CD Summary

March 6, 2015
Vol. 64, No. 3

Telephone 971-673-1111
Fax 971-673-1100

cd.summary@state.or.us
http://healthoregon.org/

OREGON PUBLIC HEALTH DIVISION • OREGON HEALTH AUTHORITY

SMILE AND SAY "CHEESE": A SNAPSHOT OF CHILDREN'S ORAL HEALTH IN OREGON

The 2012 Oregon Smile Survey was conducted during the 2011–2012 and 2012–2013 school years. Specially trained dental hygienists screened children in 1st, 2nd and 3rd grades in randomly-selected schools in regions throughout the state. The dental hygienists performed a brief, simple visual screening of each child's mouth. The survey collected data on the burden of oral disease related to tooth decay among 6- to 9-year olds. Similar surveys were conducted in Oregon in 2002 and 2007.

RESULTS

In 2012, 52% of 6- to 9-year-olds in Oregon had already had a cavity,* while about one in five (20%) had untreated decay present. This means that about 66,000 children in 1st to 3rd grades had a cavity in 2012 and about 38% of those with a cavity had not received treatment.

Many children get their first cavity before they lose their first baby tooth. Tooth decay can be painful and lead to infection. Left untreated, tooth decay can lead to missed school days and increased health care costs.

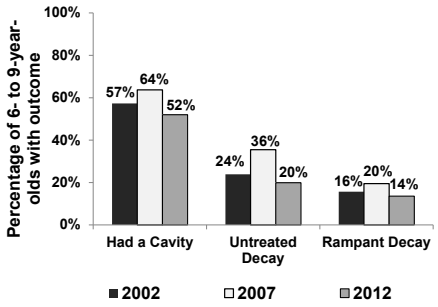
Results of the three Smile Surveys conducted since 2002 have consistently shown that more than one in two 6- to 9-year-olds in Oregon have had at least one cavity, at least one in five has untreated decay, and one in seven has rampant decay (seven or more teeth with decay) (Fig. 1).

DISPARITIES

Regional disparities. Cavity rates among 6- to 9-year-olds in 2012 were generally at or above 50% throughout the state, with one region in southeast Oregon experiencing cavity rates that were substantially higher (Fig. 2). All other regions had cavity rates that were similar to the statewide average of 52%.

* Cavities include tooth decay in the primary (baby) and/or permanent (adult) teeth. Cavities can be past (fillings, crowns, or teeth that have been extracted because of decay), or present (untreated decay).

Figure 1. Oral health status,* 6- to 9-year-olds, Oregon, 2002–2012 Smile Surveys



*Primary and permanent teeth

Household income disparities. In 2012, children from lower-income households had substantially higher rates of cavities and untreated decay, and more than twice the rate of rampant decay, compared to children from higher-income households (Fig. 3, *verso*).

Racial and ethnic disparities. In 2012, Hispanic/Latino 6- to 9-year-olds experienced particularly high rates of cavities, untreated decay, and rampant decay compared to white children (Fig. 4, *verso*). Black/African American children had substantially higher rates of untreated decay compared to white children.

ACCESS TO DENTAL CARE

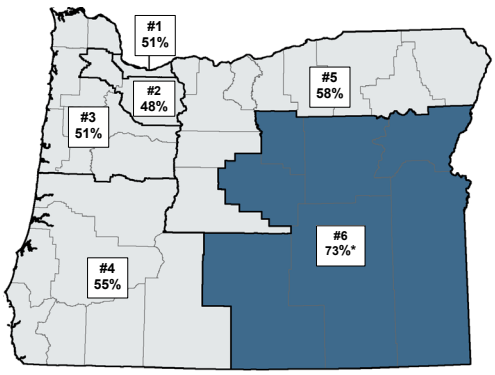
In 2012, 19% of 6- to 9-year-olds (~24,000 children) in Oregon were in need of early or urgent dental care. Children from lower-income households were more than twice as likely to need early or urgent treatment.

DENTAL SEALANTS

Dental sealants are thin liquid coatings applied to the chewing surfaces of the back adult teeth. Sealants prevent about 40% to 75% of decay in the treated teeth and last for about nine years.[1,2]

In Oregon, 38% of 6- to 9-year-olds had dental sealants in 2012, representing about 48,000 children in 1st to 3rd grades. Oregon has already surpassed the Healthy People 2020 target for dental sealants for 6- to 9-year-olds (28%). When looking at only 3rd-graders, just over half of them had dental sealants (52%). While more 3rd-graders in Oregon had dental sealants in 2012 compared to the last Smile Survey in 2007, there are still about 20,000 3rd-graders currently without this highly effective, safe, and low-cost intervention that protects against cavities.

Figure 2. Cavity rates† by geographic region (#1–6), Oregon, 2012 Smile Survey



† 6- to 9-year-olds, primary and permanent teeth
*Statistically different from the statewide average of 52%

Region by county
Region 1: Multnomah; Region 2: Clackamas, Washington; Region 3: Benton, Clatsop, Columbia, Lincoln, Linn, Marion, Polk, Tillamook, Yamhill; Region 4: Coos, Curry, Douglas, Jackson, Josephine, Klamath, Lane; Region 5: Deschutes, Gillam, Hood River, Jefferson, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco; Region 6: Baker, Crook, Harney, Lake, Malheur, Wheeler

WHAT CAN WE DO?

