

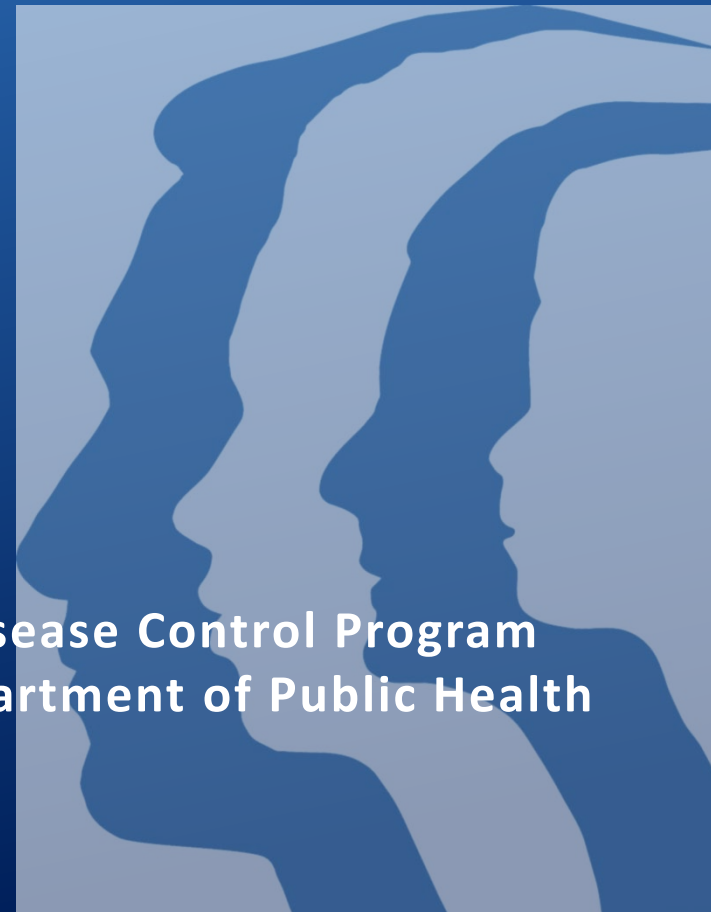
# Ask an IP

## Learning and Communication Series

Week 5- Outbreak Investigation  
Wednesday Oct 20th, 2021



Acute Communicable Disease Control Program  
Los Angeles County Department of Public Health





## Disclosures

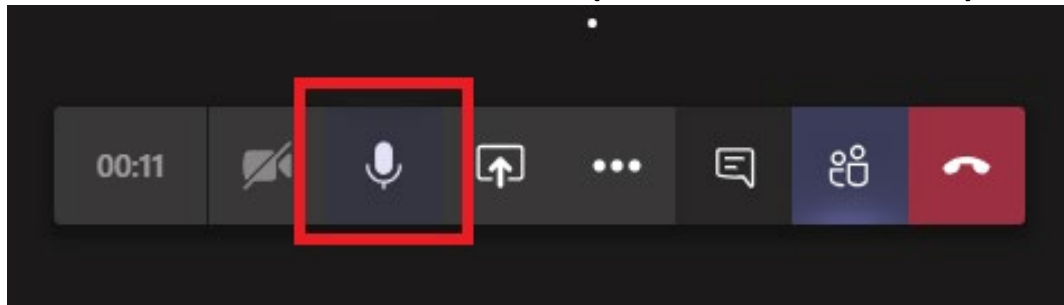
There is no commercial support for today's call

Neither the speakers nor planners for today's call have disclosed any financial interests related to the content of the meeting

