of issues, such as further reducing the number of residents in training and increasing support for training in ambulatory settings, the Council has recommended modest steps. While the nation's physician workforce goals have not yet been met, as this report documents, there has been clear progress. Recent developments provide support for many of the COGME goals. The Council believes that the strategy recommended in this report—to promote a more effective marketplace, to develop a more integrated planning process, to provide financial incentives for priority goals, to work with States, and to advocate for more stable long term financing of GME—is an effective strategy. Given the progress being made, recent developments and the potential impact of the above recommendations, the Council does not recommend major new Federal authority for determining the physician workforce or major new governmental expenditures. The Council is hopeful that the recommendations above will be sufficient to achieve the nation's health workforce goals.

While the Council believes that the recommendations will help bring the future supply of physicians into balance with the nation's requirements, these recommendations are not likely to address other high priority goals of the Council, such as increasing the diversity of the physician workforce and the maldistribution of physicians. These goals continue to be a high priority of the Council and will require other actions to adequately address.

Introduction and Background

OVERVIEW

The Council on Graduate Medical Education 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. Since its establishment, the Council has identified numerous physician workforce goals and priorities for the nation. These priorities have been embodied in a series of reports issued by the Council. These reports have addressed such issues as: approaches to longer term workforce planning for the nation (COGME Third Report 1992); the number and specialty mix of physicians being trained in the United States (COGME Fourth Report, 1994; COGME Eighth Report, 1996); medical training organization and governance (COGME Ninth Report, 1997); the geographical distribution of physicians (COGME Tenth Report, 1998); international medical school graduates (COGME Eleventh Report, 1998); graduate medical education payment reform (COGME Eleventh Report, 1998); and the racial/ethnic makeup of the physician workforce (COGME Twelfth Report, 1998).

Over the past several years, the health care system has changed significantly with an increase in competition and a greater focus on cost containment. In addition, there have been a number of statutory and non-statutory policy changes related to graduate medical education (GME) in the past two years, including the passage of the Balanced Budget Act in 1997, new policies at the Department of Veterans Affairs, and an expansion of State GME activities. These recent developments have the potential to significantly impact the physician supply and requirements.

This report assesses recent trends related to the physician workforce and GME, recent GME policies and their potential impact on the supply, demand and training of physicians in the coming years. As part of this assessment, the report measures the progress that has been made toward the Council's goals for decreasing the total number of new physicians and increasing the percent in generalist specialties. Based on a new study conducted for the Council, this report presents a description of State GME activities, including their relationship to physician workforce goals and their implications for national GME policies. Based on these assessments,

the report recommends new policies to encourage a physician workforce to meet the nation's future health care needs.

COGME GOALS AND RECOMMENDATIONS

The general goals of the Council include:

- Promoting the education and training of a number and specialty mix of physicians consistent with current and future national health care needs; and
- Promoting the education and training of a physician workforce with the skills and knowledge needed for high quality, effective and efficient care.

In the context of these general goals, this report assesses the implications of recent trends and policy developments on six major operational goals of the Council described below.

1. TO REDUCE THE RATE OF GROWTH IN THE SUPPLY OF PHYSICIANS IN THE U.S. TO AVOID A SURPLUS OF PHYSICIANS

The supply of physicians in the U.S. has grown rapidly for several decades and will continue to grow for at least the next 20 years at the rate that new physicians are being trained. The rate of growth in the supply of physicians has far outstripped the rate of growth of the general population. Several reports of the Council (Third, 1992; Fourth, 1994; and Eighth, 1996), and numerous studies (Cooper, 1995; Weiner, 1994; IOM, 1996; Pew Health Professions Commission, 1995; Wennberg, et al., 1993), have documented that the growing supply of physicians will exceed the number required to serve the nation. For a variety of reasons, including the high cost to the nation of training and maintaining a surplus of physicians, the Council has strongly recommended steps to reduce the rate of growth in the supply.

The growth in the total supply of physicians has been driven by the increase in the number of new physicians entering medicine compared to earlier periods. For example, from 1985 to 1995 the nation added about 20,700 new physicians per year while only about 9,200 left the practice of medicine each year. This led to a net growth of more than 130,000

patient care physicians over the 10 year period (Roback, et al., 1987; Randolph, et al., 1997). While the vast majority of new physicians each year are graduates of U.S. medical schools, a significant number are educated outside of the U.S. and enter the educational pipeline at the graduate level. *In order to reduce the rate of growth of new physicians, the Council has recommended that the total number of physicians entering training not exceed the number of U.S. medical school graduates in 1993 plus 10 percent* (COGME Fourth Report, 1994).

The Council has also been concerned with shortages of generalist physicians and growing numbers of specialists. Many communities around the nation have too few generalist physicians to meet their needs. In addition, numerous studies have documented that enrollees in managed care plans use more generalists and fewer specialists than under traditional fee-for-service systems (Gamliel, et al., 1995; Weiner, 1994; Wennberg, et al., 1993). Thus, as managed care enrollment increases there will be a need for more generalists and fewer specialists. *For these reasons, the Council has consistently recommended that the reductions in physician supply be achieved through reductions in the production of specialists* (COGME Third Report, 1992; Fourth Report, 1994; Sixth Report, 1995; Eleventh Report, 1998).

For several years, the Council has also been concerned with the large flow of international medical school graduates (IMGs) into residency training. In 1997-98 when there were 17,913 graduates of U.S. allopathic and osteopathic schools entering into residency, there were also 5,230 IMGs entering training (JAMA, 1998B; AACOM, 1998). Thus, in 1997 IMGs added nearly 30 percent to the number of U.S. medical school graduates entering GME for the first time.¹

Over the past several years, the growth of IMGs in training has been driven by an increase in IMGs with temporary visas, such as exchange visitors holding J-1 visas (COGME Eleventh Report, 1998). These visas were intended to allow IMGs to train in the U.S. to gain skills and knowledge to benefit their native countries. As such, physicians with temporary visas are required to return to their native country. However, large numbers have obtained waivers of the requirement that they return to their native country after training. *In 1997, the Council recommended that Medicare GME payments for IMG residents with temporary visas be phased out*

over a 4-year period (COGME Eleventh Report, 1998). In 1997, IMGs with temporary visas represented 44 percent of all IMGs in allopathic residency positions in the U.S. (JAMA, 1998B). Several COGME recommendations are designed to restore the original intent of immigration policies on temporary visas.

2. TO INCREASE THE NUMBER OF GENERALIST PHYSICIANS

In response to concerns that shortages of generalist physicians were limiting access to basic medical services in many areas of the country, particularly rural and inner city communities, the Council has consistently recommended that the nation increase the number of generalist physicians (Third Report, 1992; Fourth Report, 1994; Eighth Report, 1996). The decrease in interest in generalist specialties throughout the early 1990s on the part of U.S. medical school graduates at a time of growth in managed care enrollment further contributed to concerns about the low number of physicians entering generalist specialties. These specialties have traditionally been defined as family medicine, internal medicine, pediatrics and the combined specialty of medicine and pediatrics.

Graduate medical education plays a central role in determining the specialty mix of the nation's physicians. *The Council has recommended that 50 percent of physicians entering practice choose generalist specialties* (COGME Third Report, 1992; Fourth Report, 1994). This has been combined with the recommendation that the total number of residents be equal to the number of U.S. medical school graduates plus 10 percent, expressed as 110/50-50 of the 1993 graduating class size. This target is based on an analysis by the Health Resources and Services Administration (HRSA) and COGME of the number of physicians that will be produced at this rate, the impact of this rate on the total supply, and the estimated number of physicians needed to serve the nation. Since many physicians who enter residencies in internal medicine and pediatrics go on to subspecialize after completing their basic training, increasing the percent of physicians entering generalist practice can be achieved through an increase in the number entering internal medicine, family practice and pediatrics training, and/or by decreasing the percent going on to subspecialize.

3. TO INCREASE THE NUMBER OF PHYSICIANS TRAINED IN AMBULATORY SETTINGS

Historically, most physicians have been trained in hospitals. This training has been supported by the willingness of Medicare (and Medicaid in most States) to pay for training in the hospital. (Plumb

¹ These figures exclude first year residents who had prior training in the U.S., such as individuals who switched specialties or completed a preliminary year of training prior to entering a first year position.

and Henderson, 1995) As the health care system evolves, care is shifting from inpatient to ambulatory settings. In the future, most physicians will work outside of the hospital; yet the vast majority are still trained in the hospital. To better prepare physicians for their future responsibilities, the Council has recommended that more training be shifted to ambulatory care settings. Many residency review committees are also increasing requirements for training in ambulatory settings.

However, the major sources of funding for GME (Medicare and Medicaid) have been tied to hospital reimbursement, and the funding for training outside of the hospital has been very limited. This has discouraged the shift in training to ambulatory settings. *For this reason, the Council has recommended that Medicare GME funding be allowed to cover more of the costs of training in non-hospital settings* (COGME Eleventh Report, 1998).

4. TO PROMOTE A RATIONAL SYSTEM FOR PHYSICIAN WORKFORCE PLANNING

The education and training of physicians involves many diverse interests, including medical educators, hospitals, payers of care, residency review committees and others. Consistent with the historical and political traditions of the nation, there is no central system for workforce planning. However, unlike any other profession, the nation invests an enormous amount of public funds for the education of physicians. A majority of the nation's medical schools are public; and at the graduate level, Medicare alone contributes more than \$7 billion per year in payments associated with GME (IOM, 1997). Medicaid is estimated to spend another \$2 billion in public funds for GME (Salsberg, 1997).

The Council has made a number of recommendations over the years to promote a process that would encourage the production of the numbers and mix of specialists required to serve the nation. In 1994, the Council recommended a national system for allocating residency positions among specialties and programs as part of the proposal for national health care reform (COGME Fourth Report, 1994). *More recently, the Council has recommended the development of regional GME consortia to bring together the key parties in local communities with an interest in medical education* (COGME, Ninth Report, 1997).

5. TO ASSURE ADEQUATE FUNDING TO SUPPORT NEEDED PHYSICIAN TRAINING

The major changes in the health care system have raised concerns about the fiscal health of the institutions that train the nation's physician

workforce. Factors such as increased competition at all levels of health care, the expansion of managed care, and the increased effort to constrain health care costs may put health facilities that train physicians at a competitive disadvantage in the new marketplace. Although training future physicians benefits the entire nation, the costs of training are the responsibility of the institutions that do the training. In the competitive marketplace, payers of health care services have few, if any, incentives to pay higher costs to sites that train health professionals.

Teaching hospitals face a number of dangers. First, in the competitive marketplace, they are likely to receive less reimbursement per admission from private payers. Second, admissions are likely to decrease under managed care as patients are encouraged to use ambulatory settings as well as lower cost hospitals in an effort to lower costs.

Under the current system of financing GME, only Medicare and Medicaid explicitly include the costs of GME in the payment rates they set for teaching hospitals. (This does not mean that insurers, managed care organizations and other payers do not pay anything for GME, but rather that they do not explicitly identify the costs of GME in the rates they negotiate with hospitals.) As the health care marketplace has become more competitive, many payers are reluctant to pay higher rates to teaching sites to cover the costs of training physicians. One recent study found that managed care organizations believe they pay 5 to 10 percent more for care at teaching hospitals (Gold, 1996). Teaching hospitals are believed to cost 20 to 40 percent more per discharge than non-teaching hospitals (Dobson, et al, 1994).

To assure the financial stability of teaching sites, the Council has supported the development of an all payer financing system that would require that all payers of care contribute to the training of physicians (COGME Third Report, 1992; Fourth Report, 1994). Since training of the future physician workforce benefits the whole community, a strong case can be made for supporting GME as a public good. This would level the playing field for teaching hospitals. In 1995, Congress supported a bill that would have established a national trust fund for GME supported by general revenues and Medicare. However, the bill was not passed.

6. TO PRESERVE SAFETY NET PROVIDERS

While the primary purpose of GME is the education of physicians, residents also provide extensive services in conjunction with their training. Often these services are provided to the poor and uninsured who use teaching hospitals for their primary care (Green and Johnson, 1995). The care for

the poor and the public financial support for GME, has led to a reliance by many hospitals on the services of residents, particularly hospitals that would be considered part of the health care safety net for the poor (Foreman, 1998). *The Council has recommended that steps be taken to assure that the safety net capabilities of these facilities and their patients are not harmed for reducing residents.* (COGME Eleventh Report, 1998). The Council has recommended that savings from other actions that reduce Medicare GME expenditures be used to support expansion of such programs as the National Health Service Corps,

and that these new resources be targeted to fill service gaps created by reductions in residents (COGME Eleventh Report, 1998).

The Council has recently issued reports and developed recommendations related to other workforce issues, regarding the geographical distribution of physicians (COGME Tenth Report, 1998) and the racial and ethnic composition of the workforce (COGME Twelfth Report, 1998). These issues are not reviewed in this paper but are relevant to the safety net needs of the country.

Findings

RECENT DEVELOPMENTS

This report reviews the previous COGME recommendations in light of recent trends in the supply and training of physicians and a series of newer developments that have the potential to further impact the supply, demand, distribution and training of physicians. The key developments considered include:

- The changing health care system with its emphasis on market forces
- The 1997 Balanced Budget Act
- The Medicare voluntary downsizing demonstration in New York
- The development of new GME policies by States
- New procedures affecting IMG residents
- The growth in the supply of non-physician clinicians
- New GME Policies at the Department of Veterans Affairs

ASSESSING TRENDS: THROUGH 1997-98

To help assess whether new policies are needed to achieve the COGME workforce goals described previously, this section reviews:

- The extent of progress toward the 110/50-50 goal
- Other factors that may influence the total supply of physicians
- Factors that may influence the demand or requirements for physicians, including the growth of non-physician clinicians
- Indicators of the effectiveness of the marketplace for GME

Key findings include:

- The number of U.S. medical school graduates in the aggregate has been relatively level over the past fifteen years; this reflects a slight decrease in allopathic medical school graduates and an increase in osteopathic graduates.
- The number of osteopathic graduates will increase over the next decade, adding to the sup-

ply of new physicians that graduate from U.S. medical schools.

- The number of residents increased substantially over the past decade due to a large increase in the number of IMGs entering training and an increase in the average number of years of training for IMGs.
- Recently, the numbers of new IMG physicians entering training have leveled off and declined slightly.
- In assessing progress toward the goal of 110 percent of 1993 graduates, counting only residents in first year positions *with no prior residency training*—rather than all residents in first year positions—leads to the finding that 129 percent of 1993 USMG graduates entered training in 1997-98. This is slightly lower than calculations done in earlier studies; however, this reflects the different methodology rather than substantial progress toward achieving COGME's goal. (The methodology is discussed further in the next section, "The Number of Physicians Being Trained," and in the Appendix.)
- IMG residents with J-1 visas have increased over the past several years; however, the recent growth reflects a longer average number of years in training for J-1 visa residents compared to other residents.
- The numbers of PGY1 residents choosing generalist specialties has increased significantly over the past several years.
- The number of USMG internal medicine residents going on to subspecialize appears to have decreased significantly over the past several years. This will likely result in an increase in the number of physicians entering primary care specialties.
- The full impact of the growth in the total supply of physicians may be moderated in the future by the increasing percent of women in medicine and possible earlier retirements.
- The demand for physician services may decrease *less sharply* under managed care than previously thought due to the evolution of managed care, including the growth of point-of-service plans and the expansion of patient rights.

- The growth in the supply of non-physician clinicians has been very significant. In fact the rate of growth and the number of new non-physician clinicians is expected to exceed the growth for physicians over the next decade.
- The demand for physicians in some specialties appears to be limited.
- The number of residency positions offered in specialties appears to be sensitive to the perception of an oversupply in the specialty.
- Medical student and resident specialty choice appears to be responsive to the practice opportunities in a specialty to the extent such information is available.

1. THE NUMBER OF PHYSICIANS BEING TRAINED

The Council’s targets for the number and mix of residents (110/50-50) are designed to lead to the number and mix of practicing physicians needed to

serve the public in the future. The overall process requires an assessment of future needs and an understanding of the relationship between today’s training and tomorrow’s supply. However, translating long-term workforce targets into short-term adjustments in the number and mix of residents, involves a number of assumptions about the training and practice patterns. Furthermore, as noted by Kindig and Libby (1996), changes in the annual inflow and departures of physicians only marginally impact the total supply in the short run.

In calculating the base for the target for physician production, COGME used the estimate of 17,961 allopathic and osteopathic medical school graduates in 1993; 110 percent of this figure is 19,757. This is the numerical target historically established by COGME for the desired inflow into residency training.

According to the American Medical Association (AMA) and the American Association College of Osteopathic Medicine (AACOM), in 1997-98 there were 23,143 PGY1 positions filled by individuals with no prior U.S. postgraduate training (Table 1). Approximately 12 percent of first year residents have some prior U.S. GME training. This includes residents who were previously counted as first year residents in preliminary and transition programs, or in specialties other than their current specialty. Based on the number of PGY1s with no prior training, the nation’s PGY1 residents are at 129 percent of the target established by COGME. It would be necessary to reduce by 3,386 the number of PGY1 residents who have had no prior U.S. GME training to reach the 110 percent goal.

