

Underrepresented Minority Dental School Enrollment: Continued Vigilance Required

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Recent reports continue to produce evidence supporting the need for the American Dental Education Association (ADEA) to continue its programmatic efforts to increase underrepresented minorities in the dental profession. Solomon et al.¹ have, for example, documented the practice characteristics of black dentists in the state of Texas. This report found that black dentists treat a higher percentage of black patients and a higher percentage of economically disadvantaged patients. In addition, ADEA Senior Survey data for 2002² reported that black/African American students planned practice locations where the major portion of patients will be from inner-city or underserved populations in a higher percentage than that of white students: the percentage for black/African American students was 68.7 percent, while that of white students was 20 percent.

There is more general evidence, beyond dentistry, as well. A 2004 Institute of Medicine Report, *In the Nation's Compelling Interest*,³ concurred with the decision of the Supreme Court on the Grutter v. Bollinger et al. case that there is substantial evidence that the quality of the educational experience in a university that has achieved a “critical mass” of diversity is significantly greater than what is experienced without it. The Hopwood (Texas) and Proposition 209 (California) challenges to affirmative action in 1995 caused stagnation in efforts to address diversity objectives during the late 1990s. The 2003 decision of the Supreme Court with regard to the Michigan affirmative action challenge, however, concluded that diversity is a compelling national interest. This decision established both a challenge to the

nation and set in motion the parameters for more inclusive admissions practices to achieve diversity and consideration of race-neutral alternatives to achieve diversity.

ADEA's long-held position is that, without minority practitioners, access to care will be limited or absent in minority communities throughout the nation.⁴ The dental practice data from both the ADA and ADEA support this position. In fact, the ADA Survey Report 2000⁵ documented the practice characteristics of U.S. dentists: black patients are the only racial/ethnic group that are seen primarily by black dentists.

Continued vigilance and activities must be sustained and documented to ensure a critical mass of diversity within U.S. dental schools and within the dental profession.

Dental Student Enrollment

Recently released dental school enrollment figures show an increase in total enrollment for underrepresented minority (URM) dental students (this term refers to black/African Americans, Hispanics, and Native American/Alaska Natives as distinct from Asian Americans who are minorities in the U.S. population but are overrepresented in their numbers of dental school students) (Table 1). In the 1980s predoctoral enrollment numbers for Hispanics rose to over 1,200 students while black/African American enrollment began to decline. The number of Hispanic students enrolled in dental schools continued to increase until the early 1990s. Declines in

Table 1. Total predoctoral minority enrollment in U.S. dental schools, 1984-2003

| | Black/African American | Hispanic | Native American | Asian | % Total | % URM* |
|-----------|------------------------|----------|-----------------|-------|---------|--------|
| 1984-85 | 1037 | 955 | 60 | 1592 | 17.61 | 9.88 |
| 1985-86 | 1019 | 1027 | 50 | 1672 | 19.27 | 10.72 |
| 1986-87 | 1032 | 1094 | 56 | 1805 | 20.64 | 10.97 |
| 1987-88 | 994 | 1201 | 60 | 2099 | 24.34 | 12.62 |
| 1988-89 | 984 | 1276 | 63 | 2326 | 27.20 | 13.59 |
| 1989-90 | 983 | 1278 | 57 | 2393 | 28.70 | 14.12 |
| 1990-91 | 940 | 1254 | 53 | 2519 | 29.88 | 14.08 |
| 1991-92 | 907 | 1187 | 51 | 2585 | 29.78 | 13.50 |
| 1992-93 | 944 | 1152 | 48 | 2650 | 30.00 | 13.40 |
| 1993-94 | 972 | 1141 | 50 | 2846 | 30.82 | 13.31 |
| 1994-95 | 973 | 1045 | 56 | 3107 | 31.68 | 12.68 |
| 1995-96 | 951 | 966 | 73 | 3433 | 32.76 | 11.42 |
| 1996-97 | 891 | 824 | 83 | 3672 | 33.01 | 10.85 |
| 1997-98 | 883 | 825 | 96 | 3876 | 33.56 | 10.66 |
| 1998-99 | 841 | 823 | 97 | 4035 | 34.03 | 10.33 |
| 1999-2000 | 810 | 913 | 99 | 4325 | 35.54 | 10.53 |
| 2000-01 | 832 | 925 | 112 | 4295 | 35.52 | 10.77 |
| 2001-02 | 854 | 1030 | 74 | 4118 | 34.74 | 11.19 |
| 2002-03 | 904 | 1066 | 80 | 4041 | 34.47 | 11.59 |
| 2003-04 | 972 | 1058 | 77 | 4082 | 34.42 | 11.72 |

