



Environmental Health Food-borne Outbreak Onsite Assessment Guidelines

Environmental Health On-Site Assessment Introduction

A. Purpose of the Onsite Assessment

1. To communicate effectively with local and state Communicable Disease Personnel and Epidemiologists.
2. To identify implicated ingredient(s) and/or food item(s).
3. To identify the flow of food through the establishment.
4. To interview food workers and managers.
5. To provide necessary information as part of the epidemiological investigation.
6. To ask questions about and observe practices regarding hand washing, temperature controls and hygiene during receiving, storage, cooking and holding.
7. To correct food-preparation practices that allow conditions to thrive that lead to FBD.
8. To assess conditions in facilities that might have led to the outbreak (*Outbreak investigations are not inspections*).

B. Onsite Assessment Definitions

1. ***Complex***- a process that requires a kill step followed by any combination of holding, cooling, re-heating, and freezing (steps following the kill step can occur in any order.)
2. ***Complex Establishment***- An establishment where at least one food item requires a kill step and one or more of the following processes: holding, cooling, re-heating, and freezing. The menu may include any combination of prep/serve, cook/serve and complex food items.
3. ***Cook/Serve***- A process where the food item is prepared for same day service, and involves a kill step.
4. ***Cook/Serve Establishment***- An establishment where at least one food item is prepared for same day service and involves a kill step. The menu may include prep/serve items or have some food on the menu that is commercially prepared and heated for service.
5. ***Cooking***- Any thermalization process that involves a kill step.

6. ***Cooking/Heating***- Any thermalization process involved in preparing a food item for consumption or for preparation. It may or may not include a kill step. Cooking signifies a kill step; heating signifies no kill step.
7. ***Food Flow***- Describes the flow of the food through the system from receiving to service. One food flow is completed for each food item evaluated. It captures observational data about food handling practices and food worker behaviors in a food preparation process.
8. ***Kill Step***- a step in a food preparation process where *raw or under-cooked animal products* undergo a thermalization process that reduces pathogens to a level unable to cause adverse health effects.
9. ***Major Ingredients***- Essential ingredients needed to compose the food item evaluated, and any additional items that are known to be associated with a risk of foodborne illness, such as sprouts, melons, parsley, etc.
10. ***Minor Ingredients***- Ingredients used in small quantities that are not likely to be potentially hazardous, such as salt, pepper, spices, oil, garnishes, etc.
11. ***Outbreak Evaluations***- May include restaurants, institutional food service, food carts, mobile food units, temporary food stands, restaurants in supermarkets, catered events or other situations where food is prepared and eaten outside the home.
12. ***Outbreak Scenarios***- Outbreaks result in one of four scenarios (it is not uncommon for the scenario to change as information is gathered).
 - A vehicle is identified, but no agent is identified
 - An agent is identified, but no vehicle is identified
 - No vehicle is identified, no agent is identified
 - Both an agent and vehicle are identified
13. ***Prep/Serve***- A process where the food item is prepared and served without a kill step. It may include heating commercially prepared foods for service.
14. ***Re-heating***- any process that involves thermalization of a product that has been cooked (kill), cooled and/or cold held in the establishment. Re-heating includes heating for immediate service and for hot holding of foods that have gone through a cook (kill) in the *establishment*. Re-heating does not include heating of commercially prepared products.
15. ***Restaurant***- An establishment that prepares and serves food to customers. Restaurants do not include institutions, food carts, mobile food units, temporary food stands, restaurants in supermarkets and caterers. Establishments that serve individual customers AND cater events are included; establishments that ONLY do catering is excluded.

Preparing for the Onsite Assessment

A. Take the following steps before arrival at the establishment to confirm the outbreak and identify agent and/or vehicle.

1. Examine food-borne outbreak report
2. Coordinate activities with County Communicable Disease Staff or State ACDP to find*:

- symptoms
- duration of symptoms
- preliminary data on food vehicles

**This information will determine what food processes should be investigated.*

3. With the help of the County Communicable Disease Staff or State ACDP assisting with the assessment, make a best guess about the FBD agent.

3. The Onsite Assessment

A. At the Establishment

1. Get a complete list of all the people who attended the same function or had a meal at the same restaurant, etc.; (at the direction of County Communicable Disease or State ACDP). Lists can be obtained from the host/hostess or event organizer, from credit card receipts or from reservation lists.
2. Obtain a copy of the menu or other list of foods and send to your County Communicable Disease or State ACDP to develop a questionnaire.
3. Conduct a Manager & Staff Interview.
4. Follow the Food Flow Process: based on the suspected agent and vehicle of the outbreak.