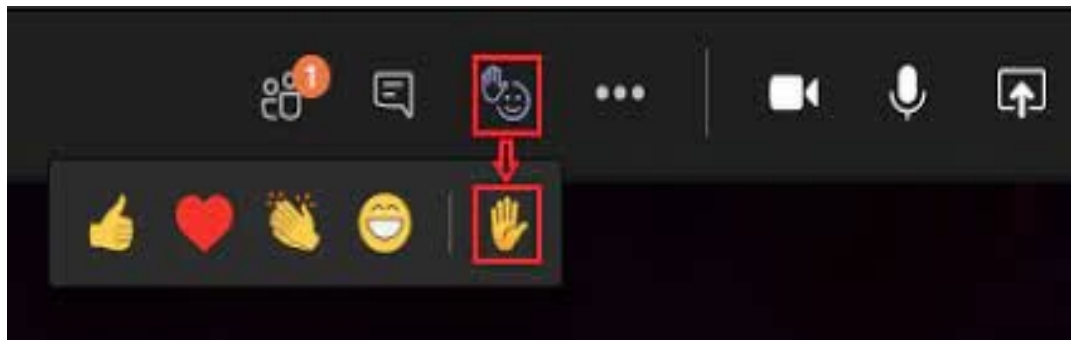
This call is meant for healthcare facilities and is off the record and reporters should log off now

# Housekeeping

- How to Mute/Unmute (Ctrl+ Shift+ M):

