Outbreaks and Unusual Infection Occurrences

ACH IP Course, 2022

Infection Prevention Training for ACH
Healthcare-Associated Infections Program
Center for Health Care Quality California
Department of Public Health

Objectives

- Define outbreaks and unusual disease occurrences

- Describe reporting requirements to public health

- Provide examples of outbreaks

- Review the steps in an outbreak investigation

Definitions

California regulatory definitions from Titles 17 and 22

- **Outbreak**
  - Occurrence of cases **above the expected** or baseline level
  - **Number of cases** indicating an outbreak will **vary**
  - "Outbreak" designation is **relative to the usual frequency of the disease**
  - **A single case** of a communicable disease long absent from a population or the first invasion by a disease not previously recognized requires **immediate reporting** and epidemiologic investigation

CDPH All Facilities Letter (AFL) 19.18 (PDF)

(www.cdph.ca.gov/Programs/CHCQ/LCP/CDPH%20Document%20Library/AFL-19-18.pdf)

Definitions (continued)

- **Unusual Disease**
  - A **rare disease** or a newly apparent or **emerging disease**
  - **Syndrome of uncertain etiology** which a health care provider has reason to believe could possibly be caused by a transmissible infectious agent or microbial toxin
- **Unusual Occurrences**
  - Occurrences such as epidemic outbreaks, poisonings, fires, major accidents, death from unnatural causes or other catastrophes
  - Unusual occurrences which **threaten the welfare, safety or health** of patients, personnel or visitors

Reporting Outbreaks and Unusual Occurrences

Health facilities licensed by CDPH Licensing and Certification (L&C) are required to report outbreaks and unusual infectious disease occurrences to

- Local public health (LPH) department
- CDPH Licensing & Certification (L&C) district office

Examples of Reportable Incidents

CDPH examples of outbreaks and occurrences that should be reported

- Single case of colonization or infection with a **novel MDRO** that was never previously or only rarely encountered such as
  - Candida auris
  - Vancomycin-resistant Staphylococcus aureus (VRSA)
  - pan-resistant MDRO
- Single case of **measles** in a patient not placed into airborne isolation precautions upon facility entry
- Single case of healthcare-associated **legionellosis**
- Single case of healthcare-associated invasive **group A beta hemolytic Streptococcus**

CDPH All Facilities Letter (AFL) 19.18 (PDF)

(www.cdph.ca.gov/Programs/CHCQ/LCP/CDPH%20Document%20Library/AFL-19-18.pdf)

Examples of Reportable Incidents (continued)

- Cluster or suspected transmission of **MRSA** colonization or infection in a NICU or other high-risk location

- Cluster or suspected transmission of **any MDRO**

- Outbreak or increased incidence of disease due **to any infectious agent** occurring in facility patients or HCP

- **Intra-facility outbreak** of influenza, gastroenteritis, pneumonia, or respiratory syncytial virus

- Infections associated with transfusions, contaminated medications, replacement fluids, or commercial **products**

- **Foodborne** infectious disease outbreak

- Clusters of positive tuberculosis **(TB) test conversions**

- Single case of **active TB** (pulmonary or laryngeal)

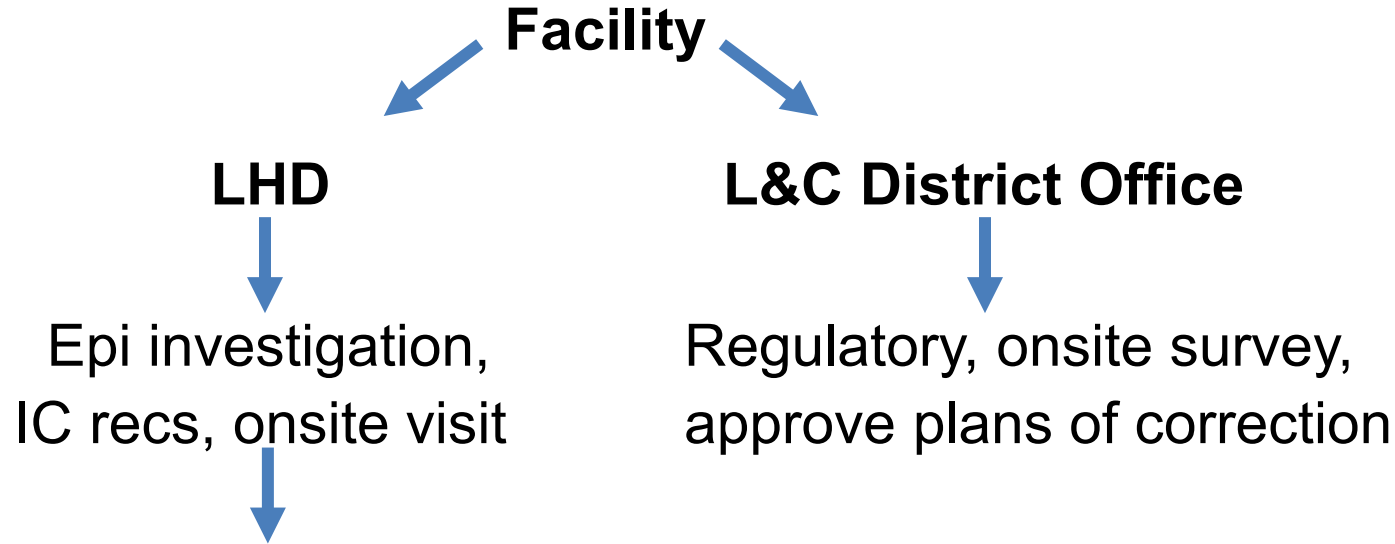# Report Cluster or Outbreak Regardless of Relatedness of Isolates

