



**THE CENTER**  
FOR THE HEALTH PROFESSIONS  
*University of California, San Francisco*

## **Diversity in California's Health Professions: Physicians**

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A report of the California Health Workforce Tracking Collaborative

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### **Introduction**

The major national associations (professional and student) that represent interests in medical education or the physician workforce in the United States have, at some point in the last several years, made public their positions on the importance of gender and racial and ethnic diversity, in medical schools and in the physician workforce.<sup>1-6</sup> The bases for this claim include the belief that a racially and ethnically diverse physician workforce is a key component in the effort to address health disparities related to race, ethnicity and socioeconomic status.<sup>7-9</sup> There is also the perception among medical students, faculty and administrators that a diverse student body significantly enhances the experience of medical school.<sup>10-11</sup> A diverse student body provides opportunities for the exchange of ideas about the practice of medicine, in and out of the classroom, and these exchanges may be *the* most effective means of exposing everyone involved to the issues that frame the effort to develop a culturally competent physician workforce.<sup>12</sup>

The make-up of California's current and future population provides further impetus for efforts to develop a diverse physician workforce. California has become one of the most racially and ethnically diverse states in the country. Population projections indicate that over the next 25 years the state's population will grow by roughly 12 million people, and over 90% of this population growth will be

Latino (75%) and Asian (17%).<sup>13</sup> In 2000, Latinos and Asians represented roughly 43% of California's general population; in 2030 they are projected to represent approximately 58% of the state's population.

### **California's Current Physician Workforce**

As a result of legislation enacted in 2001,<sup>14</sup> the Medical Board of California initiated a re-licensure survey designed to collect information on the state's practicing physician workforce<sup>15</sup> in California. Key findings from these new survey data are published in the recent report *California Physician Diversity: New Findings from the California Medical Board Relicensing Survey*.<sup>16</sup> According to the report there are an estimated 73,000 physicians (MDs) in the state who are no longer in training and are active in patient care. Among the significant pieces of data that the re-licensure survey collects is a physician's detailed race and ethnicity. Physicians can select either a single or multiple race/ethnicity categories from 28 different options (or they can decline to state race/ethnicity). Table 1, from this recent report, shows the racial/ethnic composition of California's active physician workforce using two different methods to tabulate physicians. The first method places all physicians into a single racial/ethnic category while the second method places physicians who selected multiple race/ethnicity groups into a *multiracial* category.

In the first column of Table 1 all physicians are placed into a single race/ethnicity group, including those who selected multiple groups. Placing physicians who selected more than one race/ethnicity category into a single category was done using a protocol developed by the authors, which ranked the racial/ethnic groups in the following order: African American; Latino; Native American; Asian & Pacific Islander; and White. If a physician selected both African American and

White, s/he would be placed into the African American category. If a physician selected Latino and Native American s/he would be placed in the Latino category, etc. The second column in Table 1 adds a *multiracial* category and simply places physicians who selected more than one race/ethnicity category into this group.

**Table 1. California's Current Physician/Surgeon Workforce by Race/Ethnicity<sup>17</sup>**

| Race/Ethnicity                  | Assigned to a Single Ethnicity (%) | Multiple Ethnicities Allowed (%) | California's General Population (%) |
|---------------------------------|------------------------------------|----------------------------------|-------------------------------------|
| White                           | 61.7                               | 61.7                             | 42.8                                |
| African American                | 3.2                                | 3.0                              | 6.0                                 |
| Asian/Pacific Islander          | 26.4                               | 25.0                             | 12.5                                |
| American Indian/Native American | 0.6                                | 0.1                              | 0.5                                 |
| Latino                          | 5.2                                | 4.1                              | 35.9                                |
| Multiracial                     | -                                  | 3.4                              | 2.0                                 |
| Other                           | 2.9                                | 2.7                              | -                                   |

Source: Grumbach et al. *California Physician Diversity: New Findings from the California Medical Board Survey*. January 2008