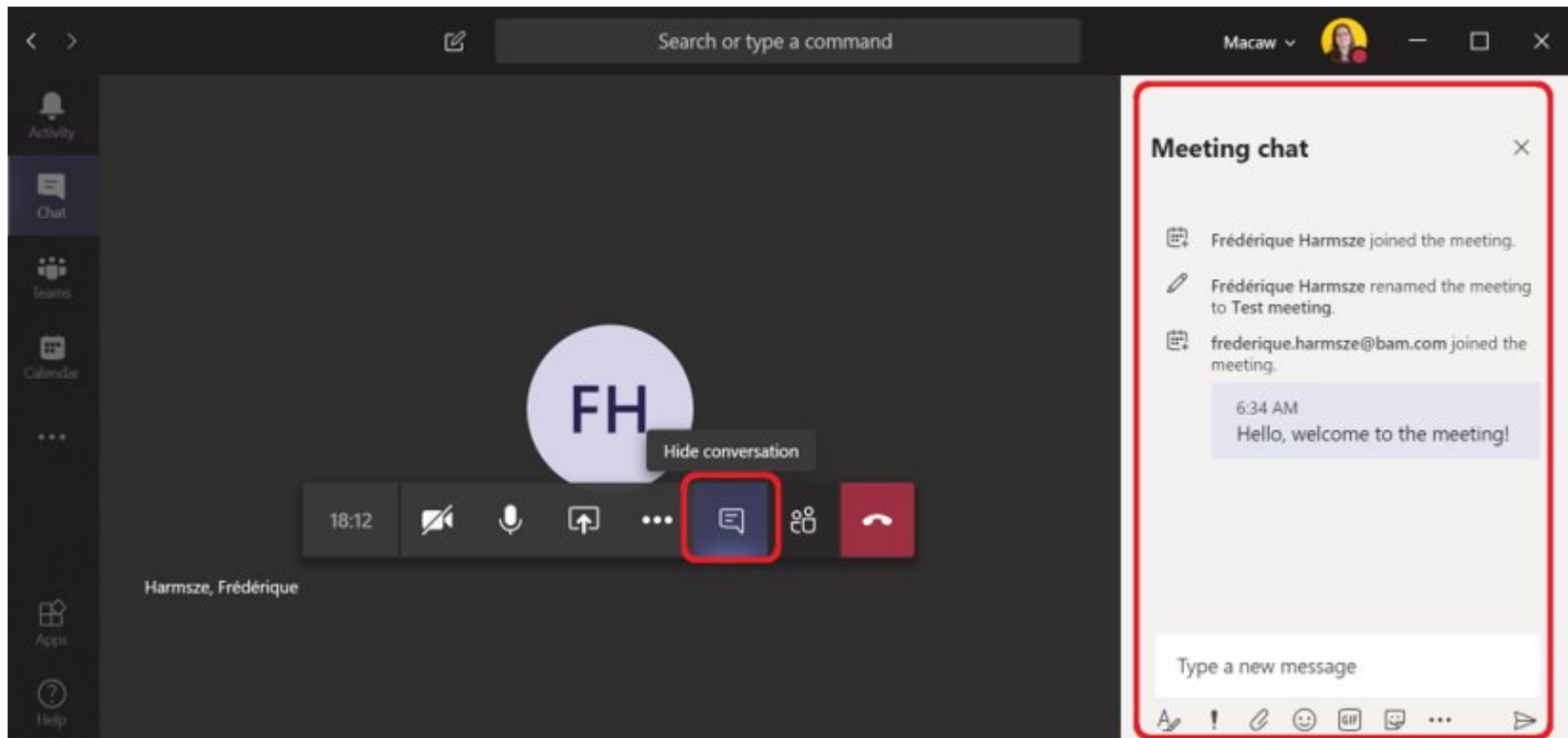


- How to Raise Hand:



# Housekeeping

- How to use chat:





# Reminder

We want to thank you all for your wonderful questions these last few weeks, during our Ask the IP Sessions. The focus of these sessions is core infection prevention practices (beyond COVID-19) that must be used in all care settings and to foster discussion among LA County Skilled Nursing Facilities about infection control practices.

We would like to remind everyone that the LACDPH COVID-19 Guidance has been updated as of **10-01-2021**, please take time to review the updates and the current guidance from the County. We will not be reviewing guidelines during these sessions.

## **Link to Guidelines:**

<http://publichealth.lacounty.gov/acd/ncorona2019/healthfacilities/snf/prevention/>



## DPH Infection Prevention Team

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# Objectives

- Review **key outbreak investigation steps**
- Discuss **reportable diseases** and who to report to
- Foster discussion among LA County Skilled Nursing Facilities about infection control practices



# Definitions

- **Outbreak**
  - Case(s) that occur **above** the expected level
  - The number of cases that indicate an outbreak can vary
  - Relative to the **usual frequency** of the disease
- **Unusual Disease**
  - Rare disease
  - Emerging disease
  - Syndrome of unknown etiology
- **Unusual Occurrence**
  - Outbreaks
  - Major accidents and catastrophes
  - Threatens the welfare, safety or health of residents, staff or visitors

1. <http://publichealth.lacounty.gov/acd/docs/DayTwo/OutbreakMan.pdf>
2. <https://www.cdc.gov/eis/field-epi-manual/chapters/Healthcare-Settings.html#fig18-1>
3. <https://www.cdph.ca.gov/Programs/CHCO/LCP/CDPH%20Document%20Library/AFL-19-18.pdf>





# Outbreak Identification

Infection  
Preventionist

Microbiology  
Lab

Healthcare  
Providers

Local Public  
Health

Nursing Units



# Reporting Outbreaks



KAREN L. SMITH, MD, MPH  
State Public Health Officer & Director

State of California—Health and Human Services Agency  
California Department of Public Health



GAVIN NEWSOM  
Governor

May 13, 2019

AFL 19-18

**TO:** General Acute Care Hospitals (GACH)  
Skilled Nursing Facilities (SNF)

**SUBJECT:** Requirements to Report Outbreaks and Unusual Infectious Disease Occurrences

**AUTHORITY:** Title 42 Code of Federal Regulations (CFR) section 482.42,  
Title 17 California Code of Regulations (CCR) sections 2500-2502,  
Title 22 CCR sections 70737, 70739, 72523, 72539, and 72541

