Are You Ready to Advocate for Community Water Fluoridation?

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DPH 175 – May 30, 2017
Overview

OBJECTIVES:

Advocacy – What is it?

1. Explain the scientific rationale behind the recommendation to fluoridate at 0.7 mg/L

2. Provide scientific responses to fluoridation challenges

3. Identify successful campaign strategies and advocacy efforts to initiate and retain fluoridation programs
Overview

- What is tooth decay (dental caries)
- What is enamel fluorosis?
- Why fluoridae the water?
- Safety of fluoridation
- Cost-effectiveness of fluoridation
- WHO supports fluoridation?
- Why change to 0.7 parts per million?
- Comparing pro- and anti- fluoridation
- Summary
Advocacy
– What is it in dental public health?

• persuasive speaking
• writing
• actions ???
• in support of a particular cause, policy, or strategy
• to reduce inequities in health status and in access to health services
• awareness of the perspectives of policy-makers
• recognition of the issues, programs, values, and political goals that are priorities for these individuals
New competencies for the 21st century dental public health specialist

Donald Altman, DDS, DHSc, EdD, MPH, MBA, MA¹; Ana Karina Mascarenhas, BDS, MPH, DrPH²

**Competency 7**

Advocate for public health policy, legislation, and regulations to protect and promote the public’s oral health, and overall health

**Intent statement**

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5th

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Burden of oral diseases - Tooth Decay

Explain Tooth Decay (Dental Caries) (Cavities)

- Rotting of teeth caused by sugar eating mouth bacteria
- Varies in severity; worse with time
- Can cause pain/toothache; abscess and systemic infection may follow
- Tooth decay is a serious disease; can be fatal
- Can occur at any age for infants, children and adults
- Tooth decay treatment is necessary and can require hospitalization
- Can impair classroom learning and behavior
- Often requires school or work absence for treatment

- The PEW Center on the States. Dental Problems Affect School Performance 2012
Explain with pictures: Tooth Decay – Dental Caries:
What happens when the rot sets in? What are the costs?

• Primary and Permanent Teeth Surfaces
• Coronal (crowns):
• Pit & Fissure (biting surfaces of back teeth)
• Approximal (between teeth)
• Root surfaces (after gum recession)
• Pain (OW!!!)
• Infection (local and systemic)
• Abscess (swelling)
• Restorations ($)
• Root Canal ($$)
• Extraction ($)
• General Anesthesia ($$$)
• Replacement ($$$$$)
Explain about Enamel fluorosis

- Change in color of parts of teeth due to excess fluoride during tooth development
- Many other causes of changes in color
- Varies in severity (barely noticeable to white to brown; little or a lot)
- Most people don't have it
- Does not get worse with time
- Do not cause pain/toothaches or abscesses or infection
- Enamel fluorosis is a not a serious condition; cannot be fatal
- Enamel fluorosis treatment is usually not needed and does not require hospitalization
- Only children aged 8 years and younger can develop dental fluorosis when permanent teeth are developing under the gums
- The teeth of children older than 8 years, adolescents, and adults cannot develop dental fluorosis

Show with pictures:
Optimum Goal – Minimal decay; minimal fluorosis

80% of 6-39 year-olds have no signs of enamel fluorosis in front teeth – NHANES 1999-2002*

No severe enamel fluorosis in fluoridated communities

Urgent Dental Needs: Fluoridated: 4%
Non-fluoridated: 25%

* https://www.cdc.gov/mmwr/preview/mmwrhtml/ss5403a1.htm
Why fluoridate the water?

- To reduce the burden of tooth decay in the community
- To simulate the optimum and best natural environment
- Pre-1945 evidence of naturally occurring fluoride in water
- Over 7000 children examined
- 12-14-year-olds
- Midwest US – 21 cities
- Comparing
  - tooth decay severity
  - enamel fluorosis and
  - fluoride concentration of the water
Fluoride in water: Caries and Fluorosis: Pre-1945 data

The scientific basis for fluoridation

- Over 7000 children
- 12-14-year-olds
- Midwest US
- 21 cities

Dean, H.T. in *Dental caries and Fluorine*, Washington, American Association Advancement Science, pp. 5-31, 1946
Fluoride in water: Caries and Fluorosis: Pre-1945 data
The scientific basis for fluoridation

- Suboptimal fluoride levels – benefits
- 0.5 – 0.9 ppm reduced DMFT compared to <0.5 ppm
- Greater benefit 1.0 – 1.4 ppm
- But increasing enamel fluorosis

Dean, H.T. in *Dental caries and Fluorine*, Washington, American Association Advancement Science, pp. 5-31, 1946
Repeat the message: Why fluoridate the water?

