

2023-2024 Smile Survey Fact Sheet

The Oral Health of Washington's Elementary School Children

Tooth decay is the most common chronic condition among children. Children with cavities are more likely to miss school and earn below-average grades than their peers without tooth decay. Preventing painful cavities helps children avoid pain, stay healthier, connect with their friends and peers, and achieve academic success.

For the last 30 years, the Washington State Department of Health (DOH) has monitored the oral health of children using an assessment known as the Smile Survey. Past Smile Surveys were conducted in 2015-2016, 2010, 2005, 2000, and 1994. Results are used to advance policies and programs that help children achieve better health outcomes.

For the 2023-2024 Washington State Smile Survey, participants included more than 8,800 second- and third-grade students in 87 public elementary schools. Additionally, local-level surveys were conducted in 22 counties. This fact sheet highlights the results of the statewide survey.



Effects of COVID-19 – Loss of Gains

Washington's oral health programs have been slowly rebounding after the COVID-19 pandemic. The closure of school-based oral health programs and reduced access to dental care in offices and clinics kept children from critical preventive services and restorative care.

Washington's untreated decay rate rose back to 2005 survey levels after a decade of decline from 2005-2016. And, while an equitable distribution of protective dental sealants was a welcome key finding in 2016, in 2024 we saw the return of disparity gaps with dental sealants in second and third grade children.

Key Findings

Untreated Decay

Untreated decay can indicate barriers to accessing treatment and care for children, leading to serious health issues. Untreated cavities can lead to:

- pain and infection
- missed school and other activities
- disruption of a child's ability to eat, sleep, speak, learn, thrive, and socialize
- hospitalization and sometimes death, in severe cases

In 2024, 19 percent of third graders in Washington had untreated tooth decay, up from 12 percent in 2016.

Dental Sealants

Among third-grade children in Washington, 48 percent had protective dental sealants, which is significantly higher than the national estimate of 32 percent for 8-year-old children (NHANES, 2017-2020).

Treatment Need

19 percent of third graders needed dental treatment in 2024, compared to 11 percent in 2016. Two percent of third graders needed urgent dental care due to pain or swelling in both 2016 and 2024.

Caries Experience*

Sixty-five percent of third graders had dental caries, the disease that causes tooth decay.

Decay in Permanent Teeth*

More than one-in-five third-grade children (21%) were found to have decay experience in any permanent tooth.

*Changes in Survey Method

In 2015-2016, the Smile Survey used white light only, while both white and black lights were used in 2023-2024. This new method gives quicker and more accurate identification of tooth-colored restorations. Because this new method is more accurate, these indicators cannot be directly compared to previous results.

Oral Health Disparities

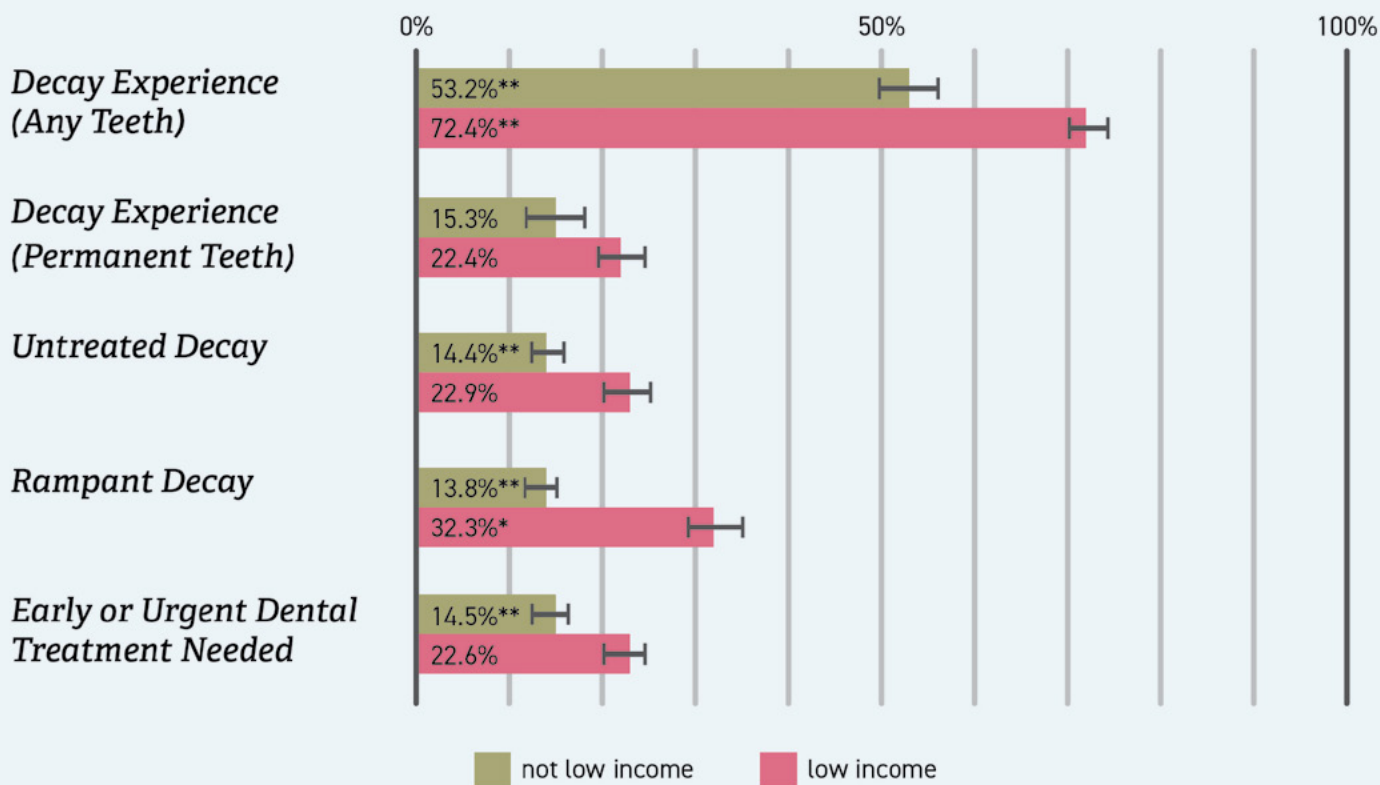
Significant oral health inequities exist for Washington children from lower-income households. Additionally, children of color bear a heavier burden of disease and treatment needs than the state average. (Since some demographic groups are small, findings for second and third graders were combined to increase the sample size for analyzing demographic disparities.)