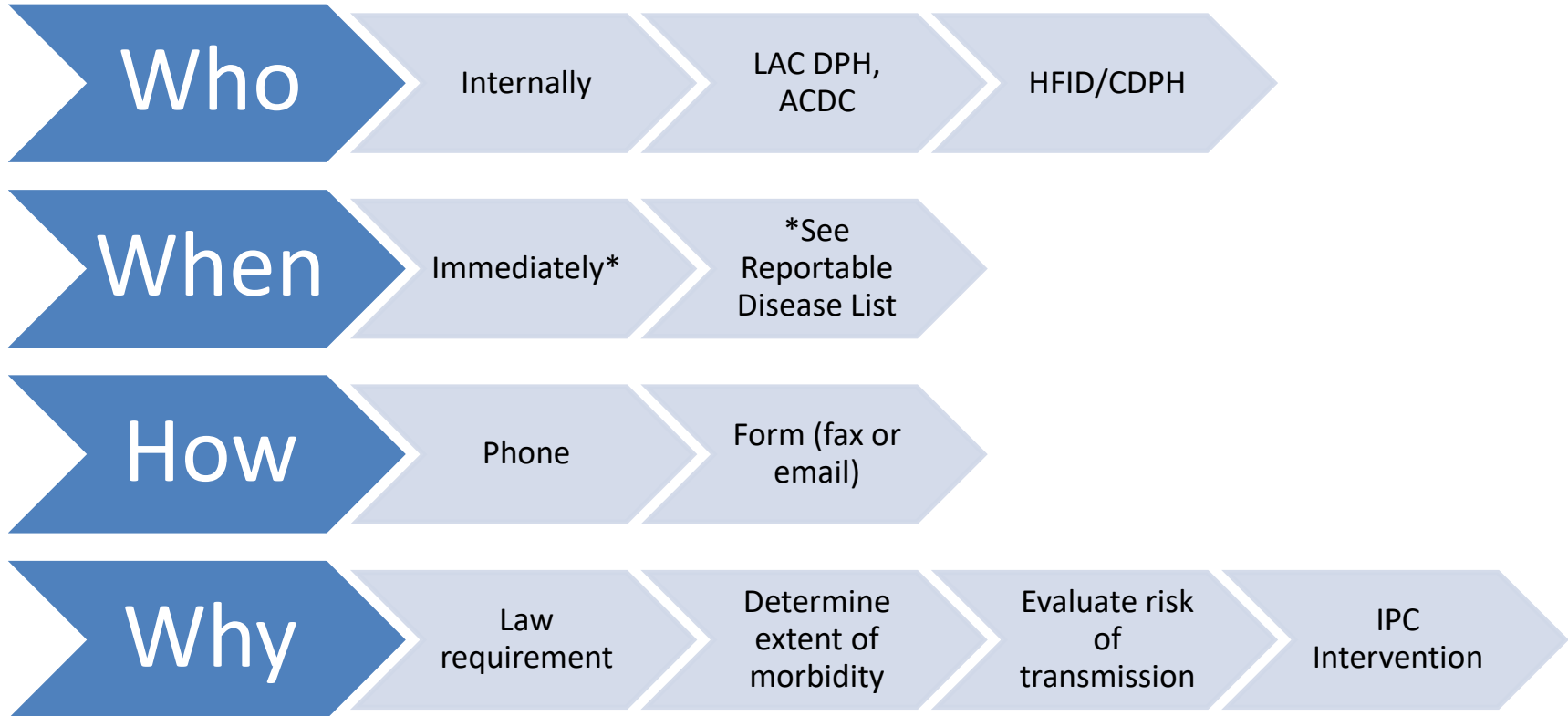
## All Facilities Letter (AFL) Summary

This AFL reminds providers of the requirements to report outbreaks and unusual infectious disease occurrences to the local public health officer and the California Department of Public Health (CDPH), and provides definitions and examples of reportable incidents.

1. <https://www.cdph.ca.gov/Programs/CHCQ/LCP/CDPH%20Document%20Library/AFL-19-18.pdf>



# Reporting Outbreaks



1. <http://publichealth.lacounty.gov/acd/docs/DayTwo/OutbreakMan.pdf>
2. <https://www.cdc.gov/eis/field-epi-manual/chapters/Healthcare-Settings.html#fig18-1>
3. <https://www.cdph.ca.gov/Programs/CHCO/LCP/CDPH%20Document%20Library/AFL-19-18.pdf>



# Reportable Disease List

Please Post  
Revised April 2, 2020 v.3



## REPORTABLE DISEASES AND CONDITIONS

Title 17, California Code of Regulations (CCR), § 2500

It is the duty of every health care provider, knowing or in attendance on a case or suspected case of any of the diseases or conditions listed below, to report to the local health officer for the jurisdiction where the patient resides. "Health care provider" encompasses physicians (surgeons, osteopaths, oriental medicine practitioners), veterinarians, podiatrists, physician assistants, registered nurses (nurse practitioners, nurse midwives, school nurses), infection control professionals, medical examiners/coroners, dentists, and chiropractors, as well as any other person with knowledge of a case or suspected case.