It started in 1945

- Four community trials of fluoridation
- Compared fluoridated vs non-fluoridated
- From 1945 to 1960 (12-14 year-olds)
- Showed 49% – 70% reduction in tooth decay
### Early Community Fluoridation Trials: 1945-1960
Comparison of caries severity in fluoridated and low-fluoride cities

<table>
<thead>
<tr>
<th>City</th>
<th>F status</th>
<th>Year</th>
<th>Age</th>
<th>Mean DMFT</th>
<th>% Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grand Rapids, MI</td>
<td>No F</td>
<td>1945</td>
<td>12-14yrs</td>
<td>9.5</td>
<td>55.5%</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>1959</td>
<td></td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>Evanston, IL</td>
<td>No F</td>
<td>1946</td>
<td>12-14yrs</td>
<td>9.0</td>
<td>48.8%</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>1959</td>
<td></td>
<td>4.7</td>
<td></td>
</tr>
<tr>
<td>Sarnia, ON</td>
<td>No F</td>
<td>1959</td>
<td>12-14yrs</td>
<td>7.5</td>
<td>56.7%</td>
</tr>
<tr>
<td>Brantford, ON</td>
<td>F</td>
<td>1959</td>
<td></td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td>Kingston, NY</td>
<td>No F</td>
<td>1960</td>
<td>13-14yrs</td>
<td>12.4</td>
<td>70.1%</td>
</tr>
<tr>
<td>Newburgh, NY</td>
<td>F</td>
<td>1960</td>
<td></td>
<td>3.7</td>
<td></td>
</tr>
</tbody>
</table>
Show more recent data: Why fluoridate the water?

Subsequent studies in an era of fluoridated toothpaste use

- Tooth decay in fluoridated vs non-fluoridated areas
- 1987–88 (USA)
  - Comparing prevalence of decay in regions of USA
  - 75% fluoridated – no difference – diffusion effect
  - 20% fluoridated – 60% difference
  - Increasing benefit by age – 1.5 teeth for 17-year-olds
- 1993–94 (California)
  - Reduced disparities in decay between poor and non-poor
  - Significant benefit for children from poor families
What about safety?

THERE IS SOMETHING IN THE WATER

Is Water Fluoridation Safe?
Safety of Water Fluoridation
U.S. and International Scientific Reviews

ALL these reviews have found water fluoridation to be safe

- US Public Health Service. 2015
- Water Research Foundation. 2015
- Ireland Health Research Board. 2015
- California Office of Environmental Health Hazard Assessment 2011
- Health Canada. 2010
- National health and medical research council, Australia. 2007
- World Health Organization 2006
- Agency for Toxic Substances and Disease Registry, U.S. PHS 2003
- International Programme on Chemical Safety, W.H.O. 2002
- Forum on Fluoridation. Ireland 2002
- Medical Research Council, U.K. 2002
- University of York, U.K. 2000
Get specific: Recent fluoridation reviews

• **England** – 2014 monitoring report
  • 5-year olds in fluoridated areas are 28% less likely to have had tooth decay than those in non-fluoridated areas.
  • When deprivation and ethnicity (important factors for dental health) are taken into account
  • 45% fewer hospital admissions of 1–4 year-old children for dental caries in fluoridated areas. (mostly for extraction of decayed teeth under a general anesthetic)
  • There was NO evidence of a difference in the rate of hip fractures, Down’s syndrome, osteosarcoma or all cancers, between fluoridated and non-fluoridated areas.
Even more specific: Thyroid and fluoride 

*absence of an association*

- The available medical and scientific evidence suggests an *absence of an association* between water fluoridation and thyroid disorders.

