



# Dental Public Health Activities & Practices

**Practice Number:** 53002  
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<b>SECTION I: PRACTICE OVERVIEW</b>		
<b>Name of the Practice:</b> Community Fluoridation Program		
<b>Public Health Functions:</b> Assessment – Acquiring Data Assessment – Use of Data Assurance – Population-based Interventions Assurance – Building Linkages and Partnerships for Intervention Assurance – Building Community Capacity for Intervention Assurance – Program Evaluation for Outcomes and Quality Management		
<b>HP 2010 Objectives:</b> 21-1 Reduce dental caries experience in children. 21-3 Increase adults who have never lost a tooth. 21-4 Reduce adults who have lost all their teeth. 21-9 Increase persons on public water receiving fluoridated water.		
<b>State:</b> Virginia	<b>Region:</b> East Region IV	<b>Key Words:</b> Fluoride, community water fluoridation, prevention, fluoride surveillance
<b>Abstract:</b> The Virginia Department of Health, Division of Dental Health administers a community fluoridation program. The program presently is set up to provide four services/functions: (1) Assist local communities to initiate or maintain a community water fluoridation system; (2) Support the attendance of state personnel at the CDC Water Fluoridation Course; (3) Provide training in cooperation with our Division of Water Supply Engineering for local community water supplies; and (4) Maintain a Fluoride Surveillance Program to assure the appropriate application of fluoride in community water supplies. Since 1981 the program has assisted over 65 communities to initiate or upgrade their fluoridation systems. Funding sources include the Preventive Health and Health Services Block Grant and a Fluoridation Grant from the Division of Oral Health of CDC.		
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## SECTION II: PRACTICE DESCRIPTION

### **History of the Practice:**

This program began in the early 1980's with the establishment of the categorical Fluoridation Grants under President Carter administered by CDC. It is now supported by funds from the Preventive Health and Health Services Block Grant, and categorical funds administered by CDC.

### **Justification of the Practice:**

Fluoridation continues to be the most effective method for the prevention of dental caries for individuals on the community level. CDC has profiled it "as one of 10 great public health of the 20<sup>th</sup> Century." Community water fluoridation is the most effective, safe, and economical way to prevent dental decay. It benefits persons of all ages and socioeconomic status.

### **Administration, Operations, Services, Personnel, Expertise and Resources of the Practice:**

The Community Water Fluoridation Program provides four services/functions:

- Assist local communities to initiate or maintain a community water fluoridation system.
- Support the attendance of state personnel at the CDC Water Fluoridation Course.
- Provide training in cooperation with our Division of Water Supply Engineering for local community water supplies.
- Maintain a Fluoride Surveillance Program to assure the appropriate application of fluoride in community water supplies.

The program is funded with monies from the Preventive Health and Health Services Block Grant, and a Fluoridation Grant from the Division of Oral Health of CDC. One full time dentist, serving as the Fluoridation Coordinator, is responsible for the promotion and administration of the program.

The program has provided funding for the dental staff and state public water supply engineers to attend the "Basic Water Fluoridation Engineering" course offered by CDC. Training also has been offered through the state Division of Water Supply Engineering for community water supply operators. The Dental Division in cooperation with the state Division of Water Supply Engineering is presently developing a training center for the community water supply operators. A program monitoring fluoridating water systems based on criteria as recommended by CDC has been established and has been in place for several years.

Since 1981, the program has assisted over 65 communities to initiate or upgrade their fluoridation systems. Presently, 80% of all Virginians and 93% of them on public water supplies are receiving optimally fluoridated water.

### **Budget Estimates and Formulas of the Practice:**

Costs are based on the salary of one full time staff member and the amounts of monies, which vary from year to year, to carry out activities or functions listed above. The amount available for fiscal year 2002 is approximately \$250,000 for salary and funding for communities.

### **Lessons Learned and/or Plans for Improvement:**

Financial incentives for small communities are essential, as is close collaboration with the state Division of Water Supply Engineering. Periodic training for water works operations on new equipment or procedures is very important.

### **Available Resources - Models, Tools and Guidelines Relevant to the Practice:**

- Contracts with local communities for upgrading or initiating fluoridation their public water supply.
- Current monitoring of systems fluoridating using criteria established by CDC.

## SECTION III: PRACTICE EVALUATION INFORMATION

### **Impact/Effectiveness**

*Does the practice demonstrate impact, applicability, and benefits to the oral health care and well-being of certain populations or communities (i.e., reference scientific evidence and outcomes of the practice)?*

Fluoridation continues to be the most effective method for the prevention of dental caries for individuals on the community level. Virginia has experienced a dramatic drop in the def/DMF rate since the initiation of fluoridation in 1952. The def count has dropped from 4.95 per child in 1950 to 2.21 in the 1990's and the average DMF count has dropped from 4.99 to .73 per child.

Since 1981, the program has assisted over 65 communities to initiate or upgrade their fluoridation systems. Presently, 80 % of the people in Virginia are receiving optimally fluoridated water.

### **Efficiency**

*Does the practice demonstrate cost and resource efficiency where expenses are appropriate to benefits? Are staffing and time requirements realistic and reasonable?*

It is estimated that for every dollar spent on fluoridation \$38 is saved in dental treatment costs. The staff person assigned to this program spends 3/4 of her time administering this program. Based on dollars spent each year and looking at the long-term operation of a fluoridation system the oral health benefits accrued to individuals over a lifetime are truly significant.

### **Demonstrated Sustainability**

*Does the practice show sustainable benefits and/or is the practice sustainable within populations/communities and between states/territories?*

The program has been in operation since 1981 with funds from the original federal categorical Fluoridation Grant. The program is presently funded with monies from the Preventive Health and Health Services Block Grant, and a Fluoridation Grant from the Division of Oral Health of CDC.

### **Collaboration/Integration**

*Does the practice build effective partnerships/coalitions among various organizations and integrate oral health with other health projects and issues?*

The program has been so successful due to the collaborative efforts of the Division of Dental Health, the Division of Water Supply Engineering, local health departments, the Virginia Dental Association as well as other state and local agencies.

### **Objectives/Rationale**

*Does the practice address HP 2010 objectives, the Surgeon General's Report on Oral Health, and/or build basic infrastructure and capacity for state/territorial oral health programs?*

The program addresses the following Healthy People 2010 oral Health Objectives:

- 21-1 Reduce dental caries experience in children.
- 21-3 Increase adults with teeth who have never lost a tooth.
- 21-4 Reduce adults who have never lost a tooth.
- 21-9 Increase persons on public water receiving fluoridated water.
- 21-16 Increase number of states with State-based surveillance system.

### **Extent of Use Among States**

*Is the practice or aspects of the practice used in other states?*

According to the ASTDD State Synopsis, forty-five states reported having community water fluoridation programs in 2000. The states include: AL, AK, AZ, AR, CA, CO, CT, DE, FL, GA, ID, IL, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, MT, NB, NV, NH, NJ, NM, NY, NC, ND, OH, OK, OR, SC, TX, UT, VT, VA, WA, WV, WI and WY.