

COUNCIL ON GRADUATE MEDICAL EDUCATION

Eleventh Report

**International Medical Graduates,
the Physician Workforce,
and GME Payment Reform**

March 1998

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
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 and to recommend appropriate federal and private sector efforts to address identified needs. The legislation calls for COGME to serve in an advisory capacity 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. By statute, the Council was to terminate on September 30, 1995. It has been extended through the end of FY 1998 by appropriations legislation.

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 by Public Law 99-272 as amended by Title III of the Health Professions Extension Amendments of 1992, required COGME to provide advice and make recommendations to the Secretary and Congress on a wide variety of 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 existing data bases concerning the supply and distribution of, and postgraduate training programs for, physicians in the United States and steps that should be taken to eliminate those deficiencies.

In addition, the Council is to encourage entities providing graduate medical to conduct activities to voluntarily achieve the recommendations of this 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, Volume I and Volume II (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 Workforce Objectives (1997)
- Tenth Report: Physician Distribution and Health Care Challenges in Rural and Inner-City Areas (1998)

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EXECUTIVE SUMMARY & RECOMMENDATIONS

It has long been the position of the Council on Graduate Medical Education (COGME) that the United States has too many physicians and these physicians are not appropriately distributed across medical specialties and geographic locations. In recent years the growth of managed care organizations has reduced the demand for physicians' services and magnified the size of the projected physician oversupply. To achieve a better balance between physician supply and demand and more appropriate distributions across specialties and locations, COGME has advocated three broad policy goals: (1) reduce the number of first year GME positions from 140 percent of the number of graduates of accredited schools of medicine and osteopathy to 110 percent; (2) encourage half the

residents completing their training each year to enter primary care specialties; and (3) continue support for residency programs that provide care to substantial numbers of underserved people.

Despite these recommendations, there has been continued growth, especially since 1990, in the number of GME positions. Some experts believe that this growth has been driven by an increasing demand for residents by teaching hospitals, fueled in part by Medicare payments for residency training, and an ample supply of IMGs to fill those positions.

With a nearly fixed number of U.S. medical school graduates entering GME each year, the marked increases in recent years of graduates from schools outside the U.S. entering graduate training in this country has been a major contributor to the increased number of residents. As shown in Table 1, most of the increase in the number of total residents since the 1988-89 academic year has been due to a large increase in the number of foreign-born IMGs. Many IMGs remain in the U.S. because they are permanent residents. Likewise, while IMGs on temporary visas usually return home when their visas expire, many ultimately return to the United States to permanently add to the physician workforce.

The increase in the total number of IMGs has been generated for the most part by the large number of foreign-born IMGs entering residency programs with temporary J-1, J-2, and H-1B visas as shown in Table 2. Past data have suggested that a high percentage of J-1 exchange visitors have ultimately returned to the United States. H-1B visa holders may become eligible for conversion to permanent resident status, through family- or employment-based petition.

As a result of the observed growth in the number of IMGs, it has been suggested that policies designed to curtail the influx of these trainees could be used to reduce the number of first-year physicians entering the workforce, and thus move toward the objective of reducing the number of trainees to 110 percent of the number of graduates of U.S. medical schools. In its *Seventh Report*, COGME recommended reducing Medicare payments to teaching hospitals for IMGs by 75 percent over a 4-year period. Both the Council on Medical Education of the American Medical As-

Table 1

All Residents in Allopathic Programs

Academic Year	Foreign-Born IMGs	U.S. Citizen IMGs	Total IMGs	USMGs	Total
1988-89	7,227	4,329	11,556	71,235	82,791
1989-90	8,726	4,595	13,321	73,675	86,996
1990-91	10,949	5,067	16,016	75,762	91,778
1991-92	12,881	5,258	18,139	77,016	95,155
1992-93	15,621	5,272	20,893	77,716	98,609
1993-94	18,558	5,162	23,720	78,562	102,282
1994-95	21,199	4,481	25,680	78,074	103,754
1995-96	22,565	4,198	26,763	77,849	104,612

Source: Residency data from Association of American Medical Colleges

Table 2

All Residents in Allopathic Programs

Academic Year	Temporary Visa IMGs*	All Other IMGs+	Total IMGs	USMGs	Total
1988-89	2,173	9,383	11,556	71,235	82,791
1989-90	2,299	11,022	13,321	73,675	86,996
1990-91	3,615	12,401	16,016	75,762	91,778
1991-92	5,041	13,098	18,139	77,016	95,155
1992-93	6,787	14,106	20,893	77,716	98,609
1993-94	9,325	14,395	23,720	78,562	102,282
1994-95	11,068	14,612	25,680	78,074	103,754
1995-96	11,545	15,218	26,763	77,849	104,612

Sources: Residency data from Association of American Medical Colleges; J-1, J-2, & H-1B temporary data from various *Journal of the American Medical Association* medical education issues.

* This category includes IMGs on J-1, J-2, and H-1B visas

+ This category includes both permanent resident and U.S. citizen IMGs

sociation¹ and the Institute of Medicine² also have advocated focusing Medicare GME funding on the support of U.S. medical school graduates.

However, after further examination of potential policies that would begin to reduce the size of the pool of trainees, including policies relating to IMGs, COGME has come to believe that a policy that restricts Medicare GME funding to USMGs would be fraught with potential legal complexities if it discriminates against IMGs who are either naturalized U.S. citizens or permanent U.S. residents. As a result, COGME has reconsidered its prior recommendations with respect to IMGs and developed new recommendations to the Congress and the Secretary of Health and Human Services.

The new recommendations are designed around two basic concepts: (1) modifications to the exchange visitor program; and (2) changes in financial incentives that would encourage hospi-

tals to reduce their training activities. COGME recommends that the United States should continue to sponsor exchange visitor training in accord with the original intent of this program to strengthen international relations and further mutual understanding through educational and cultural exchanges.

The new recommendations were issued on June 4, 1997. Subsequently, the Congress passed and the President signed the Balanced Budget Act of 1997, P.L. 105-33. This legislation contains the first major reforms of Medicare GME financing in over a decade. A number of the GME-financing recommendations in this report, also made by the Administration and reflective of the direction of thinking by other bodies, were enacted in varying degrees in the Act. These reforms are the culmination of a debate since COGME's *Third Report*, issued in 1992, urging physician workforce reforms.

¹AMA Council on Medical Education, Report 1-I-96

²Institute of Medicine, *The Nation's Physician Workforce: Options for Balancing Supply and Requirements*, National Academy Press, Washington, D.C., 1996

COGME's 1997 RECOMMENDATIONS ON THE PHYSICIAN WORKFORCE – INTERNATIONAL MEDICAL GRADUATES AND GME PAYMENT REFORM

I. REDUCE THE NUMBER OF GRADUATE MEDICAL EDUCATION (GME) POSITIONS

- A. Eliminate both Medicare direct graduate medical education (DME) and indirect medical education (IME) payments for new exchange visitor (J-1 Visa) residents beginning the year following implementation of this provision. Fund new exchange visitor residents from alternative sources, such as home country financing or foreign aid. Continue to make DME and IME payments for those exchange visitor residents who entered training prior to implementation.

COGME believes that Medicare GME payments should be available only to those residents expected to become part of the U.S. physician workforce. The original intent of the physician exchange visitor program was to strengthen international relations and further mutual understanding through educational and cultural exchange; the program was not intended to add physicians to the U.S. physician workforce. This recommendation would apply only to new exchange visitors; Medicare GME payments would continue to be made for exchange visitor residents already in the training pipeline.

COGME believes that GME funding for exchange visitor residents should come from either foreign sources or U.S. provided non-Medicare sources such as foreign aid or private sector sponsored assistance. Funding from sources such as the Agency for International Development (AID) or the private sector can provide a continuing U.S. commitment to preserving the exchange visitor program.

- B. Base hospitals' resident counts for both Medicare DME and IME payment determinations on a 3-year rolling average beginning with the two years prior to implementation of this provision. This

would provide a temporary financial cushion and incentive to reduce the number of residents reimbursed by Medicare.

- On a hospital-specific basis, cap the total resident counts for both DME and IME payment determinations, and either
 - cap the non-primary care resident count;
 - or -
 - maintain or increase the primary care proportion of residents,
 at the level in the year prior to implementation of the cap, to limit further increases in the number of residents reimbursed by Medicare while protecting the number or proportion of primary care residents.
- Cap the individual resident-to-bed ratio (IRB) ratio on a hospital-specific basis at the level prior to implementation of the cap, to prevent the hospital's IRB ratio and IME payments from increasing because of a decrease in the hospital's inpatient bed capacity.

Computing Medicare payments on a three-year rolling average of annual residents would reduce payments proportionately less than the number of residents. The rolling average provides hospitals with a limited incentive to reduce the number of residents and enable a smoother transition toward reducing the number. COGME believes that this "cushion" will provide resources for hospitals to restructure their organizations more efficiently, be less dependent upon residents for services, and include the appropriate use of other health professionals. By lagging the payment response to changes in resident numbers, this recommendation also provides an incentive not to increase the number of residents.

Capping residency counts eligible for DME payment facilitates market forces by removing the hospital's incentive to

increase the number of residents. Capping the IRB ratio removes any incentive hospitals might have to increase the number of residents or decrease the number of beds in order to raise the ratio. Additionally, capping non-primary care positions prevents any resident reductions from impacting disproportionately primary care residents, and allows flexibility to expand the training of primary care residents.

- C. If recommendations I.A. and I.B. are not enacted, encourage additional demonstrations analogous to New York GME Demonstration Project, especially in states with high resident per-capita ratios.

A small number of states are especially dependent upon service delivery by residents. Hospitals in these states may need additional support to make a transition to an ambulatory-based service and training environment. The New York Medicare GME Demonstration Project provides:

- *incentives for hospitals to reduce the size of residency training programs in the state while providing transition funds to support the reorganization of service delivery and use of replacement personnel required, and*
- *a somewhat smaller required reduction in resident counts if hospitals agree to promote primary care or to participate in a formal consortia with coordinated GME programs.*

- D. If, within three years of implementation of these recommendations, significant progress has not been made toward reducing the number of first-year residency positions to 110% of 1993 U.S. medical school graduates, consider stronger policies aimed at reducing DME and IME payments that would result in a decrease in first-year residency positions to 110% of 1993 U.S. graduates.

COGME believes that the use of financial incentives, such as those proposed, is the preferred method to adjust the market production of residents, particularly at a time of rapid change in the health care industry. However, there is a need to reduce both the number of first-year residents and the cost of GME. If the combination of Recommendation I.B. and the market does not accomplish the necessary reduction in residency positions and produce

a better balance between physician supply and future requirements as advocated by COGME's "110%" recommendation, other measures may need to be considered to accomplish that goal.