Source: ADA Survey of Predoctoral Dental Educational Institutions.
 *URM—Underrepresented Minority: Black/Hispanic/Native American

both groups were seen in the late 1990s. During the 1998-99 academic year, the enrollment for blacks and Hispanics reached a fifteen-year low. The data for the following year showed an increase in Hispanic enrollment from 823 to 913. The subsequent year, black/African American enrollment began to rebound from a low of 810 (1999-2000) to 832 in 2000-01. The enrollment data for black/African American and Hispanic students has shown steady increases since the academic year 2000-01. During the same year, Native American dental student enrollment peaked at a total enrollment percentage (0.65 percent) almost proportionate to that group's representation in the U.S. population.

The 2003-04 total predoctoral URM dental student enrollment data show that the black/African-American and Hispanic student enrollment numbers are the highest they have been in almost ten years. However, the Native American dental student enrollment dropped from 112 students (0.65 percent) in 2000-01 to eighty students (.45 percent) in 2002-03. In 2003-04, the percentage of total predoctoral dental school enrollment for black/African Americans was 5.41 percent, 5.88 percent for Hispanic/Latino, and 0.428 percent for Native American/Alaska Na-

Table 2. Black/African American enrollment in U.S. dental schools, 2003-04*

| School | Total Black | Percent Black | Total Enrollment |
|----------------|-------------|---------------|------------------|
| Howard | 223 | 75 | 298 |
| Meharry | 165 | 84 | 196 |
| North Carolina | 41 | 13 | 314 |
| Tennessee | 40 | 13 | 305 |
| New York | 38 | 3 | 1284 |
| Michigan | 36 | 7 | 426 |
| Pennsylvania | 36 | 8 | 471 |
| Temple | 29 | 6 | 488 |
| Maryland | 19 | 5 | 398 |
| Georgia | 18 | 8 | 228 |
| Tufts | 17 | 3 | 637 |
| New Jersey | 17 | 5 | 313 |
| Alabama | 17 | 7 | 229 |
| Baylor | 16 | 4 | 357 |
| Virginia | 15 | 4 | 337 |
| South Carolina | 15 | 7 | 216 |
| Ohio | 14 | 3 | 414 |
| Iowa | 13 | 4 | 299 |
| Detroit-Mercy | 12 | 4 | 305 |

Total Black Enrollment (all schools) 972 = 5.41%
 Total Enrollment (all schools) 17,978 = 100%

*By rank order. Other dental schools have a total black enrollment of fewer than twelve students.

Based on data included in the American Dental Association's 2003-04 Survey of Predoctoral Dental Educational Institutions.

Table 3. Hispanic enrollment in U.S. dental schools, 2003-04*

| School | Total Hispanic | Percent Hispanic | Total Enrollment |
|---|----------------|------------------|------------------|
| New York | 85 | 7 | 1284 |
| Texas (San Antonio) | 57 | 16 | 348 |
| Nova Southeastern | 45 | 11 | 396 |
| Tufts | 45 | 7 | 637 |
| Florida | 41 | 13 | 316 |
| Texas (Houston) | 38 | 15 | 258 |
| Temple | 37 | 7 | 488 |
| Boston | 36 | 6 | 580 |
| Baylor | 34 | 9 | 357 |
| California (San Francisco) | 30 | 8 | 351 |
| Pennsylvania | 30 | 6 | 471 |
| Loma Linda | 27 | 7 | 395 |
| Marquette | 24 | 7 | 317 |
| Pittsburgh | 24 | 8 | 307 |
| Pacific | 19 | 4 | 444 |
| New Jersey | 21 | 7 | 313 |
| Iowa | 18 | 6 | 299 |
| Southern California | 17 | 3 | 625 |
| Maryland | 16 | 4 | 398 |
| California (L.A.) | 15 | 4 | 366 |
| Creighton | 15 | 5 | 321 |
| Total Hispanic Enrollment (all schools) | | | 1,058 = 5.88% |
| Total Enrollment (all schools) | | | 17,978 = 100% |

*By rank order. Other dental schools have a Hispanic enrollment of fewer than fifteen students.

