Food-related illnesses affect tens of millions of people and kill thousands in the U.S. each year. They also cause billions of dollars in health care–related and industry costs annually. As a result, the Centers for Disease Control and Prevention (CDC) have identified reducing foodborne diseases as a “winnable battle (CDC, 2013).” To address this issue, in April 2014 CDC’s National Center for Environmental Health launched two food safety tools that are transforming how environmental health workers conduct foodborne illness environmental assessments as part of an outbreak response and how they report these data to prevent future outbreaks.

**Tool #1**

The first tool is the e-Learning on Environmental Assessment of Foodborne Illness Outbreaks (www.cdc.gov/nceh/ehs/elearn/ea_fio). This free online training is designed to improve environmental health workers’ competency with foodborne illness outbreak environmental assessments. These assessments, conducted as part of outbreak response, can help identify environmental causes of outbreaks. The clues and data gathered from environmental assessments identify how and why germs got into the environment and spread to make people sick (e.g., improper hand washing resulting from lack of food safety training). Environmental health workers typically conduct environmental assessments and use the information gathered to stop the current outbreak and prevent future ones. Users of the e-Learning tool acquire in-depth skills and knowledge to

- investigate foodborne illness outbreaks as a member of a larger outbreak response team,
- identify an outbreak’s environmental causes, and
- recommend appropriate control measures.

Currently, over 1,900 users in 49 states, the District of Columbia, and over 50 countries throughout the world have registered and begun using the e-Learning tool. Over 60% of federal, state, local, territorial, or tribal government users ($n = 1,188$) are environmental health workers ($n = 762$) who conduct routine inspections, plan reviews, complaint investigations, or outbreak response within their respective government agencies (Figure 1).

Additionally, the e-Learning tool is being used in academic settings and professional training programs throughout the country. Over 200 students have used it to meet their educational and academic requirements (e.g., Bachelor of Science, nursing, and Master of Public Health degree course requirements). CDC programs like the Public Health Associate Program, in which associates are assigned to public health agencies and nongovernmental organizations, encourage associates working in environmental health to use the e-Learning tool.
The increasing enrollment of the e-Learning tool by environmental health workers is encouraging. The National Association of County and City Officials (NACCHO), however, estimates 13,300 environmental health workers are employed at local health departments across the country (NACCHO, 2014). To target more environmental health workers and increase awareness of the e-Learning tool, CDC anticipates strategically working with federal, state, local, territorial, and tribal food safety programs to reach additional environmental health workers.

**Tool #2**
The second tool launched by CDC, the National Voluntary Environmental Assessment Information System (NVEAIS; www.cdc.gov/ncenh/ehs/nveais), is a surveillance system that collects foodborne illness outbreak environmental assessment data. It enables ongoing, systematic collection, management, analysis, interpretation, and dissemination of foodborne illness outbreak environmental assessment data (e.g., detailed food vehicle information, contributing factors, establishment description and categorization, etc.).

NVEAIS is available to federal, state, local, territorial, and tribal food regulatory agencies throughout the U.S. Data reported to NVEAIS will be used to:

- characterize food vehicles and monitor trends;
- identify and monitor contributing factors and environmental causes;
- generate hypotheses;
- guide planning, implementation, and evaluation of food safety programs; and
- prevent future outbreaks.

CDC encourages all food safety programs to use NVEAIS to improve food safety in the U.S. Currently, eight state and three local health departments report environmental assessment data to NVEAIS (Table 1).

By participating in NVEAIS, food safety programs provide critical environmental assessment data that can be used to prevent and reduce future outbreaks. CDC will analyze standardized data from NVEAIS to understand how and why outbreaks occur, share findings and recommend actions from this analysis to improve outbreak response, and prevent future outbreaks.

Environmental health workers in food safety programs play an essential role in the effort to reduce foodborne illnesses. CDC wants federal, state, local, territorial, and tribal food safety programs to use the e-Learning tool and NVEAIS to assist in winning the battle on food safety (www.cdc.gov/winnablebattles/foodsafety). The use of these tools can improve knowledge on how to conduct environmental assessments, help...
to better understand how and why outbreaks occur, and influence food safety policies and practices so that future outbreaks are reduced and ultimately eliminated.

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References


Did You Know?

Individuals or local, state, tribal, or territorial environmental public health jurisdictions that have demonstrated exceptional collaboration and multidisciplinary teamwork in detection, response, or prevention of foodborne illness in 2014–2015 are eligible for the John J. Guzewich EH Team Award for Environmental Public Health Professionals. The award will be presented at the 2015 InFORM (Integrated Foodborne Outbreak Response and Management) Conference being held November 17–20 in Phoenix, Arizona. Please contact Ginny Coyle at gcoyle@neha.org for more information. Applications are due by August 1, 2015.

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