



THE CASE FOR FLUORIDATING WOODLAND AND DAVIS WATER

Dental disease is the most prevalent disease for children in the United States. It is also one of the easiest diseases to prevent. Cavities and decay are greatly reduced in communities where fluoridation is provided in the water. Typically, there are 30-60% fewer cavities in baby teeth and 15%-35% fewer cavities in adolescents and adults in communities with fluoridated water as compared to those without. (*Fluoridation Facts*, American Dental Association, 2005)

The need for oral health prevention efforts in our communities is great, as demonstrated by local studies. In dental screenings of children enrolled in Head Start, young children examined at community dental clinics, dental screenings of children in kindergarten through 6th grade conducted at school sites, and kindergarten oral health assessments data submitted to schools, the rate of untreated dental decay in Yolo County ranges from 25 to over 40 percent. In Woodland, the rate ranges from 22 percent to over 40 percent, and in Davis the rate ranges from 18 percent to over 35 percent. Thus, one-quarter to almost half of Yolo County children are suffering from untreated dental problems, which can result in pain and infection, as well as missed days of school and work. Water fluoridation would save parents time and money in dental visits, lost work and school time, and dental insurance co-payments.

Cavities are also a problem for adults and seniors. Adults are keeping their natural teeth longer. As we age, our gums recede and expose tooth surfaces to bacteria that cause cavities. According to the *Journal of Public Health Dentistry*, the prevalence of cavities for seniors is 300% higher than for children.

Every person in a community can benefit from water fluoridation.

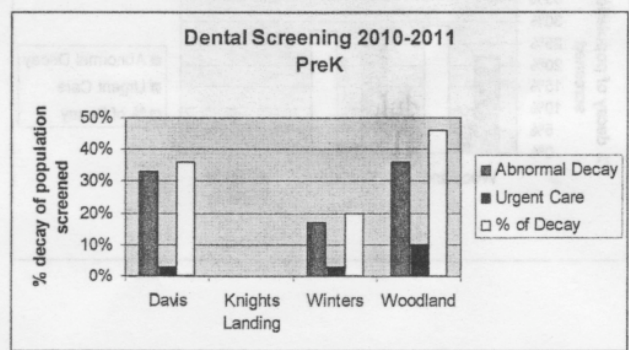
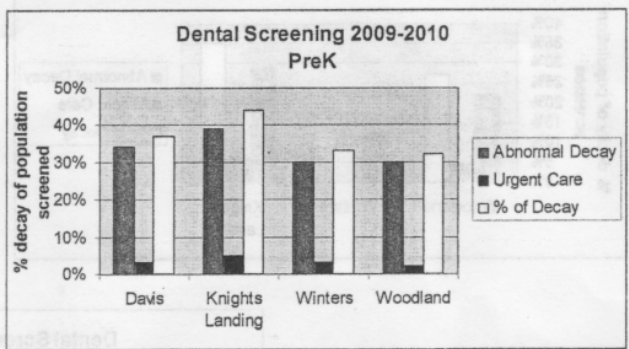
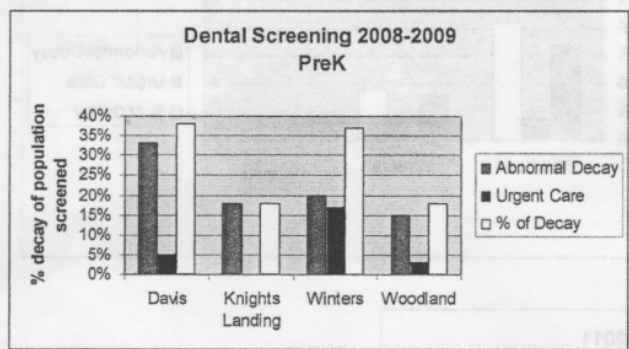
The average cost to the consumer for the protection of fluoridated water is very minimal. In West Sacramento, the cost is less than \$3.50 per household per year. Over a lifetime, that is less than the cost of having one cavity treated. Woodland and Davis families would benefit from this cost effective health measure.

Fluoridation is one of the top ten public health achievements of the 20th Century, according to the Centers for Disease Control. It is one of the most cost effective public health prevention strategies available today. Water fluoridation will benefit our entire community, regardless of age, ethnicity or socioeconomic status.



