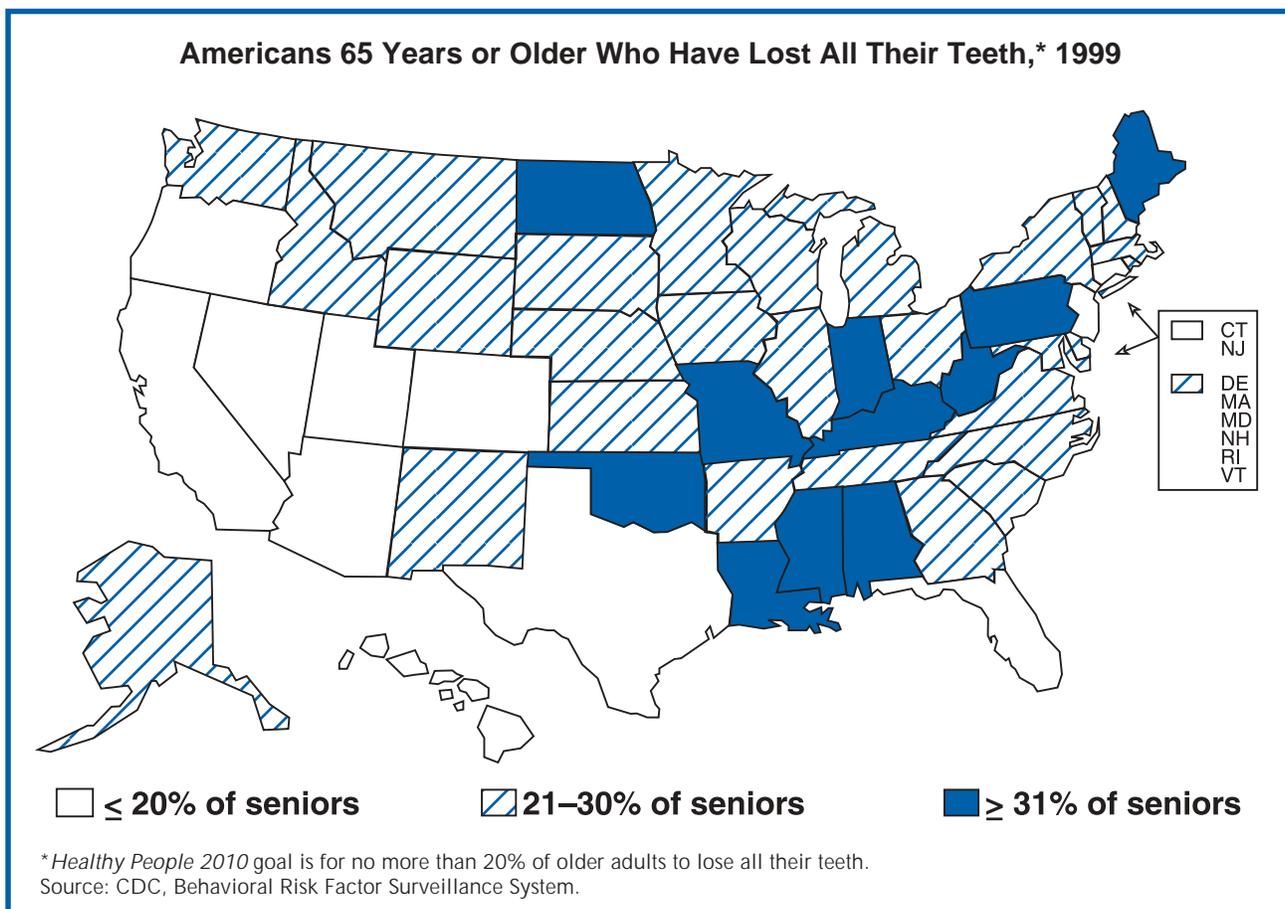


Oral Health: Preventing Cavities, Gum Disease, and Mouth and Throat Cancers 2002



“Safe and effective measures exist for preventing oral disease, but they are underused.”

David Satcher, MD, PhD
Surgeon General, 1998–2002

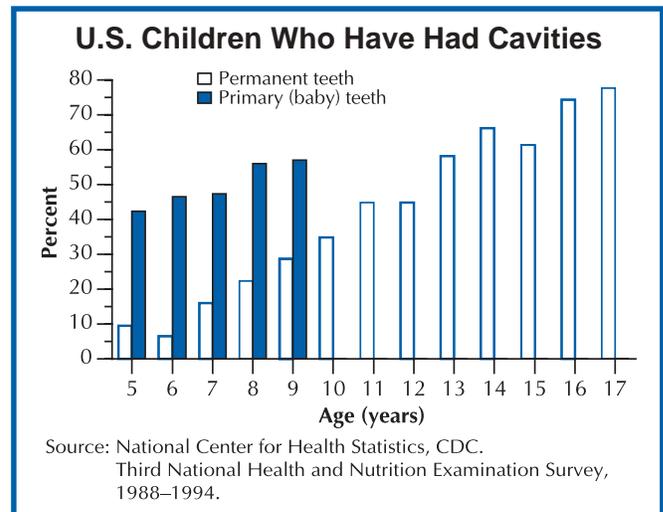
Oral Health Problems: Painful, Costly, and Preventable

Mouth and throat diseases—ranging from cavities to cancer—cause pain and disability for millions of Americans. Although almost all oral diseases can be prevented, often they are not.

