

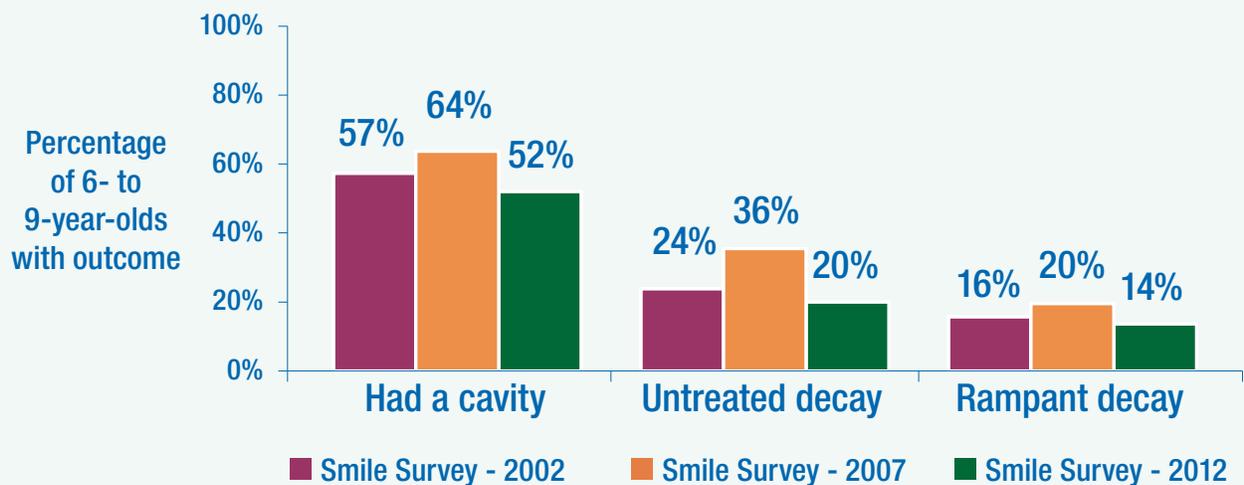
>> Improve oral health



Oral health is an integral part of overall health and well-being across the lifespan. Oral diseases affect what we eat, how we communicate, the way we look, our ability to learn and how we feel about ourselves. Despite being a preventable disease, tooth decay is the most common chronic disease affecting U.S. children and teens. In Oregon, 58% of third graders have experienced tooth decay,¹ and most adults suffer from some degree of oral disease. Thirty one percent of Oregonians aged 33 to 44 have lost teeth; 19.9% of older adults have lost six or more teeth.²

Oregon Health Authority's Smile Survey, conducted every five years, assesses the oral health of first, second and third graders attending Oregon elementary schools through oral health screenings.

Oral health status,* children 6–9 years old, Oregon



*Primary and permanent teeth

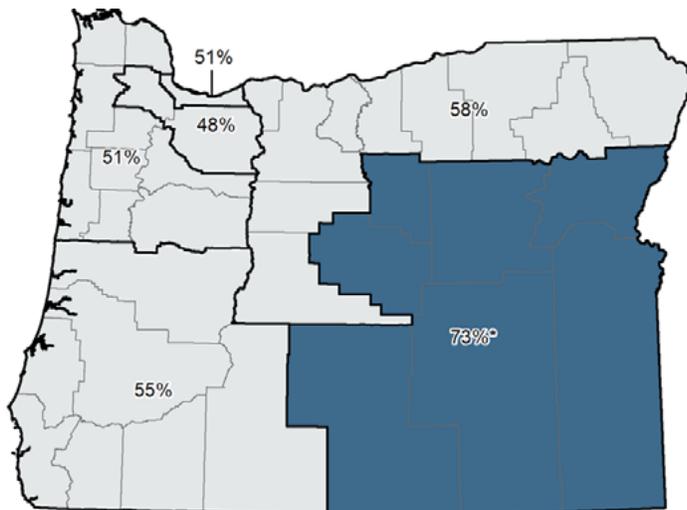
Source: Oregon Smile Surveys, 2002–2012

The Oregon Health Authority's 2012 Smile Survey found that:

- 52% of 6- to 9-year-olds had a cavity, 20% had untreated decay and 14% had rampant decay at the time of their oral health screening;
- Children from counties in southeastern Oregon had higher cavity rates than those of the rest of the state;

- Children from lower-income households had substantially higher cavity rates compared to children from higher-income households (63% vs. 38%), almost twice the rate of untreated decay (25% vs. 13%), and more than twice the rate of rampant decay (19% vs. 8%);
- Hispanic/Latino children experienced particularly high rates of cavities, untreated decay and rampant decay compared to White children; and
- Black/African American children had substantially higher rates of untreated decay compared to White children.

