

Facts on Kids in South Dakota Children's Oral Health



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Introduction

Each issue of **Facts on Kids in South Dakota** looks at a specific indicator of child well being. Data will be discussed to provide the reader with a broad yet in-depth view of the state of children and youth in South Dakota. The focus of this issue is oral health.

Dental caries is an infectious, communicable disease resulting in destruction of tooth structure by acid-forming bacteria found in dental plaque. The infection results in loss of tooth minerals that begins on the outer surface of the tooth and can progress through the dentin to the pulp, ultimately compromising the vitality of the tooth.¹

Over the past 30 years, the United States has seen a substantial reduction in tooth decay (dental caries). It is not unusual to find children with no tooth decay at all in part because of the use of fluoride in public water supplies, in toothpaste, and in professional dental products. Improved oral hygiene and increased access to dental care have also been important in this improvement. Still, tooth decay (dental caries) remains a significant problem. Nearly 20 percent of children between the ages of 2 and 4 have detectable caries, and by the age of 17 almost 80 percent of young people have had a cavity. Also, more than two-thirds of adults age 35 to 44 years have lost at least one permanent tooth due to dental caries, and older adults suffer from the problem of root caries. There are still large segments of the United States population in which tooth decay is a major problem. As indicated in the Surgeon General's Report on Oral Health, the disparities in oral health tend to be clustered in minority children, the economically underprivileged, older persons, the chronically ill, and institutionalized persons—the very populations with the lowest access to dental care.²

Why is good oral health important?



Good dental care is important for everyone. Proper dental care can play an important role in speech, comfort, freedom from infection, ability to chew and enjoy food, and appearance.³

What role does prevention play?

Public health surveys show that 31% to 57% of the U.S. population does not visit a dentist even once a year, reports the Academy of General Dentistry, an organization of general dentists dedicated to continuing dental education. Two visits per year are recommended for good oral health. Regular visits to the dentist can help:⁴

- ♦ Prevent tooth decay, or stop cavities from getting bigger.
- ♦ Prevent or treat gum disease (periodontal disease).
- ♦ Prevent further health complications.
- ♦ Prevent periodontal disease that has been associated with increased risk of coronary artery disease and peripheral vascular disease, placing people at risk for heart attack or stroke.
- ♦ Prevent bacterial infections of the gums that results from gingivitis or periodontitis, may infect the lungs, causing bacterial pneumonia.
- ♦ Prevent poor periodontal health in pregnant women that can be a risk factor for the delivery of premature or low-birth weight babies.

With regular brushing and visits to the dentist, many oral health problems can be prevented or detected while the problems are just starting – and easier to treat. Additionally, good habits that start with young children may follow into adulthood.

Surgeon General's Report

In the spring of 2000, Surgeon General David Satcher released *Oral Health in America: A Report of the Surgeon General*.⁵ The report indicated a lack of awareness of the importance of oral health among the public and found disparity between racial and socioeconomic groups in regards to oral health and overall health issues. The disadvantaged and minority children were found to be at greatest risk

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for severe medical complications resulting from minimal oral care and treatment.

The report highlights these areas of particular concern for children:

- ♦Cleft lip/palate is estimated to affect 1 out of 600 live births for white children and 1 out of 1,850 live births for African Americans.
- ♦Other birth defects such as hereditary ectodermal dysplasia, where all or most teeth are missing or misshapen, cause lifetime problems.
- ♦Tooth decay is the single most common chronic childhood disease. It is five times more common than asthma and seven times more common than hay fever.
- ♦Over 50% of 5- to 9-year-old children have at least one cavity or filling. For 17-year-olds, 78% have at least one cavity or filling.
- ♦Low income and poor children suffer tooth decay twice as often as their more affluent peers and are more likely to be untreated.
- ♦Tobacco-related oral lesions are prevalent in adolescents who use smokeless tobacco.
- ♦Professional care is necessary for maintaining oral health, yet 25% of low income or poor children have not seen a dentist before entering kindergarten.
- ♦Uninsured children are 2.5 times **less** likely than insured children to receive dental care.
- ♦Medicaid has not been able to fill the gap in providing dental care to poor children.
- ♦The social impact of oral diseases in children is substantial. More than 51 million school hours are lost each year to dental related illness.

