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 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. 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 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 Massachusetts doing?

In 2007, almost 48% of Massachusetts third graders had experienced tooth decay and 34% of low income third graders had untreated tooth decay. In 2009, nearly 35% of Massachusetts seniors 60 and older had untreated tooth decay. In 2012, 70 percent of Massachusetts residents on public water systems are receiving fluoridated water.

Water Fluoridation Today…

- 140 Massachusetts communities, serving more than 4 million people, are fluoridating their public water supplies
- 276,607,387 people in the US are receiving fluoridated water

Related U.S. Healthy People 2020 Objectives

- Eighty percent (80%) of the population on public water will receive optimally fluoridated water
  - In 2012, 70% of Massachusetts residents receive the health and economic benefits of community water fluoridation
What is Massachusetts doing?
Newly fluoridated Massachusetts communities providing the health and economic benefit of fluoridation to more than 173,000 residents:

- 2007-North Bedford
- 2007-Acushnet
- 2007-Dartmouth
- 2008-Woburn
- 2009-Wilmington

Massachusetts is ranked 29th in the nation for fluoridation status.

Strategies for Improving Dental Health in Massachusetts

- Educate and empower the public regarding the benefits of water fluoridation
- Promote drinking fluoridated tap water
- Encourage fluoride supplements for children at increased risk for tooth decay who are not receiving fluoridated drinking water
- Encourage schools to participate in the state’s weekly fluoride mouthrinse program
- Use a pea-size amount of fluoride toothpaste at least twice-a-day

References

9. Massachusetts Department of Public Health Fluoride Census; December 2011.

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