II. SUPPORT FOR COMMUNITIES AND SHORTAGE AREAS AFFECTED BY LOSS OF RESIDENTS

Use a portion of the savings from these recommendations to support programs such as Community or Migrant Health Centers and the National Health Service Corps, where a substantial decline in residents creates continuing severe service shortages.

A substantial decline in the number of physician residents in communities that rely heavily on their services may produce severe service shortages. Allocating a portion of Medicare savings to community-based service delivery programs, particularly "safety-net" programs, will permit hospitals to move to a more appropriate service delivery environment for both training and care.

III. REVISE THE TEMPORARY VISA PROGRAMS

- A. Phase out over a 4-year period the granting of J-1 waivers for purely service reasons as a move toward restoring the exchange visitor program to its original purpose. At the same time, the policy of considering waivers for uniquely qualified researchers in nationally and internationally significant research efforts should be continued.

The four-year phase out of the service-based waivers would allow development of domestic program strategies to provide long-term, permanent solutions to alleviate physician maldistribution. On the other hand, waivers for researchers will encourage medical and health related research of an advanced technological nature that would produce benefits to both the Nation and the international community.

- B. Increase the J-1 visa return-home period from 2 to 5 years for exchange visitor physicians.

A five-year minimum return home period allows J-1 visa holders sufficient time to contribute the benefits of U.S. training to their home country physician workforce and permits reasonable time for reacclimation. This should reduce the probability that J-1 visa holders will return to the U.S.

C. Eliminate use of the H-1B visa program for physician residency training.

The elimination of H-1B visa program would stop the use of the H-1B visa to circumvent the J-1 visa "return home" requirement.

IV. ENHANCE PRIMARY CARE RESIDENCY TRAINING

A. Provide Medicare DME payments to a wide variety of ambulatory teaching settings, including managed care plans.

B. Include time spent in ambulatory settings outside the hospital in the calculation of Medicare IME payments to hospitals.

C. Make Medicare IME payments to ambulatory settings outside the hospital when ambulatory cost estimates have been developed.

D. Identify and remove the DME and IME components of the Average Adjusted Per Capita Cost (AAPCC) from Medicare capitation rates and utilize these funds specifically for GME purposes.

Practitioner competency is dependent upon training in appropriate settings such as in community-based ambulatory sites. Physicians trained to provide primary care in ambulatory settings can provide comprehensive, continuing, longitudinal care to patients. The policy of providing direct and indirect GME payments only for hospital-based residents or DME payments to residents rotating in hospital based ambulatory clinics has restrained appropriate training for all physicians, generalists in particular, to provide such care. Medicare IME payments to ambulatory settings would provide a strong incentive to initiate such training.

The AAPCC payment system for Medicare risk HMO contractors presents a difficulty in financing HMO residency training. AAPCC payments include equivalent amounts of DME and IME for a relevant geographic area, but these GME dollars are not identified in the

AAPCC and are paid regardless of whether the HMO engages in residency training. As a result, Medicare GME funds are spread among all HMO contractors, without being focused on those that actually have teaching programs or necessarily use teaching hospitals for services.

These amounts should be removed from the AAPCC and made available for GME in a wide variety of teaching settings, including teaching hospitals and managed care organizations and HMOs with teaching programs, to help rectify possible inequities to teaching hospitals and eliminate the current disincentives to HMOs who wish to establish or expand residency training activities but do not currently receive explicit reimbursement for their efforts.

E. Support Public Health Service Act Title VII education programs, which have ultimate underserved practice as a goal.

Efforts need to be strengthened to encourage the domestic production of competent generalists who will serve in these areas. Most Title VII physician education programs operate under a statutory funding preference for applicants who demonstrate success in placing graduates in underserved communities.

F. Encourage new generalist residency programs by permitting exceptions to Medicare GME payment caps (as proposed in recommendation I.B.) for new primary care residency programs in geographic areas with shortages of physicians, including residents.

If Medicare GME payment caps are enacted, there should still be opportunities for Medicare DME and IME payments to encourage primary care residency programs in areas where relatively few or no programs exist. Residents frequently remain near the hospital where they received their residency training. The competency of primary care practitioners is dependent upon training in the proper settings such as in ambulatory sites in community-based hospitals. Promotion of new primary care residency programs can provide this type of training to physicians. These primary care physicians can offset the adverse impact of residency reduction and changes in the health service delivery environment by providing continuing, longitudinal, comprehensive general care to Medicare beneficiaries and vulnerable populations.

- G. For DME, reinstate the 1994-1995 freeze on non-primary care per-resident amounts for a two-year period, while continuing the Consumer Price Index for Urban Areas (CPI-U) updates for primary care per-resident amounts.**

Such a freeze has historical precedent. Freezing payments to non-primary care training programs while continuing for two years the CPI adjustment for primary care programs creates a payment differential in favor of primary care programs, carried forward as the CPI adjustments are resumed for both primary and non-primary care training programs payments. COGME believes that this differential in payments will motivate hospitals to shift the specialty training more in favor of primary care residency training or at least not reduce primary care training. This differential should be examined periodically for effectiveness.

It is COGME's intention that this freeze not adversely affect the recruitment and retention of minority residents in any specialty. COGME is on record as considering under represented minority participation and advancement in medicine as particularly critical for the Nation.

V. THE UNITED STATES ROLE IN INTERNATIONAL MEDICAL EDUCATION

- A. Recommend to the World Health Organization that other countries engage to a greater degree in physician workforce analysis and planning.**

- B. The U.S. government should cease to support undergraduate medical education of U.S. students in foreign countries through loans.**

Currently, the Department of Education is in the process of reviewing the credentialing requirements for medical schools in other countries. The purpose of this review is to ascertain if credentialing requirements are similar to those of the Liaison Committee for Medical Education (LCME). Eligibility of foreign medical schools to participate in the Federal Family Education Loan program for U.S. citizen medical students would be accorded only to those schools with LCME-like credentialing requirements. U.S. citizens who receive medical training in such schools would improve their likelihood of becoming ECFMG certified and accepted into a residency training program. Satisfaction of LCME-like requirements would reduce the number of foreign medical schools eligible to provide U.S. government funded support for U.S. citizen students.

INTRODUCTION

COGME developed an analytic agenda to further examine IMG issues. This agenda included the following goals:

- To identify and analyze the cause(s) of the recent rapid influx of IMGs into U.S. residency programs and the factors that result in many IMGs becoming part of the permanent U.S. physician workforce;
- To analyze the comparative distribution of IMGs and USMGs with respect to location, specialty, and mode of practice;
- To identify potential immigration policy options to meet national physician workforce goals, to assess their effectiveness, and to review the legal consequences of these and other workforce policy options recommended by COGME and other organizations; and
- To develop a long-term research agenda regarding IMG supply/demand issues.

COGME examined specific aspects of IMG entry into the U.S. for GME and their subsequent practice decisions. In addition, during its March 1996 meeting, COGME sponsored a series of presentations by experts involved in various facets related to IMGs. These experts included representatives from the Educational Commission for Foreign Medical Graduates (ECFMG), the Federation of State Medical Boards (FSMB), the Greater New York Hospital Association, the Immigration and Naturalization Service (INS), the U.S. Commission on Immigration Reforms, and the Department of Health and Human Services (DHHS). The discussion covered the role of IMGs in residency training and the various visa categories, e.g., naturalized citizens and permanent residents, and non-immigrant categories such as the J-1 and the H-1B visas.

As a result of further deliberations, COGME has adopted herein a new set of recommendations that supersede those of the Seventh Report. These recommendations remain consistent with the long-standing goals of reducing the number of GME positions to 110 percent of the number of graduates from LCME accredited schools, increasing the proportion of positions in primary care specialties, and providing continuing support for institutions that provide care to substantial numbers of poor and uninsured people.

The new recommendations propose a dual strategy for reducing the number of GME positions: (1) restructuring financial incentives to encourage teaching hospitals to reduce the number of GME positions offered; and (2) reemphasizing and strictly enforcing the terms and conditions of the temporary visas under which most IMGs enter the country for GME. A major advantage of the recommendations is that they leave decisions about eliminating or reducing program size, and which applicants to accept, in the hands of the medical educators, and the decisions on which programs to apply to in the hands of the applicants. Thus, they reinforce the emphasis on educational content and quality in decisions about GME, while at the same time encouraging a GME system both more appropriately sized for future workforce requirements and truer to the original intentions of policies to provide advanced training for IMGs.

With respect to the restructuring of financial incentives, COGME believes that Medicare GME payments to teaching hospitals, especially indirect medical education payments (IME), have been a major incentive for these institutions to increase the number of residents in their accredited residency programs. Medicare supports GME through two types of payments. One type of payment is intended to reimburse hospitals for Medicare's share of the direct costs of GME, including residents' salaries and fringe benefits. Allowable direct medical education (DME) payments are calculated on the basis of the number of full time equivalent residents in approved training programs. The second type of payment, IME, is based on the concept that care provided in teaching hospitals is more costly because of teaching programs. To adjust for this, payments to teaching institutions are increased by an amount that is "determined by its individual ratio of residents to beds and an adjustment factor, which is based on a statistical relationship between teaching hospital costs and the number of residents per hospital bed."³

However, the level of IME payments has been high relative to the statistical relationship between teaching hospitals' costs and the number of residents they train. The March 1997 *Report to the Congress of the Prospective Payment Assessment Commission (PropAC)* stated that hospital costs rise about 4.2 percent for each 0.1 increase in the

³Association of American Medical Colleges. *Medical Payments with an Education Label: Fundamentals and the Future* (1996), pg. 21

ratio of interns and residents to beds (IRB ratio),⁴ while the actual payment factor was 7.7 percent through FY 1997. The factor is now being phased downward, beginning October 1, 1997, by the Balanced Budget Act of 1997 (BBA).

IME payments, which increase with the number of residents in approved programs, have been a major source of many teaching hospitals' revenue. This may have created a strong incentive for residency programs to increase their number of residents. In an earlier report, the Institute of Medicine (IOM) cited Medicare GME payments as "a major incentive for teaching institutions to keep their numbers of residency positions high and expanding."⁵ The IOM report suggests that one way of addressing the potential oversupply of physicians would be to change the Federal support of GME.

