

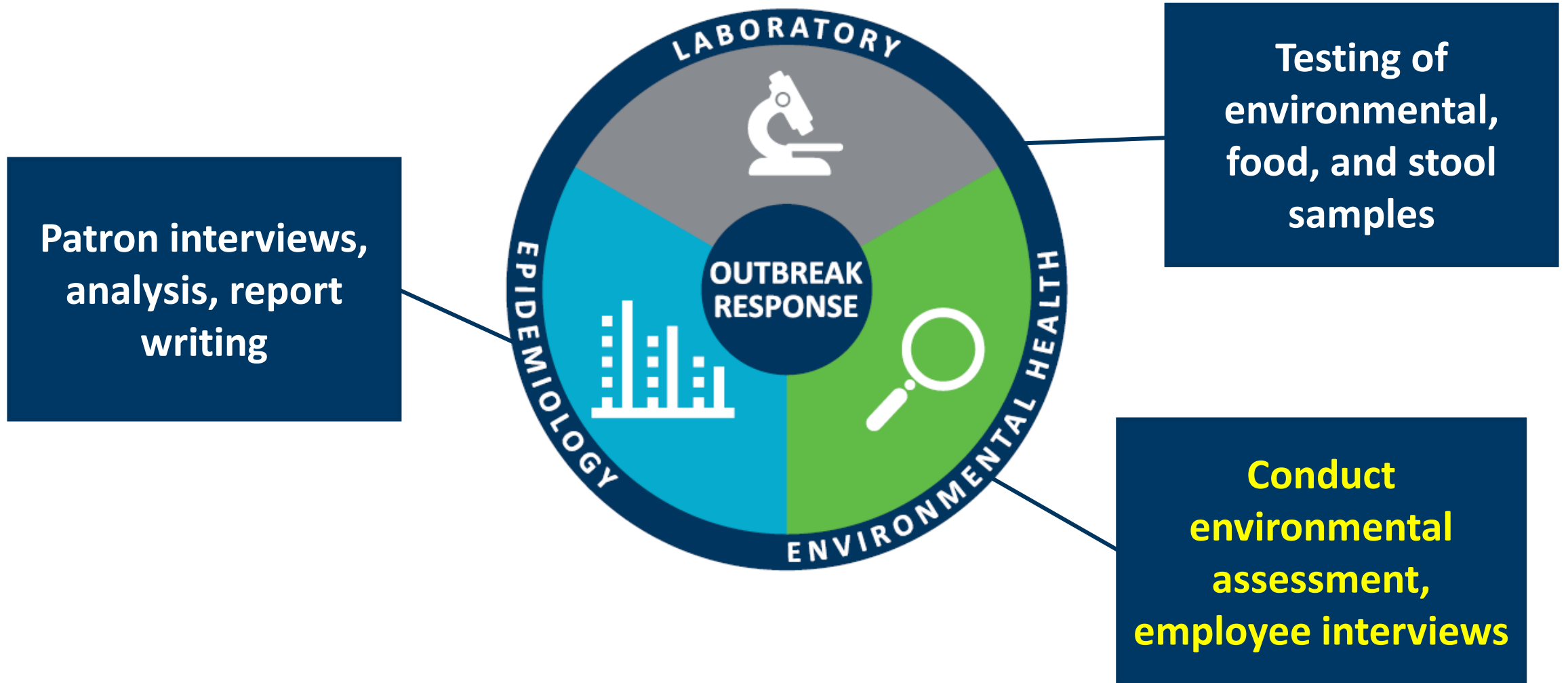


# The Ins and Outs of Interviewing: A Tool for Outbreak Investigations

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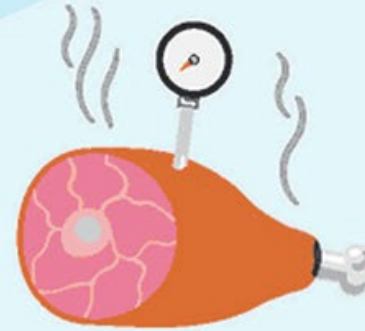
# Outbreak Investigation Team



