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Building National Capacity: Tools and Resources for the Environmental Health Professional

Editor's Note: The National Environmental Health Association 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 periodically feature columns on environmental health from the Centers for Disease Control and Prevention (CDC) in the *Journal*.

In these columns, authors from CDC's Water, Food, and Environmental Health Services Branch, as well as guest authors, will share tools, resources, and guidance for environmental health practitioners. The conclusions in this column are those of the author(s) and do not necessarily represent the views of CDC.

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Environmental health professionals play a crucial role in protecting public health. A national assessment of the environmental health workforce found that many identify training gaps and limited access to tools and resources as key barriers to advancing their practice (Gerding et al., 2019). To strengthen environmental health programs nationwide, the National Center for Environmental Health within the Centers for Disease Control and Prevention (CDC, 2026) created the Environmental Health Capacity (EHC) Program.

Through this program, CDC funds 45 state, tribal, and local health departments (Figure 1). These partners focus on building capacity in priority areas such as drinking water from

private wells, recreational water, harmful algal blooms (HABs), food safety, exposure assessments, and outbreak investigations. Since 2020, EHC partners have used the funding to address their most pressing environmental health issues, developing a variety of publicly available tools and resources that strengthen environmental health services. Thus far, the partners have created 89 individual tools or resources on a variety of environmental health topics, including 18 websites and web-based tools, 35 databases and mapping tools, 31 written materials, 4 trainings and presentations, and 1 podcast (Figure 2).

This column highlights several of these tools. Environmental health professionals can also find many of these tools and more prac-

tices successfully applied in the field through CDC's recently launched Environmental Public Health Practice Gateway (Figure 3).

Highlights of Partner Tools and Resources

Raising Awareness About Tickborne Diseases

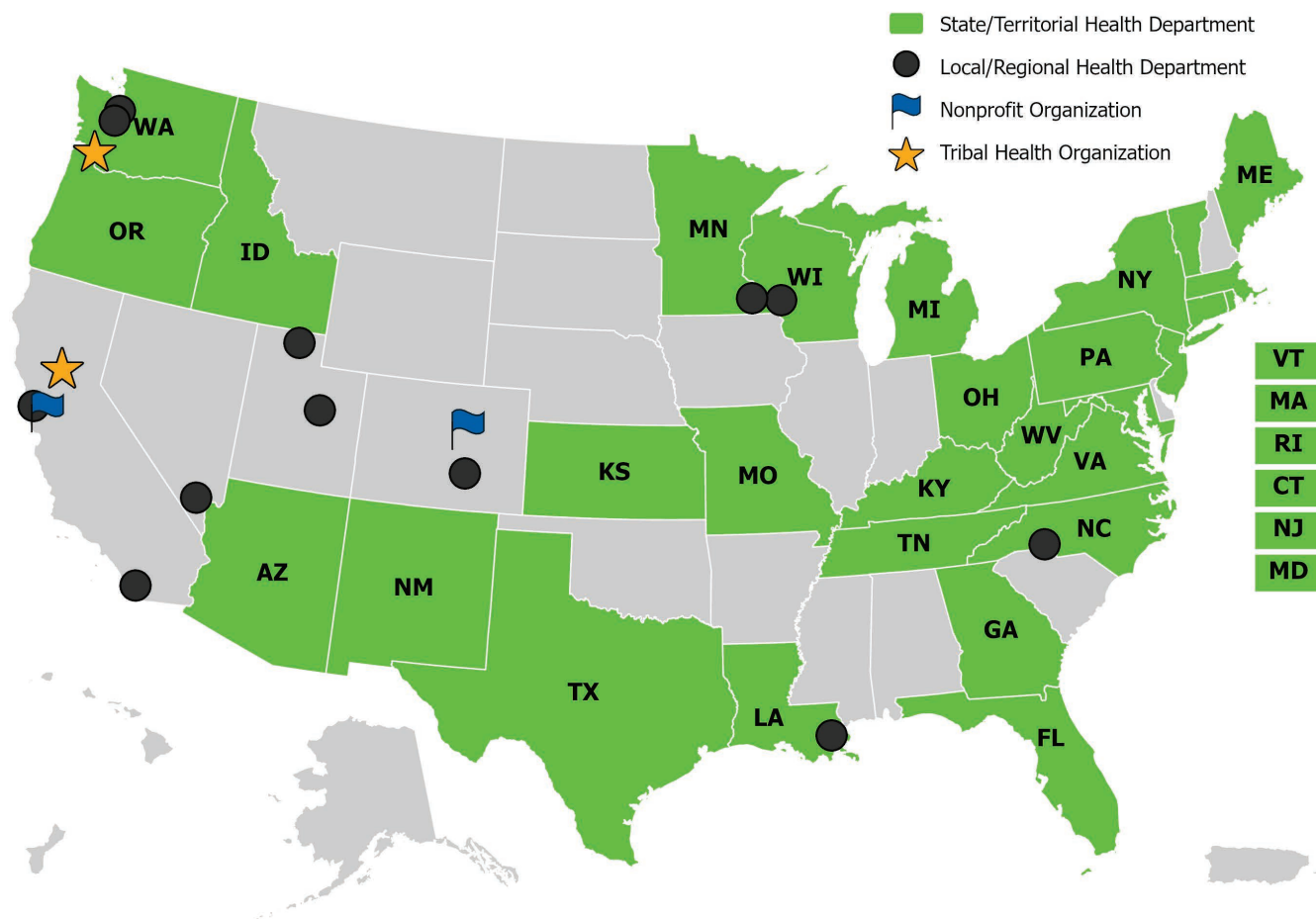
The Kansas Department of Health and Environment and Kansas Environmental Health Tracking (n.d.) developed a data story to help communities understand and prevent tickborne diseases. This tool shares complex information with the public in an easy-to-understand format to help people minimize tick exposure, recognize tick species and identify their locations within the state, and spot the signs and symptoms of tickborne illness. They provide case data reporting for ticks that transmit diseases like anaplasmosis, ehrlichiosis, Lyme disease, spotted fever rickettsiosis, tularemia, and alpha-gal syndrome, which are prevalent in Midwestern states.