These numbers are somewhat different from those in previous COGME reports (Fourth Report, 1994; Eighth Report, 1996) because these PGY1 counts include only residents with no prior residency training, while figures in earlier reports included PGY1 residents who had prior residency training. The difference between the 110 percent target and new PGY1 residents in 1997-98 is illustrated in Figure 1.

The total number of allopathic residents has leveled off. As indicated in Figure 2 and Table 2, after growing by more than 20,000 from 1986-87 to 1993-94, the total number of residents, including IMG residents, has leveled off since 1993-94. Based on the decline in entering residents, it is likely that the total number of residents will decrease in the future.

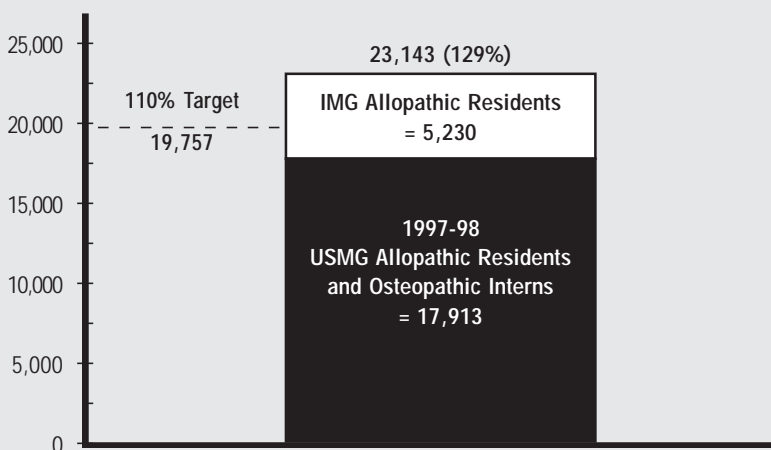
The number of PGY1 positions has leveled off and declined slightly. From 1993-94 to 1997-98, the number of new allopathic PGY1 residents

TABLE 1
Changes Required to Achieve 110 Percent Target as of 1997-98

	Number	Percent
1993 U.S. MD & DO Graduates	17,961	100%
COGME 110 Percent target	19,757	110%
PGY1 Residents, 1997-98	23,143	129%
Change to Attain 110% Reduction	(3,386)	-15%

Source: JAMA, 1998B; AACOM, 1998

FIGURE 1
1997-98 PGY1 Residents
(No Previous Training)



declined about 6 percent. As seen in Figure 3, the number of allopathic PGY1 positions rose consistently from 1988-89 until 1993-94 when it began to decline. Table 2 documents that the growth rate in

total IMG residents far exceeded the growth of total residents from 1985-86 to 1993-94. The decline in new entrants has not yet led to a decline in total residents; this may reflect an increase in the percentage of IMG residents continuing their training beyond their basic specialty training (Mullen, Politzer and Davis, 1995).

Figures 2 and 3 also show that while the numbers of total residents, PGY1s and IMGs have leveled off, they are at levels significantly higher than in the years before 1993.

The number of PGY1 positions filled by IMGs declined 15 percent from 7,382 in 1993-94 to 6,257 in 1997-98 (JAMA, 1998B). From 1985-86 to 1993-94 the number of PGY1 positions (including those with prior U.S. GME training) grew rapidly. This growth was primarily due to the sharp increase in IMG PGY1s. Since 1993-94 the number of PGY1 positions has dropped slightly again reflecting the decrease in IMG PGY1s.

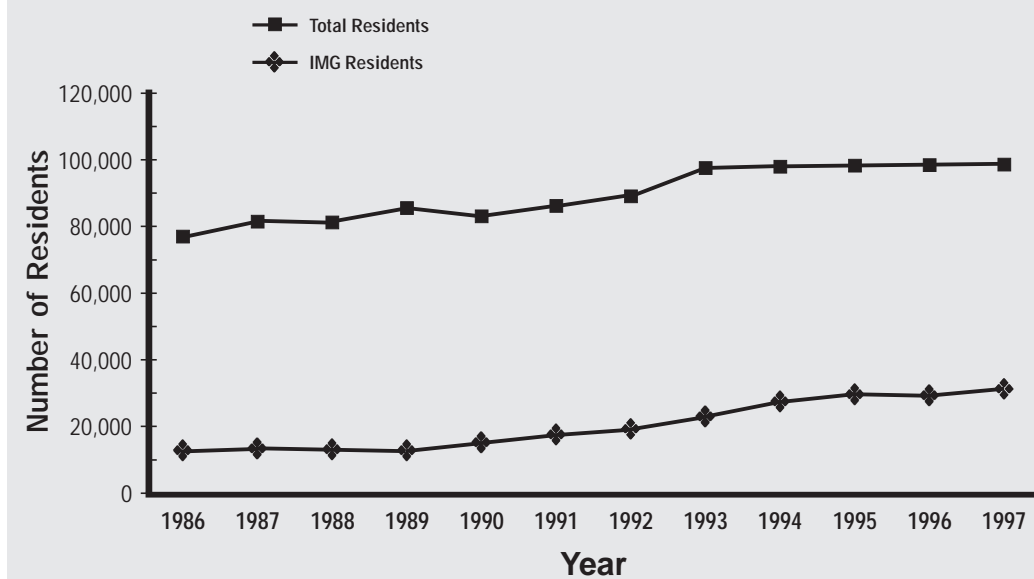
A decline in allopathic graduates has been offset in recent years by growth in the numbers of osteopathic graduates. Figure 4 documents this growth, and shows that additional significant expansion is expected over the next several years (AACOM, 1998). Osteopathic physicians have longstanding commitments to generalist care and to serving rural communities. Historically, 60 percent of osteopathic physicians have selected generalist specialties.

2. SPECIALTY MIX

CALCULATING PROGRESS TOWARDS THE COGME GOAL

In 1994, after a review of the available studies and data on the use of patient care physicians, the Council calculated how many generalists and non-generalist physicians were required to best serve the patient care needs of America (Fourth Report, 1994; Eighth Report, 1996). Based on the assessment of the number of physicians that would be needed, the Council calculated the number of physicians that would need to enter practice each year in generalist and non-generalist specialties to reach the recommended number and mix of physicians. As noted

**FIGURE 2
Total and IMG Allopathic Residents, 1986-1997**



Source: JAMA, Annual Medical Education Issues, 1987-1998

**TABLE 2
Total and PGY1* Allopathic Residents, 1985-1997**

Year	Total Residents	IMG Residents	PGY1 Residents	IMG PGY1 Residents
1985-86	74,514	12,509	19,168	2,673
1986-87	76,815	12,207	18,183	2,381
1987-88	81,410	12,712	18,067	2,407
1988-89	81,093	12,433	17,941	2,541
1989-90	85,330	12,259	18,131	2,689
1990-91	82,902	14,914	18,753	3,540
1991-92	86,217	17,279	20,685	4,692
1992-93	89,368	19,264	22,667	4,870
1993-94	97,370	22,721	26,033	7,382
1994-95	97,832	23,499	25,992	7,148
1995-96	98,035	24,982	24,170	6,233
1996-97	98,076	24,703	24,608	6,105
1997-98	98,143	25,531	24,516	6,257
Percent Change				
1985-86 - 1993-94	31%	82%	36%	176%
1993-94 - 1997-98	1%	12%	-6%	-15%

* Includes PGY1 Residents with Prior U.S. Training.

Source: JAMA, Annual Medical Education Issues, 1987-1998

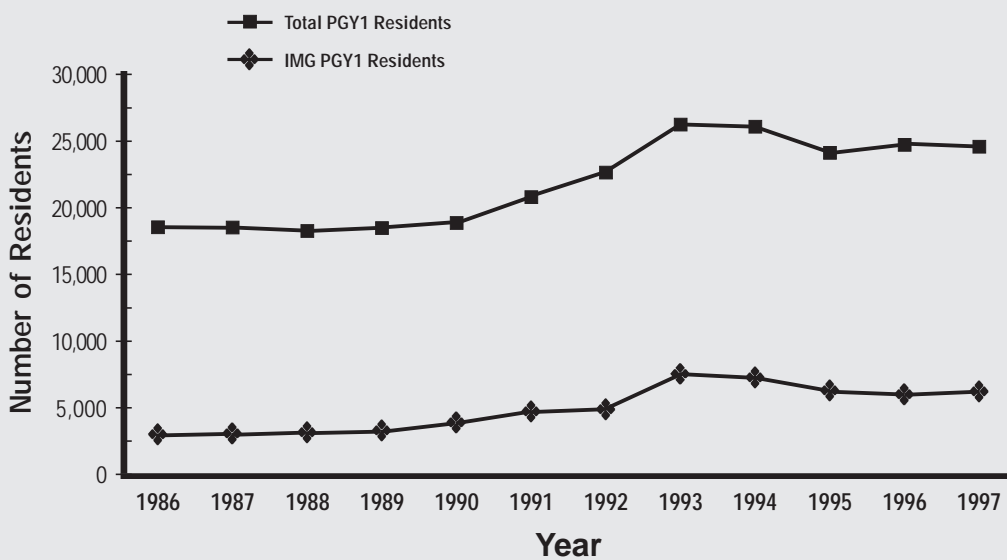
earlier, they concluded that 50 percent of the recommended number of physicians completing training (110 percent of the number of 1993 allopathic and osteopathic medical school graduates) should enter generalist specialties and 50 percent should enter other specialties. This translates into a numerical target of 9,879 physicians entering generalist specialties and 9,879 entering other specialties each year.

While the number of generalists completing training has increased from earlier studies, the nation is still training too few generalists and far too many specialists. As indicated in Table 3, the nation is producing 662 too few generalists per year (7 percent below the target) and 4,047 too many specialists per year (41 percent above the target) based on the existing COGME goals. However, in terms of generalists, as indicated below, there are some encouraging signs.

These calculations are based on several assumptions. First, they assume that 50 percent of internal medicine first year residents (PGY1s)—excluding preliminary positions—will go on to subspecialize. This reflects a significant shift from the 60 percent used in earlier calculations. This revised estimate reflects the results of two recent surveys which found that only 40 percent of new graduates were going on to subspecialize (Miller, et al. 1998; Salsberg, et al., 1998). However, the calculations in this report use a 50 percent subspecialization rate for several reasons. First, some of those going into generalist practice immediately after completion of three years of training may return for additional training in future years. Second, the current interest in primary care may wane in the coming years. Because internal medicine is by far the largest specialty, the percent of internal medicine residents that go on to subspecialize has a major impact on the nation's production of generalists. (See the Appendix for a further discussion of the methodology and the impact of alternative assumptions for the rate of internal medicine subspecialization.)

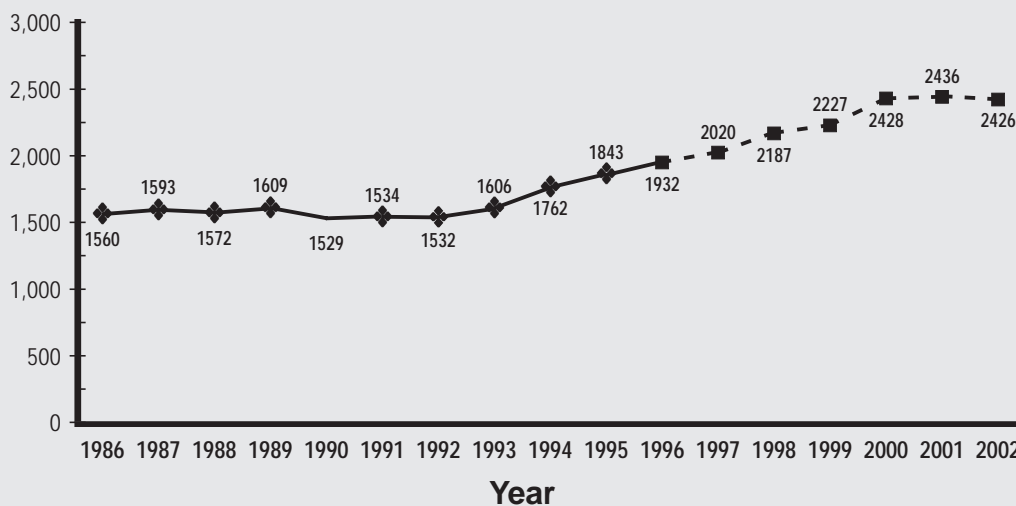
A second assumption is that 78 percent of pediatric PGY1s will eventually choose generalist practice and will not subspecialize. This is consistent with earlier subspecialization rates and the experience of physicians completing pediatric programs in New York in 1997 (Salsberg, et al. 1998).

FIGURE 3
Total and IMG PGY1 Residents in Allopathic Residency Programs, 1986-1997



Source: JAMA, Annual Medical Education Issues, 1987-1998

FIGURE 4
Trends in DO Graduates, 1986-2002



Source: AACOM, 1998

THE GROWTH IN GENERALIST PHYSICIANS

While the nation is still training too few generalists, significant progress has been made and there are a number of encouraging signs. For the past several years, many groups and organizations have advocated an increase in generalist practitioners. Medical schools across the country have modified their curriculum to increase the primary care content and to provide earlier and/or more consistent

exposure to primary care. The changes have been encouraged by public support, such as through Title VII, as well as private foundation grants, such as the Generalist Initiative supported by the Robert Wood Johnson Foundation.

An encouraging indicator is the growing interest in generalist careers as expressed by U.S. senior medical students. As indicated in Figure 5, the percent of U.S. medical school senior students planning to enter a generalist specialty bottomed out at 14.6 percent in 1992 and has more than doubled in the past four years, reaching 39.6 percent in 1997 (AAMC, 1998).

Consistent with the growth of medical student interest in generalist careers are the results of the National Residency Match Program (NRMP). As indicated in Figure 6, the number and percent of applicants matching in generalist specialties has increased significantly from 1990 to 1998. The total filled generalist positions grew from 7,794 in 1990 to 10,347 in 1998, while filled non-generalist matches decreased from 1994 to 1998 (NRMP, 1998). Also encouraging is the increase in the percent of U.S. medical school graduates in the match selecting generalist specialties. This increased from 44 percent in 1991 to 56 percent in both 1997 and 1998 (NRMP, 1998).

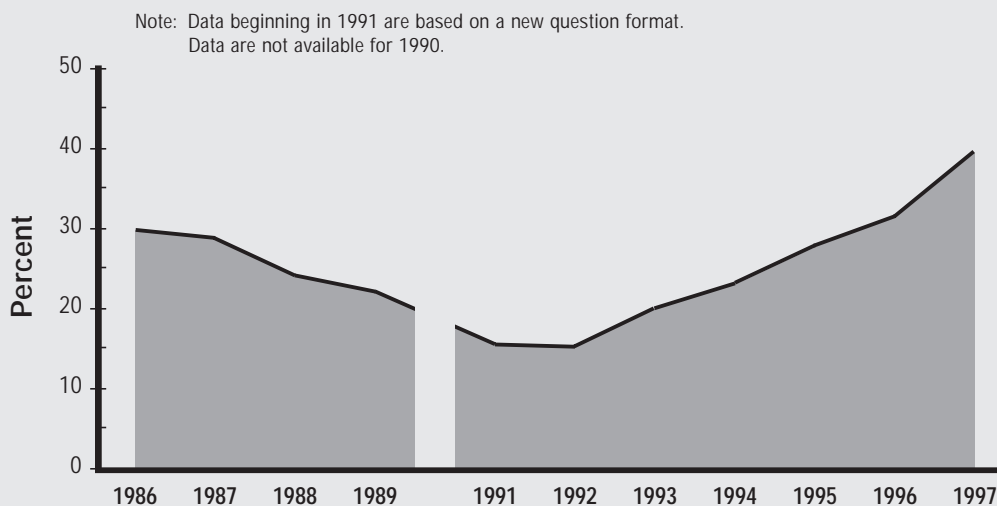
As noted above, another encouraging indication of the progress being made to increase the number of physicians in generalist specialties, is the decreasing rate of subspecialization by internal medicine residents. As indicated in the Appendix, a change in the Internal Medicine subspecialization rate will significantly impact the number of generalists being produced.