# Components of Environmental Assessments



Interviewing kitchen managers and food workers



Observing how restaurants prepare food (for example, food temperatures)



Reviewing or collecting records (for example, records of food cooking temperatures, traceback records)



Sampling for pathogens in the restaurant kitchen

# Interviewing during an Environmental Assessment



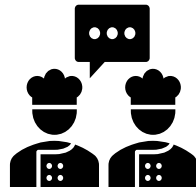
**Keep hypothesis in mind**



**Circumstances at time of exposure**



**Discuss employee health**



**Empower managers**

# Assessing Employee Health

Ask about illness and reporting policies

Inquire if any staff have been recently ill

Review illness log if available

Interview staff with formal interview form

# Tennessee

**FACILITY NAME**

**FACILITY LOCATION**

## Employee Interview Form

The Minnesota Department of Health (MDH) and [LOCAL PUBLIC HEALTH] are working on a foodborne illness outbreak investigation that may be associated with the facility where you work. The purpose of the investigation is to learn the source of the outbreak and stop transmission. We want to ask you questions about your work duties in food service and any recent illness you have had.

**PRIVACY:** Any information you give to us about yourself (including test results) is considered private data. Only public health officials involved in this outbreak investigation will have access to the private data. Do we have your permission to also share this information with management staff at the facility where you work?     **YES**     **NO**

**VOLUNTARY:** You are not required to answer questions. However, your answers will help us understand how this outbreak happened and prevent further transmission. If you don't answer questions, you will be excluded from work because we won't know if you could spread illness to others.

Will you answer some brief questions?     **YES**     **NO (exclusions apply – contact epi)**

**STOOL SAMPLE:** We may ask you to provide a stool specimen. Stools will be tested for bacterial and viral pathogens at MDH. Stool kits and testing are free of charge. You will be given results when they are available.

# Symptom History

- Have you had any of the following symptoms since December 24?

Nausea	<input type="checkbox"/> Y <input type="checkbox"/> N	
Vomiting	<input type="checkbox"/> Y <input type="checkbox"/> N	Onset date/time: ___/___/___      Recovery: ___/___/___
Cramps	<input type="checkbox"/> Y <input type="checkbox"/> N	
Diarrhea	<input type="checkbox"/> Y <input type="checkbox"/> N	Onset date/time: ___/___/___      Recovery: ___/___/___
# stools/24 hrs	_____	Duration of diarrhea: _____ days/hours (if unsure of dates/times)
Bloody stools	<input type="checkbox"/> Y <input type="checkbox"/> N	
Fever	<input type="checkbox"/> Y <input type="checkbox"/> N	Temperature: _____ ° F
First symptom:		Onset date/time: ___/___/___
Other symptoms: _____		
When did you feel completely recovered? ___/___/___      or <input type="checkbox"/> still feeling sick		



