

# Chew On This

## 2012 REPORT ON THE ORAL DISEASE BURDEN IN COLORADO

### I. EXECUTIVE SUMMARY

Oral health is essential to overall health throughout life and is much more than just healthy teeth. Oral refers to the whole mouth, including the teeth, gums, hard and soft palate, linings of the mouth and throat, tongue, lips, salivary glands, chewing muscles, and upper and lower jaws. Good oral health means being free of tooth decay and gum disease as well as free of chronic oral pain, oral cancer, and cleft lip and palate. Good oral health allows us to carry on the most basic human functions of chewing, swallowing, speaking, smiling, kissing, and singing.

Oral health is one of Colorado's new 10 "Winnable Battles", priority areas for the Colorado Department of Public Health and Environment. *Chew on This: 2012 Report on the Oral Disease Burden in Colorado* summarizes the most current data available on the oral disease burden in Colorado. It also highlights groups and regions in our state at high risk for oral health problems. This information can raise awareness of the need for monitoring the oral health burden in Colorado and guide efforts to prevent and treat oral diseases and enhance the quality of life of all Coloradans.

#### **HIGHLIGHTS FROM THE REPORT**

Colorado tracks various indicators of oral disease burden across the life span.

#### ***Describing the burden***

Among infants and children:

- In 2009, 116 newborns in Colorado were diagnosed with cleft lip and/or cleft palates. The rate of these conditions was 16.9 per 10,000 live births.
- During the 2006-2007 school year, 45.4 percent of kindergarten children in Colorado had dental caries, as evidenced by cavities and/or fillings; 22.9 percent had untreated decay. 4.6 percent of kindergarten children needed urgent dental care due to pain or infection.
- During the 2006-2007 school year, 57.2 percent of third-grade children in Colorado had dental caries, as evidenced by cavities and/or fillings; 24.5 percent had untreated decay.
- In 2010, about 18 percent of children aged 1-14 years in Colorado were reported to have fair/poor condition of teeth.
- The prevalence of a serious problem with child's teeth — including pain, cavities, broken or missing fillings, and teeth pulled because of cavities or bleeding gums — was 15 percent in 2010.
- Six percent of children aged 1-14 years in Colorado had to forego needed dental care in the past 12 months.

Among adults:

- 35.4 percent of all adults aged 18 years or older reported in 2010 that they had lost a permanent tooth due to decay or gum disease.
- 3.4 percent of all adults aged 18 years or older reported they had lost all their natural, permanent teeth. 13.4 percent of adults aged 65 years or older had lost all their natural, permanent teeth.
- In 2008, Colorado's overall incidence rate of oral cancer (cancer of the oral cavity and pharynx) was 14.0 cases per 100,000 population for males and 6.3 per 100,000 population for females. The mortality rate from oral cancer was 2.7 deaths per 100,000 males and 0.8 deaths per 100,000 females in Colorado in 2008. In Colorado, the 5-year relative survival rate for persons with oral cancer diagnosed at a localized stage is 75 percent. In contrast, the 5-year survival rate is only 57 percent once the cancer has spread to regional lymph nodes at the time of diagnosis and is just 30 percent for persons with distant metastasis.

### **Supporting good oral health**

In 2010, the Colorado Child Health Survey asked parents whether a health care provider (such as a pediatrician, family physician, nurse practitioner, or nurse) ever provided dental care or dental advice.

- 58 percent reported that a provider explained cavity prevention strategies.
- 23 percent reported that a provider applied fluoride to the child's teeth.
- 38 percent reported that a provider helped to identify strategies to improve the child's teeth.
- 23 percent reported that a provider referred the child to a dentist.

In 2010, 92 percent of children aged 1–14 years were reported to have a regular source of dental care, according to the Colorado Child Health Survey.

Additional data related to strategies and systems that support good oral health describe room for improvement.

- During the 2006-2007 school year, 37.1 percent of third-grade children had dental **sealants**, exceeding the *Healthy People 2020* goal of 28.1 percent of children ages 6 to 9 years old.
- In 2010, only 3 percent of children aged 1 to 5 years in Colorado **visited a dentist by 12 months of age**, as recommended by the American Dental Association.
- 78 percent of children aged 0-18 years in Colorado had **dental insurance coverage**, according to the 2011 Colorado Health Access Survey.
- In 2010, 68 percent of adults aged 18 years and older in Colorado **visited a dentist or dental clinic for any reason within the past year**.
- Only 56 percent of adults aged 18 years and older in Colorado had **dental insurance coverage**, according to the 2011 Colorado Health Access Survey.
- Overall, 70 percent of Colorado's population was receiving water that has been optimally fluoridated for the prevention of tooth decay, according to data from

Colorado's **Water Fluoridation** Reporting System (WFRS), as of December 31, 2010.

### **Dental workforce**

- 55 of Colorado's 64 counties had a licensed dentist.
- 47 of Colorado's 64 counties had an actively enrolled Medicaid dental provider at least one day during the federal fiscal year 2009-2010.
- Colorado's oral health workforce comprises 3,570 active licensed dentists and nearly as many active licensed dental hygienists (3,270). Additionally, 6,062 dental assistants are employed in the state. Between 2010 and 2020, employment is anticipated to grow by 12 percent for dentists and by more than 30 percent for dental hygienists and dental assistants.
- 47 service areas (census tracts or counties) in Colorado are designated as dental Health Professional Shortage Areas, because of the dentist-to-population ratio.

### **Health disparities**

Poor outcomes are associated with socio-economic characteristics, increased age, and/or rurality. Coloradans of Hispanic ethnicity have higher prevalence of some conditions, though it is unknown with the analysis presented in this report if these findings reflect an underlying association with socio-economic characteristics, age, or rurality.

- During the 2006-2007 school year, 72.9 percent of third-grade children in Colorado schools where 75% or more of the students were receiving free and reduced priced lunch had dental caries, as evidenced by cavities and/or fillings; 37.1 percent had untreated decay; only 28.1 percent had sealants, and 10.5 percent had an urgent need for care. In contrast, 46.7 percent of third-grade children in Colorado schools where less than 25% of the students were receiving free and reduced priced lunch had dental caries, as evidenced by cavities and/or fillings; 16.6 percent had untreated decay; 47.2 percent had sealants, and 2.7 percent had an urgent need for care.
- In 2010, 26 percent of children aged 1-14 years whose household income was at or below 250% of the federal poverty level had teeth in fair or poor condition, compared to 13 percent of children living in higher-income households in Colorado.
- Children aged 1-14 years living in Colorado households at or below 250 percent of the federal poverty level had a lower prevalence of having a regular source of dental care (86 percent) compared with children in higher-income households (97 percent) in 2010.
- In 2010, 9 percent of children aged 1-14 years whose household income was at or below 250% of the federal poverty level did not get needed dental care, compared to 4 percent of children living in higher-income households in Colorado.
- 7.5 percent of all adults aged 18-24 years reported in 2010 that they had lost a permanent tooth due to decay or gum disease, compared to 68 percent of Colorado adults aged 65 years and older. Colorado adults whose household income was at or below 250% of the federal poverty level and who lived in rural areas had higher prevalence of any tooth loss, compared to urban residents within the same age group and same income group.

- In 2010, 38 percent of Colorado adults who did not graduate high school reported that they had lost all their natural, permanent teeth, compared to 4 percent of college graduates. 28 percent of Colorado adults earning less than \$15,000 had lost all their natural, permanent teeth, compared to 4 percent of Colorado adults whose household income was \$50,000 or more a year.