ADDRESSING ORAL HEALTH DISPARITIES THROUGH INCREASED ACCESS TO CARE AND DIVERSITY WORKFORCE

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There has been significant progress in the improvement of general health and well-being of the United States (U.S.) population over the past century.[1–9] Due to this, most Americans are living longer and healthier lives. Mortality rates have been reduced as health care continues to improve.

In this time, there have been significant breakthroughs in diagnosis and treatment of oral diseases.[10] These oral health innovations help most Americans live better lives; however, not all have benefited. While we have made great progress, it has not been equitable.

Many Americans still experience chronic and treatable pain and illness with complications that devastate overall health, well-being, and have considerable financial and social ramifications. The silent epidemic of oral diseases affects our most vulnerable populations—poor children, the elderly, and members of racial and ethnic minority groups.[11]

Oral health and disease are associated with cardiovascular disease, immune disorders, microbial infections and cancers. New research points to the associations between chronic oral infections and heart and lung diseases, stroke, low-birth weight and premature births. Associations between periodontal (gum) disease and diabetes have also long been noted.[12,13]

Oral Health Disparities

Dental maladies exist across the lifespan and disproportionately effect vulnerable populations. There are common dental anomalies found in infants, children, adolescents, pregnant women and the elderly. Caries (cavities) continue to be one of the most common chronic diseases in U.S. children. When left untreated, pain and infection can develop and lead to more oral health issues. Gum disease and tooth loss disproportionately impact the overall health of minority populations.

Pregnant women with poor oral health are more likely to deliver infants with low birthweights. Infants experience poor oral health and preventable diseases, like baby bottle cavities, due to lack of knowledge, limited access to care and inadequate resources. Children with poor oral health miss more school and receive lower grades.[14] Research shows that 17 percent of children, aged 2 to 5 years old, living in low-income households have untreated cavities -- three times the amount found in children from higher-income households.[15] Childhood oral health issues persist throughout adolescence and into adulthood when left untreated.

Hormonal changes during puberty and adolescence may in some cases attribute to an increased incidence of cavities and gum disease. In children ages 12 to 19, 23 percent of children from low-income families have untreated cavities twice that of children from higher-income households.[15]

The adult population is living longer and many experience oral health problems such as tooth decay, tooth loss, gum disease, xerostomia (dry mouth), chronic disease, oral cancer and pre-cancer conditions. These problems may cause pain, issues with chewing and eating and difficulty with smiling and communication, as well as have an impact on the lifespan .[13] Among working-age U.S. adults, over 40 percent of low-income and non-Hispanic Black adults have untreated tooth decay.[16] Adults with less than a high school education are almost three times as likely to have untreated cavities as adults with at least some college education.[15] About 40 percent of adults with low-income or no private health insurance have untreated cavities. Low-income or uninsured adults are twice as likely to have one to three untreated cavities and three times as likely to have four or more untreated cavities as adults with higher incomes or private insurance.[16]

Most of us will experience dental disease, especially as we age. Nearly all adults (96 percent) aged 65 years or older have had a cavity; and one in five have untreated tooth decay.[13,17] Total tooth loss is

experienced in nearly one in five adults aged 65 or older. Complete tooth loss is twice as prevalent among adults aged 75 and older (26 percent) compared with adults aged 65-74 (13 percent).[13,17] A high percentage of older adults have gum disease. About two in three, or 68 percent, of adults aged 65 years or older have gum disease.[13,18] The prevalence of disease, however, varies vastly among race and ethnic groups. For example, 46 percent of African American adults have decay as compared to 27 percent of adults nationwide.[13,19]

Access to Care

Low-income populations, across all ages, experience the lowest access to oral health care.[20] The 2020 National Institutes of Health (NIH) report, "Oral Health in America: Advances and Challenges," generated a call to action by the National Institute of Dental and Craniofacial Research (NIDCR) director, the National Institutes of Health director, and the U.S. Surgeon General to ensure oral health for all.[2,21]

The newly issued report provides a comprehensive snapshot of oral health in America, including an examination of oral health across the lifespan and a look at the impact the issue has on communities and the economy. Major take-aways from the report include:

- Group disparities pertaining to oral health, identified 20 years ago, have not been adequately addressed. Greater efforts are needed to tackle the social determinants that create these inequities and the systemic biases that perpetuate them.
- Healthy behaviors can improve and maintain oral health, but these behaviors are influenced by social and economic conditions.
- Oral and medical conditions often share common risk factors. Oral health treatment can improve other health conditions and individual health overall.
- Substance misuse and mental health conditions negatively affect the oral health of many. [22]

The Healthy People 2020 Report demonstrated that oral health is essential to our overall health. The report also highlighted that those who need dental care are the least likely to have access. These individuals disproportionately are low-income, live in poverty and are most likely representative of minority populations. Many reside in geographically isolated areas with reduced access to dentists and Medicaid providers.[23] Rural areas often have inadequate public transportation systems, barring many from access to dentists.[23,24] Rural populations also have a higher prevalence of cavities and tooth loss and a lower degree of private dental insurance combined with limited access to public dental services.[25,26] As a result, those who need dental care the most are the least likely to receive it.[20]

