The Neglected Epidemic and the Surgeon General's Report: A Call to Action for Better Oral Health

The first US surgeon general's report on oral health will be released soon. Oral diseases have been called a "neglected epidemic,"[1–4] because, although they affect virtually the entire population, they have not been made a priority in our country. The surgeon general's report can help educate and sensitize policymakers and health leaders about the importance of oral health and the need to make oral health an integral component of all health programs. In the words of former Surgeon General C. Everett Koop, "You're not healthy without good oral health."

We must seize this unprecedented opportunity to ensure that the mouth becomes reconnected to the rest of the body in health policies and programs. It makes no sense that children, diabetic persons, or senior citizens with an abscess on their leg can receive care through their health insurance or a health program, but if the abscess is in their mouth, they may not be covered. For vulnerable populations and the "have-nots," the barriers to dental care are even greater.

Although we have made much progress in improving oral health since the 1970s as a result of fluoridation, fluorides, new technology, changing attitudes, and increased use of services, oral diseases are still a neglected epidemic. The facts speak for themselves. Seventy-eight percent of 17-year-olds have had tooth decay, with an average of 7 affected tooth surfaces (C. M. Vargas, unpublished estimates, Third National Health and Nutrition Examination Survey, 2000), and 98% of 40- to 44-year-olds have had tooth decay, with an average of 45 affected tooth surfaces (C. M. Vargas, unpublished estimates, Third National Health and Nutrition Examination Survey, 2000). Thirty percent of Americans older than 65 years have no teeth at all.[5] Twenty-two percent of 35- to 44-year-olds have destructive periodontal disease.[5] Finally, more Americans die from oral and pharyngeal cancer than cervical cancer or melanoma each year.[6]

Although tooth decay in children has decreased considerably,[7] it still affects most children and adults, especially as people live longer and retain more of their teeth. Populations at higher socioeconomic levels are able to pay for dental care; however, dental care is often a luxury for vulnerable and high-risk populations. Jonathan Kozol writes, "Bleeding gums, impacted teeth and rotting teeth are routine matters for the children I have interviewed in the South Bronx. Children get used to feeling constant pain. They go to sleep with it. They go to school with it. . . . Children live for months with pain that grown-ups would find unendurable."[8(p20,21)]

Vulnerable Populations

The oral health disparities of the underserved are unacceptable and must be addressed among vulnerable and high-risk populations—children, the elderly, individuals with low incomes, the developmentally disabled, the medically compromised, people who are homebound or homeless, persons with HIV, uninsured and institutionalized individuals, and racial, cultural, and linguistic minorities. For example:

- The rate of untreated dental disease among low-income children aged 2 to 5 years is almost 5 times that of high-income children.[9]
- Among 14-year-old White children, the use of dental sealants, a preventive service, is almost 4 times that among African American children.[5]
- The rate of untreated dental disease among American Indian and Alaska Native children aged 2 to 4 years is 6 times that among White children.[5]
- Oral cancer mortality is 2 times higher for male African Americans than for male Whites.[10]
- People without health insurance have 4 times the rate of unmet dental needs as those with private insurance.[11]

Why should so many Americans, especially children and vulnerable populations, be neglected and experience so much unnecessary pain and suffering when we have the knowledge and resources to prevent it? Oral diseases should not be lifelong conditions that compromise quality of life. Poor oral health affects mortality, general health, nutrition, digestion, speech, social mobility, employability, self-image and esteem, school absences, quality of life, and well-being.[2,5] In addition, recent studies have shown associations between periodontal disease and the incidence of premature, low-birthweight babies[12–14] and between oral infections and heart disease and stroke.[15–17]

Dental care costs should not be a barrier, given other health expenditures. The cost of providing dental care is not driving increases in health care costs. About $60.2 billion will be spent in the United States for oral health services in the year 2000; however, as a percentage of total health expenditures, dental service expenditures have decreased 28%, from 6.4% in 1970 to about 4.6% today.[18]

Prevention

We are fortunate that cost-effective preventive measures for many of these oral diseases and conditions are available. However, they are not being fully used, thus compounding unmet dental needs and disparities. For example, more than 100 million Americans do not live in fluoridated communities[19]; 85% of 14-year-old children have not had dental sealants, a simple preventive measure[5]; and 93% of US adults 40 years and older have not had an oral cancer examination in the past year.[20] For the underserved who are not able to obtain care, the lack of preventive services creates an even greater burden of disease.