Another significant indicator of the progress being made to increase the number of primary care physicians is the growth in family practice residents, as historically more than 90 percent have remained in primary care. Since 1992, there has been a sharp increase in family practice residency program graduates. Between 1992 and 1999, the total number of allopathic and osteopathic residents completing family practice residency training will have increased by 55 percent (Table 4). This growth in family practice residents will

TABLE 3
Current Entrants into Residency Training Compared to COGME Target

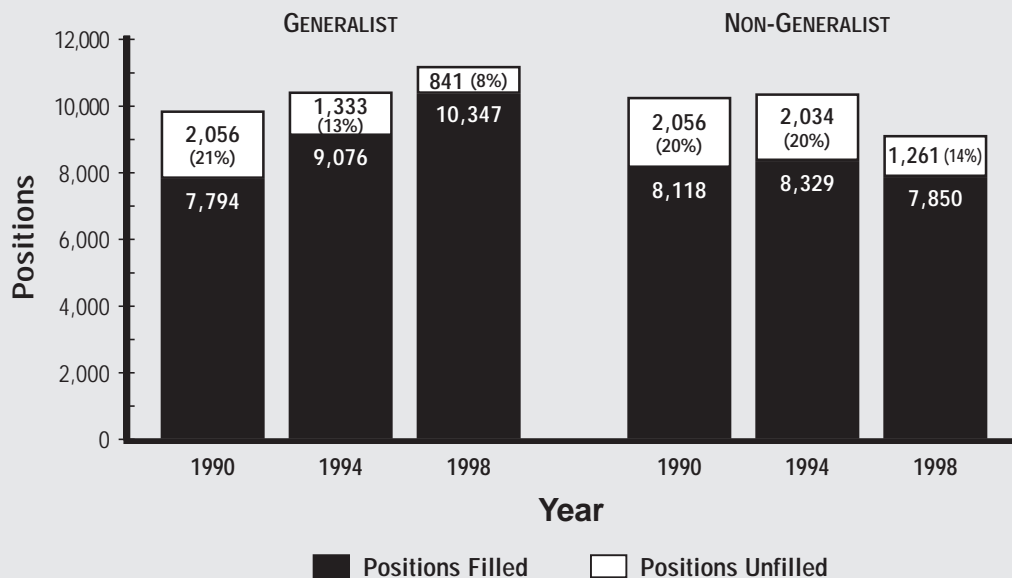
	1997-98	
Generalist Physicians		
Positions Required	9,879	
Current Positions	9,217	
Difference Between Target and Current	662	7 Percent Below Target
Specialty Physicians		
Positions Required	9,879	
Current Positions	13,926	
Difference Between Target and Current	(4,047)	41 Percent Above Target

FIGURE 5
Percent of Graduating Medical Students Planning a Generalist Specialty*, 1986-1997



*General family practice, general internal medicine and general pediatrics

FIGURE 6
Filled and Unfilled Positions in the Match in Generalist and Non-Generalist Specialties



Source: National Residency Match Program, 1998

INCREASED NUMBER OF FEMALE PHYSICIANS

The percent of active physicians that are female has increased steadily over the past 25 years from 7 percent in 1970 to 19 percent in 1995 (Figure 8). As indicated in Figure 9, this trend will continue as the percent of female medical students continues to rise, reaching 42 percent of medical school graduates in 1996-97 (AAMC, 1998). A number of recent studies has found that female physicians work about 10 percent fewer hours per week on average than male physicians (Hadley and Mitchell, 1997). This will moderate the impact of the growth in the total supply of physician services.

MANAGED CARE AND THE CHANGING HEALTH CARE SYSTEM

The availability of physician services depends not only on the number of physicians entering the health care system but also how many years physicians continue to practice medicine, how they practice and how many patients they see when they practice. For example, a change in practice patterns or productivity that increases by 5 percent the number of patients served by a physician would be equal to a 5 percent increase in the supply.

Changes in the health care system can impact the supply of practitioners and physician services in a number of ways. If the expansion of managed care and increased competition lead to greater productivity, this would increase the potential oversupply of physicians. On the other hand, the changes could have the reverse effect if physicians react negatively and their productivity decreases, or they work fewer hours or retire earlier. As seen in Figure 10, over the past decade mean work hours per week have not changed significantly (Gonzalez, 1997). While many physicians have expressed dissatisfaction with the changes in the health care system, there is no indication that physicians are working fewer weeks or hours per year.

In regard to age at retirement, a recent analysis of AMA data over time concluded that physicians appear more likely to retire at an earlier age than in the past (Kletke, 1998). If physicians on average were to retire earlier, this could have a significant impact on the total physician supply.

TABLE 4
Family Practice Residency Graduates

	1992	1999*	Increase	Percent Increase
Allopathic	2,385	3,624	1,239	52%
Osteopathic	237	448	211	89%
Total	2,622	4,072	1,450	55%

* Projection based on 1996 residents.

Source: Colwill, 1998

lead to a substantial increase in the total supply of practitioners. As seen in figure 7, the number of family practitioners could almost double over the next 20 years if the number of program graduates continues to increase.

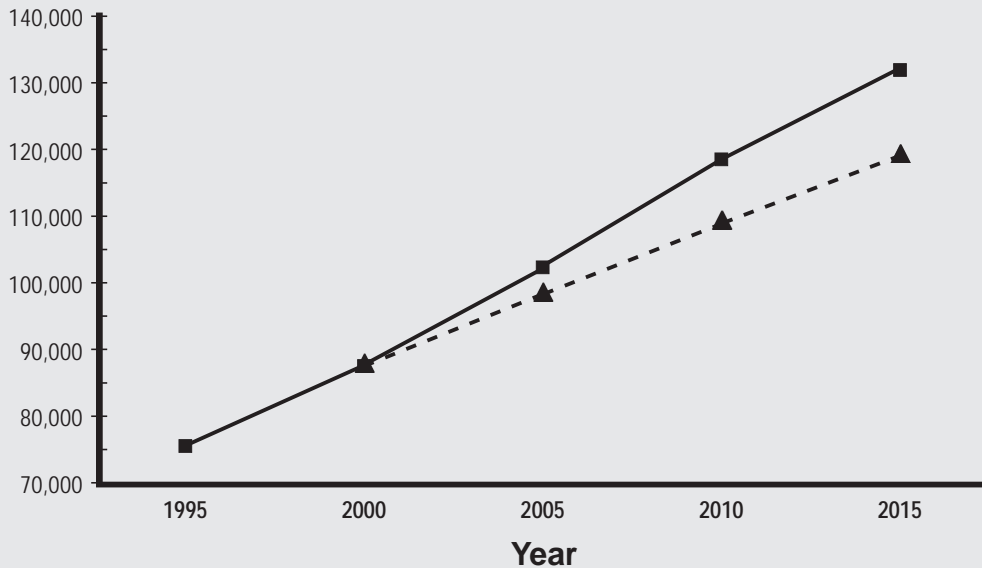
3. FACTORS INFLUENCING THE BALANCE OF SUPPLY AND REQUIREMENTS FOR PHYSICIANS

The total future supply of practicing physicians will reflect both the number of new physicians entering the system and the practice patterns of the existing supply. Although the supply of physicians will grow over the next 20 years, some basic changes are taking place in the workforce and practice environment that may moderate the rate of growth in the total physician resources available to the nation.

FIGURE 7

Total Family Practice Physicians (Allopathic and Osteopathic) Providing Patient Care*, 1995-2015

- Assumes continued growth in number of graduates from projected 1999 number of 4,072 to 5,000 per Year by 2004.
- ▲ Assumes graduation rate equal to projected number of family physicians completing training in 1999.



*Excludes resident physicians and includes general practice physicians.

Source: Colwill, 1998

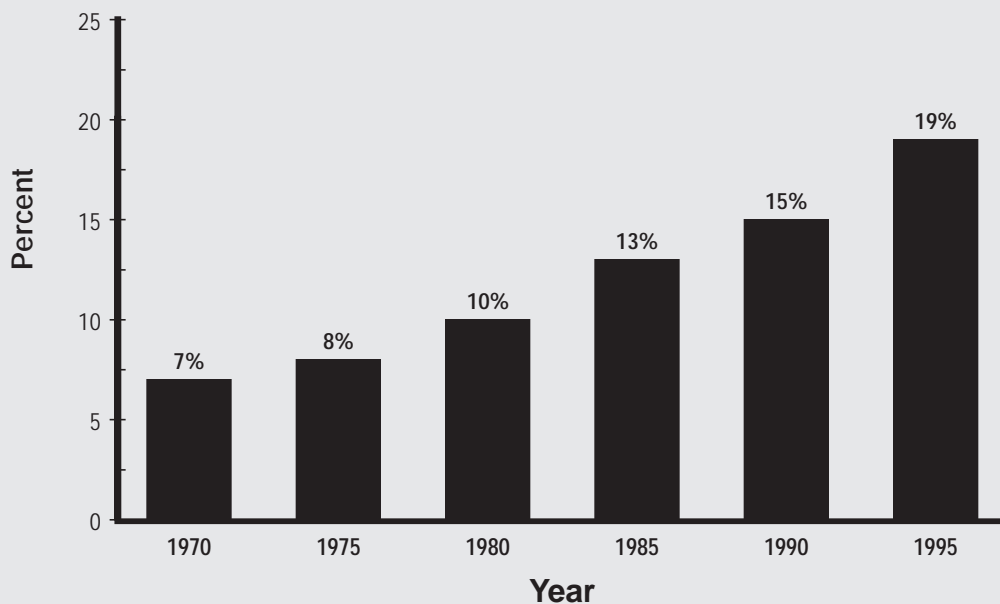
DEMAND FOR PHYSICIANS

Demand for physician services may also be changing. The evolution of managed care makes it difficult to predict the impact of its expansion on the demand for physicians. In recent years, some of the concern about a potential oversupply reflected the relatively low physician-to-population ratios reported in a number of studies of Health Maintenance Organization (HMO) physician staffing (Weiner, 1994). However, these early studies may not be representative of future practice patterns and policies. A recent study by L. Gary Hart and his colleagues assessed physician use rates in two mature HMOs (Hart, et al., 1997). Their study measured in-plan and out-of-plan use and found a much higher rate of use of physicians than reported in the earlier studies (Figure 11). However, even this most recent study does not fully account for a number of significant changes in many managed care policies that allow enrollees greater access to specialists. In addition, the Hart study did not adjust for self selection on the part of managed care enrollees; thus, it may be that high need populations, such as the elderly, the chronically ill and the Medicaid population, will require greater physician resources than reported by prior studies.

The recent efforts across the country to pass legislation related to managed care and patient rights may impact the demand for physicians. Many of the bills and proposals would limit the ability of managed care plans to restrict access to service and physicians. Many health plans have already modified their policies to permit greater access to specialists than under the traditional health maintenance organization models, which were used as the basis for predicting utilization of physicians for the future. The current evolution of managed care may lead to a greater use of non-generalist physicians

FIGURE 8

Percent of Total Active Physicians That Are Female United States, 1970-1995



Source: Physician Characteristics and Distribution, 1997, AMA

than anticipated in earlier forecasts of requirements. The emerging use of some specialists to manage the care for patients with chronic conditions falling under their specialty (Stevens, 1997), may also dampen demand for generalists compared to earlier projections.

In addition, there are a number of other factors that could increase the demand for physicians. Particularly important is the increased availability of health insurance coverage for the population.

For example, the expansion of the availability of child health insurance should lead to an increase in demand and use of pediatric services. On the other hand, the growing number of uninsured adults is likely to dampen demand, at least in the short run.

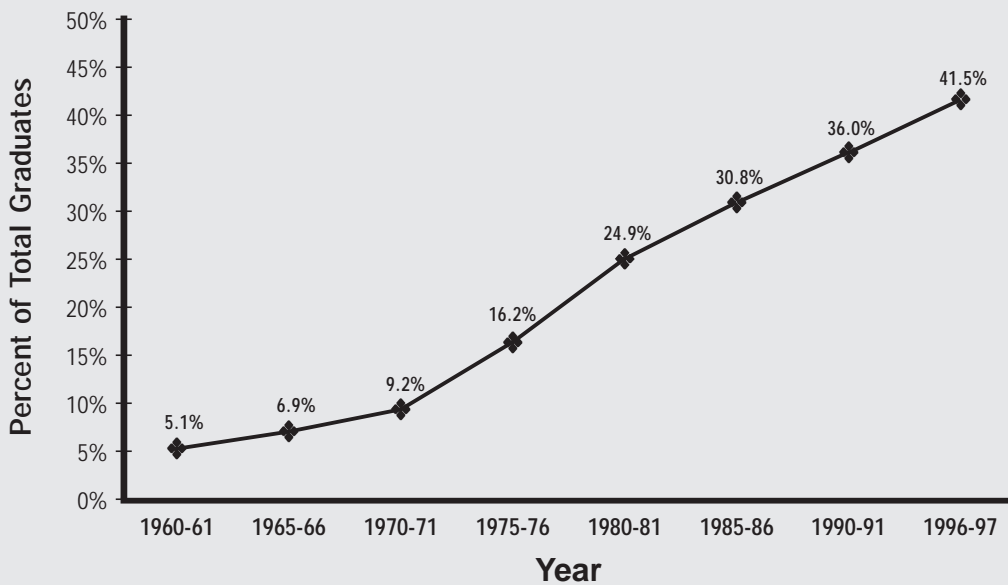
4. THE GROWTH IN THE SUPPLY OF NON-PHYSICIAN CLINICIANS

The nation is in the midst of a sharp increase in the number of non-physician clinicians. These are practitioners whose scope of practice overlaps in varying degrees with physicians. This includes practitioners traditionally used as physician extenders, such as physician assistants; and professions that practice more independently and may even compete with physicians, such as optometrists, podiatrists and chiropractors. The growth in the number of non-physician clinicians may dampen the demand for physician services.

As well documented by Richard Cooper and his colleagues (Cooper, et al., 1998A), there has been a significant recent increase in the number of students, graduates and practitioners in these professions (Figure 12). The growth in educational capacity and enrollment indicates clearly that the total supply of non-physician clinicians will increase rapidly over the next decade (Figure 13). Projections of demand and requirements for physicians need to take these clinicians into account.

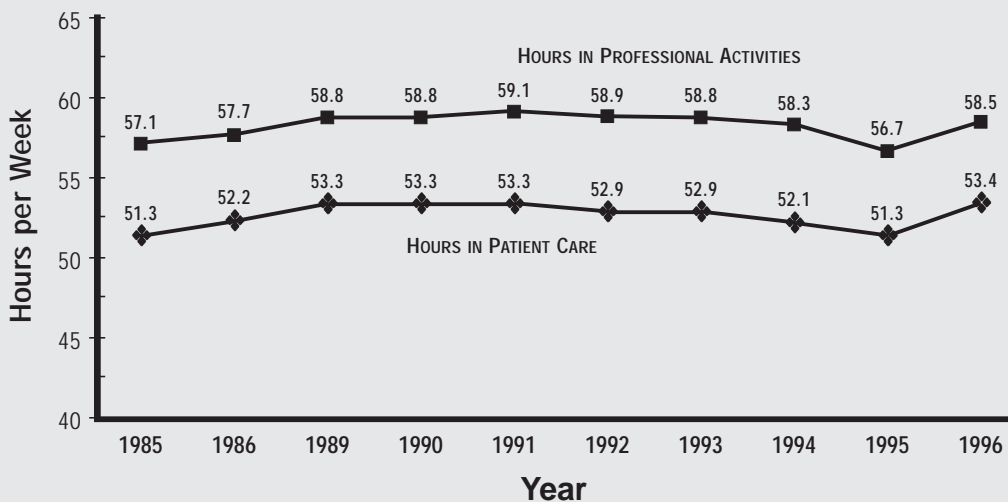
In addition to an increase in the number of non-physician clinicians, many of these professions have obtained authority for an expanded scope of practice through State statutory and regulatory changes (Cooper, et al., 1998 B). While the sharp increase in the supply and scope of practice of non-physician clinicians presents an opportunity for increased collaboration and inter-disciplinary practice which would benefit

FIGURE 9
Percent of Graduates of U.S. Medical Schools That Are Female, 1960-1996



Source: AAMC, 1998

FIGURE 10
Mean Hours of Work per Week for All Physicians, 1985-1996



Source: Gonzalez, 1997

patients, there is also a potential for an oversupply of practitioners and increased competition with physicians, which could be costly and not in the best interest of patient care.

5. THE MARKETPLACE FOR GME

A critical question for health policy makers is the extent to which the production of physicians, both the number and mix, responds to changes in

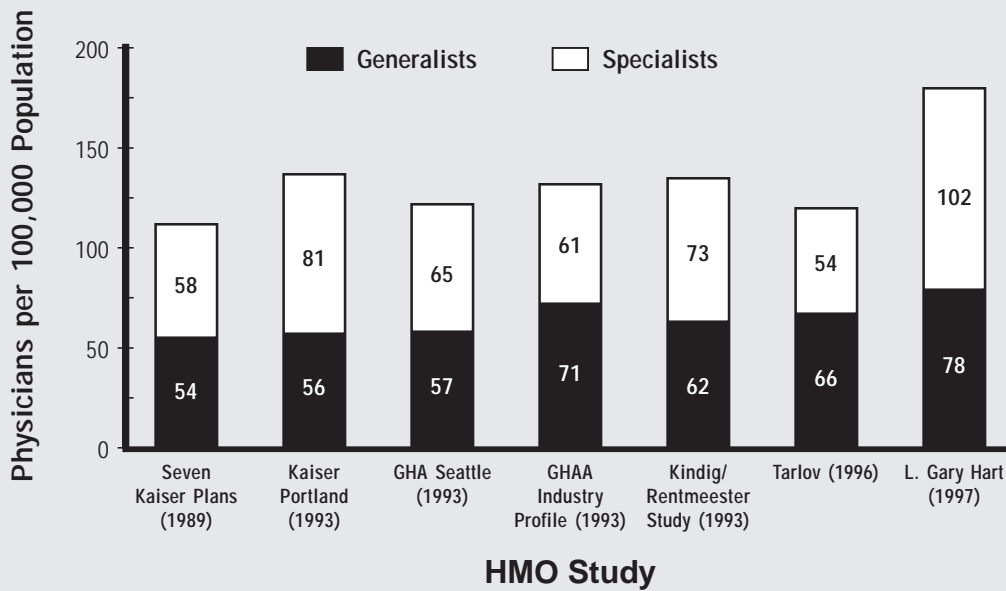
the supply and demand for physicians. Is there a marketplace for physician training, and if so, can it be influenced or encouraged to train physicians consistent with future health care needs? If the GME marketplace is relatively responsive, then less government action will be needed to adjust production to match physician requirements.

