

Health Trust Evaluation Brief

The Centers for Disease Control and Prevention reports that pain from untreated dental disease can lead to eating, sleeping, speaking and learning problems in children, which in turn can affect school performance and quality of life.

Improving Oral Health in Silicon Valley through Education, Increased Access, and Advocacy for Water Fluoridation

Introduction

Good oral health is a fundamental building block for children's overall health and well-being. The Health Trust has invested more than \$8.6 million over the past 14 years in oral health services, with a focus on educating families about oral health hygiene, creating access to routine dental care and advocating for water fluoridation. The following provides an overview of the importance of good oral health and The Health Trust's efforts to date.

Poor oral health affects physical, mental and emotional well-being

- A lack of good oral health most commonly leads to tooth decay.¹
- Periodontal (gum) disease is an infection caused by bacteria under the gum tissue that begins to destroy the gums and bone. Gum disease may lead to damage elsewhere in the body and is associated with diabetes, heart disease, stroke and pre-term, low-weight births.²
- Tooth decay can be painful and lead to loss of teeth and dental function. Pain from untreated dental disease can lead to eating, sleeping, speaking and learning problems in children, which in turn can affect social interaction, school performance and quality of life.³



Above, a young girl makes a routine visit to her dentist and has her teeth examined.

Low-income children and minority populations are the most likely to suffer from poor oral health.

- Children ages 2 to 11 in families living below the poverty level are two times more likely to suffer from tooth decay than children in families living at 200% of the poverty level.⁴
- 41 percent of Latino children and 37 percent of African American children had untreated tooth decay, versus only 25 percent of white children.⁵

The Health Trust has improved the oral health of Silicon Valley children through oral health education, enrollment in health insurance, direct provision of dental services and advocacy in support of fluoridation.

The Health Trust's Impact on Oral Health

Prevention through Oral Health Education

Recognizing that education is an important means to reinforce good oral health practices, The Health Trust provides oral health outreach and education through volunteer promotoras. Promotoras are community lay-persons trained on introductory concepts around oral health. The volunteer promotoras conduct outreach in neighborhoods and recruit families to host home meetings where the oral health education is delivered to small groups of children and adults. All oral health education home meetings are conducted in Spanish with Latino families. Between 2005 and 2009, more than 5,000 individuals (adults and children) received oral health education. Funding support from FIRST 5 and El Camino Hospital enabled The Health Trust to resume its oral health education activities in early 2011.

Results from an evaluation conducted by The Health Trust in 2009 indicate teaching oral health in a home setting is beneficial and effective.⁶ Among the participants interviewed, 74 percent said that the frequency of their child's brushing increased, and 56 percent said their child's flossing increased. A majority of those surveyed also said that their child's consumption of fruits and vegetables increased while consumption of sweets and candy decreased as a result of the education.

Prevention through Insurance Enrollment

Most children ages 2 to 17 in Santa Clara County (87 percent) have dental insurance, but only 72 percent of children at less

than 100 percent of the federal poverty level (defined in 2011 as a family of four earning less than \$22,350) have insurance.⁷ Nationally, Latinos face the highest rates of uninsurance.⁸

The Health Trust provides access to health care for uninsured children in Santa Clara County by enrolling them in available public programs⁹ that comprehensively cover health, dental and vision care. Since 2001, tens of thousands of Santa Clara County children from low-income families have been provided access to preventive oral health care through The Health Trust's insurance enrollment services. Between July 1, 2010 and June 30, 2011, The Health Trust enrolled or re-enrolled 3,843 children in health insurance that provided them with dental coverage. The majority of Family Health Insurance clients were Spanish speakers (58 percent).

A recent study, conducted by Mathematica and funded by the David and Lucille Packard Foundation, demonstrated that enrollment of children in health insurance contributes significantly to children having a regular source of dental care, receiving preventive dental visits, and receiving dental treatment, while dramatically reducing unmet need for dental care.¹⁰



Every year The Health Trust enrolls thousands of children in health insurance.



The East San Jose Children's Dental Center established an innovative approach to providing pediatric dentistry, and is designed to improve access to high-quality dental care for underserved children. The Center is unusually large in its size, occupying a 6,000-square-foot facility that contains 14 dental chairs. The Children's Dental Center also has a unique physical design and décor that is welcoming to children. The Center employs a full-time bilingual outreach coordinator to ensure access to children from bilingual and multilingual families. The Sunnyvale clinic, while smaller than the East San Jose Center, shares a similar, child-friendly design.

Prevention through Access to Routine Dental Care

According to the California Health Interview Survey, one in seven children in Santa Clara County have never visited the dentist.¹¹

In partnership with Children's Dental Group, The Health Trust opened a Children's Dental Center in East San Jose in June of 2008 to provide direct dental services in underserved communities in Silicon Valley. Since it began operation, the Children's Dental Center has had immense success meeting the oral health needs in the community it serves. During the 2011 fiscal year, 9,255 patients made a total of 18,343 visits to the dental center located in East San Jose.

