

Information Collection Request

Existing Collection Without an OMB Control Number

# National Surveillance of Community Water Systems and Corresponding Populations with the Recommended Fluoridation Level

## Supporting Statement B

Program Official/Contact

Tracy Boehmer, National Fluoridation Engineer

National Center for Chronic Disease Prevention and Health Promotion, Division of Oral Health  
Centers for Disease Control and Prevention

Atlanta, Georgia

Phone: 404-498-0774

Fax: 770-488-6080

E-mail: [opm9@cdc.gov](mailto:opm9@cdc.gov)

September 23, 2019

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## ATTACHMENTS

1. Public Health Service Act [42 U.S.C. 241]; Oral health promotion and disease prevention [Section 247b-14]
- 2a. Instructions for collecting data on fluoridation status and population
- 2b. Email invitation to request data on fluoridation status and population
- 2c. Email invitation to request fluoride testing data
- 2d. Respondent reminders
- 3a. 60-Day Federal Register Notice
- 3b. 60-Day Federal Register Notice public comments and agency response
4. Institutional Review Board exemption determination

## **B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS**

### ***B1. Respondent Universe and Sampling Methods***

The respondent universe is all 50 states' drinking water fluoridation programs. All 50 states are included because only a census is able to provide information on the beneficial fluoridation status of drinking water for all community water systems (CWS) in the 50 states and Washington, DC, documenting the national percentage and the corresponding population with fluoridated water in the states and localities. Washington, DC is not included in the data collection because the water source is a CWS in Virginia and therefore the data is already collected by Virginia.

Sample data cannot be generalized to the universe because: 1) the 52,000 CWS are independently operated; 2) the decision of whether or not and by how much to fluoridate water systems is made by state and local governments, and not uniformly provided to the US population or a state; and, 3) monitoring fluoride levels for oral health benefits is a state function and therefore performance varies from state to state.

All 50 states respond to Form 1 of the CWS census profile of fluoridation status and population served. The response rate was 100% during the 2017 collection and is anticipated to remain at 100% going forward.

About two-thirds of the states respond to Form 2 of testing level data of fluoride-adjusted CWS; therefore, CDC uses convenience sampling to monitor adherence to the U.S. Public Health Service recommended level and the operational control range. During the collection in 2017, 33 or 66% of the states responded, including 19 of the 21 states funded by a cooperative agreement from CDC's State Oral Disease Prevention Program (DP13-1307). The response rate has been consistently

approximately two-thirds of states for the past seven years, and CDC anticipates the sample size will remain at approximately this number for the foreseeable future.

## ***B2. Procedures for the Collection of Information***

CDC emails invitations along with instructions (Attachments 2a, 2b, and 2c) annually to state fluoridation managers or other state government officials designated by the state dental director or drinking water administrator to respond. Respondents are asked to enter data into a CDC web-based database called the Water Fluoridation Reporting System (WFRS) annually. CDC's fluoridation engineer provides a guide, trainings and technical assistance. Respondents are also instructed that they may provide the information via a spreadsheet or other list for CDC to upload or enter into WFRS. Although CDC only requires data collection annually, states may choose to enter data more frequently if desired for their purposes.

Data accuracy is necessary to monitor fluoridation. CDC validates data by comparing CWS data in WFRS with the relevant data in EPA Safe Drinking Water Information System (SDWIS) yearly. CDC prepares a validation report, called a discrepancy report, annually for each state, that identifies CWS with differences between the two platforms. The request to participate in the data collection includes the Discrepancy Report and instructions to facilitate data validation and updates and ensure data as accurate and current (Attachment 2b).

CDC incorporates quality control procedures throughout stages of the data collection and analysis. WFRS incorporates functionalities of data field validation, error reporting, diagnostic reporting, and other customized reporting functions to identify missing required data, invalid and incomplete data, and outliers on a timely and ongoing basis. To ensure quality of data analysis and reports, CDC further conducts data quality checks and compares with the previous year's data to identify

data errors and irregularities and perform data cleaning before analyses. Less than yearly validation would impair the accuracy.

CDC conducts analyses of the census profile and a convenience sample of fluoride-adjusted CWS. Because there is no probability sampling, no sampling error or statistical tests will be characterized.

### ***B3. Methods to Maximize Response Rates and Deal with No Response***

The response rate of approximately 66% for testing level data needed for monitoring recommended fluoride level represents data for about three-fourths of the US population with fluoridated CWS. This is an increase from approximately one-third of states responding with fluoride levels 14 years ago.

To encourage states' participation, CDC offers states flexible data submission avenues: states can either enter data directly in WFRS or email data to CDC to upload. CDC provides guides, trainings and technical assistance to states to facilitate response. In addition to the initial email invitations, CDC also sends states reminders through email or phone (Attachment 2d) to follow up with non-respondents. The Discrepancy Report between WFRS and SDWIS that CDC prepares for each state is an essential tool to reduce the state burden and therefore encourage states' participation: rather than collecting data for all CWS, states only need to focus on addressing CWS with discrepancies.

To encourage more states to respond to requests for testing level data and promote better adherence to recommended levels, CDC issues *Water Fluoridation Quality Awards* to CWS operators and to states, and distributes a press release template to state programs to assist with their

announcement when they receive one. Several states have thanked CDC for issuing the awards, indicating that water system operators are eager to demonstrate to their customers that they are doing a good job, particularly with many suspicious of drinking water quality. States have observed that many operators work diligently to improve accuracy and reporting documentation to increase the likelihood they will receive an award.

States also have indicated that presenting the awards to the water system and community, which is part of the award process, builds a better relationship between the state fluoridation program and the CWS, creating the opportunity for public education outreach and enhanced operator understanding of the importance of how water affects a healthy community.

***B4. Tests of Procedures or Methods to be Undertaken***

The data collection tool–WFRS– has undergone rigorous application testing, including fidelity and usability testing of system design and accuracy, and comprehension testing of the data elements with respondents and oral health partners. It was developed in collaboration with the Association of State and Territorial Dental Directors. CDC collects feedback to improve and streamline the user interface, consistency, utility, and functionalities of the data collection tool through the WFRS User Assessment conducted every two to three years among fewer than 10 respondents.

***B5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data***

Name	Organization	Role (consulted or collected/analyzed)
Tracy Boehmer, (404) 498-0774, <a href="mailto:opm9@cdc.gov">opm9@cdc.gov</a> National Fluoridation Engineer	CDC/Division of Oral Health	Data collection and analysis

Srdjan Lesaja, (770) 488-5713, <a href="mailto:vgp3@cdc.gov">vgp3@cdc.gov</a> Data Analyst	Northrop Grumman Inc. (Contractor)	Data collection and analysis
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