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Safe Water for Community Health Update

Editor's Note: NEHA strives to provide up-to-date and relevant information on environmental health and to build partnerships in the profession. In pursuit of these goals, we feature this column on environmental health services from the Centers for Disease Control and Prevention (CDC) in every issue of the *Journal*.

In these columns, authors from CDC's Water, Food, and Environmental Health Services Branch, as well as guest authors, will share insights and information about environmental health programs, trends, issues, and resources. The conclusions in these columns are those of the author(s) and do not necessarily represent the official position of CDC.

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The contamination of drinking water in private wells, especially near former military (National Research Council, 2009) and industrial sites (Worley et al., 2017), has become an issue of increasing concern to the public. Even as the media highlights these examples of contamination, some 34 million Americans rely on well water possibly affected by common hazards (National Groundwater Association, 2016). Bacterial and chemical contamination and naturally occurring contaminants such as arsenic and uranium affect water quality in one of every five wells throughout the U.S. (DeSimone, Hamilton, & Gilliom, 2009). The U.S. Environmental Protection Agency's Safe Drinking Water Act does not cover private wells. In response, the Centers for Disease Control and Prevention's (CDC) Safe Water for Community Health (Safe WATCH) program addresses private wells and other federally un-

regulated drinking water sources and systems by strengthening state and local safe drinking water programs.

Since 2015, Safe WATCH has funded 14 state and 5 county health departments to use the 10 Essential Environmental Public Health Services (Essential Services) to improve services for community residents relying on federally unregulated drinking water (Figure 1). While some programs have activities spanning the full range of the Essential Services, other programs focus on only a few Essential Services at a time (Figure 2). The following examples highlight grantees who increased sampling, quantified risk, enhanced and enforced policies, and developed and improved educational and outreach programs.

- Connecticut Department of Public Health (CTDPH) held seven water fairs in cooperation with its local area health depart-

ments. During these fairs, CTDPH overcame cost- and knowledge-related barriers to arsenic and uranium testing by distributing 719 free water testing kits. The public returned 86% (618) of the water testing kits for analysis. The public health lab identified 34 households where arsenic or uranium exceeded maximum contaminant levels. CTDPH provided follow-up letters to residents explaining the results and offering information on treatment options.

- Delta County, Colorado Health Department responded to 530 requests from residents to provide free well water sampling. The Safe WATCH grant supported the first coordinated effort in the six-county region of the West Central Public Health Partnership (WCPHP), led by the Delta County Health Department, to assess drinking water quality and identify risks associated with private wells. Members of WCPHP have promoted free water sampling through brochures, newsletter advertisements, social media, newspaper articles, and a video advertisement created with the University of Colorado Boulder (see sidebar). The well water quality data are now being used to develop GIS contaminant risk maps for the region.
- New Jersey Department of Health (NJDOH) staff identified communities at risk for arsenic and radionuclide contamination of well water. They implemented targeted outreach events that included well water testing in those communities. Test results were shared with policy makers and helped support a proposal to expand the State Private Well Testing Act (PWTA) rules to include arsenic and radiological (gross alpha) testing statewide, with a possible adoption of the

FIGURE 1

Grantee Participation in the 10 Essential Environmental Public Health Services (n = 19)