Cavities rates[†] by geographic region, 2012



[†]6- to 9-year-olds, primary and permanent teeth

*Statistically different from the statewide average of 52%

Source: Oregon Smile Survey, 2012

Having a healthy mouth is an important part of overall health, and is especially important to child development. The burden of tooth decay or early childhood caries in young children is a significant public health concern and causes needless pain and suffering for many children. Dental decay is the most common chronic disease of children aged 6 to 11 years and adolescents aged 12 to 19 years. Tooth decay is four times more common than asthma among adolescents aged 14 to 17 years. Poor oral health among children affects speech, nutrition, growth, social development and the ability to learn. Children with poor oral health have worse academic performance and are nearly three times more likely to miss school as a result of dental pain.⁴ More than 51 million school hours are lost each year to dental-related illness.⁵

Recent studies show there may be a link between oral health and other chronic diseases. Dental decay in childhood has been linked to increased risk for future decay, and chronic oral infections are associated with an array of other health problems such as heart disease, diabetes and unfavorable pregnancy outcomes. Among pregnant women, oral infections can increase the risks for premature delivery and low birth weight babies.⁶

Lifelong access to timely preventive dental care can reduce health care costs, but a high percentage of Oregonians are not currently receiving timely preventive care. Only about

two-thirds (66.9%) of Oregon adults visit the dentist at least once a year.² This can lead to costly hospital emergency care. The number of dental-related emergency visits by Oregon's Medicaid enrollees in 2010 was 31% higher than in 2008. Hospital care for a Medicaid enrollee costs nearly 10 times more than preventive care in a regular dental office.⁷

Strategies to improve oral health in Oregon

Continued improvements in oral health in Oregon will require collaborative efforts by public health, dental and medical providers, schools, and the community at large to support policies and programs intended to prevent dental disease. Both behavioral interventions and community-based preventive strategies can help reduce the suffering and costs of oral diseases.

1. Behavioral interventions include:

- Starting proper oral hygiene as soon as the first tooth erupts and maintaining good oral hygiene into adulthood;
- Scheduling a child's first dental visit by age 1;
- Ensuring timely access to regular dental visits;
- Receiving oral health and nutrition education based on developmental needs across the lifespan (also known as anticipatory guidance);
- Integrating oral health care into medical care settings during prenatal care visits, well-child visits, adolescent wellness exams and at other opportunities; and
- Reducing at-will consumption of beverages and foods containing fermentable carbohydrates (e.g., juice drinks, soft drinks, milk and starches).

2. Community-based interventions include:

• **Community water fluoridation**

Community water fluoridation is an evidence-based practice recommended by the Community Preventive Services Task Force, Association of State and Territorial Dental Directors, and Healthy People 2020 based on strong evidence of effectiveness in reducing dental cavities across populations. After communities fluoridate their water supplies, the percentage of children in the population with at least one cavity decreases by 15%, on average.⁸ In 2010, about 74% of the U.S. population served by community water systems received fluoridated water compared to 23% in Oregon.⁹

• **School-based fluoride supplement programs in areas without community water fluoridation**

School fluoride tablet or rinse programs can reduce the rate of cavities by about 20–35% for the children who participate.¹⁰ During the 2013–14 school year, only 11% of the eligible schools in Oregon participated in the Oregon Health Authority's School Fluoride Program.

- **School-based dental sealant programs**
School-based dental sealant programs are an evidence-based practice recommended by the Community Preventive Services Task Force, Centers for Disease Control and Prevention (CDC), and Healthy People 2020. During the 2014–15 school year, 77% of the eligible schools in Oregon participated in a dental sealant program.

