





Integrating Data and Collaboration for Enhanced Outbreak Response: Insights from PHIL and CORHA

Panel Conversation May 7th @ 11am

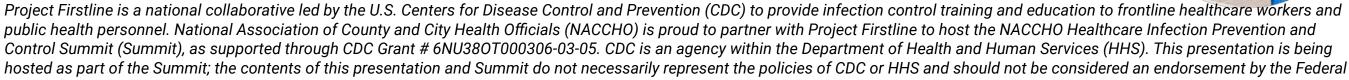






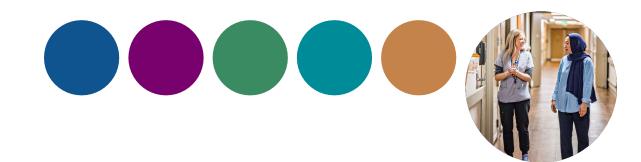














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Equip, Collaborate, and Innovate for Success



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Lead Research Scientist
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Local Health Department Data Use for Outbreak Response and Prevention in Healthcare Settings

May 2024

Project Firstline is a national collaborative led by the U.S. Centers for Disease Control and Prevention (CDC) to provide infection control training and education to frontline healthcare workers and public health personnel. National Association of County and City Health Officials (NACCHO) is proud to partner with Project Firstline to host the NACCHO Healthcare Infection Prevention and Control Summit (Summit), as supported through CDC Grant # 6NU380T000306-03-05. CDC is an agency within the Department of Health and Human Services (HHS). This presentation is being hosted as part of the Summit; the contents of this presentation and Summit do not necessarily represent the policies of CDC or HHS and should not be considered an endorsement by the Federal Government.







Presenter

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Population Health Innovation Lab MERLIN Team



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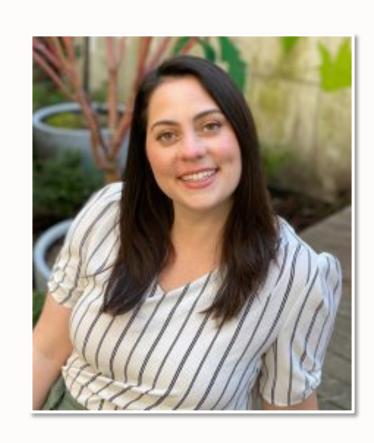
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Project Background: Qualitative evaluation

Objective

• Identify LHD's awareness, access, and use of data for outbreak investigations in health care settings.

Methodology

• Qualitative evaluation involving LHD interviews and a focus group representing 11 LHDs

Key Findings

- Barriers with data coordination and access for outbreak response.
- Budget and staffing constraints in smaller and rural LHDs.
- Urban LHDs are more adept at leveraging data due to better resources.
- Larger LHDs tend to focus on at-risk populations with more diverse data while smaller LHDs lack frameworks to equitably manage and use data.

Recommendations

• Strengthen partnerships; Enhance LHD capacity; Support improvement of state-level disease reporting systems; address access barriers; facilitate training; and operationalize equity



Project Background: Resource Development

Strategic collaboration guide

 A decision-making guide for LHDs to build outbreak response infrastructure through effective partnership

Equity framework guide

• A resource to provide LHDs the approach to combining population data with infection and facility data to address disparities during outbreak

Data use and management guide

 A resource to provide LHDs with case studies showcasing data solutions and approaches employed by other LHDs conducting outbreak response in healthcare settings



Impact and Future Directions

- Implementation: Guides introduced through webinars, focusing on practical applications and enabling LHDs to operationalize findings.
- Feedback and Iteration: Continuous feedback from LHDs to refine resources and ensure they meet the evolving needs of outbreak management.



Conclusion

- Summary: By bridging the gap between evaluative insights and practical application, the project enhances LHD capabilities to manage and prevent outbreaks more effectively and equitably.
- Future Outlook: Emphasize ongoing support for LHDs, especially in rural areas, to advance their data-driven outbreak response and prevention management practices.



