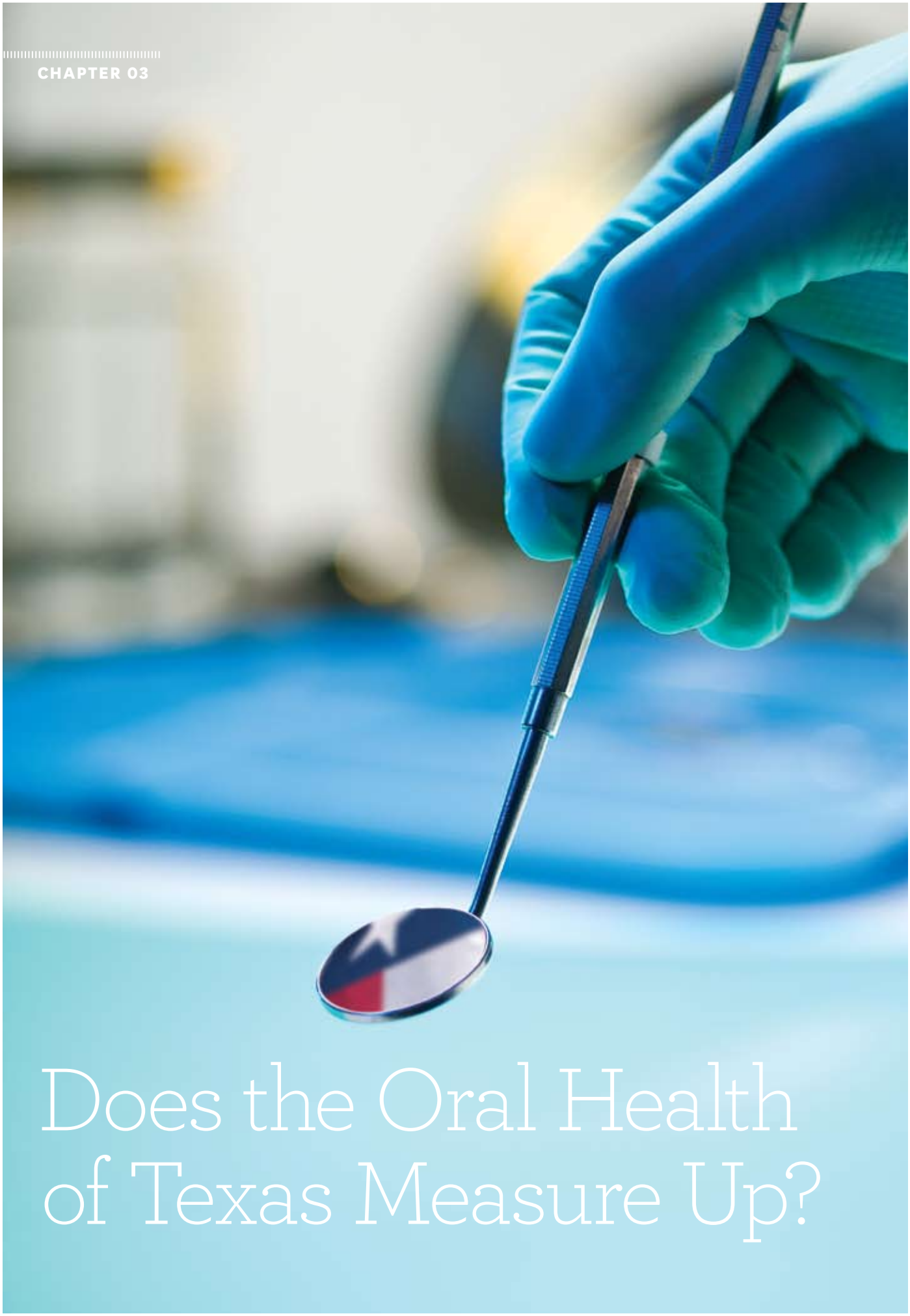
CHAPTER 03



Does the Oral Health of Texas Measure Up?