Dental Public Health Infrastructure

In addition, our public health system responsible for oral health is in disarray, and its infrastructure is lacking. Eighty percent of local health departments do not have a dental program.[5] Thirty-nine percent of state health departments do not have a full-time dental director, and 8 (40%) of these departments do not have a dental director at all (H. Goodman, State Program Evaluation Committee, Association of State and Territorial Dental Directors, written communication, December 28, 1999). Further, most school-based health centers do not have a dental component,[5] and 44% of community health centers do not have a dental program.[6] Only 136 dentists are board certified in dental public health (S. Lotzkar, American Board of Dental Public Health, written communication, January 21, 2000).

Access

In addition to the lack of preventive services and programs, access to dental care for many individuals and communities is a problem. For example, about 125 million Americans do not have any dental insurance.[5] Furthermore, 81% of nursing home residents have not had a dental visit in the past year,[5] and 80% of children on Medicaid have not had a

preventive dental visit in the same period.[21] Finally, 38% of rural counties have no dentist, and 62% do not have a dental hygienist.[22]

Access to dental care is even more difficult for vulnerable and underserved populations. Access may also be limited by the availability of providers, especially culturally competent providers. However, financial and social constraints affect practice location and the diversity of our oral health workforce, factors that exacerbate oral health disparities among the underserved. The cost of a dental education continues to increase. Approximately 42% of all dental school graduates are more than $100 000 in debt, and about 42% of those who graduate from private dental schools are more than $150 000 in debt.[23] Although African Americans constitute 12% of the general US population, they represent only 2.2% of professionally active dentists.[24] There is also a need for more Hispanic and Native American dentists.

Inequities in access to dental care and preventive services and the lack of a dental public health workforce to respond to these needs have been clearly spelled out in the *Healthy People 2000 Progress Review for Oral Health*[10] and in *Healthy People 2010: Oral Health*.[5] The surgeon general's report on oral health gives us a unique opportunity to sensitize the nation to this neglected epidemic and to stimulate the political will to integrate oral health as part of all health programs and policies.

Recommendations

1. *Oral health must become a much higher priority at the local, state, and national levels, so that oral health disparities can be improved and resolved*. Oral health services should be an integral component of all health programs and all health insurance programs, including Medicare. Government must become more responsive to the oral health needs of the public, especially the underserved. Local, state, and federal health officials, leaders, agencies, and organizations, including organized dentistry, must ensure that health programs and initiatives have a meaningful oral health component and respond to the Healthy People 2010 oral health objectives. More foundations should make oral health a priority. Oral health partnerships, coalitions, constituencies, and legislative action are needed. The public and private sectors, including business, labor, insurers, academia, and the faith communities, must work together.

An effective dental public health infrastructure also needs to be developed and funded at the local, state, and national levels to provide guidance in responding to these needs. Every state and every major local and county health department should have a full-time dental director trained in public health, along with sufficient support.

2. *The federal government must be a role model and set the example that oral health is an integral and important component of all health programs*. The federal government must make oral health a much higher priority in all of its agencies that affect health. It must rebuild its dental public health infrastructure centrally and regionally with leadership and funds to promote cost-effective, population-based prevention programs and improved access to dental services for all, with a special focus on vulnerable populations and the underserved. Creative leadership, incentives, oral health literacy, health promotion, and sufficient resources will be needed from all programs in the federal government to help us eliminate disparities and reach the Healthy People 2010 national oral health objectives.

