

Fluoridation Advisory Committee Recommendations to the Department of Health Services

BACKGROUND

Dental Disease in Sonoma County

Poor dental health is a serious problem in Sonoma County. More than half (51%) of Sonoma County children have tooth decay and 18% experience untreated decay. Preserving dental health requires a multifaceted approach. The Department of Health Services (DHS) has identified and is currently working on 5 key strategies, or Pillars, to improve dental health in Sonoma County. The 5 Pillars of Dental Health focus both on methods to improve individual health as well as methods to improve health on a community level. The 5 Pillars of Dental Health are:

1. Community Education
2. Fluoride Varnish
3. Community Water Fluoridation
4. Sealants
5. Access to Dental Care

The widest-reaching and most cost-effective of the Pillars is community water fluoridation (CWF). CWF is a nationally recognized method through which community and individual health can be improved. CWF has been reported to reduce cavities in individuals of all ages, with an average of a 25% reduction in tooth decay. The Centers for Disease Control and Prevention recognize CWF as one of the top ten public health achievements of the 20th Century. In Sonoma County, CWF has been recommended to the Board of Supervisors as a primary means of preventing tooth decay and improving dental health by the 2011-2014 Community Health Needs Assessment, the Sonoma County Smile Survey, and the Oral Health Task Force.

Fluoridation Advisory Committee

Purpose

DHS, at the direction of the Board of Supervisors, convened a Fluoridation Advisory Committee (FAC) in 2013 to provide guidance to DHS. The FAC was tasked with gathering and reviewing relevant data on public health, the environment, engineering, engineering costs, and planning related to CWF in Sonoma County. The FAC received community input in this process. The ultimate goal of the FAC was to use this process to develop recommendations regarding the feasibility of CWF for consideration by DHS.

Membership

The FAC has a diverse membership of key stakeholders, including dentists, physicians, and individuals from the Sonoma County Water Agency, Department of Health Services, community health centers, nonprofits, hospitals, and environmental groups. Please see appendix for a complete list of members and their affiliations.

Public Process

The FAC has convened nine times since May 2013. In accordance with the Brown Act, all meetings have been open to the public and afforded time for public comment. The FAC received and reviewed journal articles, documents, and comments submitted by both FAC members and the public. FAC agendas, meeting summaries, and meeting packet contents are posted to the FAC website <http://www.sonoma-county.org/health/meetings/fac.asp>.

Approximately 15 to 25 people from the general public attended multiple FAC meetings. The public who attended the meetings and commented were almost unanimously against water fluoridation.

Meetings and Presentations

Meeting Date	Presentation Topics	Presenter
5/14/13	<ul style="list-style-type: none">• Dental Health in Sonoma County	DHS
6/24/13	<ul style="list-style-type: none">• Draft Preliminary Engineering Report• Environmental Issues• Dental Health Care in Sonoma County: Preliminary Costs and Investments• Fluoridation in California	MWH, DHS, California Dental Association Foundation
10/21/14	<ul style="list-style-type: none">• Assessment of Potential Impacts to Federally Listed Salmonids from Community Water Fluoridation in Sonoma County	Cardno Entrix
11/14/14	<ul style="list-style-type: none">• Sonoma County 2014 Smile Survey: An Oral Health Assessment of Sonoma County Kindergarten and Third Grade Children• The Cost of Dental Disease and Prevention Strategies in Sonoma County	DHS
12/8/14	<ul style="list-style-type: none">• Fluoridation Facilities Engineering Preliminary Design	MWH
1/27/15	<ul style="list-style-type: none">• Summary of Reports	DHS

RECOMMENDATION

Upon reviewing of all the information presented, Fluoridation Advisory Committee submits the following recommendation to the Department of Health Services regarding community water fluoridation in Sonoma County:

The Fluoridation Advisory Committee agrees on the critical importance of adequate dental health for everyone.

Community water fluoridation is one of the strategies along with increased access to dental care, sealants, community education, and fluoride varnish to prevent dental disease as described by the Sonoma County Department of Health Services.

After review of the technical, environmental, and health information and presentations, the Fluoridation Advisory Committee concludes that community water fluoridation is feasible. While the optimal concentration is 0.7 ppm, the actual concentration may be lower based on geographic location and time. Furthermore, the preliminary engineering design reports supporting the Fluoridation Advisory Committee investigation estimated the Sonoma County Water Agency cost for community water fluoridation to be \$4.5 million in capital cost and \$581,000 in annual operations and maintenance for Phase 1 and 2.

