HOD ACTION: Council on Medical Education Report 7 adopted and the remainder of the report filed.

REPORT OF THE COUNCIL ON MEDICAL EDUCATION

CME Report 7-A-08

Subject: Diversity in the Physician Workforce and Access to Care

Presented by: Richard J.D. Pan, MD, MPH, Chair

Referred to: Reference Committee C
(David M. Lichtman, MD, Chair)

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Council on Medical Education Report 1 (I-06) described the status of initiatives to enhance diversity in the physician workforce. The report's recommendations, as amended, included the following:

> That our American Medical Association identify models and strategies at the national and state/regional levels and report on:
> - The status of efforts to assure adequate funding for diversity initiatives;
> - The current status of underservice and access to care in the US (regionally and by population); and
> - The recruitment and retention of physicians to practice in underserved areas and to work with underserved populations (Recommendation #6).
>
> That our AMA collaborate with other organizations to study the contribution of international medical graduates to the overall diversity and distribution of the US medical workforce (Recommendation #7).

This report summarizes: (1) current data about diversity and distribution in the physician workforce; and (2) the status and impact of initiatives to enhance physician workforce diversity and access to care in underserved areas.

## DIVERSITY AND DISTRIBUTION IN THE PHYSICIAN WORKFORCE

### Medical School and Residency Training

As background, data on the racial and ethnic composition of first-year medical students and all students in MD-granting medical schools, and of residents in Accreditation Council for Graduate Medical Education-accredited and combined residency programs for 2004-2005, 2005-2006, and 2006-2007 are included in the Appendix. In general, minority representation in medical schools and residency training has not changed significantly over the past several years. For example, the percent of entering medical students who self-classify as African American has been 7.1-7.3%; the percent of Hispanic students has been 7.4-7.5%; the percent of Asian students has been 20-21%; and the percent of white, non-Hispanic students has been 62-63%.

There is limited economic diversity among medical students. The percent of new medical students coming from families in the top quintile of family income increased from about 51% in 2000 to 55% in 2005, and the percent of students from families in the lowest quintile has not risen above 5.5%.[1]

During academic years 2004-2005 to 2006-2007, in Accreditation Council for Graduate Medical Education (ACGME)-accredited and combined residency training programs, the percent of African American resident physicians ranged from 5.2-5.6% and the percent of Hispanic residents ranged from 6.2-6.7%. During 2006-2007, about 27% of all residents were international medical graduates (IMGs).[2] Data from the AMA Physician Masterfile for resident physicians enrolled in graduate medical education between 1999 and 2005 allows the comparison of the racial/ethnic composition of US medical graduates (USMGs) and IMGs: Black (USMGs, 5.8%; IMGs, 4.8%), Asian (USMGs, 16.4%; IMGs, 44.7%), and Hispanic (USMGs, 5.0%; IMGs, 8.5%).[3]

Physicians in Practice

The total number of US physicians involved in patient care in 2006 was 723,118. Of these, 185,045 (25.6%) were IMGs.[4]

Race/ethnicity is known for about 78% of the total physicians in the AMA Physician Masterfile. In 2006, 71.4% of these physicians were white, 15.8% were Asian, 6.4% were Hispanic, and 4.5% were Black.[4]

In 2006, the physician to population ratio (number of total physicians per 100,000 population) in the US was 303. This average conceals a large variation across states. There were fewer than 250 physicians per 100,000 population in 12 states (Alabama, Arizona, Arkansas, Georgia, Idaho, Indiana, Iowa, Mississippi, Nevada, Oklahoma, Texas, and Wyoming.) In contrast, there were more than 350 physicians per 100,000 in 8 states (Connecticut, Hawaii, Maryland, Massachusetts, New York, Rhode Island, Vermont) and the District of Columbia.[4]

There also is considerable intra-state variation in physician availability. There are medically underserved areas even in states with a relatively high physician to population ratio.[5]

## STATUS OF INITIATIVES TO ENHANCE WORKFORCE DIVERSITY AND ENHANCE ACCESS TO CARE IN UNDERSERVED AREAS

This report discusses three general mechanisms that are being used to enhance workforce diversity and access to care in underserved areas:

(1) pipeline programs to prepare a diverse pool of applicants to medical school;
(2) funding programs that facilitate access to medical education for diverse populations and promote practice in underserved areas; and
(3) retention programs.

These categories are not mutually exclusive, as pipeline programs can be funded from the same general sources as access to care programs, and retention programs may involve financial incentives. Since a link between workforce diversity and access to care for underserved populations has been made both conceptually and empirically,[6-8] this report considers the issues simultaneously.