There are also some encouraging signs that the specialty mix of physicians being trained responds to the marketplace. As noted earlier, there has been an increase in the number and percent of new physicians selecting primary care specialties. This appears to reflect the impact of the marketplace more than government policy (Jacoby and Meyer, 1998). The Balanced Budget Act includes a number of provisions designed to reduce or eliminate the incentives for hospitals to increase the number of residents as previously encouraged by the Medicare GME financing system. In certain parts of the country, demand (practice opportunities) is already limited in many specialties. For example, in 1997, the Center for Health Workforce Studies (SUNY, Albany) surveyed physicians completing training in New York State to determine their practice plans, experiences and perspective. As indicated in Figure 14, many physicians completing training had to change their plans due to limited practice opportunities. The figure also shows that non-generalists had to change their plans more frequently than generalists. Perhaps, most striking, IMGs in New York had much more difficulty finding practice opportunities than USMGs; and IMGs with temporary visas fared even worse in the marketplace than other IMGs (Salsberg, et al., 1998).

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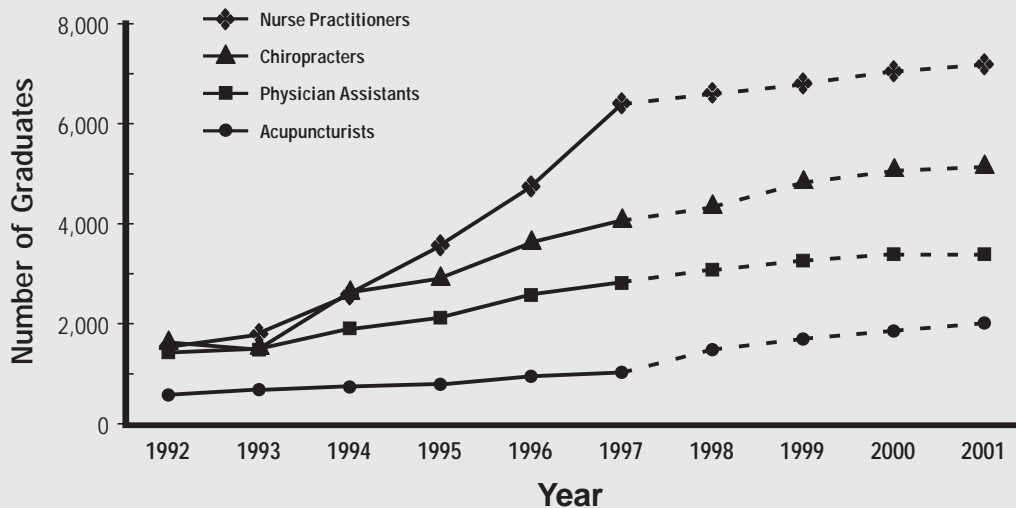
Figure 15 presents a scatter plot of the rate of decline in positions in a specialty between 1994 and 1996 compared to the extent to which the residency directors indicated that graduates in the specialty were encountering significant difficulty finding employment in 1995 (Dunn and Miller, et al.,

FIGURE 11
HMO Physician Use Comparison:
Physicians per 100,000 Population



Source: Eighth Report, COGME 1996, and Hart, et al., 1997

FIGURE 12
Selected Non-Physician Clinician Graduates
United States, 1992-2001



Source: Cooper, et al., 1998A

1996). There is a strong negative correlation (-0.53) between perceived difficulty and decreased positions. From these data alone we cannot determine how all specialties in all regions will respond to a

crowded market. However, it does appear that low demand in medical specialties is associated with declines in residency positions.

RECENT DEVELOPMENTS: 1998 AND BEYOND

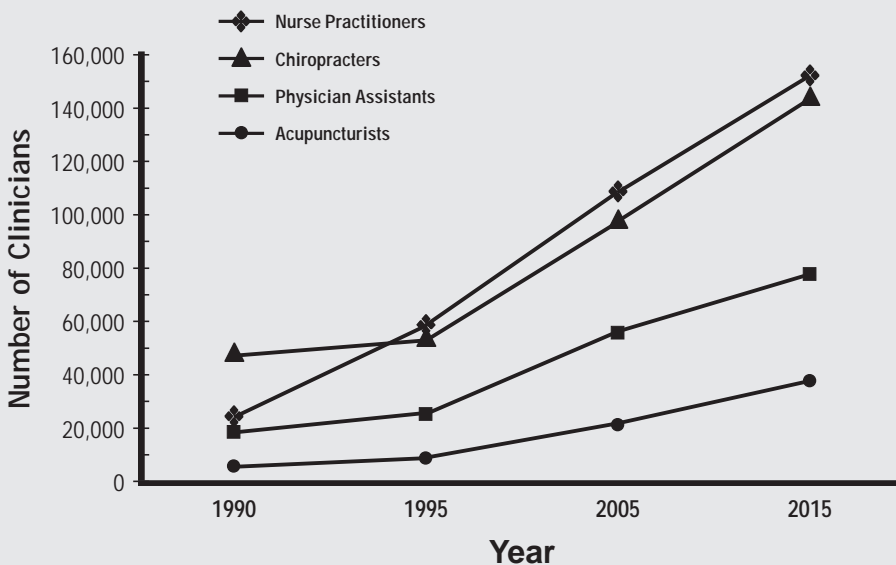
This section reviews recent policy developments that are likely to affect the physician workforce and residency training in the future. As indicated in Table 5, all of these developments are still in the process of implementation. While it is possible to quantify the impact of some of the newer developments—such as the New York State Medicare demonstration and the new VA policies—it is not possible to develop precise estimates of all these developments on physician supply and demand. An assessment of the general impact of these developments is provided below.

1. THE MARKETPLACE

The health care system in the United States is evolving rapidly: managed care enrollment is increasing; competition and cost-cutting efforts are becoming more intense and pervasive; integrated systems, mergers, consolidations and networks are transforming the delivery system; more providers are at risk for the costs of care; and the supply of physicians and other clinicians is growing rapidly. Many of these changes will have a significant impact on the supply, demand, and use of physicians and the institutions that train them. For example, as a result of these developments there has been a decrease in hospital use, a shift of services to ambulatory care settings, and an increase in the demand for primary care practitioners. The decrease in hospital use has already been significant: the number of bed days in short term hospitals decreased by nearly a third from 1980 to 1995 (Figure 16). This decline is expected to continue. The changing marketplace will affect teaching hospitals as well, as the number, specialties and needed skills of physicians change in the future.

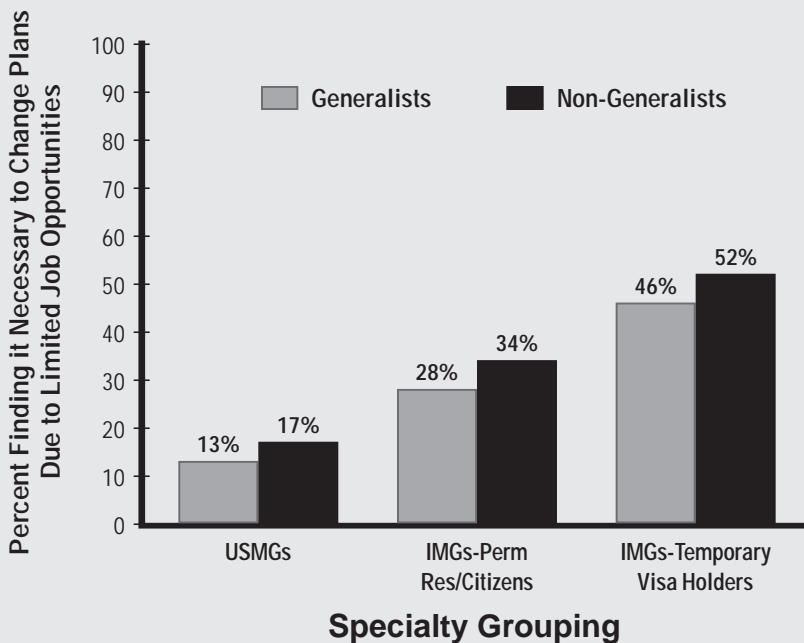
As noted earlier, the changing marketplace also has major implications for the fiscal viability of the nation's academic health centers and other teaching hospitals responsible for training the nation's physician workforce. Fiscal pressures and the loss of patients to other settings and competitors could lead some teaching institutions to reduce residency positions. The competitive marketplace could also discourage ambulatory care facilities and managed

FIGURE 13
Projected Supply of Selected Non-Physician Clinicians
United States, 1990-2015



Source: Cooper, et al., 1998A

FIGURE 14
Residents Completing Training in New York in 1997 Who Had to Change Employment Plans Due to Limited Job Opportunities for U.S. and International Medical School Graduates



Source: Center for Health Workforce Studies, 1998

care organizations from getting more involved with training physicians.

Particularly significant to teaching hospitals, is the growth of managed care enrollment. The number of insured individuals enrolled in managed care has been increasing steadily for many years. Recently, there has also been a sharp increase in Medicaid managed care enrollment. In fact, many States have moved to require a large portion of the Medicaid population to enroll in managed care plans. This has been facilitated by recent Federal legislation that removed the requirement that States obtain specific

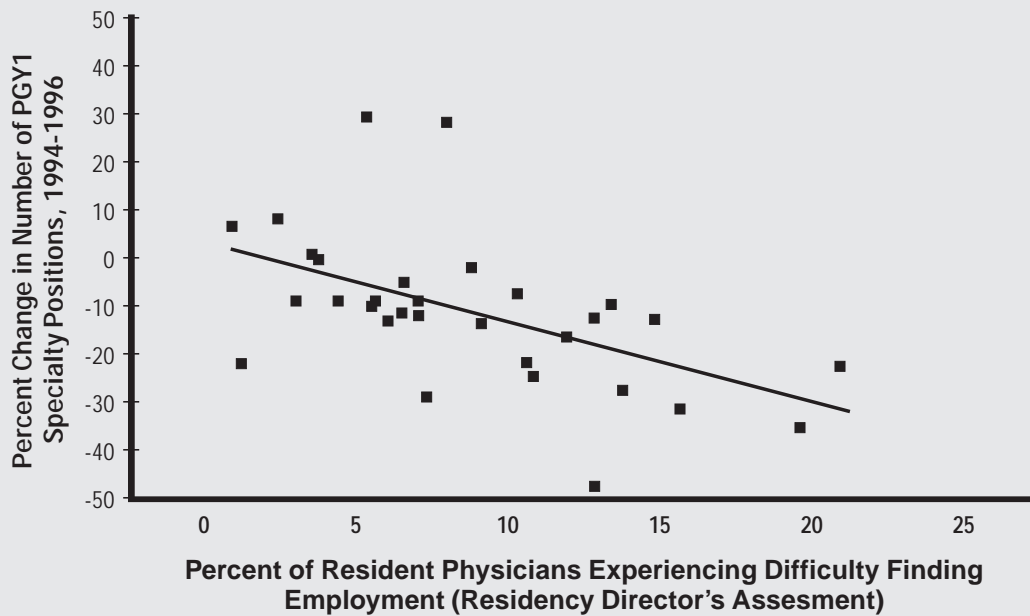
Federal approval for mandatory enrollment. The Balanced Budget Act also includes provisions to facilitate enrollment in managed care by Medicare beneficiaries. The Health Care Financing Administration estimates that 28 percent of the Medicare population will be enrolled in "Medicare+Choice" programs by fiscal year 2001, up from 12 percent in fiscal year 1997 (HCFA, 1998).

The increased enrollment by the Medicare and Medicaid populations in managed care plans is likely to have a major impact on teaching hospitals, many of which previously served high percentages of these patients. For many of these hospitals, Medicare and Medicaid GME dollars are critical sources of funding. The expansion of managed care and competition may also lead to a shift of patients to lower cost settings away from teaching hospitals.

One positive impact of the marketplace has been the increased interest and opportunities for generalist physicians (Jacoby and Meyer, 1998). While salaries for specialists on average still exceed generalist physician salaries, there appear to be greater practice opportunities for generalist physicians (Salsberg, et al. 1998). As seen in Figure 14, fewer physicians completing training in New York in 1997 in generalist specialties reported having to change their plans due to limited practice opportunities compared to non-generalist specialties.

FIGURE 15

Plot of Percent of Resident Physicians Experiencing Difficulty Finding Employment, by Percent Change in Number of PGY1 Specialty Positions, 1995



Source: Miller, Dunn and Whitcome, 1997

TABLE 5

Recent Policy Developments Expected to Impact the Physician Workforce and Residency Training

Development	Effective Date/Phase In
Marketplace Changes	On-going
The Balanced Budget Act	1997-2002
GME Downsizing Demos	1997-2002
State GME Activities	1997-1999
VA GME Policies	1997-2001
New IMG Policies	1998-1999

2. THE BALANCED BUDGET ACT (BBA) OF 1997

This legislation includes a number of significant changes in Medicare GME payment policies which may affect the number and mix of residents trained in the future. Many of the new policies have been recommended by the Council on Graduate Medical Education. Specific provisions include:

- *A cap on total residents and a cap on the ratio of interns and residents to beds:* These caps will prevent an increase in the number of residents for which Medicare GME payment will be available. While this does not prevent a facility from adding or expanding a residency

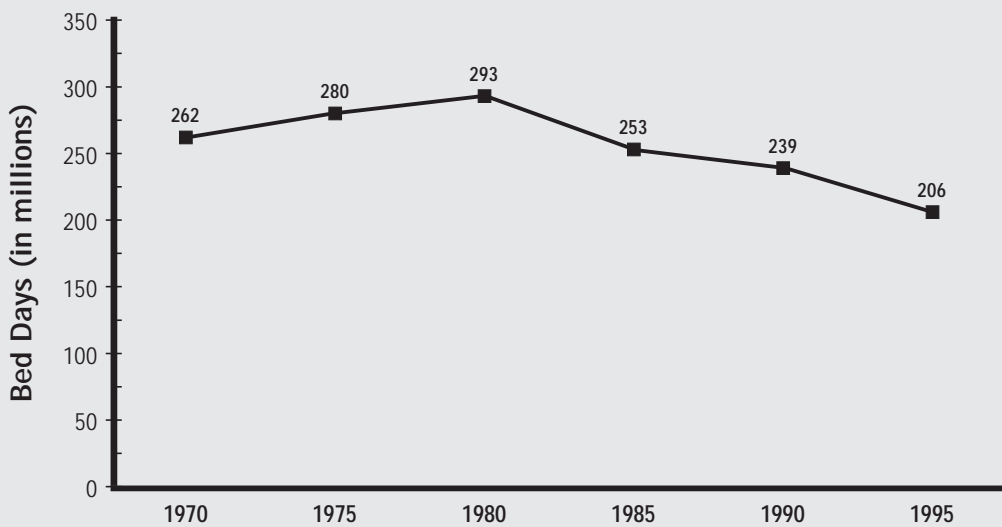
program, the lack of funding by Medicare is expected to discourage increases in residents.

- *A reduction in Indirect Medical Education (IME) Funding:* The Medicare adjustment factor for IME will be reduced in stages over a five year period. This reduction began in October 1997 when the adjustment decreased from 7.7 percent to 7.0 percent, and will decrease annually until it reaches 5.5 percent in 2002. This will lead to a decrease of nearly 30 percent in Medicare IME funding. The Congressional Budget Office has estimated that this provision will decrease Medicare GME funding by more than \$5 billion over the five years covered by the Balanced Budget Act (CBO, 1997).

- *Use of a three year rolling average for calculating the number of residents for Direct Medical Education (DME) and IME payment:* In calculating hospital reimbursement, Medicare will use an average number of residents over the current and prior two years (except in the first year of implementation, when a two year average is being used). This will soften the fiscal impact of a reduction in residents. While a hospital will still receive less reimbursement from Medicare if it reduces residents, this provision provides higher payments to a hospital than it would otherwise receive for two years after a reduction in residency positions.
- *Medicare + Choice GME Carve out:* Over the next five years, the GME funds that Medicare would have included in its payments to managed care organizations will gradually be excluded from those payments to the HMOs and held for distribution directly to the teaching hospitals, which will collect those funds to the extent that they treat Medicare managed care enrollees. From fiscal year 1998 to fiscal year 2002, the share of GME funds “carved out” will grow from 20 percent to 100 percent of the funds related to GME. This provision secures a major source of GME funding for teaching facilities. In the absence of this provision, the increase in Medicare + Choice enrollment would probably have led to a significant decrease in Medicare funds related to GME flowing to hospitals (Table 6). HCFA has estimated that approximately \$6.5 billion dollars will be carved out over the five years of the Balanced Budget Act, with \$2.6 billion being carved out in 2002 alone (HCFA, 1998).

