



CALHOUN COUNTY PUBLIC HEALTH DEPARTMENT

“GOOD TO GROW” 3Ts FOR REDUCING LEAD IN DRINKING WATER IN SCHOOLS

2012 - 2013
ANNUAL REPORT

WHAT IS 3Ts?

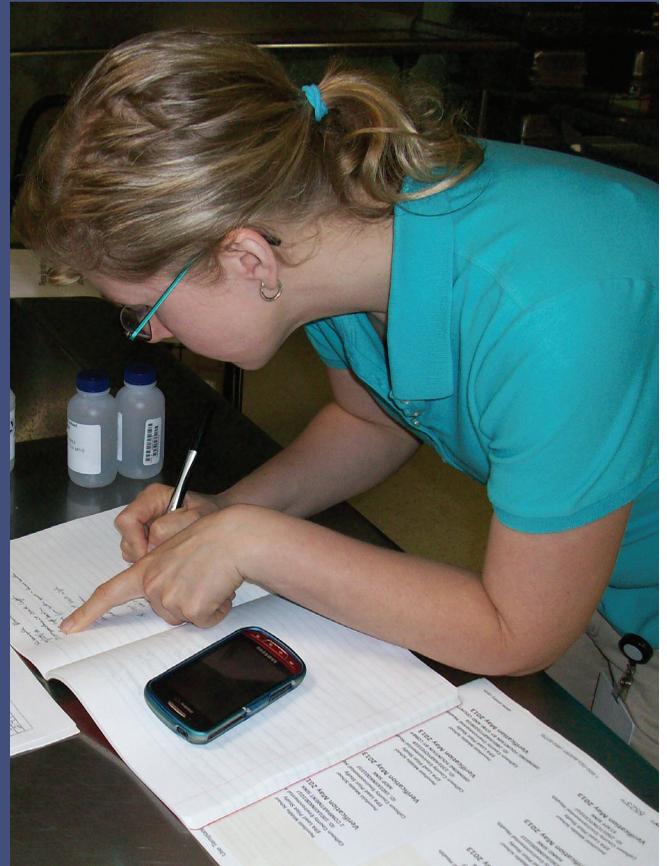
The Calhoun County Public Health Department's "Good to Grow" project based on the U.S. Environmental Protection Agency (EPA) Training-Testing-Telling (3Ts) program, is a three-year pilot program in partnership with the EPA and the W.K. Kellogg Foundation (WKKF). The CCPHD began this project in 2012 after being approached by the WKKF.

The project's goal is to determine the health risk posed by the presence of lead in the drinking water of schools and childcare facilities served by a municipal water supply. The project is non-enforcement in nature and relies on the voluntary participation of facility administration. Because facilities cannot be required to participate, all eligible facilities may not elect to be involved. Continued efforts will be made to garner their participation.

This risk determination is accomplished in several steps, the first of which is a thorough survey of the plumbing of a facility and examination of water use, followed by the collection of water samples from each participating facility. Once water samples have been collected, they are shipped and tested on a rotating basis to one of six participating EPA regional laboratories. Results provided

to the Calhoun County Public Health Department (CCPHD) allow the sources of any contamination to be identified. Education was identified as a critical component in the project design, and every set of results provided to a school or childcare facility includes education to their staff. If necessary, any remediation options are then discussed at this point.

The removal of lead hazards from facilities where young children with still-developing bodies and minds spend much of their time will lower the possibility of an elevated blood lead level. In addition, results indicating that these water supplies do not pose a lead hazard will allow focus on other possible sources of lead.



COLLABORATION EFFORTS

The CCPHD collaborates with the EPA, Calhoun County schools and childcare facilities, the Water Quality Association (WQA), and the National Sanitation Foundation. These collaborations have provided relationships allowing in-kind services and resources to be available to our project participants.

Collaborating with the EPA has benefited this project through the donation of sample bottles and analysis of those samples. Additionally, the EPA guided us through the development of a sampling protocol and provided lab reports on the samples that have been analyzed. Finally, the EPA also provided educational resources that have been distributed to program participants and used in outreach activities.