For children, cavities are a common problem that begins at an early age. Tooth decay affects nearly a fifth of 2–4-year-olds, more than half of 8-year-olds, and more than three-fourths of 17-year-olds. Hardest hit are low-income children. About half of all cavities go untreated among low-income children. Untreated cavities may cause pain, dysfunction, absence from school, underweight, and poor appearance—problems that can greatly reduce a child’s capacity to succeed in life.

For adults, oral problems can be deadly. Each year, about 30,000 Americans learn they have mouth and throat cancers, and nearly 8,000 Americans die of these diseases.

Tooth loss is another serious problem, particularly for older adults. Almost three of every 10 adults over age 65 have lost all of their teeth because of cavities and gum disease. The effects are far more than just



cosmetic. Tooth loss may limit the foods a person eats and may contribute to nutrition problems.

In 2001, Americans made about 500 million visits to a dentist, and an estimated \$64 billion was spent on dental services. Yet many children and adults still go without regular dental services and other measures that have been proven effective in preventing oral diseases.

CDC’s National Leadership to Improve Oral Health

CDC is the lead federal agency responsible for promoting oral health, with fiscal year 2002 funds totaling \$10.8 million. Most of this money is used to help states and communities. For example, CDC

- Provides funds, technical assistance, and training to states so they can strengthen their oral health programs and reduce oral health disparities for people hardest hit by these diseases.
- Works with states and other partners to expand use of measures proven effective in preventing oral disease.
- Promotes oral health in communities, schools, and health care settings nationwide.
- Supports research that aims to strengthen prevention efforts in communities.
- Evaluates prevention strategies to see which are cost-effective.

Encouraging Effective Use of Fluoride

Over the past 50 years, the damage caused by dental decay has been drastically reduced, primarily through the use of fluoride. The least expensive way to deliver the benefits of fluoride to all residents of a community is water fluoridation—that is, by adjusting the fluoride in the public water supply to the right level. Every \$1 invested in water fluoridation in communities with more than 20,000 people yields \$38 in savings from fewer cavities treated. Even though the per capita cost of water fluoridation over a person’s lifetime can be less than the cost of one dental filling, more than 80 million Americans (35% of those on public water systems) still do not have access to water that contains enough fluoride to protect their teeth.

To address this need, CDC has provided national leadership in assessing the appropriate use of various forms of fluoride. CDC also has taken the lead in

improving the quality of community water fluoridation and in extending this preventive measure to new communities. Current CDC activities include

- Providing 10 states and one American Indian tribe with funds to establish community water fluoridation systems.
- Distributing CDC's *Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States* to partners worldwide (www.cdc.gov/mmwr/preview/mmwrhtml/rr5014a1.htm).
- Managing a national Web-based data system to help states monitor the quality of fluoridation in their community water systems.

Promoting the Use of Dental Sealants

Dental sealants are a plastic coating applied to the chewing surfaces of the back teeth. For U.S. schoolchildren, dental sealants are a safe, effective way to stop tooth decay that has already started and prevent future cavities from developing. Sealants significantly reduce a child's risk for having untreated cavities. *Healthy People 2010* calls for half of all U.S. children to have dental sealants, but less than 25% of schoolchildren do. CDC works with states and federal partners to promote use of dental sealants, particularly for children at high risk for dental decay. One effective strategy is to provide dental sealants to low-income children in schools. This strategy has helped some schools surpass the *Healthy People 2010* objective for dental sealants. At Ohio schools with sealant programs, more than half of students from all racial and income groups had sealants in 1998–1999.