# Ill Deli Worker at a University

**ILLNESS HISTORY** Illness Onset: 10/29/18 Time: 1500 Recovery: 10/31/18 Time: 1030

Vomiting  Y  N Onset: 10/29/18 Time: 1500 Recovery: 10/29/18 Time: 2300

Diarrhea  Y  N Onset: 10/29/18 Time: 1500 Recovery: 10/31/18 Time: 1030

# of stools per 24-hr. period (max): 20+ Cramps  Y  N Fever  Y  N (temp: 100) Bloody stools Y  N

Other symptoms: \_\_\_\_\_ Visited health care provider Y  N

If yes, name and location: \_\_\_\_\_ Date of visit: \_\_\_/\_\_\_/\_\_\_

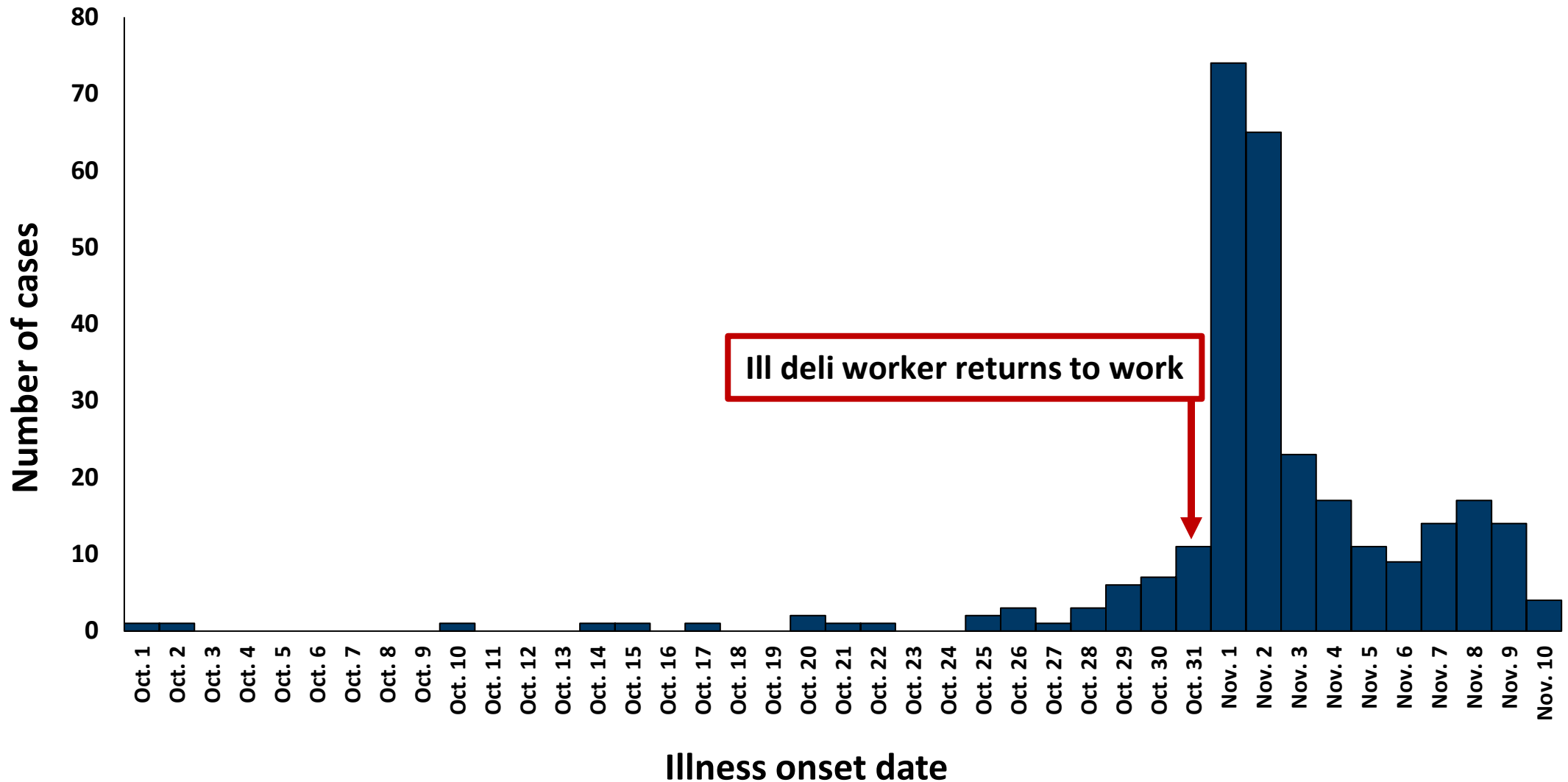
Provider requested stool sample Y  N  If yes, date stool submitted: \_\_\_/\_\_\_/\_\_\_ Hospitalized Y  N

