



## INFORMATION BRIEF



# STRATEGIES TO ELIMINATE DENTAL DISEASE IN OREGON

**D**ental health is an integral part of overall health. There are strong indications that oral infection is linked to heart disease, stroke, diabetes, and pregnancy complications. Measures taken early to prevent childhood dental disease will produce future benefits for all Oregonians.

Untreated tooth decay can result in pain, dysfunction, and developmental problems, and can negatively impact a child's overall health, nutrition, and school achievement.<sup>1</sup> In Oregon, more than half of our 6-8 year-olds suffer from dental decay and it is estimated that 35,000 school days are lost each year due to dental pain and the associated dental visits.<sup>2</sup> Approximately 1 in 4 children go untreated.<sup>3</sup>

**The GOOD news: Dental disease is nearly 100% preventable !!!**

**The BAD news: Tooth decay is still the most common, chronic childhood disease in Oregon.**

There are three preventive interventions that evidence-based research has proven to be the most effective against dental disease.<sup>4</sup> These measures are:

- 1. EARLY AND ROUTINE PREVENTIVE CARE**
- 2. COMMUNITY WATER FLUORIDATION**
- 3. PROTECTIVE DENTAL SEALANTS**

## 1. EARLY AND ROUTINE PREVENTIVE CARE

**I**n 2005, the Centers for Disease Control reported a disturbing trend - the decline in dental disease among the nation's youngest children ages 2 - 5 years has slowed and reversed.<sup>5</sup> Only with very early intervention can this trend be changed.

A dental visit by age 1 is recommended in order to establish a "dental home" for the child. The first dental appointment would consist of an initial evaluation and subsequent anticipatory guidance to prevent behavioral patterns that can lead to future dental disease. Recommendations for reappointment would be made depending on the child's risk for disease.<sup>6,7</sup>

Low income children who have their first preventive dental visit by age 1 have dental costs almost 40% lower (\$263 compared to \$447) over a five year period than children who first see a dental professional after age one.<sup>4</sup>

### How is Oregon doing?

***In Oregon: "An estimated 117,250 Oregon children are uninsured.<sup>8</sup> Approximately 60% of these uninsured children are eligible but not enrolled in the Oregon Health Plan (Medicaid).<sup>9</sup> Of the enrolled children age 5 years and under, fewer than 10% received a dental visit."<sup>10</sup>***

### How can we do better?

**Ensure Access to Preventive Care for Oregon's Children**

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Since the enactment of the welfare reform law in 1996, states are no longer required to automatically enroll eligible children in the Medicaid program. The State of Oregon must ensure that every child currently eligible for the Oregon Health Plan (OHP) is enrolled and retained. Simplifying OHP application processes and increasing the enrollment period to 12 months can accomplish this task. Some states have gone further and established separate “easy-to-identify” children’s programs to eliminate confusion when adult benefits are cut.<sup>11</sup>

Providing coverage to more children does not, however, insure the availability of providers. Oregon can increase access by establishing a broader base of professionals able to deliver preventive dental services. Pediatricians can set the stage by referring children approaching the age of 1 for the first dental visit. Limited Access Permit dental hygienists can provide screenings, fluoride treatments, and anticipatory guidance through existing programs such as Head Start and WIC.<sup>12</sup> These professionals can serve as the child’s advocate toward the ultimate goal of establishing a “dental home” and comprehensive care.

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## 2. COMMUNITY WATER FLUORIDATION

**R**esearch provides conclusive evidence that fluoridation of the water supply reduces dental caries and that the earlier children are exposed to fluoridated water, the greater the reduction in dental caries in both the primary and permanent teeth.<sup>13</sup>

Fluoridation safety is supported by the National Academy of Sciences, Institute of Medicine, American Medical Association, the American Academy of Family Physicians, American Academy of Pediatrics, and over 90 other professional organizations.<sup>14</sup> (For a more comprehensive list of these organizations, go to [www.healthyteeth.us](http://www.healthyteeth.us))

### **Cost of fluoridating:**

- Initial set-up: \$1.19 to \$14.52 per person (depending on the number of people served by the water system and on the complexity of the system)<sup>15</sup>
- Operating costs: \$0.13 to \$3.32 per person per year (the more people that are served - the less cost per person)<sup>15</sup>

### **Cost of *NOT* fluoridating:**

- For every \$1 **not** spent on fluoridation, an estimated \$38 will be required for dental treatment.<sup>16</sup>
- Medicaid dental programs will cost about 50% more in non-fluoridated communities.<sup>4</sup>
- Fluoride tablet supplements for one child per year will cost approximately \$50.<sup>12</sup>

State fluoridation laws are a good indication of state’s commitment to the fluoridation of community water supplies. In some states, the State Health Department is given jurisdiction over the implementation and maintenance of fluoridation systems. Some states have established policy requiring fluoridated water supplies for communities of over 20,000, over 10,000, or over 500 in population.<sup>17</sup>

States with strong laws are in a better position to support the maintenance and upkeep of aging water systems and encourage communities to adopt fluoridation as a preventive oral health measure that will benefit all residents, regardless of income or race.<sup>18</sup>

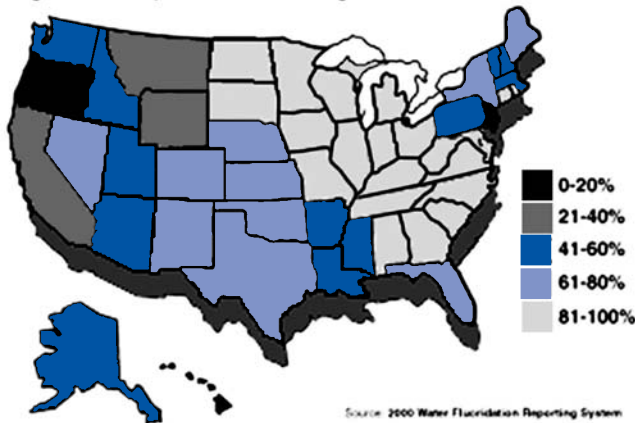
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## How is Oregon doing?