In this report, COGME makes some recommendations, listed below, that would restructure these financial incentives. Some, as indicated, have been enacted in the BBA:

- Eliminate Medicare direct and indirect GME payments for new exchange visitor (J-1 Visa) residents.
- Base Medicare GME payments on a three-year rolling average number of residents to provide a temporary cushion for hospitals that elect to reduce the number of residents they train. (*The BBA instituted a rolling average for the resident count, averaged over a 2 year period in the first cost-reporting year and over a 3 year period in each subsequent year.*)
- Cap resident counts on a hospital-specific basis, and either cap the non-primary care

resident count or require hospitals to maintain or increase the proportion of residents they train in primary care specialties. In addition, cap the IRB ratio on a hospital-specific basis to prevent increases in IME payments resulting from a reduction in a hospital's bed capacity. (*The BBA instituted both a national aggregate, and hospital-specific, cap as well as an IRB cap, but without any primary care residency requirements.*)

COGME further recommends that the U.S. should continue to sponsor exchange visitor training in accord with the original intent of this program to strengthen international relations and further mutual understanding through educational and cultural exchanges. This program should not be used as a pathway to permanent entry into the U.S. physician workforce.

COGME recommendations relating to immigration policy include:

- Phase out, over 4 years, the granting of J-1 visas for purely service reasons as a move to restoring the exchange visitor program to its original purpose, but continue to consider waivers for uniquely qualified researchers in nationally and internationally significant research efforts.
- Increase the J-1 visa return-home period from 2 to 5 years; and
- Eliminate use of the H-1B visa program for physician residency training.

In addition to these policies, the recommendations included in this report also address strategies for enhancing primary care residency training and the role of the United States in international medical education.

⁴Prospective Payment Assessment Commission. "Report and Recommendations to the Congress, March 1, 1997." Washington, D.C., March 1, 1997. p 29.

⁵Institute of Medicine. *The Nation's Physician Workforce: Options for Balancing Supply and Requirements* (1996), pg.7.

EVOLUTION OF COGME'S POSITION CONCERNING IMGs

Of the ten reports COGME has issued since it was authorized by Congress in 1986, three — the *First*, *Third*, and *Seventh* — have included recommendations specifically related to IMGs. These have been couched in the context of recommendations that addressed a much broader set of issues, including: (1) the United States has an adequate physician-to-population ratio and further increases in the supply of physicians are neither desirable nor necessary; (2) the United States has too few generalists and too many specialists; (3) despite overall adequate supply, problems of access resulting from the maldistribution of physician supply persist in some areas of the nation; and (4) the nation lacks both a national physician workforce plan and a medical education financing scheme that would enable the aforementioned problems to be resolved.

In its *First Report*⁶, COGME addressed the issues of equity and fairness in access to GME. Individual merit rather than group membership, nondiscrimination based on country or origin or other characteristics, and single standards of testing were the key elements buttressing its position for equitable access. COGME recommended equity in testing cognitive and clinical skills, and requiring these examinations of all medical graduates, including USMGs.

At the same time, COGME was concerned over the implications of cutbacks in IMG trainees to U.S. hospitals and institutions heavily reliant upon them. In the *First Report*, COGME recommended that plans be developed *in advance of any IMG cutbacks* to find suitable substitutes for such organizations, and that a series of processes be implemented to assist IMG-reliant organizations in the transition from reliance. Together, these recommendations were intended to reduce the hardship on both the institutions and the populations they served should laws be enacted that in some unspecified way produced a reduction in IMGs.

In relation to the exchange visitor visa program, the *First Report* recommended that the U.S. maintain a genuine role in international medical

education and that this role should not be jeopardized by GME restrictions. Exchange visitor trainees should be treated the same as all other trainees. This report also included a proposal to increase, from two to five years, the time required of a former exchange visitor visa holder before he or she could return to the United States in a "nonvisitor" status. This was based, in part, in the belief that a longer period of time would discourage exchange visitors from immigrating to the United States.

In its *Third Report*⁷, COGME returned briefly to the IMG issue with recommendations made within the context of proposals to achieve a broad reconfiguration of the entire physician workforce, and address the imbalance in the distribution of physicians and the needs of the minority population and minority physicians. Apart from noting that IMGs were beginning to account for an increasing proportion of GME positions, IMGs received little explicit mention in the *Third Report*. Rather, the emphasis of the analysis, findings, recommendations, and goals all intersected to bring about, almost as a by-product, a reduction in the number of IMG trainees. The emphasis in this report was to move toward a "50-50" standard of the ratio of physicians entering primary care practice to physicians entering specialty practice, and the "capping" of first-year entry residency positions to 10 percent more than the combined number of allopathic and osteopathic medical school graduates. Implicit in this latter recommendation was the concept that the number of IMG trainees would need to be reduced to achieve this goal.

Finally, the *Seventh Report*⁸ concentrated on the funding of graduate medical education. It included recommendations for a phased reduction in both direct and indirect Medicare GME payments to residents who were IMGs, but not those who were USMGs. The report included support for the idea that each graduate of a U.S. medical school should be guaranteed support in a GME position. The report also recommended that direct and indirect GME Medicare reimbursement

⁶Council on Graduate Medical Education. *First Report of the Council, Vol II*. Rockville, Maryland: July 1, 1988.

⁷Council on Graduate Medical Education, *Third Report: Improving Access to Health Care Through Physician Workforce Reform: Directions for the 21st Century*, Rockville, Maryland: October, 1992.

⁸Council on Graduate Medical Education. *Seventh Report: COGME 1995 Physician Workforce Funding Recommendations for Department of Health and Human Services Programs*, Rockville, Maryland: June 1995

should be used to foster training both of generalists (primary care physicians) and residents outside of hospital settings. The "50-50 recommendation," that half of all physicians completing training each year should be in primary care specialties, was reiterated. As in the *First Report*, the *Seventh* also included a proposal to establish a transition program to assist "IMG dependent" institu-

tions in reducing the number of residents, including strategies such as the National Health Service Corps loan repayment program, initial funding for physician assistant and nurse practitioner replacements, and outright transitional grants to institutions with small numbers of primarily IMG residents that cease residency training altogether.

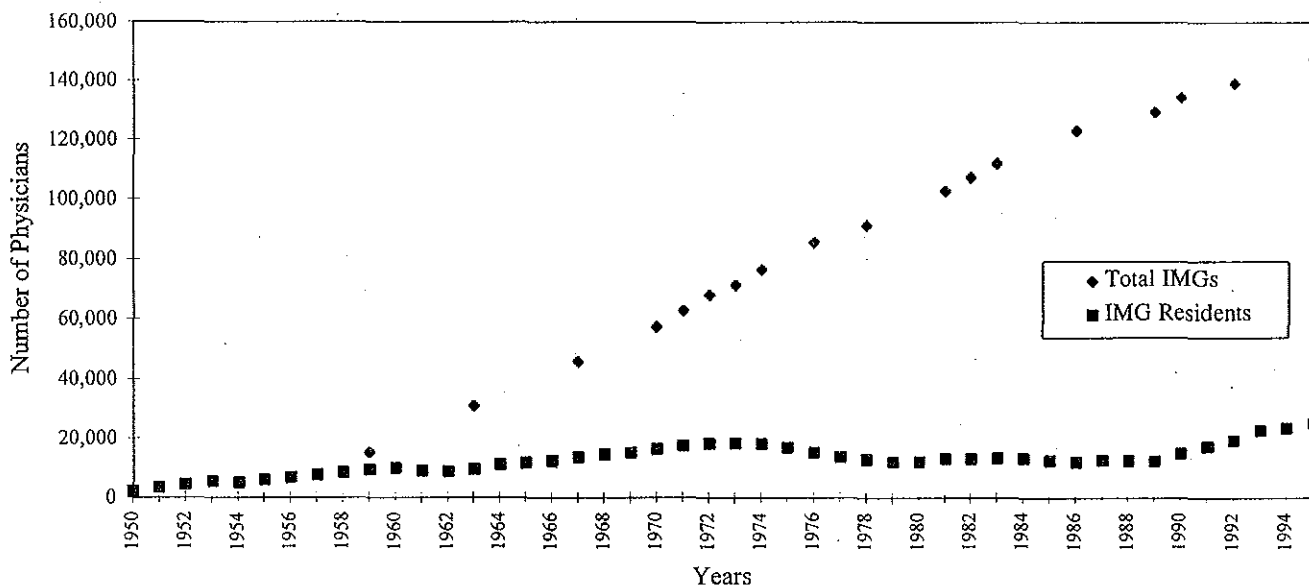
IMGs IN THE UNITED STATES

Contribution to the Physician Workforce

The practice of medicine in the United States by IMGs (formerly known as foreign medical graduates, or FMGs) is at least as old as the Republic. A nation of immigrants has always included an inflow of persons trained in medicine. While, historically, the number of physicians immigrating to the United States has been small, IMGs have constituted an increasing part of the physician workforce as the 20th Century nears its end, in a trend evident since the early 1950s⁹ (Graph 1). By 1995, of a total active physician workforce of 646,022, 153,792, or 23.8 percent, were IMGs.¹⁰ According to data from the Association of American Medical Colleges, there were 26,763 IMG resident physicians, accounting for 25.6 percent of all residents in that same year.¹¹

A dramatic increase in *first-year* IMG residents occurred between the 1988-89 and 1995-96 training years. With the number of U.S. medical graduates remaining nearly constant, total first-year allopathic residents increased at an average annual rate of only 2.0 percent. In contrast to this moderate increase, the number of first-year IMG residents nearly doubled, rising at an average annual rate of 9.5 percent. The major effect of this was that, by 1993, the number of first-year IMG residents reached a number equal to about 40 percent of the number of U.S. medical school graduates in 1993. While this percentage has decreased slightly since then, it has still remained in excess of 36 percent of the number of graduating USMGs each year. This is approximately equivalent to an additional 45 average-sized medical schools in the United States.

Graph 1
Number of IMGs and IMG Residents in the United States, 1950-1996*



* Data on total number of IMGs include only "active" physicians or estimates of active physicians. Sources: Data on residents come from various "Medical Education" issues of the JAMA, and McCormack JE, "The problem of the foreign physician," JAMA 1954;155:818-823. Data on total number of IMGs come from AMA, Foreign Medical Graduates, 1986 Edition, 1986; Bureau of Health Resources & Development, The Supply of Health Manpower, 1994; Seventh Report to the President and Congress on the Status of Health Personnel in the United States, 1990; and unpublished AMA Physician Masterfile data, selected years including 1996.

⁹Mick SS, *An Overview of the IMG situation in The United States with a Review of COGME Positions on IMGs, Summaries of Three Recent Studies, and COGME Recommendations*, October, 1996, pg.1.

¹⁰IMGs include both alien as well as native U.S. citizen graduates of foreign medical colleges. The numbers for U.S. citizen graduates are included in the total number of IMGs, both for all active physicians and residents. Data for each group are difficult to obtain. U.S. citizens IMGs, however, account for a small proportion of each group.

¹¹Residency data from Association of American Medical Colleges.