The underrepresentation of Latino and African American physicians has received a great deal of attention over the past two decades. According to these new findings from the Medical Board survey, Latinos and African Americans remain underrepresented in California's physician workforce. In the case of Latino physicians, the gap is substantial; Latinos represent almost one-third of state's labor force, but just 5% of the state's physician workforce active in patient care. The report also suggests that while Asians are very well represented in California's physician workforce, there are certain groups within the broad category of *Asian* who should be considered underrepresented. According to the authors, there are very few Cambodian, Lao/Hmong and Samoan physicians currently active in patient care in California.<sup>18</sup> Table 1 also suggests that multiethnic/multiracial persons are more frequently represented among the

state's physician workforce than among California's general population.

### California's Medical Schools

California's 8 MD programs have enrolled roughly 1000 new students each year for the past 15 years. Data indicate that this ranks California near the bottom, among all states, in terms of in-state capacity to produce MDs. Relative to the state's population there are very few training slots for either medical students or medical residents and California imports roughly 75% of its total physician workforce from other states and abroad.<sup>19</sup> California also ranks 37<sup>th</sup> among all states in terms of the proportion of state residents who are able to attend an in-state medical school.<sup>20</sup> However, California also retains a very high proportion of those students who do pursue medical education in the state, at both the undergraduate and graduate level. California ranks 1<sup>st</sup> among all states in terms of the proportion of the active physician workforce who attended an in-state medical school, 2<sup>nd</sup> among all states in terms physicians who did an in-state medical residency, and 6<sup>th</sup> nationally in terms of the active physician workforce who completed both undergraduate and graduate medical education in-state.<sup>21</sup>

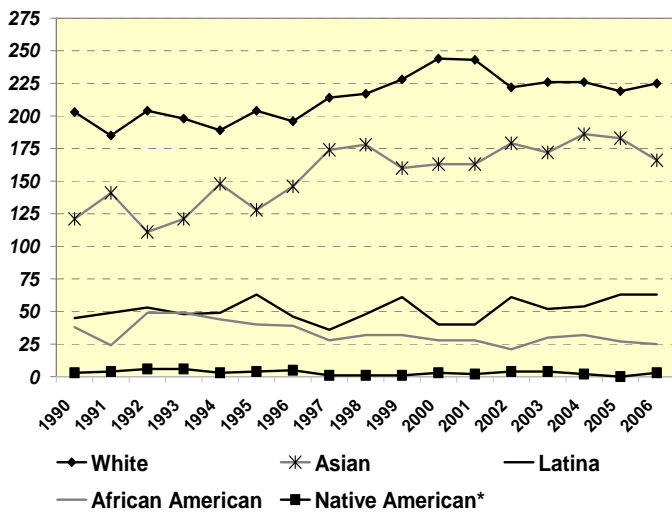
It should be pointed out that the Council on Graduate Medical Education (COGME) released a report in recent years,<sup>22</sup> recommending that U.S. allopathic medical schools increase the number of enrollments in order to address growing concerns of a national physician shortage over the next 15 years. This is a reversal of its position dating from the 1990s, which recommended capping allopathic medical school enrollments (as noted above, enrollment levels in California's MD programs have remained consistent for the past 15 years). In a separate report issued by the University of California, Office of Health Affairs,<sup>23</sup> researchers found that California is also expected to face a shortage of physicians at some point in the next 10 years, and UC has announced plans to expand the number of enrollment slots at UC medical schools.

Establishing what constitutes an adequate supply of physicians is a complex undertaking that must account for many dynamic factors. These include

general levels of insurance coverage among the population; public financing of coverage for the uninsured; overall demand for health care services, which will affect the needed mix of physician generalists and specialists; and the role that other health professionals, i.e. nurse practitioners and physician assistants, may play in meeting the demand for primary healthcare services. The intent of increasing medical school enrollments is tied to consumer demand and to public health needs, not necessarily to maximizing opportunity for students. However, increasing the number of enrollment slots in MD programs does present an opportunity to address issues of racial and ethnic underrepresentation among medical students.