FIGURE 16

National Trend in Short Term Hospital Bed Days (in millions)



Source: AHA Guide to the Health Care Field as cited in the Area Resource File, 1997

TABLE 6
Medicare + Choice
Value of GME Carve Out (in millions of dollars)

	IME	DME	Total
FY 1998	\$150	\$60	\$210
FY 1999	410	180	590
FY 2000	840	440	1,280
FY 2001	1,150	670	1,820
FY 2002	1,680	970	2,650

IME = Indirect Medical Education
DME = Direct Medical Education

Source: Health Care Financing Administration, June 1998

The amount of funds to be carved out of the payments reflects historical levels of Medicare use of teaching hospitals. Since the GME payments to hospitals are still tied to Medicare patient use of teaching hospitals, a shift of patients to ambulatory settings and non-teaching hospitals, would lead to more funds being carved out than actually being paid to teaching hospitals.

- *Financing for training in non-hospital settings:* Under the BBA, free-standing ambulatory care sites are now eligible for Medicare DME

funding. In addition, hospitals had not previously been eligible to receive IME payment for the time that their residents trained at non-hospital ambulatory care sites, such as health centers, HMOs, and private physician offices. They will now be able to receive payment for IME as well as DME. These changes will improve funding for training in ambulatory settings.

- *Voluntary Resident Reduction Program:* Hospitals across the nation that voluntarily agree to reduce residents by at least 20 percent over five years and to increase the number of residents in generalist specialties will be eligible for transition funding. Similar to the New York Medicare GME downsizing demonstration, as participating hospitals reduce residents, their Medicare funding will also be reduced, but more slowly than it would be in the absence of the Voluntary Reduction Program. This allows hospitals to hire replacement staff or redesign services. No additional funding will be available for the transitions at the end of the five years.
- *Federal study of hospital overhead and supervisory components of DME:* At present, the amount of DME per resident varies significantly by facility and region. A new study by the Department of Health and Human Services may include recommendations to reduce “inappropriate” variation in DME payment levels.

In summary, many of the provisions of the Balanced Budget Act support the goals of the Council, including: downsizing; encouraging generalist physicians; encouraging training in ambulatory settings; and providing a more secure funding stream for GME as managed care expands.

While the Act removes financial incentives under Medicare to increase the number of residents in training, it is less clear whether the changes designed to encourage ambulatory training and GME downsizing will be sufficient to achieve these goals. Another important consideration is the overall financial implications of the BBA. If hospitals, particularly teaching hospitals, lose significant funding under the BBA, including from the GME related provisions, then their ability and willingness to continue training physicians could be jeopardized. The Congressional Budget Office has estimated that the decrease in the adjustment factor for IME alone will lead to a reduction of \$5.6 billion in Medicare payments to teaching hospitals between 1997 and 2002 (CBO, 1997), and the Association of American

Medical Colleges (AAMC) has estimated that teaching hospital operating margins will drop significantly due to the BBA (AAMC, 1997). However, HCFA estimates that combined IME and DME payments over the five years of the BBA will steadily increase (HCFA, 1998). This reflects, in part, the greater payments through the Medicare + Choice GME carve out and the expansion of eligibility for funding for training in ambulatory settings.

3. MEDICARE GRADUATE MEDICAL EDUCATION DOWNSIZING EFFORTS

Two major Medicare efforts to encourage downsizing the number of residents are the New York Medicare GME Demonstration and the Voluntary Resident Reduction Program aimed at the rest of the country. Both efforts are similar.

In 1997, 42 hospitals in New York State entered into an agreement with Health Care Financing Administration to voluntarily reduce the number of residents training at their hospitals. As of December 1998, ten of the initial hospitals have withdrawn from the demonstration; however, one other hospital joined in the second round in 1998 for a total of 33 participating hospitals. As noted in the paragraph on the Voluntary Resident Reduction Program in the previous section, the BBA includes a provision to allow teaching hospitals across the nation to participate voluntarily in a similar program.

Under the provisions of the New York demonstration, hospitals agreeing to a reduction of at least 20 percent of their residents are eligible to receive transition payments over a six year period. (Five years for hospitals entering in the second year of the demonstration.) This allows them to hire staff to replace residents and to cover other costs associated with the loss of residents. This can be critical to assuring access to services for the patients previously served by the residents. The transition payments are tied to the number of residency positions reduced and the level of prior Medicare reimbursement. The share of the GME payments covered by transition funding declines each year. (The BBA provisions for the national demonstration are very similar; however under the BBA, hospitals will not receive transition payments for the first 5 percent of the residency positions they eliminate.) By the end of the demonstration, none of the hospitals will receive support for the transition or the loss of residents.

The demonstrations require hospitals to make a firm commitment to reduce positions or face severe penalties. In New York, participating hospitals must agree to reduce total residency positions by 20

percent over the course of the demonstration if they are part of a GME consortia or commit to a 20 percent increase in the percent of their residents in primary care, obstetrics and/or geriatrics residency positions. Other New York hospitals entering the demonstration must agree to at least a 25 percent cut in positions. (In the BBA demonstrations, dental and podiatric residents are exempt; this is not the case in the New York demonstration.)

In New York State, the goals of the demonstration are further supported by a change in New York State GME financing policies. The New York State Health Care Reform Act, effective January 1997, includes a Professional Education Fund for GME of \$554 million from assessments on private payers of hospital care. Ninety percent of the Fund is distributed based on historical resident counts and costs. The funding for a teaching hospital is unaffected by increases or decreases in residents during the period of the New York legislation (1997-1999). This provides an incentive to downsize residency positions. However, there is no certainty that this Fund will continue after 1999.

The remaining ten percent of the funding is for a GME Reform Incentive Pool which provides an explicit incentive to support workforce goals, with the distribution of a majority of funds tied to a reduction in total residents and an increase in primary care residents. (New York has its own criteria for defining primary care programs; this includes a minimum percent of graduates actually going into primary care practice after training.) Many New York hospitals not in the Medicare GME demonstration are also reducing positions although to a lesser extent than those in the demonstration.

Since New York State residency programs train 15 percent of all allopathic residents in the nation and 30 percent of all IMGs residents (JAMA, 1998B), the potential impact of the demonstration program is significant. Hospitals participating in the New York Medicare demonstration have approximately 5,300 residents. Since all participants are committed to a reduction of either 20 percent or 25 percent, depending on a number of variables, the demonstration is expected to lead to a reduction of between 1,000 and 1,300 residents by the year 2002. This represents approximately 1 percent of the nation's residents. HCFA has estimated that Medicare will save \$400 million in reduced hospital payments due to the demonstration over the six years of the project. Savings after the end of the project will be even more significant as all transition payments will be ended and Medicare payments will continue at lower levels.

An analysis of AMA GME data for New York for July 1996 and July 1997 (the residency years just before and after the Medicare GME demonstration and the New York State GME reforms) found that Medicare GME demonstration hospitals had reduced their residents by five percent, while the other teaching hospitals in the State had reduced their residents by two percent over the period. (Center for Health Workforce Studies, 1998 B).

Many hospitals in New York were interested in decreasing residents but decided not to participate in the Medicare demonstration. Several reasons have been cited by these hospitals: the minimum 20 percent reduction in residents is a significant cut; the penalties for failure to reach the minimum reductions is severe; the costs of replacing the residents is high; and Medicare GME payments decline steadily after the first year. Many hospitals, therefore, decided to reduce residency positions and seek State funding for their reductions but not enter the Medicare demonstration. In its first year, 1997, 31 hospitals not in the Medicare demonstration received funding from New York's GME Reform Incentive Pool for reducing residents. This will significantly add to the total decrease in residents in New York.

Hospitals in the New York Medicare demonstration have also committed to either maintaining or increasing by 20 percent the percent of residents in generalist specialties over the course of the demonstration. Therefore, the net result will be an overall increase in the percent in generalist specialties. The New York State GME Reform Incentive Pool also provides incentive payments for increases in generalist training positions. The preliminary analysis of the AMA GME data confirmed that the majority of reductions in New York were in non-generalist positions (Center for Health Workforce Studies, 1998B).

The number of hospitals that are likely to take advantage of the BBA Voluntary Resident Reduction Program is difficult to predict. As noted, many hospitals in New York were concerned with provisions of the demonstration, including the requirement to commit to a reduction of at least 20 percent. Furthermore, hospitals that agree to reduce residents under the BBA provisions would not receive transition funding for the first five percent of their reductions.

The Congressional Budget Office has estimated that the Voluntary Resident Reduction Program will save Medicare \$900 million between 1998 and 2002 (CBO, 1997). This would imply reductions in residency positions substantially greater than in New York, where the six-year savings were estimated at \$400 million.

4. STATE GRADUATE MEDICAL EDUCATION ACTIVITIES

Historically, most States have supported State medical schools as well as initiatives to address specific concerns, such as shortages of physicians in rural and urban areas. Very recently, States have become involved with graduate medical education financing and policies. Over the past several years, 17 States passed GME related legislation and as of October 1998, 19 States have decided to “carve out” GME associated funding from Medicaid managed care payments, and some have linked the distribution of their Medicaid GME funds (or other State funds) to State workforce goals. In addition, many States have set up committees and task forces to advise State leaders on GME financing policies.

These developments are significant and may represent a potential new locus of responsibility for physician workforce policy development. This section reviews recent State activities, the relationship to the Council’s goals, and the potential for States to assume greater responsibility for physician workforce policies and/or to partner with the Federal government. In order to assess the extent and nature of State GME financing, a survey of State GME activities was conducted for the Council (Center for Health Workforce Studies 1998A).¹

STATE SUPPORT FOR MEDICAL EDUCATION AND PHYSICIAN REDISTRIBUTION EFFORTS

Traditionally, States have been very involved in financing medical education. Unlike most professions, the majority of the nation’s medical schools are publicly supported. Seventy-four of the 125 allopathic medical schools are publicly sponsored (JAMA, 1998A); many others receive State financial support. The extensiveness of State support most likely reflects a desire to meet the health care needs of State residents and a desire to assure access to medical school for individuals living in the State; the vast majority of students at State medical schools are from within the State.

In response to concerns about shortages of physicians and limited access to services, many States have developed programs to encourage physicians to practice in underserved areas, particularly rural and inner city communities. For example, many States have established grants to family practice residency programs, scholarships for service, loan forgiveness and practice development grants. In some cases, States have mandated that State supported medical schools and their affiliated training

programs have a family practice residency program or train physicians in rural communities and/or produce a minimum percent of generalists. Some States also directly or indirectly support residency training through their funding of public hospitals or clinics, some of which are at publicly sponsored academic medical centers. Most of these State activities are funded by State tax levies.

TRADITIONAL STATE MEDICAID FUNDING FOR GRADUATE MEDICAL EDUCATION

The major source of State funds for GME is the Medicaid program. While most of the myriad of State programs for undergraduate medical education and physician redistribution have involved State legislation and/or a specific item in a State budget, State funding for GME has generally escaped public review. Traditionally, State GME funding has been part of the State’s inpatient rates for Medicaid. While there are no Federal statutes or regulations specific to GME reimbursement in the Medicaid program, general payment policies do apply. Most States have modeled their Medicaid GME payment policies on the Medicare methodology, with components for direct graduate medical education (DME) and indirect medical education (IME) calculated similar to Medicare. Because GME related costs were embedded in the Medicaid inpatient reimbursement on a formula basis, there was no requirement for executive or legislative review and approval; in fact, the actual amount of payment associated with Medicaid was not (and is still not fully) known to the public or State policy makers in most States. The survey of States revealed that States provide nearly \$2 billion per year for GME through the Medicaid program for the GME related expenses.

Until recently most States had few caps on GME related costs and no limits on the number of residents for which a hospital could claim payment. Hence, similar to Medicare, the Medicaid program may have provided an incentive for hospitals to add residents.

NEW STATE GME FINANCING POLICIES

Recently, there has been a major increase in State interest in GME financing and policies. This appears to be driven by the expansion of Medicaid managed care and the uncertain financial status of teaching hospitals. As States move aggressively to enroll their Medicaid population in managed care, the traditional Medicaid GME funding stream to teaching hospitals is disrupted. Instead of the State Medicaid program reimbursing hospitals for each Medicaid patient in the hospital, hospitals must

¹ The Center also received partial funding for the state GME survey from the Commonwealth Fund.

negotiate with each managed care plan. Managed care plans have a strong incentive to minimize their expenses; they negotiate rates as low as possible. In general, they pay hospitals less than the previous Medicaid rates; managed care may also direct patients to less costly hospitals or avoid hospital use whenever possible. This comes at a time when the market has become more competitive and cost-conscious and as Congress has sought to limit Medicare GME expenditures.

A major concern of teaching hospitals is that they will be at a disadvantage in the competitive marketplace if they have to cover the costs of teaching in their negotiated rates. Training future physicians, they argue, is a benefit to the public; but it is a cost borne only by the teaching hospital. Thus, providing funds for GME apart from the negotiated rates, “levels the playing field” for teaching hospitals, allowing them to compete with non-teaching hospitals. This is very important as managed care plans encourage patients to use lower cost hospitals.

Finally, GME funding helps to support care for the uninsured and medically indigent, research and development, and education of medical students and other health professionals. There has been concern that if hospitals are forced to compete in the open market without external support for GME, other activities in the public interest might suffer.

As a consequence of these developments, teaching hospitals have become more aware of, and concerned with maintaining their State Medicaid GME funding. The Medicaid GME carve out is similar to the provisions in the BBA that authorize a carve out of the GME related components of Medicare + Choice payments and pay these dollars directly to the teaching hospitals for services rendered. As of October 1998, 19 States have authorized such a carve out of the Medicaid GME funds from managed care payments (Table 7). The recent State activity is summarized as follows:

LEGISLATION: During the past two years there has been a sharp increase in legislative activity at the State level. Table 7 presents a summary of the survey of State activities.

Seventeen of the States passed legislation in the past three years. Much of this legislation was to establish a commission or task force to advise the State on GME financing and reform. Some of the other State legislation was to authorize the carve out of GME funds from the Medicaid managed care payment and some authorized direct State funding for GME and in one case, private payer support for GME (New York).

While the list of State level activity is impressive, there have been a number of efforts that have failed to lead to new funding or a “carve out” for GME. For example, in 1995 the Governor of Ohio vetoed legislation to provide additional funding for teaching hospitals. In fact, in many States, the establishment of task forces to review GME issues and options reflects a lack of consensus on the problem and/or what needs to be done.

MEDICAID MANAGED CARE GME “CARVE OUTS”: As indicated in Table 7, 10 of the 18 States with the most allopathic residents, have now authorized the carve out of GME funds from Medicaid managed care payments, as have nine of the other States in the survey. The table also lists the effective date of the carve out, demonstrating the significant level of activity in the past three years. Table 7 also indicates the States in which there is some discussion or exploration of a Medicaid managed care carve out; in some cases these are part of the mandate of advisory groups; in others the approach is being discussed by hospital committees or task forces.

It is important to note that States do not necessarily need legislation to authorize the carve out of GME funds from Medicaid managed care payments. Depending on how funds are to be distributed, it is possible to obtain a Medicaid State Plan amendment or a 1115 waiver from HCFA. In many States this does not require legislation. In general, if the GME carve-out funds are going only to teaching hospitals based on the volume of Medicaid managed care patients at the hospital, then a Medicaid State Plan amendment is sufficient. However, if funds are to flow elsewhere or if new or different criteria for allocation are to be used, then a waiver may be necessary, as was the case in Tennessee.

THE LINK TO POLICY GOALS: A critical question for national policy makers is whether this new level of activity will promote national workforce goals. While States are becoming more involved in explicit GME financing policies, this does not imply automatic linkages with workforce goals or that the workforce goals will be consistent with national goals. In fact, a majority of States that carve out GME from Medicaid managed care payments, flow the funds directly to teaching hospitals consistent with traditional reimbursement practices in the State. Nevertheless, once the amount of funds devoted to GME is discussed publicly, which is more likely with a carve out, many State officials and others are likely to consider the benefits to the State and whether to link the funding to State workforce goals.