While the number of U.S. medical school graduates remained relatively stable over the period 1988-1995, total residents increased by 3.4 percent annually over the seven-year period. Total IMG resident growth accounted for about 70 percent of the overall increase in residents, having risen at an average annual rate of 12.7 percent, with some slackening toward the end of the period. During this period, the number of USMG allopathic residents grew more modestly, from 71,000 to 78,000, or a 1.3 percent average annual growth rate. The higher rate of increase of both IMG and USMG total residents compared with first year residents (3.4 percent vs. 2.0 percent) may result from several factors, including the ripple effect of increased first-year residents, physicians reentering training later in their professional career, and possibly an increasing tendency (of both USMGs and IMGs) to subspecialize.

In 1996, exchange visitors¹² filled a significant proportion, 36.4 percent, of residency positions held by IMGs¹³ (Table 3). Nearly all the

other IMG residents were either permanent residents or naturalized citizens. Because permanent residents are very likely to remain in the United States, and because historically many exchange visitor residents have ended up back in this country, the great majority of IMG residents appear to be destined to be permanent additions to the U.S. physician workforce.¹⁴

At the same time, the IMGs who do return to their home countries, as expected from their exchange-visitor agreements, fulfill a most important role in disseminating and providing care based upon the advanced medical training obtained in the U.S.

IMG Countries of Origin

IMGs come from almost every country of the world. Until 1965, most came from other countries in the Western Hemisphere and from Europe. From 1965 on, IMGs from Asian countries have predominated.

This shift in the origin was due to a change in the Immigration Act of 1965, which abolished the traditional system of quotas based on national origin. The Act set a ceiling of 120,000 immigrants per year from countries of the Western Hemisphere, and a ceiling of 170,000 for immigrants from outside the Western Hemisphere. No more than 20,000 citizens of a single country could immigrate. The law allowed a higher preference for physicians and surgeons than for most other occupations. The overall effect was both to produce greater numbers of physicians arriving on permanent resident visas and to favor immigration from Asian countries.

In 1996, of all active post-resident IMGs, 27.0 percent had attended medical school in South Asian countries (e.g., India, Pakistan), 21.9 percent had attended medical school in Latin American countries, 18.2 percent, in Pacific Rim countries (e.g., Taiwan, South Korea, Philippines), 15.9 percent in Western European countries, 9.3 percent in Middle Eastern countries, 2.8 percent in Africa, and 0.7 percent in Australia.¹⁵

Year	1988	1990	1992	1993	1994	1995	1996
Native US Citizen	3357 (27.0)	2817 (18.9)	2393 (12.5)	2366 (10.4)	2053 (8.7)	2057 (8.2)	1926 (7.8)
Naturalized US Citizen	1774 (14.3)	2209 (14.8)	2622 (13.7)	2690 (11.8)	2232 (9.5)	1973 (7.9)	1891 (7.6)
Permanent US Resident	4134 (33.3)	4974 (33.4)	6192 (32.4)	6982 (30.7)	6772 (28.8)	6985 (28.0)	7782 (31.5)
Exchange Visitor	2098 (16.9)	3470 (23.3)	6009 (31.5)	8045 (35.4)	9006 (38.3)	9183 (36.8)	8986 (36.4)
Other	1070 (8.6)	1444 (9.7)	1868 (9.8)	2623 (11.5)	3436 (14.6)	4784 (19.1)	4118 (16.7)
Total	12433 (100.0)	14914 (100.0)	19084 (100.0)	22706 (100.0)	24399 (100.0)	24982 (100.0)	24703 (100.0)

Source: JAMA Medical Education Issues

¹² Exchange visitor physicians are in the U.S. as non-immigrants for the purpose of participating in U.S. accredited graduate medical education programs. They hold J-1 visas and, upon the completion of their training, are expected to return to their home country for at least two years before changing their immigrant status. A number of alien physicians are entering the U.S. to engage in residency training on the basis of another temporary visa, the H-1B. This visa has no return home requirement. This visa status was not identified in the JAMA residency data until 1995. Prior to this date, these residents were classified in the "miscellaneous category." In 1995, residents in the visa status numbered nearly 10 percent of the total of IMG residents.

¹³ *Journal of the American Medical Association*, 1996 Medical Edition Issue, page 743.

¹⁴ Mullan F, Politzer RM, Davis CH, "Medical Migration and the Physician Workforce," *Journal of the American Medical Association*. 1995; 273(19).

¹⁵ Mick SS, Lee Y-S D. *Final Report: An Analysis of the Comparative Distribution of Active Post-Resident IMGs and USMGs in the United States in 1996*. University of Michigan, Report to the Bureau of Health Professions, Health Resources and Services Administration, U.S. DHHS, Rockville, Maryland, October 1996.

“Push” and “Pull” Factors Affecting the Immigration of IMGs

IMGs come to the United States for many reasons. Some may be fleeing conditions, either political or economic, within their countries of origin. Others may come, in spite of reasonable conditions at home, to seek out better opportunities for training and employment. We refer to these two opposing sets of reasons for immigrating as the “push” and “pull” factors.

Many studies have enumerated the “push” and “pull” factors that contribute to IMGs’ coming to the United States for residency training and, for many, staying here permanently. However, there are few historical and comprehensive studies that substantiate these points (see Mejia, Pizurki, & Royston, 1979, for an exception¹⁶), and no contemporary studies of any kind. Among “push” factors, i.e., those emanating from the countries of origin of IMGs, the following are often identified as important:

- Many countries lack training facilities and expertise in specialty medicine. Although most developing countries have medical schools that can train physicians in the fundamentals of medicine, fewer have the capacity or range of specialty programs to accommodate all of their students.
- Political repression, unrest, and violence sometimes lead to the departure of physicians from a given country.
- Over-population and almost endemic poverty in some developing countries induce the well-educated professionals to emigrate in search of a better life.
- Some countries appear to train more physicians than their health care systems can employ. Fewer resources may be needed to train a physician than to create the components of a health care system that make use of the physician. Such components include hospitals and clinics, research and teaching institutions, financing methods to cover the costs of health care delivery to the population, and so forth.
- A sense of dissatisfaction with a given country’s health care system—whether it serves the population well or not—can induce physicians to emigrate.

These “push” factors are undoubtedly interrelated which makes them all the more difficult to change with the objective of stemming the outflow

of professional migration. They are key to large scale migratory flows that involve large numbers of people around the world. They are deeply embedded in population growth, economic development, and national and regional conflict. How best to develop and implement policy in the specific area of professional migration has been the subject of some controversy for years and the continual flow of physicians to the United States suggests that much progress is still to be made.

On the other hand, “pull” factors—those within a host country that attract IMGs—are within the purview of the host country’s government and professional organizations, and may be more amenable to policy manipulation. The following “pull” factors have been cited as being important:

- The U.S. Information and Educational Exchange Act of 1948 was, and is, an important legal mechanism in physician migration.
- At no time since the end of World War II have all the hospital residency training positions offered been filled, although this nearly happened in the mid-1980s. U.S. medical schools graduate about 17,000 medical students each year, a number which is much smaller than the number of first year residency positions that actually get filled. Aggregate unfilled demand by hospital residency programs has existed through periods of relative physician shortages (roughly 1950 through 1975-80) and the more ample physician supply that has existed since. IMGs have always had, therefore, the opportunity to find training in the United States.
- Both historically and at the present time, there has been a maldistribution of U.S. medical graduates across various dimensions of practice (e.g., location, specialty, and employment setting). This has permitted, even encouraged, anyone — including IMGs — to find a post-residency practice site in the United States. Hence, despite a consensus of an oversupply of physicians, geographical and specialty maldistributions afford ample opportunity for establishing medical practices.
- Despite the concern of almost every public and private agency that health care costs are too high and are increasing too rapidly, the generous financing of both residency and of post-residency positions has underwritten an increase of physicians in the workforce.
- The tradition in the United States of welcoming

¹⁶Mejia A, Pizurki H, Royston R. *Physician and Nurse Migration: Analysis and Policy Implications*. Geneva: World Health Organization, 1979.

foreign nationals to its shores is a strong one. Every nonnative American has his or her roots in foreign soil. The international migration of IMGs can be comprehended better within the context of the movement of all migrants seeking to improve their economic and social opportunities.

Many private and public health policy analysts who consider the current supply of physicians in the U.S. more than adequate have viewed the augmentation of the U.S. physician workforce by IMGs with concern. Educators and various private and public officials involved in medical education and workforce planning have likewise expressed concern about the fact that many of the IMGs who have been trained in U.S. GME programs have been allowed to contribute to the putative projected surplus of physicians in the United States. In some cases, it appears as if sentiment has developed which faults the IMG for contributing to this potential surplus. In fact, the situation is much more complex. In many individual cases, as is true with other immigrants, IMGs are responding to favorable economic and educational opportunities available in the United States.

Factors Causing Renewed Concern about IMGs and the Workforce

The burst of growth in IMG residents over the last one-half decade has raised many issues, some new but many of which evolved and were evident throughout the nearly 50-year history of IMG training and practice in the United States. Long-standing issues include:

1. The worry that the United States has too many physicians.
2. Growth in the IMG supply of residents when USMG resident growth is now flat seems counterproductive.
3. The argument that not enough primary care physicians are being educated, and its corollary, that too many specialist physicians may have been produced. Any increase in specialization by IMGs, whether or not in greater proportion than USMGs, is a cause for concern.

4. The notion that the country is paying too much for graduate medical education, especially through the Medicare Program (U.S. General Accounting Office, 1989). The Congressional Budget Office recently argued that because IMG residents are, for the most part, not U.S. citizens, the Federal Government has no business paying hospitals for their graduate education under periods of budget deficit (Congressional Budget Office, 1995).

A more recent concern about the number of physicians entering the workforce arises out of the growth of managed care plans, particularly since the early 1990s. Because managed care plans use physicians more efficiently than fee-for-service medicine and use many non-physician substitutes, it is expected that fewer overall physicians will be needed in the workforce, contributing further to a projected oversupply. This perception has led to several major recommendations to restructure and slow the growth of the U.S. physician workforce. Certain of these potentially affecting IMGs included recommendations to reduce the number of first-year residency positions (in addition to COGME reports, see Physician Payment Review Commission, 1993, the Pew Health Professions Commission, 1995, the Institute of Medicine, 1996, and the 6-organization Consensus Statement of the AMA, AAMC, AOA, AACOM, AAHC, and NMA, 1997).^{17,18,19,20} The Pew Health Professions Commission also called for reducing the number of entering medical school students by closing some medical schools.

