

# Ask an IP

## Learning and Communication Series

Week 3-Disease Surveillance  
Wednesday October 6th, 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



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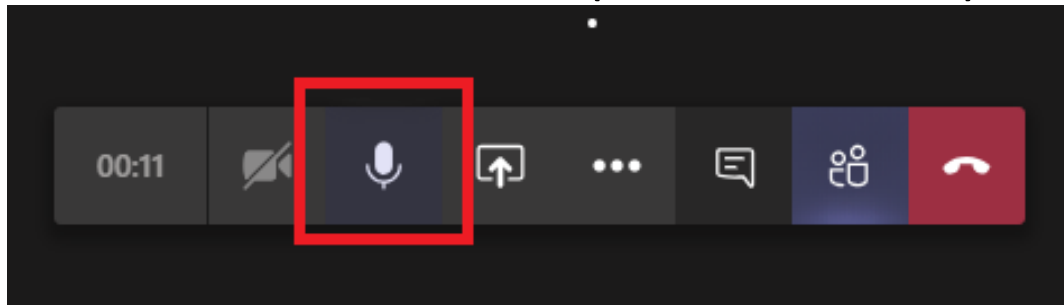
Harriett Pitt, MS, RN

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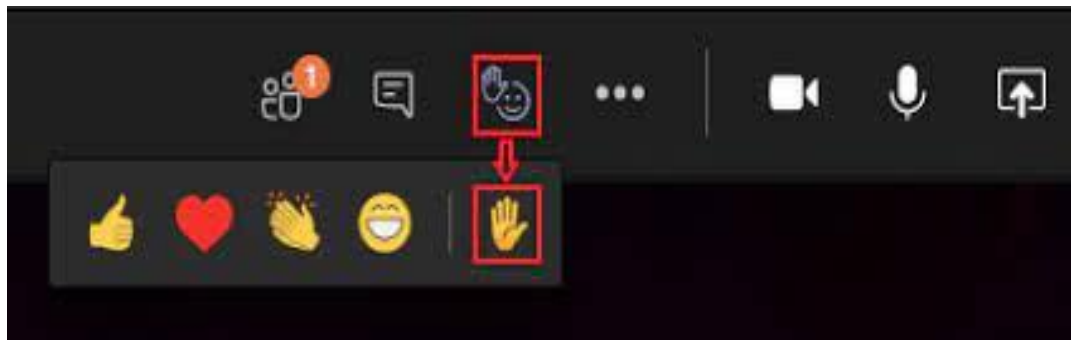
Contact Us: [LACSNF@ph.lacounty.gov](mailto:LACSNF@ph.lacounty.gov)