TABLE 7
Allopathic Residents and Medicaid GME Activity by State

<i>State</i>	<i>Allopathic Residents August 1997</i>	<i>Percent of All Residents</i>	<i>Recent Legislation</i>	<i>Medicaid Managed Care Carve-Out Effective Date</i>	<i>Medicaid Fee for Service Carve-Out</i>	<i>Direct State Subsidies for GME</i>
New York	14,841	15%	1996	1996	-	-
California	8,431	9%	1997☆	D	-	Yes
Pennsylvania	6,484	7%	-	1997	Yes	Yes
Texas	6,025	6%	1997	1997	Yes	Yes
Illinois	5,549	6%	1996☆	D	-	Yes
Ohio	4,725	5%	-	D	-	-
Massachusetts	4,264	4%	-	D	-	-
Michigan	4,185	4%	-	1997	Yes	-
Florida	2,646	3%	1997	-	-	Yes
New Jersey	2,507	3%	-	D	Yes	Yes
North Carolina	2,393	3%	-	D	-	Yes
Maryland	2,286	2%	1997☆	1998	-	-
Missouri	2,282	2%	-	1995	-	-
Minnesota	2,045	2%	1998	1999	-	Yes
District Of Columbia	1,902	2%	-	-	Yes	Yes
Virginia	1,889	2%	1996	1996	-	Yes
Georgia	1,852	2%	1997☆	1997	-	Yes
Tennessee	1,830	2%	-	1996	-	-
Connecticut	1,801	2%	1998☆	-	-	-
Louisiana	1,709	2%	1997☆	-	-	-
Wisconsin	1,520	2%	-	-	Yes	Yes
Washington	1,458	2%	-	-	-	-
Indiana	1,228	1%	-	‡	-	‡
Alabama	1,050	1%	-	-	-	-
Arizona	1,032	1%	1997	1997	Yes	-
Kentucky	982	1%	1998	-	-	Yes
Colorado	960	1%	1997	1997	Yes	Yes
South Carolina	942	1%	-	1996	-	Yes
Iowa	774	0.8%	1997	1997	Yes	-
Kansas	694	0.7%	-	-	-	-
Rhode Island	678	0.7%	‡	‡	‡	‡
Oklahoma	666	0.7%	-	1995	-	-
Oregon	626	0.6%	-	D	Yes	Yes
Arkansas	620	0.6%	-	-	Yes	-
West Virginia	601	0.6%	‡	1996	Yes	‡
Nebraska	523	0.5%	-	-	-	Yes
Utah	522	0.5%	1997	1998	-	-
Mississippi	461	0.5%	-	1996	-	-
New Mexico	434	0.5%	-	1997	Yes	-
Hawaii	432	0.4%	-	-	-	-
New Hampshire	264	0.3%	-	-	-	-
Maine	250	0.3%	‡	‡	-	‡
Vermont	226	0.2%	-	-	-	-
Delaware	222	0.2%	-	-	-	-
Nevada	169	0.2%	-	-	-	Yes
North Dakota	126	0.10%	-	-	-	Yes
South Dakota	104	0.10%	-	-	-	Yes
Wyoming	42	0.04%	-	-	-	Yes
Idaho	41	0.04%	1998	-	-	Yes
Montana	10	0.01%	‡	‡	‡	‡
Alaska	8	0.01%	‡	‡	‡	‡
ALL STATES	97,311	100.0%				

‡ Data not available

☆ Legislation for the study of GME

- No or None

D Formal and informal discussions of Medicaid Managed Care Carve-Out in progress

Many States are actively promoting workforce goals, particularly an increase in the number of residents in generalist specialties (Table 8). However, States are still more likely to use non-Medicaid State funded initiatives independent of GME payments to try to address specific workforce goals. This is usually in the form of grants or loan forgiveness. In terms of the use of GME funding streams, nine States are using their funds to promote additional primary care physicians. The funds are distributed in a number of ways: several have set aside a share of the funds for specific initiatives; while others have conditioned some of the basic fund distribution on performance; others are simply providing a higher payment for primary care residents.

After primary care, the second most common State workforce goal is the redistribution of physicians to underserved areas, particularly rural areas. However, as with encouraging primary care physicians, most States use State grants rather than GME funding streams to promote physician redistribution. Support for training in ambulatory settings is another important goal for States. More States support ambulatory training through GME funding links than through State grants.

Two States (Michigan and Maryland) are using a small percent of their GME carve out funds to support innovations in training. Only New York has identified decreasing residents as a priority and linked a portion of GME funding to this goal. This is also a priority of many teaching hospitals in New Jersey, although it is not currently tied to a formal State policy or funding mechanism. The most comprehensive State initiative is in Utah where legislation has passed authorizing an all payer health professions education training fund. Medicaid, Medicare and private payers would all contribute to the fund which would be distributed based on the priority workforce needs of the State. While legislation has been passed, there are still many implementation issues to be worked out including obtaining approval from HCFA for the pooling and distribution of Medicaid and Medicare GME dollars.

EVOLUTION OF STATE POLICY MAKING STRUCTURES: An important policy question is whether these new State activities include the development of decision-making structures with the authority and expertise to assume responsibility for physician workforce planning for their State. Numerous States have established commissions, task forces or committees related to

GME (Table 9). Twelve of the 20 States with the most allopathic residents have either temporary or permanent groups and seven have industry groups involved in reviewing GME policies. Some of these groups are short term, established to make recommendations on GME financing, and policies. In some States, a Medicaid advisory committee with limited expertise on medical education or workforce needs has been asked to review and recommend Medicaid GME financing policies. An analysis by the Center for Health Workforce Studies found that seven States have workforce planning potential because they have committees or task forces with all of the following characteristics: some GME expertise; some permanence; and some authority for advising on GME policies (Center for Health Workforce Studies, 1998A). These committees/task forces could be the foundation for physician workforce policy making in the future.

The new State GME activities create an opportunity for designing a Federal and State partnership for physician workforce planning. It also appears that additional Federal guidance and technical assistance to States could help strengthen their efforts to identify workforce needs and to distribute available dollars in a manner that addresses State needs.

5. TESTING PROCEDURES AFFECTING IMGs

The Educational Commission for Foreign Medical Graduates (ECFMG) evaluates graduates of foreign medical schools for entry into graduate medical education programs in the United States and provides certificates to international medical graduates who meet minimum standards of eligibility (ECFMG, 1997). Graduates of foreign medical schools are required to have a valid ECFMG certificate to enter an allopathic residency program in the United States accredited by the Accreditation Council for Graduate Medical Education (ACGME). (Only graduates of osteopathic schools can enter a osteopathic residency program. Osteopathic medical education is limited to the United States; as such there are no IMGs in osteopathic residency programs.)

To be eligible to enter residency training, IMGs and graduates of U.S. medical schools must pass Steps 1 and 2 of the three-step United States Medical Licensing Examination (USMLE), established by the National Board of Medical Examiners and the Federation of State Medical Boards. Passage of all three parts is required for licensure for U.S. medical school graduates and IMGs (ECFMG, 1997).

TABLE 8
State Health Workforce Goals
(in decreasing order of number of resident physicians)

State	MMC Carve-Out	Encourage Primary Care	Downsizing	Increase Training in Ambulatory Setting	Redistribute to Underserved Urban/Rural	Other Workforce Goals
New York	✓	✓	✓	✓	✓	✓
California	-	S	-	-	S	-
Pennsylvania	✓	S	-	-	S	-
Texas	✓	✓S	-	S	S	S
Illinois	-	S	-	-	-	-
Ohio	-	-	-	-	-	-
Massachusetts	-	✓	-	S	S	S
Michigan	✓	✓	-	S	S	✓
Florida	-	S	-	-	-	-
New Jersey	-	-	-	-	-	-
North Carolina	-	S	-	S	S	-
Maryland	✓	✓	-	-	-	✓
Missouri	✓	-	-	-	-	-
Minnesota	✓	S	-	-	S	-
District Of Columbia	-	-	-	-	-	-
Virginia	✓	-	-	-	-	-
Georgia	✓	S	-	-	S	S
Tennessee	✓	✓	-	✓	✓	-
Connecticut	-	-	-	-	-	-
Louisiana	-	-	-	-	-	-
Wisconsin	-	S	-	-	S	-
Washington	-	-	-	-	-	-
Indiana	‡	S	-	-	S	-
Alabama	-	-	-	-	-	-
Arizona	✓	-	-	-	-	-
Kentucky	-	-	-	-	S	-
Colorado	✓	S	-	-	S	-
South Carolina	✓	-	-	-	-	-
Iowa	✓	-	-	-	-	-
Kansas	-	-	-	-	-	-
Rhode Island	‡	‡	‡	‡	‡	‡
Oklahoma	✓	✓	-	-	-	-
Oregon	-	-	-	✓	-	-
Arkansas	-	-	-	✓	-	-
West Virginia	✓	‡	‡	‡	‡	‡
Nebraska	-	✓	-	-	✓	✓
Utah	✓	✓	-	✓	S	✓
Mississippi	✓	-	-	-	-	-
New Mexico	✓	✓	-	-	✓	-
Hawaii	-	-	-	-	-	-
New Hampshire	-	-	-	✓	-	-
Maine	‡	‡	‡	‡	‡	‡
Vermont	-	-	-	-	-	-
Delaware	-	-	-	-	-	-
Nevada	-	-	-	-	-	-
North Dakota	-	-	-	-	-	-
South Dakota	-	S	-	-	-	-
Wyoming	-	S	-	-	-	-
Idaho	-	-	-	-	-	-
Montana	‡	‡	‡	‡	‡	‡
Alaska	‡	‡	‡	‡	‡	‡

MMC = Medicaid Managed Care ✓ Linked to GME funding - None
 ‡ Data not available S State grants

TABLE 9
State GME Advisory Committees
(in decreasing order of number of resident physicians)

State	Temporary Commission	Permanent Advisory Group	Voluntary Industry Advisory Group	Workforce Planning Potential ¹
New York	-	Yes	-	Yes
California	-	Yes☆	-	-
Pennsylvania	-	-	Yes	-
Texas	-	Yes	-	-
Illinois	-	Yes☆	Yes	Yes
Ohio	-	-	Yes	-
Massachusetts	-	-	-	-
Michigan	-	-	Yes	-
Florida	-	Yes	Yes	-
New Jersey	-	Yes☆	Yes	Yes
North Carolina	-	-	-	-
Maryland	Yes☆	-	-	-
Missouri	-	-	-	-
Minnesota	-	Yes	Yes	Yes
District Of Columbia	-	-	-	-
Virginia	Yes☆	-	-	-
Georgia	Yes☆	-	-	-
Tennessee	-	-	-	-
Connecticut	Yes☆	-	-	-
Louisiana	-	Yes☆	Yes	Yes
Wisconsin	-	-	Yes	-
Washington	-	-	-	-
Indiana	‡	‡	‡	‡
Alabama	-	-	-	-
Arizona	-	-	Yes	Yes
Kentucky	-	-	-	-
Colorado	-	Yes	Yes	-
South Carolina	-	-	-	-
Iowa	-	-	-	-
Kansas	-	-	-	-
Rhode Island	‡	‡	‡	‡
Oklahoma	-	-	-	-
Oregon	-	-	-	-
Arkansas	-	-	-	-
West Virginia	‡	‡	‡	‡
Nebraska	-	-	-	-
Utah	-	Yes☆	-	Yes
Mississippi	-	-	-	-
New Mexico	-	-	Yes	-
Hawaii	-	-	-	-
New Hampshire	-	-	Yes	-
Maine	‡	‡	‡	‡
Vermont	-	-	-	-
Delaware	-	-	-	-
Nevada	-	-	Yes	-
North Dakota	-	-	Yes	-
South Dakota	-	-	-	-
Wyoming	-	-	-	-
Idaho	-	-	-	-
Montana	‡	‡	‡	‡
Alaska	‡	‡	‡	‡

‡ Data not available

☆ Legislative mandate for the study of GME financing

- No

¹ As assessed by Center for Health Workforce Studies

Source: Center for Health Workforce Studies, 1998

Effective July 1998, an IMG seeking to obtain an ECFMG certificate to enter residency training, will also be required to pass the Clinical Skills Assessment examination (CSA). This is a one-day examination that tests both clinical proficiency and spoken English language proficiency. Passage of Steps 1 and 2 of the USMLE and the English language proficiency exam are a prerequisite to taking the CSA (ECFMG, 1997). Unlike Steps 1 and 2 of the USMLE which are offered around the world, the CSA will be offered only in Philadelphia and only in English (National Board Examiner, 1998).

In addition to the new examination, another major change in testing procedures will be implemented in 1999 when all three parts of the USMLE will be converted from a paper examination to computerized examination. Testing centers will be established around the world. (National Board Examiner, 1998)

It is not possible at this time to evaluate the impact of the new clinical skills assessment exam, and the computerization of the USMLE. However, the changes in the examination process are likely to reduce the number of IMGs applying for and becoming eligible to enter residency training. The CSA represents a brand new test and it is very unlikely that all applicants will pass. A significant percent of IMGs do not pass the USMLE steps on their first try (Table 10). In addition, some IMGs may not be able or willing to travel to Philadelphia to take the exam. The computerization of the USMLE may also represent a new hurdle for individuals not accustomed to this type of examination. The new test and procedures could reduce the number of new IMGs seeking and obtaining ECFMG certificates. On the other hand, even if this were the case, it could be several years before residency programs feel the full impact of the change as there are many IMGs with ECFMG certificates that have not yet been accepted into residency programs; these ECFMG certificates are still valid. This pool could lessen the immediate impact of the new testing policies.

On another IMG related issue, COGME has recommended that the U.S. policies for physicians with temporary visas be revised to restore the original intent of the temporary visa program. In 1997-98, 9.4 percent of all allopathic residents had J-1 and J-2 exchange visitor visas and another 2.7 percent had temporary worker (H series) visas (JAMA, 1998B). If the recommendations of the Council regarding these visa categories are implemented, there would probably be a reduction in residents seeking and entering training and remaining in the United States. The survey of residents completing training in New York in 1998 found that only 24 percent of

TABLE 10
USMLE Steps 1, 2 and 3
PASS RATES: FIRST-TIME TAKERS, 1996-97

	STEP 1		STEP 2		STEP 3	
	Total 1997 # TESTED	% PASSING	1996-97 Cohort Total # TESTED	% PASSING	Total 1997 # TESTED	% PASSING
Allopathic Students	16,719	95%	16,441	94%	16,440	94%
Osteopathic Students	271	78%	110	83%	47	92%
IMG Registrants	19,087	58%	14,913	52%	7,030	63%

Source: The National Board Examiner, 1998

the J-1 and J-2 visa doctors who were completing a residency training program were returning to their country of origin. The majority went on to subspecialize. Of those going into patient care practice, the vast majority were going into Federally designated Health Professions Shortage Areas. Excluding those residents who were going on to subspecialize (since some of these physicians will return to their native country after completing their subspecialty training), 32 percent of those completing their training were leaving the U.S. (Center for Health Workforce Studies, 1998A). A return to the original intent of the temporary visa programs could reduce the number of physicians entering residence training and practice in the U.S.

6. DEPARTMENT OF VETERANS AFFAIRS GME POLICIES

The Department of Veterans Affairs trains more physicians than any other single organization in the country. The VA has formal affiliations with 107 of the nation's medical schools and trains nearly 10 percent of the nation's residents. The Department of Veterans Affairs supports 8,900 residents nationally. In addition, thousands of other residents rotate through the VA for some of their training. In total, 34,000 residents receive some or all of their training at the VA each year (Stevens, 1997). Thus, VA policies have a very significant impact on the nation's future physician workforce.

The VA is in the process of a major reorganization of its very large service delivery network. The VA system is being reoriented towards more primary care, coordination of care, and patient satisfaction. The implications for physician training are significant. First, the VA is in the process of eliminating 1,000 specialty positions between the 1997-98 academic year and 1999-2000 academic year. Second, the VA will add 750 generalist positions, for a net reduction of 250 positions. Third, the VA will establish a "primary specialist" to allow non-

generalist physicians to coordinate and manage care for patients with diagnosis/conditions for which the specialist has the greatest expertise. Finally, the whole system will have a more patient-oriented focus (Stevens, 1997; National Health Policy Forum, 1998). These changes are consistent with the recommendations of COGME, particularly the reorientation to generalism and the reduction in specialty training positions.

IMPLICATIONS OF RECENT TRENDS AND RECENT DEVELOPMENTS FOR COGME RECOMMENDATIONS

The recent developments and initiatives are reviewed for their impact on COGME goals. Table 11 summarizes the general directions of the influence on each goal.

1. **LIMIT GROWTH IN PHYSICIAN SUPPLY:** The number of physicians in training has leveled off and is likely to decrease for the next few years. The number of international medical school graduates entering training has decreased over the past 5 years. The recent trends may reflect anticipation of changes in Medicare payment, increased competition among hospitals and reduced support for GME, the growing concern with surpluses in some specialties, and/or declining hospital use. Many of the most recent developments, particularly marketplace pressures, the Balanced Budget Act, and the Federal Medicare reduction demonstration in New York, encourage downsizing the number of residents. However, it is unlikely that the 110 percent goal will be reached within the next five years.
2. **INCREASE THE PERCENT OF PHYSICIANS IN GENERALIST SPECIALTIES:** The marketplace, State GME initiatives, private sector initiatives and new VA policies are all contributing to an increase in the percent of residency positions in generalist specialties. However, the number of non-generalist specialists being trained still significantly exceeds the target recommended by the Council. To achieve the Council target for specialists, the number of physicians entering specialist residency positions would need to decrease by approximately 4,000 per year.

On the other hand, the growing surplus in some subspecialties appears to be contributing to an

TABLE 11
Impact of Recent Developments on COGME Goals

COGME Goals	RECENT DEVELOPMENTS					
	BBA	Marketplace	State Actions	Medicare Downsizing Demos	VA Policies	IMG Exam
Limit Growth of Physician Supply	+	++	+/-	+	+	+
Increase Percent Generalist Care	+	++	++	+	++	N/A
Train in Ambulatory Settings	+	+	+	N/A	+	N/A
Establish a Health Workforce Planning Process	+/-	--	+	N/A	N/A	N/A
Provide an Adequate Financing for Training	+/-	--	+/-	N/A	N/A	N/A
Preserve Safety-Net Providers	--	--	N/A	N/A	N/A	--
Increase Diversity	N/A	N/A	+/-	N/A	N/A	--

“+” Indicates a moderate influence consistent with COGME goals
 “++” Indicates a strong influence consistent with COGME goals
 “--” Indicates a moderate influence not supportive of COGME goals
 “+/-” Indicates a mixed influence
 N/A Not Applicable

increased interest in generalist residency positions. The expanded eligibility for funding for training in ambulatory sites authorized by the Balanced Budget Act and some States, may also encourage more generalist training. Recent surveys of medical students and the results of the National Residency Match Program have documented the increased interest in primary care specialties by U.S. medical school students. While the nation has not yet reached the COGME target for generalist physician production, it is getting close and recent trends are very encouraging. The nation is likely to reach its target for the production of generalists within the next few years.