B. Manager & Staff Interview

Obtain at a minimum the following information from management and/or staff:

1. What is the establishment's source of potable water?
2. What is the establishment's sewage disposal method?
3. How would you describe the ownership of this establishment?
4. Approximately how many meals are served there daily?
5. Are foods prepared or partially prepared at a commissary?
6. How many kitchen managers do you have?
7. What language do the kitchen manager(s) speak?
8. Has the kitchen manager(s) received food manager certification training?
9. Do any kitchen managers receive paid sick leave?

10. How many food workers do you have?
11. What language do the food workers speak?
12. Do all food workers have food handler cards?
13. Do food workers receive paid sick leave?
14. Are management personnel familiar with HACCP and are HACCP principles used in this establishment?

C. Preparation for the Food Flow Process:

15. Identify the food preparation process (es) of the establishment:

- **Prep/Serve: Does NOT involve a kill step. It may include heating commercially prepared foods for service. (examples: ready to eat salad, a premade pizza heated in the microwave.)**
- **Cook/Serve: Involves a kill step and is prepared for same day service. (example: hamburger made of raw beef made to order)**
- **Complex: Involves a kill step, followed by holding beyond same day service. (example: raw chicken cooked and held for next day)**

16. Follow Food Flow Process (es) based on the outbreak scenario

- **If a vehicle is identified; no agent is identified conduct a food flow for each of the food preparation process types found on the menu (prep/serve, cook/serve, complex).**
- **If a vehicle is identified; an agent is identified conduct a food flow for the implicated vehicle.**
- **If no vehicle is identified; no agent is identified conduct a food flow for one food item from each of the food preparation process types found on the menu.**
- **If no vehicle is identified; an agent is identified conduct a food flow for each of the food preparation process types found.**

D. The Food Flow Process

17. Ask the manager and/or staff to describe the Flow of Food from receiving to plate for service. Example of the Food Flow Process (steps will vary depending on complexity of the product).

Ham Sandwich

Receiving: Ham (H), Bread (B) Lettuce (L)

Storage: Cooler (H) & Dry Storage (B)

Preparation: Slice (H)

Holding: (H)

Preparation: Make Sandwich

Plate for Service

6. Observe or have manager and/or staff describe each food item through the food flow process (as applicable):

- Receiving
- Storage
- Preparation
- Cooking/heating
- Holding
- Cooling
- Reheating
- Freezing

4. Observations to make during the Food Flow Process

Receiving
Major ingredients
Date received
Source
From

Employee
Time to complete
Final cook temp.
Was temp. measured

Cross-contamination
Hand/Glove contact
Barriers to sink
Equipment sanitized
Capacity adequate

Storage
Major ingredients
Where stored
Capacity adequate
Ambient temp
Ingredient temp
Raw/RTE separation

Holding
Major ingredients
Minor ingredients
Process
Employee
Maximum time held
Holding temp.
How long held
Was temp. measured
Hand washing
Barriers to sink
Hand/Glove contact
Cross-contamination
Equipment sanitized
Capacity adequate
Equip. maintained

Reheating
Major ingredients
Minor ingredients
Employee
Time to reheat
Temp. at completion
Was temp. measured
Hand washing
Barriers to sink
Cross-contamination
Hand/Glove contact
Equipment sanitized
Capacity adequate

Preparation
Major/minor
Ingredients
Process
Employee
Product/ingredient
Temp.
Was temp. measured
Hand washing
Barriers to sink
Cross-contamination
Hand/glove contact
Equipment sanitized

Cooling
Major ingredients
Minor ingredients
Employee
Cooling method
Time cooled
Temp after 2 hr
Was temp measured
Hand washing
Barriers to sink

Freezing
Major ingredients
Employee

Cooking/Heating
Major ingredients
Minor ingredients
Process
Thawing

5. After the Onsite Assessment

9. Recommend control measures based on findings of interview/ food flow and the hypothesized FBD agent, the usual vehicles for this agent and food-handling malpractices that permitted or facilitated transmission of the agent.

10. More than one Onsite Assessment may be necessary to confirm agent(s) and vehicle(s) and collect necessary interview and food flow information.

11. Maintain active communication and a working relationship with local and state Communicable Disease Personnel and Epidemiologists.

References

12. Oregon Health Division Food-borne Outbreak Investigative Guidelines

13. Center for Disease Control & Prevention, National Center of Environmental Health, EHS-Net Project