National Oral Health Surveillance System⁶

National Oral Health Surveillance System (NOHSS) is a collaborative effort between Center for Disease Control's Division of Oral Health and The Association of State and Territorial Dental Directors (ASTDD). It was designed to help public health programs monitor the burden of oral disease, use of the oral health care delivery system, and the



status of community water fluoridation on both a state and national level.

NOHSS includes eight basic oral health surveillance indicators as its main focus. This is a minimal set of indicators, to be expanded in the future, based on data sources and surveillance capacity available to most states. The Council of State and Territorial Epidemiologists (CSTE) and the Association of State and Territorial Chronic Disease Program Directors were instrumental in developing the framework for chronic disease surveillance indicators, including these oral health indicators. Using these guidelines, the following chart shows the status of South Dakota and neighboring states.

State	Dental Visits	Teeth Cleaning	Complete Tooth Loss	Fluoridation Status
South Dakota	66.2%	66.7%	28.7%	88.4%
North Dakota	66.2%	68.9%	38.6%	95.4%
Minnesota	72.7%	74.6%	22.7%	98.2%
Iowa	70.5%	72.0%	24.0%	91.3%
Nebraska	72.5%	74.7%	27.0%	77.7%
Montana	63.6%	61.5%	29.2%	22.2%
Wyoming	63.5%	62.7%	24.2%	30.3%
US	73.0%	69.0%	24.4%	65.8%

The Oral Health America National Grading Project⁷

The advocacy group Oral Health America has released a national report card on the state of dental health in America entitled Filling the Gaps: Oral Health in America. State and national grades were based on public health information culled from a variety of sources, including data from the Center for Disease Control, the American Academy of Pediatrics, the Campaign for Tobacco-Free Kids, HCFA/CMS, the Health Resources and Services Administration, and the National Cancer Institute. The national grade was a C, with many states receiving some of their lowest grades in the area of access to care. The chart below shows South Dakota's grade, as well as the grade given to neighboring states.

	Prevention	Access to Care	Oral Health Leadership	Oral Health Status	State Grade
South Dakota	B	D+	F	C+	C-
North Dakota	B+	D	F	C	C+
Minnesota	C	C	Not Available	C+	C
Iowa	B+	C-	A	B-	B-
Nebraska	D	C	A	C	C
Montana	D+	D+	A	C-	C-
Wyoming	C	D+	B	C+	C
US	C	C-	B+	C+	C

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The criteria used to determine the national and state grades were:

- ♦Prevention (water fluoridation, use of sealants);
- ♦Access to Care (availability of dentists, Children's Medicaid Dental Program, visits to the dentists when income is less than or greater than \$15,000, overall visits, dental insurance for adults and the elderly);
- ♦Oral Health Leadership (dental director, oral health coalition);
- ♦Oral Health Status (oral health of children, use of spit tobacco, edentulous (toothless) elderly with income less than or greater than \$15,000 and overall, and oral cancer for males and females).

South Dakota Oral Health Issues

South Dakota faces significant challenges in oral health. They are:⁸

- ♦Nearly 20% of dentists practicing in South Dakota are age 60 or older and about 50% are age 50 or older;
- ♦A survey conducted by the South Dakota Dental Association (SDDA) estimates that approximately 30% of South Dakota dentists plan to retire within ten years. This would mean nearly twice as many dentist retiring as the number of new dentists in the past 10 years;
- ♦South Dakota's dentist density, or square miles per dentist, is 251.3/dentist. In comparison, Minnesota's rate is 27.8 square miles/dentist, Massachusetts is 1.7 square miles/dentist and Washington, DC's rate is .1 square mile/dentist;
- ♦Fourteen South Dakota counties have been designated as Dental Health Professional Shortage Areas. Approximately 97,000 South Dakotans live in those counties;
- ♦In 2001, 82% of dentists participated in the Medicaid/SCHIP program. However, with the relatively small number of dentists in South Dakota, improving access for Medicaid/SCHIP will be a challenge;

- ♦There has been a 55% increase in children enrolled in the Medicaid/SCHIP program since the inception of the SCHIP in July of 1998;
- ♦Aggravating the problem is the fact that there is no dental school to develop new dentists and only one community health center that includes a dental office in South Dakota. Additionally, South Dakota has lacked a comprehensive oral health policy to address prevention and public awareness of the importance of oral health to overall health.