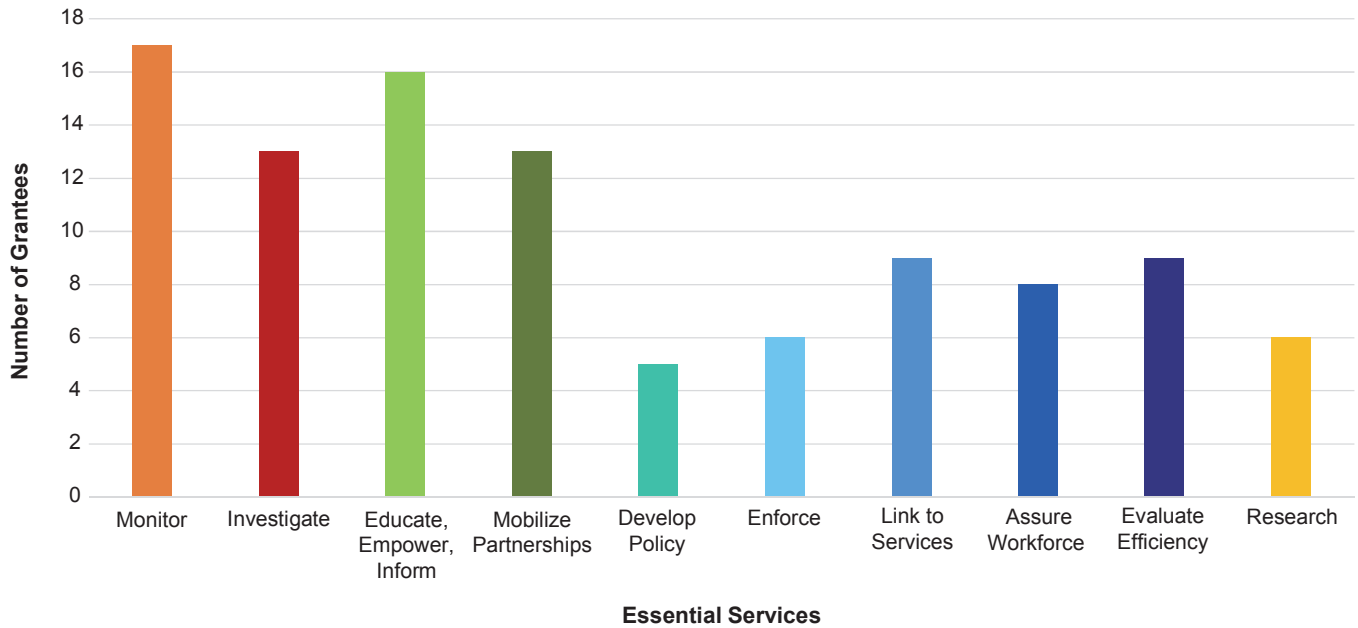
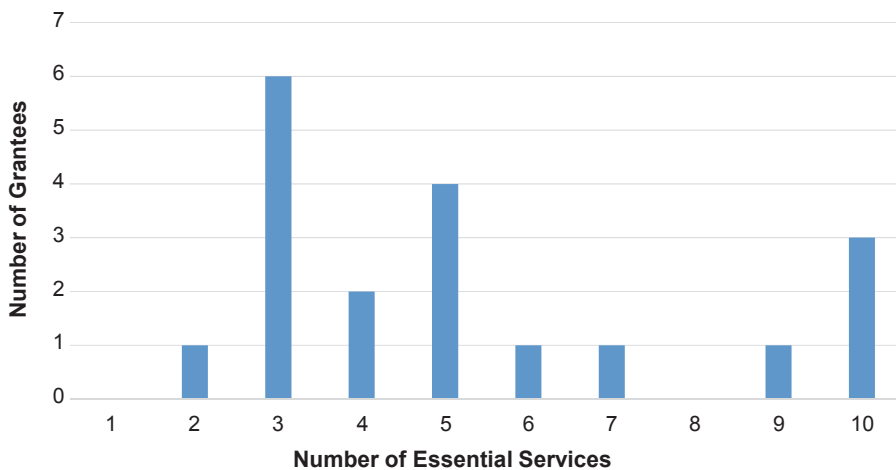


FIGURE 2

Number of 10 Essential Environmental Public Health Services Being Addressed by Grantees (n = 19)



for quick electronic scanning and well identification across agencies, which is helpful for the development and maintenance of a private well database. In summer 2017, NMDOH formed a work group to support the tagging of 3,000 existing wells.

- **New York State Department of Health (NYSDOH)** implemented a strategy for responding to private well water contamination and illness associated with concentrated animal feeding operations (CAFOs) and flooding in Federal Emergency Management Agency (FEMA) 100- and 500-year flood zones. GIS maps from partners were used to show well locations in karst topography near CAFOs and in FEMA flood zones. New maps showing vulnerable wells were then created. Staff analyzed regulations and outreach materials from other states addressing flooding and CAFO issues. NYSDOH will develop educational information for homeowners to prepare for and recover from CAFO contamination events.
- **Vermont Department of Health (VDH)** updated health advisory levels to enforceable drinking water standards for the Department of Environmental Conservation's Groundwater Protection Rule and

revised PWTA rules by 2018. Currently, the PWTA requires tests for radionuclides only in the southern region of the state and arsenic only in the northern region of the state.

- **New Mexico Department of Health (NMDOH)** collected data and water sam-

ples from 1,482 wells during 18 water fair events. In June 2017, the New Mexico Office of the State Engineer implemented recently passed legislation requiring bar-coded well identification tags for all newly constructed wells. These bar codes allow

Strategy. VDH implemented a marketing campaign addressing well testing barriers that featured 12 articles in the *Burlington Free Press* and resulted in 1.8 million digital ad displays across websites and social media. Additional outreach was provided through an online statewide neighborhood network called the Front Porch Forum. The digital ads directed patrons to the VDH drinking water informational page to learn about well testing. The campaign received attention from local news that led to a live interview with the drinking water engineer, prompting additional requests from residents to have their wells tested.

Safe WATCH partners closed gaps in their safe drinking water programs by addressing priorities related to the Essential Services. The Safe WATCH program continues to organize and provide access to the experiences, tools, and promotional materials developed by state and local partners on the Safe WATCH website (www.cdc.gov/nceh/ehs/safe-watch/index.html). CDC will support grantees through 2020 and work towards the long-term goal of assuring access to safe drinking water to protect the health of the public. 🐼

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Check out the Safe Water for Community Health (Safe WATCH) website for updated tools and promotional materials: www.cdc.gov/nceh/ehs/safe-watch/index.html

Links to Grantee Resources

- West Central Public Health Partnership: www.wcphp.org/well-water-testing
- Delta County/University of Colorado Boulder television spot: www.colorado.edu/hometowns/western-slope
- New Mexico regulation for mandatory well tags listed under rules and regulations for well driller licensing, as well as construction, repair, and plugging of wells: www.ose.state.nm.us/STST/wdRules.php
- New Jersey Private Well Testing Act: www.nj.gov/dep/watersupply/pw_pwta.html
- Vermont drinking water testing: www.healthvermont.gov/lab/drinking-water



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