- Many major reviews of the relevant scientific literature around the world support this conclusion.
  - Systematic review in 2000 by the NHS Centre for Reviews and Dissemination at the University of York, England
  - 2002 review by an international group of experts for the International Programme on Chemical Safety (IPCS)

- [http://www.bfsweb.org/facts/sof_effects/statementofflo.htm](http://www.bfsweb.org/facts/sof_effects/statementofflo.htm)
Repeat: No endocrine effects of fluoridation including thyroid effects

“None reached the level considered to be signs of adverse effects at the 4mg/L level”

Fluoride in Drinking Water: A Scientific Review of EPA's Standards, National Research Council
March 22, 2006, News Conference
Chairman John Doull, M.D., Ph.D., Professor Emeritus of Pharmacology and Toxicology, University of Kansas Medical Center, Kansas City

http://www.nationalacademies.org/podcast/20060322.mp3
Principles matter: Basic principle of toxicology

*It's the dose that distinguishes a remedy from a poison*

- When studying the relationship between any substance and a disease or condition, it is most important to consider the dose – the amount that an individual is exposed to over a certain amount of time.
- Drinking water itself can be toxic if too much is consumed over a short period of time; it has been fatal.
- Yet we don’t consider water to be a poison or to be toxic.
- The same is true of fluoride.
- A certain amount consumed over a period of time could be toxic (too much) or it could be beneficial (an optimum amount).
It’s not the substance – it’s the dose. The dose differentiates a poison from a remedy

- Theophrastus Philippus Aureolus Bombastus von Hohenheim
- 1493 – 1541
- Born in Switzerland; Died in Austria
- appointed town physician in Basel in 1527
- famous quote
- “Everything is a poison... the dose differentiates a poison from a remedy.”
Recent Concerns: 2012 article on neurotoxicity and fluoride absence of an association with fluoridation

- I appreciate the concern seeing the source of the recent article (Lancet Neurology) and ‘new’ listing of fluoride as a neurotoxin.
- The authors are Philippe Grandjean of the Harvard School of Public Health and Philip Landrigan from New York’s Icahn School of Medicine.
- However, the single reference on fluoride used in the Lancet article is from Grandjean’s review of a collection of studies from China, Mongolia and Iran where there were very high levels of fluoride in the drinking water and other potential risk factors were not considered, including the concentration of arsenic. Published in Environmental Health Perspectives in 2012.
- There have also been several criticisms of the methods employed with the studies used in that review.
- The lead author of the 2012 review has stated that the findings do not apply to the conditions we have in the US.
Follow-up to 2012 article on neurotoxicity and fluoride absence of an association with fluoridation

- As reported in The Atlantic by James Hamblin March 18, 2014
- “Fluoride is very much a two-edged sword,” Landrigan said. “There’s no question that, at low doses, it’s beneficial.”
- “Are the exposure levels in China comparable to what we have in our drinking water and toothpaste?”, he was asked.
- “No, they’re probably higher,” Landrigan said. “In some places in China, there are naturally high levels of fluoride in the groundwater.”
Safety of Water Fluoridation

Fluoridation is safe for the environment

- Environmental concerns have been investigated in literature reviews
- Tacoma Pierce County Health Department, Washington State (2002)
- No negative impact of water fluoridation on the environment has been established
  - Pollick HF. Water fluoridation and the environment: current perspective in the United States.
Safety of Water Fluoridation

**CDC Statement on the 2006 National Research Council (NRC) Report on Fluoride in Drinking Water**

- The findings of the NRC report are consistent with CDC’s assessment that water is safe and healthy at the levels used for water fluoridation (0.7 - 1.2 mg/L). CDC reviews the latest scientific literature on an ongoing basis and maintains an active national community water fluoridation quality assurance program. CDC promotes research on the topic of fluoride and its effect on the public’s health. CDC’s recommendation remains the same; that community water fluoridation is safe and effective for preventing tooth decay.

- **Water fluoridation should be continued in communities currently fluoridating and extended to those without fluoridation.**
Overview

- What is tooth decay (dental caries)
- What is enamel fluorosis?
- Why fluoridate the water?
- Safety of fluoridation
- Cost-effectiveness of fluoridation
Economic Benefits to the Community

- **Cost-Savings of Community Water Fluoridation**

- Every $1 invested in this preventive measure yields approximately $38 savings in dental treatment costs.

  - [http://www.cdc.gov/fluoridation/factsheets/cost.htm](http://www.cdc.gov/fluoridation/factsheets/cost.htm)
Economic Benefits to the Community

• Fluoridation lowers the need for general anesthesia for dental treatment

• Studies in the US, UK and Australia have shown that there are lower hospital costs for dental treatment in fluoridated communities.
Economic Benefits to the Community

- Without fluoridated water, Medicaid-eligible children in Louisiana were **three times** more likely to receive dental treatment in a hospital operating room.