Dental Workforce

The U.S. population continues to diversify with increases in the Hispanic and Asian populations, while Black population remains stable. This trend is predicted to continue along with other population demographics over the next 20 years. The current dental workforce does not reflect the diversity that is demonstrated throughout the United States. Blacks make up an estimated 12.4 percent of the U.S. population, and approximately only 4 percent of the dental workforce. Hispanics make up an estimated 18 percent of the U.S. population and approximately 6 percent of the dental workforce. The dentist workforce consistently skews more Asian and White and is underrepresented significantly by Hispanic and Black dentists.[27] (Figure 1)

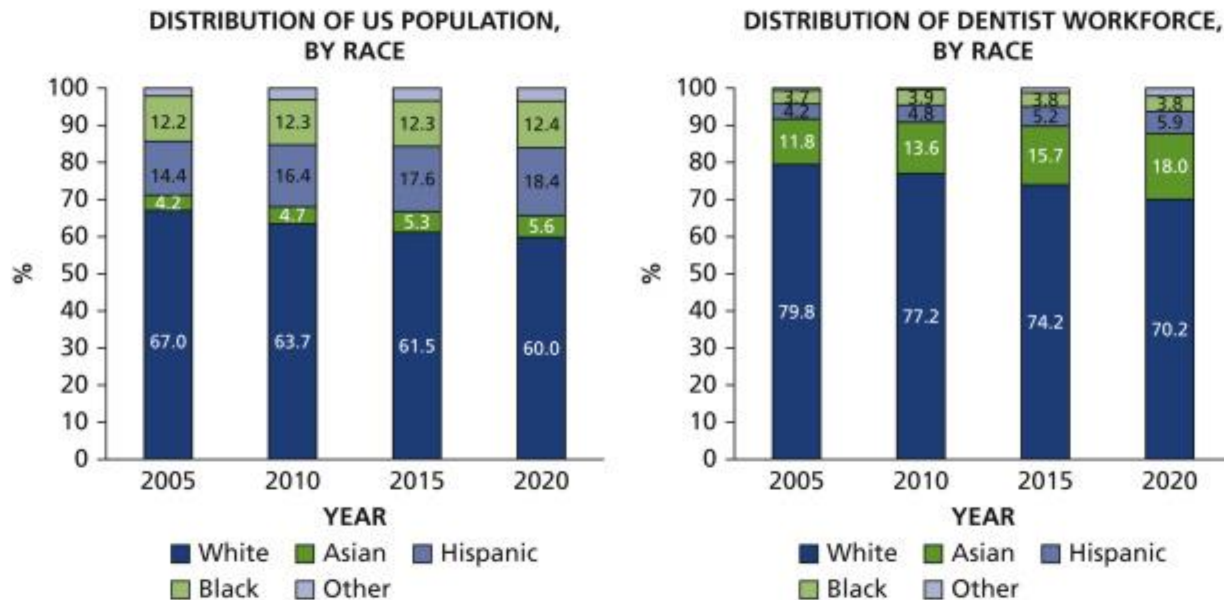

Figure 1: Diversity and trends of the general population compared with the dentist workforce, by race, 2005 through 2020. Source: American Dental Association Health Policy Institute.

Greater diversity in the dental workforce is necessary to effectively address the needs of the population. The Health Resources and Services Administration (HRSA) estimates that there is a current shortage of 10,877 dentists in the United States.[28] Several dental schools that have opened in recent years cite insufficient supply of dentists as a key reason as to why the U.S. needs more dental school graduates.[29,30,31] These dental school expansions, however, have yet to demonstrate a significant increase in producing minority dentists.

27 percent of the practicing African American dentists in the U.S. are graduates of Meharry Medical College. The burden of increasing diversity cannot rest solely on the two HBCU dental schools (Meharry and Howard). There must be continued intentional efforts within the dental education that includes collaboration with schools at all levels, beginning in Pre-K and Kindergarten as well as working with community organizations, churches, health care and other professional organizations and corporations. There must be a concerted group effort to make a significant impact.

A recent report by the Oral Health Workforce Research Center found that “improving the racial and ethnic diversity of the nation’s dentists is critical in efforts to reduce disparities in access to care and health outcomes and to better address the oral health needs of an increasingly diverse U.S. population.” Research shows that patients are more comfortable receiving care from a provider of their own race.

Studies have also determined that non-white dentists care for a disproportionate number of at-risk patients in minority and underserved communities. Researchers have found that 53 percent of clinically active Black dentists reported primarily treating underserved patients at their primary practice, and another study concluded that “the Hispanic/Latino (H/L) dentist workforce is a critical component of our dental delivery system and is shown to contribute to improved access for H/L populations and underserved populations.”[32]

Increasing racial diversity within the oral health care workforce is therefore imperative for eliminating access barriers, increasing utilization, and improving outcomes.

Strategies to improve and help eliminate oral health disparities collectively include:

1. Improving access to care through incentives for rural and inner-city workspaces;
2. Increasing the diversity of the workforce;
3. Greater interprofessional training and collaboration; and
4. Support of federal programs that increase maintain and/or enhance programs that impact health care delivery such as loan repayment programs and federal renumeration.

If we want to adequately combat and eliminate oral health disparities, we must meet communities where they are.

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