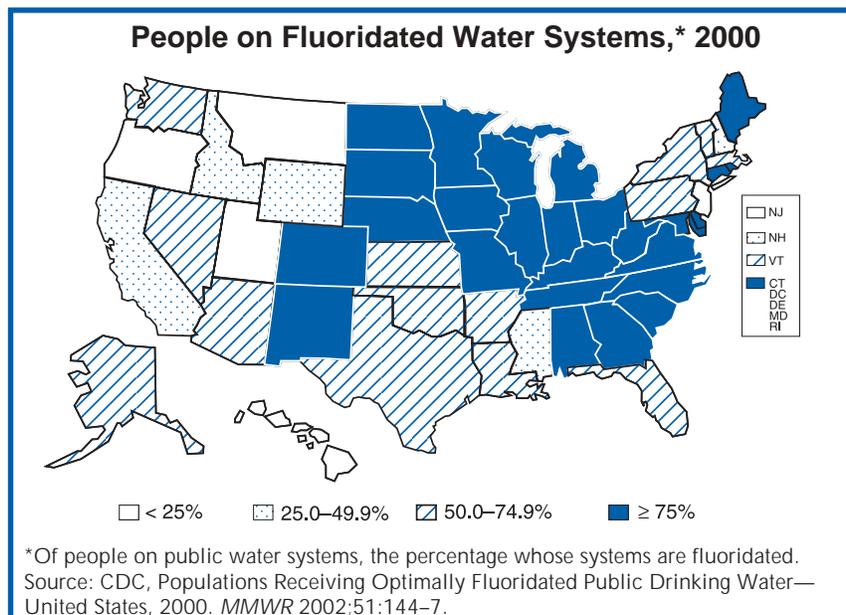
Targeting Mouth and Throat Cancers

Only about half of people with diagnosed mouth or throat cancer survive more than 5 years. Among African American men, only about a third survive. People who do survive are at increased risk of developing additional cancer and often suffer from disfiguring surgery and mental trauma.

CDC is working with public and private organizations to develop a national program to prevent mouth and throat cancers and to promote early detection and treatment, which may improve people's long-term survival. In addition, CDC is funding cancer registries in two states so these states can evaluate their data on mouth and throat cancers and find ways to improve the data's accuracy. Their findings will offer guidance that will help other states collect more accurate data that can be used to develop strategies to prevent and control oral cancers.

Guiding Infection Control in Dentistry

Infection control in dental offices is essential to ensuring the public's safety and retaining its confidence. In the 15 years since CDC published its first guidelines for infection control in dentistry, infection control practices have dramatically improved. Nevertheless, the potential for disease transmission during visits to the dentist continues to arouse public interest and media scrutiny. Hence, CDC regularly assesses the risks of infectious disease transmission, updates guidelines to minimize those risks, investigates disease outbreaks and environmental hazards in dental offices, and identifies emerging problems.



Helping States Improve Oral Health

Reaching Vulnerable Populations

CDC helps states reach people with the greatest oral health needs. One proven strategy for reaching children at high risk for dental disease is to establish school-based programs that are linked with dental health professionals and other community partners. In Maine, Rhode Island, South Carolina, and Wisconsin, education agencies are using CDC funds to develop model programs that will give more schoolchildren access to oral health education, prevention, and treatment services. CDC will evaluate these programs to see if they might be effective in other states.

CDC also works with the Association of State and Territorial Dental Directors to provide guidance, raise standards, and help these directors develop the expertise to assess their population's oral health needs and conduct effective preventive programs.

Providing Fluoridation Training

Water fluoridation is a cost-effective means of preventing tooth decay for large numbers of people. Properly trained staff are needed at the state and community levels. Thus, CDC provides fluoridation training to dental directors, drinking water engineers, and other oral health staff in states and other jurisdictions.

Supporting a National Research Network

To support oral health research, CDC works with dental schools, professional organizations, schools of public health, and the National Institute of Dental and Craniofacial Research. A good example is the oral health research done by CDC's Prevention Research Centers. This network of university-based centers explores new ways of preventing a wide range of diseases in vulnerable populations. For example,

- The **Prevention Research Center at the University of Alabama at Birmingham** is testing a project in which elders in African American communities are teaching other community residents ways to improve their oral health.
- The **University of Washington Prevention Research Center** is testing a similar community-based strategy. Seniors in communities are being trained to teach children how to take good care of their teeth and gums. Thus, both elders and children learn valuable, health-promoting behaviors.
- **Columbia University's Prevention Research Center** is designing training programs for nurses and home attendants to help them improve the oral health of home-bound seniors. Project staff will conduct and evaluate the training programs to see if they are indeed preventing oral health problems for these older adults.

Monitoring Oral Health in America

Routine surveys of adults provide a wealth of information about the oral health of Americans—for instance, what our biggest oral health problems are, which oral diseases are on the rise, and which groups of people are most at risk. CDC supports several Web-based systems that pull together oral health data from different sources and make them widely available:

- The **National Oral Health Surveillance System** (www.cdc.gov/nohss) links oral health data from various state-based systems, including state oral health surveys and the Behavioral Risk Factor Surveillance System.
- The enhanced annual **State Dental Program Synopses** (www.cdc.gov/nccdphp/oh/synopses) collects data on state population demographics and the activities and funding levels of state dental programs.

CDC also helps health departments to collect oral health data specific to their areas and to interpret and share the findings. These data allow states and communities to monitor their progress in meeting *Healthy People 2010's* goals for oral health and target limited resources to people with the greatest needs. States can also see how their oral health problems compare with those of other states and the nation.

For more information or additional copies of this document, please contact the
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