

Why Water Fluoridation Makes Good Business Sense

Dental Health's Impact on the Workplace

Tooth decay is the most prevalent chronic disease in childhood, roughly five times more common than asthma.¹ Unlike a cold, decay doesn't go away with time or bed rest; it lingers and can lead to more serious conditions.

The consequences of poor dental health not only punish children and families, but also hurt the business climate in several ways:

• *Missing School:* Missed school days mean missed opportunities to learn. One study found that California children missed 874,000 schools days in 2007 due to



toothaches or other dental problems.² The goal of creating an educated workforce is undermined when health issues interfere with schooling.

- **Driving Up Health Care Costs:** Unmet dental needs burden our health care system. In a one-year study of seven Minnesota hospitals, patients made over 10,000 trips to the emergency room because of dental health issues, costing more than \$4.7 million.³ A survey of hospitals in Washington State found that dental problems were the leading reason why uninsured patients visited ERs.⁴
- *Reducing Worker Productivity:* Working adults are affected in three ways:
 - $\circ~$ Adults who had poor dental health as kids often miss work time dealing with the consequences. An estimated 164 million hours of work are missed each year because of dental issues. 5
 - Adults who had poor dental health as kids are likely to find it harder to find or keep a good job. Research confirms the hurdles faced by people who are missing front teeth — they are viewed as less intelligent, less trust-worthy and less desirable than people without a gap in their smile.⁶
 - Parents miss work time taking their children to clinics or hospitals for costly, corrective treatments that, in many cases, could have been avoided with proper preventive tools like drinking fluoridated water.

Water Fluoridation Prevents Decay - and Saves Money

Here's the good news. Research shows that community water fluoridation reduces decay by 18 to 40 percent.⁷ Fluoride occurs naturally in nearly all water supplies. "Fluoridation" is simply adjusting fluoride to the level found to prevent tooth decay.

In tough fiscal times, fluoridation is a strategy that produces clear savings to communities. Many public health policies can be expensive, but fluoridation costs only about \$1 per person, per year

in a medium-sized community, and it actually *saves* communities money by preventing decay and related treatment costs:

- For most cities, every \$1 spent on water fluoridation saves \$38 in dental costs.⁸
- Fluoridated water saves state Medicaid dollars. A **Texas** study confirmed that the state saved \$24 *per child, per year* in Medicaid costs for children because of the cavities that were prevented by drinking fluoridated water.⁹ A 2010 study in **New York State** found that the dental treatment costs were \$23.65 per-person higher for those living in less fluoridated counties.¹⁰
- Researchers estimated that in 2003 **Colorado** saved nearly \$149 million in unnecessary treatment costs by fluoridating public water supplies. The average savings were roughly \$61 per person.¹¹

It's unrealistic to expect people to get all of the fluoride they need from toothpaste or visiting a dentist. First, more than 16 million children go each year without seeing a dentist, and roughly 45 million Americans don't have dental insurance.¹² In addition, millions of Americans live in areas where there is a shortage of dentists.¹³

Second, the benefits from water fluoridation build on those from fluoride in toothpaste. Studies conducted in communities that fluoridated water in the years after fluoride toothpastes were widely used have shown a lower rate of tooth decay than communities without fluoridated water. The co-author of a 2010 study noted, "Studies have confirmed the most effective source of fluoride to be water fluoridation."¹⁴

Water fluoridation provides dental benefits to people of all ages and income groups without requiring them to spend extra money or change their daily routine.

Fluoridation: A Smart Investment Worth Making and Preserving

Fluoridation is a sound policy supported by the American Academy of Pediatrics, the American Dental Association, the Centers for Disease Control and Prevention, and many other respected health and medical experts.¹⁵ Yet, despite this broad consensus of support:

- More than 74 million people whose homes are connected to public water systems do *not* receive fluoride-adjusted water.
- Even worse, small groups of activists are encouraging cities and towns to stop fluoridating their community water system. Some of these fluoridation opponents are claiming this could save money, even though substantial evidence shows the opposite is true children, families and taxpayers would pay a long-term price for ending fluoridation.

In a time of tight budgets and shrinking resources, state and local governments must invest in cost-effective strategies that support the development of a healthy, well-educated workforce. By supporting fluoridation, you can help your community significantly reduce both its dental problems and the long-term economic costs that these problems have on businesses and taxpayers.