# Housekeeping

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

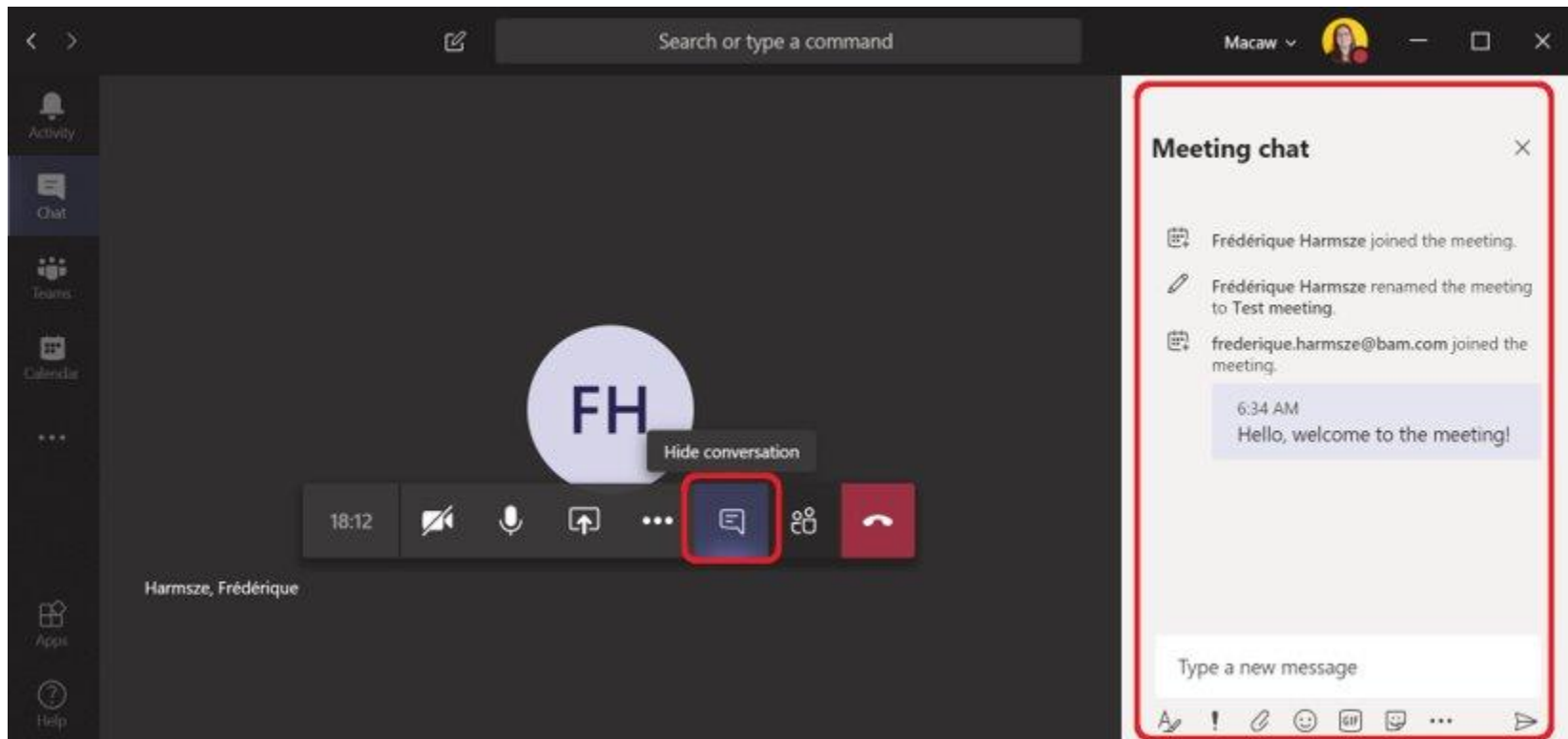


- How to Raise Hand:



# Housekeeping

- How to use chat:





# Objectives

- Discuss basic principles of epidemiology and how they apply to healthcare-associated infection (HAI) surveillance
- Describe surveillance outcome and process measures for infection prevention
- Foster discussion among LA County Skilled Nursing Facilities about infection control practices



# What is Epidemiology?

- Study of disease in populations
  - Populations (groups) are the main focus vs. the individual (clinical focus)
- Key Components of Epidemiology:
  - Trends/Patterns
  - Determinants of health
  - Distribution (who, when, where)



# Epidemiology of Infection Prevention

- Main objectives/goals:
  - What factors contribute to increased infection rates?
  - What populations are at higher risk for developing HAIs?
  - HAI prevention