Despite the lack of enrollment growth during the last fifteen years, California's MD programs have achieved gender parity among entering students. In 2006, total first year enrollment was 50% women and 50% men. However, this parity has not been reflected in all racial/ethnic groups. Figure 1 shows first-year women enrollment by race/ethnicity at California's allopathic medical schools between 1990 and 2006.

**Figure 1. First-year Enrollment by Women and by Race/Ethnicity at California's MD Programs: 1990-2006**



\*Native American includes American Indian, Native Alaskan, Native Hawaiian and Pacific Islander

Source: Association of American Medical Colleges, Applicant-Matriculant File, May 2007

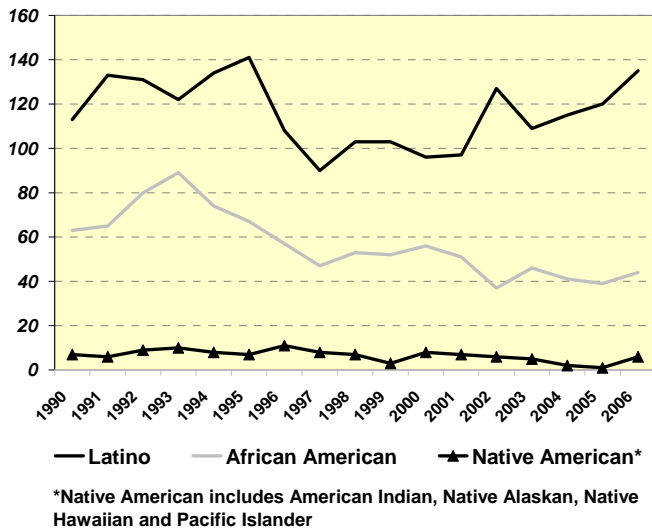
The number of women enrolled in California's MD programs grew by 25-35% over the past 15 years, from roughly 415 enrollments in 1990 to as many as 540 in 2004 (520 enrollments in 2006). Almost all of this growth can be attributed to greater numbers of Asian and White women, with most of the increase taking place between 1993 and 2000. (In 2000 Asian and White women represented a combined 84% of total enrollment by women.) Enrollment by Asian women, in particular, grew significantly over the last 15 years, increasing by roughly 50% between 1990 and 2005.

These data show that the number of Latinas enrolling in California's MD programs cycled between 45 and 60 per year throughout the 1990s. In the last five years, however, these data indicate a more sustained upward trend (although this upward trend only brings Latina enrollment back up to the fifteen-year high that occurred in 1995).

Enrollment by African American women declined steadily between 1993 and 2002 (from a high of 50 to just 21 total enrollments) and has shown no real sign of change since then. The number of Native American women (including Native Hawaiian and Pacific Islander women) entering California's medical schools over this period is so small there is no discernable trend. (Among 2005 first-year enrollments not a single Native American woman was reported.)

As noted above, total annual enrollment in California's MD programs remained roughly the same between 1990 and 2006 (around 1000 new students per year), and so the substantial increase in the number of Asian and White women was mirrored by a significant decline in enrollments by African American, Latino, and Native American students. Figure 2 shows only Latino, African American and Native American first-year enrollments between 1990 and 2006, to illustrate just how dramatic the decline was.<sup>24</sup>

**Figure 2. First-year Latino/African American/Native American Total Enrollment at California's Medical Schools: 1990-2006**



Source: Association of American Medical Colleges, Applicant-Matriculant File, May 2007

In 1993 there were 89 first-year African American students enrolled in one of California's MD programs, in 2002 there were 37 and the data show that African American enrollment has remained low since then. Latino first-year enrollments grew by 25% between 1990 and 1994 and then declined by 25% between 1995 and 2003. In recent years Latino enrollment for both men and women has been increasing, nearly recovering to the fifteen-year high (occurring in 1995). The number of Native American first-year enrollments (which includes Native Hawaiian and Pacific Islander students) has fluctuated narrowly between 6 and 10 per year throughout the 1990s, though in recent years the total number has been even smaller.

