

Savings from Water Fluoridation: What the Evidence Shows

Community water fluoridation saves money! It offers one of the [greatest returns-on-investment of any public health measure](#). It reduces the amount of money we spend to fill cavities or pull teeth. It means we lose less time at work or school. And it means less pain and suffering.

The dollars spent on fluoridation represent a fraction of the cost to treat dental disease, and in recent decades, the evidence demonstrating cost savings has grown.

- [An Alaska study \(2021\)](#) examined changes in the cost of treating tooth decay in low-income children in two cities: Anchorage and Juneau. Before Juneau stopped fluoridating in 2007, the average cost to treat tooth decay was similar to Anchorage. After, costs in Juneau **jumped by 47%**, while treatment costs in fluoridated Anchorage increased only 5%.¹
- [A U.S. study \(2016\)](#) found that each person in a fluoridated community saves an average of **\$32.19** a year in dental care that would otherwise be needed to treat decay. If non-fluoridated water systems (serving at least 1,000 people) were to fluoridate, the authors estimated that as much as **\$2.5 billion** might be saved every year.²
- [A New York study \(2010\)](#) revealed that low-income children in counties with less fluoridation needed 33% more fillings, root canals, and extractions than those in counties where fluoridated water was common. The annual Medicaid treatment costs were almost **\$24 higher per recipient** (in 2006 dollars) in counties with less fluoridated water.³
- [A Colorado study \(2005\)](#) showed that fluoridated water **saved nearly \$149 million** each year by avoiding unnecessary treatment costs, an average savings of roughly \$61 per person.⁴
- [A Texas study \(2000\)](#) found that fluoridation saved the state Medicaid program an average of \$24 per child, per year.⁵
- [A Louisiana study \(1999\)](#) compared areas that were fluoridated with those that were not. The study found that low-income children in communities without fluoridated water were three times more likely to need expensive dental treatment in a hospital operating room than those in communities with fluoridated water⁶.
- By reducing tooth decay, fluoridation makes it less likely that toothaches or other costs are very high. [A 2010 survey](#) of hospitals in **Washington State** found that dental problems were the most common reason uninsured patients visited ERs⁷.

The cost of fluoridating a community water supply depends on several factors and the number of people served is the most significant factor. A 2016 economic analysis found that for communities of 1,000 or more people, the savings associated with water fluoridation exceeded estimated program costs.

Recently, new technology has been introduced that will lower the cost of fluoridating small communities, making it a cost-saving public service virtually everywhere it is introduced. [CDC has estimated](#) this system could fluoridate nearly 32,000 small systems in the United States, bringing fluoridated water to about 19 million people.

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Citations

¹ Meyer J, Margaritis V, Jacob M. The Impact of Water Fluoridation on Medicaid-Eligible Children and Adolescents in Alaska. *J Prev* (2022). 2022 Feb;43(1):111-123. doi: 10.1007/s10935-021-00656-x. Epub 2022 Jan 20. PMID: 35048263.

² O'Connell J, Rockell J, Ouellet J, Tomar SL, Maas W. Costs and Savings Associated with Community Water Fluoridation in The United States. *Health Aff (Millwood)*. 2016 Dec 1;35(12):2224-2232. doi: 10.1377/hlthaff.2016.0881. PMID: 27920310.

³ Kumar JV, Adekugbe O, Melnik TA. Geographic variation in Medicaid claims for dental procedures in New York State: role of fluoridation under contemporary conditions [published correction appears in *Public Health Rep*. 2010;125(6):788]. *Public Health Rep*. 2010;125(5):647-654.

⁴ O'Connell JM, Brunson D, Anselmo T, Sullivan PW. Costs and savings associated with community water fluoridation programs in Colorado. *Prev Chronic Dis*. 2005 Nov;2 Spec no(Spec No):A06. Epub 2005 Nov 1. PMID: 16263039; PMCID: PMC1459459.

⁵ Water Fluoridation Costs in Texas: Texas Health Steps (EPSDT-Medicaid). Texas Department of State Health Services. Accessed February 2, 2023; https://txohc.org/wp-content/uploads/2020/08/Fluoridation_Savings_TX_Study.May2000.pdf. Accessed February 2, 2023.

⁶ U.S. Centers for Disease Control and Prevention. Water fluoridation and costs of Medicaid treatment for dental decay – Louisiana, 1995-1996. *MMWR Morb Mortal Wkly Rep*. 1999;48(34): 753-757. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4834a2.htm>. Accessed February 2, 2023.

⁷ Washington State Hospital Association. Emergency room use. <http://www.wsha.org/wpcontent/uploads/ERreport.pdf>. Published October 2010. Accessed February 2, 2023.