Oral health care in coordinated care organizations (CCOs). The creation CCOs and expansion of patient-centered primary care homes can help create the infrastructure needed to improve access to dental care. CCOs can

CD Summary
Oregon Health Authority/Public Health Division
800 NE Oregon St. Suite 772
Portland, OR 97232

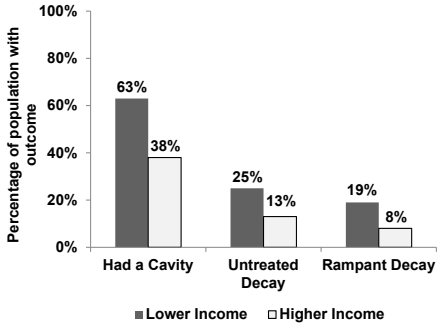
CD SUMMARY
March 6, 2015
Vol. 64, No. 3

Oregon Health Authority

If you need this material in an alternate format, call us at 971-673-1111.

THE *CD Summary* (ISSN 0744-7035) is published fortnightly free of charge and is now delivered by e-mail. To sign-up, zap your request to *cd.summary@state.or.us*. Please include your full name and mailing address (not just your e-mail address)
EARN FREE CME CREDIT. CME credits will be available shortly.
See *http://healthoregon.org/cd summary* for more information.

Figure 3. Oral health status* of 6- to 9-year-olds, by household income,+ Oregon, 2012 Smile Survey

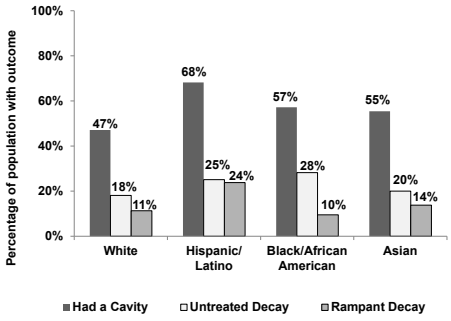


*Primary and permanent teeth
+Children eligible for free and reduced-price meals in the National School Lunch Program are characterized as being from lower income households.

support the integration of oral health care across the lifespan, including early intervention and preventive services for children and pregnant women.

Early childhood cavities prevention. The Oral Health Program, in partnership with the Oregon Oral Health Coalition, launched a program called "First Tooth," which provides no-cost training to medical and dental professionals on how to integrate oral health preventive services for infants and toddlers into their current practices. "First Tooth" follows evidence-based practice for early childhood caries prevention that includes a risk assessment, anticipatory guidance, an intervention as appropriate (fluoride varnish application), and referral to a dental home.

Figure 4. Oral health status* of 6- to 9-year-olds, by race/ethnicity, Oregon, 2012 Smile Survey



*Primary and permanent teeth

Community water fluoridation. Community water fluoridation is an evidence-based practice recommended by the Community Preventive Services Task Force to reduce dental cavities across populations.[1] Water fluoridation reduces the percentage of children in the population with at least one cavity by about 15%, on average, and reduces the average number of cavities per child.[1] Water fluoridation addresses oral health disparities, as everyone benefits from it, regardless of age, income level, race, or ethnicity. In 2010, about 74% of the U.S. population served by community water systems received fluoridated water compared to about 23% in Oregon.[3]

School-based fluoride supplement programs. For communities without water fluoridation, participation in a school-based fluoride supplement program is recommended. School fluoride programs can reduce the rate of cavities by about 20%–30% for children who participate.[4] Challenges with these programs include cost, the need for an adult to give daily or once-weekly treatments in class, and missed services when children are not in class. During the 2013-14 school year, >11,400 children in kindergarten through 6th grade in 70 schools were served by the Oregon Health Authority (OHA) School Fluoride Program.

School-based dental sealant programs. School-based dental sealant programs are strongly recommmended by the Community Preventive Services Task Force for preventing tooth decay among children.[1] In qualified schools, dental sealants are delivered by registered dental hygienists onsite using portable dental equipment. During the 2013-14 school year, the OHA School-based Dental Sealant Program directly served over 7,300 children in 159 schools, providing over 16,100 dental sealants. When combined with locally-operated dental sealant programs, about 77% of eligible schools were served. Local dental sealant programs can now get trained and voluntarily certified by OHA (see Information below).

INFORMATION

- First Tooth: For training, contact the Oregon Oral Health Coalition at *www.orohc.org*
- OHA School Fluoride Program: *www.healthoregon.org/schooloralhealth*
- OHA School-based Dental Sealant Program: *www.healthoregon.org/schooloralhealth*

REFERENCES

1. The Community Guide to Preventive Services. *www.thecommunityguide.org/oral/caries.html*.
2. Gooch BF, Griffin SO, Gray SK, et al. Preventing dental caries through school-based sealant programs: Updated recommendations and reviews of evidence. J Am Dent Assoc 2009;140:1356–65.
3. Centers for Disease Control and Prevention (CDC). Community water fluoridation: 2010 water fluoridation statistics. 2010, December 31. See *www.cdc.gov/fluoridation/statistics/2010stats.htm*
4. Association of State & Terrirotial Dental Director. Best practice approach reports. See *www.astdd.org/use-of-fluoride-school-based-fluoride-mouthrinse-and-supplement-programs/*