

# Oral Health in Arkansas: *The Facts*

---

## What is the health issue?

Oral health is integral to one's overall general health.<sup>1</sup> Although preventable, tooth decay is a chronic disease affecting all age groups. In fact, it is the most common chronic disease of childhood.<sup>2</sup> The burden of this 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 eating, sleeping, learning and proper nutrition. Untreated decay and tooth loss among adults can also have negative effects on one's self-esteem and employability. In the U.S., tooth decay affects: one in four elementary school children; two of three adolescents; and nine out of ten adults.<sup>3</sup>

The most comprehensive data on children and adults was collected in 2008 by the Arkansas Department of Health.<sup>4</sup>

### CHILDREN/ADOLESCENTS

- ✓ 56% HAD EVIDENCE OF CURRENT OR PAST CAVITIES (CARIES EXPERIENCE)
- ✓ 24% HAD UNTREATED CARIES (CAVITIES)
- ✓ 18% WERE IN NEED OF ROUTINE CARE
- ✓ 8% WERE IN NEED OF URGENT CARE

### OLDER ADULTS

- ✓ 23% OF ADULTS 65 YEARS AND OLDER REPORTED THEY HAD LOST ALL OF THEIR PERMANENT TEETH, COMPARED TO 19% IN THE U.S.

## What are the physical health consequences?

The publication of the first U.S. Surgeon General's report on oral health, on May 25, 2000, clearly indicates a realization that oral health can have a significant impact on the overall health and well-being of the American population. As noted in the Surgeon General's report, on-going research is pointing to associations between chronic oral infections and heart and lung diseases, stroke, and low-birth-weight, premature births. The relationship between periodontal disease and diabetes have long been noted. Additionally, despite treatment advances, profound disparities continue to exist among various population groups in rates of oral and pharyngeal cancers, dental caries and craniofacial anomalies, as well as in general oral health and treatment opportunities. The Surgeon General goes so far as to refer to a "neglected epidemic" because of the failure to recognize oral disease as a health priority in the United States.<sup>5</sup>

## What are the economic consequences?

Untreated oral disease also has economic consequences. The Surgeon General estimates that children with oral disease miss over 51 million hours of school each year.<sup>3</sup> This directly impacts local school funding since the amount of state dollars a school receives is based in part on weighted daily attendance. According to the U.S. Surgeon General, employed adults lose an estimated 164 million hours of work due to oral health problems or dental visits each year.<sup>3</sup> Additionally, adults with visible dental problems are less employable. Untreated oral diseases can increase health care costs in general. If left untreated, certain dental infections can become systemic, resulting in increased health care utilization.<sup>3</sup>

## What is the impact of fluoridation?

Fluoride added to community drinking water has been shown to be safe, inexpensive and an extremely effective method of preventing tooth decay.<sup>2</sup> 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, every \$1 invested in this preventive measure yields approximately \$38 savings in dental treatment costs.<sup>6</sup>

A multitude of studies conducted since 1945 have consistently shown a marked decrease in tooth decay in fluoridated versus fluoride-deficient communities. These studies show decay reduction of 40-49% for primary (baby) teeth and 50-59% for permanent teeth.<sup>1</sup> Similar data for Arkansas now confirm this.

Two separate but parallel studies were conducted in Morrilton and Perry County, Arkansas. The data from these neighboring communities, on opposite sides of the Arkansas River, vividly showcase the efficacy of water fluoridation. In January of 2002, elementary school students in Perryville, Casa and Ann Watson schools received dental screenings at the request of the Perry County Hometown Health Coalition. In October of 2002, all kindergarten students from the City of Morrilton also received a dental screening at the request of the school. Comparing the data from fluoridated Morrilton to the data on the same age students in Perry County showed **twice** the decay rate for non-fluoridated Perry County children.<sup>4</sup>

### What is Arkansas doing?

Since 1999, under the direction of the Arkansas Department (ADH) Office of Oral Health, the percentage of Arkansans enjoying the benefits of community water fluoridation has grown from 49%-65%. Currently in Arkansas, 23 counties have no fluoridation.

Dental sealants also provide protection against tooth decay by sealing the pits and fissures on the chewing surfaces on back teeth, which are more vulnerable to decay. The combination of dental sealants and water fluoridation has the potential to prevent virtually all tooth decay. The sealant rates for Arkansan children and adolescents in 2008 were 17% and 18%.

#### STRATEGIES FOR ARKANSAS' FUTURE

- ✓ EDUCATE AND EMPOWER THE PUBLIC REGARDING THE BENEFITS OF FLUORIDATION, INCLUDING COMMUNITY AND BUSINESS LEADERS AND ELECTED OFFICIALS.
- ✓ MAINTAIN THE PRIVATE WELL-WATER TESTING PROGRAM.
- ✓ ENCOURAGE FLUORIDE SUPPLEMENTS FOR THOSE AT INCREASED RISK THAT DO NOT HAVE ACCESS TO FLUORIDATED DRINKING WATER.
- ✓ PROMOTE DENTAL SEALANT PROGRAMS.

### References

1. Centers for Disease Control and Prevention. Fluoridation of drinking water to prevent dental caries. Morbidity and Mortality Weekly Report, 48 (1999): 933-40
2. Truman, BI; Gooch, BF; Suleman, I; et al, and the Task Force on Community Preventative Services. Reviews of evidence on interventions to reduce dental caries, oral pharyngeal cancers and sports-related craniofacial injury. *American Journal of Preventive Medicine* 23 (2002), 1S: 1-84
3. U.S. Department of Health and Human Services. *Oral Health in America: A Report of the Surgeon General, Executive Summary*. Rockville, MD. National Institute of Dental and Craniofacial Research, National Institutes of Health.
4. Arkansas Department of Health, Office of Oral Health 2002.
5. National Institute of Dental and Craniofacial Research, National Institute of Health. The Meaning of Oral Health, <http://www.nidcr.nih.gov/DataStatistics/SurgeonGeneral/sgr/chap1.htm>
6. Centers for Disease Control and Prevention. Cost Savings of Community Water Fluoridation, [http://www.cdc.gov/fluoridation/fact\\_sheets/cost.htm](http://www.cdc.gov/fluoridation/fact_sheets/cost.htm)