Strengthening Private Well Protection

Many partner tools and resources focus on private wells. These water systems lack federal regulatory oversight. Several EHC partners continue to collect drinking water data to build databases and create data dashboards and interactive maps to help communities understand environmental health risk in private wells. For example, the Water Management Inventory Atlas from the Florida Department of Health (2026) shows how interested parties can use private well data to support disaster preparedness, real estate transactions, county planning, and identi-

FIGURE 1

Map of Environmental Health Capacity Partners



Note. The map shows the number and types of partners in the Environmental Health Capacity Program. The partners represent 29 states, 12 local health departments, 2 tribal jurisdictions, and 2 nonprofit organizations.

fying wells near environmental health hazards. Other EHC partners developed similar database tools so environmental health professionals and the public can access private well data (see Sidebar). Different agencies and groups can use these data systems to respond quickly in disaster response and choose effective interventions related to private wells.

Improving Access to Information on Harmful Algal Blooms

To help the public recognize HABs and understand their associated risks in recreational water, the Missouri Department of Health and Senior Services (n.d.), in conjunction with the Missouri Department of

Natural Resources, created an interactive HAB reporting form. The Missouri Department of Natural Resources (n.d.) also created a HAB dashboard. Residents can use these tools to increase their awareness of HAB hazards and adopt safer behaviors. The Pennsylvania Department of Health (2025a, 2025b, 2026) also created a HAB dashboard with fact sheets to help healthcare providers and veterinarians recognize HAB exposures and treat symptoms.

Enhancing Communication With Private Well Owners

Environmental health professionals must communicate effectively with private well owners to encourage regular well testing and

educate them about potential waterborne risks. The Minnesota Department of Health (n.d.) supports this work and has developed well testing materials for residents—including brochures, infographics, and flyers—to explain the importance of private well testing.

In Minnesota, Olmstead County Public Health Services (n.d.) uses an automated tool that lets private well owners enter well water test results into an online form that immediately compares them to drinking water standards. The output explains the potential health implications and recommends treatment options when contaminant levels exceed standards. Well owners are encouraged to review results with an environmental health professional; however, the automated

FIGURE 2

Environmental Health Topics Addressed by Environmental Health Capacity Program Participants

