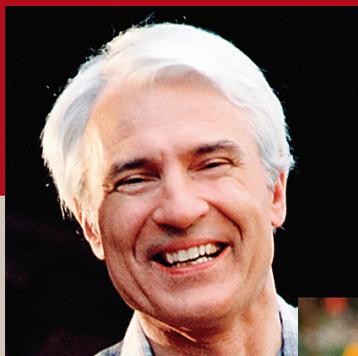


The Burden of Oral Disease in North Dakota

Summary

2006



NORTH DAKOTA
DEPARTMENT of HEALTH

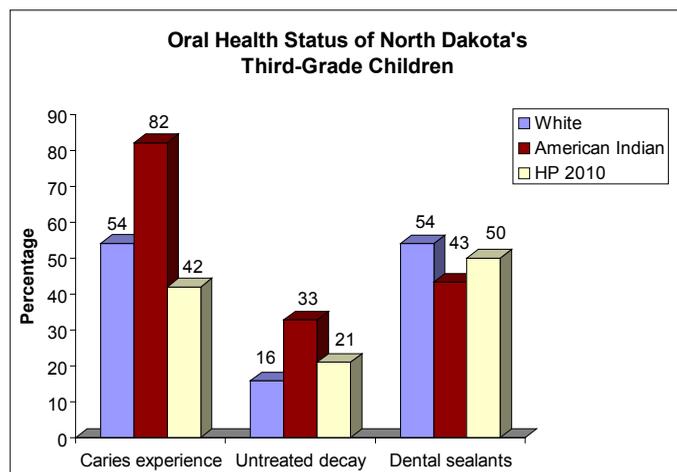
Oral health is an essential and integral component of overall health. Oral disease restricts activities in school, work and home, and often significantly diminishes the quality of life. While much progress has been made in preventing oral diseases, it is clear that there are profound disparities in the oral health of our citizens. Individuals who are poor, elderly, members of racial and ethnic minority groups, or medically compromised experience a disproportionate level of oral health problems. *The Burden of Oral Disease in North Dakota* summarizes oral health data from numerous sources.

Oral Health Status and Need for Treatment

Children

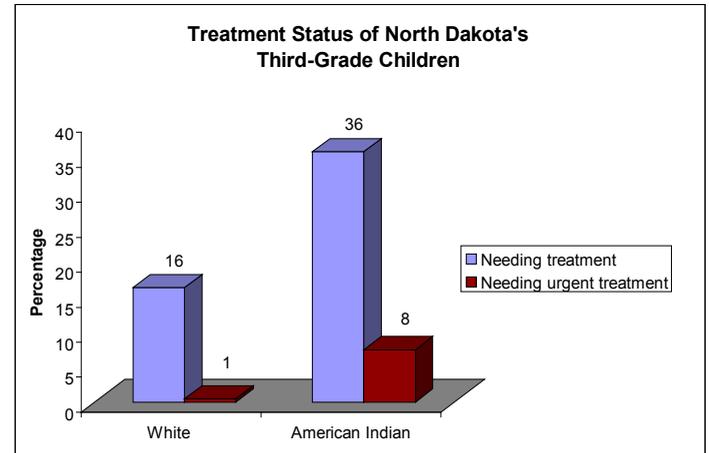
Dental caries (tooth decay) is the most common chronic disease of childhood. Tooth decay is not uniformly distributed among North Dakota's children. Some groups are more likely to experience the disease and are less likely to receive treatment. During the 2004-2005 school year, the North Dakota Department of Health conducted a statewide oral health survey of third-grade children enrolled in public, state or Bureau of Indian Affairs elementary schools in the state. Key findings included:

- More than one-half (56 percent) of the children had cavities and/or fillings (caries experience).
- Nearly 17 percent of the children had untreated tooth decay.
- More than one-half (53 percent) of the children had dental sealants.



Sources: Healthy People 2010; 2004-05 Third Grade Basic Screening Survey

Compared to white, non-Hispanic children in North Dakota, a significantly higher proportion of minority children have caries experience, untreated tooth decay and urgent dental needs. At the time of screening, 5 percent of minority children had tooth decay so advanced that they had pain or an infection. North Dakota's American Indian children experienced more tooth decay, had more untreated tooth decay and fewer dental sealants than white children.



