



# Understanding the Root Cause of an Outbreak

## Norovirus Answer Key

Identifying contributing  
factors and environmental antecedents



**Integrated Food Safety**  
Centers of Excellence



# Exercise 1: Answer Key

## What practices would investigators want to observe?

- Preparation of implicated foods. Look for evidence of bare hand contact with ready-to-eat foods.
- Hand hygiene behaviors. Observe if food workers wash hands at proper times and if behavior could lead to contamination of food or food contact surfaces.
- Other poor food safety practices.

## What records would investigators want to review?

- Employee illness logs and health policies.
- Training.
- Credit card receipts.

## What might be some questions investigators would ask the manager and/or food worker?

- Illness history. Ask food workers if they experienced vomiting and/or diarrhea and worked while symptomatic/infectious.
- Barriers to staying home while sick. Ask food workers why they might decide to work while sick.
- Cleaning and sanitation practices. Ask about cleaning and sanitation practices of high touch surfaces



## Exercise 2A: Answer Key

### Follow-up Questions:

Q: Why are employee illnesses not tracked in a log?

- We never use the information from the log so we didn't think it was necessary. We don't ask a lot of questions when the staff calls out from work because we need to get to work finding a replacement.

Q: Why were the restaurant's illness policies not being followed?

- Policies are great but do any restaurants really follow them? They're pretty lengthy and our restaurant runs just fine without us knowing the policies word for word.

Q: Why was the establishment understaffed?

- It's the time of year most people take summer vacations. The manager always thinks we can work understaffed because we somehow always get it done. But when we are understaffed, we need to cut corners just to get the meals out.

Q: Why don't employees use gloves to handle ready-to-eat foods?

- It's just another step in our already long food preparation processes. The manager never says anything and they aren't important anyways. We wash our hands when we come into work.



## Exercise 2B: Answer Key

### Contributing Factors:

C9: Bare-hand contact by a food worker who is suspected to be infectious (e.g., with ready-to-eat-food):

Description: A food worker suspected to be infectious uses his or her bare hands to touch or prepare foods that are not subsequently cooked.

### Environmental Antecedents:

Lack of food safety culture: Employee was working while ill and didn't know that she should report all vomiting and/or diarrhea regardless of reason. Management did not train workers and enforce these policies as they did not view these as important and prioritized staffing restaurant.

Lack of oversight of employees: Not enough oversight by management to ensure employees aren't working while ill or handling ready-to-eat food with bare hands.

Low or insufficient staffing: Due to low staffing, employee felt responsible to work her shift even though she didn't feel well .



## Exercise 3: Answer Key

### Corrective Actions:

#### Short-term

- Implementation of employee screening to ensure no employees worked while ill.
- Instruct the restaurant to clean and sanitize with a product effective against norovirus.
- Provide education on the importance of hand-hygiene and not touching ready-to-eat foods with bare hands to stop the spread of norovirus, and encourage reporting of all symptoms of vomiting and diarrhea to management regardless of the reason.

#### Long-term

- Hold multiple trainings year on proper hand-hygiene and how to minimize bare-hand contact.
- Create an employee contract that lists out all of the symptoms they should report and other illness reporting expectations and has food workers sign and review on an annual basis.
- Instill strong food safety culture and ensure employees are not punished if they call out sick. Management influences food safety attitudes, perceptions, and opinions. Ensure management provides oversight and reinforces food safety practices with training (focus on the public health reasoning) and reminders.



Contributing Factor Video



Environmental  
Antecedent Resources