

## Epi-Ready Workshop Learning Objectives

At the end of this workshop, participants will be able to:

- Describe the desirable skills and knowledge available through a foodborne disease outbreak investigation and control team.
- Recognize a possible foodborne outbreak through reports to a notification/complaint system or pathogen-specific surveillance.
- Generate hypotheses about the source of an outbreak using information on causative agents, the implicated facility, the descriptive epidemiology of cases, and case interviews.
- Describe how the contributing factors in an outbreak are related to the causative agent, the suspect food, and the setting in which the food was prepared.
- Explain terms used in epidemiology such as case-control and cohort study, relative risk, odds ratio and measure of association.
- List important considerations in the collection and submission of clinical and food specimens to the laboratory.
- Identify ways to improve communications between members of the outbreak investigation team.

### Module Learning Objectives

At the end of this module, participants will be able to

#### Module 1: Foodborne Disease and Outbreaks

1. Describe what is meant by "foodborne disease."
2. List examples of common foodborne disease causative agents.
3. Define the terms "outbreak" and "cluster."
4. List the goals of a foodborne disease outbreak investigation.
5. Describe the desirable knowledge and skills included on a foodborne outbreak investigation team.

#### Module 2: Foodborne Disease Surveillance and Outbreak Detection

1. Describe the surveillance of foodborne illness through notification/complaint systems.
2. List ways to improve the accuracy of a food history obtained in a foodborne illness complaint.
3. Describe the surveillance of foodborne illness through pathogen-specific surveillance.
4. Recognize a possible outbreak using a notification/complaint system or pathogen-specific

#### Module 3 - Preliminary Investigation of an Outbreak

1. Describe the initial steps of an outbreak investigation including
  - Verify the diagnosis
  - Search for additional cases
  - Create a case definition
  - Generate a hypothesis about the source
2. Develop a case definition for an outbreak.

3. Generate a hypothesis about the source of an outbreak.
4. Prioritize an outbreak for further investigation.

#### Module 4 - Environmental Health Investigation

1. Discuss how contributing factors are related to the causative agent, suspect food, and food processing method.
2. Compare an environmental health assessment with a HACCP plan review, facility plan review, and regulatory inspection.
3. List types of activities included in an environmental health assessment.
4. Describe the likely role of local jurisdictions in a traceback investigation.

#### Module 5 - Epidemiologic Investigation

1. Compare a case series, a cohort study, and a case-control study.
2. Interpret the measure of association for a cohort and a case-control study.
3. Explain what is meant by the term "statistically significant."
4. Identify potential problem areas in the conduct of an epidemiologic study which might impact the findings.

#### Module 6 - Laboratory Investigation

1. Determine the likely causative agent for a foodborne outbreak based on clinical findings and/or suspect food.
2. List important considerations in the collection and submission of clinical and food specimens to the laboratory.
3. Interpret results from testing of clinical and food specimens.
4. Describe three ways sub-typing of the causative agent can be used in an outbreak investigation.

#### Module 7 - Multi-jurisdictional Outbreaks

1. Discuss recent shifts in the nature of foodborne disease outbreaks.
2. List indicators that suggest an outbreak is likely to involve cases from multiple jurisdictions.
3. Describe federal public health agencies likely to participate in multijurisdictional investigations.
4. List clues that an outbreak might be due to intentional contamination.
5. State whether the local incident command system is activated during an outbreak response in your jurisdiction.

#### Module 8 - Communications among Team Members

1. Discuss ways to improve communications among outbreak investigation team members before, during, and after an outbreak.
2. Identify key stakeholders to be notified in the event of a foodborne outbreak.
3. List considerations in dealing with the media about a foodborne disease outbreak.
4. Outline the components of a final report from an outbreak investigation.