Participating facilities included public school districts

and parochial grade schools, but no charter schools as of yet. Participants also included childcare centers, group home child care facilities, and private/parochial preschools. Efforts to recruit additional participants have been ongoing.

Working with the WQA has benefited this project as they provided the CCPHD with in-kind donations of water quality brochures, helped create a PowerPoint presentation on remediation, and provided staff with professional development opportunities. The National Sanitation Foundation (NSF) provided training and offered to provide technical assistance in the future upon request. We hope to establish relationships with other organizations that can lend similar types of assistance.

YEAR-ONE ACTIVITIES

Year one of the “Good to Grow” grant has focused on collaborating with Calhoun County schools and childcare facilities served by municipal water, surveying those locations, and collecting 1,014 samples from 35 Calhoun County school or childcare facilities.

Work on the project began in the spring of 2012. Early work focused on developing the collaboration with the EPA that was necessary for the project to not only become a pilot study but to have national impact. Along with the EPA, the CCPHD began developing all of the required documents as well as the sampling plan.

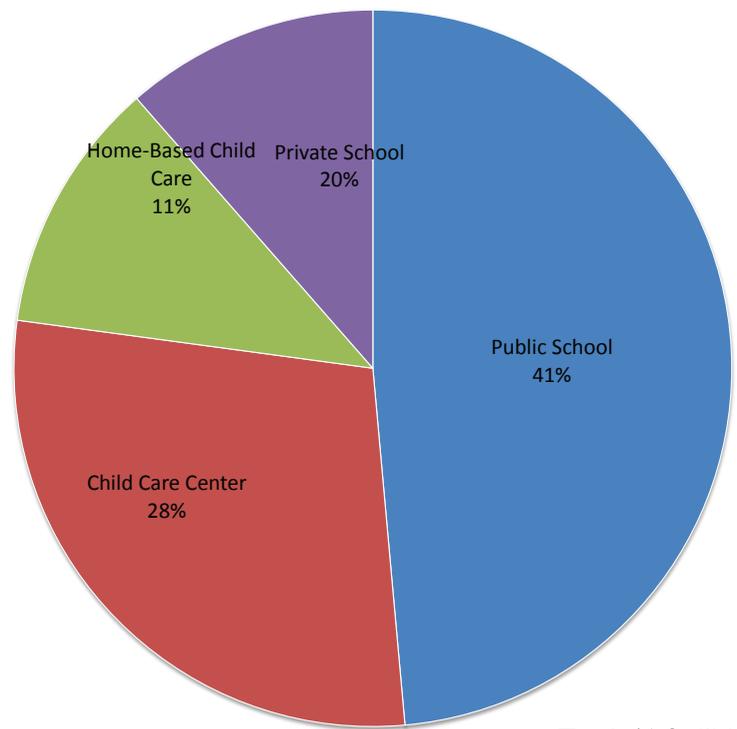
A full-time Environmental Health Educator was hired to assist in the organization and implementation of the initiative in September 2012. Initially, school and childcare facilities served by municipal water were contacted and in November 2012 the CCPHD began conducting surveys at participating facilities. Sampling began in January 2013.

Once a facility agreed to participate, at least one preliminary site visit was conducted to meet with staff and survey the facility, in order to gather information on water use and the plumbing system. Sampling was conducted on a second site visit, with three samples taken from each water outlet to obtain precise information on water quality.