As a result of the success of the East San Jose Children's Dental Center, The Health

Trust partnered with FIRST 5 Santa Clara County and El Camino Hospital to open an additional dental center in Sunnyvale on June 25, 2011. Like the clinic in East San Jose, the Sunnyvale clinic is managed by the Children's Dental Group and will allow for an additional 15,000 visits each year when functioning at capacity.

Prevention through Fluoridation of Water in Santa Clara County

While The Health Trust has a long-standing history of providing education, insurance enrollment assistance and direct dental services, these do not comprise a complete upstream solution to the problem of tooth decay. According to the Centers for Disease Control, water fluoridation reduces tooth decay 18 to 40 percent in children and adults, and is "one of the ten greatest public health achievements of

During FY2011, 9,255 children made 18,343 visits to the Children's Dental Center in East San Jose. With the addition of the Children's Dental Center in Sunnyvale, more than 15,000 children will soon have access to dental services each year.

Water fluoridation reduces tooth decay 18%-40% in children and adults, and has been declared “one of the ten greatest public health achievements of the 20th Century.” Yet San Jose remains the largest city in the United States without fluoridated water.

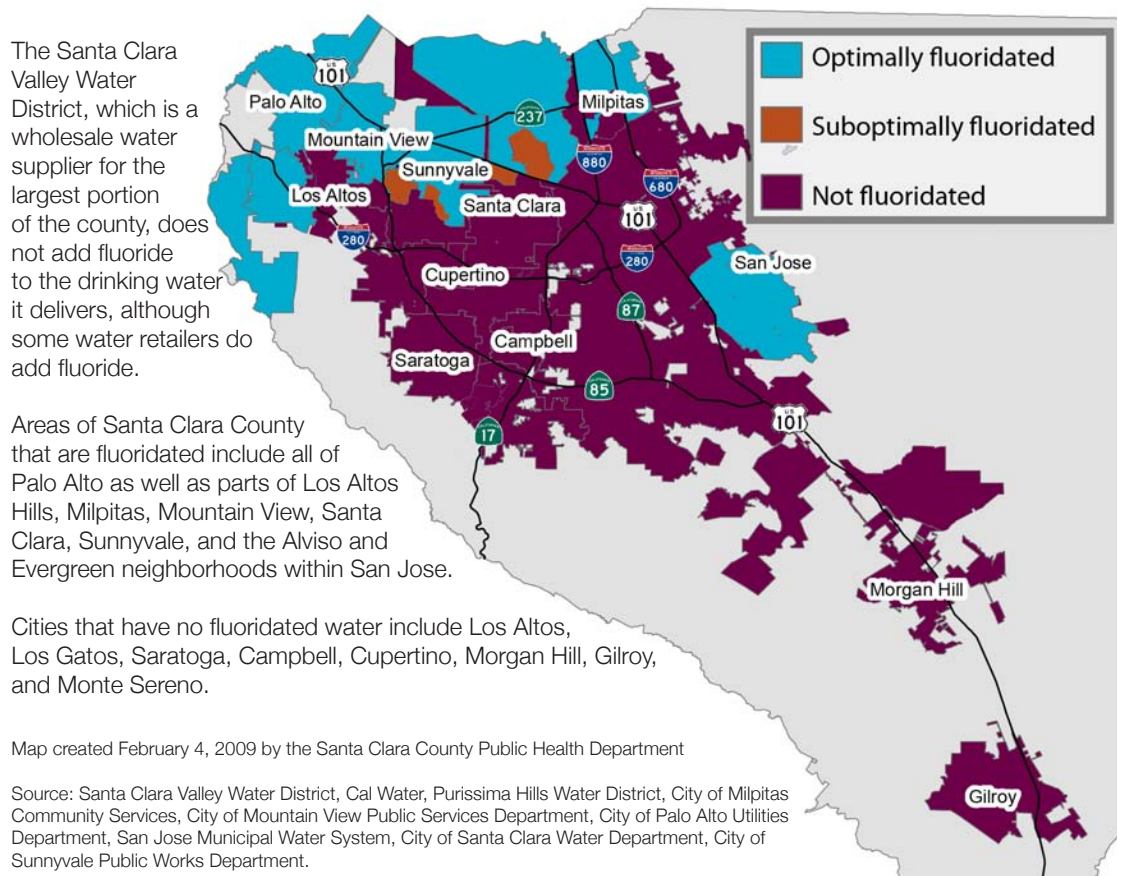
the 20th Century.” Yet San Jose remains the largest city in the United States that does not have a completely fluoridated water system, and only 21 percent of county residents have access to optimally fluoridated water.¹² According to the Santa Clara County Public Health Department, over 445,500 children below 18 years of age could potentially benefit from water fluoridation.