BACKGROUND

Although there are many different ways to evaluate oral health status, the discussion that follows focuses on how Texas measures up to the nation as a whole on six indicators, defined in Healthy People 2010, an initiative created by the government to improve the health of Americans and eliminate health disparities among different segments of the population.[1] These indicators are:

- Percentage of communities with access to fluoridated drinking water
- Percentage of adults who visited the dentist within the past 12 months
- Percentage of children with untreated tooth decay
- Percentage of young children with dental sealants
- Incidence and early detection of oral cancer
- Incidence of adult tooth loss

The data presented in this chapter are derived from various sources, including the 2006 Basic Screening Survey (BSS) of third-grade Texas public school children, the Behavioral Risk Factor Surveillance Survey (BRFSS), the state cancer registry and the Texas Water Fluoridation Reporting System (WFRS).

COMMUNITY WATER FLUORIDATION

Water fluoridation is widely viewed as a safe and cost-effective way to prevent tooth decay and cavities. Texas has surpassed Healthy People 2010 objectives in community water fluoridation. In 2007, 78 percent of the population served by public water systems in Texas had access to fluoridated water, compared to the national average of 69 percent and the Healthy People 2010 target of 75 percent.[2] The increasing popularity and use of nonfluoridated bottled water, however, may reduce the positive effects of fluoridation of community water.

A study published in 2000 by the Department of State Health Services (DSHS) Oral Health Group (OHG) found that widespread community water fluoridation in Texas produced significant cost savings in publicly financed dental care under Texas Health Steps, but that further savings could be realized by implementing community water fluoridation in other areas of the state.[3]

SOURCE: *Department of State Health Services Oral Health Program.*

REGULAR DENTAL VISITS AMONG ADULTS

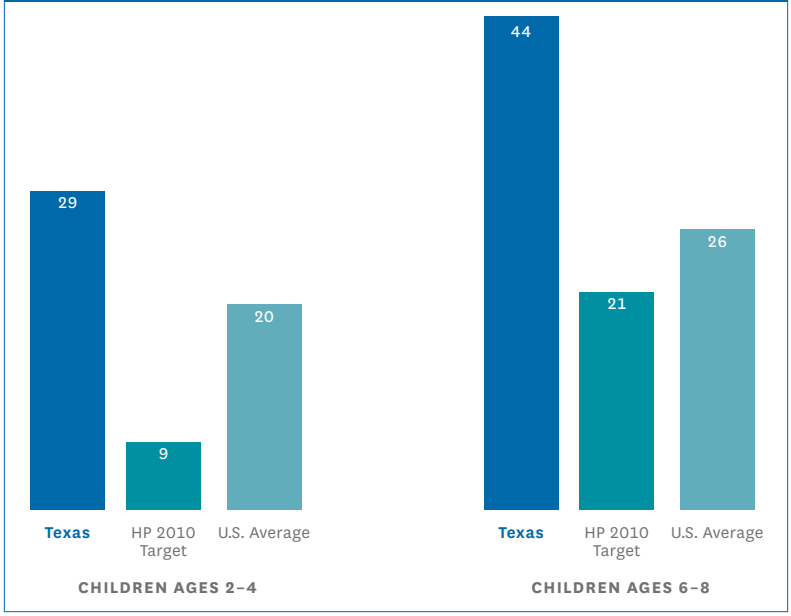
Because regular dental visits may prevent or delay tooth decay and gum disease, a good predictor of oral health is the percentage of a given population that has visited the dentist within a 12-month period. The most recent data indicate that 61 percent of Texas adults had a dental visit during the past 12 months, which is lower than the national estimate of 68 percent.[4]

UNTREATED TOOTH DECAY IN CHILDREN

Another important indicator used to track oral health status is the rate of untreated tooth decay among children, which can result in chronic pain and early tooth loss. As illustrated in Exhibit 3, the rate of untreated tooth decay among Texas children was higher in Texas than in the rest of the United States. Texas has a long way to go to meet national Healthy People 2010 targets.

