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. 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 populations with limited access to prevention services.

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 Objectives
- 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.

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