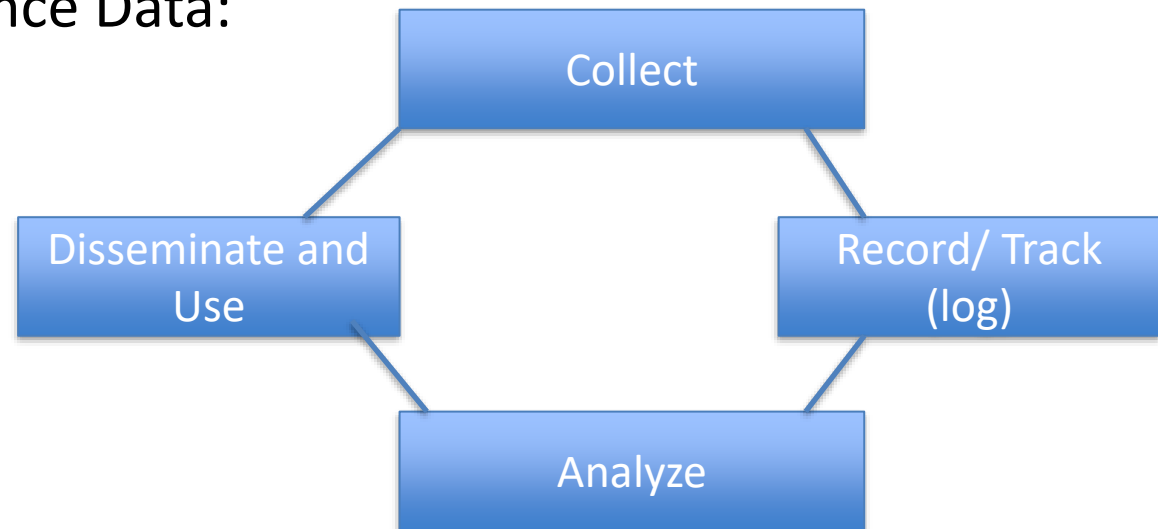


## Disease Surveillance

- Surveillance: the ongoing, systematic collection, recording, analysis, interpretation, and dissemination of data
- Reflects rate of disease onset or current disease status of a community or population (i.e. SNF)
- Identify risk factors for disease
- Used to reduce and prevent illness and transmission of illness

# Surveillance

- A surveillance system is an informational loop that is built upon communication and action
- Flow of Surveillance Data:






## Process Measures

- Evidence-based best practices that represent a health system's efforts to track improvement efforts and prevent infection
- Examples of Process Measures:
  - CAUTI prevention: tracking % of urinary catheters with appropriate indication
  - CLABSI prevention: % adherence to central line maintenance practices
  - HAI prevention: % adherence to hand hygiene

# Adherence Monitoring Tools used for Process Measures




Healthcare-Associated Infections Program Adherence Monitoring  
**Fluorescent Marker Assessment Tool**

Assessment completed by:  
Date:  
Unit:

Regular monitoring with feedback of results to staff can maintain or improve adherence to environmental cleaning practices. Use this tool to identify gaps and opportunities for improvement. Monitoring may be performed in any type of patient care location. Use this tool in addition to the Environmental Cleaning and Disinfection adherence monitoring tool.

**Instructions:** Discreetly place fluorescent marker on at least ten (10) high touch surfaces in at least two (2) rooms to be cleaned. Use additional forms as needed. Check fluorescently marked high touch surfaces for each room below. After the room has been cleaned, use a black light to view marked areas. Circle "Yes" if the fluorescent marker was removed completely and "No" if any amount of fluorescent marker appears under the black light. Calculate adherence percentage in the last row.

Room #:	Time marked with fluorescent marker:	Time to return:	Adherence by Task		
			# Yes	# Marked Areas	
<input type="checkbox"/> Bed rail: Yes / No <input type="checkbox"/> Tray table: Yes / No <input type="checkbox"/> Side table: Yes / No <input type="checkbox"/> Chair: Yes / No <input type="checkbox"/> In-room medical cart: Yes / No	<input type="checkbox"/> Room sink: Yes / No <input type="checkbox"/> Room sink faucet: Yes / No <input type="checkbox"/> TV pole: Yes / No <input type="checkbox"/> Call button: Yes / No <input type="checkbox"/> PPE Container: Yes / No	<input type="checkbox"/> TV remote: Yes / No <input type="checkbox"/> Room inner door knob/handle: Yes / No <input type="checkbox"/> In-room cabinet: Yes / No <input type="checkbox"/> In-room computer/keyboard: Yes / No <input type="checkbox"/> Bathroom door knob/handle: Yes / No <input type="checkbox"/> Bathroom handrail: Yes / No	<input type="checkbox"/> Bathroom light switch: Yes / No <input type="checkbox"/> Toilet seat: Yes / No <input type="checkbox"/> Bathroom sink: Yes / No <input type="checkbox"/> Bathroom faucet: Yes / No <input type="checkbox"/> Toilet flush handle: Yes / No <input type="checkbox"/> Toilet / bedpan cleaner: Yes / No		
<p># of Correct Practice Observed ("# Yes"): _____ Total # Marked Areas (Up to 48 total per room)</p>					




Healthcare-Associated Infections Program Adherence Monitoring  
**Environmental Cleaning and Disinfection**

Assessment completed by:  
Date:  
Unit:

Regular monitoring with feedback of results to staff can maintain or improve adherence to environmental cleaning practices. Use this tool to identify gaps and opportunities for improvement. Monitoring may be performed in any type of patient care location.