Important:

Facilities need to report a cluster or outbreak even when laboratory testing to evaluate relatedness of isolates is pending or shows isolates are not closely related

Actions Taken When an Outbreak or Unusual Disease/Occurrence is Reported

Upon receipt of a report of an outbreak or unusual occurrence by a healthcare facility or provider

- **Local public health** recommends control actions

- **CDPH L&C district office** determines regulatory follow-up action

- **CDPH Healthcare-Associated Infections (HAI) Program** is available for infection prevention and control expertise

Public Health Roles in Outbreaks

Facility

LHD

L&C District Office

Epi investigation,
IC recs, onsite visit

Regulatory, onsite survey,
approve plans of correction

CDPH HAI Program
Infection control expertise, guidance, coordination,
onsite visit assistance (if needed), **NOT** regulatory

Sources for Identifying Potential Outbreaks

- SNF or hospital: Observes new symptoms or test results common to multiple patients, residents or employees

- Microbiology lab: Reviews lab results for trends and unusual pathogens

- Local physician: Sees multiple patients with similar or unusual symptoms

- Emergency departments: Triage increasing common symptoms (for example, nausea, vomiting, respiratory symptoms)

- Public health: Detects an increase of an illness in the community

Recordkeeping for Outbreaks

- Start a file folder **immediately**

- Keep a **timeline**

- Make notes of
  - **Who** you spoke with
  - Daily activities and meetings
  - **Dates, times, attendees**

- Keep everything!

  - Your documentation will be needed

Steps in a Healthcare Facility Outbreak Investigation

- Step 1: Verify the diagnosis
- Step 2: Confirm presence of an HAI outbreak
- Step 3: Alert key partners
- Step 4: Establish a case definition
- Step 5: Identify and count cases
- Step 6: Organize data according to person, place, time, and size
- Step 7: Conduct targeted observations, review key concerns with HCP, and develop abstraction forms
- Step 8: Formulate and test hypotheses
- Step 9: Perform ICP assessment and implement control measures
- Step 10: Follow-up, communicate findings, and notify patients

CDC Investigations in Healthcare Facilities

(www.cdc.gov/eis/field-epi-manual/chapters/Healthcare-Settings.html#fig18-1)

Step 1 – Verify the diagnosis

Early in the investigation, identify as accurately as possible the specific nature of the disease

- Ensure that the **diagnosis** is correct

- Evaluate for possible **laboratory error** as the basis for increased diagnoses

- Evaluate possible **changes in surveillance** and case definitions

- **Review** clinical findings and lab testing results

Step 2 – Confirm presence of an HAI outbreak

Verify that a suspected outbreak is real

- Reporting might be **increased because of changes** in reporting procedures, case definitions, or diagnostic procedures or increased local or national awareness

- Increase in infections recognized in healthcare settings may be part of a **broader community outbreak**

- **Pseudo-outbreaks** are those caused by lab processing errors or contamination of clinical diagnostic equipment, such as bronchoscopes, without clinical illness

Step 3 – Alert key partners about the outbreak

After the outbreak is confirmed

- Ensure key **facility staff are informed;** includes administration, facility IP, medical and nursing leaders
- Ask the clinical laboratory to **save all isolates** that might be related to the outbreak
- Notify other local and state **public health officials**
- Alert other **hospitals and facilities that share patients** to identify additional cases or take necessary control actions.
- Notify **regulatory partners** (such as FDA or EPA) if investigation involves regulated medical devices or products
- Notify **professional oversight** organizations (such as pharmacy boards or clinician licensing boards)

Step 4 – Establish a case definition

- A case definition is used to identify persons who are (or might be) infected

- A case definition usually includes
  - **Clinical information** about the disease (lab test results, signs and symptoms)
  - **Demographics** of affected patients (age, race/ethnicity, sex)
  - **Location** of possible exposure or time of onset (ward and bed number)
  - **Defined time** during which exposure or onset occurred

- The initial case definition should be **broad** enough to include most if not all cases; can be refined as more is known

Step 4 – Establish case definition (continued)

- Case definition also should be based on the causative agent, if known, and can include infected and colonized patients

- A stratified case definition can be applied to account for the uncertainty of certain diagnoses

  - **Confirmed**: Must have laboratory verification

  - **Probable**:   Has typical clinical features and an epidemiologic link to confirmed cases but lacks lab confirmation

  - **Possible**:   Has fewer of the typical clinical features or weaker epidemiologic links to confirmed cases

Example Case Definitions

- Residents from the same SNF admitted to the hospital with pneumonia or respiratory symptoms during last three months