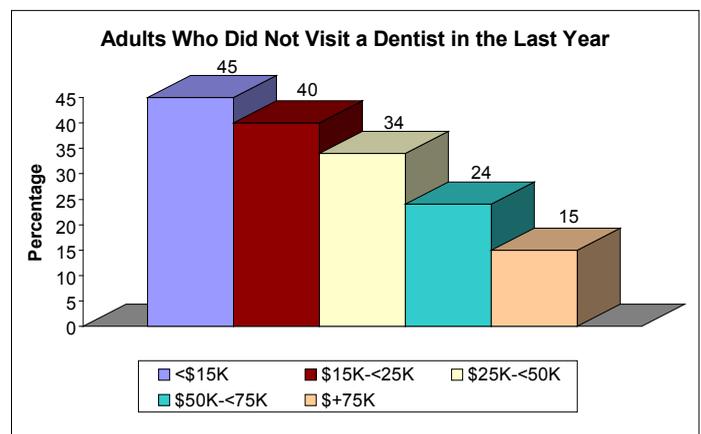
Source: 2004-05 Third Grade Basic Screening Survey

Adults and Seniors

Dental Visits

Data from the 2004 Behavioral Risk Factor Surveillance System (BRFSS) showed that 30 percent of adults had not visited a dentist, dental hygienist or dental clinic within the past year. Men (34 percent) were less likely to have had a dental visit for any reason than were women (27 percent).

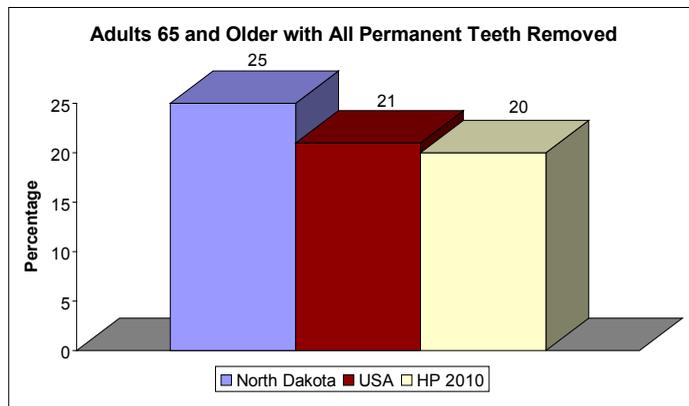
Oral health status tends to vary on the basis of socioeconomic factors. Adults with lower incomes were less likely to have had a dental visit than those with higher incomes.



Source: 2004 BRFSS

Tooth Loss

As teeth are lost, a person's ability to chew and speak decreases, and interference with social functioning can occur. The most common reasons for tooth loss in adults are tooth decay and periodontal (gum) disease. Tooth loss also can result from infection, unintentional injury, and head and neck cancer treatment. Data from the 2004 BRFSS indicated that nearly 25 percent of North Dakota adults 65 and older have had all their natural teeth extracted.



Sources: *Healthy People 2010*; 2004 BRFSS

Pregnancy and Oral Health

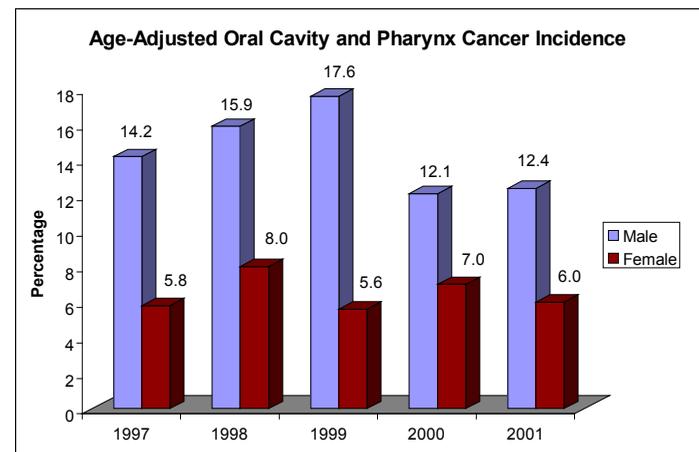
The 2002 North Dakota Pregnancy Risk Assessment Monitoring System found that the majority (57 percent) of women surveyed reported that they had not visited the dentist or dental clinic during their most recent pregnancy. Almost two-thirds (64 percent) said that a dental or health-care worker had not talked with them about caring for their teeth and gums during their most recent pregnancy. Almost one-third (32 percent) of women indicated that they had not had their teeth cleaned in more than 12 months.

Women with higher educational levels were more likely than those with less education to have had a dental visit during their pregnancy (52 percent for 16 or more years of education versus 37 percent for those with 12 years of education). American Indian women were three times more likely not to have had a dental visit during their pregnancy than were other women (75 percent versus 25 percent, respectively). Women who lived in rural areas were also less likely to have had a dental visit during their pregnancy than those living in urban areas (61 percent versus 40 percent, respectively).