In sum, the intersection of a doubling of IMG residents in about one-half decade with widespread increases in the presence of managed care plans has reinforced a number of older concerns about IMGs specifically and the size and composition of the U.S. physician workforce generally. To an extent not seen for many years, both state and federal governments, several professional medical associations, and many academic experts have focused their attention on IMGs as a key part of the physician workforce that deserves re-examination.

¹⁷Physician Payment Review Commission. *1993 Annual Report to Congress*. Washington, D.C., 1993.

¹⁸Pew Health Professions Commission. *Critical Challenges: Revitalizing the Health Professions for the Twenty-First Century: Third Report of the Pew Health Professions Commission*. San Francisco: University of California at San Francisco Center for the Health Professions, 1995.

¹⁹Institute of Medicine. *The Nation's Physician Workforce: Options for Balancing Supply and Requirements*. Washington, D.C.: National Academy Press, 1996.

²⁰AACOM, AMA, AOA, AAHC, AAMC, and NMA. Consensus Statement on the Physician Workforce. Paper issued at a joint press conference, February 28, 1997, Washington, D.C.

LEGAL ISSUES AND POLICIES RELATING TO IMGs

In recent years a number of organizations, including COGME, have proposed policies that would restrict the access of IMGs to training opportunities in the United States. However, in many cases, such proposals raise complex legal issues that are beyond the usual scope of consideration in discussions of physician workforce policies. These issues include questions regarding the constitutionality of some proposals, and questions relating to the details of immigration law and policy.

To enhance its understanding of these considerations, COGME commissioned a study to examine legal issues relating to IMGs and related policy proposals.²¹ This type of analysis inevitably involves many interpretations of law, and legal experts may differ in their views. While COGME does not endorse particular legal interpretations, this information was important in the consideration and development of the current set of recommendations. It is presented here as background to the current recommendations, and to enhance a broader discussion of these issues.

Constitutional Issues

One proposal that has emerged from discussions of methods to limit the entry of IMGs into the U.S. physician workforce is to restrict government-funded (e.g., Medicare) GME payments for IMG residents. The impact of such a restriction would be significant upon a large number of alien physicians residing in the U.S. who are seeking residency training. Any application of a restriction on GME funding against all IMGs would be prejudicial to the ability of these individuals permanently residing in the U.S. to earn a living from their chosen occupation.

There are several legal issues stemming from constitutional law that might derive from a "discriminatory" reimbursement program with the objective of eliminating or substantially restricting the ability of IMGs—or the hospitals that employ them—to receive reimbursement for services performed principally under the Medicare and Medicaid programs. There are two background points that must be considered when examining these proposals. First, not all government-based discrimination is unlawful or unconstitutional. Dis-

crimination only becomes a concern if certain legally protected rights are violated. IMGs form a heterogeneous group in regard to citizenship and visa status. IMGs who are U.S. citizens and permanent residents could be largely immune from policy changes that involve non-immigrant aliens, particularly changes with respect to the exchange visitor visa program.

In general, two primary constitutional doctrines are central to policy deliberations regarding discriminatory reimbursement proposals separating IMGs and USMGs in GME. The first doctrine concerns the Equal Protection Clause, a constitutionally-based doctrine creating limits to federal and state actions that discriminate on the basis of certain proscribed classifications. Courts have examined three facets of this doctrine:

The nature of the discrimination

The class at whom discrimination is aimed

The relationship between the discriminatory action and the objective of the action.

The second doctrine concerns due process. This derives from the belief that substantive government action and the procedures underlying it should be based on essential elements of fairness so as not to impinge on individual rights.

Likely Constitutional Doctrines Evoked

Discriminatory Medicare or Medicaid reimbursement policy *vis-à-vis* IMGs probably would not result in the courts concluding that IMGs are a class of persons subject to a "full-blown" analysis stemming from discrimination based on race, national origin, and other similar factors. This view is based on the observation that physicians—and by extension IMGs—do not receive protection as an occupational group. IMGs' variation in origin and citizenship do not define them as a tightly knit group defined along alienage lines. In addition, IMGs do not constitute the "discrete and insular minority" that such constitutional protection requires.

On the other hand, the courts might examine the legality of discriminatory reimbursement

²¹Aronson, RD. Legal Considerations in Evolving Policy Determinations Toward International Medical Graduates (IMGs), August 1996, prepared for COGME

policy if they felt that there would be disparate impact leading to undue burdens on a potential ("suspect") classification of persons. In this case, the government would have to show a compelling reason and interest in restricting IMGs from reimbursement; specifically, the government would be required to show that the reimbursement regulation did not result from a discriminatory purpose. The text of some proposals suggests that this would be exceedingly difficult to do since the fundamental purpose of recommendations limiting GME reimbursement is to limit the training opportunities for IMGs. A more broadly based regulation limiting reimbursement to reduce overall physician supply and not specifically aimed at IMGs would probably be less likely to cause the courts to invoke the disparate impact doctrine.

Finally, concerning the disparate impact doctrine, potential constitutional issues might be raised about Medicare and Medicaid populations falling into a "discrete and insular minority" (see next section).

Areas of Potential Judicial Concern

There are at least eight different grounds upon which judicial review of a government regulation limiting GME reimbursement to IMGs might be based.

Disjunction Between Means and Ends — It is considered a moot point whether the ultimate objective of controlling GME enrollment and physician supply justifies restricting IMG admission to GME via constraints on government funding of GME for IMGs. The intended purpose may not be seen as rationally served by the specific carving out of a subgroup whose distinguishing characteristic is alien national origin. This is so particularly in view of the alternative of broader across-the-board restrictions in GME funding without specifying IMGs for particular discriminatory treatment.

Negative Impact on "Beneficiary Classes" — This concern is simply whether Medicare beneficiaries and Medicaid eligibles—and the institutions that serve them—would be detrimentally affected by IMG reductions due to specific GME reimbursement treatment. The legal view suggests that limits on reimbursement rather than their total eradication might be viewed more favorably.

Other Avenues To "Discrete and Insular Minority" Status — It is improbable that IMGs would fall into this status for reasons outlined above. However, the "immutable characteristic" of hav-

ing obtained a medical degree abroad coupled with IMGs' lack of influence over the democratic process (for non-U.S. citizens) could prompt some courts to rule that IMGs are a "discrete and insular minority," eligible for the protection that the law provides them.

Prohibition of IMG Practice of Medicine — Courts are likely to view negatively any blanket provision prohibiting IMGs—particularly U.S. citizens and permanent residents—from practicing medicine in the United States. Sufficient and well-accepted mechanisms to gauge and evaluate preparedness for GME, for judging competence, and for control of quality exist in the United States, so no argument could be made that GME reimbursement restrictions relate to the reduction in the clinically incompetent. A blanket provision solely to control supply is not likely to be viewed favorably.

Education and Exclusion — Historically courts have ruled against any regulation that reduces access to educational opportunities, and to the extent that GME reimbursement mechanisms may be viewed as linked to educational opportunity, so there is likely to be a certain activism of courts in this area.

Privacy and Health Care — If regulations reducing GME reimbursement to IMGs were shown to be negatively linked to Medicare beneficiaries' and Medicaid recipients' access to care, this could lead to the jeopardizing of other constitutionally protected rights and interests. For example, the right to privacy between IMG provider and patient could be construed to be violated by GME restrictions if it reduced access to providers.

Right of Travel — This would relate mostly to U.S. citizen IMGs in that the right to travel could be restricted should GME reimbursement limitations effectively reduce the travel involved for a person seeking a medical education abroad. Whether courts would see this point as an acceptable burden or as an outright prohibition is unclear.

Discrimination in the Workplace — Stemming from the Civil Rights Act of 1886 and the Antidiscrimination Provision in the Immigration and Nationality Act, an IMG could go to court on the basis of discriminatory employment practices by U.S. hospitals implementing a restrictive GME reimbursement regulation.

In summary, it is difficult to predict whether proposed discriminatory government-funded

GME reimbursement would be upheld or struck down by the courts. However, there would be a susceptibility to judicial challenge along one or more of the lines described above. If, on the other hand, reimbursement restrictions were applied evenly, without specific reference to IMGs or any subclass of IMGs, e.g., exchange visitors, the probability of legal challenges would be much less. That is, to achieve national goals of limiting physician supply, a non-discriminatory proposal or proposals specifying neither IMGs nor USMGs could be developed and enacted that would not be overturned by the courts.

Immigration Issues

COGME reviewed a wide range of immigration issues. A key contextual feature of immigration law in the United States is the perceived reluctance of Congress to make major substantive changes to the system of legal immigration. Based on the available evidence, it appears that Congress has concluded that the general numerical limits and underlying grounds for admission, including employment and professional classifications, serve the national interest in their present form. If true, this would imply that no material change in immigration law altering the legal channels of alien physician immigration is likely to occur.

Whether or not many locales and segments of the U.S. population are well served by IMGs and foreign-trained physicians, immigration appears to be a critical issue. Some government programs have linked immigration of physicians to providing service in areas of pronounced medical need, such as the efforts of the U.S. Department of Agriculture and, until recently, the Department of Housing and Urban Development to relocate IMGs into medically underserved rural and urban communities. Hence, agencies like these have adopted a position based on the physician workforce problem of maldistribution.

Nonetheless, there may be conflict between the separate objectives of reducing the supply of physicians by limiting the supply of IMGs versus the desirability of using IMGs to rectify the maldistribution of physicians. This conflict is particularly significant if Congress is reluctant to enact legislation with the former objective unless the

second objective is simultaneously and effectively addressed. As noted by Iglehart in his assessment of the political arena in which IMG proposals have been recently debated, legislators have specific aims:

Congress . . . [does] . . . not consider the question [physician immigration] in the context of the overall supply of physicians. Instead, they address narrow interests, such as expanding residency positions to generate revenue and provide services, staffing rural practices, or pressing the legal cases of individual doctors seeking entry into the United States.²²

The key will be to execute a fair, evenhanded proposal to deal with the abundance of physicians while also finding ways to deal effectively with maldistribution and with increasing the attractiveness of medical practice in areas traditionally avoided.

IMGs as Temporary Visitors: Educational Exchange and the "J" Visa

The IMG "phenomenon" has its roots in the arrival in the 1930s of roughly 5,000 to 7,000 foreign-trained physicians, often Jewish, who fled European countries threatened by anti-Semitism.²³ The establishment after World War II of the U.S. Information and Educational Exchange Act of 1948 (the Smith-Mundt Act) and its exchange-visitor visa (J-visa) program gave birth to the mechanism that would enable many more thousands of IMGs to train in the United States.

