

Educating Health Professionals: Are We Failing Minorities?

By Miguel R. Kamat, MD, MPH

Closing the Gap, Putting the Right People in the Right Places • May/June 1999

Major discrepancies persist in the representation of racial and ethnic minorities within the Nation's health professions workforce. For instance, African Americans, Hispanics and American Indians and Alaska Natives account for only 10 percent of the health professions workforce, even though they make up approximately 25 percent of the U.S. population.

Blacks/Hispanics in Health Professions

Although there are wide variations among professions, Blacks and Hispanics are underrepresented throughout the health workforce, particularly in professions that require extensive training such as medicine, dentistry, and pharmacy (see Table 1). Blacks are well represented in a few professions that require substantial formal education such as dietetics (they constitute 18.2 percent of dietitians) and social work (23.4 percent), and are close to parity in some others (psychologists, physician assistants). They also are well represented in occupations that require little formal training (health aides and nursing aides, orderlies and attendants). Hispanics are well represented among dental assistants and dental laboratory and medical appliance technicians, but are poorly represented among virtually all other professions that require formal education.

American Indians and Alaska Natives constitute approximately 0.05 percent of physicians and less than 0.05 percent of dentists and pharmacists, although they represent 0.9 percent of the population. The Association of American Medical Colleges (AAMC) includes Native Hawaiians, but not other Asian American or Pacific Islanders, in its definition of underrepresented minority groups within the medical student body. However, it is important to keep in mind that the AAMC definition of underserved minorities does not acknowledge potential underrepresentation by certain Asian American and Pacific Islander subgroups, such as recent immigrants and refugees.



Trends over Time

The number of degrees in the health professions awarded to Blacks increased from a baseline of 5.0 percent in academic year 1985-86 to 5.9 percent in 1993-94, well below the national disease prevention and health promotion target of 8.0 percent set by Healthy People for the year 2000. Hispanics progressed from a baseline of 3.0 percent of all health professions degrees in 1985-86 to 4.3 percent in 1993-94, again below the target of 6.4 percent for the year 2000. Finally, for American Indians/Alaska Natives, the baseline was 0.3 percent (1985-86); this proportion increased to 0.4 percent in 1993-94, still below the target of 0.6 percent for the year 2000.

Medical Schools

Between 1950 and 1995, African American, Hispanic and American Indian/Alaska Native first-year enrollments in allopathic medical schools steadily increased. During the early 1990s, they accelerated at a rate faster than their growth in the U.S. population, instilling confidence that enrollment in allopathic medical schools might reach parity by year 2000.

But in 1996 and 1997, the number and percent of Black, Hispanic and American Indian/Alaska Native first-year enrollees declined for the first time since 1985, widening the gap between their representation in medical schools and the U.S. population. This deficit is expected to increase according to year 2010 projections.

continued>>>>

Table 1. Black and Hispanic Employment* in Health Occupations: 1998

| Health Profession | % Black | % Hispanic |
|---|---------|------------|
| Physicians | 4.9 | 4.8 |
| Dentists | 2.8 | 2.0 |
| Registered Nurses | 9.3 | 3.2 |
| Pharmacists | 4.1 | 5.1 |
| Dietitians | 18.2 | 4.3 |
| Respiratory Therapists | 11.7 | 2.0 |
| Occupational Therapists | 6.5 | 0.7 |
| Physical Therapists | 4.2 | 5.4 |
| Speech Therapists | 1.9 | 6.3 |
| Physician Assistants | 10.6 | 2.8 |
| Psychologists | 10.2 | 4.0 |
| Social Workers | 23.4 | 6.4 |
| Clinical Laboratory Technologists and Technicians | 15.0 | 6.4 |
| Dental Hygienists | 3.9 | 3.9 |
| Radiologic Technicians | 8.2 | 2.0 |
| Licensed Practical Nurses | 17.4 | 5.8 |
| Dental Laboratory and Medical Appliance Technicians | 6.8 | 12.6 |
| Dental Assistants | 6.1 | 12.1 |
| Health Aides (except nursing) | 24.4 | 9.3 |
| Nursing Aides, Orderlies and Attendants | 34.0 | 9.8 |
| U.S. Population** | 12.1 | 11.4 |

*Employed civilians ages 16 years and older. Source: Current Population Survey.