(Learn more about water fluoridation and oral health at <u>www.iLikeMyTeeth.org</u>)

Sources:

¹ "Oral Health: Women & Children," Health Resources and Services Administration, U.S. Department of Health and Human Services, <u>http://www.hrsa.gov/publichealth/clinical/oralhealth/maternalchild.html</u> (accessed July 22, 2011).

http://www.healthpolicy.ucla.edu/pubs/publication.aspx?pubID=387 (accessed September 2, 2010). ³ E. Davis, A. Deinard, and E. Maiga, "Doctor, My Tooth Hurts: The Costs of Incomplete Dental Care in the Emergency Room," *Journal of Public Health Dentistry* (published online March 10, 2010),

http://www.ncbi.nlm.nih.gov/pubmed/20337900 (accessed Aug. 26, 2010).

⁴ Washington State Hospital Association, Emergency Room Use (October 2010) 8-12,

http://www.wsha.org/files/127/ERreport.pdf (accessed February 8, 2011).

⁵ Centers for Disease Control and Prevention, Division of Oral Health, "Oral Health for Adults," December 2006, <u>http://www.cdc.gov/OralHealth/publications/factsheets/adult.htm</u> (accessed November 18, 2009).

⁶ M. Willis, C. Esqueda, and R. Schact, "Social Perceptions of Individuals Missing Upper Front Teeth," *Perceptual and Motor Skills*, Vol. 106 (2008): 423–435.

⁷ "Community Water Fluoridation Now Reaches Nearly Two-thirds of U.S. Population on Public Water Systems," news release by the U.S. Centers for Disease Control and Prevention, (June 1, 2007) http://www.cdc.gov/oralhealth/publications/library/pressreleases/water fluoridation.htm.

⁸ Melinda Beck, "And You Thought the Debate Over Fluoridation Was Settled," Wall Street Journal, November 4, 2008; accessed at: <u>http://online.wsj.com/article/SB122576047888095495.html</u>.

⁹ "Water Fluoridation Costs in Texas: Texas Health Steps (EPSDT-Medicaid)," Texas Department of Oral Health Website (2000), <u>www.dshs.state.tx.us/dental/pdf/fluoridation.pdf</u>, accessed on August 1, 2010.

¹⁰ Kumar J.V., Adekugbe O., Melnik T.A., "Geographic Variation in Medicaid Claims for Dental Procedures in New York State: Role of Fluoridation Under Contemporary Conditions," *Public Health Reports*, (September-October 2010) Vol. 125, No. 5, 647-54; Note: The original figure (\$23.63) was corrected in a subsequent edition of this journal and clarified to be \$23.65. See: "Letters to the Editor," *Public Health Reports* (November-December 2010). Vol. 125, 788.

¹¹ O'Connell J.M. et al., "Costs and savings associated with community water fluoridation programs in Colorado," Preventing Chronic Disease (November 2005), accessed on March 12, 2011 at <u>http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1459459/</u>.

¹² U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services, "Medicaid Early & Periodic Screening & Diagnostic Treatment Benefit – State Agency Responsibilities" (CMS-416),

http://www.cms.gov/MedicaidEarlyPeriodicScrn/03_StateAgencyResponsibilities.asp (accessed January 10, 2011); Matthew Sturdivant, "45 Million Americans Don't Have Dental Coverage," Insurance Capital blog, *The Hartford Courant*, June 10, 2010, http://blogs.courant.com/connecticut insurance/2010/06/45-million-americans-dont-have.html (accessed September 22, 2011).

¹³ There were 49.2 million Americans living in one of 4,609 dentist shortage areas within the 50 states. *See:* U.S. Department of Health and Human Services, Health Resources and Services Administration, Designated HPSA Statistics Report, Table 4, "Health Professional Shortage Areas by State, Detail for Dental Care Regardless of Metropolitan/NonMetropolitan Status as of August 31, 2011,"

http://datawarehouse.hrsa.gov/quickaccessreports.aspx (accessed September 1, 2011).

¹⁴ "Drinking Tap Water May Help You Avoid Dentist's Drill, Study Says," ScienceDaily (April 13, 2010) <u>http://www.sciencedaily.com/releases/2010/04/100413121328.htm</u> (accessed May 2, 2011).

¹⁵ The AAP's position is reflected in this article: "Preventive Oral Health Intervention for Pediatricians," *Pediatrics*, Vol. 122, No. 6, December 2008, pp. 1387-1394, accessed on Jan. 20, 2011 at http://aappolicy.aappublications.org/cgi/content/full/pediatrics:122/6/1387; ADA and CDC statements on fluoridation can be found at: "Water Fluoridation: Nature's Way to Prevent Tooth Decay," (2006),

http://www.cdc.gov/fluoridation/pdf/natures way.pdf.

² N. Pourat and G. Nicholson, *Unaffordable Dental Care is Linked to Frequent School Absences* (Los Angeles, CA: UCLA Center for Health Policy Research, 2009) 1–6,