## FOOD HISTORY

*If only one person is ill or if all ill persons live in same household, complete the entire four-day food history.  
If more than one person is ill and they live in different households, record only the common meals.*

Meal Time	Date: <u>10/29/18</u> (work backward starting with onset date)	Hours to Illness Onset
Brk: _____	location: <u>M-F: 10:30 - 1:30p</u>	
	food/drinks: <u>-deli area: -doesn't eat there</u>	
Lun: _____	location: <u>book keeping</u>	
	food/drinks: _____	
Sup: _____	location: <u>→ stayed home Tues, worked</u>	
	food/drinks: <u>on Wednesday</u>	
Other: _____	location: _____	food/drinks: _____

# Norovirus Gastroenteritis Associated with a MN University, October – November, 2018



# Additional Questions to Consider

## ALL EMPLOYEES

- Do you work at any other food service facilities?  YES  NO  
If yes, where? \_\_\_\_\_ How often? \_\_\_\_\_
- Have any members of your household been ill with diarrhea and/or vomiting since December 24?  YES  NO  
Vomiting (onset: \_\_\_/\_\_\_) Y N Cramps Y N Fever Y N Blood in stool Y N  
Diarrhea (onset: \_\_\_/\_\_\_) Y N (# stools/24 hrs:       )
- Do you remember any vomiting incidents at the facility?  YES  NO  
Describe (who, where, when): \_\_\_\_\_  
If yes, did you help clean up the incident?  YES  NO
- Have any of your co-workers been ill with vomiting and/or diarrhea?  YES  NO  
Describe (who, when): \_\_\_\_\_

# Employees are often willing to share ...

- Have any of your co-workers been ill with vomiting and/or diarrhea?  YES  NO

Describe (who, when): One employee that commonly works same shifts.  
Refuses to state name. Says he was ill 2 or 3  
weeks ago and was going "number 2" every hour.

During February 13 - 25:

DATE (MM/DD) \_\_\_\_ / \_\_\_\_ / \_\_\_\_ TIME (# SLIPS/24 HRS) \_\_\_\_

- Do you remember any vomiting incidents at the facility?  YES  NO

Describe (who, where, when): \_\_\_\_\_

If yes, did you help clean up the incident?  YES  NO

- Have any of your co-workers been ill with vomiting and/or diarrhea?  YES  NO

Describe (who, when): Guy he worked with went home with stomach issues.  
Eric - Guessing Wed. 15<sup>th</sup> - middle of week - could have been  
Thursday

During December 1 - December 5:

# Food Handling Questions

During January 6 – January 10:

- Did you do any food prep?  YES  NO

Describe: \_\_\_\_\_

- Did you make or serve any drinks, including adding garnish or ice?  YES  NO

Describe: \_\_\_\_\_

- Did you prepare any ready-to-eat foods, like salads, breads, or chips (including garnishing plates and packaging to-go food)?  YES  NO

Describe: \_\_\_\_\_

- What were your other job duties?

Describe: \_\_\_\_\_

**If you are ill with vomiting or diarrhea, it is important that you not return to work in food service for at least 72 hours after your recovery.**

# Ill Food Worker Handling RTE Foods

During June 16-19:

- get water for tables - scoop  
ice and add lemon

Cutting board near bar - wash hands,  
put cut pieces into containers for  
all tables. Use disposable gloves.

- Did you do any food prep?  YES  NO

Describe: Cut fruit kid - watermelon; limes and lemons for cocktails, soda, lemonade

- Did you make or serve any drinks, including adding garnish or ice?  YES  NO

Describe: Scoop ice, dispense soda, coffee, iced tea - add garnish and fruit

- Did you prepare any ready-to-eat foods, like salads, breads, or chips (including garnishing plates and packaging to-go food)?  YES  NO

Describe: put sauce and dressing into single-service containers

- What were your other job duties?