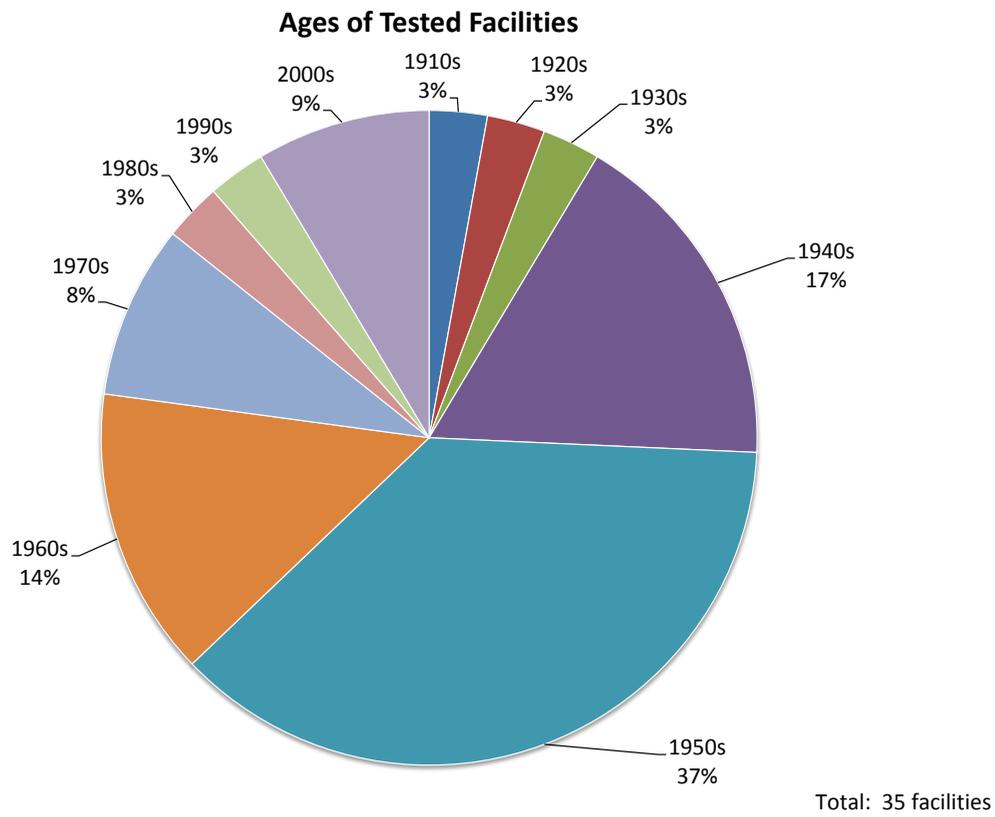
For those facilities (two) whose test results were above the acceptable level (20 ug/L), additional support was provided, including conducting repeat sampling and providing short-term and long-term remediation recommendations. Until a long-term solution has been implemented, the CCPHD actively works with participants to identify and implement remediation measures.

Facilities Tested.....	35
Water Outlets Tested.....	307
Water Outlets with Results Above Guideline.....	7
Water Samples Collected.....	1,014
Facilities Sampled:	
Public Schools	18
Child Care Facilities.....	10
Parochial Schools.....	4
Private Preschools.....	3
School Districts Participating	6 out of 10