3. TRAIN IN AMBULATORY SETTINGS: Medical schools, residency review committees and some States have promoted additional training in ambulatory settings and cooperation with managed care organizations. The expansion of the settings and arrangements under which Medicare will recognize the costs of training in ambulatory care settings should also facilitate training in ambulatory settings. Neverthe-

less, it remains to be determined whether the recent pressures to shift training to ambulatory settings and the more supportive payment policies will be sufficient to overcome the significant financial, logistical and other barriers to ambulatory training.

4. ESTABLISH A HEALTH WORKFORCE PLANNING SYSTEM: The marketplace, the Balanced Budget Act, State actions and other recent developments are moving the physician workforce toward the COGME 110/50-50 goals, albeit slowly to date. The Balanced Budget Act has taken an important step by reducing the financial incentives to train more residents. It also appears that residency programs do respond by downsizing when supply exceeds demand and graduates encounter difficulty in the job market. While the Federal government can and should play an important role in promoting a workforce consistent with health care needs, this can be done in several ways. Potential Federal roles in support of the

marketplace include: the collection and dissemination of findings on the physician marketplace; support for new training and organizational models and demonstrations; and design of financing systems that encourage a workforce consistent with needs. The recent increase in State activities offers additional opportunities to support education and training consistent with local and regional needs through Federal-State collaboration.

5. PROVIDE ADEQUATE FINANCING FOR TRAINING: The data available on the financial health of the nation’s academic health centers and other teaching hospitals do not indicate a general fiscal crisis at the present time. However, many of the recent developments raise serious concerns about their future fiscal viability. The competitive marketplace and the drive to constrain costs are likely to put increasing fiscal pressure on most hospitals as well as ambulatory service sites. Training physicians can add significantly to the cost of care; furthermore, teaching hospitals, particularly academic medical centers, provide many related public

services that can add to costs. The competitive marketplace and the lack of a system to fund physician training independent of funding for patient care services pose a threat to the nation's GME infrastructure.

While managed care plans may be willing to pay slightly higher rates to have a teaching hospital in their network, they are also likely to resist paying the full cost of teaching. Furthermore, given the competition between plans and pressure from employers, managed care plans are likely to move patients away from high cost providers whenever possible. Thus, teaching hospitals could find themselves with lower payment levels and fewer patients.

A strong case can be made that training the future physician workforce is a "public good". Teaching hospitals and other sites incur the costs of training new physicians but the whole community benefits. This issue may be even more serious for ambulatory sites where payment is very limited and training can be disruptive to patient flow and productivity. Unfortunately, the competitive marketplace leaves little room for voluntary support of these kinds of public goods.

6. PRESERVE SAFETY NET PROVIDERS: Recent developments do not offer much support for

safety net providers that train physicians. They face the same pressures as all teaching hospitals, but they serve significant percentages of uninsured patients and have less leverage in negotiating with managed care plans and other payers. In addition, physicians in training are important providers of care in these institutions. To the extent that GME payment is reduced through the competitive marketplace without an increase in funding for care for the uninsured, services for the uninsured and the fiscal viability of safety net teaching hospitals will be endangered.

7. INCREASE DIVERSITY: Recent developments appear to do little to support the Council's goal of increasing the diversity of the physician workforce. There are no specific provisions in the BBA that would directly affect efforts to increase underrepresented minorities in medicine. While some States have established specific initiatives or policies to increase diversity in medicine, there have been a number of major setbacks to State policies in this area. In general, increasing competition in health care, the fiscal concerns of academic medical centers and efforts to decrease the total number of residents could weaken the already limited efforts by academic medical centers to address the historical shortages of underrepresented minorities in medicine.

Recommendations

PHYSICIAN WORKFORCE PLANNING

The available evidence suggests that progress is being made toward the physician workforce goals identified by the Council on Graduate Medical Education. Yet there are a number of steps the Federal government can undertake to more effectively promote a physician workforce consistent with the health care needs of Americans. These recommendations are designed to reinforce prior COGME recommendations, to support the workings of the marketplace, and to encourage effective State decision making.

RECOMMENDATION 1

ENCOURAGE A MORE EFFECTIVE MARKET FOR PHYSICIAN SPECIALTY AND GEOGRAPHICAL LOCATION CHOICES. *The Federal government, the medical education community and the States should foster a more effective marketplace for the training of physicians by expanding the collection and dissemination of data on supply, need and demand for physicians by specialty and region. This information should be shared in a systematic manner with medical schools, teaching hospitals, residency programs, medical students, policy makers, States, payers, and the general public.*

Evidence suggests that U.S. medical students and residency program directors are responsive to information on career opportunities and workforce needs. Yet, in the absence of more accurate and more timely information on the current and projected supply, demand and distribution of physicians, it is difficult for the marketplace for GME to work effectively. Recent developments, such as the Balanced Budget Act, which reduce the financial incentives to hospitals to train more physicians, and new testing policies for international medical school graduates (IMGs), which may reduce the number of IMGs entering training, increase the likelihood that the marketplace for training physicians can work effectively. The timely and systematic collection and dissemination of data on supply, demand and distribution will promote the training of a physician workforce consistent with the needs of the nation. This should build on the existing data collection activities of such organizations as the AMA, AAMC and the AHA.

Promoting a physician workforce that meets future health care needs of Americans will be also

be facilitated through expanded research on a wide range of issues related to the physician workforce and practice patterns. Particularly important is a better understanding of the impact of changes in the marketplace, technology, and the aging of the general population and physicians on the supply, demand and use of physicians and the competencies that physicians will need in the future.

RECOMMENDATION 2

INTEGRATE WORKFORCE PLANNING FOR PHYSICIANS AND NON-PHYSICIAN CLINICIANS. *A new national system for integrated health workforce planning should be established. This could include an advisory committee or forum that encompasses a variety of health professionals in a collaborative planning process and expanded data collection on all health professions. This could also include a system to track and monitor the impact on residency training of the Balanced Budget Act, the marketplace, State GME policies and other recent developments.*

The growth in the number and types of physicians, non-physician clinicians and other health personnel being trained, the increasing need for collaboration among health professionals, and the need for basic data to help formulate public and private policies and programs, all support the need for a national health workforce planning process.

This process should allow for the diversity of programs and approaches and should stress expanded data collection for all health professions, an integration of planning across professions and a forum for a dialogue involving numerous professions. An advisory committee with representation from a wide array of health professions, could be established to promote collaboration among professions to monitor trends in supply, demand and utilization, and to promote education and training to meet the health care needs of the nation. Alternatively, existing national advisory committees on the health professions workforce, such as the COGME, and the National Advisory Council on Nursing Education and Practice (NACNEP) could coordinate to carry out integrated analyses and assessments of the health professions workforce supply.

RECOMMENDATION 3

PROVIDE FINANCIAL INCENTIVES FOR PRIORITY NATIONAL WORKFORCE GOALS. *A portion of the GME carve out from the Medicare+Choice payments*

should be distributed based on performance consistent with national physician workforce goals.

The Balanced Budget Act authorizes the “carve out” of GME dollars from the Medicare payments for Medicare+Choice enrollees. The carve out is being phased in over five years. The Health Care Financing Administration estimates that the dollar value of this carve out will reach \$2.6 billion by Federal fiscal year 2002. This will be a very visible Federal Medicare contribution for GME. These funds are to be distributed based on current Medicare GME payment policies. While progress is being made toward the COGME workforce goals for the nation, progress has been slow and there are some important gaps.

Several States that now carve out the GME portion of Medicaid managed care payments and distribute the funds to teaching hospitals, link the distribution of a portion of these funds to performance in achieving State GME policy goals. This includes such goals as increasing the number of generalists being trained and increasing training in ambulatory sites. These may be models for the Medicare+Choice GME carve out.

Under the Balanced Budget Act, the amount of funds to be carved out of the Medicare+Choice payments is based on historical rates of GME payments and Medicare patients use of teaching hospitals. Payments to teaching hospitals, however, will be based on actual use of teaching hospitals by Medicare+Choice enrollees. Because use of teaching hospitals by Medicare+Choice enrollees may be less than in the past due to changes in patterns of use under managed care, the amount carved out of the payments is likely to exceed the amount to be paid out to teaching hospitals. This difference could form the base for financial incentives to promote national physician workforce goals. The implementation of the Medicare carve out is an opportunity to promote workforce goals without raising new funds. The Council recommends legislation to authorize these changes.

RECOMMENDATION 4

PROMOTE FEDERAL-STATE PARTNERSHIPS FOR HEALTH PROFESSIONS PLANNING. Federal policy and programs should support and encourage the development of State GME policy-making structures and effective workforce policies. The Federal government should explore approaches to collaboration and partnerships with States with workforce planning systems.

States have a major interest in GME within their boundaries. GME is a major determinant of the supply and specialty mix of physicians in States, which

directly affects the availability and cost of medical services. As indicated in this report, many States have recently become involved with GME financing and policies. This builds on traditional State commitments to undergraduate medical education, State supported academic medical centers, and State efforts to address shortages in underserved rural and inner city communities. While some States have linked their new authority over GME financing with their workforce needs, this effort is still in the early stages of development. A new Federal initiative to help States build the expertise and capacity for workforce planning would be very timely. Particularly important for States, will be the willingness of the Health Care Financing Administration (HCFA) to support State innovations under the Medicaid program, which is the major source of State GME funding.

Because of the newness of State activities in this area, it is not yet known whether regulatory or statutory changes will be necessary to allow States the flexibility to target their Medicaid GME dollars to their workforce needs. This should be monitored closely.

Congress has indicated its willingness to explore flexibility with Medicare GME funds to encourage rational workforce planning through the authority in the Balanced Budget Act for demonstrations with GME consortia. This might be a vehicle for demonstrations with States. The demonstration authority could permit Medicare GME funds to be distributed based on a State GME priorities.

DECREASING THE NUMBER OF PHYSICIANS IN TRAINING AND INCREASING THE NUMBER OF GENERALISTS

As documented in this report, there are a number of forces encouraging a decrease in the number of residents being trained in the U.S. Yet it is unlikely that the new developments will be sufficient to reach the goals of COGME for downsizing. The number of residents should be monitored closely and consideration should be given to additional incentives for downsizing.

RECOMMENDATION 5

CONTINUE TO PROMOTE A REDUCTION IN THE NUMBER OF PHYSICIANS IN TRAINING, PARTICULARLY SPECIALISTS. If there is not a significant decline in first year residency positions by the 2000-01 academic year, additional incentives for downsizing should be implemented.

It is difficult to predict with specificity the impact of all of the recent developments with any confidence. It is important, therefore, to monitor closely the number of new entrants entering training each year. If new entrants into allopathic and osteopathic residency positions do not drop to 115 percent of the 1993 U.S. medical school graduates by the 2000-01 academic year, then additional downsizing incentives should be implemented.

It appears that the marketplace and many of the previous efforts to increase the number of generalist physicians have been effective and that the nation is making good progress toward its target for the production of generalists. Additional policies to increase physicians training in generalist specialties do not appear to be needed at this time

RECOMMENDATION 6

PROVIDE ENHANCED TRANSITION SUPPORT FOR SAFETY NET HOSPITALS THAT REDUCE THE NUMBER OF RESIDENTS IN TRAINING. *This should include the authorization of the use of National Health Service Corps to assist in the voluntary downsizing of residents in safety net hospitals.*

Hospitals that depend the most on residents for service are least likely to voluntarily reduce residents. Redesigning services and replacing residents can be difficult and costly—especially for safety net hospitals in underserved areas. For example, several hospitals with a high percent of uninsured patients in New York State decided against entering the Medicare GME demonstration due to the certain loss of Medicare GME revenues as the demonstration progresses and the anticipated cost of replacement staff. The current support available through the Medicare GME downsizing demonstrations authorized by the Balanced Budget Act appears insufficient to assure the fiscal health of safety net hospitals that reduce residents.

Additional financial support for safety net hospitals from Medicare targeted to support access to care for the uninsured and technical assistance from HRSA on the redesign of services and recruitment of alternatives to residents, would help support a voluntary reduction and the preservation of essential services. Expanding the National Health Service Corps to include placement at safety net hospitals, as previously recommended by the Council, could also help assure essential services by safety net hospitals as they reduce residents.

RECOMMENDATION 7

RESTORE THE EXCHANGE VISITORS VISA PROGRAM TO ITS ORIGINAL INTENT. *National policies and administrative procedures related to physicians*

with temporary visas should be revised consistent with the original purpose of these visas.

In June of 1997, the Council recommended a 4-year phase out of the policy of granting waivers for service reasons of the requirement that physicians with J-1 visas return to their country of origin after completion of their residency training. This would help restore the exchange visitor program to its original purpose of assisting other countries to benefit from advances in medical training in America. The Council has also recommended that the requirement that J-1 visa physicians return to their originating country for at least two years before returning to the U.S. be increased to five years and that the use of H-1B visa for physician residency training be eliminated. These policies would help reduce the number of new physicians in the U.S. and prevent a drain of physicians from other countries.

Most observers believe that the reduction in residency positions that is occurring will lead to a reduction in IMGs, reflecting a preference by residency programs for U.S. medical school graduates. Since a high percent of IMGs with J-1 visas who stay in the U.S. go into practice in underserved areas, a decrease in residents with temporary visas may require an expansion of the National Health Service Corps and/or other initiatives to assure access in areas now served by IMG physicians with temporary visas.

GME FINANCING

RECOMMENDATION 8

ESTABLISH A STABLE AND EQUITABLE SOURCE OF LONG TERM FINANCING FOR GME. *Graduate medical education is a public good that benefits the whole nation. All payers should share the costs of training. The Council, therefore, recommends the development of an all payer financing system that would spread the costs of preparing a well-qualified physician workforce equitably across all payers.*

As the health care marketplace becomes more competitive and GME financing decreases, the fiscal health of the nation's teaching hospitals may be threatened. While the authorization for carve outs of GME funds from Medicare and Medicaid managed care payments should help preserve a flow of Medicare and Medicaid dollars to teaching hospitals, the basic framework of the competitive marketplace may create serious problems for teaching sites.

Training the future physician workforce is a public service that teaching hospitals provide for

the benefit of the whole nation; however, the current marketplace approaches to health care financing are not likely to create sufficient funding for a quality education for the nation's future physician workforce. The responsibility for paying for the training should not be the sole responsibility of teaching hospitals nor of Medicare and Medicaid. It is appropriate, therefore, that the cost of training be supported by as broad a base of payers as possible.

The erosion in GME payments is likely to increase as competition increases in the health care industry. The Balanced Budget Act, by reducing the rate in the growth of payments to teaching hospitals, may also reduce funding for GME. Quality medical training is costly. Yet, if support for training is inadequate, it will be difficult to provide the high quality training expected by both policy makers and the public. The Council, therefore, recommends the development of an all payer financing system that would spread the costs of preparing a well-qualified physician workforce equitably across all payers.

There are many benefits of a competitive marketplace; but it does not appear that support for services for the public good are among them. In the competitive environment, payers and purchasers have a very strong incentive to control costs. Long term support for public goods, such as physician training, is unlikely in this environment.

This is not to suggest that all teaching hospitals should receive unrestricted funding regardless of the nation's needs for additional physicians. If an all payer system were established, it would be important to build in mechanisms for public accountability to assure that the funds are spent wisely and carefully to support the workforce needs of the nation.

ENCOURAGING TRAINING IN AMBULATORY CARE SETTINGS

RECOMMENDATION 9

ASSURE ADEQUATE FUNDING FOR TRAINING IN AMBULATORY SETTINGS. Policies related to financing GME in ambulatory sites should be reviewed closely. If necessary, additional policies and programs should be developed to support quality training in ambulatory settings.

While a number of recent developments support increased training in ambulatory care settings, these may not be sufficient to encourage a significant shift in training to ambulatory care settings. This should be monitored closely. The Federal government should provide technical assistance and support the development of models for effective training in ambulatory settings. Further revisions in financing policies may be necessary to support training in ambulatory settings.

In 1999, the Council plans to undertake a review of current policies related to GME financing, including ambulatory care settings and issue a report on the adequacy of current policies.

CONCLUDING COMMENTS

On a number of issues, such as further reducing the number of residents in training and increasing support for training in ambulatory settings, the Council has recommended modest steps. While the nation's physician workforce goals have not yet been met, as this report documents there has been clear progress and recent developments provide support for many of the COGME goals. The Council believes that the strategy recommended in this report—to promote a more effective marketplace, to develop a more integrated planning process, to provide financial incentives for priority goals, to work with States, and to advocate for more stable, long term financing of GME—is an effective strategy. Given the progress being made, recent developments and the potential impact of the above recommendations, the Council does not recommend a major new Federal authority for determining the physician workforce or major new governmental expenditures. The Council is hopeful that the recommendations above will be sufficient to achieve the nation's health workforce goals.