- Methicillin-resistant *Staphylococcus aureus* (MRSA) infection or colonization in Hospital A's neonatal intensive care unit during January 1–December 31

- Isolation of *Burkholderia cepacia* complex in a patient who received Medication A any time during January 1–June 30

- Fever (temperature >38.5ºC) and compatible symptoms in a patient who had been in an Ebola virus infection–affected country 21 days or fewer before symptom onset

Step 5 – Identify and count cases

- Outbreaks are often first recognized and reported by **perceptive HCP** or identified during **surveillance** activities

- Additional cases can be identified through multiple types of data and records, including

  - Microbiology reports
  - Medical records
  - Symptom logs
  - Surveillance records
  - Interviews with HCP/physicians

  - Pharmacy records
  - Radiology records
  - Pathology records
  - Employee health records

Step 6 – Organize data according to person, place, time, and size

- **Create a line list**
  - Helps guide the outbreak investigation and permits rapid examination of exposures

- **Construct an epidemic curve**
  - Visually demonstrates the outbreak's magnitude and time course

Example Data to Obtain for the Line List

- Patient characteristics such as age, sex, comorbidities

- Date of admission

- Date of illness onset

- Date of discharge (if applicable)

- Facility location/unit, including room number, bed, and adjoining room numbers

- Medications

- Procedures

- Attending HCP such as specific nursing staff, respiratory therapists, and physicians

Creating the Line List

- Collect the information on a standard case-report form, questionnaire, or data abstraction form

- Build a table where each row represents a case and each column represents a variable

- Add new cases as they are identified

This simple format allows the investigator to scan key information on every case and to update it easily

Example Line List for HAI Investigations

Patient	Age	Sex	Illness onset Date	Patient location	Comorbidities	Current status
1	76	M	6.9.2019	Room 202A	Diabetes, renal disease	In hospital
2	65	F	6.11.2019	Room 203	Cardiovascular disease	Room 105
3	42	M	6.12.2019	Room 202B	HIV infection	In hospital

Construct an Epidemic Curve

- Local public health should assist the facility to construct

- The epidemic (epi) curve

  - Illustrates the course of the outbreak by day, week, or month

  - Might help estimate a probable exposure period (especially when an incubation period is known)

  - Might provide clues about the epidemic pattern (such as whether common source or person-to-person spread)