Types of Facilities Tested

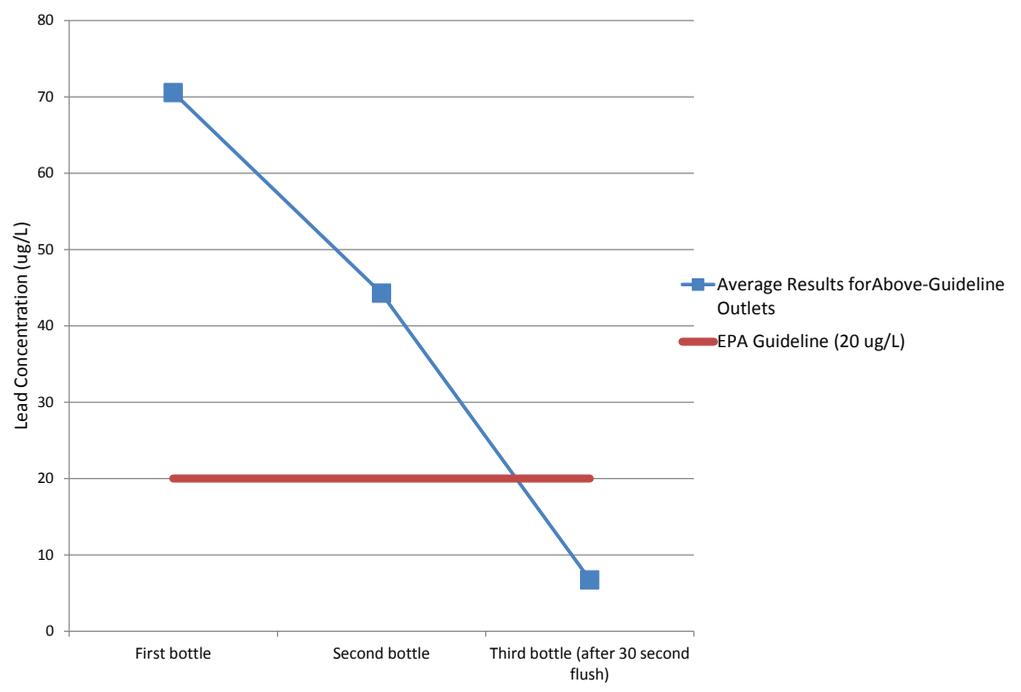


Total: 46 facilities



The facilities tested include many that were constructed when use of lead materials in plumbing was more extensive than it is today.

Average Values for Water Outlets With Elevated Results



Even for those water outlets where elevated results were found, simply flushing for 30 seconds usually yields water that meets the guideline.



