Community Water Fluoridation

"...one of the 10 great public health achievements in the twentieth century."



Oral Health in Wisconsin — A Fact Sheet

What is the public health issue?



Oral health is integral to general health. Although preventable, tooth decay is a chronic disease affecting all age groups. In fact, it is the most common chronic disease of childhood. 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 tooth decay has been associated with difficulty in eating, sleeping, learning and proper nutrition. Among adults, untreated decay and tooth loss can also have negative effects on an individual's self-esteem and employability.

What is the impact of fluoridation?

Fluoride added to community drinking water at a concentration of 0.7 to 1.2 parts per million has repeatedly been shown to be a safe, inexpensive, and extremely effective method of preventing tooth decay.² In Wisconsin, fluoride is added at 1.1 parts per million. Because



community water fluoridation benefits everyone in the community, regardless of age and socioeconomic status, fluoridation provides protection against tooth decay in

In the United States, tooth decay affects:

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

Related U.S. Healthy People 2010 Objectives⁸

- ✓ Increase percentage of persons on public water receiving fluoridated water to 75%
 - In Wisconsin, 90% of the population on public water receives fluoridated water.
- ✓ Reduce adults 65-74 who have lost all their teeth to 20%.
 - In Wisconsin, 15 % of adults ages 65-74 have lost all of their teeth, compared to 24% nationally.
- ✓ Reduce tooth decay experience in children 6-8 years old to 42%.
 - In Wisconsin, 55% of third grade students screened have experienced tooth decay.

populations with limited access to prevention services. In fact, for every dollar spent on community water fluoridation, up to \$38 is saved in treatment costs for tooth decay. The Task Force on Community Preventive Services, a national independent, nonfederal, multidisciplinary task force appointed by the director of the Centers for Disease Control and Prevention (CDC), recently conducted a systematic review of studies 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.

How is Wisconsin doing?

In 2008, 55 percent of Wisconsin's third-graders had experienced tooth decay. In 2008, 15 percent of Wisconsin's 65-74 population had lost all of their permanent teeth. In 2008, 90 percent of the population in Wisconsin on public water systems received fluoridated water. This translates into 63 percent of Wisconsin's total population receiving fluoridated water.

What is Wisconsin doing?

The Oral Health Program in the Division of Public Health provides support and technical assistance to local community water fluoridation programs. In collaboration with the Department of Natural Resources, we also monitor community water systems for quality control purposes. A listing of community water systems by fluoridation status is available at: http://dhfs.wisconsin.gov/health/Oral_Health/pdf_files/2004WiFluorCensus.pdf Limited funding is available for communities interested in initiating a fluoridation program. For communities that are not fluoridated, some limited funding is available for dietary fluoride supplement and school-based fluoride mouthrinse programs.

Strategies for Wisconsin's Future

- ✓ Encourage fluoride supplements or school-based fluoride mouthrinsing for those at increased risk for decay who are not receiving fluoridated drinking water.
- ✓ Encourage fluoride varnishes for those at increased risk for decay.
- ✓ Develop and use data from well-water testing programs.
- ✓ Continue supporting and funding Wisconsin's oral health program.
- ✓ Educate and empower the public regarding the benefits of fluoridation.

References

- 1. Centers for Disease Control and Prevention. Fluoridation of drinking water to prevent dental caries. Morbidity and Mortality Weekly Report 48 (1999): 933–40.
- 2. U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research. Oral Health in America: A Report of the Surgeon General. Rockville, MD: U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, 2000.
- 3. Truman BI, Gooch BF, Sulemana I, et al., and the Task Force on Community Preventive Services. Reviews of evidence on interventions to reduce dental caries, oral and pharyngeal cancers, and sports-related craniofacial injury. *American Journal of Preventive Medicine* 23 (2002, 1S): 1–84.
- 4. Griffin S.O., Jones K, Tomar SL. An Economic Evaluation of Community Water Fluoridation. J Publ Health Dent 2001;61(2): 78-86.
- 5. U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. *Healthy People 2010*. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, 2000. http://www.health.gov/healthypeople.
- 6. Burt BA, Eklund SA. Dentistry, Dental Practice, and the Community (5th ed.). Philadelphia: W.B. Saunders, 1999.
- 7. Wisconsin Department of Health and Family Services. Make Your Smile Count Survey, 2002.
- 8. Wisconsin Department of Health and Family Services. Healthiest Wisconsin 2010: A Partnership Plan to Improve the Health of the Public.

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).



For more information, contact:
Division of Public Health,
Oral Health Program,
PO Box 2659,
Madison, WI 53701-2659
(608) 266-5152

P-40111 (7/10) PAGE TWO