1 For detailed information on the progress the nation as a whole is making toward achieving Healthy People 2010 goals, see <http://www.healthypeople.gov/data/midcourse/pdf/fa21.pdf> (25 July 2008).
2 Centers for Disease Control and Prevention, "Populations Receiving Optimally Fluoridated Water—United States 1992–2006," MMWR Weekly (11 July 2008): 737–741. Downloaded <www.cdc.gov/mmwr/preview/mmwrhtml/mm5727a1.htm> 30 September 2008.
3 Texas Department of State Health Services, Oral Health Program, "Water Fluoridation Costs in Texas: Texas Health Steps (EPSDT–Medicaid)," May 2000.

EXHIBIT 3 Percentage of children with untreated dental caries (tooth decay)



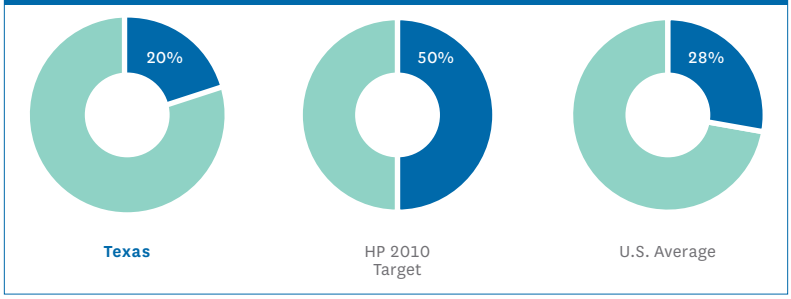
SOURCES: *Basic Screening Survey of Texas Public School Children, 2006.*
Basic Screening Survey of Texas Head Start Students, 2007.
Data provided and confirmed by DSHS Oral Health Program, July 2008.
ALL NUMBERS ARE ROUNDED.

DENTAL SEALANTS IN CHILDREN

Dental sealants (also known as pit-and-fissure sealants) are plastic coatings applied to the chewing surfaces of back teeth to block cavity-causing bacteria. They are a safe, painless and effective way to prevent cavities in young children. Most dentists recommend that sealants be applied to first molars soon after they erupt (around age 6) and later to second molars (around 12 – 13 years). The application of dental sealants on molars is especially important since the pits and fissures around these teeth are an inviting spot for bacteria to grow — and are harder for children to brush effectively.

Texas has not yet met the Healthy People 2010 target of 50 percent of 8-year-olds with dental sealants on their molar teeth. In fact, according to the 2006 Texas Basic Screening Survey (BSS), only 20 percent of 8-year-olds had dental sealants on their first molars.

EXHIBIT 4 Percentage of 8-year-olds with dental sealants (first molars)



SOURCE: *Texas Basic Screening Survey (BSS), 2006.*
Data provided and confirmed by DSHS Oral Health Program, July 2008.
ALL NUMBERS ARE ROUNDED.

"Something as simple and inexpensive as giving children a toothbrush, teaching them how to use it and putting dental sealants on their first molars with portable equipment at the school campus has made a dramatic impact on the oral health of the low-income children in our community. When Dental Health Arlington's school-based sealant program began 14 years ago, about 61 percent of the children screened by the program had untreated tooth decay. By the end of the 2007-08 school year, the percent of students with untreated decay had dropped to nearly half that amount — at about 33 percent of screened students."

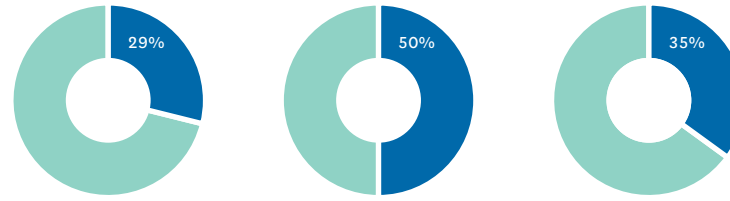
SALLY HOPPER
Executive Director, Dental Health Arlington
Executive Committee, Texas Oral Health Coalition
Arlington, Texas