Note: The University of Puerto Rico has a total Hispanic enrollment of 160 students, or 99 percent of the total student population.

Based on data included in the American Dental Association's 2003-04 Survey of Predoctoral Dental Educational Institutions.

Table 4. Native American enrollment in U.S. dental schools, 2003-04*

| School | Total Native American | Percent Nat. Am. | Total Enrollment |
|--|-----------------------|------------------|------------------|
| Oklahoma | 31 | 14.15 | 219 |
| North Carolina | 5 | 1.59 | 314 |
| Marquette | 4 | 1.26 | 317 |
| Missouri-Kansas City | 4 | 1.10 | 362 |
| Iowa | 4 | 1.34 | 299 |
| Arizona | 4 | 7.00 | 54 |
| Temple | 3 | 0.61 | 488 |
| Nebraska | 2 | 1.09 | 182 |
| Oregon | 2 | 0.70 | 277 |
| Texas (San Antonio) | 2 | 0.57 | 348 |
| Nevada | 2 | 1.33 | 150 |
| Total Native American Enrollment (all schools) | | 77 = 0.43% | |
| Total Enrollment (all schools) | | 17,978 = 100% | |

*By rank order. Other dental schools have a total Native American enrollment of fewer than two students.

Based on data included in the American Dental Association's 2003-04 Survey of Predoctoral Dental Educational Institutions.

tives (total URM was 11.72 percent). The current corresponding percentages of the U.S. populations for underrepresented minorities are estimated to be 12.3 percent black/African American, 12.5 percent Hispanic/Latino, and less than 1 percent Native American/Alaska Native. In spite of the recent increases, the percentage of URM dental student enrollments from each group remains significantly lower than the percentage of each group in the U.S. population.

In the 2003-04 academic year, over 70 percent of the predoctoral URM enrollment was concentrated at thirty-eight dental schools. The schools with major URM enrollments are listed in Tables 2, 3, and 4. Forty percent of African Americans were enrolled at Howard and Meharry in 2003-04, 25 percent of Hispanics were enrolled at New York University, UTHSC-San Antonio, Nova Southeastern, Tufts, and the University of Florida. Forty percent of Native Americans were enrolled at the University of Oklahoma.

Resources for Minority Recruitment Programs in U.S. Dental Schools

The greatest fiscal support for minority recruitment/retention programs is through federal grants to institutions. These programs receive Title VII funding and are subject to federal budgetary and appropriations procedures. At the present time, there are six dental schools with Health Careers Opportunity Programs (HCOP) grants and four with Centers of Excellence (COE) grants (see Table 5).

Another source of minority program funding has been through the inclusion of dental schools in the Association of American Medical Colleges Project "3000 by 2000" initiative. This initiative began as an attempt by medical schools to double their URM enrollment during the period 1990-2000. Even though the project fell short of its numeric goals, it did provide the foundation for the Health Professions Partnership Initiative (HPPI) program, which began in 1996 and is funded by the Robert Wood Johnson and Kellogg foundations. HPPI awards were allowed to include dental schools as partners in health centers where funding is provided. The five-year HPPI grants support academic partnerships that improve the preparation of URM students who would seek

careers in the health professions. Eleven dental schools were included in the HPPI grants program (Table 6). The HPPI program has set in motion a national awareness of the changing demographics of the U.S. population, the necessity of an infrastructure for academic pipeline programs, and the critical need for a diverse cadre of multicultural health practitioners.

NIDCR Centers for Research to Reduce Oral Health Disparities

In October 2001, the National Institute for Dental and Craniofacial Research (NIDCR) announced the funding of five Centers for Research to Reduce Oral Health Disparities as part of its health disparities research initiative. The five centers are located at: Boston University, New York University, the University of California at San Francisco, the University of Michigan, and the University of Washington. Funding in the amount of approximately \$7 million per year over a seven-year grant period was awarded to help grantees identify factors that contribute to oral health disparities and test strategies to eradicate them. In addition, each center provides training and career development opportunities for URM researchers and those interested in research careers.