- Cost of dental treatment per eligible child was approximately **twice** as high in non-fluoridated areas.

Economic Benefits to the Community

• Fluoridation lowers dental treatment costs for Medicaid recipients.
• In New York State, the mean number of fillings, root canal treatments, and extractions per person
• 33.4% higher in less fluoridated counties.

• http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2925000/
### Comparing Annual Costs (1999 $) per person of different methods of fluoride use

**Fluoridation is the least expensive for the most people**

<table>
<thead>
<tr>
<th>Fluoride Mode</th>
<th>Annual cost / person</th>
<th>People benefiting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water fluoridation (all costs)</td>
<td>$0.72 ($0.17 - $7.62)</td>
<td>All ages, all groups</td>
</tr>
<tr>
<td>Fluoride toothpaste</td>
<td>$6 - $12</td>
<td>All ages, all groups</td>
</tr>
<tr>
<td>Fluoride mouthrinse school-based programs not including personnel/indirect costs</td>
<td>$1.41</td>
<td>Schoolchildren (&gt;6 years) (High caries risk)</td>
</tr>
<tr>
<td>Prescription Dietary Fluoride Supplements</td>
<td>$37</td>
<td>Ages 6 month to 16 years (Poor compliance)</td>
</tr>
<tr>
<td>Professional topical fluoride application</td>
<td>$66 (twice/year)</td>
<td>High caries risk</td>
</tr>
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Community Specific Strategies

2014
Percent of population served by CWS that are receiving fluoridated water

Percent
%
US = 74.7

11.7 – 59.9
60.0 – 77.5
77.6 – 92.6
92.7 – 100.0
Data unavailable

5-30-17
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40
Recommendation for Phoenix

- Doug Campos-Outcalt, MD, MPA
- Martin F. Celaya, MPH
- Annabelle Nunez, MA
- Cecilia Rosales, MD, MS
- UA Zuckerman College of Public Health and UA College of Medicine-Phoenix

- The scientific evidence at this time provides high certainty that CWF benefits both children and adults with a reduction in tooth caries.
- There is moderate certainty that CWF causes tooth mottling in a small proportion of the population, which can have cosmetic consequences but no other known harm.
- There currently is no credible evidence of any other harms from CWF. (Community Water Fluoridation)

- UA Zuckerman College of Public Health and UA College of Medicine-Phoenix
Albuquerque, New Mexico
History of Community Water Fluoridation
The Water Authority ceased adding supplemental fluoride to the municipal drinking water supply in 2011 pending final recommendation on optimal fluoride levels from the federal government.

Can we prevent tooth decay by drinking treated water?

1968

Albuquerque Bernalillo County Water Utility Authority
Fluoridation Town Hall – April 9, 2014

MAY 22, 2017 -- The Water Authority's June 21 Board meeting will include a discussion of supplemental fluoridation of the community's drinking water. The August 16 Board meeting is slated to include a vote on the approval of a capital outlay to implement fluoridation.

The Centers for Disease Control eventually issued a recommended optimal level of 0.7 mg/L in 2015.
Projected cost savings - Albuquerque

- Albuquerque Bernalillo County Water Utility Authority
- Annual operating budget of more than $170 million
- $5 billion+ in assets
- 200,000+ customer accounts, representing 606,780 water users
- Authority used to adjust the fluoride level to 0.9 ppm
- Current average is 0.4 ppm: increased surface water use
- When the San Juan-Chama plant is producing water, fluoride levels will average 0.7 mg/L
- One-time capital expenditure for new facilities estimated at $260,000; annual operation and maintenance costs estimated at $270,000/year. (2017 estimates)
- Less than 50 cents per person per year
- Estimated $4,000,000 of savings in annual average dental treatment costs to Albuquerque residents.
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- WHO supports fluoridation?
The Case for Community Water Fluoridation

- Fluoridation is supported by major health and science organizations
  - World Health Organization,
  - American Medical Association,
  - American Dental Association,
  - American Public Health Association,
  - US Public Health Service,
  - US Surgeons General,
  - American Water Works Association
  - and 100 more organizations recognize the benefits of water fluoridation.