**Note: This list is specific to Los Angeles County and differs from state and federal reporting requirements \***

- ☎ Report **immediately** by telephone for both confirmed and suspected cases. [COVID-19 Death Online reporting](#)\*\*
- 📞 Report by telephone **within 1 working day** from identification
- ✉ Report by electronic transmission (including FAX or email), telephone or mail within **1 working day** from identification, and [COVID-19 Online Reporting](#)
- 📧 Report by electronic transmission (including FAX or email), telephone or mail within **7 calendar days** from identification
- ★ Mandated by and reportable to the Los Angeles County Department of Public Health
- ± If enrolled, report electronically via the **National Healthcare Safety Network** ([www.cdc.gov/nhsn/index.html](http://www.cdc.gov/nhsn/index.html)). If not enrolled, use the LAC DPH **CRE Case Report Form** ([publichealth.lacounty.gov/acd/Diseases/EpiForms/CRERepSNF.pdf](http://publichealth.lacounty.gov/acd/Diseases/EpiForms/CRERepSNF.pdf))
- For TB reporting questions: contact the TB Control Program (213) 745-0800 or visit [www.publichealth.lacounty.gov/tb/healthpro.htm](http://www.publichealth.lacounty.gov/tb/healthpro.htm)
- For HIV/STD reporting questions: contact the Division of HIV and STD Programs. HIV (213) 351-8516, STDs (213) 368-7441 [www.publichealth.lacounty.gov/dhsp/ReportCase.htm](http://www.publichealth.lacounty.gov/dhsp/ReportCase.htm)

For laboratory reporting: [www.publichealth.lacounty.gov/lab/index.htm](http://www.publichealth.lacounty.gov/lab/index.htm) For veterinary reporting: [www.publichealth.lacounty.gov/vet/index.htm](http://www.publichealth.lacounty.gov/vet/index.htm)