Priorities, strategies and measures

Priority targets

Third graders with cavities in their permanent teeth

Target: 14%

Baseline: 15.5% (2012)

Data source: Oregon Smile Survey

Adolescents with one or more new cavities identified during a dental visit in the previous year

Target: (11th and eighth grades): Pending

Baseline: (11th and eighth grades): Unknown, developmental measure (2015)

Data source: Oregon Healthy Teens Survey

Prevalence of older adults who have lost all their natural teeth

Target: 16%

Baseline: 17.7% (2010)

Data source: Behavioral Risk Factor Surveillance System (BRFSS)

Population interventions

Strategy 1: Increase the number of fluoridated public water districts

Justification: Community water fluoridation is an evidence-based practice recommended by the Community Preventive Services Task Force, Association of State and Territorial Dental Directors, and Healthy People 2020 that reduces dental cavities across populations. It is an effective, affordable and safe way to protect children and adults from tooth decay and is recognized as one of the 10 greatest public health achievements of the 20th century.

Measure 1.1: Percentage of people in Oregon residing in areas served by optimally fluoridated water

Target: 79.6%

Baseline: 22.6% (2012)

Data source: Centers for Disease Control and Prevention, Water Fluoridation Data and Statistics, 2012.

Health equity interventions

Strategy 1: Provide dental sealants in schools that serve students at high risk of tooth decay

Justification: School-based dental sealant programs are an evidence-based practice recommended by the Community Preventive Services Task Force, Centers for Disease Control and Prevention (CDC), and Healthy People 2020 that is effective in preventing tooth decay among children. Most tooth decay (90%) occurs in the molars, and school-based dental sealant programs can reduce tooth decay by 50% in the treated teeth.

Measure 1.1: Percentage of eligible schools served (40% Free or Reduced Lunch [FRL] or greater) (target grades 1 and 2 or grades 2 and 3)

Target: 75%

Baseline: 70.7% (2015)

Data source: OHA Oral Health Unit

Measure 1.2: Percentage of eligible schools served (40% FRL or greater) (target grades 6 and 7 or grades 7 and 8)

Target: 20%

Baseline: 7.8% (2015)

Data source: OHA Oral Health Unit

Measure 1.3: Children aged 6–9 years with dental sealants on one or more permanent molars

Target: 40%

Baseline: 38.1% (2012)

Data source: Oregon Smile Survey

Measure 1.4: Percentage of children aged 6–9 years with untreated decay

Target: 18%

Baseline: 20% (2012)

Data source: Oregon Smile Survey

Strategy 2: Enhance oral health services through community clinics, including SBHCs

Justification: Local oral health infrastructure allows for timely access to oral health prevention, education and care. Oral health services by community clinics may be provided on site or at other locations in the community, and may involve partnerships with local dental providers.

Measure 2.1: Number of SBHCs that provide routine access to a dental provider on site.

Target: 17%

Baseline: 7% (2014)

Data source: PHD School-Based Health Center Program

Strategy 3: Ensure that Oregon has an adequate number of oral health professionals

Justification: Of Oregon's 36 counties, 33 are designated as a Dental Health Care Provider Shortage Area (HPSA). This illustrates both a shortage of qualified and trained dentists and dental hygienists, and a lack of access to oral health care among low-income, rural and other underserved population groups. To meet the oral health needs in Oregon, workforce capacity must be improved to retain and equitably distribute oral health care providers across Oregon.

Measure 3.1: Number of expanded practice dental hygienists practicing in Oregon communities

Target: 300

Baseline: 213 (2013)

Data source: Oregon Board of Dentistry

Strategy 4: Reduce the number of dental-related visits to emergency departments.

Justification: Emergency department visits for dental conditions reflect lack of access to dental care. Uninsured Oregonians and Oregon Health Plan enrollees are more likely to visit the emergency department for dental problems.

Measure 4.1: Number of emergency department visits for nontraumatic dental problems

Target: 7,500 ED visits annually

Baseline: 15,000 ED visits annually (2013)

Data source: Hospital database

Health system interventions

Strategy 1: Create incentives for private and public health plans and health care providers to improve oral health

Justification: Incentive measures and alternative payment methodologies ensure health plans and health care providers are working on a common set of priority areas designed to improve care and access, eliminate disparities and contain health care costs. The measures currently focus on public health plans, but measures will be expanded to include private insurers as data become available.