- CDC

- One of ten great public health achievements of the 20th century
# CDC 2014* Fluoridation Statistics
(*revised 2016)

## National Water Fluoridation Statistics

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
</tr>
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<tbody>
<tr>
<td>Total US population, persons&lt;sup&gt;a&lt;/sup&gt;</td>
<td>318,857,056</td>
</tr>
<tr>
<td>US population on community water systems (CWS), persons&lt;sup&gt;b&lt;/sup&gt;</td>
<td>284,099,832</td>
</tr>
<tr>
<td>Total US population on fluoridated drinking water systems, persons&lt;sup&gt;b&lt;/sup&gt;</td>
<td>211,393,167</td>
</tr>
<tr>
<td>Percentage of US population receiving fluoridated water&lt;sup&gt;c&lt;/sup&gt;</td>
<td>66.3%</td>
</tr>
<tr>
<td>Percentage of US population on CWS receiving fluoridated water&lt;sup&gt;d&lt;/sup&gt;</td>
<td>74.4%</td>
</tr>
<tr>
<td>Number of CWS providing fluoridated water&lt;sup&gt;b&lt;/sup&gt;</td>
<td>18,186</td>
</tr>
<tr>
<td>Number of CWS adjusting fluoride&lt;sup&gt;b&lt;/sup&gt;</td>
<td>5,919</td>
</tr>
<tr>
<td>Number of CWS consecutive to systems with optimal fluoride levels&lt;sup&gt;b&lt;/sup&gt;</td>
<td>6,015</td>
</tr>
<tr>
<td>Number of CWS with naturally occurring fluoride at or above optimal levels&lt;sup&gt;b,e&lt;/sup&gt;</td>
<td>6,205</td>
</tr>
<tr>
<td>Population served by CWS with naturally occurring fluoride at or above optimal levels&lt;sup&gt;b,e&lt;/sup&gt;</td>
<td>11,883,007</td>
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- Why fluoridate the water?
- Safety of fluoridation
- Cost-effectiveness of fluoridation
- WHO supports fluoridation?
- Why change to 0.7 parts per million?
Recommended concentration of fluoride in drinking water

- US Public Health Service
- 1962 standard
- 0.7 – 1.2 ppm (mg/L)
  - According to annual average maximum temperature
- 2011 Proposed standard
- 2015 Final Recommendation
  - National Oral Health Conference
  - Public Health Reports
  - Federal Register
- 0.7 ppm (mg/L)
  - Nationwide
Recommended concentration of fluoride in drinking water

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- 2015 Final Recommendation
  - National Oral Health Conference
  - Public Health Reports
  - Federal Register
- 0.7 ppm (mg/L)
  - Nationwide
Reasons for proposal to standardize to 0.7 ppm

1. Strong supporting evidence on the safety and cost-effectiveness of optimally fluoridated community water for caries prevention;

2. Public access to more fluoride sources than in the past, including fluoride toothpaste that young children swallow;

3. Reducing the potential development of enamel fluorosis, which has increased in prevalence due to greater access to more sources of fluoride;
   • So why reduce water F concentration instead of reducing F in other sources?

4. Levels of total water intake among children aged 1 to 10 are similar across U.S. climate zones.
Overview

- What is tooth decay (dental caries)
- What is enamel fluorosis?
- Why fluoridate the water?
- Safety of fluoridation
- Cost-effectiveness of fluoridation
- WHO supports fluoridation?
- Why change to 0.7 parts per million?
- Comparing pro- and anti-fluoridation
What is the difference between opponents and supporters of fluoridation?

- **Anti-fluoridationists:**
  - Prevent the unnecessary exposure of living things to fluoride, in the belief that any amount of fluoride is toxic

- **Fluoridationists:**
  - Reduce tooth decay through the judicious use of fluoride, with the knowledge that there is an optimum amount that is beneficial and safe
Contrasting Opponents and Proponents

No room for agreement or compromise

• *Opponents*: “If they were to accurately draw up a list of the greatest public health achievements of the past century, fluoridation might appear alongside the Tuskegee incident or positions that once promoted smoking tobacco and the use of asbestos and lead in building materials.”

• *Proponents*: For 65 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.
Books on Fluoridation

This 2005 publication was developed by the ADA’s Council on Access, Prevention and Interprofessional Relations.