Describe: Cut cake and serve; add chocolate or caramel syrup to  
Desserts. Kitchen staff scoop the ice cream.

- Onset of vomiting and diarrhea on June 17, reported working June 18 – 19

# Interviewing Tips

1

**Find a private  
place to  
conduct  
interviews**

2

**Develop a  
rapport with  
the employee**

3

**Provide an  
employee  
tennessen**

4

**Ask open-  
ended  
questions and  
clarify  
information**

5

**Ask for  
records for  
verification**

6

**Provide  
education and  
resources**

# Illness Screening Form

## Employee Illness Screening Form for Norovirus

This form is for use during times of elevated concern for employee illness. The health department will notify the person in charge (PIC) when to discontinue using this form.

### Instructions

The PIC will ask the following question of each employee before they begin each of their shifts:

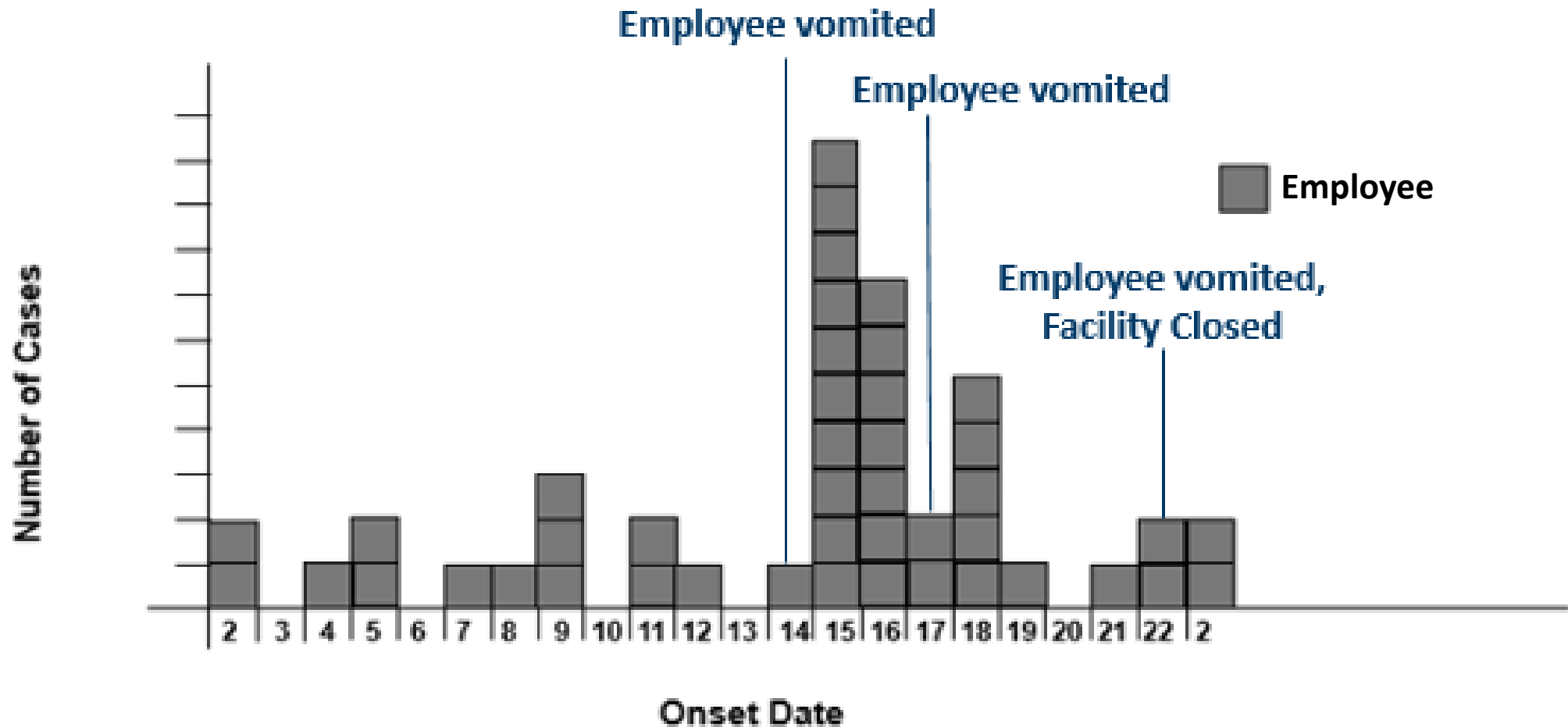
- In the last 72 hours, has the employee experienced any of the symptoms listed below?
  - Employees with any of the symptoms listed below cannot return to work for at least 72 hours after symptoms end.
  - If an employee has experienced one of the symptoms below, notify your health inspector.
- The PIC and employee should initial each entry.