Measure 1.1: Number of public health plans that receive an incentive or shared savings payment for improved oral health outcomes

Target: 16 CCOs, PEBB and OEBC carriers

Baseline: 0 CCOs, PEBB and OEBC unknown (2015)

Data source: OHA Metrics and Scoring, PEBB and OEBC contracts

Measure 1.2: Number of public health plans that incorporate oral health in alternative payment methodologies for contracted providers

Target: 16 CCOs, PEBB and OEBC carriers

Baseline: Unknown, developmental measure (2015)

Data source: CCO Transformation Plans, PEBB and OEBC contracts

Strategy 2: Increase early preventive care for children

Justification: Despite being preventable, tooth decay is the most common chronic disease in children in the United States. Increasing access to preventive services can reduce the needless pain and suffering that many children in Oregon experience, as well as decrease the health care costs of oral diseases.

The American Academy of Pediatrics suggests children who are at risk of tooth decay visit a dentist by age 1. The U.S. Preventive Services Task Force and the American Academy of Pediatrics recommend primary care teams provide fluoride varnish to all children aged 0–5 and prescribe a fluoride supplement to all children whose water supply is not optimally fluoridated.

Measure 2.1: Percentage of children who received a preventive dental visit during their first year

Target: 10% increase from baseline

Baseline: Unknown, developmental measure (2015)

Data source: Medicaid administrative claims data

Measure 2.2: Number of children less than 7 years old who receive oral health risk assessment and intervention during the well-child visit

Target: 10% increase from baseline

Baseline: Unknown, developmental measure (2015)

Data source: Medicaid administrative claims data

Measure 2.3: Children aged 0 to 5 with a dental visit in the previous year

Target: 10% increase from baseline

Baseline: Unknown, developmental measure (2015)

Data source: Medicaid administrative claims data

Strategy 3: Include oral health in chronic disease prevention and management models

Justification: There is a link between poor oral health and chronic diseases. Tooth decay in childhood has been linked to increased risk for future decay, and chronic oral infections are associated with an array of other health problems such as heart disease, diabetes and unfavorable pregnancy outcomes.

Measure 3.1 Increase the number of adults aged 18 years or older with diabetes that had a dental visit in the previous year

Target: 61.2%

Baseline: 56.6% (2012)

Data source: Behavioral Risk Factor Surveillance System (BRFSS)

Strategy 4: Ensure dental benefit packages cover care and treatment to ensure optimal oral health maintenance

Justification: Dental benefit packages that align with preventive goals and provide adequate care ensures optimal oral health maintenance and equitable outcomes across the lifespan.

Measure 4.1: Number of adults with any dental visits in the past 12 months

Target: 70.4%; male: 66%, female: 73.7%

Baseline: 63.8%; male: 60%, female: 67% (2010)

Data source: Behavioral Risk Factor Surveillance System (BRFSS)

- ¹ Oregon Health Authority, Public Health Division, Maternal and Child Health section. Oregon Smile Survey, 2012 Report. revised 2015. Retrieved from: <https://public.health.oregon.gov/PreventionWellness/oralhealth/Documents/SmileSurvey2012.pdf>.
- ² Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System (BRFSS). 2013. Retrieved from: www.cdc.gov/brfss/.
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- ⁴ Jackson SL, VannWilliam F Jr, Kotch JB, Pahel BT, Lee JY. Impact of poor oral health on children's school attendance and performance. *American Journal of Public Health*. 2011;101(10):1900-1906.
- ⁵ U.S. Department of Health and Human Services, National Institutes of Health. Oral Health in America: A Report of the Surgeon General; 2000. Retrieved from: <http://www.nidcr.nih.gov/DataStatistics/SurgeonGeneral/Documents/hcklocv.@www.surgeon.fullrpt.pdf>.
- ⁶ Shira Davenport E. Preterm low birthweight and the role of oral bacteria. *Journal of Oral Microbiology*. 2010;2:10.3402/jom.v2i0.5779. doi:10.3402/jom.v2i0.5779.
- ⁷ PEW Center on the States. PEW children's dental campaign. A costly dental destination: hospital care means states pay dearly; 2012. www.pewtrusts.org/en/research-and-analysis/reports/2012/02/28/a-costly-dental-destination.
- ⁸ The Guide to Community Preventive Services. Preventing Dental Caries: Community Eater Fluoridation. 2013. Retrieved from: www.thecommunityguide.org/oral/supportingmaterials/RRfluoridation.html.
- ⁹ Centers for Disease Control and Prevention. (2010). 2010 Water Fluoridation Statistics. Retrieved from: <http://www.cdc.gov/fluoridation/statistics/2010stats.htm>.
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