### REPORTABLE COMMUNICABLE DISEASES

- |   |  |  |
|---|--|--|
| 📞 Anaplasmosis  | 📞 Giardiasis   | ✉ Poliovirus Infection   |
| ☎ Anthrax, human or animal  | 📞 Gonococcal Infection ■   | ✉ Psittacosis  |
| ✉ Babesiosis  | ✉ <i>Haemophilus influenzae</i> , invasive disease only, all serotypes, less than 5 years of age | ✉ Q Fever  |
| ☎ Botulism: infant, foodborne, or wound   | ✉ Hantavirus Infection   | ☎ Rabies, human or animal  |
| 📞 Brucellosis, animal; except infections due to <i>Brucella canis</i>   | ☎ Hemolytic Uremic Syndrome  | ✉ Relapsing Fever  |
| ☎ Brucellosis, human  | ✉ Hepatitis A, acute infection   | 📞 Respiratory Syncytial Virus, only deaths in a patient less than 5 years of age   |
| ✉ Campylobacteriosis  | 📞 Hepatitis B, specify acute, chronic, or perinatal  | 📞 Rickettsial Diseases (non-Rocky Mountain Spotted Fever), including Typhus and Typhus-like Illnesses                            |
| ✉ <i>Candida auris</i> ★  | 📞 Hepatitis C, specify acute, chronic, or perinatal  | 📞 Rocky Mountain Spotted Fever   |
| 📞 Carbapenem-Resistant <i>Enterobacteriaceae</i> (CRE), including <i>Klebsiella sp.</i> , <i>E. coli</i> , and <i>Enterobacter sp.</i> , in acute care hospitals or skilled nursing facilities ★± | 📞 Hepatitis D (Delta), specify acute or chronic  | 📞 Rubella (German Measles)   |
| 📞 Chagas Disease ★  | 📞 Hepatitis E, acute infection   | 📞 Rubella Syndrome, Congenital   |
| 📞 Chancroid ■   | 📞 Human Immunodeficiency Virus (HIV), acute infection ■ (§2641.30-2643.20)                       | ✉ Salmonellosis, other than Typhoid Fever  |
| ☎ Chickenpox (Varicella), only hospitalizations, deaths, and outbreaks (≥3 cases, or one case in a high-risk setting)   | 📞 Human Immunodeficiency Virus (HIV) infection, any stage ■*                                     | ☎ Scombroid Fish Poisoning   |
| ✉ Chikungunya Virus Infection   | 📞 Human Immunodeficiency Virus (HIV) infection, progression to stage 3 (AIDS) ■*                 | ☎ Shiga Toxin, detected in feces   |
| ☎ Cholera   | 📞 Influenza-associated deaths in laboratory confirmed cases, all ages ★                          | ✉ Shigellosis  |
| ☎ Ciguatera Fish Poisoning  | ☎ Influenza, due to novel strains, human   | ☎ Smallpox (Variola)   |
| 📞 Coccidioidomycosis  | 📞 Legionellosis  | ✉ <i>Streptococcus pneumoniae</i> : Invasive cases only (sterile body site infections) ★   |
| ✉ Coronavirus Disease 2019 (COVID-19) ** and <a href="#">COVID-19 Online Reporting</a>  | 📞 Leprosy (Hansen's Disease)   | ✉ <i>Streptococcus pyogenes</i> (Group A <i>Streptococcus</i> ): Invasive cases only, including necrotizing fasciitis and STSS ★ |
| ☎ COVID-19, deaths ( <a href="#">COVID-19 Death Online Reporting</a> )***   | 📞 Leptospirosis  | ✉ Syphilis, all stages including congenital ■  |
| 📞 Creutzfeldt-Jakob Disease (CJD) and other   | ✉ Listeriosis  | 📞 Tetanus  |
|   | 📞 Lyme Disease   | 📞 Trichinosis  |
|   |  | ✉ Tuberculosis ■   |

1. <http://www.publichealth.lacounty.gov/acd/docs/ReportableDiseaseListMarch2020.pdf>



# Outbreak Investigation Steps

1. **Verify** the diagnosis
2. **Confirm** the presence of an HAI outbreak
3. **Alert** key partners
4. Case **definition**
5. **Identify** cases
6. Organize data- **person, place, time**
7. Targeted **observations**
8. Formulate & test **hypotheses**
9. IPC **assessment and intervention**
10. Follow up, **communicate** findings

1. <http://publichealth.lacounty.gov/acd/docs/DayTwo/OutbreakMan.pdf>  
2. <https://www.cdc.gov/eis/field-epi-manual/chapters/Healthcare-Settings.html#fig18-1>  
3. <https://www.cdph.ca.gov/Programs/CHCQ/LCP/CDPH%20Document%20Library/AFL-19-18.pdf>

# Outbreak Investigation Steps

## 1. Verify the diagnosis

- Correct diagnosis?
- Lab error?
- Changes in surveillance or case definition?

HBsAg anti-HBc anti-HBs	negative negative negative	Susceptible
HBsAg anti-HBc anti-HBs	negative positive positive	Immune due to natural infection
HBsAg anti-HBc anti-HBs	negative negative positive	Immune due to hepatitis B vaccination
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive positive negative	Acutely infected
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive negative negative	Chronically infected
HBsAg anti-HBc anti-HBs	negative positive negative	Interpretation unclear; four possibilities: 1. Resolved infection (most common) 2. False-positive anti-HBc, thus susceptible 3. "Low level" chronic infection 4. Resolving acute infection

## 2. Confirm the presence of an HAI outbreak

- Related vs. Unrelated cause?
- Community associated/acquired?
- Pseudo-outbreak?

