

▶ DIRECT FROM CDC ENVIRONMENTAL HEALTH SERVICES



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## Environmental Assessment Training Series (EATS): Practical Training for Food Safety Officials Hungry to Enhance Environmental Assessment Skills

**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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FIGURE 1

**The Environmental Assessment Training Series (EATS) Helps Food Safety Officials Learn to Conduct Environmental Assessments**



Foodborne illness is a significant public health problem in the U.S. Annually, more than 800 foodborne illness outbreaks are reported to the Centers for Disease Control and Prevention (CDC) and most of these occur in retail food service establishments (e.g., restaurants) (Gould et al., 2013). State and local health department investigations of outbreaks collect information valuable in preventing future outbreaks. Of particular value are the data collected during environmental assessments.

Environmental assessments are focused on identifying the environmental causes of outbreaks (also known as contributing factors and environmental antecedents). In other words, the goal is to describe how and

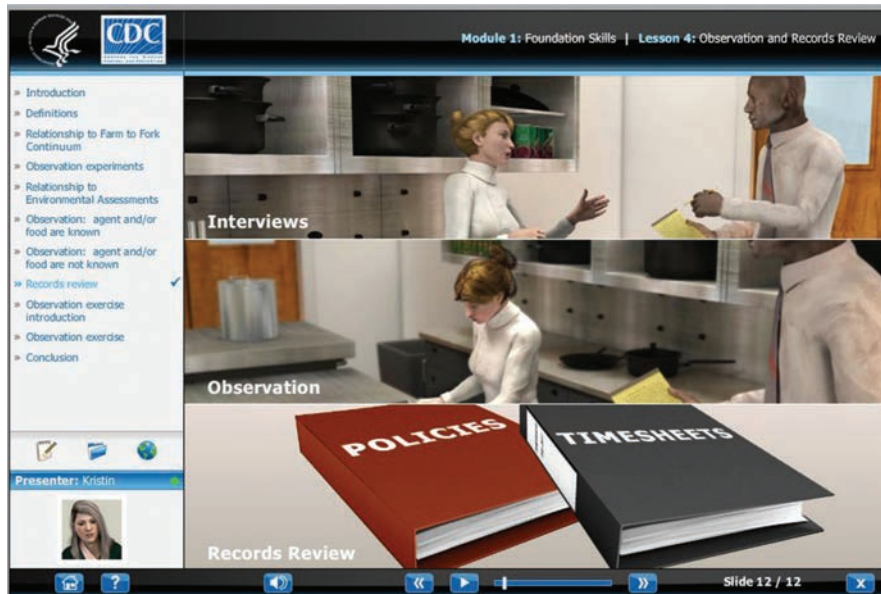
why the environment contributed to the introduction or transmission of agents that cause illness (Selman & Guzewich, 2014). For example, an environmental assessment could determine that the contributing factor to an outbreak was an ill worker who transmitted illness to customers (i.e., how the outbreak occurred). The assessment could further determine that the ill worker was working because neither they nor their manager understood that the worker could spread illness through food (i.e., why the outbreak occurred). Findings from environmental assessments can be used to recommend effective interventions that stop ongoing foodborne illness outbreaks and prevent future outbreaks.

Environmental assessments are typically conducted by food safety program officials. They visit the outbreak establishment and conduct a thorough review of the processes and practices used with the suspected outbreak food items. This review could include interviewing staff about food safety policies and practices, observing food preparation practices, and reviewing records. These assessments can be viewed as forensic-type investigations in which investigators reconstruct past events in the outbreak establishment along with other members of an investigation team.

From a local food safety program perspective, foodborne illness outbreaks might not happen very often. So, opportunities to conduct outbreak environmental assessments

FIGURE 2

### Environmental Assessment Training Series (EATS) Users Can Practice Interviewing a Kitchen Manager and Other Restaurant Workers



ronmental assessments. Additionally, there are few training opportunities focused on outbreak environmental assessments. To address these issues, CDC developed the Environmental Assessment Training Series (EATS) (Figure 1). CDC's goal was to provide free online training that uses cutting edge e-learning technology to improve competency with conducting environmental assessments as part of foodborne illness outbreak investigations.

### EATS 101: Foundation Skills

In 2014, CDC launched EATS 101: Foundational Skills (initially titled e-Learning on Environmental Assessment of Foodborne Illness Outbreaks). This course provides guidance on conducting environmental assessments in retail food service establishments. Through simulated exercises, participants learn how to use critical thinking, interviewing, sampling, and establishment observation data to identify an outbreak's contributing factors (Figure 2). Participants also learn how to properly summarize these data for reporting to CDC's National Environmental Assessment Reporting System (NEARS).

FIGURE 3

### The Environmental Assessment Training Series (EATS) Includes Virtual Outbreak Scenarios



### EATS 102: Skill Building

In 2018, CDC launched EATS 102: Skill Building. This course expands on the foundational skills taught in EATS 101 by giving participants additional practice with conducting virtual environmental assessments within an outbreak investigation team comprised of regional, state, and federal partners. Participants practice applying environmental assessment skills in multiple outbreak scenarios (Figure 3), including a private school, local catering establishment, grower and distributor of organic herbs, and cheese manufacturer.

### EATS Benefits

Since the launch of EATS, more than 6,700 participants from multiple government agencies, as well as from scientific, industry, and consumer groups, have enrolled in the training. Average scores of participants who have completed EATS 101 ( $N = 2,609$ ) show an increase of 25 percentage points in knowledge about environmental assessments from pretraining to posttraining (61% to 86%). These data indicate that the training is meeting its goal. Further analysis of these data indicates that whether participants have been

are limited and food safety program officials might not have much experience conducting them. Thus, their outbreak investigation

activities can more closely resemble routine inspections, which are less likely to identify environmental causes of outbreaks than envi-

Access the Centers for Disease Control and Prevention's (CDC) Environmental Assessment Resources

- Environmental Assessment Training Series (EATS) ([www.cdc.gov/nceh/ehs/eLearn/eats](http://www.cdc.gov/nceh/ehs/eLearn/eats)): EATS helps you practice skills in an interactive virtual environment and learn to conduct environmental assessments as part of foodborne illness outbreak investigations.
- National Environmental Assessment Reporting System (NEARS) ([www.cdc.gov/nceh/ehs/nears](http://www.cdc.gov/nceh/ehs/nears)): NEARS is a companion surveillance system to CDC's National Outbreak Reporting System (NORS) and is used to capture environmental assessment data from foodborne illness outbreak investigations.

a food safety program official for 1 year or 10 years, they gain new knowledge from EATS.

As an incentive to EATS participants, CDC offers continuing education units for completion of each course. Because EATS is comprehensive and provides many opportunities to apply knowledge learned, completion requires a significant time commitment. It takes an average of 9 hr and 6 hr to complete EATS 101 and EATS 102, respectively. The exercises, however, are self-paced and do not have to be completed in one sitting.

Participants report that the training is engaging and effective in improving foodborne illness investigator skills. For example, a Minnesota Department of Health staff member noted that they use some of the questioning tactics presented in NEARS in the field and that EATS can help any inspector conducting outbreak investigations.

CDC is dedicated to promoting the importance of conducting environmental assessments as part of foodborne illness outbreak investigations. EATS helps to improve the

ability of food safety programs to prepare for, respond to, and prevent foodborne illness outbreaks. This improvement can ultimately assist in reducing foodborne illness. 🐞

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