Developing the Pipeline to Medical School

There are many examples of programs that have been successful in preparing minority and economically-disadvantaged high school and college students for future education and health careers.[9-12] These programs take many forms, from summer enrichment or research programs for high school students that encourage college attendance[9] to postbaccalaureate re-applicant

programs for individuals who were not initially successful in obtaining admission to medical school.[11] There also is a combined BA-MD model, which pairs a medical school and a college in an underserved area in Texas.[13]

Funding Programs for Facilitating Entry to Medicine for Diverse Populations and Practice in Underserved Areas

Funding programs, in general, fall into two general categories: programs that support educational initiatives and programs that support individuals. Many of the programs describe above to enhance medical school diversity have been supported through federal funding programs.

The Special Health Career Opportunity Grant Program, first implemented in 1972, and its successor, the Health Careers Opportunity Program (HCOP),[14] have provided funding to medical schools and other health professions schools and public or private nonprofit health or educational entities (such as colleges/universities, junior colleges, state or local government health or education agencies, and health or education associations/organizations).[15] The goal of HCOP funding has been to recruit individuals from disadvantaged backgrounds for health professions training and assist them to enter training programs; provide counseling, mentoring and other services; and provide preliminary education and health research training.[15] As of the most recent HCOP grant cycle (FY2008), only four awards are anticipated, with a total program funding of about $3.7 million, down from about $24 million in 1986.[16,17]

Title VII of the Public Health Services Act authorizes discretionary funding for a variety of programs to facilitate the participation of underrepresented minorities in medicine.[7] These include the HCOP grant program described above, Centers of Excellence for medical and other health professions schools with underrepresented minority enrollments above the national average, and scholarships for disadvantaged students.[7]

Title VII also has supported medical school and residency training in primary care disciplines. These programs are aimed at encouraging physicians to practice in underserved areas.[18] The federal government, through the Health Resources and Services Administration, also has supported the Area Health Education Centers (AHECs). The AHEC program was started in 1972 with the goal of improving the supply, distribution, and retention of primary care physicians and others in underserved areas.[19]

The National Health Service Corps (NHSC) began in the early 1970s to place clinicians in underserved areas. Funding is through scholarship and loan repayment options. In its 35$^{th}$ year (2007), the NHSC had over 4600 clinicians serving in rural and urban underserved areas.[20] In addition, a number of states and regions sponsor scholarship and loan repayment programs with the same goal. While there are centralized sources of information on federal and state programs, there is no central listing of programs sponsored by towns/cities, health systems, and other local funders. This makes it difficult for trainees to identify the range of funding sources that may be appropriate to their career plans.

As with HCOP, funding for some of these federal programs has decreased. In 2006, the Title VII Primary Care Medicine and Dentistry funding program was reduced more than 50%[21] and further cuts are in Title VII programs threatened yearly. AHECs are now mainly state funded.[22]

Other Programs to Attract Physicians to Underserved Areas

In addition to funding, there are additional government programs aimed at enhancing access to care in underserved areas. The most direct is the J-1 visa waiver program. The largest program of this type, known as the Conrad 30, provides 30 slots per year to requesting states. This program allows non-citizen physicians who are in the US on a J-1 visa to remain if they work in an underserved area for three years.[23] There have been recent concerns expressed because the number of physicians initially entering the US on J-1 visas is decreasing.[23]

## PROGRAM IMPACT

While the diversity of the population of physicians-in-training and in-practice is far from optimal, some of the programs described above have had positive results. Individual pipeline programs often report success in encouraging high school and college students to pursue further education and careers in the health professions, including medicine.[9,10,13] Data from the mid-1980s indicated that HCOP programs did enhance minority representation in medicine.[14] The presence of international medical graduates also contributes to the general diversity of the physician workforce.

Programs to enhance physician distribution to underserved areas also have had positive effects. There also are data indicating that Title VII programs increased the family physician workforce in rural and low income communities.[18] Loan repayment programs from the NHSC and the states have a high completion rate (over 90% for the NHSC) and tend to retain the majority of their physicians in underserved areas.[20,24] For example, a study done in 2000 found that 52% of NHSC clinicians were serving the underserved in some capacity 15 years after completion of their service commitment.[20] While international medical graduates are less likely than US graduates to practice in large and small rural areas, those IMGs that are present are more likely to be practicing in a designated Health Professions Shortage Area (HPSA).[25] IMGs have been shown to be critical in staffing the small rural Critical Access Hospitals.[23] The decreased use of the J-1 visa, however, is being associated with increased difficulties recruiting IMGs to practice in rural, underserved areas.[23]

## AMERICAN MEDICAL ASSOCIATION POLICY

Policy of our AMA supports increased diversity across all specialties in the physician workforce in the categories of race, ethnicity, gender, sexual orientation/gender identity, socioecomonic origin and persons with disabilities (Policy H-200.951, AMA Policy Database).