Disparity Based on Income

Fifty-three percent of children in the 2024 Smile Survey were from lower-income households. Compared with second and third graders from higher-income households, over one-third more lower-income children in Washington experienced tooth decay (72% vs 53%), and 60 percent more had untreated decay (23% vs 14%). Additionally, when compared with children from higher-income homes, more than two times the rate of children from lower-income homes (32% vs 14%) were found to experience the effects of rampant decay (7 or more teeth ever had decay).

Percent of Second and Third Graders Experiencing Tooth Decay and Treatment Needs by Income

Washington State Smile Survey, 2023-2024



Disparity Based on Race/Ethnicity

When compared with the state average, American Indian/Alaska Native and Hawaiian/Pacific Islander and Hispanic children of any race were significantly more likely to have untreated decay than the statewide average. Black, White, Asian, and multi-racial children had similar rates as the state average.

Disparity Based on Housing Insecurity (Homelessness)

Children experiencing housing insecurity were significantly more likely to have decay experience, untreated decay, rampant decay, and a need for dental treatment than children living in secure housing.

The chart to the right shows the disparities by the percentage of second and third graders with decay experience on any teeth.

Footnotes

Low income was set using the United States Department of Agriculture's Child Nutrition Programs: Income Eligibility Guidelines. For example, A child would be considered "low income" if they had one sibling and their parents earned \$41,795 or less annually.

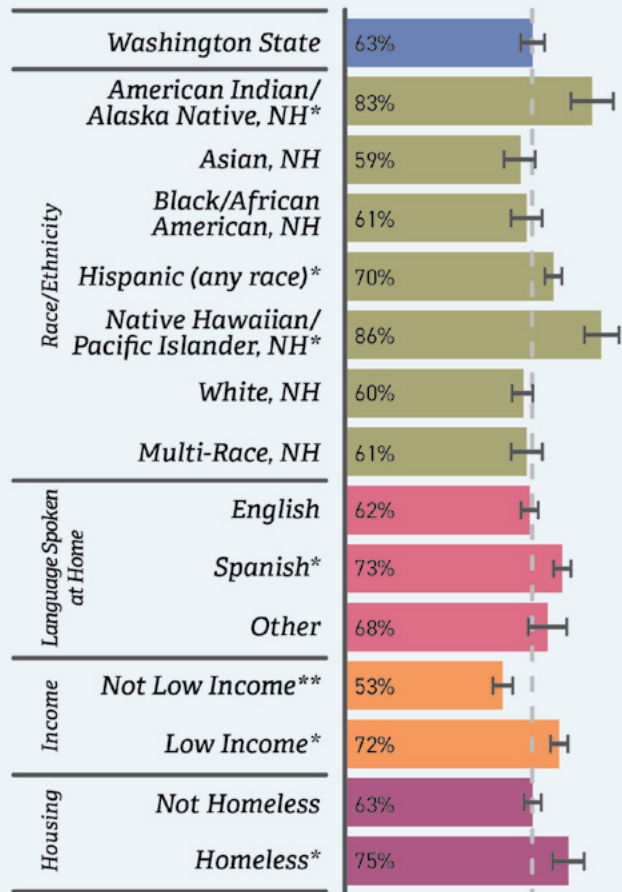
Data Sources

- Washington State Smile Survey, 2023-2024
- Washington State Smile Survey, 2015-2016
- National Health and Nutrition Examination Survey, 2017-2020

This fact sheet and an accompanying report, as well as fact sheets and accompanying reports from past Washington State Smile Surveys, are available at: <https://doh.wa.gov/data-and-statistical-reports/diseases-and-chronic-conditions/oral-health>.

Demographic Disparities in the Percentage of Second and Third Graders with Decay Experience on Any Teeth

Washington State Smile Survey, 2023-2024



*= Significantly higher than the Washington State average
** = Significantly lower than the Washington State average
Dashed Line = Washington State average
NH = Non-Hispanic



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