The FAC puts forth the following recommendation recognizing that two members of the committee are not in support of community water fluoridation and recommend that the Department of Health not pursue community water fluoridation as a preventive option.

The FAC recommends to the Department of Health Services to determine the funding for community water fluoridation within the parameters of the estimated capital and ongoing costs and without impact on the tax payers and water rate payers in accordance with existing laws; and

That once funding is identified, that it includes the cost of on-going monitoring of potential impact of fluoridation in the water downstream on federally listed salmonids; and

Finally, that with sufficient funding the Department of Health Services should proceed to the engineering and design phase, including issuance of bid packages.

The FAC encourages the Department of Health Services to proceed with dispatch so as to address this important concern of the community, yet not at the sacrifice of the other four strategies for dental health.

FLUORIDATION ADVISORY COMMITTEE PRESENTATION SUMMARIES

The following are titles and descriptions of the presentations provided to the FAC. PowerPoint slides of the presentations are available on the FAC website:

http://www.sonoma-county.org/health/meetings/fac_archive.asp

Dental Health in Sonoma County

Presenter: Dr. Lynn Silver Chalfin

Organization: Department of Health Services

Poor dental health is a leading cause of a preventable illness in Sonoma County children. Every day 10-12 children undergo general anesthesia to treat severe dental disease. Others develop pain, abscesses, miss school, or suffer lost teeth. One out of three low-income elderly adults has no teeth. Dental health requires a multifaceted approach. The Five Pillars of Dental Health in Sonoma County are: 1) Access to Dental Care 2) Dental Sealants 3) Fluoride Varnishes 4) Community Education and 5) Community Water Fluoridation. Fluoride is natural, effective, and safe. Every \$1 spent on community water fluoridation returns \$38 in savings on dental expenses.

Fluoridation in California

Presenter: Dr. Lynn Silver Chalfin

Organization: Department of Health Services

AB 733 1995: Water systems with 10,000 connections or more must fluoridate if funds are provide from a source other than the rate payers or taxpayers. The percent of California residents receiving fluoridated water increased from 16% in 1990 to 62% in 2010. Regions receiving fluoridated water include San Diego, Los Angeles, Sacramento, San Francisco, Alameda, Santa Clara, Solano and San Mateo. A regional approach to community water fluoridation is cost effective. It often saves retailers costs and avoids costly engineering solutions. Fluoridation is a multi-year effort.

Dental Health Care in Sonoma County: Preliminary Costs and Investments

Presenter: Kim Caldewey

Organization: Department of Health Services

The total charge for dental hospitalizations has been increasing since 2005, with a spike after 2009 when state Medi-Cal eliminated dental benefits for adults. In 2012, over \$1.2 million were charged for Sonoma County hospital treatment of severe dental disease. The average amount paid by Denti-Cal and federal funds for ER visits was only \$133, while the average cost at one Sonoma County hospital was \$1,236. According to two hospital emergency departments, the top five dental related visits were related to dental decay, abscess, gum disease, and other dental disorders such as dental pain, swollen jaw, or fractured or chipped tooth. At the Pediatric Dental Initiative surgery center, the average cost per patient is \$1,471. In 2012, at least \$1,217,988 can be attributed to Sonoma County patients alone. More than \$11.8 million has been invested in expanding education and access for low-income populations in Sonoma County, including new dental clinics at Sonoma Valley Health Center and Santa Rosa Community Health Center and dental days at WIC.

Environmental Issues

Presenter: Dr. Lynn Silver Chalfin

Organization: Department of Health Services

This presentation was not a full report on environmental issues. It responded to the following concerns: 1) Where does the water go? 2) How will fluoride affect aquatic life? 3) How will fluoride affect salmon populations? and 4) Can recycled water be used? Most literature demonstrates negative effects for fluoride on aquatic life only at significantly higher levels than used for water fluoridation (approximately 60-500 times higher). The working group recommends identifying an external environmental consultant to develop a technical report based on a comprehensive literature review and interpretation of the impacts of fluoridation on water quality and ESA listed species and mathematical modeling approach to predict fluoride concentration in effluent.

Assessment of Potential Impacts to Federally Listed Salmonids from Community Water Fluoridation in Sonoma County

Presenter: Steve Huntley

Organization: Cardno Entrix

DHS contracted with Cardno Entrix to assess the impact of fluoridation on federally listed salmonids. Cardno Entrix conducted an assessment and presented the findings to the FAC. The assessment concluded that community water fluoridation for Sonoma County Water Agency (SCWA) at the recommended concentration of 0.7mg/L poses no threat to the listed salmonids in the local waterways.