Policy also supports current programs to alleviate the maldistribution of physicians in the US (Policy H-200.954), through such things as incentive programs, including loan repayment, to encourage practice in underserved areas (Policy H-200.978). The scholarship and loan repayment programs of the NHSC should be specifically supported (Policy H-200.984).

## SUMMARY

While the variety of programs to increase physician workforce diversity and expand access to care in rural areas have had some effect, results are far from optimal. The positive achievements are themselves threatened, since funding for a number of the programs described above has been eliminated, reduced or remains in jeopardy.

In addition, there are multiple barriers to achieving the dual goals of workforce diversity and access to care for the underserved.. At the 2008 Interim Meeting, the Council on Medical Education will summarize these barriers as part of a report on the success of incentive programs aimed at recruiting and retaining physicians in underserved areas.

RECOMMENDATIONS

Therefore, the Council on Medical Education recommends that the following be adopted and that the remainder of this report be filed.

1. That American Medical Association Policies H-200.951, "Strategies for Enhancing Diversity in the Physician Workforce," and H-200.054, "US Physician Shortage" be reaffirmed. (Reaffirm HOD Policy)

2. That our AMA continue to advocate for programs that promote diversity in the US medical workforce, such as pipeline programs to medical schools. (Directive to Take Action)

3. That our AMA continue to advocate for adequate funding for federal and state programs that promote interest in practice in underserved areas, such as those under Title VII of the Public Health Service Act, scholarship and loan repayment programs under the National Health Services Corps and state programs, state Area Health Education Centers, and Conrad 30, and also encourage the development of a centralized database of scholarship and loan repayment programs. (Directive to Take Action)

4. That our AMA continue to study the factors that support and those that act against the choice to practice in an underserved area, and report the findings and solutions at the 2008 Interim Meeting. (Directive to Take Action)

Fiscal Note: $7,500 for staff time to research the indicated issues and to advocate as directed.

Complete references for this report are available from the Medical Education Group.

APPENDIX

Table 1: Racial/Ethnic Composition of First-Year Students in MD-Granting Medical Schools

Number of Students

| Academic Year | African American | Native American | Asian | Native Hawaiian | White | Hispanic* | Foreign | Total |
|---|---|---|---|---|---|---|---|---|
| 2004-2005 | 1,276 | 178 | 3,491 | 36 | 10,969 | 1,297 | 230 | 17,477 |
| 2005-2005 | 1,260 | 173 | 3730 | 42 | 10,919 | 1320 | 263 | 17,707 |
| 2006-2007 | 1,294 | 148 | 3,666 | 61 | 11,150 | 1351 | 303 | 17,973 |

Source: Association of American Medical Colleges (AAMC Databook, 2007, Table B4)
* Hispanic alone or in any combination, of any race

Table 2: Racial/Ethnic Composition of All Students in MD-Granting Medical Schools

Number of Students

| Academic Year | African American | Native American | Asian | Native Hawaiian | White | Hispanic* | Foreign | Total |
|---|---|---|---|---|---|---|---|---|
| 2004-2005 | 4,947 | 578 | 13,650 | 161 | 42,302 | 4,318 | 838 | 66,794 |
| 2005-2005 | 5,023 | 628 | 14,197 | 161 | 43,125 | 4,796 | 934 | 68,864 |
| 2006-2007 | 4,993 | 608 | 14,457 | 182 | 43,620 | 4,993 | 1,015 | 69,868 |

Source: Association of American Medical Colleges (AAMC Databook, 2007, Table)
* Hispanic alone or in any combination, of any race

Table 3: Racial/Ethnic Composition of Resident Physicians in ACGME-Accredited and Combined Residency Programs

Number of Residents

| Academic Year | African American | Native American | Asian | Native Hawaiian | White | Other/ Unknown | Total |
|---|---|---|---|---|---|---|---|
| 2004-2005* | 5,530 | 258 | 25,182 | 643 | 55,202 | 14,676 | 101,291 |
| 2005-2006** | 5,371 | 248 | 25,354 | 753 | 54,351 | 17,029 | 103,106 |
| 2006-2007† | 5,855 | 211 | 27,246 | 568 | 57,535 | 13,464 | 104,879 |

Source: AMA/AAMC GME Track as published in the *Journal of the American Medical Association*
* Hispanic origin = 6,578
** Hispanic origin = 6,393
† Hispanic origin = 7,075