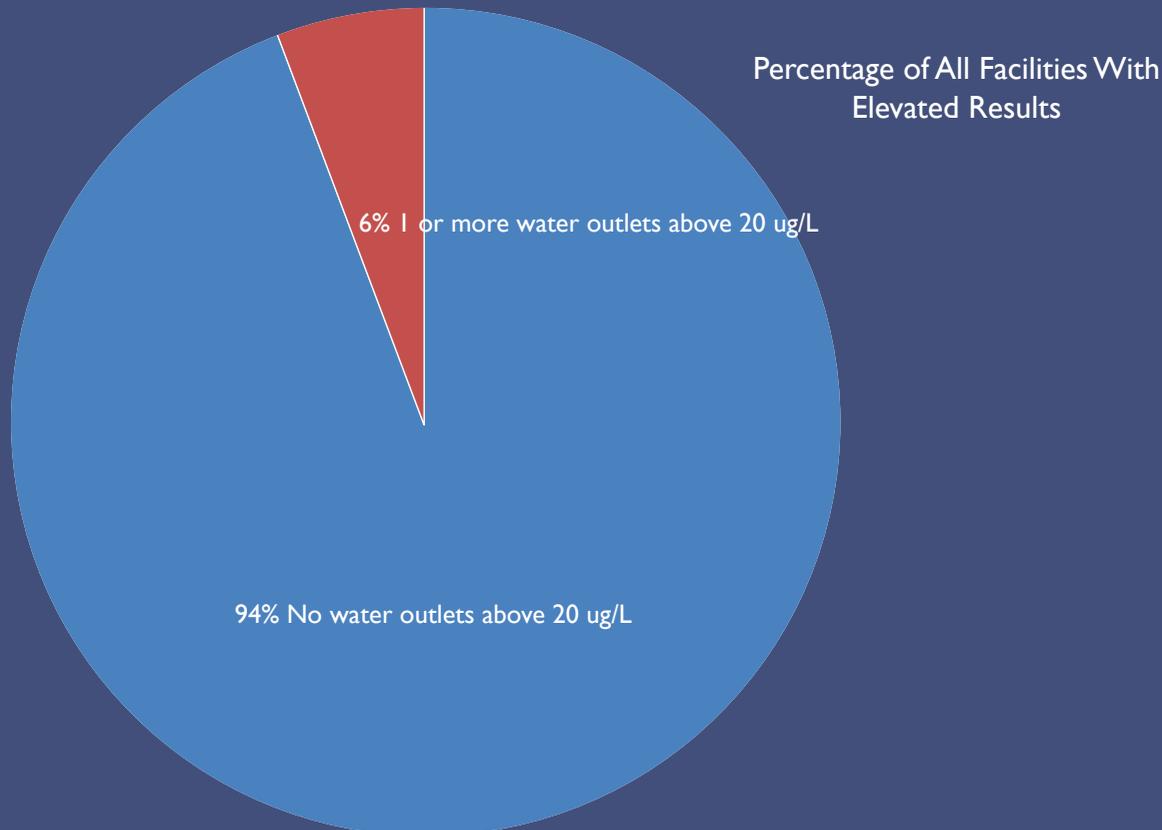
OUTCOMES

The majority of test results have been below the applicable EPA guideline. Out of the 35 locations for which results have been received, two had samples with higher than acceptable lead levels. Based on our recommendations, interim remediation practices were put in place at both facilities to prevent lead exposure until a long-term solution has been implemented. We will continue to provide technical assistance to these facilities as needed.

Another outcome from the “Good to Grow” project has been the creation of protocols, forms, and letters for use in this pilot study which will also be available in template form as a resource for future studies. A statistics tool was developed to generate the appropriate number of sampling locations per facility. This tool will also be available for future studies.

The CCPHD provided lead education materials to participating facilities. Collaboration was also established with CCPHD school nurses to discuss the presence of lead staff at parent and student activities.

Lead awareness educational activities and resources are proposed and will be further developed in year two. We strongly believe that the purpose of this project is not only to identify facilities that have a high level of lead in the water, but to make sure that we address the concerns of parents and administrators. We are seeking to use as many means as possible to communicate and raise awareness of the health risks of lead in drinking water.



The majority of tested facilities had no test results that exceeded the lead guideline level of 20 micrograms per liter

