In 2015, the Centers for Disease Control and Prevention (CDC) Safe Water for Community Health (Safe WATCH) Program awarded cooperative agreements to 14 state and five county health agencies to improve the efficiency and effectiveness of their safe drinking water programs. The main goal of the program is to prevent exposure to waterborne contaminants and protect health. Safe WATCH grantees are using the 10 Essential Environmental Public Health Services (Figure 1) to strengthen programs that address drinking water systems and sources not covered by the U.S. Environmental Protection Agency’s Safe Drinking Water Act (e.g., household wells, springs, cisterns).

Health departments have made considerable progress during the first 1.5 years of the Safe WATCH program. Although health departments have worked on activities related to all the essential services, particular emphasis has been placed on

- collecting and organizing household well and water quality data,
- building partnerships with public and private agencies that work on safe drinking water, and
- tailoring outreach and educational materials for well owners.

Here are some of the specific success stories.

Gaston County Health Department (North Carolina) worked in partnership with the University of North Carolina at Charlotte to hire undergraduate students to digitize 7,940 well permits into a database to improve health department efficiency. Using application programming interfaces (APIs) with web-based mapping, they also geocoded 7,763 addresses of the 7,940. These activities have strengthened the county’s capacity to monitor, diagnose, and investigate environmental public health problems associated with household wells.

La Crosse County Health Department (Wisconsin) increased well education and testing support to address newly discovered concentrations of metals in the county’s well water. In the first year, the program educated 402 household well owners, which led to 989 water quality tests. The program also purchased an atomic absorption spectrometer (see photo above, top) to measure arsenic in drinking water. The program became the
The 10 Essential Environmental Public Health Services Wheel

- 10 Essential Environmental Public Health Services: Identify the actions necessary to protect and improve environmental public health (www.cdc.gov/nceh/ehs/10-essential-services/index.html)
- Environmental Public Health Performance Standards: Assess and improve how programs and systems provide communities with the 10 Essential Environmental Public Health Services (www.cdc.gov/nceh/ehs/envphps/default.htm)
- Resources Organized by Essential Services: Find tools to help programs fill performance gaps and contribute to larger performance improvement efforts such as voluntary public health accreditation (www.cdc.gov/nceh/ehs/10-essential-services/resources.html)

It is notable that the state of Washington defines public water systems as “any water system that serves more than one household, or serves a commercial establishment.” Specifically, Washington defines Group B water systems as those with 2–14 service connections. These systems must meet state and local requirements for water quality and operations. After the department’s first year of outreach activities, they achieved close to 70% system compliance and the county has an updated database with water quality data and information on system management. These activities helped to assure compliance with laws and regulations in the county.

CDC’s Environmental Health Services Branch (EHSB) manages the Safe WATCH program. EHSB has also been working with national partner organizations—ChangLab Solutions (CLS) and the Public Health Foundation (PHF)—to provide guidance to environmental health practitioners based on interactions with Safe WATCH partners. PHF summarized quality improvement technical assistance activities with Safe WATCH partners in the March 2017 Journal of Environmental Health (Lamers & Hubbard, 2017). In July 2017, CLS released the guidance document,
Closing the Gap: Using Policy to Improve Drinking Water Quality in Federally-Unregulated Drinking Water Systems (ChangeLab Solutions, 2017). This guidance highlights how policy can be used at local and state levels to ensure access to safe drinking water for people who use private wells.

In the future, EHSB will continue to disseminate new guidance documents as they are developed. The National Center for Environmental Health and National Environmental Health Association plan on developing a national practice network that addresses federally-unregulated drinking water issues. To learn more about CDC’s Safe WATCH program, visit www.cdc.gov/nceh/ehs/safe-watch/index.html.

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The following colleges and universities offer accredited environmental health programs for undergraduate and graduate degrees (where indicated). For more information, please contact the schools directly, visit the National Environmental Health Science and Protection Accreditation Council (EHAC) website at www.ehacoffice.org, or contact EHAC at ehacinfo@aehap.org.

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