

Oral Health Facts

Dental Sealants

December 2007

What is the problem?

Tooth decay, although preventable, is a chronic disease affecting children's ability to concentrate and learn, as well as their speech development, eating habits, activity levels and self-esteem.² In fact, it is the most common chronic disease of childhood.³ Nationally, tooth decay is five times more common than childhood asthma and seven times more common than hay fever.⁴ Tooth decay, left untreated, can cause pain and tooth loss.

What is the impact of dental sealants?

Dental sealants are a thin plastic coating placed on the pits and fissures of the chewing surfaces of teeth. Sealants prevent tooth decay by creating a barrier between the teeth and decay-causing bacteria. Sealants also stop cavities from growing and can prevent the need for expensive fillings. Sealants are 100 percent effective if they are fully retained on the tooth.³ According to the Surgeon General's 2000 report on oral health, sealants have been shown to reduce decay by more than 70 percent.⁵ The combination of sealants and fluoride has the potential to nearly eliminate tooth decay in school-age children.⁶

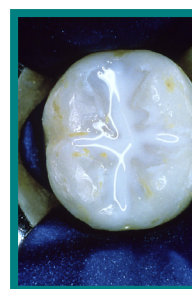
Why are school-based dental sealant programs recommended?

In 2002, the Task Force on Community Preventive Services, a national independent, nonfederal, multidisciplinary task force appointed by the director of the Centers for Disease Control and Prevention (CDC), strongly recommended school sealant programs as an effective strategy to prevent tooth decay.² The CDC estimated that if 50 percent of children at high risk participated in school sealant programs, more than half of their tooth decay would be prevented and money would be saved on their treatment costs.⁷ School-based sealant programs reduce disparities for children.⁸

In North Dakota, tooth decay affects 56 percent of children in the third grade.¹

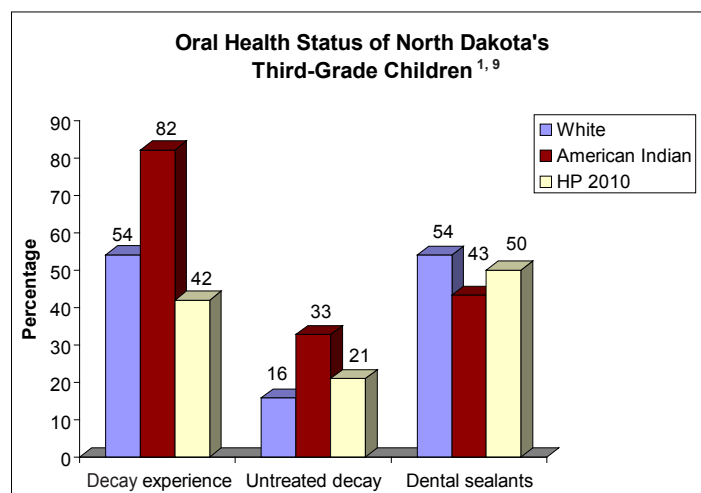


No sealant



Sealant

"[Dental sealants are] effective in the primary prevention of tooth decay.⁵"



How is North Dakota doing?

- The 2004 North Dakota Basic Screening Survey found that:¹
 - Fifty-three percent of third-graders had at least one dental sealant.
 - Fifty-six percent of third-graders had experienced tooth decay.
 - Seventeen percent of third-graders had untreated tooth decay.
 - The percentage of North Dakota children with untreated tooth decay and dental sealants present was unevenly distributed in the state, with greater unmet needs in minority populations.
- In 2006, 16 percent of North Dakota Medicaid children received at least one preventive oral health service.¹⁰
- North Dakota currently does not have any school-based dental sealant programs to reach high risk children.

What is North Dakota doing?

- In 2006, 96 percent of North Dakota's population using public water systems had access to optimal levels of fluoride in their drinking water.¹¹
- In 2007, North Dakota began developing a plan for school-based sealant programs to reach high-risk children.

Strategies for North Dakota's Future

- Increase public awareness of the effectiveness of dental sealants.
- Promote and fund school-based dental sealant programs for high-risk children.
- Maintain North Dakota's community water fluoridation program.



References

1. North Dakota Department of Health, North Dakota Oral Health Survey, 2004-2005 School Year, September 2005.
2. Truman BI, Gooch BF, Sulemana I, et al., and the Task Force on Community Preventive Services. Reviews of evidence on interventions to reduce dental caries, oral and pharyngeal cancers, and sports-related craniofacial injury. *American Journal of Preventive Medicine* 23 (2002, 1S): 1-84.
3. U.S. Department of Health and Human Services. *Oral Health in America: A Report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Institute of Dental and Craniofacial Research, 2000.
4. National Center for Health Statistics (NCHS). National Health and Nutrition Examination Survey (NHANES III) reference manuals and reports [CD-ROM]. Hyattsville, (MD): NCHS, U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention; 1996.
5. National Institutes of Health (NIH). Consensus Development Conference on Diagnosis and Management of Dental Caries Throughout Life. Bethesda, MD. March 26-28, 2001. Conference Papers. *Journal of Dental Education* 65 (2001): 935-1179.
6. Burt BA, Eklund SA. *Dentistry, Dental Practice, and the Community* (5th ed.). Philadelphia: W.B. Saunders, 1999.
7. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. *Preventing Dental Caries*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2002. www.cdc.gov/OralHealth/factsheets/dental_caries.htm.
8. Weintraub JA, Stearns SC, Burt BA, Beltran E, Eklund SA. A retrospective analysis of the cost-effectiveness of dental sealants in a children's health center. *Social Science & Medicine* 36 (1993, 11): 1483-1493.
9. U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. *Healthy People 2010*. Washington DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, 2000. www.health.gov/healthypeople.
10. North Dakota Department of Human Services. Medical Services Division, 2006.
11. Centers for Disease Control and Prevention. Water Fluoridation Reporting System (WFRS), 510 Report; 2006.

For more information, contact:

Oral Health Program
 Division of Family Health
 North Dakota Department of Health
 600 E. Boulevard Ave., Dept. 301
 Bismarck, N.D. 58505-0200



701.328.2356 or 800.472.2286 / www.ndhealth.gov/oralhealth