Although the Oral Health Initiative of the US Department of Health and Human Services is a good beginning, it is limited in scope and impact. The oral health needs of the underserved must be more effectively met by community and migrant health centers, the National Health Service Corps, Head Start, maternal and child health agencies, Healthy Start, the Special Supplemental Nutrition Program for Women, Infants, and Children, area health education centers, school-based health centers, and other such programs. More practical and applied research is also needed to increase the use of, and improve access to, effective prevention programs.

3. *Promotion and use of effective individual and population-based prevention services and programs must become a much higher priority at the local, state, and national levels, especially for children and high-risk populations*. All kindergarten through 12th-grade students should be provided with meaningful oral health education, and children in high-risk communities should have effective school-based dental prevention programs. Federal and state incentives must be provided for such programs. All private insurance programs, dental Medicaid, and the Child Health Insurance Program must include and encourage the use of preventive dental services.

Tobacco settlement funds must also be used to develop and institutionalize effective prevention programs because of the relationship between tobacco use and oral diseases. These services and programs can include school, community, or institutional prevention initiatives that provide fluorides, dental sealants, early childhood caries prevention, and oral and pharyngeal cancer examinations.

4. *The oral health component of Medicaid and the Child Health Insurance Program must be upgraded and improved*. The accountability of state officials involved in dental Medicaid and the Child Health Insurance Program must be increased. Some progress has been made in a few states toward improving dental Medicaid, often as a result of legal challenges. Local, state, and federal agencies, organizations, and constituencies must work together to improve these programs. Adult Medicaid beneficiaries who are at high risk (e.g., pregnant women, the developmentally disabled, and the medically compromised) must be included in dental Medicaid programs, an optional service in many states. An effective statewide distribution of safety-net providers must be available in every state. Disparities in access to dental services for the underserved cannot be corrected until the effectiveness of dental Medicaid programs is improved.

5. *All communities with a central water supply must have fluoridation*. Fluoridation is the most cost-effective preventive measure for better oral health; however, 38% of US communities with public water supplies do not have fluoridation. Other than the recent advances in California, little progress has been made nationally since 1980.

Fluoridation has been called one of the 10 great public health achievements of the 20th century.[25] It should be the foundation for better oral health for all Americans. The US Department of Health and Human Services must play a much stronger leadership role, working with local and state agencies and organizations to promote and support community water fluoridation.

6. *The oral health workforce needs to be modified and augmented*. More dentists, including those of minority backgrounds, should be trained in dental public health. Given the magnitude of debt of recent graduates, this will not occur without changes. Minorities are more likely to receive services in areas where there are racial/ethnic minority providers[26]; thus, minority, inner-city, rural, and low-income students must be recruited, mentored, and funded to attend schools of dentistry, dental hygiene, and public health. This is especially true for African Americans, Hispanics, and Native Americans. In addition to expanding and improving scholarship and loan repayment programs, more creative programs are needed to attract the best and the brightest of these students to careers in population-based dental programs.

State practice acts must also be less restrictive and more responsive to the needs of the public in such areas as national reciprocity for licensees and delegation of duties for dental hygienists and assistants. Other health

professional schools, such as medicine, nursing, and public health, should include oral health in their curriculum so that their graduates can contribute to the resolution of this epidemic.

Conclusions

The oral disease epidemic has been neglected for too long. The richest country in the world, one with a booming economy in the last decade, can do much better. As we begin the new millennium, oral health disparities among the underserved must be addressed. We know how to prevent or control most oral diseases. The surgeon general's report on oral health will grasp the attention of our country. We are once again at the crossroads.[27] Now is the time to integrate oral health into all health policies and programs. We must focus the country's political will to make oral diseases a public health dinosaur of the past. We can and must ensure a legacy of better oral health for all Americans in the future.

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