Employee Name	Date	Vomiting (Y/N)	Diarrhea (Y/N)	Employee Initials	PIC Initials



# Norovirus Outbreak Associated with a MN Brewery

Date of Illness Onset for Employees, December 2017 to January 2, 2018



# Interviewing to determine specifics on a process or food flow

Think critically

Ask follow-up questions

Pause and let them talk

Observe the preparation or food flow

Ask why?

# Critical Thinking During Invoice Review

Can you show me your invoices for ground tuna that would have been served December 17-19?

Invoice from one supplier (invoice date 12/9). When would you have received the tuna? 12/9

5.0 CS	SMT038014	GROUND TUNA (CO TREATED)	50.00 LBS	7.50	375.00
	**1LB/10PK/CS THAILAND				
	(TUNA)				

Invoice from second supplier (invoice date 12/17). When would you have received the tuna? 12/20

8	3	3	CS22 81073	TUNA GROUND 22#	\$143.00	\$429.00
				Comment:		

How much tuna do you go through in a day? 10lbs/lunch and 10-15lbs/dinner.

So, about 20-25lbs/day? Yes

Invoice from third supplier (Invoice date 12/11, received 12/14)

16 57841	07441059642	1.00 CS	SUSHI TRAY 1.5B BLACK BODY SPI	15/ 50 PC	No	86.08	86.08	5.38
17 59642	074410596422	1.00 CS	SUSHI TRAY 1.5F LID SPI	16/ 50 PC	No	104.00	104.00	6.50
10 88126		3.00 CS	TUNA STRIP MEAT WILD SE ASIA OSAMU F	2/ 11 LB	No	218.90	656.70	109.45
11 88837	074410888374	15.00 Ea	VINEGARED MACKEREL 2L WILD NOR TAKEMA F	4/ 15/ 4.4 OZ	No	3.95	59.25	3.95

# Interviewing for Specifics on Food Flow

## On-site interview with substitute head chef:

### Could you tell me how you prepare chicken livers for the yakitori skewers?

Chicken livers: brined in a 4% salt solution in walk in cooler for a day. Skewered for prep and held cold. Grilled and cooked to 125-130F. They take temperatures and this is the temp they aim for. It is grilled hot and fast, so it is not held at this temp for a long time as soon as it gets here it is done and plated.

### And how do you prepare the chicken breasts and thighs for the skewers?

Chicken breast & chicken thigh: no brining but otherwise the same as the livers. The temp they aim for is 140F for the breast and 145-150F for the thighs. When I told him 165F/15seconds he told me that would be “gross”, and they would never do that.