While the Council believes that the recommendations will help bring the future supply of physicians into balance with the nation's requirements, these recommendations are not likely to address other high priority goals of the Council, such as increasing the diversity of the physician workforce and the maldistribution of physicians. These goals continue to be a high priority of the Council and will require other actions to adequately address them.

References

- American Association of Colleges of Osteopathic Medicine (1998). *DO Graduates, 1980-2002*. Annual Osteopathic Medical School Questionnaires, 1980-81 through 1996-7 Academic Years.
- AHA Guide to the Health Care Field as cited in the Area Research File (1997). February, 1997.: DHHS.
- Association of American Medical Colleges (1997). *Fact Sheet: Trends in Hospital Inpatient Operating Margins Underscore Importance of Mission-Related Payments to COTH Hospitals*, December 15, 1997. Washington, D.C.: AAMC.
- Association of American Medical Colleges (1998). *AAMC Data Book: Statistical Information Related to Medical Education*. January, 1998. Washington, D.C.: AAMC.
- Center for Health Workforce Studies (1998A) *Internal Reports and Tabulations*. Rensselaer, NY.
- Center for Health Workforce Studies (1998B). *Graduate Medical Education in New York State, 1997*. September, 1998. Rensselaer, NY.
- Colwill, J.M. (1998). *Increasing Numbers of Family Physicians: Good News for Rural America*. Presentation at the Council on Graduate Medical Education, May 6-7, 1998. Washington, D.C.
- Congressional Budget Office (CBO) (1997). *Budgetary Implications of the Balanced Budget Act of 1997*. December, 1997. Washington, D.C.
- Consensus Statement on the Physician Workforce. Paper issued at a joint press conference, February 28, 1997, Washington, D.C.: AACOM, AMA, AOA, AAHC, AAMC, and NMA.
- Cooper, R.A., Land, P., and Dietrich, C.L. (1998A). Current and Projected Workforce of Non-Physician Clinicians. *JAMA*, 280, 788-794.
- Cooper, R.A., Henderson, T., Dietrich, C.L. (1998B). Roles of Non-Physician Clinicians on Autonomous Providers of Patient Care. *JAMA*, 280, 795-802.
- Cooper, R.A. (1995). Perspectives on the Physician Workforce to the Year 2020. *JAMA*, 274, 1534-1543.
- Cooper, R.A. (1994). Seeking a Balanced Physician Workforce for the 21st Century. *JAMA*, 272, 680-687.
- Council on Graduate Medical Education (1992). *Third Report: Improving Access to Health Care Through Physician Workforce Reform: Directions for the 21st Century*. Rockville, Maryland: DHHS.
- Council on Graduate Medical Education (1994). *Fourth Report to Congress and the Department of Health & Human Services Secretary: Recommendations to Improve Access to Health Care Through Physician Workforce Reform*. Rockville, Maryland: DHHS.
- Council on Graduate Medical Education (1995c). *Seventh Report: COGME 1995 Physician Workforce Funding Recommendations for Department of Health and Human Services' Programs*. Rockville, Maryland: DHHS.
- Council on Graduate Medical Education (1996). *Eighth Report—Patient Care Physician Supply and Requirements: Testing COGME Recommendations*. Rockville, Maryland: DHHS.
- Council on Graduate Medical Education (1997). *Ninth Report: Graduate Medical Education Consortia: Changing the Governance of Graduate Medical Education to Achieve Physician Workforce Objectives*. Rockville, Maryland: DHHS.
- Council on Graduate Medical Education (1998). *Tenth Report: Physician Distribution and Health Care Challenges in Rural and Inner-City Areas*. Rockville, Maryland: DHHS.
- Council on Graduate Medical Education (1998). *Eleventh Report: International Medical Graduates, the Physician Workforce, and GME Payment Reform*. Rockville, Maryland: DHHS.
- Council on Graduate Medical Education (1998). *Twelfth Report: Minorities in Medicine*. Rockville, Maryland: DHHS.
- Council on Graduate Medical Education (1998). *Thirteenth Report: Physician Education for a Changing Health Care Environment*. Rockville, Maryland: DHHS.
- Department of Health and Human Services (1997). Report By The Task Force: *The Future of Academic Health Centers. Review of Departmental Policies and Recommendations*.

- Dobson, A., Coleman, K., and Mechanic, R. (1994). *Analysis of Teaching Costs*. Prepared for the Association of American Medical Colleges by Lewin-VHI, Inc. August 1994.
- Dunn, D.R., Miller, R.S. (1996). The Shifting Sands of Graduate Medical Education. *JAMA*, 276, 710-713.
- Educational Commission for Foreign Medical Graduates (1997). *1998 Information Booklet: ECFMG Certification*, August, 1997. Philadelphia, PA.: ECFMG.
- Eisenberg, J. (1994). If Trickle-Down Physician Workforce Policy Has Failed, Is the Choice Now Between the Market and Government Regulation. *Inquiry*, 31, 241-249.
- Epstein, A. (1995). U.S. Teaching Hospitals in the Evolving Health Care System. *JAMA*, 273, 1203-1207.
- Foreman, S. (1998). *Testimony on Behalf of the Greater New York Hospital Association on International Medical Graduates*. Presentation to the GME Study Group of the National Bipartisan Commission on the Future of Medicare. September 22, 1998. New York City, NY.
- Gamliel, S., Politzer, R.M., Rivo, M.L., Mullen, F. (1995). Managed Care on the March: Will the Physician Workforce Meet the Challenge. *Health Affairs*, 14, 131-142.
- Ginzberg, E. (1996). The Future Supply of Physicians. *Academic Medicine*, 71, 1147-1153.
- Gold, M.R. (1996). Effects of the Growth of Managed Care on Academic Medical Centers and Graduate Medical Education. *Academic Medicine*, 71, 828-838.
- Gonzalez, M. ed. (1997). *Socioeconomic Characteristics of Medical Practice 1997*. Chicago: American Medical Association.
- Gonzalez, M., Zhang, P. eds. (1998). *Physician Marketplace Statistics 1997/98*. Chicago: American Medical Association.
- Goodman, D.C., Fisher, E.S., Bubolz, T.A., Mohr, J.E., Poage, J.F., Wennberg, J.E. (1996). Benchmarking the U.S. Physician Workforce: An Alternative to Needs-Based or Demand-Based Planning." *JAMA*, 276, 1811-1817.
- Green, B., Johnson, T. (1995). Replacing Residents with Midlevel Practitioners: A New York City Area Analysis. *Health Affairs*, 14:192-198, Summer, 1995.
- Greenburg, L., Cultice, J.M. (1997). Forecasting the Need for Physicians in the United States: The Health Resources and Services Administration's Physician Requirements Model. *Health Services Research*, 31, 723-737.
- Grumbach, K., Coffman, J. (1998). Physicians and Non-Physician Clinicians: Complements or Competitors? *JAMA*, 280, 825-826.
- Grumbach, K., Vranizan, K., Bindman, A.B. (1997). Physician Supply and Access to Care in Urban Communities. *Health Affairs*, 16(1), 71-86.
- Hadley, J., Mitchell, J.M. (1997). Effects of HMO Market Penetration on Physicians' Work Effort and Satisfaction. *Health Affairs*, 16(6), 99-111.
- Hart, L.G., Wagner, E., Pirzada, S., Nelson, A.F., Rosenblatt, R.A. (1997). Physician Staffing Ratios in Staff-Model HMOs: A Cautionary Tale. *Health Affairs*, Jan/Feb, 55-89.
- Health Care Financing Administration (HCFA) Personal Communication, June 1, 1998.
- Iglehart, JK. (1996). The Quandary Over Graduates of Foreign Medical Schools in the United States. *The New England Journal of Medicine*, 334(25), 1680-1683.
- Institute of Medicine (IOM) (1996). *The Nation's Physician Workforce: Options for Balancing Supply and Requirements*. Washington, DC: National Academy Press.
- Institute of Medicine (IOM) (1997). *On Implementing a National Graduate Medical Education Trust Fund*. Washington, DC: National Academy Press.
- Jacoby, I., Meyer, G.S. (1998). Creating an Effective Physician Workforce Marketplace. *JAMA*, 280, 822-824.
- Journal of American Medical Association, Appendix II (1995). Medical Education Issue, Chicago, IL.: AMA.
- Journal of American Medical Association, Appendix II (1997). Medical Education Issue, Chicago, IL.: AMA.
- Journal of American Medical Association, Appendix 1A (1998A). Medical Education Issue, Chicago, IL.: AMA.
- Journal of American Medical Association, Appendix II (1998B). Medical Education Issue, Chicago, IL.: AMA.
- Journal of American Medical Association, Medical Education Issues (1986-1998). Chicago, IL.: AMA.

- Kindig, D.A., Libby, D.L. (1996). Domestic Production vs. International Immigration: Options for the U.S. Physician Workforce." *JAMA*, 276, 978-982.
- Kletke, P., Escarce, J., Lyttle, C., Polsky, D., Wozniak, G. (1998). *Trends in Physicians Retirement*. Presentation at Association for Health Services Research, Annual Meeting, June 1998.
- Medicare Payment Advisory Commission (1998). The Balanced Budget Act of 1997: Its Effect on PPS Inpatient Margins. *Report to the Congress: Medicare Payment Policy*, 2, 29-35.
- Medicare Payment Advisory Commission (1998). *Report to the Congress: Context for a Changing Medicare Program*. June 1, 1998. Washington, D.C.
- Miller, R.S., Dunn, M.R., Richter, T.R., Whitcomb, M.E. (1998). Employment-Seeking Experiences of Residents Completing Training During 1996. *JAMA*, 280, 777-783.
- Miller, R.S., Dunn, M.R., Whitcomb, M.E. (1997). Initial Employment Status of Resident Physicians Completing Training in 1995. *JAMA*, 277, 1699-1704.
- Miller, R.S., Jonas, H.S., Whitcomb, M.E. (1996). Initial Employment Status of Resident Physicians Completing Training in 1994. *JAMA*, 275, 708-712.
- Mullen, F., Politzer, R.M., Davis, H. (1995). Medical Migration and the Physician Workforce: International Medical Graduates and American Medicine. *JAMA*, 273, 1521-1527.
- Mullen, F., Politzer, R.M., Gamliel, S., Rivo, M.L. (1994). Balance and Limits: Modeling Graduate Medical Education Reform Based on the Recommendations of the Council on Graduate Medical Education. *The Milbank Quarterly*, 72(3), 395-398.
- The National Board Examiner (1998). Report on 1997 USMLE Steps 1, 2, and 3. National Board of Medical Examiners, Philadelphia, Pennsylvania. 45(1).
- National Health Policy Forum (1998). *Issue Brief, Restructuring the VA Health Care System: Safety Net, Training, and Other Considerations*. No. 716. March 25, 1998. George Washington University, Washington, D.C.
- National Resident Matching Program (NRMP) (1998). Majority of U.S. Medical School Graduates Continue to Enter First-Year Primary Care Residencies. Press Release, Wednesday, March 18, 1998.
- Pew Health Professions Commission (1995). *Critical Challenges: Revitalizing the Health Professions for the Twenty-first Century*. San Francisco: University of California, San Francisco, Center for Health Professions.
- Plumb, D. and Henderson, T. (1995). *Medicaid Funding of Graduate Medical Education: A Survey of the States*. Washington, DC: George Washington University; Association of American Medical Colleges.
- Politzer, R.M., Gamliel, S.R., Cultice, J.M., Bazell, C.M., Rivo, M.L., Mullan, F. (1996). Matching Physician Supply and Requirements: Testing Policy Recommendations." *Inquiry*, 33, 181-193.
- Politzer, R.M. (1998). *Estimates of 1996-7 First Year Residents Choosing a Primary Care Track Throughout GME*. (unpublished summary of AAMC Tracking Census Data) Washington DC: OPAR.
- Prospective Payment Assessment Commission. *Report and Recommendations to the Congress, March 1, 1997*. Washington, D.C.
- Prospective Payment Assessment Commission. *Medicare And The American Health Care System, Report To The Congress, June, 1997*. Washington, D.C.
- Randolph, L., Ph.D., Seidman, B., Pasko, T. (1997). *Physician Characteristics and Distribution in the U.S.* Dover, Delaware: American Medical Association.
- Reuter, J. (1996). *Changes in Payments for the Direct and Indirect Costs of Graduate Medical Education*. Washington, DC: Institute for Health Care Research and Policy, Georgetown University Medical Center.
- Roback, G., Randolph, L., Ph.D., Seidman, B., Mead, D. (1987). *Physician Characteristics and Distribution in the U.S.* Dover, Delaware: American Medical Association.
- Salsberg, E. (1997). *A Special Report – State Strategies for Financing Graduate Medical Education, 1997*. New York: United Hospital Fund.
- Salsberg, E., Wing, P., Nolan, J., Dionne, M. (1998). *The Use of A Resident "Exit Survey" to Assess Demand for New Physicians by Specialty*. Center for Health Workforce Studies: A Presentation to the Association for Health Services Research, June 1998.
- Schroeder, S.A. (1994). The Latest Forecast: Managed Care Collides with Physician Supply. *JAMA*, 272, 239-240.

- Stevens, D., MD (1997). National Policy Perspectives: GME Reform Needs Visionary Academic Leadership. *Academic Medicine*, 72(11), 986-7.
- Traxler, H. (1994). Physician Supply Modeling in the USA and its Uses in Assisting Policymaking. *World Health Statistics Quarterly*, 47(3/4), 118-125.
- Weiner, J.P. (1994). Forecasting the Effects of Health Reform on US Physician Workforce Requirement: Evidence from HMO Staffing Patterns. *JAMA*, 272, 222-230.
- Wennberg, J.E., Goodman, D.C., Nease, R.F., Keller, R.B. (1993). Finding Equilibrium in U.S. Physician Supply. *Health Affairs*, Summer: 89-103.

Appendix: Notes on the Mix of Generalists and Specialists

A critical factor in assessing the proportions of residents who ultimately become generalists or specialists is the subspecialization rate of primary care residents, especially those in Internal Medicine. Table A-1 provides estimates of the distribution of

residents between primary care and non-primary care specialties for 1997-98.

The three estimates presented in Table A-1 are based on several assumptions. All of the scenarios assume that 78 percent of Pediatrics PGY1s, 95 percent of Family Practice PGY1s, and 78 percent of Med-Ped PGY1s will eventually choose primary care specialties. These estimates come from the Bureau of Health Professions (Politzer, 1998). The Center for Health Workforce Studies has further assumed that of the 1,589 Preliminary PGY1s included in the Internal Medicine total, none enter primary care.

The ultimate physician specialty mix is very sensitive to the percentage of Internal Medicine PGY1s who ultimately choose primary care. Estimates are provided in Table A-1 based on assumptions that 40 percent, 50 percent or 60 percent of Internal Medicine PGY1s ultimately choose primary care. These result in estimates of the change in primary care PGY1 slots required to achieve the 110/50-50. Depending on the rate of subspecialization, the annual production of generalist ranges from 8,605 (40 percent enter primary care) to 9,830 (60 percent enter primary care). While historically it was estimated that 60 percent or more internal medicine residents went on to subspecialize, recent data from the Center for Health Workforce Studies indicate that in New York State in 1997, only 40 percent were going on to subspecialize. This study uses the mid range estimate of 50 percent for the Internal Medicine subspecialization rate, but the sensitivity to variations shown in Table A-1 suggests that policy analysts follow this factor closely in the future.

TABLE A-1
Calculation of Percent and Number of Primary Care Physicians
THREE SCENARIOS, 1997-98

Specialty	Number PGY1s*	Percent to Specialty Category	<i>PERCENT INT MED TO PRI CARE, 1997-98</i>		
			40%	50%	60%
Family Practice	3,260	95%	3,079	3,079	3,097
Pediatrics	2,458	78%	1,917	1,917	1,917
IM General	6,126	**	2,450	3,063	3,675
Preliminary	1,589	0%	0	0	0
Med-Ped	435	78%	339	339	339
Osteo Intern PC (60%)	1,335	60%	801	801	801
PRIMARY CARE			8,605	9,217	9,830
Family Practice	3,260	5%	163	163	163
Pediatrics	2,458	22%	541	541	541
Internal Medicine	6,126	***	3,675	3,063	2,450
Preliminary	1,589	100%	1,589	1,589	1,589
Med-Ped	435	22%	96	96	96
Osteo Intern NPC (40%)	1,335	40%	534	534	534
Other Non-Primary Care	7,940	100%	7,940	7,940	7,940
NON-PRIMARY CARE			14,538	13,926	13,313
TOTAL (ALLOPATHIC + OSTEOPATHIC)			23,143	23,143	23,143
<i>Percent PGY1s Estimated to Enter Primary Care</i>			37%	40%	42%
<i>Total PGY1s Needed to Achieve 110%</i>			19,757	19,757	19,757
<i>Generalist/Specialist Target</i>			9,879	9,879	9,879
<i>Change in Generalist PGY1s to attain 110/50-50</i>			+1,274	+662	+49
<i>Change in Specialist PGY1s to attain 110/50-50</i>			-4,659	-4,047	-3,434

* Actual number of PGY1s in specialty with no prior US graduate training

** Percentage varies by column and is either 40%, 50% or 60%.

*** Percentage varies by column and is the complement of either 40%, 50% or 60%.



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