The exchange visitor program provides professional or technical training to foreign nationals for the purpose of enhancing the knowledge level or transferring skills to the home country of the exchange visitor. The exchange visitor program is conducted under the auspices of the United States Information Agency. The ECFMG is a sponsoring institution under this program. Foreign trained physicians wishing to acquire graduate medical education (GME) are tested, and if certified as eligible, are sponsored by the Educational Commission for Foreign Medical Graduates (ECFMG) when accepted into a GME position. The ECFMG arranges for the issuance of a J-1 visa. These physicians are expected to return to their home country (or last country of residence)

²²Iglehart, JK. "The Quandary Over Graduates of Foreign Medical Schools in the United States" *The New England Journal of Medicine* June 20, 1996 (334:25):1680-1683.

²³Edsall, DL, Putnam, TJ. "The Emigre Physician in America, 1941," *Journal of the American Medical Association*, 1941; 117 (November 29): 1881-1888.

for at least two years after completion of the residency training. However, this requirement may be waived for exceptional circumstances or at the request of an "interested Federal or State government agency." Except as a result of a waiver, the J-1 visa cannot be altered to a permanent visa status.

The U.S. exchange-visitor program, having taken effect in July 1949, allowed foreign students, including medical graduates seeking residency training, who were able to enroll in a U.S. government-approved program, to come and stay in the United States until their training was finished (but not to exceed 7 years). For U.S. hospitals, the willingness of foreign students to come to the United States for advanced study was an unexpected but happy conjunction with their need for physician personnel. By 1954, roughly 800 hospitals had obtained approval by the U.S. Department of State (which still runs this program) for

the training of IMGs.²⁴ It is important to note that the law explicitly stated that students in the J-visa category were *not* intended to help hospitals, or other organizations, to meet their staffing needs.

Table 4 and Graph 2 illustrate the role that the J-visa program (and other statuses) has played in recent years. From 1986 to 1995, IMG residents on permanent resident visas (visas other than J) declined from 72.4 percent to 33.3 percent of total IMG residents while the total IMG residents increased by over twofold. By contrast, IMGs on exchange visitor visas increased from 22.3 percent to 43.8 percent of the total. Immigrant and refugee visa statuses have fluctuated and now appear to be declining in relative importance, having dropped to 4.1 percent of the total in 1995. The miscellaneous category has grown from a handful of IMGs to 18.7 percent, most of whom presumably are H-1B visa holders.²⁵

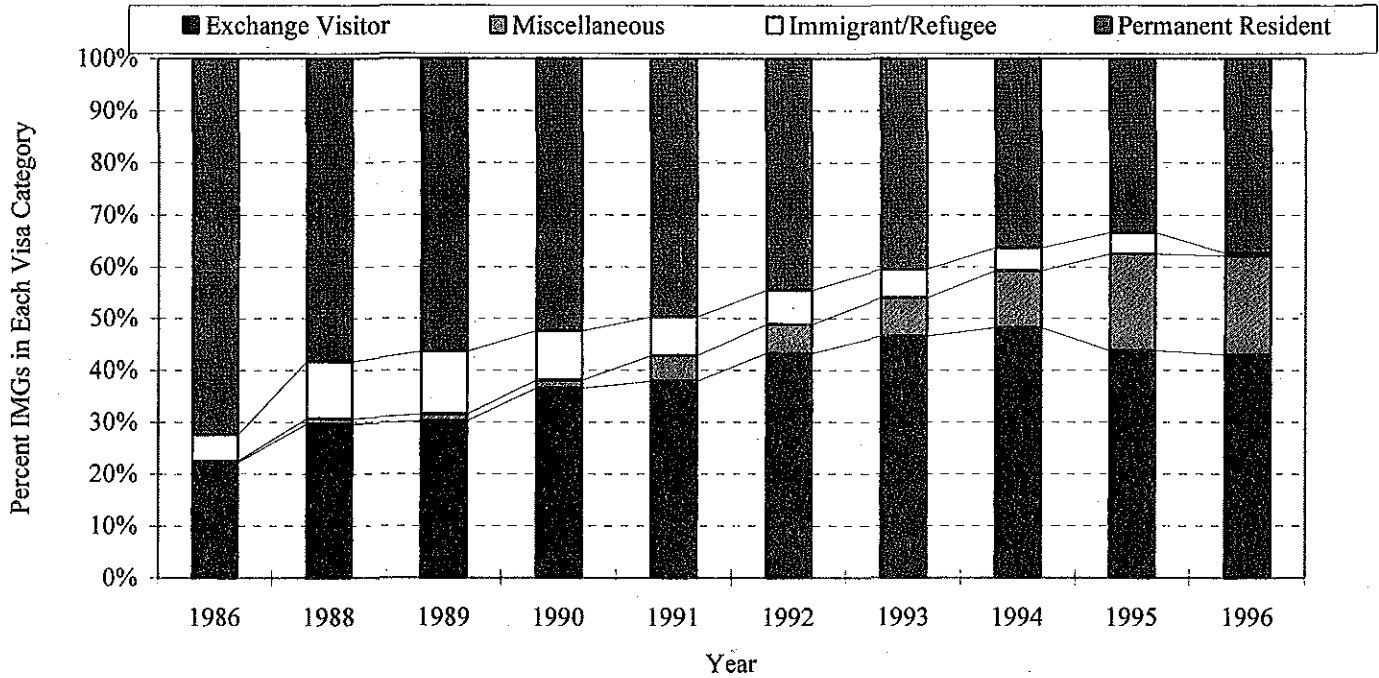
Table 4
Distribution of IMG Residents by Visa Status, 1986 - 1996*

Year	Permanent Resident		Exchange Visitor		Immigrant/Refugee		Miscellaneous		Total	
	n	%	n	%	n	%	n	%	n	%
1986	4,480	72.4	1,378	22.3	314	5.1	15	.2	6,187	100.0
1988	4,134	58.3	2,098	29.6	779	11.0	75	1.1	7,086	100.0
1989	4,107	56.4	2,204	30.2	882	12.1	95	1.3	7,288	100.0
1990	4,974	52.4	3,470	36.6	904	9.5	145	1.5	9,493	100.0
1991	5,845	49.7	4,460	37.9	881	7.5	581	4.9	11,767	100.0
1992	6,192	44.5	6,009	43.2	925	6.7	777	5.6	13,903	100.0
1993	6,982	40.4	8,045	46.6	960	5.6	1,280	7.4	17,267	100.0
1994	6,772	36.3	9,006	48.2	838	4.5	2,062	11.0	18,678	100.0
1995	6,985	33.3	9,183	43.8	862	4.1	3,922	18.7	20,952	100.0
1996	7,782	37.3	8,986	43.0	116	.6	4,002	19.2	20,886	100.0

²⁴Diehl HS, Crosby, EL, Kaetzek PK. "Alien Physicians Training in Hospitals in the United States." *Journal of the American Medical Association* 1954; 156(1):1-2.

²⁵The recent growth of IMGs correlates with growth both in exchange visitors (5.7-fold increase from 1986 to 1995) and in the "miscellaneous" category (260-fold increase over 1986-1995). Among foreign-born IMG residents in 1995-1996, there were 2,363 who held various H visas. Before 1990, the H-1B visa was rarely used by physicians except for a small number of internationally renowned academic physicians involved in teaching and research. The Immigration Act of 1990 allowed clinical medical practice to be included in the H-1B status, eliminating the distinction between teaching and research versus clinical practice. This change resulted in the increasing popularity of the H-1B visa.

Graph 2
Percent IMG Residents by Visa Status, 1986-1995*



*Omits U.S.-citizen IMGs; data for 1987 unavailable

Source: Various "Medical Education" issues of the *Journal of the American Medical Association*

The Educational Commission for Foreign Medical Graduates

In 1956, the Educational Council (now Commission) for Foreign Medical Graduates (ECFMG) was established to develop and implement a system of (1) validating the educational credentials of foreign-trained physicians, and (2) establishing the preparedness of IMGs to undertake graduate medical education in U.S. hospital residency programs. The tactic chosen to meet the second objective was the development and administration of a standardized examination. The U.S. Department of State has recognized the ECFMG as the official agency to undertake this task. By March 1958, the ECFMG administered its first examination to about 300 candidates at centers in the United States (Smiley, 1962). By 1982 the semi-annual one-day test was given in 40 U.S.-based centers and 117 centers abroad. The examination was based on questions prepared by the National Board of Medical Examiners (NBME).

In the years that followed, the ECFMG examinations have evolved through a number of changes. These include the Visa Qualifying Examination (VQE), a two-day examination given between 1977 and 1984, subsequent to Federal legislation that foreign nationals seeking U.S. training had to attain passing scores on this examination to become eligible for either the exchange-visitor visa or the permanent resident visa. In 1984, both the VQE and the old standard one-day examination were replaced by the Foreign Medical Graduate Examination in the Medical Sciences (FMGEMS), a two-

day examination entirely like the VQE but which was now required of both foreign-national and U.S.-citizen IMGs. In a move to develop a single licensure examination for all medical graduates for GME candidacy, the FMGEMS was phased out in the late 1980s, overlapping with the institution of the NBME series (Parts I, II, and III) of national board examinations which were previously reserved solely for graduates of U.S. and Canadian medical schools. The latest and current version of the ECFMG's examinations, established in 1992, comprises Parts 1 and 2 of the three-part United States Medical Licensing Examination (USMLE), now taken by *both* IMGs and USMGs. In most States Part 3 of the USMLE is not given to residents until after the completion of their residency training.

The ECFMG has developed a Clinical Skills Assessment (CSA), to be part of its certification process. The CSA tests a medical graduate's ability to gather and interpret clinical patient data and communicate effectively in the English language. It will attempt to assess whether the examinee can obtain a relevant medical history, perform a focused physician examination, and compose a written record of the patient encounter. CSAs will be administered by the ECFMG in Philadelphia, beginning July 1, 1998. The effect this will have on the number of ECFMG certifications for residency training is uncertain at this point.

Waiver of the J-1 Return-Home Requirement

The use of waivers by interested government agencies to provide physicians for medically underserved areas has been controversial. Different agencies have established individual policies with respect to these waivers. DHHS does not consider the use of the waivers for J-1 visa holders as appropriate to alleviate physician shortages in underserved areas. DHHS only requests J-1 waivers for persons of outstanding merit who are involved in projects of national interest, the success of which would be compromised were these individuals not retained. In contrast, the Appalachian Regional Commission, the Department of Agriculture, and the Department of Housing and Urban Development (HUD) have requested waivers to provide physicians to underserved areas, although HUD has ceased requesting waivers as of this writing. Many communities and institutions requesting waivers on behalf of J-1 visa holders assert that their diligent efforts to recruit qualified U.S. trained physicians have been futile.