Water fluoridation has proven to be a safe and effective way to prevent tooth decay before it even begins. According to the Centers for Disease Control, the approximate cost of fluoridation is 50 cents a year per person. In Santa Clara County, the average cost of one filling is \$146, which would provide fluoridation for a family of four for approximately 73 years.¹³

The Health Trust supports Santa Clara County Supervisor Liz Kniss’ goal of fluoridating Santa Clara County and is working with the Santa Clara County Public Health Department and community members to develop a solution. Specific efforts toward promoting water fluoridation have included:

- Disseminating information about the benefits of water fluoridation to stakeholders and the public (See <http://www.healthtrust.org/oralhealth>)
- Increasing awareness about the lack of water fluoridation in Santa Clara County and its impact on Health Equity
- Supporting the work of technical experts, including those at the California Dental Association, through grants to research the options for fluoridation in Santa Clara County.

Water Fluoridation in Santa Clara County



- Convening local leaders, community members and health experts in an effort to develop public policy solutions.
- Advocating that the Santa Clara Valley Water District adopt a policy to promote water fluoridation.
- Funding a feasibility study to determine the cost of fluoridating the San Jose Water Company's supply.

oral health practices. In addition, data were collected on participants' perceptions about home-based health education, the quality of the education and the effectiveness of the health educator. The evaluation sample size was 168, which was 29% of the total number of adult participants in the home-based education.

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Conclusion

For the past 14 years The Health Trust has demonstrated a commitment to improving the oral health of all residents of Silicon Valley, especially for children, through education, insurance enrollment assistance, provision of dental services and support for fluoridation. The Health Trust will continue its work in all four avenues, and recognizes that to dramatically reduce tooth decay in Santa Clara County, fluoridated water is essential. The Health Trust will continue to prioritize its advocacy work in this area in an effort to substantially improve the oral health of all Valley residents.

Endnotes

- ¹Santa Clara County Public Health Department (2009). Dental Health Fact Sheet, 2009. Retrieved March 20, 2009, from <http://www.sccphd.org>
- ²Centers for Disease Control and Prevention (2009). Oral Health: Preventing Cavities, Gum Disease, and Tooth Loss. Chronic Disease Prevention and Health Promotion. Accessed March 20, 2009 from <http://www.cdc.gov/nccdphp/publications/aag/doh.htm>
- ³ibid.
- ⁴Dye, Bruce, et. al.. Vital Statistics: Trends in Oral health Status, 1988-1994 and 1999-2004. US Dept of Health and Human Services, Centers for Disease Control. April, 2007(11:248). Table 6.
- ⁵Centers for Disease Control and Prevention (CDC). National Center for Health Statistics (NCHS). National Health and Nutrition Examination Survey Data. Hyattsville, MD: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 1999-2004.
- ⁶The Health Trust evaluation was conducted to assess the influence of the oral health home-based education on dental care utilization, oral health knowledge and

- ⁷UCLA Center for Health Policy Research (2009). California Health Information Survey, 2007. Retrieved on March 18, 2009, from <http://www.chis.ucla.edu>
- ⁸U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. Overview of the Uninsured in the United States: An Analysis of the 2005 Current Population Survey, (2005). Accessed August 3, 2011 from <http://aspe.hhs.gov/health/reports/05/uninsured-cps/ib.pdf>
- ⁹Medical insurance is available through one of five programs: Medi-Cal, Healthy Families, Access for Infants and Mothers, Healthy Kids or Kaiser Child Health Plan. These programs receive funding from different sources (federal, state, county or private funding) but all provide similar health coverage. A Health Trust Family Health Insurance enrollment specialist works with the family to determine which overall program is appropriate based on the child's age, residency status, family size and family income level.
- ¹⁰Hughes, D., Howell, E., Trenholm, C., Hill, I., & Dubay, L. (2008). Three Independent Evaluations of Healthy Kids Programs Find Substantial Gains in Children's Dental Health Care: In Brief. *Mathmatica*, September, 2008(2). Accessed online August 10, 2011 from <http://www.mathematica-mpr.com/publications/PDFs/chidental.pdf>
- ¹¹UCLA Center for Health Policy Research, California Health Interview Survey. Accessed online March 19, 2009 from <http://www.chis.ucla.edu>
- ¹²Santa Clara County Public Health Department (2010). Health Profile Report. Pages 44-50.
- ¹³Centers for Disease Control and Prevention (2007). Community Water Fluoridation: Cost Savings of Community Water Fluoridation. Retrieved April 27, 2009 from http://www.cdc.gov/Fluoridation/fact_sheets/cost.htm

The Health Trust will continue to educate residents about oral health, increase access through insurance enrollment and direct provision of dental services, and advocate for community water fluoridation throughout Santa Clara County.

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