

Surgeon General's Perspectives

ORAL HEALTH: THE SILENT EPIDEMIC

We are taught from an early age that proper oral health is maintaining healthy teeth. The simple acts of brushing and flossing are instilled in us so that we maintain our “pearly whites;” yet, oral health is much more than clean teeth. It involves the gums and their supporting tissues, the palate, the lining of the mouth and throat, the tongue, the lips, the salivary glands, the chewing muscles, the nerves, and the bones of the upper and lower jaws. Recent research has indicated possible associations between chronic oral infections and diabetes, heart and lung disease, stroke, and low birthweight or premature births.¹ In other words, oral health refers to the health of our mouth and, ultimately, supports and reflects the health of the entire body.

Since the 20th century, numerous advances in research and technology have improved the status of oral health in America for most populations. With the development of fluoridated drinking water and dental sealants, Americans are less likely to experience tooth loss and gingivitis by middle age, which commonly plagued Americans prior to the turn of the last century.¹ In addition, the development of dental implants and the refinement of dental materials and treatment techniques have improved our ability to restore function due to tooth loss.

Strides toward achieving the *Healthy People 2010* objectives for oral health have highlighted the progress made in recent decades. Between 1988–1994 and 1999–2002, the proportion of 15-year-olds with dental caries (tooth decay) declined from 61% to 57%. Similarly, 15-year-olds with untreated dental caries dropped from 20% to 18%. Between 1992 and 2002, the proportion of the U.S. population served by community water fluoridation increased from 62% to 67%, moving toward the target of 75%.² Community water fluoridation continues to be a vital, cost-effective method of preventing dental caries.

Although largely preventable, dental caries and periodontal disease are the two biggest threats to oral health, and are among the most common chronic diseases in the United States. Dental caries is the most common chronic disease in children: it is about five times as common as asthma and seven times as common as hay fever. The most common cause of tooth loss among adults is untreated periodontal disease. Fifty-three million people live with untreated tooth



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decay in their permanent teeth.³ Strikingly, one-quarter of adults aged 65 years and older have lost all of their teeth due to untreated oral disease.^{3,4}

Despite these statistics, the majority of Americans often take oral health for granted.² Unknown to many are the complications associated with untreated dental caries and periodontal disease. If left untreated, they may cause pain, dysfunction, poor appearance, loss of self-esteem, absence from school or work, and difficulty concentrating on daily tasks.³

The health disparities surrounding access to proper dental care add another layer of complexity. The silent epidemic of oral diseases disproportionately affects disadvantaged communities, especially children, the elderly, and racial/ethnic minority groups. Oral health disparities are exacerbated by the fact that a cavity continues to enlarge and become more difficult to repair the longer it remains untreated. Only one in five school-aged children from low-income families receives dental sealants to prevent dental caries. Furthermore, 40% of Mexican American children aged 6–8 years have untreated tooth decay, compared with 25% of non-Hispanic white children.³ More astonishing is the 87% of American Indian and Alaska Native children aged 6–14 years and 91% of the 15- to 19-year-olds who have a history of tooth decay.⁵

In 2000, former Surgeon General David Satcher

released *Oral Health in America: A Report of the Surgeon General*,¹ which highlighted the importance of oral health as the gateway to general health and well-being. The report revealed how oral disease is a silent problem, especially in underserved populations. In 2003, former Surgeon General Richard H. Carmona released a *National Call to Action to Promote Oral Health*,⁶ which built upon Satcher's report and underscored the many disparities related to oral health. It charged individuals, whether as community leaders, volunteers, health-care professionals, researchers, or policy makers, to collaborate to promote oral health and reduce disparities.

The interest in oral health and related disparities has contributed to expanding the language in the Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA). Under CHIPRA, states are allocated funding to help strengthen existing programs and provide additional services to low-income uninsured children. The funding provided by CHIPRA allows states to expand coverage of dental services necessary to prevent disease, promote oral health, restore health and function, and treat emergency conditions.⁷

An important first step in combating the two leading causes of poor oral health—dental caries and periodontal disease—is understanding that tooth loss is often the result of disease or injury, rather than an inevitable consequence of aging. Educational programs emphasizing the importance of oral health promotion/disease prevention are also necessary to raise awareness and discourage the lack of concern regarding oral health. Proper oral health is vital to a productive and healthy life. Messages that encourage lowering sucrose intake, reducing acidic beverage consumption, and routinely brushing and flossing teeth should continue to be disseminated through all sources of media, including dental literature, television, newspapers, magazines, radio, and the Internet, and should be incorporated into the education curriculum targeting children, caregivers, and communities. Together, we will be able to promote good oral health and encourage our children to be vigilant of their oral health status.

Over the years, research, technological advances, and public involvement have improved oral health to

the point that most Americans take their oral health for granted. Yet, as most of us benefit from these advances, profound disparities in oral health still exist. To decrease the disparities that exist among different groups, all stakeholders at the federal, state, and community levels must be engaged in the issues surrounding oral health promotion/disease prevention. Additionally, raising the country's understanding of the linkage between good oral health and good overall health will help to reduce the disparities associated with oral health and will lead to a healthier nation.

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REFERENCES

1. Department of Health and Human Services (US). *Oral health in America: a report of the Surgeon General*. Rockville (MD): HHS, Office of the Surgeon General (US); 2000. Also available from: URL: <http://www.surgeongeneral.gov/library/oralhealth> [cited 2009 Jun 3].
2. Department of Health and Human Services (US). *Healthy People 2010: midcourse review on oral health*. Washington: U.S. Government Printing Office; December 2006.
3. Centers for Disease Control and Prevention, Division of Oral Health (US). *Oral health: preventing cavities, gum disease, and tooth loss* [cited 2009 Jun 3]. Available from: URL: <http://www.cdc.gov/nccdphp/publications/aag/doh.htm>
4. National Institute of Dental and Craniofacial Research, National Institutes of Health (US). *Data and statistics* [cited 2009 Jun 6]. Available from: URL: <http://www.nidcr.nih.gov/DataStatistics>
5. Department of Health and Human Services (US). *The 1999 oral health survey of American Indian and Alaska Native dental patients: findings, regional differences and national comparisons*. Rockville (MD): HHS, Indian Health Service (US); 1999.
6. Department of Health and Human Services (US). *National call to action to promote oral health*. Rockville (MD): HHS, Public Health Service, National Institutes of Health, National Institute of Dental and Craniofacial Research (US); Spring 2003. NIH Publication No. 03-5303.
7. *Children's Health Insurance Program Reauthorization Act of 2009*. Title V, Sec. 501.