Yolo County Children Suffer From High Rates of Dental Decay

Head Start Oral Health Screening – CommuniCare Smile Savers Program Screening of low-income preschool children enrolled in Head Start programs



Kindergarten Mandatory Dental Assessments Data

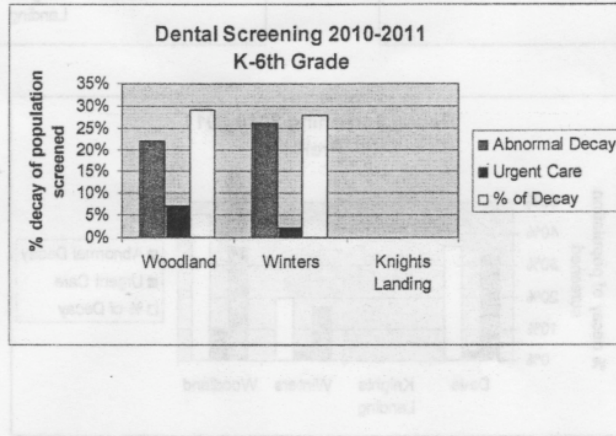
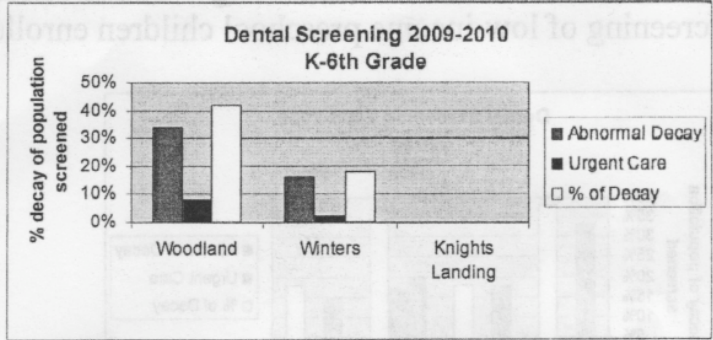
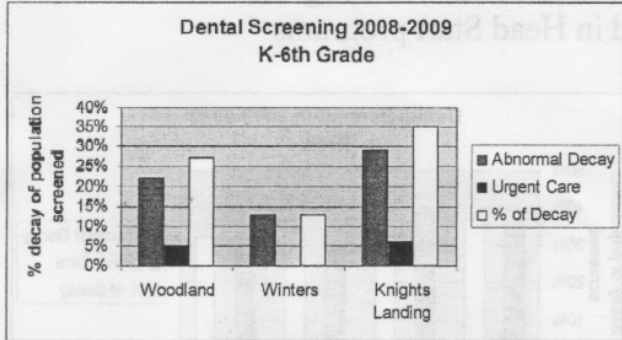
State law requires children to have a dental assessment upon entry to kindergarten.

School District	Untreated dental decay	Number of students in district eligible for dental assessments	Percent of assessments returned to districts
Davis (08-09)	16% (63)	597	67% (400)
Esparto (08-09)	37% (24)	74	88% (65)
Washington (08-09)	30% (83)	612	46% (280)
Winters (09-10)	37% (33)	123	72% (89)
Woodland (09-10)	27% (56)	817	25% (205)
Total	25% (259)	2,223	46% (1,040)

Yolo County Children Suffer From High Rates of Dental Decay

K-6th Oral Health Screening, CommuniCare Smile Savers Program

The Smile Savers program provides dental screenings, fluoride, exams, application of sealants to prevent cavities, dental education, and referrals into dental treatment for children enrolled in Yolo County schools that have 50% or greater enrollment in the Federal School Lunch Program.



School District	Number of students in district eligible for dental assessments	Number of dental decay referrals to dentists	Percent of assessments referred to dentists
Davis (08-09)	297	16%	5%
Barton (08-09)	74	37%	5%
Washington (08-09)	612	30%	5%
Winters (09-10)	123	37%	3%
Woodland (09-10)	817	27%	3%
Total	2,223	25%	1%

Pertinent Statistics:

- **An estimated 51 million school hours are lost per year in the US due to dental related illness.**
- **Dental decay disproportionately effects lower income, Hispanic and African American children in our community.**

- **In this economic climate, more children are at risk for inadequate dental care and fluoridation becomes even more important.**