The centers focus on a wide variety of populations at risk for oral health disparities and operate in partnership with academic health centers, state and local health agencies, community and migrant health centers, and institutions that serve targeted patient population. Funding is provided through a partnership of the NIDCR and the National Center on Minority Health and Health Disparities. For further information, visit the NIH website at www.nih.gov/news/pr/oct2001/nidcr-01.htm.

Robert Wood Johnson Foundation Pipeline and ADEA/W.K. Kellogg Access to Dental Careers Grants

ADEA has received two major grant awards from the W.K. Kellogg Foundation totaling \$3.5 million to help increase the number of URM students and faculty in U.S. dental schools.

The ADEA/W.K. Kellogg Access to Dental Careers (ADC) program (\$1.1 million) is intended to be implemented in full cooperation and collaboration with The Robert Wood Johnson Foundation (RWJF) Pipeline, Profession & Practice: Commu-

nity-Based Dental Education Program. The pipeline program is a national program of the RWJF based at Columbia University, Center for Community Health Partnerships. Additional funding is provided by the California Endowment. The pipeline grants are expected to increase access to dental care for underserved populations through establishment of community-based clinical education programs; revision of dental school curricula to support community-based education programs; and actions to increase recruitment and retention of underrepresented minority and low-income students. Twenty-five percent of the funds are allocated to the recruitment component of the program. The purpose of the ADC grants is to provide direct educational assistance to underrepresented minority and low-income dental

Table 5. The ten dental schools with HCOP and COE funding

2003 Dental Health Career Opportunity Programs (HCOP)

University of Connecticut
 University of California, San Francisco
 Temple University
 Baylor College of Dentistry
 University of Michigan
 University of North Carolina at Chapel Hill

2003 Dental Centers of Excellence (COEs)

Meharry Medical College
 University of Oklahoma
 University of Puerto Rico
 University of Texas Health Science Center at San Antonio

Table 6. The eleven dental schools included in HPPI grants

Round 1 HPPI Grantees, 1996

University of Connecticut
 University of Louisville
 University of North Carolina at Chapel Hill
 University of Nebraska Medical Center
 Oregon Health & Science University

Round 2 HPPI Grantees, 1998

University of Michigan
 University of Missouri-Kansas City
 University of Pittsburgh

Round 3 HPPI Grantees, 2000

University of Illinois at Chicago
 Creighton University
 University of Alabama at Birmingham

students. Dental schools funded through the RWJF Pipeline Program grants were eligible to submit an application for the ADC grants that provide \$25,000 per year, for a maximum funding level of \$100,000 over four years.

The fifteen pipeline schools receiving the ADC grants are the dental schools at Boston University, Howard University, Loma Linda University, Meharry Medical College, The Ohio State University, Temple University, University of California, Los Angeles, University of California, San Francisco, University of Connecticut, University of Illinois at Chicago, University of North Carolina at Chapel Hill, University of the Pacific, University of Southern California, University of Washington, and West Virginia University.

ADEA has also received a grant award of \$500,000 from the California Endowment to enable the addition of four California dental schools to the ADC grants program and to increase funding to UCSF. The award to ADEA is through the Trustees of Columbia University in the City of New York, Center for Community Health Partnerships.

W.K. Kellogg/ADEA Comprehensive Minority Dental Faculty Development Program

The W.K. Kellogg/ADEA Comprehensive Minority Dental Faculty Development (MDFD) Program (\$2,408,127) provides institutional grants of \$250,000 each that will be used primarily for direct advanced education assistance to URM senior predoctoral dental students, postgraduate dental students, or junior faculty who are being recruited to academic careers in dentistry. Low-income students are eligible for these awards. All accredited U.S. dental schools (ADEA member institutions) were eligible to compete for MDFD grants that were awarded in February 2004.

Seven MDFD grants were made to six individual dental schools and one consortium of dental schools: Baylor College of Dentistry, Howard University College of Dentistry, University of Alabama School of Dentistry, University of Illinois at Chicago College of Dentistry, University of Michigan School of Dentistry, University of Oklahoma College of Dentistry, and the New York State Academic Dental Centers (NYSADC) that includes New York University, Columbia University, State University of New York at Buffalo, State University of New York at

Stony Brook, and the University of Rochester Eastman Dental Center.

