

Oral Health

HEALTHY MOUTH AND TEETH ARE AN IMPORTANT PART OF A CHILD'S WELLNESS

Why It's Important

Oral health is integral to health. It is critical to a child's health that general physical health and oral health are not considered to be independent of each other. The American Academy of Pediatric Dentistry and the Academy of Pediatrics recommend at least one dental visit a year, starting when the first tooth appears and no later than the child's first birthday. Cavities, also known as caries or tooth decay, are one of the most common chronic diseases among children.¹ In 2015, roughly 50 percent of Minnesota third graders reported they have or have had tooth decay and 20 percent had untreated tooth decay at the time of the survey.¹ Untreated cavities often lead to pain and infections that may lead to problems with eating, speaking, playing and learning.² Poor oral health in children is associated with more missed school and lower grades than those children who do not have poor oral health.³

"Access to dental health care for children without private health insurance..." – Discovery Survey Respondent

Cavities can be prevented. One-third of cavities can be prevented in baby teeth through the application of fluoride varnish. Additionally, children who live in communities with fluoridated tap water have fewer cavities than children whose water is not fluoridated. Children who use fluoride mouth rinse daily also experience fewer cavities. Dental sealants, a thin plastic coating applied to the chewing surface of back teeth, prevent 80 percent of cavities. Preventive dental visits include dental cleanings, dental sealants, and fluoride finish – important ways to prevent cavities. In 2017, 81.1 percent of Minnesota children aged 1-17 had at least one preventive dental visit in the past year, as reported by their parents. In the same year, only 21.3 percent of Minnesota children aged 1-18 enrolled in a state Medicaid program received a preventive dental visit.

Focus on Health Equity

Overall, Minnesota has one of the highest dental sealant rates nationally and most residents have access to fluoridated tap water. Despite this, many people living in Minnesota still face significant barriers to achieving optimal oral health. Six in ten Minnesota counties are considered "Dental Health Professional Shortage Areas" (see Figure 1). This limited access to and availability of oral health services, lack of awareness of the need for care, lack of oral health literacy, cost of dental procedures, and fear of dental procedures all contribute to significant disparities in oral health among the state's children.

Marshall

Pennington

Roseau

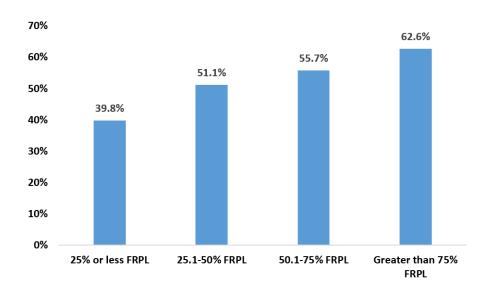
Figure 1. High Risk Elementary Schools by Dental Health Professional Shortage Areas (HPSA), 2017-2018

Source: Minnesota Department of Health

Tooth Decay

Although tooth decay is prevalent among all kids, there are considerable inequities present among different racial, geographic, and income groups. Hispanic third graders are 1.4 times more likely to experience dental caries than their white, non-Hispanic peers. Additionally, in 2014, five out of every ten American Indian children aged 6 to 9 and 13 to 15 in the Bemidji Area Indian Health Service area had untreated tooth decay. Third graders from rural public schools are 1.3 times more likely to experience dental caries than those from urban public schools. Third grade students from lower income households are 1.6 times more likely than those from higher income households to experience dental caries and 3.3 times more likely to have untreated caries than those from higher income households.

Figure 2. Percent 3rd Grade Public School Students in Minnesota with Cavities by Free and Reduced Priced Lunch Eligibility, 2015



Source: Minnesota Department of Health Oral Health Program - Basic Screening Dental Sealants and Oral Health Service Use

Similar to tooth decay, inequities are also present in oral health service use and dental sealants among children of different groups, specifically income and insurance status. In 2015, although six out of every ten Minnesota third graders had dental sealants, those from higher income households were 1.5 times more likely to have sealants compared to those from lower income households. ¹¹ In 2018, only 14.3 percent of children ages six to 14 enrolled in a state Medicaid program received at least one dental sealant on a molar. ¹² This is, however, an improvement from 11.8 percent in the same group in 2015. ¹³

Children's dental visits can identify oral problems early and prevent tooth decay and include check-ups, dental cleanings, x-rays, and filling cavities.

