

# Community Water Fluoridation



"...one of the 10 great public health achievements of the twentieth century."<sup>1</sup>



*Oral Health in Georgia: A Fact Sheet*

## Tooth Decay is a Problem!

Oral health is integral to general health. Although preventable, tooth decay is a chronic disease still affecting all age groups.<sup>1,2,3</sup> It is the most common chronic disease of childhood. Left untreated, tooth decay can cause pain, infection, tooth loss, and even death. Among children, untreated decay has been associated with difficulty in eating, sleeping, speaking, learning, playing and proper nutrition. Among adults, untreated decay and tooth loss can also have negative effects on an individual's self-esteem and employability.<sup>4</sup> The burden of this disease is far worse for those who experience limited access to prevention and treatment services, particularly among communities of color.<sup>5</sup> The nation's dental care delivery system is failing to adequately support the oral health of all Americans. Hispanic and black children receive preventive services, such as fluoride treatments or sealants, less often than their white peers do. For example, only 10 % of Hispanic and black children received any preventive service in 2009, compared with 17 % of white children. Data from 2016 published by the CDC also show non-Hispanic black youth have rates of 17.1% untreated decay present compared to only 10.5% of white children.<sup>6</sup> Poverty, which disproportionately affects Hispanic and black children, can create additional hurdles for accessing dental care.

## Community Water Fluoridation Prevents Tooth Decay

Fluoride in community drinking water, adjusted to a concentration of 0.7 parts per million,<sup>7</sup> continues to be a safe, inexpensive and extremely effective method of preventing tooth decay.<sup>8</sup>

- Community Water Fluoridation (CWF) 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.
- Drinking fluoridated water reduces the prevalence of dental decay by about 25%, in children and adults.<sup>9</sup>
- For every dollar spent on CWF, in communities of 1,000 or more people, an average of \$32 per person is saved in avoided dental treatment costs, and the average annual return on investment is \$20 for each dollar invested.<sup>10</sup>

The Task Force on Community Preventive Services, a national independent, nonfederal, multidisciplinary task force appointed by the director of the CDC, reviewed their systematic review of community water fluoridation studies in 2015. They confirmed, in communities initiating fluoridation, childhood decay decreased by almost 30% over 3 to 12 years of follow-up.<sup>11</sup> Communities across the U.S. have fluoridated drinking water since 1945. In Georgia water has been fluoridated since 1951. Each state has objectives for oral health and water fluoridation. The national Healthy People 2020 initiative set goals for fluoridation for the country.<sup>12</sup>

## What Georgia is doing to meet our goals

The Georgia Department of Public Health contracts with the Georgia Rural Water Association (GRWA) to evaluate fluoridating water systems and educate water operators on the benefits, safety, effectiveness, and value of the Community Water Fluoridation Program. The Georgia Oral Health Coalition is forming a Community Water Fluoridation subcommittee. Georgia works with the CDC, ADA and ASTDD to recognize water systems who optimally fluoridate their water.

## Strategies for Georgia's Future

- ✓ Maintain public education resources explaining and promoting the benefits of CWF.
- ✓ Encourage appropriate fluoride treatments for those at increased risk for decay.
- ✓ Encourage daily brushing with fluoride toothpaste, morning and night.
- ✓ Promote accurate, science-based information about fluoride to the public, local policymakers and municipal officials, water system operators, and the health professional community.
- ✓ Assure accurate monitoring and testing of fluoridated community water supplies, through collaborative initiatives and training.
- ✓ Encourage and promote the testing of residential well water.



## State<sup>9</sup> and National Healthy People 2020 Objectives<sup>10</sup> and Progress

*Increase percentage of persons on public water receiving fluoridated water*

National HP Goal = 79.6%    Your State's Goal 96.5%    Your State's Current Status 96%

*Reduce by 10% tooth decay experience in children age 6-9 years*

National HP Goal = 49.0%    Your State's Goal 51%    Your State's Current Status 51.06%

*Reduce by 10% adults 65-74 who have lost all their teeth*

National HP Goal = 21.0%    Your State's Goal 19%    Your State's Current Status 19.3%

## References

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- <sup>3</sup> Dye BA, Thornton-Evans G, Li X, Iafolla TJ. Dental caries and tooth loss in adults in the United States, 2011–2012. NCHS data brief, no 197. Hyattsville, MD: National Center for Health Statistics. 2015. Accessed December 3, 2018.
- <sup>4</sup> U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research. *Oral Health in America: A Report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, 2000. Accessed October 28, 2013.
- <sup>5</sup> Koppelman J, Cohen RS. [Dental Health Is Worse in Communities of Color](#), Pew Charitable Trusts. Accessed March 1, 2019
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- <sup>7</sup> U.S. Department of Health and Human Services, Proposed HHS Recommendation for Fluoride Concentration in Drinking Water for Prevention of Dental Caries, Federal Register Volume 76, Number 9. January 13, 2011. Accessed March 2, 2019.
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- <sup>9</sup> Centers for Disease Control and Prevention, [Community Water Fluoridation](#). Accessed March 1, 2019.
- <sup>10</sup> O'Connell J, Rockell J, Ouellet J, et al. Cost and savings associated with community water fluoridation in the United States. *Health Aff (Millwood)* 2016;35(12):2224-32. Abstract at: <https://www.ncbi.nlm.nih.gov/pubmed/27920310>.
- <sup>11</sup> Guide to Community Preventive Services. Dental Caries (Cavities): Community Water Fluoridation. <https://www.thecommunityguide.org/findings/dental-caries-cavities-community-water-fluoridation>. Page last updated: February 12, 2019. Accessed: March 1, 2019.
- <sup>12</sup> U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. [Healthy People 2020](#). Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, 2010. Accessed March 1, 2019.

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