In 1994, Congress expanded the concept of interested agencies to include the public health departments of States. This provision, provided in The Immigration and Nationality Technical Corrections Act of 1994 (Pub. L. 103-416), allows public health departments of individual states to request up to 20 waivers per state up through 1996. This date was extended in subsequent legislation. DHHS was required to determine the eligible shortage areas in which these waived physicians can serve, and has designated both Health Professional Shortage Areas (HPSAs) and Medical Underserved

Areas/Medical Underserved Populations (MUAs/MUPs) as appropriate shortage areas for physician placement.

The number of J-1 waivers requested annually by the various interested agencies, at least 90 percent of which are for service-based reasons,²⁶ increased from 70 in 1990 to 1,746²⁷ (including 149 State requested waivers) in 1996. The number of agencies requesting such waivers increased from one in 1990 to about 30 in 1995. Reporting on its assessment of this waiver program, the GAO stated:

No agency has clear responsibility for ensuring that the placement efforts are coordinated. . . . federal agencies are now working together informally, they still have differing policies, overlapping jurisdictions, and varying communication with the states. . . . controls are somewhat weak for ensuring that physicians continue to meet the terms of their agreements.²⁸

Many other individuals and organizations involved in issues of physician supply, including the Pew Foundation and the Institute of Medicine, have expressed concern that the waiver program is contributing to an oversupply of physicians in the United States while depriving the home countries of these physicians with needed talent and expertise. Questions also have been raised as to whether allowing waivers for physicians trained in U.S. GME programs under the exchange visitor program subverts the original intention and purpose of this program.

²⁶Information provided by the Waiver Review Branch, United States Information Agency.

²⁷Correspondence from the United States Information Office.

²⁸General Accounting Office. *Foreign Physicians: Exchange Visitor Program Becoming Major Route to Practicing in the U.S. Underserved Areas* GAO/HEHS-97-26 (December 30, 1996), pg 3.

The H-1B Visa

Like the J-1, the H-1B visa is a temporary, nonimmigrant visa. Prior to enactment of the Immigration and Nationality Act (INA) of 1990, alien physicians could enter the United States with an H-1B classification only at the invitation of an educational or research institution to teach or to conduct research or both. These physicians were prohibited from engaging in patient contact except under supervision. The 1990 Act removed these restrictions, which then allowed alien physicians to obtain an H-1B visa to enter the U.S. temporarily for the purpose of providing physician services if visa and licensure requirements are met. Subsequently, INS reported an increase in the number of physicians admitted under the H-1B category each year from 483 in 1992 to 1,216 in 1994. It should be noted that, unlike the J-1, the H-1B visa can be converted to permanent visa status within five years, through family- or employment-based petition.

The Miscellaneous and Technical Immigration and Naturalization Amendments (MTINA) of 1991 (P. L. 102-232) amended the INA to require the alien physician wishing to provide independent patient care to: a) demonstrate competency in written and oral English and b) pass the Federation Licensing Examination (FLEX) or an equivalent examination. The MTINA stipulated that the Secretary of Health and Human Services determine examinations equivalent to the FLEX. As published in the *Federal Register*, September 16, 1992, the National Board of Medical Examiners (NBME) Examination Parts I, II, and III and the United States Medical Licensing Examination (USMLE) were determined to be equivalent to the FLEX. Both the FLEX and the NBME examinations were phased out by mid-1994. The only ex-

amination currently given that is determined equivalent to the FLEX is the USMLE Steps 1, 2 and 3. The USMLE provides a common evaluation for all applicants (both domestic and foreign medical school graduates) for medical licensure and replaces both the FLEX and the NBME Examination Parts I, II, and III.

As part of its certification process, the ECFMG administers Steps 1 and 2 of the USMLE to IMGs seeking admission to accredited U.S. residency programs. Although recognized by State licensing boards for licensure purposes, combinations of the new Steps of USMLE with parts of the phased-out examinations are not accepted for the purpose of obtaining an H-1B visa. An IMG not completing all parts of the phased out examinations must take all Steps of the USMLE to qualify for an H-1B status.

The legislative provision allowing alien physicians to engage in direct patient contact has had an unexpected consequence. It does not appear that it was either contemplated or intended that alien physicians would be able to obtain an H-1B visa to engage in GME, thereby circumventing the J-1 visa with its two-year home resident requirement. Some State medical boards do not require completion of one year of GME prior to taking Step 3 of the USMLE. Therefore, passing Step 3 of the USMLE without having completed at least one year of GME allows an IMG to qualify for an H-1B status. The Immigration and Naturalization Service (INS) attempted in 1994 to amend the MTINA to prohibit a foreign medical graduate from seeking an H-1B classification for the purpose of taking a medical residency training in the U.S. However, considerable opposition developed and the proposal was eventually withdrawn.

COMPARISON OF IMGs AND USMGs IN FILLING GAPS IN CARE TO THE UNDERSERVED

An analysis of data to probe and compare service by IMGs and USMGs in areas with particularly needy populations produced the following results.²⁹

Geographic Distributions of IMGs and USMGs

The data indicate that in comparison to USMGs, IMGs are:

- more likely to be found in two U.S. census regions—the Mid-Atlantic and the East North Central divisions
- slightly more likely to be found in urban (metropolitan) counties, particularly those of 5 million or more population
- much more likely to be found in *core* urban counties of one-million or more population, and
- more likely to be concentrated in fewer U.S. states: about 50 percent of all IMGs are in just ten states compared to 30 percent for USMGs

These results are consistent with many others that suggest that IMGs are less evenly distributed across the nation and states than USMGs. However, more refined analysis of the characteristics of the populations in the counties served by IMGs challenges the inference that IMGs are exacerbating the geographic maldistribution of physicians.

The Geographic Distribution of IMGs in Relation to Population Characteristics

A comparison of the proportions of IMGs and USMGs in counties with potentially underserved or needy populations according to a number of characteristics generally indicates that counties with underserved characteristics have a higher proportion of IMGs than other counties. This finding is consistent for all physicians and for primary care physicians alone.

In particular, the results show prevalent and consistent IMG “gap filling” for states with counties having “worse” scores on a number of indicators of health and economic status. Specifically:

- infant mortality rates of greater than 8.9/1,000 live births,
- average to below average socioeconomic status scores,
- per capita incomes less than \$16,800 per capita income,
- Nonwhite populations greater than 12.5 percent,
- more than 14.9 percent of the population older than 65,
- designation as a partial or full health professions shortage area,
- nonmetropolitan populations of less than 50,000 population, and
- physician-to-population ratios less than 120/100,000.

These findings are potentially a major contribution to our understanding of the geographic distribution of IMGs. No known prior published or unpublished studies have documented the extent of IMG “gap filling” according to geographic location.

“Gap Filling” According to Specialty and Employment Setting

A second way of assessing the “gap filling” contribution of IMGs is through a breakdown of specialty by employment setting. National data disaggregated by locus of the particular employment setting of the IMG or USMG specialist show that:

- primary care, ob/gyn, general surgery, emergency medicine, internal medicine specialists, surgical specialists, and “hospital-based” specialist IMGs were more likely than USMGs to be in state, county, district, and municipal hospitals; and
- for a number of these specialty groups, IMGs were more likely to be in community and proprietary hospitals and Veterans Administration hospitals; and
- for psychiatric specialists, IMGs were over three times more likely to be in state, county, district, and municipal hospitals, and nearly

²⁹Stephen S. Mick and Shouu-Yih Daniel Lee, *An Analysis of the Comparative Distribution of Active Post-Resident IMGs and USMGs in the United States in 1996*, October, 1996, presented at the September 1996 COGME meeting.

twice as likely as USMGs to be in community and proprietary hospitals as well as Veterans Administration hospitals.

These findings show the "gap filling" role of IMGs in public institutions, both federal, state, county, and local.

Citizenship-Visa Status of IMGs

About forty percent of IMGs are currently U.S. citizens, either native-born or naturalized. In addition nearly thirty percent are permanent residents, on their way to becoming U.S. citizens. Thus, seventy percent of active post-resident IMGs are most likely to be permanent additions to the U.S. physician workforce. Oddly, twenty percent of IMGs declare holding an exchange visitor visa, something presumably not technically possible for post-resident (past graduate medical education) IMGs.

For the most part, no strong correlates of IMG exchange visitor status emerged from the above analysis. Exchange visitors show a tendency to be located in some "gap filling" areas, but these findings are not consistent. Nevertheless, when exchange visitor IMGs are compared to all other

IMGs, the USMG-IMG "gap filling" differences persist for both exchange visitor and non-exchange visitor categories, suggesting that the previous analyses where citizenship-visa status was ignored are valid.

Conclusion

These analyses reveal an overview portrait of IMGs and USMGs consistent with previous published and unpublished work. Although both groups share much in common, important differences emerge that distinguish these two key subgroups of the U.S. physician workforce. In particular, the "gap filling" findings, which focused on the active post-resident IMG stock of the U.S. physician workforce, raise questions about the possible long term effects of a reduction in graduate training opportunities in U.S. hospitals. Curtailment of GME opportunities for IMGs may necessitate policy initiatives to replace IMGs with USMGs in locations and institutions with underserved populations. Renewed efforts will be required to attract U.S. graduates to the places, specialties, and practice settings that IMGs have filled in disproportionate numbers.

THE EQUALITY OF IMG AND USMG GEOGRAPHIC DISTRIBUTIONS, BY SPECIALTY

Gini Index

The relationship between physician and population geographic distributions was examined by BHP staff.³⁰ The key measure used to compare the geographic distribution of IMGs and USMGs was the Gini index, a commonly used device in economic studies. The Gini index assesses the degree of equality (or inequality) of a given resource by comparing its distribution to a standard, usually the distribution of population. It ranges in value from 0 (perfect equality) to 1 (perfect inequality). For example, the equality of the distribution of income is often evaluated by ranking the U.S. population by annual income and computing the share of total income earned by each decile. Income would be said to be evenly distributed, and the Gini index would have a value of 0, if each population decile received exactly 10 percent of total income. The more uneven the distribution — some deciles receive much more than 10 percent of total income while others receive much less — the closer the Gini index value would be to 1. In this study, the BHP used the Gini index to examine the percent distribution of total population against the percent distribution of physicians across all U.S. counties for 1989 and 1994.

Data from the AMA's Physician Masterfile for 1989 and 1994 were linked to county level population data for those years from the Area Resource Files (ARF). In contrast to the study reported in the previous section, this analysis used the county as the unit of analysis (The AMA aggregated individual physician records to the county level) and aggregated these data into 9 categories according to county size.