# Interviewing to Identify Environmental Antecedents

## Norovirus outbreak at restaurant:

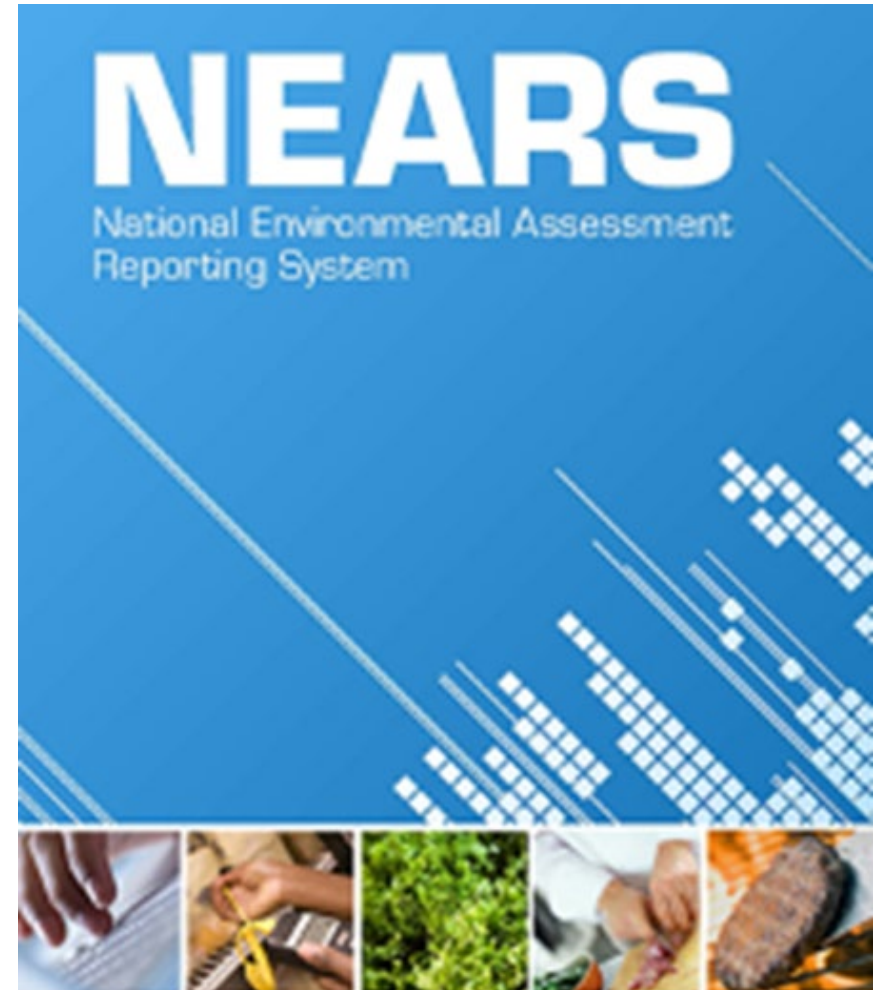
- **23/37 (62%) patrons ill**
- **3/18 (17%) employees ill**
- **Illness log maintained on-site**
- **Previous inspection report (1 month prior) noted restaurant was understaffed**

