

# Dental Health Fact Sheet, 2009

*Santa Clara County Public Health Department*

This fact sheet was prepared to assess the dental health of Santa Clara County residents. Oral health is an important component of overall health.

## What is Tooth Decay?

- Tooth decay (also known as dental caries or dental cavity) is an infectious disease in which bacteria dissolve the enamel surface of a tooth. Untreated, the bacteria may penetrate the underlying tooth structure and progress into the soft pulp tissue.
- Tooth decay can cause excruciating pain, and lead to tooth extraction and loss of dental function.
- Pain from untreated dental disease can lead to eating, sleeping, speaking and learning problems in children which affect social interaction, school performance and health related quality of life.
- The major causative factor for this disease is acids produced by bacterial plaque on the tooth surface. Bacteria break down the sugars in the mouth and convert it into acids.
- According to the Centers for Disease Control and Prevention (CDC), in the United States tooth decay is the most common chronic disease in children – 5 times more common than asthma.

## Key points:

- Tooth decay is a widespread disease among children and adults in Santa Clara County.
- Racial disparities are apparent in adult tooth loss and child tooth decay rates.
- Oral health of individuals with less income and of minority groups is particularly affected.
- Improving the oral health of SCC residents will aid in improving their overall health.
- The CDC has recognized fluoridation of drinking water as one of the ten great public health achievements of the 20<sup>th</sup> century.
- Fluoridation is a safe, effective, and economical way to improve dental health for the entire community.
- Fluoridation is a public health preventative action similar to immunization.
- Fluoridation strengthens tooth enamel in children and prevents root caries in adults.
- According to the American Dental Association, San Jose is the largest city in the US to not have implemented a fluoridation system.

## Tooth Decay Rates among Santa Clara County (SCC) Children

- According to The Health Trust Dental Needs Assessment survey, about 1 in 3 kindergartners and third graders had untreated tooth decay.
- Racial disparities were seen, with about 3 in 5 Asian and Hispanic kindergartners having tooth decay experience, compared to 1 in 5 of their White counterparts (The Health Trust, 2001).
- Disparities by socio-economic status were observed where about 74% of kindergartners eligible for the Free or Reduced-Price Meal Program had tooth decay experience compared to the 37% among those not eligible (The Health Trust, 2001).
- Healthy People 2010 are health objectives developed by the CDC for the first decade of this century. Santa Clara County has not achieved the Healthy People 2010 objectives of reducing the proportion of children with untreated dental decay or tooth decay experience.

**Public Health Department**

Santa Clara Valley Health & Hospital System



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### Tooth Loss among Adults in SCC

- Tooth decay and its sequelae and gum disease are the main causes for tooth loss among adults.
- About 1 in 3 adults have had at least one of their permanent teeth removed because of tooth decay or gum disease (BRFS 2005-2006).
- Racial differences were evident in tooth loss – a greater percentage of individuals from minority groups (Asians, Blacks, and Hispanics) have experienced tooth loss as compared to Whites. (BRFS 2005-2006).

### Public Health Recommendations for Fluoridation

- Fluoride is a naturally occurring mineral. When present in drinking water at optimal levels, fluoride has been shown to prevent tooth decay by strengthening tooth enamel in children so teeth become more resistant to decay. Fluoride has also been shown to reverse newly formed cavities as well as to prevent root caries in adults. The most significant risk for tooth loss in older adults is dental caries, and particularly root caries. Root caries most commonly affect the molar teeth.
- Water fluoridation is the addition of small amounts of fluoride to a water supply. While all drinking water contains some fluoride, water fluoridation adjusts this naturally occurring fluoride level to the optimum level for preventing tooth decay. Fluoride does not change the taste, smell, or appearance of your water.
- The CDC has recognized fluoridation of drinking water as one of the ten great public health achievements of the 20<sup>th</sup> century. A Healthy People 2010 objective is to increase the proportion of the U.S. population served by community water systems with optimally fluoridated water to 75%. Santa Clara County is not fluoridated, although certain areas of the county receive fluoridated water. Within San Jose, only Evergreen and Alviso are fluoridated.
- The American Dental Association has listed San Jose as the largest city in the US to not have implemented a system of fluoridation.
- According to the CDC, the annual cost of fluoridation would be approximately \$0.50 a year per person in communities with a population of 20,000 or greater. In Santa Clara County, the average cost of one filling (\$146) would provide fluoridation for a family of four for 73 years.
- Community water fluoridation is a safe, effective, and economical way to improve dental health for the entire community.

#### References:

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- CDC, Morbidity and Mortality Weekly Report, April 1999.
- Sacramento District Dental Society.
- Santa Clara County Behavioral Risk Factor Survey, 2005-2006, September 2007.
- The Health Trust 2001 Needs Assessment, December 2001.
- US Department of Health and Human Services, Oral Health, September 2007.

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