

Oral Health Facts

Community Water Fluoridation

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Community water fluoridation

“...one of the 10 great public health achievements of the 20th century.”¹

What is the problem?

Oral health is integral to general health.² Although preventable, tooth decay is a chronic disease affecting all age groups. In fact, it is the most common chronic disease of childhood.² 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.³ 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 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 \$42 is saved in treatment costs for tooth decay.⁴ The Task Force on Community Preventive Services, a national independent, nonfederal, multidisciplinary task force appointed by the director of the U.S. 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 three to 12 years of follow-up.³

In the U.S., tooth decay³ affects:

- *One out of four elementary school children.*
- *Two out of three adolescents.*
- *Nine out of 10 adults.*



Related U.S. Healthy People 2010 Objectives^{5, 6, 7, 8}

- Increase percentage of persons using public water receiving fluoridated water to 75 percent.
 - In North Dakota, 96 percent of the population using public water receive fluoridated water.
- Reduce adults 65 and older who have lost all their teeth to 22 percent.
 - In North Dakota, 23 percent of adults 65 and older have lost all of their teeth.
- Reduce tooth decay experience in children younger than 9 to 42 percent.
 - In North Dakota, 56 percent of children in the third grade have experienced tooth decay.



How is North Dakota doing?

In 2004, 56 percent of North Dakota's third-graders had experienced tooth decay.⁶ In 2006, nearly 23 percent of North Dakota's 65 and older population had lost all of their permanent teeth.⁷ In 2006, 96 percent of the population in North Dakota using public water systems received fluoridated water.⁸

What is North Dakota doing?

- In communities without optimally fluoridated water systems, fluoride is provided to school children through a weekly school fluoride mouthrinse program.
- The North Dakota Department of Health provides a link to a listing of the fluoride level of all public water systems on the "My Water's Fluoride" section of its website.
- Oral health professionals encourage the testing of private wells to determine fluoride content.
- The Oral Health Program encourages the use of fluoride supplements for those at increased risk of tooth decay who are not receiving fluoridated drinking water. They also encourage the use of topical fluorides (mouthrinses, varnishes, gels and foams) for individuals at increased risk for tooth decay.
- The Oral Health Program provides information about the benefits of fluoride.
- North Dakota law allows the application of fluoride varnish to children at increased risk for tooth decay in a variety of health-care settings by physicians, physician assistants, nurse practitioners, registered nurses, licensed practical nurses, dental hygienists and dental assistants.

Strategies for North Dakota's Future

- Increase public awareness of the benefits of fluoride.
- Maintain North Dakota's community water fluoridation program.
- Maintain the school mouthrinse program in communities lacking optimally fluoridated water.
- Promote the use of topical fluorides for individuals at increased risk for tooth decay.



References

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