**"In Oregon: 20% of the population has access to water with optimum fluoride levels, compared to the national average of 65.8%."**

Percentage of US Population Receiving Fluoridated Water — 2000



**"Oregon ranks 48 out of the 50 states in having access to fluoridated water, with only New Jersey and Hawaii ranking lower."<sup>14</sup>**

## How can we do better?

### Increase Access to Fluoridated Water

Currently 728,000 Oregonians receive water with added fluoride and 61,000 receive naturally fluoridated water.<sup>15</sup> **A community in Oregon that fluoridates today can expect a future 61% reduction in dental decay.**<sup>19</sup>

Although there have been many grassroots attempts to pass supportive policies at the state level, little progress has been made. The Oregon Health Policy Commission has recommended that all public water systems be fluoridated.<sup>20</sup> If the State of Oregon were to adopt a preventive health policy that required, for example, cities of over 10,000 to fluoridate, the access to fluoridated water would increase from 20% to 66.8%.<sup>15</sup>

In areas where the water is not fluoridated, qualifying schools can access fluoride tablets or fluoride rinse - **at no cost** - through the:

Oral Health Program

Oregon Dept. of Human Services – Public Health  
971-673-0252 or email at [oral.health@state.or.us](mailto:oral.health@state.or.us)

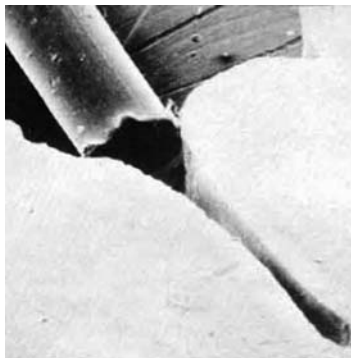
## 3. PROTECTIVE DENTAL SEALANTS

**A**lmost 90% of cavities occur in the back teeth, or molars. A child's first permanent molars come in around 2nd or 3rd grade. These molars have naturally deep grooves that trap bacteria and are impossible to clean.

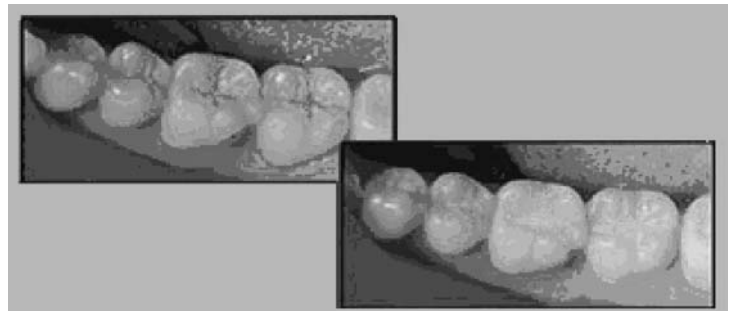
Dental sealants are thin plastic coatings that are painted on the chewing surfaces of the permanent molars. The coating seals the grooves of the teeth, preventing decay.



Naturally deep grooves



Toothbrush bristles cannot access



Molars before and after protective sealants

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**Sealants are 100% effective.** Children who don't have dental sealants get about twice as many cavities as kids who have dental sealants.<sup>21</sup>

## How is Oregon doing?

**In Oregon: "Only one in three (32%) of Oregon children in grades 1-3 have had decay-preventing sealants placed on their teeth."<sup>22</sup>**

## How can we do better?

### **Develop Sealant Programs in Local Schools**

School-based and school-linked dental sealant programs are efficient and extremely cost effective. Placing dental sealants on all four molars costs less

than one filling – and dental sealants are painless!

A dentist or Limited Access Permit dental hygienist can screen about 40 kids per hour. A dental team (1 hygienist/1 assistant) can apply sealants to 14 kids per day. Considering that dental sealants can last up to 10 years, the benefit to the child and to the school is significant.



**School-based and school-linked dental sealant programs ensure that all children have access, regardless of income or insurance status.<sup>21</sup>**

If you would like to learn about how your school can start a dental sealant program or if you'd like to learn about other dental sealant programs in Oregon, please contact:

Oral Health Program

Oregon Dept. of Human Services – Public Health  
971-673-0252 or email at [oral.health@state.or.us](mailto:oral.health@state.or.us)

**Together, we can make a difference!**

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<sup>3</sup> Oregon Department of Human Services, "Smile Survey," 2002

<sup>4</sup> Children's Dental Health Project, Policy Brief, 2005

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<sup>6</sup> American Academy of Pediatrics, "Oral Health Risk Assessment Timing and Establishment of the Dental Home," 2006

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<sup>7</sup> American Academy of Pediatric Dentistry, "Policy on the Dental Home," 2006

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<sup>8</sup> Office for Oregon Health Policy and Research, 2006

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<sup>9</sup> American Academy of Pediatrics, "Oregon Medicaid Facts," 2005

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<sup>12</sup> Oregon Dental Hygienists' Association, 2006

<sup>13</sup> National Academy of Sciences, 2002

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<sup>18</sup> Oral Health America, 2003

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<sup>19</sup> Institute of Medicine, 1997

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