Student data describing first-year enrollments in California's two osteopathic medical schools in recent years reveals an even greater concentration of Asian and White students. In combination, Touro University and Western University of Health Sciences matriculate roughly 350 students per year. Although not depicted here, the data show that in both 2005 and 2006 Asian and White students represented over 90% of total first-year enrollments.

### Efforts to Increase Physician Workforce Diversity

There have been significant efforts in the past few decades to address the lack of racial and ethnic diversity in the healthcare workforce broadly and the physician workforce specifically. Examples of interventions include: scholarship awards; loan repayment programs; targeted recruitment of underrepresented and disadvantaged students; financial support of institutions committed to increasing diversity; post-baccalaureate programs oriented toward helping underrepresented and disadvantaged students gain admission to MD programs; and K-12 programs designed to promote health careers and generally to encourage students to pursue education in science and mathematics.

Two higher profile educational pipeline programs are the Health Careers Opportunity Program (HCOP) and the Centers of Excellence (COE) and there are several higher education institutions in California that provide institutional support to both.<sup>25</sup> HCOP programs recruit and mentor students from economically or otherwise disadvantaged environments in support of these students' successful entrance into health professions schools and graduate programs in the health sciences. Centers of Excellence are designed to offer support specifically to minority groups and they share many of the objectives of the HCOP programs. They support pre-professional pipeline interventions and also extend support to minority faculty to conduct academic and clinical research. The COEs are also focused on the field of medicine, by comparison with HCOPs which target health professions more broadly.<sup>26</sup>

HCOPs and COEs are federal programs that have long received support through Title VII funding. In recent years, though, the federal budget has zeroed out financial support for both programs. One of the reasons cited by the Health Resources and Services Administration for this action was the lack of demonstration that these programs effectively met their objectives.<sup>27</sup> However, there is some recent research that indicates these programs are effective at improving academic performance among minority and disadvantaged students and increasing the likelihood of these students pursuing health

professions education, including medicine.<sup>28-29</sup> To date, there has not been a coordinated effort made to collect the kind of data needed to evaluate these strategic workforce development programs and consistently demonstrate their effectiveness. Meanwhile, the budget cuts have a negative impact on all efforts to develop California's health professions workforce.

UC Programs in Medical Education (PRIME), which have been implemented at all five UC medical schools, are examples of an institutional commitment to address two major concerns regarding California's physician workforce. The PRIME programs are part of the UC plan to expand medical school enrollment, system-wide, by 10% over the next ten years, which is a response to projected shortages in the state's physician workforce. However, the programs are also focused on addressing physician workforce diversity and the healthcare needs of medically underserved areas and populations in the state. Each individual PRIME program has an orientation directed at serving regional needs, but they all share an institutional commitment to train physicians committed to practicing in these areas and serving these populations.

### Conclusion

Increasing racial and ethnic diversity in California's physician workforce is a key component in the ongoing effort to address health disparities associated with race, ethnicity and socioeconomic status. It is also part of the foundation for creating a culturally competent health professions workforce. This will be crucial as California's population becomes increasingly racially, ethnically and linguistically diverse. New physician workforce data show that despite decades of efforts to achieve this goal, little progress has been made. And student data describing California's MD and DO programs show that these programs still produce very few non-White or non-Asian physicians. In fact, the number of non-Asian and non-White students enrolling in California's allopathic medical schools in 2006 was no greater than it was in 1990 and in the state's two osteopathic medical schools

non-Asian/White students currently represent less than 10% of total enrollment.