** 1998 Bureau of the Census

Educating Health Professionals: Are We Failing Minorities?

By Miguel R. Kamat, MD, MPH

Closing the Gap, Putting the Right People in the Right Places • May/June 1999

According to the AAMC, “over two-thirds of the decline occurred at schools affected by Proposition 209 (California) and the Hopwood decision (Texas, Louisiana, and Mississippi)—rulings that prohibited the consideration of race or ethnicity in the admissions process.”

Underrepresented minority medical students encounter greater obstacles to financing and completing their medical education than their colleagues. About 80 percent of underrepresented minority medical students were in debt when they entered medical school, compared with only 43 percent of others. And 94 percent of underrepresented minority medical students graduated in debt in 1997, compared with 82 percent of others. Only 80 percent of underrepresented minority medical school students graduated within five years of matriculation, compared to 93 percent of others.

Health Professions Schools

The underrepresented minority enrollment in health professions schools is currently 13 percent and needs to be increased an additional 12 percent to reach parity with representation in the general population (25 percent).

A detailed analysis demonstrates that health profession schools have a low enrollment of African American, Hispanic and American Indian/Alaska Native students. Apart from American Indian/Alaska Native representation in osteopathic medical schools—which is at parity with the population—no health profession can boast African American, Hispanic, or American Indian/Alaska Native enrollment at parity with the U.S. population. And only in public health are the African American, Hispanic and American Indian/Alaska Native enrollees greater than 15 percent of total enrollment.

Undergraduate Education

Degrees in science and engineering serve as valuable credentials for college graduates seeking to enter health professions graduate schools. The number of science and engineering bachelor's degrees awarded to underserved minorities increased by 47 percent between 1985 and 1993. This progress notwithstanding, Blacks, Hispanics and American Indians still earned a disproportionately low share of undergraduate degrees when compared with their representation in the population. Collectively, they earned only 13 percent of all science and engineering baccalaureates in 1995, although they constituted 28 percent of college-age students that year.

Attrition rates for these groups from undergraduate institutions are greater than those for Whites—a high of 36 percent for Blacks versus a low of 8 percent for Whites (contrasting 1991 and 1993 undergraduate cohort enrollment profiles).

High School

During high school, where math and science serve as the foundation upon which future health careers are built, the types of math and science courses taken by underrepresented minority and White students diverge sharply. For example, unlike Asian Americans and Whites, Black, Hispanic, and American Indian high school graduates were more likely to have taken remedial math than trigonometry, despite the fact that the proportion of Blacks and Hispanics taking math, chemistry and physics doubled between 1982 and 1992. A weak scientific foundation in turn adversely affects Scholastic Aptitude Test (SAT) scores. It's no surprise then that Whites had higher math scores than all groups except Asian Americans on the SAT in 1994.

Conclusion

It is clear that Blacks, Hispanics and American Indians/Alaska Natives within the U.S. population are underrepresented in high school math and science courses, in college, graduate school, and in the workforce itself. We must work to increase the education, training, and recruitment of minorities to the Nation's health professions in order to overcome the health disparities experienced by minority communities. If we can do this, we will have a workforce that adequately reflects the rich diversity of this country, fully uses the potential of our people, and best serves the American public. ❖

Table 2. Selected Enrollment Compared With Populations in Health Professions Schools: 1996-1997

| | % African American | % Hispanic | % American Indian/Alaska Native |
|------------------------|-----------------------|---------------|------------------------------------|
| U.S. Population* | 12.1 | 11.4 | 0.9 |
| Allopathic Med (M.D.) | 8.0 | 3.4 ** | 0.8 |
| Osteopathic Med (D.O.) | 4.1 | 3.8 | 0.9 |
| Podiatry | 3.7 | 3.4 | 0.6 |
| Dentistry | 5.4 | 4.0 | 0.5 |
| Optometry | 2.4 | 3.9 | 0.5 |
| Pharmacy | 7.7 | 2.8 | 0.4 |
| Veterinary Med | 2.2 | 3.0 | 0.6 |
| Public Health | 8.0 | 8.8 | 0.8 |
| Nursing (RN) | 9.9 | 3.9 | 0.8 |

* 1998 Bureau of the Census estimates

** Mexican American + Mainland Puerto Rican Source: adapted from table compiled by HRSA, Bureau of Health Professions, National Center for Health Workforce Information and Analysis.