- **Tooth decay is a significant problem in California.**
 - **By the third grade, tooth decay affects almost two-thirds of the children in California.**
 - **28% - some 750,000 of elementary school children - have untreated tooth decay.**
 - **4% - approximately 138,000 - need urgent dental care because of pain or infection.**
 - **The oral health of California's children is substantially worse than national objectives. Of 25 states surveyed, only Arkansas ranked below California in kids' dental health.**
 - **California is one of five states moving in the wrong direction on the percentage of Medicaid-enrolled children who see a dentist each year: Only about 31 percent received care in 2007, the latest year for which data are available, down from 32 percent in 2000.**
 - **The statewide school-based Dental Disease Prevention Program was indefinitely suspended in 2009 due to the state budget crisis. The program provided fluoride and other prevention services including dental sealants to more than 300,000 elementary school children.**

Center for Disease Control information:

- **According to CDC studies, for communities of more than 20,000 people where it costs about 50 cents per person per year to fluoridate the water, every \$1 (1995) invested in this preventive measure yields approximately \$38 savings in dental treatment costs.**
- **For 66 years, community water fluoridation has been a safe and healthy way to effectively prevent tooth decay. CDC has recognized water fluoridation as one of 10 great public health achievements of the 20th century.**
<<http://www.cdc.gov/mmwr/preview/mmwrhtml/00056796.htm>>
- **Water fluoridation prevents tooth decay mainly by providing teeth with frequent contact with low levels of fluoride throughout each day and throughout life. Even today, with other available sources of fluoride,**

studies show that water fluoridation reduces tooth decay by about 25 percent over a person's lifetime.

- **Community water fluoridation is not only safe and effective**<<http://www.cdc.gov/fluoridation/safety.htm>>, but it is also cost-saving<http://www.cdc.gov/fluoridation/fact_sheets/cost.htm> and the least expensive way to deliver the benefits of fluoride to all residents of a community. For larger communities of more than 20,000 people, it costs about 50 cents per person to fluoridate the water. It is also cost-effective because every \$1 invested in this preventive measure yields approximately \$38 savings in dental treatment costs.
- **Community water fluoridation benefits all people, regardless of age, income, education, or socioeconomic status.** A person's income and ability to get routine dental care are not barriers since all residents of a community can enjoy fluoride's protective benefits just by drinking tap water and consuming foods and beverages prepared with it.
- **Fluoride from other sources prevents tooth decay as well, whether from toothpaste, mouth rinses, professionally applied fluoride treatments, or prescription fluoride supplements.** These methods of delivering fluoride, however, are more costly than water fluoridation and require a conscious decision to use them.
- **Currently, more than 195 million people in the United States are served by public water supplies containing enough fluoride to protect teeth.** Even so, approximately 100 million Americans do not have access to fluoridated water. Healthy People is the plan that sets health goals for the nation. This plan calls for about 80 percent of the population to be served by optimally fluoridated community water systems by 2020. The current population with access to fluoridated water is approximately 72 percent.
- **The widespread availability of fluoride through water fluoridation, toothpaste, and other sources, however, has resulted in the steady decline of dental caries throughout the United States.**

The good news is that approximately 60% of Californian's have access to fluoridated water, an increase from 27% in 2006. The California Dental Association, along with local dental societies is working to increase the percentage of Californians who receive the benefits of community water fluoridation



July 28, 2004

SURGEON GENERAL STATEMENT ON COMMUNITY WATER FLUORIDATION


As noted in *Oral Health in America: A Report of the Surgeon General*, community water fluoridation continues to be the most cost-effective, equitable and safe means to provide protection from tooth decay in a community. Scientific studies have found that people living in communities with fluoridated water have fewer cavities than those living where the water is not fluoridated. For more than 50 years, small amounts of fluoride have been added to drinking water supplies in the United States where naturally-occurring fluoride levels are too low to protect teeth from decay. Over 8,000 communities are currently adjusting the fluoride in their community's water to a level that can protect the oral health of their citizens.

Over 170 million people, or 67 percent of the United States population served by public water supplies, drink water with optimal fluoride levels for preventing decay. Of the 50 largest cities in the country, 43 are fluoridated. Although water fluoridation reaches some residents in every state, unfortunately, only 24 states are providing these benefits to 75% or more of their residents.