This MDFD grant will complement the W.K. Kellogg/ADEA Access to Dental Careers program. It is the first foundation grant to assist in the recruitment of URM low-income dental faculty.

ADEA Strategies to Enhance Diversity (2004-05)

Whereas the major programmatic responsibility for minority programs remains with ADEA's Center for Equity and Diversity, there is a need to continue and to expand diversity efforts across the Association's programmatic areas. Specific strategies include:

1. *Collaborative efforts with the American Dental Association with regard to minority student recruitment and retention.* The ADA has appointed a Joint ADA/ADEA Committee charged with responsibility for implementing a national minority student recruitment and retention program. Funding is being sought to assist schools in this effort. The program will build on "lessons learned" from AAMC/HPPI programs. Academic and community partnerships will be joined in a pipeline concept for the seamless transition of minorities in pursuit of health professions careers.
2. *National Minority Recruitment and Retention Conferences.* ADEA has produced five successful national conferences that have developed a national focus and forum for minority student issues. The conferences will continue to be held biennially to strengthen the national network of minority recruitment officers, allow for exchanges related to "best practices," and seek newer resources and ways of addressing the issue. The sixth conference will be held in Chapel Hill, North Carolina, October 25-26, 2004. Proceedings from the fifth conference, in 2002, were published in the *Journal of Dental Education* (September 2003).
3. *Expand collaborative efforts with other associations.* ADEA will continue to expand collaborative efforts with other organizations for mutual benefits to be derived from such associations. As the nation is challenged to address the disparity findings presented in the Report of the Surgeon General (2000), such collaborations will be an imperative. ADEA will continue collabo-

rations especially with the following: National Association of the Advisors of the Health Professions (NAAHP), National Association of Minority Medical Educators (NAMME), National Dental Association (NDA), Hispanic Dental Association (HDA), Friends of the Indian Health Service (FIHS), Association of American Medical Colleges (AAMC), and Community Campus Partnerships for Health (CCPH).

4. *Continue Legislative Agenda.* The ADEA Legislative Agenda is crucial to minority student recruitment and retention. Resources provided to U.S. dental schools have been made possible through sustained legislative efforts directed toward federal funding available to dental schools, students, and faculty. ADEA will continue to provide advocacy for federal programs that support minority focused programs, student financial assistance, student training, the Minority Faculty Loan Repayment program, and other opportunities that arise in the future.
5. *Implement a Minority Faculty Development Program.* The Minority Affairs Advisory Committee has recommended that ADEA consider the implementation of a minority faculty development program. Medicine has a model program that is sustained with foundation funding. This recommendation was made in response to the ADEA Future Faculty Report. ADEA has received \$2.4 million from the W.K. Kellogg Foundation to implement the ADEA/W.K. Kellogg Comprehensive Minority Dental Faculty Development Program. This grant covers a six-year period.
6. *Support Minority and Low-Income Dental Student Recruitment.* The ADEA/W.K. Kellogg Foundation Access to Dental Careers grant funding (\$1.4 million) supports the recruitment component of the RWJF pipeline grants. The California Endowment has provided funding for five of the fifteen schools that are now included in the pipeline project.
7. *Expand Regional Workshops for Predental Advisors.* ADEA has held six regional predental advisor workshops in tandem with the Association's annual sessions since 1998. These workshops have targeted members of the National Association of Advisors of the Health Professions, regional recruitment, admissions and financial aid officers, and other local individuals involved in minority student recruitment. The regional approach to advisor contact will continue to provide advisors with updated informa-

tion and resources that will enhance their ability to influence the career choices of minority students. Plans to expand these workshops are in progress.