**Instructions:** Observe at least two (2) different environmental services (EVS) staff members. Observe each practice and check a box if adherent ("Yes") or not adherent ("No"). In the right column, record the total number of "Yes" responses for adherent practices observed and the total number of observations ("Yes" + "No"). Calculate adherence percentage in the last row.

Environmental Cleaning Practices	EVS Staff 1	EVS Staff 2	EVS Staff 3	Adherence by Task		
				# Yes	# Observed	
ES1. Detergent/disinfectant solution is mixed and stored according to manufacturer's instructions.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			
ES2. Solution remains in wet contact with surfaces according to manufacturer's instructions.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			
ES3. Cleaning process avoids contamination of solutions and cleaning tools; a clean cloth is used in each patient area, and the cloth is changed when visibly soiled.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			
ES4. Standard cleaning protocol is followed to avoid cross-contamination (e.g. from top to bottom, patient room to bathroom, and clean to dirty)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			
ES5. Environmental Services staff use appropriate personal protective equipment (e.g. Gowns and gloves are used for patients/residents on contact precautions upon entry to the Contact precautions room.)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			
ES6. Hand hygiene is performed throughout the cleaning process as needed, including before and after glove use.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			
ES7. High-touch surfaces* are thoroughly cleaned and disinfected after each patient. Mark "Yes" if Fluorescent Marker Assessment Tool result is 100%; mark "No" if <100%.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			
ES8. There are no visible tears or damage on environmental surfaces or equipment.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			
ES9. The room is clean, dust free, and uncluttered.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No			
*Examples of high touch surfaces:						
Bed rail	Chair	Room light switch	TV remote	Bathroom door knob/handle	Bathroom sink	
Tray table	In-room medical cart	IV pole ("grab area")	Room inner door knob/handle	Bathroom handrail	Bathroom faucet	
Side table	Room sink	Call button	In-room cabinet	Bathroom light switch	Toilet flush handle	
			Room computer/keyboard	Toilet seat	Toilet/bedpan cleaner	
				<p>Yes Observations ("# Observed"): _____ Adherence _____ % (Up to 15 Total) (Total "# Yes" + Total "# Observed" x 100) (i.e. cell is blank, do not count in total # Observed.)</p>		



Healthcare-Associated Infections Program Adherence Monitoring  
**Hand Hygiene**

Assessment completed by:  
Date:  
Unit:

Regular monitoring with feedback of results to staff can improve hand hygiene adherence. Use this tool to identify gaps and opportunities for improvement. Monitoring may be performed in any type of patient care location.

**Instructions:** Observe at least 10 hand hygiene (HH) opportunities per unit. Observe a staff member and record his/her discipline. Check the type of hand hygiene opportunity you are observing. Indicate if HH was performed. Record the total number of successful HH opportunities and calculate adherence.