4 Behavioral Risk Factor Surveillance Survey, 2006. Data provided and verified by DSHS Oral Health Group.

INCIDENCE AND EARLY DETECTION OF ORAL CANCERS

Texas performed just below the national average on reducing the death rate from oral cancer — 2.6 per 100,000 persons per year compared to the Healthy People 2010 objective of 3.0 per 100,000. About 29 percent of oral cancer cases in Texas are detected at the earliest, most treatable stage — compared to the Healthy People 2010 target of 50 percent.[5]

EXHIBIT 5 Percentage of oral/pharyngeal cancers detected at earliest stages

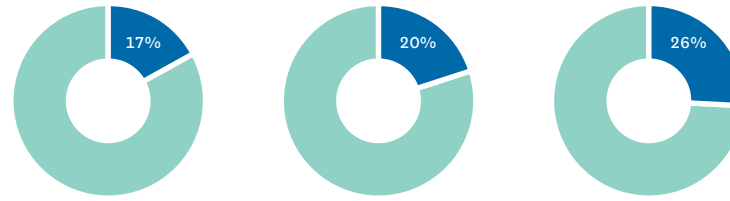


SOURCE: *Texas Department of State Health Services, Cancer Epidemiology and Surveillance Branch, Texas Cancer Registry.*
Data provided and confirmed by DSHS Oral Health Program, July 2008.

ADULT TOOTH LOSS

Another key indicator used to evaluate the oral health of adults is the degree of tooth loss. Most adult tooth loss is the result of dental caries and periodontal disease, which can usually be avoided through early detection and routine dental care. As illustrated below, only about 17 percent of older Texans in 2006 had lost all their natural teeth, compared to the national average of 26 percent.[6] While this statistic bodes well for the state, it also means that more elderly persons will need assistance with oral hygiene to prevent decay and periodontal disease later in life.

EXHIBIT 6 Percentage of older adults (65–74) with complete tooth loss (2006)



SOURCE: *Behavioral Risk Factor Surveillance Survey, 2006.*
Data provided and confirmed by DSHS Oral Health Program, July 2008.

5 Texas Department of State Health Services, Cancer Epidemiology and Surveillance Branch, Texas Cancer Registry.
6 Behavioral Risk Factor Survey, 2006.

CONCLUSION

While Texas can be proud of what it has accomplished in improving the oral health of its residents, the State cannot afford to rest until it meets — or exceeds — the Healthy People 2010 goals. Many inexpensive, effective measures are available to prevent dental disease. The challenge is to make these measures widely accessible and to educate the public about the value of preventive dental care and good oral hygiene.

Early detection saves lives

Cancers of the oral cavity (including the lips, gum tissue, cheek lining, tongue and the hard or soft palate) are as common as leukemia and claim more lives than either cervical cancer or melanoma, a dangerous form of skin cancer.[7] Risk factors for oral cancers include age (most oral cancers strike after age 40), tobacco use (in any form), alcohol consumption and, for lip cancers, prolonged sun exposure. Nevertheless, 1 in 4 oral cancers occur in patients with no identified risk factors.

Although men are more likely to die from oral cancer than women, the incidence of oral cancer among women has increased. African-Americans are more likely to be diagnosed with and die from oral cancers than any other ethnic or racial group in the United States.[8] The oral cancer death rate among African-American males in Texas was 7.5 per 100,000 persons, compared to 4.9 among white males and 3.2 among Hispanic males.[9]

Early detection significantly increases survival rates. Oral cancer often starts as a tiny red or white spot or sore anywhere in the mouth. These spots can be detected by dentists during routine exams — and further tests may be conducted as needed.

Did you know?

7 American Cancer Society <http://www.cancer.org> (25 March 2008).
8 American Dental Association, "Oral Health Topics A–Z: Oral Cancer," American Dental Association online, 14 March 2005, <http://www.ada.org/public/topics/cancer-oral.asp> (7 March 2008).
9 Texas Department of State Health Services, Cancer Epidemiology and Surveillance Branch, Texas Cancer Registry.