The Fluoride Wars: 2009
By R. Allan Freeze, Jay H. Lehr


http://www.ada.org/sections/professionalResources/pdfs/fluoridation_facts.pdf
Credible sources of information on fluoride and fluoridation

  - Centers for Disease Control and Prevention has proclaimed community water fluoridation one of 10 great public health achievements of the 20th century

  - America Dental Association: Fluoridation Facts

- American Academy of Pediatrics – [http://pediatrics.aappublications.org/content/122/6/1387.full](http://pediatrics.aappublications.org/content/122/6/1387.full)

- NSF –
  - Fact sheet on Fluoridation Products (February 2013)
Reinstate Community Water Fluoridation:
10 Reasons to Fluoridate:

1. Single most effective public health measure to prevent tooth decay
2. Simply adjusts natural level of fluoride already in our water
3. Similar to fortifying other foods and beverages
4. Helps protects all ages against tooth decay
5. Safe and Effective
6. Lifetime cost per person less than single dental filling
7. Reduces public expenditures on dental treatment of tooth decay
8. Reduce pain from cavities, abscesses and toothaches
9. Benefits recognized by more than 100 national organizations
10. 74.4% of public water systems in the U.S. are fluoridated
Developing Dental Public Health Competencies and Curriculum for Predoctoral Dental and Dental Hygiene Programs

Eight Dental Public Health Competencies:
1. Demonstrate the ability to incorporate ethical reasoning and actions that promote culturally competent oral health care to individuals and populations.
2. Critique, synthesize, and apply information from scientific and lay sources to improve the public's oral health.
3. Describe social and health care systems and determinants of health and their impact on the oral health of the individual and population.
4. Assess risk for oral diseases and select appropriate, evidence-based preventive interventions and strategies to promote health and control oral diseases at the individual and population level.
5. Demonstrate the ability to access and describe the use of population-based health data for health promotion, patient care, and quality improvement.
6. Demonstrate the ability to communicate and collaborate with relevant stakeholders to advocate for policies that impact oral and general health for individuals or populations.
7. Develop a capacity for lifelong learning and professional growth in order to provide leadership that utilizes principles of dental public health.
8. Demonstrate the ability to participate in interprofessional care across the lifespan of people from diverse communities and cultures.

Courses
- Principles in Dental Public Health
- Oral Health Literacy and Dental Public Health
- Ethics and Dental Public Health
- Dental Public Health Policy and Advocacy
- Public Health Promotion and Disease Prevention
- Evidence Based Dentistry

Other Resources
- Speakers Bureau
- Online CE Courses

Dental Public Health Policy and Advocacy
The Dental Public Health Professional’s Role in Advocacy

Are You Ready to Advocate for Community Water Fluoridation?
New competencies for the 21st century dental public health specialist

Donald Altman, DDS, DHSc, EdD, MPH, MBA, MA; Ana Karina Mascarenhas, BDS, MPH, DrPH

Competency 7

Advocate for public health policy, legislation, and regulations to protect and promote the public's oral health, and overall health

Intent statement

DPHS are often in positions to advocate for the adoption of public health policies and services that promote the well-being of communities. Advocacy involves persuasive speaking, writing or actions in support of a particular cause, policy, or strategy to reduce inequities in health status and reduce inequities in access to health services access. Awareness of the perspectives of policymakers, and recognition of the issues, programs, values, and political goals that are priorities for these individuals aid DPHS in crafting advocacy messages to promote needed projects, especially for vulnerable populations without a voice in the legislative and governance deliberations of cities, counties and states.

To implement this competency, DPHS:

- design advocacy strategies in the context of the processes used by local, state and federal government to formulate health policies and allocate resources;
- build capacity for enhanced oral health by working with community agencies to identify oral health care service gaps, and document the impact of these gaps;
- raise stakeholder awareness of health status disparities and inequities in oral health services for specific communities and population groups;
- educate legislators and other decision makers about the value of prevention and the burden of oral diseases and its effect on health; and
- promote policies and services that benefit underserved or vulnerable groups.
Campaign strategies for fluoridation

Designed to aid in

Initiating and

Retaining

Fluoridation programs
Campaign strategies for fluoridation

- California’s population receiving the benefits of fluoridated public water supplies has increased from 17 percent to 63.7 percent in the past 20 years.

- This growth has been achieved through a broad-based coalition of organizations and individuals, starting with the creation of the California Fluoridation Task Force in 1994 and supported by the California Fluoridation Act of 1995.