However, the student data also show that, although underrepresentation remains an issue, in recent years the number of Latino enrollments in MD programs has been steadily increasing. The Latino proportion of 2006 total enrollment was 13%, up from low points in the late 1990s but still slightly lower than the peak of 14% of total enrollment in 1995. It may be that efforts to recruit Latino students into MD programs are having a positive effect on enrollment. These gains are paid for, however, with declines in enrollment among other non-White and non-Asian students. The very small number of African American and Native American students remains a serious concern. There are so few African American students in California's MD programs that enrolling 40 more students than were enrolled in 2006 would double the annual state-wide total. For Native American students it would take only 6 additional enrollments to double the 2006 state-wide total.

One of the key components to addressing physician workforce diversity is medical education capacity. Data indicate that California ranks near the bottom among all states in terms of its capacity to produce MDs. California has comparatively few training slots for either medical students or medical residents relative to the size of the state's population and comparatively few state residents are able to attend medical school in-state. However, California also retains a very high proportion of those students who pursue medical education in the state, at both the undergraduate and graduate level, ranking 1<sup>st</sup> among all states in terms of the proportion of the active physician workforce who attended an in-state medical school, 2<sup>nd</sup> among all states in terms of physicians who did an in-state medical residency, and 6<sup>th</sup> nationally in terms of the active physician workforce who completed both undergraduate and graduate medical education in-state. The implication is that given the opportunity to attend medical school in the state, graduates are very likely to practice medicine in the state. Increasing total enrollment among underrepresented minorities in California's medical schools is a direct pathway toward increasing the diversity of the state's practicing physician workforce. The UC PRIME

programs are an important step toward addressing this goal, through expanded capacity and an institutional commitment to recruit underrepresented and disadvantaged students, who in turn are making commitments to serve geographies and populations where they are most needed. The Health Careers Opportunity Programs (HCOP) and Centers of Excellence (COE) are equally important components in what will necessarily be a multi-pronged effort. Successfully enrolling underrepresented and disadvantaged students in California's medical schools requires intervention long before students are ready to consider attending medical school. All the way along the pipeline, there needs to be an institutional commitment to the goal of ensuring the success of students who have been historically underrepresented, not only in medicine but in the broader health professions workforce. Furthermore, as these interventions rely on support from both federal funding and private foundations, coordinated efforts should be made to collect the kind of data needed to conduct program evaluations so that their effectiveness can be demonstrated.

## References

<sup>1</sup> American Medical Association: <http://www.ama-assn.org/ama/pub/category/12938.html>

<sup>2</sup> Council on Graduate Medical Education: <http://www.cogme.gov/17thReport/17.htm#intro>

<sup>3</sup> American College of Physicians: <http://www.annals.org/cgi/content/full/141/3/226>

<sup>4</sup> American Medical Student Association: <http://www.amsa.org/div/>

<sup>5</sup> Health Resources and Services Administration, Bureau of Health Professions supports diversity in medical education and the physician workforce through funding opportunities for a range of programs:

<http://bhpr.hrsa.gov/diversity/default.htm>

<sup>6</sup> Association of American Medical Colleges: <http://www.aamc.org/diversity/start.htm>

<sup>7</sup> Institute of Medicine Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care. Smedley BD, Stith AY, Nelson AR (eds). *Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare*. Washington, DC: National Academies Press, 2003.

<sup>8</sup> Sullivan Commission on Diversity in the Healthcare Workforce. *Missing Persons: Minorities in the Health Professions*. The Sullivan Commission, 2004.

<sup>9</sup> Institute of Medicine Committee on Institutional and Policy-Level Strategies for Increasing the Diversity of the U.S. Healthcare Workforce. Smedley BD, Butler AS, Bristow LR (eds). *In the Nation's Compelling Interest: Ensuring Diversity in the Healthcare Workforce*. Washington, DC: National Academies Press, 2004.