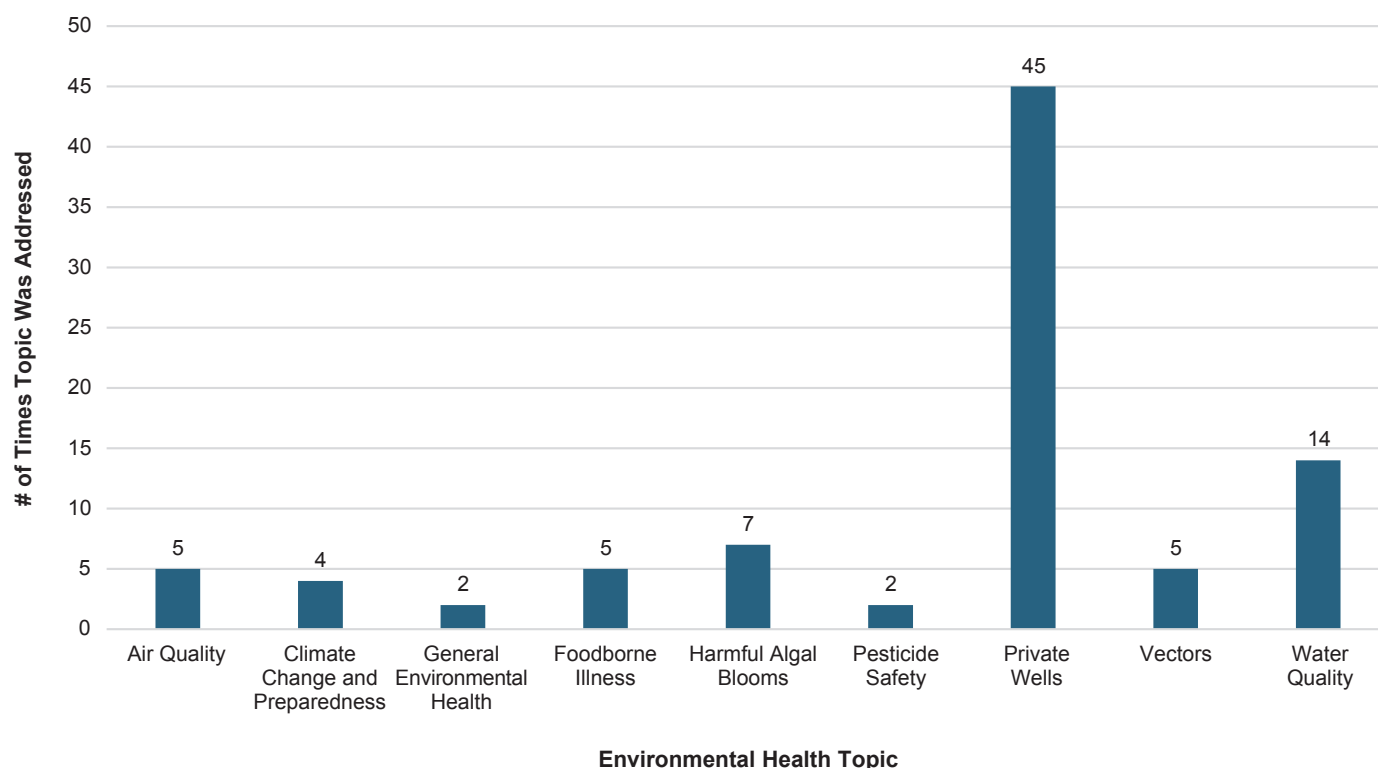


FIGURE 3

Explore the Environmental Public Health Practice Gateway



Note. You can scan the QR code or access the gateway at www.cdc.gov/environmental-health-practice/php/gateway.

process gives well owners a good starting point to discuss appropriate next steps.

Advancing Environmental Health Practice Through Data

EHC partners have created a portfolio of tools and resources that strengthen environmen-

tal health practice by building capacity and increasing public awareness of environmental contaminants and exposure pathways. Many partners improved program efficiency, particularly through the strategic use of data and mapping technologies to reach priority audiences more effectively.

State, tribal, and local health departments publish these tools and resources on their websites to support transparency and help communities and other jurisdictions learn from and adopt successful approaches. CDC's new Environmental Public Health Practices Gateway provides more information about these and other tools and resources at www.cdc.gov/environmental-health-practice/php/gateway. 🌿

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Olmstead County Public Health Services. (n.d.). *Meaning of your water test results*. <https://survey123.arcgis.com/share/c900c50971ed44ffab0e77880cf80819>

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Pennsylvania Department of Health. (2025b). *Harmful algal blooms (HABs) factsheet for veterinarians*. <https://bit.ly/4AgKl4R>

Pennsylvania Department of Health. (2026). *Harmful algal bloom dashboard*. <https://www.pa.gov/agencies/health/programs/environmental-health/habs-dashboard>

Data Resources for Private Wells

- Aquifer Quality Data (Louisiana Department of Health): <https://experience.arcgis.com/experience/139808472ff042718d573e510ec22810/>
- Environmental Hazards Affecting Onsite/Wells Map Viewer (Virginia Department of Health): <https://experience.arcgis.com/experience/57305371228a4143b1b472b9a054fa23>
- Private Drinking Water Quality (Vermont Department of Health): <https://experience.arcgis.com/experience/dbed7d7f37ff4927a8edda677696b7c4/page/Private-Drinking-Water-Quality/>
- Southern Nevada Private Well Management (Southern Nevada Health Department and the University of Nevada, Las Vegas): <https://sites.google.com/unlv.edu/unlvsnhd-eh-portal/home>
- TN Public Water System Service Area Mapping Application (Tennessee Department of Health, Vanderbilt University, Tennessee Association of Utility Districts, and Tennessee Department of Environment and Conservation): <https://tdec.maps.arcgis.com/apps/webappviewer/index.html?id=0441e42ba291450e833757ca6b6029a1>
- Well Water Quality in Seven Northern PA Counties (Pennsylvania Department of Health): <https://bit.ly/4h0X8kb>



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