HH Opportunity	Discipline	What type of HH opportunity was observed? (select/ <input checked="" type="checkbox"/> 1 per line)	Was HH performed for opportunity observed? <input type="checkbox"/> or <input type="checkbox"/>
Example	N	<input type="checkbox"/> before care/entering room* <input type="checkbox"/> before task <input type="checkbox"/> after body fluids <input type="checkbox"/> after care* <input checked="" type="checkbox"/> upon leaving room <small>*Remember: Hand hygiene should be performed before and after glove use</small>	<input checked="" type="checkbox"/>
HH1.		<input type="checkbox"/> before care/entering room <input type="checkbox"/> before task <input type="checkbox"/> after body fluids <input type="checkbox"/> after care <input type="checkbox"/> upon leaving room	
HH2.		<input type="checkbox"/> before care/entering room <input type="checkbox"/> before task <input type="checkbox"/> after body fluids <input type="checkbox"/> after care <input type="checkbox"/> upon leaving room	
HH3.		<input type="checkbox"/> before care/entering room <input type="checkbox"/> before task <input type="checkbox"/> after body fluids <input type="checkbox"/> after care <input type="checkbox"/> upon leaving room	
HH4.		<input type="checkbox"/> before care/entering room <input type="checkbox"/> before task <input type="checkbox"/> after body fluids <input type="checkbox"/> after care <input type="checkbox"/> upon leaving room	
HH5.		<input type="checkbox"/> before care/entering room <input type="checkbox"/> before task <input type="checkbox"/> after body fluids <input type="checkbox"/> after care <input type="checkbox"/> upon leaving room	
HH6.		<input type="checkbox"/> before care/entering room <input type="checkbox"/> before task <input type="checkbox"/> after body fluids <input type="checkbox"/> after care <input type="checkbox"/> upon leaving room	
HH7.		<input type="checkbox"/> before care/entering room <input type="checkbox"/> before task <input type="checkbox"/> after body fluids <input type="checkbox"/> after care <input type="checkbox"/> upon leaving room	
HH8.		<input type="checkbox"/> before care/entering room <input type="checkbox"/> before task <input type="checkbox"/> after body fluids <input type="checkbox"/> after care <input type="checkbox"/> upon leaving room	
HH9.		<input type="checkbox"/> before care/entering room <input type="checkbox"/> before task <input type="checkbox"/> after body fluids <input type="checkbox"/> after care <input type="checkbox"/> upon leaving room	
HH10.		<input type="checkbox"/> before care/entering room <input type="checkbox"/> before task <input type="checkbox"/> after body fluids <input type="checkbox"/> after care <input type="checkbox"/> upon leaving room	
Disciplines:		P = Physician CNA = Nurse Assistant D = Dietary N = Nurse	VOL = Volunteer RT = Respiratory Therapist W = Social Worker OTH = Other, Specify U = Unknown
For HH1-HH10:			Opportunities: <input checked="" type="checkbox"/> = Opportunity Successful <input type="checkbox"/> = Opportunity Missed
Total # HH Successful ("# <input checked="" type="checkbox"/> "): _____		Total # HH Opportunities Observed: _____	Adherence: _____ % (Total # HH Successful ÷ Total # HH Opportunities Observed x 100)

Version 2016.10.14





## Resources (Process Measures)

- CDPH Webpage for adherence monitoring tools:
  - <https://www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/MonitoringAdherenceToHCPracticesThatPreventInfection.aspx>



## Outcome Measures

- Reflect the impact of the health care service or intervention on the health status of patients
- Examples of Outcome Measures:
  - CLABSI rate
  - CAUTI rate
  - C. Diff infection rate

## Incidence vs. Prevalence

- Incidence: number of person in a population who develop a disease or condition within a specified period of time
  - Measures number of NEW infections
- Prevalence: proportion of persons in a population who have a disease or condition at a given point in time
  - Measures number TOTAL infections that are PRESENT, at a given point in time



## Example of Incidence Calculation (Outcome Measures)

- 5 scabies infections in January
- 180 total residents

$$\frac{5 \text{ scabies infections}}{180 \text{ residents}} \times 100 = 2.7 \text{ NEW infections per } 100 \text{ residents within timeframe}$$





## Example of Prevalence Calculation (Outcome Measure)

- 2 patients colonized with MRSA
  - 10 Patients admitted within timeframe
- 
- 2 patients colonized with MRSA = 0.2 = 20%
  - 10 patients admitted within timeframe



## Resources (Outcome Measures)

- CDPH Link to In-Depth Slides that review how to calculate infection rates and what the criteria is for measuring data that you should be monitoring
  - [https://www.cdph.ca.gov/Programs/CHCQ/HAI/CDPH%20Document%20Library/2019\\_15s\\_SNF%20InfectionSurveillance\\_Approved02.22.19.pdf](https://www.cdph.ca.gov/Programs/CHCQ/HAI/CDPH%20Document%20Library/2019_15s_SNF%20InfectionSurveillance_Approved02.22.19.pdf)



## Surveillance Practices to Prevent HAIs

- Assess the population
- Select outcome of process for surveillance (must comply with State and Federal requirements)
- Use surveillance definitions
- Collect surveillance data
- Calculate and analyze infection rates
- Apply risk stratification methods
- Report and use surveillance information
- Written plan to serve as foundation of program



## 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/>



# Programming

Session	Date (2021)	Covered Topics
Week 1	Wednesday, Sept 22nd	Antimicrobial Stewardship
Week 2	Wednesday, Sept 29th	Office Hours
Week 3 (Today!)	Wednesday, Oct 6th	Disease Surveillance
<b>Week 4</b>	<b>Wednesday, Oct 13th</b>	<b>Office Hours</b>
Week 5	Wednesday, Oct 20th	Outbreak Investigation
Week 6	Wednesday, Oct 27th	Office Hours
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



# Questions