A significant advantage of water fluoridation is that all residents of a community can enjoy its protective benefit—at home, work, school or play—simply by drinking fluoridated water or beverages and foods prepared with it. A person's income level or ability to receive routine dental care is not a barrier to receiving fluoridation's health benefits. Water fluoridation is a powerful strategy in our efforts to eliminate differences in health among people and is consistent with my emphasis on the importance of prevention.

The U.S. Centers for Disease Control and Prevention has recognized the fluoridation of drinking water as one of ten great public health achievements of the twentieth century. Water fluoridation has helped improve the quality of life in the United States by reducing pain and suffering related to tooth decay, time lost from school and work, and money spent to restore, remove, or replace decayed teeth. An economic analysis has determined that in most communities, every \$1 invested in fluoridation saves \$38 or more in treatment costs. Fluoridation is the single most effective public health measure to prevent tooth decay and improve oral health over a lifetime, for both children and adults.

While we can be pleased with what has already been accomplished, it is clear that there is much yet to be done. Policymakers, community leaders, private industry, health professionals, the media, and the public should affirm that oral health is essential to general health and well being and *take action* to make ourselves, our families, and our communities healthier. I join previous Surgeons General in acknowledging the continuing public health role for community water fluoridation in enhancing the oral health of all Americans.


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FOR IMMEDIATE RELEASE
Friday, January 7, 2011

Contact: OASH ashmedia@hhs.gov 202-205-0143
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HHS and EPA announce new scientific assessments and actions on fluoride

Agencies working together to maintain benefits of preventing tooth decay while preventing excessive exposure

WASHINGTON – The U.S. Department of Health and Human Services (HHS) and the U.S. Environmental Protection Agency (EPA) today are announcing important steps to ensure that standards and guidelines on fluoride in drinking water continue to provide the maximum protection to the American people to support good dental health, especially in children. HHS is proposing that the recommended level of fluoride in drinking water can be set at the lowest end of the current optimal range to prevent tooth decay, and EPA is initiating review of the maximum amount of fluoride allowed in drinking water.

These actions will maximize the health benefits of water fluoridation, an important tool in the prevention of tooth decay while reducing the possibility of children receiving too much fluoride. The Centers for Disease Control and Prevention named the fluoridation of drinking water one of the ten great public health achievements of the 20th century.

"One of water fluoridation's biggest advantages is that it benefits all residents of a community—at home, work, school, or play," said HHS Assistant Secretary for Health Howard K. Koh, MD, MPH. "Today's announcement is part of our ongoing support of appropriate fluoridation for community water systems, and its effectiveness in preventing tooth decay throughout one's lifetime."

"Today both HHS and EPA are making announcements on fluoride based on the most up to date scientific data," said EPA Assistant Administrator for the Office of Water, Peter Silva. "EPA's new analysis will help us make sure that people benefit from tooth decay prevention while at the same time avoiding the unwanted health effects from too much fluoride."

HHS and EPA reached an understanding of the latest science on fluoride and its effect on tooth decay prevention and the development of dental fluorosis that may occur with excess fluoride consumption during the tooth forming years, age 8 and younger. Dental fluorosis in the United States appears mostly in the very mild or mild form – as barely visible lacy white markings or spots on the enamel. The severe form of dental fluorosis, with staining and pitting of the tooth surface, is rare in the United States.

There are several reasons for the changes seen over time, including that Americans have access to more sources of fluoride than they did when water fluoridation was first introduced in the United States in the 1940s. Water is now one of several sources of fluoride. Other common sources include dental products such as toothpaste and mouth rinses, prescription fluoride supplements, and fluoride applied by dental professionals. Water fluoridation and fluoride toothpaste are largely responsible for the significant decline in tooth decay in the U.S. over the past several decades.

HHS' proposed recommendation of 0.7 milligrams of fluoride per liter of water replaces the current recommended range of 0.7 to 1.2 milligrams. This updated recommendation is based on recent EPA and HHS scientific assessments to balance the benefits of preventing tooth decay while limiting any unwanted health effects. These scientific assessments will also guide EPA in making a determination of whether to lower the maximum amount of fluoride allowed in drinking water, which is set to prevent adverse health effects.

The new EPA assessments of fluoride were undertaken in response to findings of the National Academies of Science (NAS). At EPA's request, in 2006 NAS reviewed new data on fluoride and issued a report recommending that EPA update its health and exposure assessments to take into account bone and dental effects and to consider all sources of fluoride. In addition to EPA's new assessments and the NAS report, HHS also considered current levels of tooth decay and dental fluorosis and fluid consumption across the United States.