1. <http://publichealth.lacounty.gov/acd/docs/DayTwo/OutbreakMan.pdf>
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3. <https://www.cdph.ca.gov/Programs/CHCQ/LCP/CDPH%20Document%20Library/AFL-19-18.pdf>
4. <https://www.cdc.gov/hepatitis/hbv/pdfs/serologicchartv8.pdf>



# Outbreak Investigation Steps

## 3. Alert key partners

\*Ask Lab to save isolates

- Intra-facility
- Inter-facility
- Public health officials
- Regulatory partners
  - (EPA, FDA if needed)

## 4. Establish a (broad)\* case **definition**

- Clinical information
- Demographics
- Location
- Time

\*Refine as needed

**"A case definition is used to identify persons who are, or might be, infected and to characterize them in relation to the disease, time and location of exposure or illness onset, and other persons affected."** - Centers for Disease Control and Prevention

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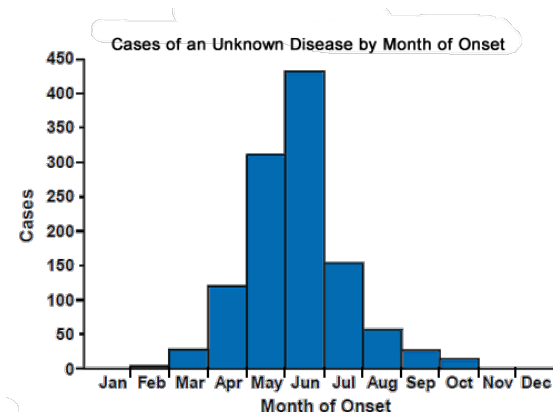
# Outbreak Investigation Steps

## 5. Identify cases

- Additional case identification
  - Microbiology reports
  - Employee health records
  - Pharmacy reports
  - Anything else?

## 6. Organize data- **person, place, time**

- Line list
- Epidemic curve



1. <http://publichealth.lacounty.gov/acd/docs/DayTwo/OutbreakMan.pdf>
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3. <https://www.cdph.ca.gov/Programs/CHCQ/LCP/CDPH%20Document%20Library/AFL-19-18.pdf>
4. <https://www.cdc.gov/training/quicklearns/createepi/>





# Outbreak Investigation Steps

## 7. Targeted observations

- Policy vs. Practice
  - Accurate documentation?
  - Standard performance across staff?
  - Up to date protocols?
- Direct observations

## 8. Formulate & test hypotheses

- Sampling
- Testing
- Analytic study

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# Outbreak Investigation Steps

## 9. IPC assessment & intervention

- Assessment
  - Standardized assessment tool
  - Physical walkthrough
  - Targeted setting(s)
- Identify gaps
- Recommend and implement control measures

## 10. Follow up, **communicate** findings

- Follow up
  - Refine the case definition
  - Continue surveillance
  - Review intervention measures
- Communication
  - Key partners
  - Residents
  - Staff
- **Keep your records**

1. <http://publichealth.lacounty.gov/acd/docs/DayTwo/OutbreakMan.pdf>  
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# Outbreak Investigation Recap

- Don't Panic
- LAC DPH is here to help

- 
- Confirm the outbreak
  - Communicate
  - Direct Observations



# Programming

Session	Date (2021)	Covered Topics
Week 1	Wednesday, Sept 22nd	Antimicrobial Stewardship
Week 2	Wednesday, Sept 29th	Office Hours
Week 3	Wednesday, Oct 6th	Disease Surveillance
Week 4	Wednesday, Oct 13th	Office Hours
Week 5 (Today!)	Wednesday, Oct 20th	Outbreak Investigation
<b>Week 6</b>	<b>Wednesday, Oct 27th</b>	<b>Office Hours</b>
Week 7	Wednesday, Nov 3rd	Regulatory Bodies
Week 8	Wednesday, Nov 10th	Office Hours
Week 9	Wednesday, Nov 17th	Communication, Education and Advocacy
<del>Week 10</del>	<del>Wednesday, Nov 24th</del>	Week of Thanksgiving (off)
Week 11	Wednesday, Dec 1st	Office Hours
Week 12	Wednesday, Dec 8th	Professional Development, Resources and Other IP Settings
Week 13	Wednesday, Dec 15th	Office Hours



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# Questions