- Plot cases by illness onset date or time

Example: Epi curve of patient adverse reactions associated with a contaminated heparin
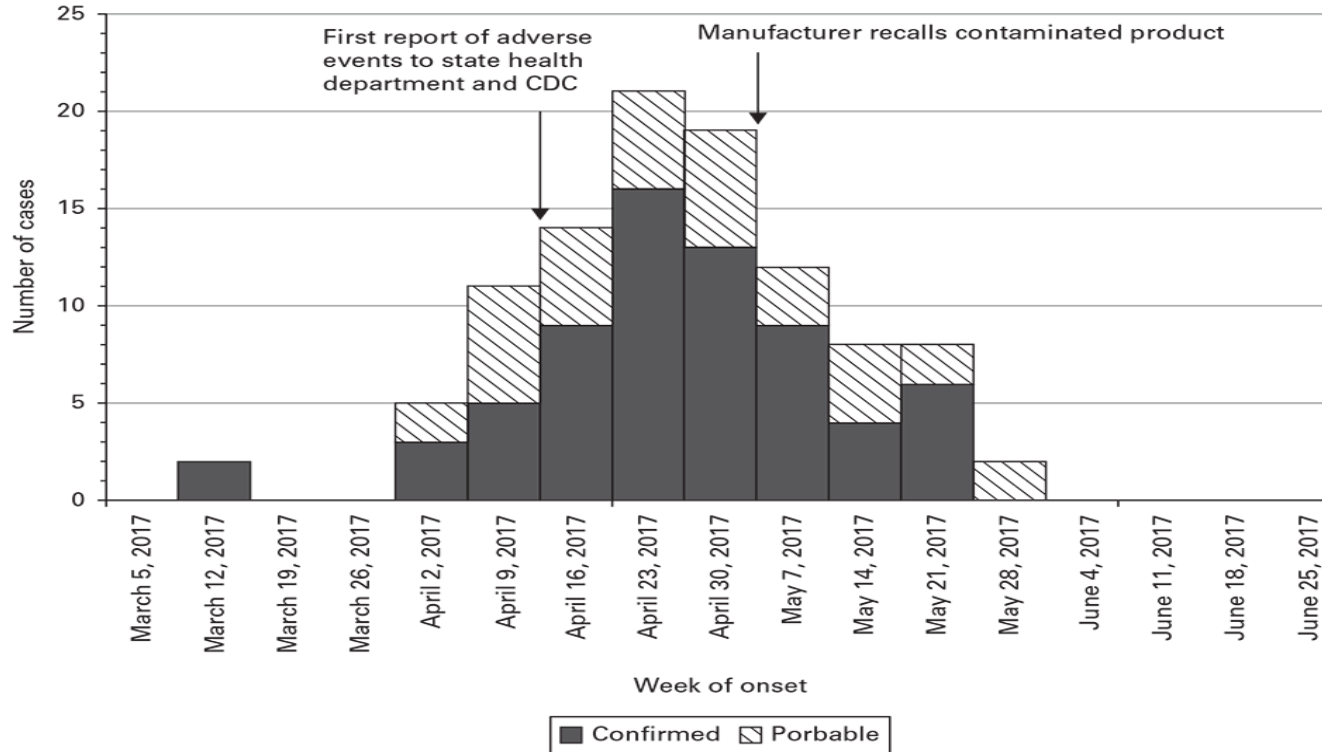
Example: Epi curve of a healthcare facility CRE outbreak
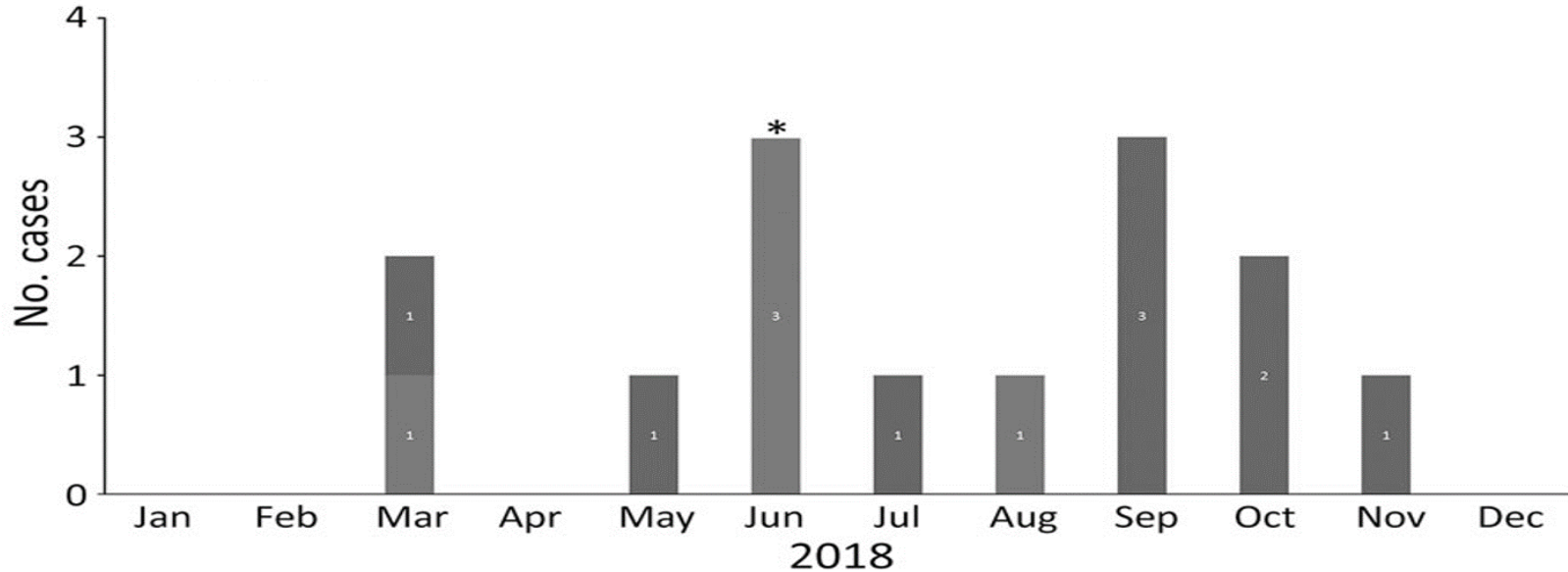
[CDC KPC-3-Producing Serratia marcescens Outbreak between Acute and LTC Facilities](#)

(wwwnc.cdc.gov/eid/article/26/11/20-2203_article)

Step 7 – Conduct targeted observations, review key concerns with HCP, and develop data abstraction forms

Public health will guide the outbreak investigation. They will:

- Focus on whether actual practices deviate from recommended infection control practices and facility policies

  - Discrepancies are best identified through a combination of direct observation and HCP self-reported practices

- Review scientific literature to see if similar outbreaks in similar care settings have been reported previously

- Discuss with facility HCP to help generate hypotheses

- Develop or adopt standardized data abstraction forms or assessment tools

Step 8 – Formulate and test hypotheses

To determine the cause and extent of the outbreak

- Perform sampling and testing
  - A sampling strategy (who, where and what should be tested) must be guided by epidemiologic findings

- Consider testing of HCP
  - Only undertaken after careful consideration of how results will help control the outbreak

- Conduct analytic studies
  - Examine frequency of exposure to a risk factor among case-patients (persons with the HAI) compared with the frequency of exposure among controls (persons without the HAI)
  - **Analytic studies are not usually necessary to identify the likely source of outbreak and to institute control measures**

Step 9 – Perform infection control assessment and implement control measures

To control the outbreak

- Perform an infection control assessment
  - Crucial to determine which control measures need to be implemented
  - Use a standardized infection control assessment tool
  - Physical walkthrough should be targeted depending on the hypothesized source of transmission (such as care locations or areas suspected to be involved in the outbreak)
- Recommend and implement control measures
  - Should be implemented as soon as gaps are identified

