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 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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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...
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 environ-
mental 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: Foundation 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).

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
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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