UPDATE: The notice of the proposed recommendation published in the Federal Register on January 13 and HHS will accept comments from the public and stakeholders on the proposed recommendation for 30 days at CWFComments@cdc.gov. HHS is expecting to publish final guidance for community water fluoridation by spring 2011. The proposed recommendation is available at <http://frwebgate2.access.gpo.gov/cgi-bin/TEXTgate.cgi?WAISdocID=W0YUwI/0/1/0&WAIAction=retrieve>. Comments regarding the EPA documents, *Fluoride: Dose-Response Analysis For Non-cancer Effects and Fluoride: Exposure and Relative Source Contribution Analysis* should be sent to EPA at FluorideScience@epa.gov. The documents can be found at http://water.epa.gov/action/advisories/drinking/fluoride_index.cfm

For more information about community water fluoridation, as well as information for health care providers and individuals on how to prevent tooth decay and reduce the chance of children developing dental fluorosis, visit <http://www.cdc.gov/fluoridation>. For information about the national drinking water regulations for fluoride, visit: <http://water.epa.gov/drink/contaminants/basicinformation/fluoride.cfm>

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Note: All HHS press releases, fact sheets and other press materials are available at <http://www.hhs.gov/news>.

Last revised: January 31, 2011



FLUORIDATED WATER MYTHS VS. FACTS

This document debunks the myths and false claims that have been made in the attack on community water fluoridation.

In our society, it is important to listen to the many perspectives raised in discussion of public policy, especially when it comes to public health policies. But there is a time when wisdom, knowledge and sound science must stand up and set the record straight. There are community members who, for whatever reasons, are spreading misinformation about water fluoridation. It is important to hear what their concerns are, but their concerns are based on myth and bad science. Here are the myths fluoridation opponents are spreading and the actual facts:

Myth: In communities where fluoride is added to the drinking water there is an increase in cancer rates.

- **Fact:** More than fifty studies have evaluated the possibility of an association between fluoride and cancer and found no relationship between community water fluoridation and cancer. Several independent expert panels of epidemiologists have reviewed the relevant scientific literature and agree that there is NO credible evidence for an association between either naturally occurring fluoride or adjusted fluoride in drinking water and risk of cancer in humans.
- **Fact:** The National Cancer Institute has stated repeatedly that "water fluoridation applied for the purpose of dental caries prevention does not pose a detectable risk of cancer to humans." The National Cancer Institute has reviewed thousands of studies and finds no correlation between water fluoridation and cancer. The National Cancer Institute supports community water fluoridation.

Myth: People are forced to drink a medicine when water is fluoridated.

- **Fact:** Fluoridated water does not medicate its users. Fluoride is a natural trace element, not a medication. Water fluoridation is a proven, safe method for promoting community health. Communities are obligated to take those steps that best promote the health of their residents.
- **Fact:** Numerous court decisions have ruled that fluoridation does not constitute either medication or compulsion. No one is forced to use a public water supply; bottled water produces a source of drinking water. (Lull, 1955)

Myth: Fluoridated water causes an increased incidence of hip fractures.

- **Fact:** Scientists and medical professionals have studied this very issue and found no correlation between increased incidence of hip fracture and fluoride added to a water system.

- **Fact:** A recently published British study (Lancet, January 2000) indicates that “drinking fluoridated water does not increase the rate of hip fractures.” Fluoridation of water “is not likely to have any important effect on the risk of hip fracture... The chance of fracturing a hip was the same for those who drank water containing fluoride in concentrations of about ppm as for those whose water contained less fluoride.”
- **Fact:** According to a 1992 comprehensive review of six related studies published in Osteoporosis International, “There is no basis for altering current public health policy” and there is no “adequate basis for making firm conclusions relating fluoride levels in drinking water to hip fracture and bone health... Lifelong exposure to fluoridated water does not increase the risk of hip fracture.” Dr. Clifford Rosen, Maine Center for Osteoporosis Research and Education.

Myth: Fluoride is not natural and shouldn't be introduced to the water system.

