

# Community Water Fluoridation



"...one of the 10 great public health achievements of the twentieth century."<sup>1</sup>



## What is the public health issue?

Health experts endorse community water fluoridation as the single, most effective public health measure to improve oral health by preventing tooth decay. Oral health is important for general health.<sup>2</sup> Although preventable, tooth decay is the most common chronic disease of childhood.<sup>2</sup> In fact, tooth decay is a chronic disease affecting all age groups. The burden of disease is far worse for those who have limited access to prevention and treatment services. Left untreated, tooth decay can cause pain and tooth loss. Among children, untreated decay has been associated with difficulty in eating, sleeping, learning, and proper nutrition.<sup>3</sup> Among adults, untreated decay and tooth loss can also have negative effects on an individual's self-esteem, productivity in the workplace, and employability. Community water fluoridation helps to reduce the burden of oral disease for these populations.

### In the U.S., tooth decay<sup>3</sup> affects:

- ✓ 1 in 4 elementary school children
- ✓ 2 out of 3 adolescents
- ✓ 9 out of 10 adults

## What is the impact of fluoridation?

Fluoride added to community drinking water at a concentration of 0.7 parts per million has repeatedly been shown to be a safe, inexpensive, and extremely effective method of preventing tooth decay.<sup>2</sup> Because community water fluoridation benefits everyone in the community, regardless of age and socioeconomic status, fluoridation is especially important in providing protection against tooth decay in populations with limited access to prevention services. For every dollar spent on community water fluoridation, up to \$38 is saved in treatment costs for tooth decay.<sup>4</sup> The Task Force on Community Preventive Services, a national independent, multidisciplinary task force recently conducted a systematic review of community water fluoridation. They found that, in communities that initiated fluoridation, the decrease in childhood decay was almost 30 percent over 3–12 years of follow-up.<sup>3</sup>



## How is Maryland doing?

### Related U.S. *Healthy People 2010* Objectives<sup>5</sup>

- ✓ Increase percentage of persons on public water receiving fluoridated water to 75%.
  - In Maryland, 93.1% of the population on public water receives fluoridated water.
- ✓ Reduce adults 65+ who have lost all their teeth to 20%.
  - In Maryland, 12.4% of adults 65+ have lost all of their teeth.
- ✓ Reduce tooth decay experience in children under 9 to 42%.
  - In Maryland, 29.7 % of third-graders had experienced untreated dental caries.

## Strategies for Maryland's Future

- ✓ Endorse use of fluorides that go directly on teeth such as toothpaste, varnish, mouth rinse, and gel in both fluoridated and non-fluoridated communities.
- ✓ Encourage prescribed fluoride supplements (tablets or liquid) for those at increased risk for decay who are not receiving fluoridated drinking water. (*Note: Individuals with private home wells should have their water tested to determine the fluoride level before taking any fluoride supplements*)
- ✓ Develop and use data from well-water testing programs.
- ✓ Educate and empower the public regarding the benefits of community water fluoridation.
- ✓ Continue to monitor fluoride levels in community water systems to ensure optimally fluoridated water.
- ✓ Develop additional fluoridation training for water operators.

## References

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*For more information, contact:*

Maryland Department of Health and Mental Hygiene  
Office of Oral Health  
Family Health Administration  
201 West Preston Street, 3<sup>rd</sup> Floor  
Baltimore, MD 21201  
(410) 767-5300  
dhmh.oralhealth@maryland.gov  
<http://phpa.dhmh.maryland.gov/oralhealth>



*Adapted from a fact sheet developed by the Oral Health Program, Bureau of Health, Maine Department of Human Services, 2004, in cooperation with the Association of State and Territorial Dental Directors and funding from Division of Oral Health, Centers for Disease Control and Prevention (cooperative agreement # U58/CCU723036-01) and Maternal and Child Health Bureau, Health Resources and Services Administration (cooperative agreement # U44MC00177-04-02). Photo credits: Mother and son at left, Andrea Schroll, RDH, BS, CHES, Illinois Department of Public Health; grandmother, mother, and daughter, Getty Images; water, Comstock Images.*