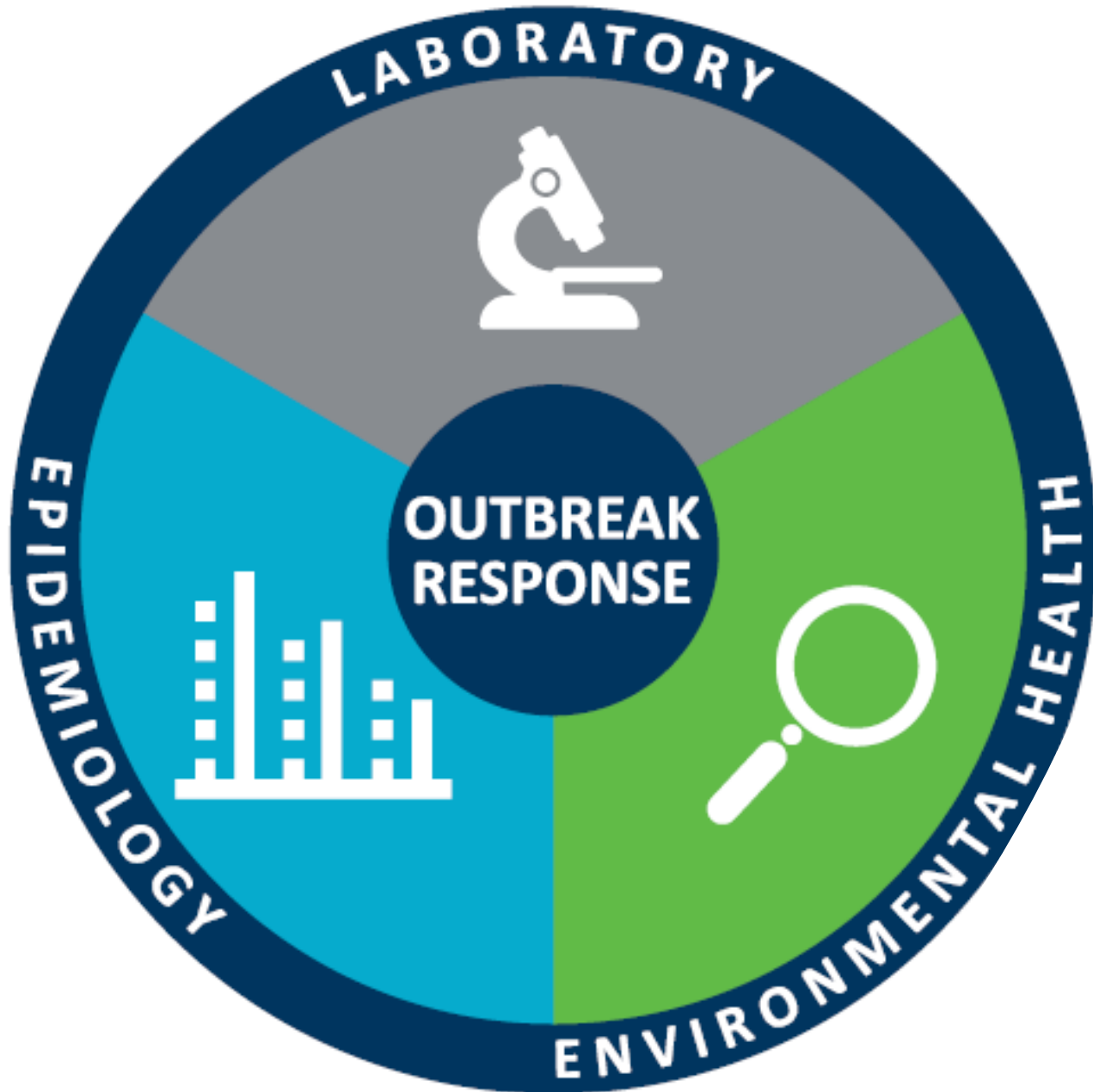
## Digging Deeper:

- **3 employees working on case's meal date (1 working while ill)**
- **Only 1/3 of dining room was open for seating on case's meal date due to staff shortage**
- **Management relayed concerns about ability to hire and train employees**

# NEARS

- Provides a standardized framework for foodborne illness investigations
- Collects environmental health outbreak data, including environmental antecedents
- Offers a community and wealth of resources to help your agency
- Questions? [NEARS@cdc.gov](mailto:NEARS@cdc.gov)





**Communication  
is key!**

# Summary

- **Interviewing is a critical component of the environmental health assessment**
- **Interviews help piece together past exposure events and ultimately aid in determining contributing factors and necessary control measures**
- **Interviews can be informal or formal and may be dependent on your suspect pathogen or food vehicle.**
- **Use critical thinking and ask follow-up questions**
- **Become a NEARS user and start entering your EH outbreak data!**



Thank you! | Questions?

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