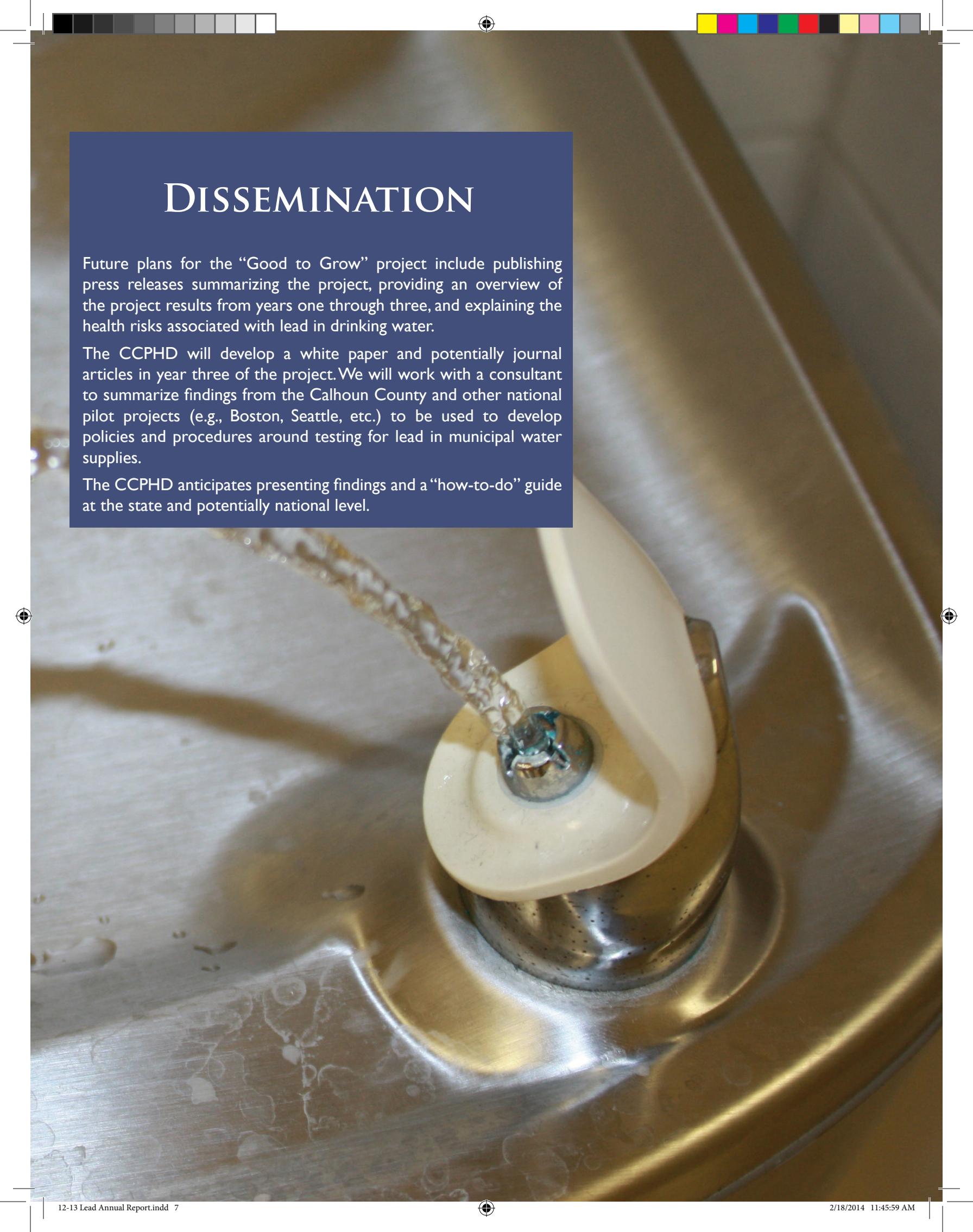
FUTURE PLANS

Additional facilities will be sampled in the remainder of 2013, although exact numbers depend on whether facilities choose to participate. The CCPHD will begin the second round of sampling in January 2014. Once the second round is complete, the focus will shift to education activities informed by test outcomes, remediation assistance, dissemination activities, and possibly sampling at colleges and universities.

A water use survey is being developed. This survey could provide additional information on the specific sources students and staff use for drinking water while in school buildings, such as use of classroom versus hallway bubblers and reliance on bottled water. This information will help to guide lead exposure assessment for students and staff.

Health education efforts will be oriented toward several target audiences: school administrators and facilities managers, parents of students at participating schools, consumers of water at participating schools, and the general public. Education efforts at facilities with elevated levels are liable to be more extensive than at facilities with normal results; at elevated facilities the public health importance of education is greater, and there will be a greater demand for information. Consequently, the focus of education efforts will be influenced by test results. Continuing collaboration with school nurses and the Water Quality Association will strengthen education efforts by increasing credibility with school-based audiences and providing technical assistance regarding remediation options, respectively.

The appropriate methods of communication will be different for each audience. Multiple education products are planned, including hard copy information sheets, brochures, and/or posters. Electronic communication methods will include posting information online, including content designed for mobile phones. Additional means of communication being investigated include video conferencing, public service announcements, and development of classroom activities. Communication efforts have centered on developing concepts for communication products. The results of the sampling will help to determine the focus of communication efforts in the coming years. Communication efforts will be tailored to each target audience in terms of content and format.



DISSEMINATION

Future plans for the “Good to Grow” project include publishing press releases summarizing the project, providing an overview of the project results from years one through three, and explaining the health risks associated with lead in drinking water.

The CCPHD will develop a white paper and potentially journal articles in year three of the project. We will work with a consultant to summarize findings from the Calhoun County and other national pilot projects (e.g., Boston, Seattle, etc.) to be used to develop policies and procedures around testing for lead in municipal water supplies.

The CCPHD anticipates presenting findings and a “how-to-do” guide at the state and potentially national level.



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COLLABORATING PARTNERS

*Funding for the “Good to Grow” project is provided through the
W. K. Kellogg Foundation*

PARTICIPATING SCHOOL DISTRICTS (TO DATE)

Albion Public Schools
Athens Area Schools
Harper Creek Community
Schools
Lakeview School District
Pennfield Schools
Tekonsha Community Schools

OTHER COLLABORATING PARTNERS

Environmental Protection Agency
Water Quality Association