Common Control Measures

- Isolation, room placement (cohorting), and Transmission-based precautions

- Closing a unit (or the facility) to new admissions until transmission has ceased

- Environmental control measures

- Adherence monitoring

- Post-exposure prophylaxis, as appropriate

- Visitor restriction, as appropriate

- Ensure affected patient status is communicated when transferred, or flagged internally

Common Control Measures

Type of transmission suspected	Suggested action
Cross-transmission (transmission between persons)	Patient isolation and Transmission-based precautions determined by infectious agent(s) Certain scenarios might require closure of locations to new admissions
Hand transmission	Improvements in hand hygiene and nonsterile glove use where needed
Airborne infections (tuberculosis or emerging viral pathogens)	Triage, detection, and patient isolation (transmission-based precautions) with recommended ventilation
Agent present in water, waterborne agent	Assessment of premise water system, liquid products, or medications; use of disposable devices where reusable equipment is suspected
Environmental reservoirs	Review and enhancement, as needed, of cleaning and disinfection processes to interrupt transmission from environment to patient

California Department of
PublicHealth

Step 10 – Follow-up, communicate findings, and notify patients

- **Complete follow-up stages of the outbreak investigation**
  - Refine the case definition, continue case finding and surveillance, and review control measures

- **Communication of findings**
  - Investigation report should include
    1. Outbreak characteristics
    2. Infection control problems that most likely contributed to outbreak
    3. Any interventions instituted and their effects
    4. Recommendations for preventing future outbreaks

- **Notification of patients**

Patient Notification

- Establishes transparency between HCP and residents/ patients

- Can help identify potentially exposed or infected patients who will derive a health benefit through follow-up testing or clinical evaluation

- May limit the spread of multidrug-resistant organisms or other pathogens of public health concern by identifying exposed patients and their contacts who should be managed under recommended precautions

- Improves case finding by informing patients and providers about the outbreak, associated exposures, and clinical signs and symptoms

Legal Considerations

- HAI outbreaks can result in litigation and have broad financial and public relations implications for affected facilities

- Pressure might be applied to investigate rapidly and implement necessary control strategies quickly

- Public health records of outbreak responses are frequently subject of Public Records Act requests

  - Keep records of all steps taken

  - Exercise care and discretion in how emails and other communications are used

  - Assume investigation records might become publicly available or used as part of litigation proceedings

CDPH HAI Program Outbreak Resources

Outbreak guidance for	Resource type
Candida auris	Quicksheet (PDF)
Carbapenem resistant Enterobacteriaceae (CRE)	Quicksheet (PDF), Slides (PDF), Webinar Recording
Clostridioides difficile infection (CDI)	Quicksheet (PDF), Slides (PDF), Webinar Recording
Healthcare-associated Acute Viral Hepatitis	Quicksheet (PDF), Slides (PDF), Webinar Recording
Healthcare-associated Legionnaires' Disease	Quicksheet (PDF), Slides, Webinar Recording
Influenza and Other Respiratory Illness Outbreak	Quicksheet (PDF) Skilled Nursing Facilities annual guidance (PDF)
All outbreak types	Outbreak Line List (EXCEL)

[CDPH HAI Detecting and Controlling Outbreaks in SNF](www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/SNF_DetectAndControlOutbreaks.aspx)
(www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/SNF_DetectAndControlOutbreaks.aspx)

[CDPH HAI Resources for LPH (See Outbreaks)](www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/LHD_Resources_and_Trainings.aspx)
(www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/LHD_Resources_and_Trainings.aspx)

California Department of
PublicHealth

Summary

- Healthcare facility IPs should be able to conduct investigations of unusual occurrences or outbreaks, and report them to their local health department

- HAI outbreak investigations involve a step-by-step process

- The cause of the outbreak may not be identified, and a facility may not know which control measure was most effective

- HAI Program medical epidemiologists and IPs, and your local health departments are available assist with outbreak or unusual occurrence investigations

Additional Resources and References

- CDC [HAI Outbreak Investigation Toolkit](www.cdc.gov/hai/outbreaks/outbreaktoolkit.html)
  (www.cdc.gov/hai/outbreaks/outbreaktoolkit.html)

- CDC [Outbreak Investigations in Healthcare Settings](www.cdc.gov/hai/outbreaks/index.html)
  (www.cdc.gov/hai/outbreaks/index.html)

- [Worldwide Database for Nosocomial Outbreaks](www.outbreak-database.com)
  (www.outbreak-database.com)

Foodborne Illnesses

Objectives

- List sources of foodborne illnesses that can occur in acute care facilities

- Describe how food can become contaminated during handling and storage

- Name organisms that can cause foodborne illnesses

- Describe how foodborne illnesses can be prevented

Foodborne Illnesses

"Was it something I ate?"