<sup>10</sup> Whitla D, Orfield G, Silen W, Teperow C, Howard C, Reede J. Educational Benefits of Diversity in Medical School: A Survey of Students. *Academic Medicine*. May 2003; 78(5): 460-466.

<sup>11</sup> *Increasing Diversity in U.S. DHHS Region IX Medical Schools: Opportunities and Challenges*, prepared by the Institute for Health Policy Studies at the University of California San Francisco for the Office of Minority Health, Office of Public Health and Science, U.S. Department of Health and Human Services, March 2006.

<sup>12</sup> Ibid. Whitla et al. 2003.

<sup>13</sup> State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail, 2000-2050*.

<sup>14</sup> AB 1586 (Negrete-McLoed Bill), 2001.

<sup>15</sup> The survey does not include osteopathic physicians, they are licensed by a separate board.

<sup>16</sup> Kevin Grumbach, Kara Odom, Eric Chen, Christopher Vercammen-Grandjean and Elizabeth Mertz. *California Physician Diversity: New Findings from the California Medical Board Survey*. Center for Health Workforce Studies, University of California, San Francisco. January 2008.

<sup>17</sup> These estimated proportions are weighted to represent more than 73,000 physicians with practice zip codes in California, active in patient care, and no longer in residency or fellowship training.

<sup>18</sup> The authors estimate that there are about 40 Cambodian, 30 Lao/Hmong and 20 Samoan physicians in California who are currently active in patient care and are not in residential or fellowship training.

<sup>19</sup> AAMC Center for Workforce Studies. *2007 State Physician Workforce Data Book*. November 2007.

<sup>20</sup> Ibid.

<sup>21</sup> Ibid.

<sup>22</sup> Council on Graduate Medical Education. *Physician Workforce Policy Guidelines for the United States* (Sixteenth Report). U.S. Department of Health and Human Services, Health Resources and Services Administration. January 2005.

<sup>23</sup> Center for Health Workforce Studies, University at Albany, State University of New York. *California Physician Workforce: Supply and Demand Through 2015*. University of California Office of Health Affairs. December 2004.

<sup>24</sup> Two key policy decisions in the mid 1990s are widely held to have precipitated the decline in Latino and African American enrollments in CA medical schools: SP-1 of the Regents of the University of California which forbid consideration of sex, race, or ethnicity in admissions; and Proposition 209, a state constitutional amendment that



prohibited the State or any other public entity from discriminating against or giving preferential treatment to any group on the basis of sex, race or ethnicity.

<sup>25</sup> CSU Fresno supports an HCOP which receives support from the UCSF/Fresno Latino Center for Medical Education & Research; CSU Los Angeles supports an HCOP; UCSF School of Dentistry supports an HCOP; Centers of Excellence are found at the following medical schools: UCLA; Stanford; UC San Diego (Hispanic COE); UCSF/Fresno (Hispanic COE).

<sup>26</sup> A subset of Centers of Excellence offer support specifically to Hispanic/Latino students (Hispanic Centers of Excellence) and to American Indians/Native Alaskans (Native American Centers of Excellence).

<sup>27</sup> A statement to this effect was made by a representative of HRSA in February 2008, as part of her testimony before the Senate Committee on Health, Education, Labor and Pensions on the subject of "Addressing Healthcare Workforce Issues for the Future". Testimony available on the web:

<http://www.hhs.gov/asl/testify/2008/02/t20080213b.html>

<sup>28</sup> K. Grumbach, J. Coffman, E. Rosenoff, C. Muñoz, P. Gandara and E. Sepulveda. *Strategies for Improving the Diversity of the Health Professions*. The California Endowment. 2003.

<sup>29</sup> K. Grumbach, E. Chen. Effectiveness of University of California post-baccalaureate premedical programs in increasing medical school matriculation for minority and disadvantaged students. *JAMA*. 2006; 296(9): 1079-1085.

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