- The most recent gains have been made in San Diego and are ongoing in San Jose.
Advocacy for fluoridation
Case Study: Palo Alto, California

Fluoridated since 1956. 2003 Referendum: NO vote – to continue fluoridation

Is this the biggest win for a fluoridation referendum?
Advocacy for fluoridation
Case Study: Healdsburg, California
Advocacy for fluoridation
Case Study: San Jose, California
Advocacy for fluoridation
Case Study: San Jose, California

SUBJECT: SANTA CLARA VALLEY WATER DISTRICT
FLUORIDATION OF DRINKING WATER NOTIFICATION

In November of 2011, the Santa Clara Valley Water District (SCVWD) Board of Directors decided to provide optimal levels of fluoride at its three water treatment plants. In August 2014, a Planning Study Report was completed for two of the fluoridation projects, Penitencia Water Treatment Plant and Santa Teresa Water Treatment Plant.

Pursuant to Title 22, Section 64433.7 of the California Code of Regulations, this letter serves as official notice that SCVWD will begin to increase the fluoride content of the treated water it supplies to some customers in Santa Clara County on December 5, 2016. This means that some areas of the county that were previously receiving non-fluoridated water will now receive water that is fully or partially fluoridated.

Implementation of fluoridation is expected to be completed in 2017 for eastern Santa Clara County, and in 2020 for western Santa Clara County.
Advocacy for fluoridation
Case Study: San Jose, California

Fluoridation at a glance

Benefits
- For over 50 years, fluoridation has been shown to reduce tooth decay by 42 to 65 percent in U.S. communities with fluoridated water. It is a proven and effective public health measure.

Researchers have found that children who live in communities with fluoridated water have fewer cavities and need fewer dental fillings than those who live in communities without fluoridated water.

Studies have also shown that people who drink fluoridated water throughout their lives have fewer cavities and more stable teeth than those who do not.

In addition, fluoridation helps prevent tooth decay in children and adults, and it is an effective way to reduce the spread of tooth decay in high-risk populations.

Supporters
- Community water fluoridation is supported by major national and international health organizations, including the American Dental Association, American Medical Association, American Academy of Pediatric Dentistry, U.S. Centers for Disease Control and Prevention, and the World Health Organization.

The U.S. Centers for Disease Control and Prevention has recognized fluoridation of drinking water as one of the 10 great public health achievements of the 20th century.

The Santa Clara Valley Water District's Position
- In 1995, Governor Pete Wilson signed a state law (SB 87) requiring all public water systems with at least 10,000 customers to provide fluoridated water. The law also required that the water district provide a public notice and public hearing before implementing fluoridation.

In November 2010, the Santa Clara Valley Water District (SCVWD) adopted a policy to fluoridate its water supply. The policy was developed in response to the State of California's requirement to fluoridate all public water systems with at least 10,000 customers.

The water district's Board of Directors voted to fluoridate the water at the Santa Teresa Treatment Plant, which serves the San Jose area. The Penitencia Water Treatment Plant, which serves the San Jose area, will begin fluoridation in 2017. The Rinconada Water Treatment Plant, which serves the Morgan Hill area, will begin fluoridation in 2020.

Additional Resources for Information
- Visit the Santa Clara Valley Water District's website at www.valleywater.org for more information.

- For medical and dental inquiries, please call 1-844-435-8420.

The mission of the district is to provide Silicon Valley safe, clean water for a healthy life, environment, and economy.
Campaign strategies for fluoridation

The CDA Foundation Model to Fluoridate Communities

Phase 1: Strategy
Phase 2: Advocacy
Phase 3: Policy-Making

When it comes to fluoridation, sound science provides the foundation of advocacy.
Strategies to counter opponents

- It is important to remind residents of the benefits and safety of fluoridation.
- Health practitioners are a trusted source of health information.
What to say to your patients:
Keep it simple!

- I’m so glad we have fluoridation or you would probably have some cavities – or – more cavities and the decay would be more extensive.

- OR – I wish we had fluoridation that would probably have reduced your number of cavities and the decay would be less extensive.

- It’s great for kids and adults as well.

- I’m convinced of fluoridation’s safety.

- We’ve had more than 65 years of experience in the USA, 60 years in San Francisco, 40 years of experience in Marin and the East Bay.

- There’s overwhelming consensus on its benefits and safety and it has saved so much money – $ billions
It’s kind of like tobacco cessation counseling… 5 A’s.

• **Ask**
  - Do you live in a fluoridated part of the County?
  - **If yes** – do you drink tap water?

• **Advise**
  - You should drink fluoridated tap water and cook with it to help reduce the risk for tooth decay (cavities) for you and your family.

