

SEAL! MICHIGAN

Dental Sealant Fact Sheet

Oral health is integral to general health.¹ Although preventable, tooth decay is a chronic disease affecting all age groups. In fact, it is the most common chronic disease of childhood.² The burden of disease is far worse for those who have restricted access to prevention and treatment services. Tooth decay, left untreated, can cause pain and tooth loss which in turn can lead to lost days at school and work. Untreated tooth decay is associated with difficulty in eating and with being underweight.³ Untreated decay and tooth loss can have negative effects on an individual's self-esteem and employability.

Impact Of Dental Sealants

Dental sealants are a plastic material placed on the pits and fissures of the chewing surfaces of teeth where up to 90 percent of decay occurs in school children.⁴ 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.² According to the Surgeon General's 2000 report on oral health, sealants have been shown to reduce decay by more than 70 percent.¹ The combination of sealants and fluoride has the potential to nearly eliminate tooth decay in school-aged children.⁵ Sealants are most cost-effective when provided to children who are at highest risk for tooth decay.⁶

Healthy People 2030 Objectives⁸

- ✓ Increase the proportion of children and adolescents who have received dental sealants on 1 or more of their primary or permanent molar teeth.
- ✓ National Target: 42.5% of 3-19 year to receive at least one dental sealant.
- ✓ Reduce the proportion of children and adolescents with lifetime tooth decay to 42.9% (currently at 48.4%).
- ✓ Reduce the proportion of children and adolescents with active and untreated tooth decay to 10.2% (currently at 13.4%).

Michigan Data from the 2016 Count Your Smiles Survey⁹

- ✓ Only 37.6 percent of Michigan third grade children had at least one sealant present upon examination.
- ✓ Only 30.8 percent of uninsured third grade children had at least one sealant present upon examination.

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.³ CDC further estimates that if 50 percent of children at high risk participated in school sealant programs, over half

of their tooth decay would be prevented and money would be saved on treatment costs.⁴ School-based sealant programs reduce disparities for children.⁷

How is Michigan doing?

The 2016 *Count Your Smiles* survey revealed that:

- ✓ 27.6 percent of Michigan third-grade children had at least one dental sealant.
- ✓ 54.3 percent of Michigan third graders had experienced tooth decay.
- ✓ 25 percent of Michigan third graders had untreated tooth decay.
- ✓ In Michigan, almost 90 percent of those on community water systems have access to fluoridated water.
- ✓ In Michigan, 31.7 percent of low-income/Medicaid children did not receive oral health service in the past year.
- ✓ Michigan's SEAL! Michigan school-based dental sealant program is recognized as a best practice by the Association of State and Territorial Dental Directors (ASTDD).

Strategies for Michigan's Future

- ✓ Develop, promote, and fund school-based dental sealants and other population-based programs such as water fluoridation.
- ✓ Increase public awareness of effectiveness of dental sealants to increase demand for sealants.

References

1. 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.
2. 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.
3. 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.
4. 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. http://www.cdc.gov/OralHealth/factsheets/dental_caries.htm.
5. Kim S, Lehman AM, Siegal MD, Lemeshow S. Statistical model for assessing the impact of targeted, school-based dental sealant programs on sealant prevalence among third graders in Ohio. *Journal of Public Health Dentistry* 63 (Summer 2003): 195–199.
6. Burt BA, Eklund SA. *Dentistry, Dental Practice, and the Community* (5th ed.). Philadelphia: W.B. Saunders, 1999.
7. 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.
8. U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. *Healthy People 2030*. Washington DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, 2020. <http://www.health.gov/healthypeople>.
9. Michigan Department Health and Human Services (MDHHS). *Count Your Smiles, 2015-2016*. September 2016.

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Adapted from a fact sheet developed by the Oral Health Program, Bureau of Health, Maine Department of Human Services, 2004, in cooperation with the Association of State and Territorial Dental Directors and funding from Division of Oral Health, Centers for Disease Control and Prevention (cooperative agreement # U58/CCU723036-01) and Maternal and Child Health Bureau, Health Resources and Services Administration (cooperative agreement #1U58DP001536). MDHHS is an EEO.