Causes of Foodborne Illness Symptoms

- Bacteria and Viruses
  - Most common causes of food poisoning
- Parasites
  - Most common foodborne parasites are protozoa, roundworms, and tapeworms
- Molds, Toxins, and Contaminants
  - Most food poisoning is caused by bacteria, viruses, and parasites rather than toxic substances
  - Can be natural toxins or chemical toxins
- Allergens
  - Abnormal response by the immune system

When to Suspect Foodborne Sources of Illness

- Gastrointestinal symptoms
  - Nausea, vomiting, diarrhea, abdominal pain, fever
- Rule out other gastrointestinal diseases with similar symptoms:
  - Norovirus or other viral illnesses
- Look for commonalities:
  - Same product consumed by symptomatic persons
  - Reports of kitchen staff working while ill

CDC Food Poisoning
(cdc.gov/foodsafety/food-poisoning.html)

Potential Causes of Foodborne Illnesses

- Kitchen equipment breakdown or power disruption
  - Refrigerator or freezer
  - Dishwasher
  - Water heater
- Kitchen Staff Interviews and Observations
  - Reports of preparing food while exhibiting GI symptoms
  - Facial or exposed skin infections
    - Severe acne
    - Impetigo
    - Those wearing nasal or facial piercings

More Potential Sources

- Cross contamination of foods

  - Changes in suppliers or products

  - Failure to keep hot foods hot, or to refrigerate foods immediately after serving

  - Residents who wander and consume foods well past their safe temperature elapsed

If foodborne source is suspected – <u>hold all food until tested</u>

- Report incident to local health department in a timely manner

Sources of Foodborne Illnesses

Staphylococcus aureus (Staph)

- Symptoms begin 30 minutes to 8 hours after eating
  - Nausea
  - Vomiting
  - Stomach cramps
  - Diarrhea
- Foods served without cooking
  - Sliced meats
  - Puddings
  - Pastries
  - Sandwiches

Food Poisoning Symptoms
(cdc.gov/foodsafety/symptoms.html)

Salmonella

- **Symptoms begin 6 hours to 6 days after exposure**
  - Diarrhea
  - Fever
  - Stomach cramps
  - Vomiting

Common Sources of *Salmonella*

- Raw or undercooked chicken, turkey, and other meat
- Eggs
- Unpasteurized (raw) milk and juice
- Raw fruits and vegetables
- Other sources
  - Backyard poultry,
  - Reptiles and amphibians
  - Rodents (pocket pets)

Norovirus

- **Symptoms begin 12 to 48 hours after exposure**
  - Diarrhea
  - Nausea
  - Stomach pain
  - Vomiting

- Usually seasonal
  - Most cases between November – April

- Staff with norovirus should stay home for two days after symptoms stop

Common Sources of Norovirus

- Leafy greens

- Fresh fruits

- Shellfish (such as oysters)

- Unsafe water

- Contact with an infected person

- Touching surfaces that have the virus on them
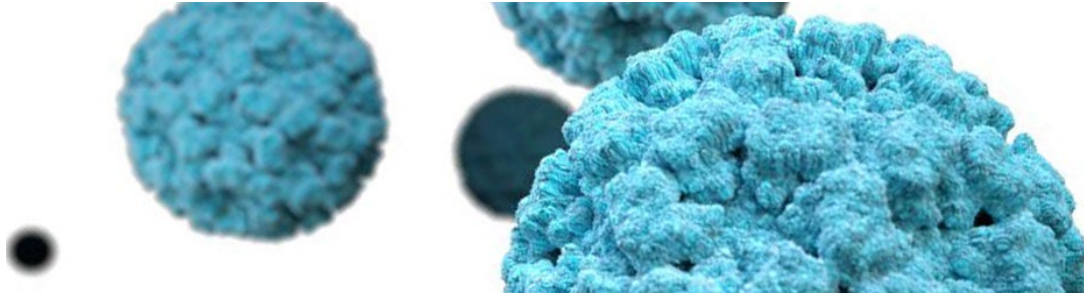
Botulism (*Clostridium botulinum*)

- Symptoms begin 18 to 36 hours after exposure

- Symptoms start at the head and move downward as the illness progresses

  - Double or blurred vision

  - Drooping eyelids

  - Dry mouth and slurred speech

  - Difficulty swallowing and breathing

  - Muscle weakness and paralysis

- **Even a small amount of botulism toxin can cause symptoms**

Common Sources of Botulism

- Improperly canned or fermented foods, usually homemade

- Prison-made illicit alcohol (known as 'pruno')

- Botulism occurs in infected wounds

- Infant botulism from honey

- Injection drug use

Preventing Botulism

- Follow safe canning directions
  - Use pressure canners for low-acid foods like potatoes, most other vegetables, and meats
- Do not give honey to infants < 12 months of age
- Seek treatment for infected wounds immediately
- If botulinum toxin is requested for cosmetic purposes, obtain from a licensed professional

Campylobacter

- Symptoms begin 2 to 5 days after exposure
  - Diarrhea (often bloody)
  - Stomach cramps
  - Fever
- Common Sources
  - Raw or undercooked poultry
  - Raw (unpasteurized) milk
  - Contaminated water

Escherichia coli (E. coli)

- Symptoms begin 3 to 4 days after exposure
  - Diarrhea (often bloody)
  - Vomiting
- ~5–10% of people diagnosed with *E. coli* develop life-threatening conditions
  - Severe stomach cramps
  - Dehydration
  - Organ failure