• **Assess**
  - If you already do, then congratulations – that will help to reduce the number of new cavities you get.
  - If you don’t
  - then you should for the health of your teeth
  - refill your water bottle with tap water; it’s also better for the environment
  - ask for tap water when eating out
It’s kind of like tobacco cessation counseling... 5 A’s.

- **Ask**
  - Do you live in a fluoridated part of the County?
  - **If no** – do you drink tap water or cook with it?

- **Advise**
  - You should drink fluoridated tap water and cook with it to help reduce the risk for tooth decay (cavities) for you and your family.
  - We should consider having your children reduce their high risk for cavities by prescribing fluoride supplements.

- **Assess**
  - Would you be willing to support our effort to have our water fluoridated?
  - **If yes** –
  - Would you be interested in helping our Sonoma County Oral Health Access Coalition?
  - **If no** – here is some information on fluoride’s safety and benefits
It’s kind of like tobacco cessation counseling... 5 A’s.

• **Assist**
  • Provide access to good information resources on fluoridation
  • Advise your patients to reduce their risk for tooth decay
    • By brushing twice a day with fluoridated toothpaste
    • By reducing sugar frequency
    • By receiving fluoride varnish for those at high risk for caries

• **Arrange**
  • to provide answers to questions
  • follow up at future visits
For patients who are opposed to fluoridation and don’t want to use fluoride:

- Advise them to severely restrict their sugar frequency, as if they are ‘allergic to sugar’
- Recommend to increase the frequency of dental check ups and caries risk assessments
- Answer their questions politely
  - No need to be argumentative
- Say that you’ve reviewed the evidence and you’re convinced of fluoridation’s safety and benefits
But how do we convince people to fluoridate their water supplies?
But how do we convince people to fluoridate their water supplies?

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- State Legislation
- Successful Campaigns
ADA Community Organization for Water Fluoridation

Most successful campaigns are long in the making, but are visible in the public eye for only a short period of time. In assessing whether the time is right to begin a campaign, a number of factors should be evaluated:

- the community's past and present political climate regarding social, public health and environmental issues;
- other community problems that could prevent public interest from developing on the fluoridation issue;
- previous community research confirming the engineering feasibility and cost of implementation;
- a sufficient commitment from health professionals and Steering Committee members; and
- the timing process and requirements of developing and generating ordinances.

- Campaign Checklists
- Background and Research
- Steering Committee
- Subcommittees and Volunteer Recruiting
- Health and water experts
- Community Groups
- Strategies for dealing with opposition
Community Toolkit

Preserving and Implementing Water Fluoridation in Your Community

Whether you have a great deal of knowledge about community water fluoridation or none at all, this Toolkit is for you! What are the most effective messages for gaining support? Who are your allies and how do you engage them? How do you build community support? The answers can be found in this Toolkit.

http://fluoridationtoolkit.org/
Fluoridation Toolkits

http://ilikemyteeth.org/fluoridation-toolkit-resource-health-advocates/

Campaign for Dental Health

The U.S. celebrates fluoridation’s 70th anniversary this year, and this toolkit provides resources that local advocates can use to educate their communities. The 70th Anniversary of Community Water Fluoridation (CWF): How to Use the Toolkit guide offers instructions and tips to help you take advantage of the following resources:

- Blog Posts about Fluoridation
- Memo for Newspaper Editors
- Letters to the Editor (LTEs)
- 10 Tips for Talking to Reporters
- Remarks to a City Council or Local Board (Parent Version)
- Remarks to a City Council or Local Board (Health Professional Version)
- Resolution Observing Community Water Fluoridation’s Anniversary (For communities in which fluoridation occurs because of a state law)
- Resolution Observing Community Water Fluoridation’s Anniversary (For communities that fluoridate based on a local policy)
- Social Media Messages

June 8, 2017

Are You Ready to Advocate for Community Water Fluoridation?
Fluoridation Toolkits

http://www.ada.org/en/~/media/ADA/Programs/Files/statements-on-fluoridation-from-leading-organizations
Fluoridation Toolkits

Assistance is available from:
Jane McGinley, Manager
Fluoridation and Preventive Health Activities
mcginleyj@ada.org
312.440.2862
Questions?

• Email: howard.pollick@ucsf.edu
Why water fluoridation?

• Overwhelming majority of studies
• Support fluoridation
• Safe
• Effective
• Very favorable cost/benefit ratio
• Simulates the optimal environment