Sonoma County 2014 Smile Survey: An Oral Health Assessment of Sonoma County Kindergarten and Third Grade Children

Presenter: Kim Caldewey

Organization: Department of Health Services

Dental disease among Sonoma County kindergarten and third grade students is prevalent. Among a random sample of 1,582 kindergarten and third grade students screened, 51% had decay experience. The proportion of Hispanic/Latino children with decay experience was significantly higher than white children (64% vs. 34%). Additionally, children in schools at low-income schools were significantly more likely to have decay experience than children in high income schools. Approximately 18% of students had untreated decay and more than 4% of students were in need of urgent dental care.

The Cost of Dental Disease and Prevention Strategies in Sonoma County

Presenter: Kim Caldewey

Organization: Department of Health Services

The annual direct cost of dental disease in Sonoma County is \$127 million. Access to dental care for 90,000 people on Medi-Cal costs \$20 million/year. Fluoride varnish for 94,000 children is \$7.5 million/year. Sealants for 71,000 children is \$2.4 million/year. Community water fluoridation for 330,000 people is \$0.6million/year. The annual cost of community education is not provided because an ideal amount of education is not established.

Fluoridation Facilities Engineering Preliminary Design

Presenter: Phil Salzman

Organization: MWH America

DHS contracted with MWH to provide a preliminary engineering design for how water fluoridation could occur at SCWA. MWH created a design report, presented the design, and solicited comments and questions from the FAC. The final version will be brought to the Board of Supervisors with the FAC recommendations. The preliminary estimate is \$4.5million in capital costs for the initial build and \$581,000 annually for operations and maintenance. These numbers would be refined in the final engineering design. The areas that would receive fluoridated water from SCWA are: Santa Rosa, Windsor, Sonoma, Petaluma, Forestville, Cotati, Rohnert Park, Valley of the Moon, and North Marin Water District.

Fluoridation Advisory Committee Members as of January 6, 2015

Name	Agency
WAC/TAC Representative	
Chris DeGabriele	Representing the Technical Advisory Committee and the Water Advisory Committee of the Sonoma County Water Agency North Marin Water District <i>General Manager</i>
Sonoma County Water Agency Representative	
Pam Jeane Alternate: Todd Schram	Sonoma County Water Agency <i>Deputy Chief Engineer of Operations</i>
Community Based Organizations Representatives	
Tim Reese	CAP Community Action Partnership Sonoma <i>Executive Director</i>
Community Health Centers Representatives/ Sonoma County Medical Association	
Mary Maddux-Gonzalez, MD, MPH	Redwood Community Health Center / SCMA Board <i>Chief Medical Officer</i>
Joel Berryhill, DDS	Sonoma County Indian Health Dental Program <i>Dental Director</i>
Alicia Montell, DDS	Santa Rosa Community Dental Center <i>Dental Director</i>
Pediatricians	
Jeff Miller, MD	Kaiser Pediatrics, <i>Retired</i> <i>Maternal and Child Health Advisory Council Member</i>
Dental Representatives	
Martin Van Tassell	Redwood Empire Dental Society <i>President</i>
Ernest Newbrun, DMD, PhD, BDS	UCSF School of Dentistry <i>Professor Emeritus</i>
Susan Cooper, DDS	Community Action Partnership <i>Director, Health Programs</i>
Education Representatives	
Deborah Chigazola, RDH	Santa Rosa Junior College <i>Dean of Health Sciences</i>

Name	Agency
Elder Care Providers	
Crista Chelemedos, Ombudsman	Senior Advocacy Services <i>Executive Director</i>
Environmental Representatives	
Suzanne Doyle	Sierra Club <i>Executive Committee</i>
Stephen Fuller-Rowell	Sonoma County Water Coalition
Hospitals Representatives	
Terri Dente	St. Joseph Health <i>Director of Mission Integration</i>
Lynn Mortensen, MD Alternate: Jeannie Dulberg	Kaiser <i>Family Medicine Services</i>
Penny Cleary	Sutter Health <i>Director of Development</i>
Philanthropic Organizations	
Lisa Wittke Schaffner	John Jordan Foundation <i>President</i>
Community Representative	
Martha Nunez	California Human Development <i>Director, Healdsburg Day Labor Center</i>
Sonoma County Department of Health Services	
Karen Milman, MD, MPH	Health Officer <i>Sonoma County Department of Health Services</i>
Marin County	
Linda Abrahams	Marin Dental Society <i>Executive Director</i>
Department of Health Services Staff to Committee	
Kristin Fladseth, MPH	Senior HIS
Kim Caldewey, PA, MPH	Health Program Manager