Common Sources of *E. coli*

- Raw or undercooked ground beef

- Raw (unpasteurized) milk and juice

- Raw vegetables such as lettuce

- Raw sprouts

- Unsafe water

  - Lakes, streams, ponds where wild animals are located

E. Coli Infections

- *E. coli* 0157:H7

  – Enterotoxigenic E. coli (ETEC)

  – Shiga-toxin producing or STEC

    - Causes hemorrhage, organ failure

    - *E. coli* produces a toxin called Shiga toxin

- Contaminated food or water sources

CDC E. coli (Escherichia coli)
(cdc.gov/ecoli/index.html)

Listeria monocytogenes

- Common food sources of *Listeria*
  - Queso fresco and other soft cheeses
  - Raw sprouts
  - Melons
  - Hot dogs
  - Pâtés

  - Deli meats
  - Smoked seafood
  - Raw (unpasteurized) milk
  - Ice cream

Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

Search

Advanced Search

Listeria (Listeriosis)

CDC > Listeria (Listeriosis) > Outbreaks

Listeria (Listeriosis)

- Questions & Answers
- Symptoms
- Diagnosis & Treatment
- Prevention
- People at Risk
- **Outbreaks**
  - Reporting Timeline
  - ***Listeria* Outbreak Linked to Ice Cream**
    - Where Sick People Lived
    - When People Got Sick
    - Investigation Details
  - *Listeria* Outbreak Linked to Packaged Salads Produced by Fresh Express
  - *Listeria* Outbreak Linked to Packaged Salads Produced by Dole

Listeria Outbreak Linked to Ice Cream

⚠ Food Safety Alert

Posted July 13, 2022

Fast Facts

- Illnesses: 23
- Hospitalizations: 22
- Deaths: 1
- States: 10
- Recall: Yes
- Investigation status: Active

VANILLA ICE CREAM
INGREDIENTS: MILKFAT, NONFAT MILK, BUTTERMILK, SUGAR, CORN SYRUP, MONO & DIGLYCERIDES, CELLULOSE GUM, CARRAGEENAN, VANILLA EXTRACT, SALT.

Big Olaf Creamery
Sarasota, FL 34232
941-365-7483

Made in a facility that uses peanuts.

⤢ View Larger

Recalled Food

Big Olaf Creamery ice cream

- The recalled ice cream was sold or served at Big Olaf retailers, restaurants, and senior homes in Florida, and in one location in Fredericksburg, Ohio.
- All flavors, lots, and expiration dates through 6/30/2022 of Big Olaf brand ice cream products have been recalled.

California Department of
PublicHealth

Listeria Outbreak Linked to Packaged Salads

CDC is currently investigating two separate *Listeria* outbreaks linked to packaged salads. This outbreak is linked to packaged salads from company X.

The <u>other outbreak</u> is linked to packaged salads from another company Y.

- <u>States</u>: 13

- Recall: Yes

- Investigation status: Active

Listeria

- Symptoms begin <u>1 to 4 weeks</u> after exposure

- Those with intact immune response have mild symptoms and recover well

  - Pregnant women usually have a fever and other flu-like symptoms including fatigue and muscle aches

  - Infections during pregnancy can lead to serious illness or death in newborns

CDC Listeria (Listeriosis)
(cdc.gov/listeria/technical.html)

Listeria in Older Adults

- Older adults, in addition to fever and muscle aches, may have:
  - Headache
  - Stiff neck
  - Confusion
  - Loss of balance
  - Convulsions

Reported Foodborne Outbreaks

- Watch for bulletins and reports:

  - CAHAN alerts: cahaninfo@cdph.ca.gov

  - Local health department websites

  - FDA website

Example of an Alert from the FDA

Liberty Fruit Company, Inc. Recalls Processed Cantaloupe For Possible Health Risk

Liberty Fruit Company, Inc. is recalling certain packages containing cantaloupe because they have the potential to be contaminated with *Salmonella*, an organism which can cause serious and sometimes fatal infections in young children, frail or elderly people, and others with weakened immune systems. Healthy persons infected with *Salmonella* often experience fever, diarrhea (which may be bloody), nausea, vomiting and abdominal pain. In rare circumstances, infection with *Salmonella* can result in the organism getting into the bloodstream and producing more severe illnesses such as arterial infections (i.e., infected aneurysms), endocarditis and arthritis.

The recalled products were distributed to retail stores and foodservice operations in Missouri, Kansas, Iowa and Nebraska. These organizations have already been contacted by the company.

The product is packaged in 4 oz, 8 oz, 16 oz and 32 oz (consumer only) as well as 5 lb (foodservice only) clear plastic containers marked Fruit Medley, Fruit Tray, Fruit Salad, Cantaloupe Chunks, Hawaiian Blend, and Melon Medley.