- **Fact:** Like minerals such as zinc and iron, fluoride is a naturally occurring element classified by the National Research Council as an important trace element in human nutrition.
- **Fact:** Fluoride is a nutrient that occurs naturally. Fluoride is found in nearly all natural water supplies, as well as soils, plants and animals. It is also found naturally in human blood, bones and teeth. The naturally occurring concentration in water varies widely. In the U.S., natural fluoride levels range from a high of about 8 ppm in areas of the Southwest to as little as 0.05 ppm in the Northeast. Some areas in the U.S. have enough fluoride in their water naturally to do the job of preventing tooth decay - Woodland and Davis do not. In Woodland the level of fluoride is 0.12 ppm (2009) and Davis is 0.20 ppm (2009).
- **Fact:** Fluoride is nature’s cavity fighter. Fluoridation is simply an adjustment of the natural fluoride content to about 1 ppm – a level of intake that strengthens tooth enamel and sharply reduces dental decay.

When you hear anti-fluoridation claims , remember that water fluoridation has a long and successful history in communities as close by as Roseville and Vallejo. Millions of people have been consuming water containing natural or adjusted fluoride throughout their lives with no adverse health effects. Don't be fooled by scare tactics.

Myth: “Water fluoridation results in overdoses, because toothpaste and other foods contain sufficient fluoride.”

- **Fact:** No danger exists from drinking optimally fluoridated water. (U.S. Public Health Service, 1991)
- **Fact:** Studies have shown that lifetime consumption of dietary fluoride at levels considerably higher than recommended for water fluoridation posed no hazard to human health. (Leone, 1955)
- **Fact:** A National Academy of Sciences study found that a daily intake of 5 to 10 gallons or more for 10 to 20 years is required to produce symptoms of chronic toxicity.

Myth: Fluoridated water is useless in promoting dental health.

- **Fact:** Fluoridation of community water supplies is the single most effective public health measure to prevent tooth decay and to improve oral health for a lifetime. Fluoridated water communities have up to 50% fewer cavities, according to the American Dental Association. Community water fluoridation is a public health measure that benefits individuals of all ages and socioeconomic groups, especially those without access to regular dental care.
- **Fact:** In the U.S. alone, 113 studies were analyzed for caries prevention effectiveness. All found fluoridation to be between 15 and 70 percent effective, depending upon age group and type of teeth. (Murray, 1993)
- **Fact:** One community (Antigo, Wisconsin) discontinued water fluoridation in 1960. Five and one-half years later, second graders had more than 200 percent more decay, fourth graders had 70 percent more, and sixth graders had 91 percent more decay than those of the same age in 1960 (Lemke, et al., 1970).

Myth: Fluoride is a toxic waste.

- **Fact:** Toxicity is dose dependent and at a concentration of 1 ppm used in drinking water fluoride is not toxic. Fluoride from the phosphate fertilizer industry is a naturally occurring constituent of the phosphate rock and is recovered during the production of the phosphate fertilizer. The reuse of fluorosilicates is an example of sensible and economical recycling. (Sanders, 1996)

Myth: European countries are abandoning water fluoridation.

- **Fact:** No country in Europe has abandoned community water fluoridation.

Myth: Regulation of fluoride is difficult and prone to breakdown.

- **Fact:** Fluoride is no harder to regulate than chlorine, which has been added to Woodland and Davis water supplies for years.

Myth: Fluoride only benefits children.

- **Fact:** Fluoride taken as a child lasts a lifetime. Fluoride becomes a permanent part of the tooth's outer layer, enamel, which helps protect against dental decay for the life of the tooth!

Myth: Families should make their own decisions about regulating fluoride use by requesting a prescription for fluoride pills from their physician or dentist.

- **Fact:** The poor and underserved people of the community, many of whom neither have dental insurance nor can afford dental care, are frequently those with the greatest need for dental care. Fluoridating the water supply helps ensure that everyone in the community has the same chance for strong, healthy teeth, regardless of their economic status or availability of health insurance and dental coverage.

Opponents of water fluoridation distort science and logic to prejudice people against this safe, effective health measure.



We Support Fluoridating Woodland and Davis Water

Local Fluoridation Supporters

Updated 4-29-11

Agencies/Organizations

CommuniCare Health Centers
First 5 Yolo
Yolo County Children's Alliance
Yolo County Health Council
Yolo County Health Department
Yolo County Maternal Child Adolescent
Health Advisory Board
Woodland Healthcare CHW

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