For all patient care physicians regardless of specialty or IMG-USMG status and regardless of status as a resident or a post-resident physician, the Gini index values for 1989 and 1994 were both 0.183. That is, over the 5-year period examined, there was essentially no change in the distribution of the physicians with respect to the total population despite rapid growth in supply. The comparable figures for IMGs were 0.271 in 1989 and 0.280 in 1994, suggesting a slight movement toward greater inequality. Table 5 summarizes the calculations for various groupings of physicians. The most unevenly distributed group is IMG residents, whose distribution also showed the largest movement toward greater inequality.

Other combinations of specialties, practice activity, and IMG/USMG status were examined. In general, IMGs were more concentrated than USMGs, that is, they were less evenly distributed according to population than were USMGs overall. GP/FP specialists had the most equal distribution while other specialties were less equally distributed by comparison. This cross-specialty relationship existed separately for both USMGs and IMGs. The GP/FP equal distribution is the product of complementary IMG and USMG distribution. IMG GP/FPs are predominantly located in counties of high density while USMGs are found in greater proportion in the more rural counties. With exceptions, there was a general tendency for equality in the physician-to-population distributions to worsen over the period 1989 to 1994.

Conclusion

These findings show that, *at the national aggregate level*, IMGs were less evenly distributed than

Table 5
Gini Index Values for USMGs and IMGs, 1989 and 1994, by Physician Activity

	1989	1994
All Patient Care Physicians^a	.183	.183
USMGs	.161	.161
IMGs	.271	.280
All Post-Resident Physicians	.153	.160
USMGs	.134	.147
IMGs	.241	.249
All Hospital-Based^b Physicians	.232	.233
USMGs	.214	.203
IMGs	.269	.288
Resident Physicians (GME)	.307	.322
USMGs	.295	.299
IMGs	.374	.400

a. Includes residents b. Excludes residents

³⁰Poltizer R, Cultice J, Meltzer A. "The Geographic Distribution of Physicians in the U.S. and the Contribution of International Medical Graduates." To be published in March 1998 issue of *Medical Care Research and Review*.

USMGs. Generally, there appears to be a tendency for much of the analysis to show a worsening of equality of distributions over time, regardless of USMG-IMG status. Overall the findings of the study suggest that the growth of IMGs has contributed to a more uneven geographic distribution of physicians, and that physician maldistribution continues to be a problem even as the total number of physicians increase.

At the same time, however, these findings do not contradict those suggested in the previous section. Even though IMGs may be concentrated in counties with substantial numbers of USMGs, some IMGs may still provide a disproportionate amount of care to underserved populations. Moreover, more "gap filling" care provided by IMGs may occur at the sub-county level. More research is needed to measure more accurately IMGs' contribution to caring for underserved and minority populations.

References

- AACOM, AMA, AOA, AAHC, AAMC, and NMA. Consensus Statement on the Physician Workforce. Paper issued at a joint press conference, February 28, 1997, Washington, D.C.
- American Medical Association. *Journal of The American Medical Association*. 1996 Medical Edition Issue.
- Aronson, RD. *Legal Considerations in Evolving Policy Determinations Toward International Medical Graduates (IMGs)*, August 1996, a paper prepared for COGME.
- Association of American Medical Colleges. *Medical Payments with an Education Label: Fundamentals and the Future* (1996), pg. 21.
- Committee on Foreign Affairs, U.S. House of Representatives. *Brain Drain: A Study of The Persistent Issue of International Scientific Mobility*. Washington, D.C.: U.S. Government Printing Office, September 1974.
- Council on Graduate Medical Education. *First Report of the Council, Vol I.*, Rockville, Maryland: DHHS, HRSA, Bureau of Health Professions, July, 1988a.
- Council on Graduate Medical Education. *First Report of the Council, Vol II.* Rockville, Maryland: DHHS, HRSA, Bureau of Health Professions, July, 1988b.
- Council on Graduate Medical Education. *Third Report: Improving Access to Health Care Through Physician Workforce Reform: Directions for the 21st Century*. Rockville, Maryland: DHHS, October 1992.
- Council on Graduate Medical Education. *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, January 1994.
- Council on Graduate Medical Education. *Seventh Report: COGME 1995 Physician Workforce Funding Recommendations for Department of Health and Human Services' Programs*. Rockville, Maryland: DHHS, June 1995c.
- Council on Graduate Medical Education. *Eighth Report — Patient Care Physician Supply and Requirements: Testing COGME Recommendations*. Rockville, Maryland: DHHS, July 1996.
- Diehl HS, Crosby, EL, Kaetzek PK. "Alien Physicians Training in Hospitals in the United States." *Journal of the American Medical Association* 1954; 156(1):1-2.
- Dublin, TD. "The Migration of Physicians to the United States," *New England Journal of Medicine* 1972; 286:870.
- Edsall, DL, Putnam, TJ. "The Emigre Physician in America, 1941," *Journal of the American Medical Association*, 1941; 117 (November 29): 1881-1888.
- Graduate Medical Education National Advisory Committee. *Summary Report to the Secretary, Department of Health and Human Services*. Washington, D.C.: U.S. Government Printing Office, September 30, 1980.
- Iglehart, JK. "The Quandary Over Graduates of Foreign Medical Schools in the United States" *The New England Journal of Medicine* June 20, 1996 (334:25):1680-1683.
- Institute of Medicine. *The Nation's Physician Workforce: Options for Balancing Supply and Requirements*. Washington, D.C.: National Academy Press, 1996.
- Lowin, A. *FMGs: An Evaluation of Policy Related Research*. (National Science Foundation, NSF-C214). Minneapolis: Interstudy, 1975
- MacCormack, JH. "The Problem of the Foreign Physician," *Journal of the American Medical Association* 1954; 155:818-823.
- Mejia A, Pizurki H, Royston R. *Physician and Nurse Migration: Analysis and Policy Implications*. Geneva: World Health Organization, 1979.
- Mick SS. "Foreign Medical Graduates," *Scientific American*. 1975; 232(2): 14-21
- Mick SS. *The 1987 Career Characteristics of Foreign and U.S. Medical Graduates Who Entered the U.S. Medical System Between 1969 and 1982*. A Technical Report Prepared for the Educational Commission for Foreign Medical Graduates, Philadelphia, Pa., February 1992.
- Mick SS. "Foreign Medical Graduates and the U.S. Physician Supply: Old Issues and New Questions," *Health Policy* 24:213-225, 1993
- Mick SS, *An Overview of the IMG situation in The United States with a Review of COGME Positions on IMGs, Summaries of Three Recent Studies, and COGME Recommendations*, University of Michigan, A Report to the Council of Graduate Medical Education and the Bureau of Health Professions, Health Resources and Services Administration, DHHS. October, 1996.
- Mick SS, Lee Y-S D. *Final Report: An Analysis of the Comparative Distribution of Active Post-Resident IMGs*

- and USMGs in the United States in 1996. University of Michigan, Report to the Bureau of Health Professions, Health Resources and Services Administration, U.S. DHHS, Rockville, Maryland, October 1996.
- Mick SS, Pfahler MN. *Review and Synthesis of the Literature on Foreign Medical Graduates/International Medical Graduates, 1980-1994*. University of Michigan, Report to the Bureau of Health Professions, Health Resources and Services Administration, U.S. DHHS, Rockville, MD, [P.O. HRSA 94-961(P)], July 1995.
- Mick SS, Worobey JL. "Impact of Women and Foreign Medical Graduates on Specialty Distribution of U.S. House Officers." *Journal of Medical Education* 1984;59(12):921-927.
- Mullan F, Politzer RM, Davis CH. "Medical Migration and the Physician Workforce: International Medical Graduates and American Medicine." *Journal of the American Medical Association* 1995;273:1521-1527.
- Pew Health Professions Commission. *Critical Challenges: Revitalizing the Health Professions for the Twenty-First Century: Third Report of the Pew Health Professions Commission*. San Francisco: University of California at San Francisco Center for the Health Professions, 1995.
- Physician Payment Review Commission. *1993 Annual Report to Congress*. Washington, D.C., 1993.
- Physician Payment Review Commission. *1996 Annual Report to Congress*. Washington, D.C., 1996.
- Politzer R, Cultice J, Meltzer A. "The Geographic Distribution of Physicians in the U.S. and the Contribution of International Medical Graduates." To be published in March 1998 issue of *Medical Care Research and Review*.
- Prospective Payment Assessment Commission. *Report and Recommendations to the Congress*, March 1, 1997. Washington, D. C., March 1, 1997.
- Rivo ML, Satcher D. "Improving Access to Health Care through Physician Workforce Reform." *Journal of the American Medical Association* 1993; 270:1074-1078.
- Sharp LG. *The Role of Foreign Medical Graduate Residents in the Provision of Care to the Medically Indigent and Poor*. Chicago: American Hospital Association (HRSA 87-389(P)).
- Smiley DF. "The Education Council for International Medical Graduates: A Report of its First Four Years." *Journal of Medical Education* 1962; 37:1031-1037.
- Stevens R and Vermeulen J. *Foreign Trained Physicians and American Medicine*. Washington, D.C. DHHS Publication No. (NIH) 73-324, 1972.
- Stevens R, Goodman LW, Mick SS. *The Alien Doctors: Foreign Medical Graduates in American Hospitals*. New York: Wiley-Interscience Publications, 1978
- Sun LH. "Going Where American Doctors Won't," *The Washington Post National Weekly Edition*. April 1, 1996: 7:32-33.
- Sutnick, AI. "The trainee from abroad," *Annals of Internal Medicine* 68:1127-1128.
- Sutnick, AI. "First Symposium on the Problems of Medical Graduates," *Journal of the American Medical Association* 1970: 213(13): 2241-2246.
- Wang PJ. *Presentation to COGME: The IMG Situation in the Greater New York City Area*. March 12, 1996, Washington, D.C.
- U.S. General Accounting Office. *Medicare: Indirect Medical Education Payments Are Too High*. Washington, D.C. (GAO/HRD-89-33). January 1989.
- U.S. General Accounting Office. *Foreign Physicians: Exchange Visitor Program Becoming Major Route to Practicing in the U.S. Underserved Areas*, (GAO/HEHS-97-26) December 30, 1996.
- U.S.: Congressional Budget Office. *Medicare and Graduate Medical Education*, Washington, D.C.: U.S. Government Printing Office, September 1995.
- Whitcomb ME. "Correcting the Oversupply of Specialists by Limiting Residencies for Graduates of Foreign Medical Schools," *Journal of the American Medical Association* 1995; 333:454-456.
- Whitcomb ME, Miller RS. "Participation of International Medical Graduates in Graduate Medical Education and Hospital Care for the Poor." *Journal of the American Medical Association* 1995;274:696-699.
- Worobey JL, Mick SS. "Specialty Prestige Differences Among Foreign Medical Graduates: Effect of Sex and Level of Development of Country of Medical Education." *Journal of the American Medical Women's Association* 1987; 42(3):85-89



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