Liberty Fruit Company, Inc. Recalls Processed Cantaloupe For Possible Health Risk

(urldefense.com/v3/__https:/lnks.gd/l/eyJhbGciOiJIUzI1NiJ9.eyJidWxsZXRpbl9saW5rX2lkIjoxMDEsInVyaSI6ImJwMjpbGljayIsImJ1bGxldGluX2lkIjoiMjAyMjAzMzEuNTU3NTI3MzEiLCJ1cmwiOiJodHRwczovL3d3dy5mZGEuZ292L3NhZmV0eS9yZWNhbGxzLW1hcmtldC13aXRoZHJhd2Fscy1zYWZldHktYWxlcnRzL2xpYmVydHktZnJ1aXQtY29tcGFueS1pbmMtcmVjYWxscy1wcm9jZXNzZWQtY2FudGFsb3VwZS1wb3NzaWJsZS1oZWFsdGgtcmlzayJ9.k8JG2ccw8lPT6qJFksFlaECayP7CvBwXW7Nx5fo2nQ0/s/1256063772/br/128967181682-l__;!!AvL6XA!jSiwtpd8XGbotBV0JzIPbL3BfHDOWbD0jwZxcRSAcjb8zbk5gwKuncQ6ugPd1B-4zQ3AIHJc$)

Foodborne Illness Prevention

- Ensure food is kept at temperature that prevents bacterial growth

- Kitchen staff use careful hand hygiene, gloving when handling food
  - Staff: cover any exposed wounds
  - Prevent staff from working if signs of infection are evident

Foodborne Illness Prevention (continued)

- Clean working surfaces and utensils

  - Counters

  - Dining tables

  - Utensils that cannot be washed in dishwasher

- Use food grade disinfectant to prevent ingestion of chemicals

Foodborne Illness Prevention

- Ensure food is refrigerated immediately
  - How to bring large quantities down to refrigeration temperature
  - Icing down coolers before loading with food
- Rinse fruits and vegetables before processing/serving

Quality Control

- Refrigerator temperature logs kept
  - Action plan if temps are out of range
- Dishwasher settings at time/temperature per manufacturer
- Expired food is disposed of and not used
- Food brought from home for residents is consumed immediately
- Containers that are opened and stored are dated
  - Avoid using reheated food

Refrigerator Log Template

California Department of Education

Nutrition Services Division
Commodity Distribution Unit

STORAGE TEMPERATURE LOG

MONTH: _____   YEAR: _____

DAY	TIME	COOLER 32 - 40° F	FREEZER 0° F or below	DRY STORAGE 50 -70° F	INITIAL
1					
2					
3					
4					

California Department of Education Nutrition Services Division Storage Temperature Log
(Word) (www.cde.ca.gov/ls/nu/fd/documents/mb00404att.doc)

Summary

- Foodborne illness is a preventable condition

- Foodborne illness, or food poisoning, can cause serious illness and death

- The kitchen is one area that an IP must do surveillance but is frequently overlooked

Resources

Teaching tool for those bringing food from home

Safety Tips *for* handling and preparing common foods

HELP *Prevent* Food Poisoning!

	Type of FOOD	AVOID	Better CHOICE
	MEAT & POULTRY	Raw or undercooked meat or poultry	Meat or poultry cooked to a safe internal temperature. Use a food thermometer to check. https://www.foodsafety.gov/keep/charts/mintemp.html
	SEAFOOD	• Raw or undercooked fish, shellfish, or food containing raw or undercooked seafood, such as sashimi, some sushi, and ceviche. • Refrigerated smoked fish	• Leftover seafood heated to 165°F • Canned fish and seafood • Seafood cooked to 145°F
	DAIRY	Unpasteurized (raw) milk	Pasteurized milk
	EGGS	Foods that contain raw or undercooked eggs, such as: • Homemade Caesar salad dressing • Raw cookie dough • Eggnog	Use pasteurized eggs and egg products when preparing recipes that call for raw or undercooked eggs.
	SPROUTS	Raw or undercooked sprouts, such as alfalfa, bean, or any other sprout	• Cooked sprouts • No sprouts
	VEGETABLES	Unwashed fresh vegetables, including lettuce/salads	• Washed fresh vegetables, including salads • Cooked vegetables
	CHEESE	Soft cheeses made from unpasteurized (raw) milk, such as queso fresco, blue-veined, feta, Brie, and Camembert	• Soft cheeses that are clearly labeled "made from pasteurized milk" • Processed cheeses, cream cheese, mozzarella, hard cheeses

CS272894-B

www.cdc.gov/foodsafety

Online Resources

- [CDC Food Safety](#)
  (www.cdc.gov/foodsafety/index.html)

- [CDC Foodborne Outbreaks](#)
  (www.cdc.gov/foodsafety/outbreaks/index.html)

- [Fightbac.org Foodborne Illnesses](#)
  (www.fightbac.org/food-poisoning/about-foodborne-illness/)

- [OSHA Foodborne Disease](#)
  (www.osha.gov/foodborne-disease/control-prevention)

- Your local health department website

- [Norovirus Fact Sheet from CDC](#) (PDF)
  (www.cdc.gov/hai/pdfs/norovirus/229110-ANoroCaseFactSheet508.pdf)

Questions?

For more information,

please contact

HAIProgram@cdph.ca.gov

Include "ACH IP Basics Course" in the subject line

Post Test

Now that you have completed this module,

Click on the "Post Test" link when it pops up

To Return to

Learning Stream

and take the post test

If the Post Test link does not pop up, you will be sent a link via e-mail