Working Toward a Solution

In order to address the problems in South Dakota regarding oral health, several steps have been taken by organizations in the state. These steps include:⁹

- ♦Hiring an Oral Health Coordinator (through the Department of Health);
- ♦Creating a referral center to assist Medicaid/SCHIP patients in locating a dentists (Delta Dental Plan of South Dakota);
- ♦Increasing the Medicaid/SCHIP reimbursement rates for children and adults by 15% and 10%, respectively, in 2001, and by 8% in 2000;
- ♦Implementing a "grass roots" effort to recruit young people into the dental profession (South Dakota Dental Association);
- ♦Developing a regional effort between South Dakota, North Dakota and Minnesota to offer externships for dental students at the University of Minnesota. The vision for this program is to extend training of advanced dental students into the Dakotas to enhance the placement of young dentists in practices and communities in the region;
- ♦Launching an Access to Baby and Child Dentistry (ABCD) program that involves training dentists in pediatric dental techniques. This program offers enhanced reimbursement rates for children under the age of six and emphasizes education and prevention.

In April of 2002, nearly 90 people attended an Oral Health Strategies Meeting. The South Dakota Oral Health Coalition, whose mission is to improve the oral health status of all South Dakotans, was formed as a result of this meeting.

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The South Dakota KIDS COUNT Project is a national and state-by-state effort, sponsored by the Annie E. Casey Foundation, to track the status of children in the United States. By providing policymakers and citizens with benchmarks of child well-being, KIDS COUNT seeks to enrich local, state, and national discussions concerning ways to secure better futures for children and families. Additional funding for the state project comes from the South Dakota Departments of: Education and Cultural Affairs, Health, Human Services and Social Services.

www.usd.edu/brbinfo then follow the KIDS COUNT link

The South Dakota Dental Association a membership organization of more than 300 dentists and dental specialists in South Dakota. The organization is an advocate for dentists and dental patients in South Dakota. It is the mission of the South Dakota Dental Association to promote the art and science of dentistry and the oral health of the public; educate the public on the benefits of quality preventive and restorative dentistry as provided by the entire dental health care team; and be of service to its members regarding practice health and their general welfare. www.sddental.org

Delta Dental Plan of South Dakota (DDPSD) is the leading dental benefits company in South Dakota, delivering high-quality, affordable care to more than 130,000 people through employer-sponsored programs. More than 95 percent of South Dakota dentists are part of the Delta Dental Plan of South Dakota network. As a non-profit dental service corporation, Delta Dental Plan of South Dakota's mission is to advance and promote the improvement of oral health. To date, DDPSD's Philanthropic Fund has funded more than \$1/2 million for programs and projects toward that same mission. A leader in dental services since 1963, Delta Dental Plan of South Dakota is a member of the Delta Dental Plans Association, which is made up of a network of 37 independent dental Plans that conduct business in all 50 states, the District of Columbia and Puerto Rico. Delta Dental member Plans serve one out of every three Americans who have dental insurance, providing coverage to more than 42 million people in nearly 75,000 groups across the nation. www.deltadentalsd.com

Endnotes

- ¹ Diagnosis and Management of Dental Caries throughout Life, March 26-28, 2001, Vol. 18, No. 1.
- ² Diagnosis and Management of Dental Caries throughout Life, March 26-28, 2001, Vol. 18, No. 1.
- ³ The Dentist Hotline website, www.dentisthotline.com
- ⁴ The Academy of General Dentistry website, <http://agd.org/consumer/topics/relation/twotimes.html>
- ⁵ Oral Health in America: A Report of the Surgeon General, May 2000.
- ⁶ Center for Disease Control, National Oral Health Surveillance System website, <http://www.cdc.gov/nohss>
- ⁷ Filling the Gaps: Oral Health in America, The Oral Health America National Grading Project, 2001-2002.
- ⁸ From the Delta Dental Plan of South Dakota and the South Dakota Dental Association www.sddental.org
- ⁹ From the Delta Dental Plan of South Dakota and the South Dakota Dental Association www.sddental.org

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