Important Note on Equity and Intersectionality

The Minnesota Department of Health's Title V Needs Assessment team acknowledges that structural (social, economic, political and environmental) inequities can result in poor health outcomes across generations. They have a greater influence on health outcomes than individual choices or a person's ability to access health care, and not all communities are impacted in the same way.

All people living in Minnesota benefit when we reduce health disparities.

We also acknowledge that the topic addressed in this data story does not exist in isolation—which is important to remember as we do needs assessments and as we start thinking about how we approach solutions. In addition to the needs themselves being intersectional, there are also intersecting processes and systems through which power and inequity are produced, reproduced, and actively resisted.

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Citations

- 1. Minnesota Department of Health. (2015). Tooth Decay in Minnesota Children. Retrieved from https://data.web.health.state.mn.us/tooth-decay
- 2. US Department of Health and Human Services (2000). Surgeon General's Report on Oral Health. *Public Health Reports*, *115(5)*, 489-490. Doi:10.1093/phr/115.5.489.
- 3. Griffin SO, Wei L, Gooch BF, Weno K, Espinoza L. Vital Signs: Dental Sealant Use and Untreated Tooth Decay Among U.S. School-Aged Children. MMWR Morb Mortal Wkly Rep 2016;65:114101145. DOI: http://dx.doi.org/10.15585/mmwr.mm6541e1
- 4. Marinho, V. C., Worthington, H.V., Walsh, T., & Clarkson, J.E. (2013). Fluoride varnishes for preventing dental caries in children and adolescents. *Cochrane Database of Systematic Reviews*. DOI:10.1002/14651858.cd002279.pub2
- 5. Community Preventive Services Task. (2013, April). Dental Caries (Cavities): Community Water Fluoridation. Retrieved from https://www.thecommunityguide.org/findings/dental-caries-cavities-community-water-fluoridation
- Marinho, V.C., Higgins, J.P., Logan, S., & Sheiham, A. (2003). Fluoride mouthrinses for preventing dental caries in children and adolescents. *Cochrane Database of Systematic Reviews*. Doi: 10.1002/14651858.cd002284
- 7. Ahovuo-Saloranta A, Forss H, Walsh T, Hiiri A, Nordblad A, Mäkelä M, Worthington HV. Sealants for preventing dental decay in the permanent teeth. Cochrane Database of Systematic Reviews. 2013; Issue 3. Art. No.: CD001830. DOI: 10.1002/14651858.CD001830.pub4
- 8. Child and Adolescent Health Measurement Initiative. 2017 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by Cooperative Agreement U59MC27866 from the U.S. Department of Health and Human Services, Health Resources and Services Administration's Maternal and Child Health Bureau (HRSA MCHB). Retrieved [05/29/2019] from www.childhealthdata.org. CAHMI: www.cahmi.org.
- 9. 2017 Early & Periodic Screening, Diagnosis, and Treatment (CMS-416) Report. Minnesota Department of Human Services.
- 10. Minnesota Department of Health. (n.d.). About the Minnesota State Oral Health Program. Retrieved May 29, 2019, from https://www.health.state.mn.us/people/oralhealth/contact/aboutus.html
- 11. Minnesota Department of Health. (n.d.). Oral Health in Minnesota. Retrieved May 29, 2019, from https://www.health.state.mn.us/people/oralhealth/data/oralhealthmn.html
- 12. 2018 Early & Periodic Screening, Diagnosis, and Treatment (CMS-416) Report. Minnesota Department of Human Services.
- 13. 2015 Early & Periodic Screening, Diagnosis, and Treatment (CMS-416) Report. Minnesota Department of Human Services.

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