Although Medicaid is a public insurance program aimed at low-income individuals, a significantly higher proportion of women with Medicaid coverage did not go to the dentist during their pregnancy than did non-Medicaid covered women (69 percent versus 52 percent, respectively).

Oral and Pharyngeal Cancer

Analysis of North Dakota death certificates between 1996 and 2003 showed 155 deaths by oral and pharyngeal cancer. Among these, 145 deaths occurred among whites and 10 occurred in American Indians. Ninety-nine deaths occurred among males and 56 among females. Analysis of oral and pharyngeal cancers from the North Dakota Cancer Registry between 1996 and 2003 found that the age-adjusted cancer-incidence rates have been decreasing since 1998. The incidence is higher in males than in females.



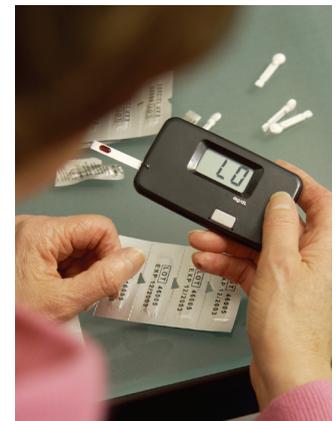
Source: *North Dakota Cancer Registry, 1997-2001*

People With Disabilities

The 2004 BRFSS showed that 37 percent of individuals with a disability indicated they had not had a dental visit within the last year, compared to 28 percent of those with no disability.

People With Diabetes

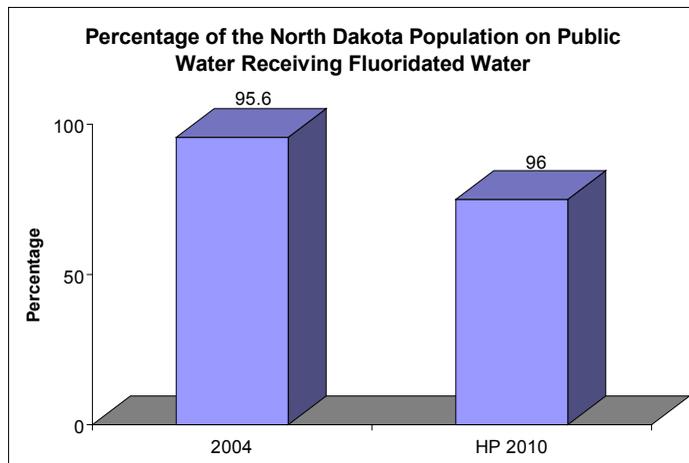
According to the 2002 BRFSS, about 36 percent of individuals with diabetes did not have a dental visit, compared to 29 percent without diabetes.



Prevention of Oral Disease

Community Water Fluoridation

Community water fluoridation is one of the 10 greatest public health achievements in the past century and has been the basis for primary prevention of tooth decay. According to the 2003-2004 Water Fluoridation Reporting System, 96 percent of North Dakotans on public water systems received fluoridated water.



Sources: Water Fluoridation Reporting System, CDC, 2003-2004; Healthy People 2010

School Fluoride Mouthrinse Programs

School fluoride mouthrinse programs offer the protective benefits of topical fluoride to children in kindergarten through grade six who are at high risk for tooth decay. In 2006, 72 schools in fluoride-deficient, rural and low socio-economic communities participated in the weekly fluoride mouthrinsing program.

Dental Sealants

Dental sealants are effective in preventing tooth decay in the pits and fissures of the tooth where fluoridation is less effective. According to the 2004-05 Third Grade Basic Screening Survey, 54 percent of white children had dental sealants compared to 43 percent of American Indian children.

Dental Visits

Routine dental visits aid in the prevention, early detection and treatment of oral diseases. Data from the 2004 BRFSS indicated that 70 percent of adults in North Dakota had a dental visit in the past year. In 2005 the North Dakota Medicaid Program reported that 25 percent of Medicaid-eligible adults and 25 percent of Medicaid-eligible children had a dental visit. Unfortunately, adults with lower income and lower educational levels and those belonging to racial and ethnic minorities were less likely to have had a dental visit in the past year.

Oral Health Workforce

An adequately trained and available oral health workforce is critical to the delivery of quality dental care in North Dakota. The state is characterized by a chronic shortage of health professionals in rural areas. According to the 2005 Survey of North Dakota Dentists, 44 of the state's 53 counties have six or fewer practicing dentists. Only four counties have 16 or more dentists.

For a copy of the full report, *Oral Health in North Dakota – Burden of Disease and Plan for the Future*, or for additional copies of this summary, visit www.ndhealth.gov/oralhealth or contact:

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