8. *Implement ADEA Resolution Regarding Cultural and Linguistic Competence* (Resolution 12H-2000). This resolution reads: "All dental education institutions should include cultural and linguistic concepts as an integral component of their curricula to facilitate the provision of oral health services." The resolution, developed by the joint activity of the ADEA Women's Affairs Advisory Committee (WAAC) and Minority Affairs Advisory Committee (MAAC), was approved by the 2000 ADEA House of Delegates. The joint WAAC/MAAC committees will continue to advise the ADEA Board of Directors on ways to help dental and allied dental education programs operationalize this resolution. As the cultural competency elements of dental and allied curricula evolve, the accompanying cultural changes within the academic environment are expected to enhance increases in student diversity anticipated for the future. The ADEA W.K. Kellogg Access to Dental Careers (ADC) grant in partnership with the Robert Wood Johnson Foundation Pipeline Project will contribute to curriculum development in the area of cultural competency in the fifteen dental schools receiving the ADC/Pipeline grants.
9. *Support Minority Affairs Section Programming.* ADEA's Minority Administrators and Faculty Special Interest Group became the Minority Affairs Section in 1994. The goals of this section are to promote the recruitment and development of minorities as faculty and administrators in dental education and to heighten the awareness of other faculty and administrators regarding issues and concerns that have a significant impact on minorities in the academic environment. The Center for Equity and Diversity will support this section in its efforts to recruit minority faculty, students, and administrators; ensure that the legislative agenda addresses the special needs of minorities in dental education; and facilitate collaboration with other sections for programs and activities that focus on diversity or cultural competency. For example, the center will support the collaboration of the section with the National Dental Association (NDA) in Minority Faculty Forum planning at the Annual Convention of the NDA and in the NDA Foundation/Colgate-Palmolive Faculty Recognition Awards Program.

10. *Leadership Training for Minority Affairs Officers*. The Gies Foundation has awarded ADEA grant funds to provide leadership training for minority/diversity affairs officers in U.S. dental schools. The program will increase effective leadership in the areas of minority recruitment and retention, resource allocation, mission management, cultural competency, and collaborative skills.
11. *Participate in the Health Professionals for Diversity Coalition activities*. This coalition is comprised of more than fifty health organizations across the health professions disciplines. The coalition has been reactivated by the Association of American Medical Colleges in response to the U.S. Supreme Court rulings regarding the University of Michigan affirmative action decisions. The coalition will address opportunities and challenges to promoting diversity in the post-University of Michigan decisions environment and in building support for diversity across the health professions.
12. *Support the Report of the ADEA President's Commission Report on "Improving the Oral Health Status of All Americans: Roles and Responsibilities of Academic Dental Institutions," May 2003*. The Center for Equity and Diversity's programmatic strategies will continue to address Recommendation 4: "To increase the diversity of the oral health workforce." The recommendations in this report support those of the Report of the Surgeon General (2000) and the ADA Future of Dentistry Report (2002).
13. *Opportunities for Minority Students in U.S. Dental Schools*. ADEA publishes *Opportunities for Minority Students in U.S. Dental Schools*, the only biennial publication designed to attract minority students to careers in dentistry. This unique resource guide contains information of interest to minority students for all fifty-six dental schools, including pre-dental academic enrichment programs, minority student associations, the distribution of minority students by school, financial aid, a listing of additional information sources, and profiles of minority dentists.

Summary

ADEA is committed to programmatic efforts that benefit all U.S. dental schools in their efforts to

increase the number of underrepresented minorities who enroll in dental school and who subsequently choose careers in dental practice, academic dentistry, research, and other areas.

In spite of ADEA's efforts to increase the number of underrepresented minorities in the dental profession, the numbers of underrepresented minorities remain woefully disproportionate to their representation in the U.S. population. Minority populations in the United States are growing at a faster rate than the white majority. The practice characteristics of minority practitioners document their service to minority patients and in minority communities. These facts not only mandate that enrollments among these populations increase, but also that there are adequate faculty role models and culturally sensitive academic environments that are critical to the professional development of all dental students.

The commitment of leadership at every level, from federal and state government and philanthropic organizations to our community partners and dental institutions, is critical if we are to improve access to health careers and ensure that there will be minority health providers for the future.

Dental education, with the help of the Robert Wood Johnson and W.K. Kellogg foundations, is now able to contribute to the diversity infrastructure of dental schools toward practices that expand the applicant pool, modify curriculum with regard to cultural competency, and evaluate outcomes and "best practices." The models now in place create a challenge to the nation that is important to both the quality of dental education and to the oral health care needs for all Americans.

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