Thank You



ORHA

Council for

Outbreak

Response:

Healthcare-Associated Infections
Antibiotic-Resistant Pathogens

Website – corha.org

Presenters

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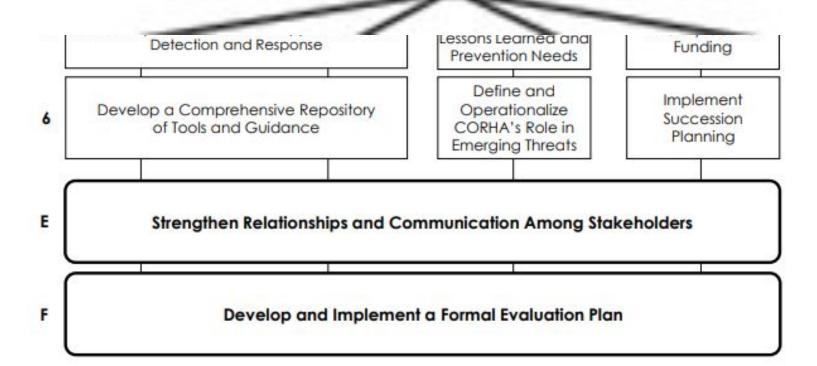
- Mission: To improve practices and policies at the local, state and national levels for detection, investigation, control and prevention of HAI/AR outbreaks across the healthcare continuum, including emerging infections and other risks with potential for healthcare transmission.
- Council Members: ASTHO, CSTE, NACCHO, CDC, SHEA, APIC, APHL, CMS, FDA
- Products:
 - Threshold for reporting and investigation
 - Tools for investigation
 - Framework for HAI outbreak notification

CORHA
Strategic Map: 2020-2025

Enhance Capabilities of Public Health
and Healthcare to Improve Outbreak
Detection, Response, and Prevention

Draft
07/06/2022

Enhance Capabilities of Public Health and Healthcare to Improve Outbreak Detection, Response, and Prevention



Background

- Outbreaks of infections are a regular occurrence within healthcare facilities
- Previously, no comprehensive guidance existed for notification of outbreaks
 - Varied based on situation

CORHA Framework for HAI outbreak notification



Framework for Healthcare-Associated Infection Outbreak Notification

V4: August 2022

Contents

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CORHA-developed products are consensus driven and approved by voting representatives on the Council through a majority vote.

Disclaimer: The positions and views expressed in this framework do not necessarily represent official positions of CORHA member organizations.

Introduction

This document provides guidance for notification¹ in the context of a suspected healthcare-associated infection (HAI) outbreak. It is based on public health best practices and grounded in the bioethical principles of autonomy and beneficence. A suspected outbreak can be signaled by a cluster of cases (infection or colonization²), detection of an unusual pathogen or resistance mechanism, or even a serious infection control breach.³ For the purpose of this document, all such instances will be referred to as "outbreak."

Investigation partners (e.g., the healthcare setting and public health authorities) should consider the communication needs of all affected target populations, as outlined below. Timely, transparent, and instructional communication may be critical for controlling infection risks, preventing further transmission and reducing harm by allowing appropriate treatment. Public health authorities should be consulted to help develop content of communications to various target populations throughout the process. Communication specialists should be involved where possible. As assessment of the risk evolves and new information becomes available during an investigation, updated information can be communicated to target populations.

This guidance is intended to provide standardized actions that can be taken for suspected HAI outbreak notifications. The circumstances surrounding these investigations may vary, and the course of action may be tailored in consultation with public health authorities. Supplementary resources referenced in this document may be used to enhance communication information. Note that additional guidance, not presented here, is available from CORHA and other organizations to assist with the epidemiological aspects of healthcare outbreak investigations, including reporting.



Framework for Healthcare-Associated Infection Outbreak Notification

V4: August 2022

STEP 1: Immediate Notification

Immediate notification refers to the set of initial and critical communications that occur when an outbreak is first suspected. Healthcare settings or providers should immediately report the suspected outbreak or infection control breach to designated internal team members (e.g., infection preventionists, hospital epidemiologists, and patient safety officers) and public health authorities, following state and local regulations and guidelines. Representatives of healthcare settings should take the lead on immediate notification to the groups outlined in the table below. Public health staff may need to take the lead when healthcare setting representatives do not or are unable to lead. Ideally, the notification process should be initiated as soon as possible—within 24 hours after recognition of an outbreak. In most cases, notification plans should ensure patients who have been infected are notified and counseled promptly (by their healthcare providers whenever possible). Notification to other prioritized groups should follow as soon as possible, and these steps may occur simultaneously instead of sequentially. The same principles will apply as new cases are identified.

Steps for Immediate Notification:

A suspected outbreak⁴ should be immediately reported to designated internal team members at the healthcare setting and to public health authorities. The following steps should be initiated as soon as possible—within 24 hours after an outbreak is suspected.⁵ The role of public health authorities will be to assist in the assessment of the outbreak and the content of notifications.

STEP 1: IMMEDIATE NOTIFICATION					
Case patients who have been infected (or their designated healthcare proxy and, if patients are deceased, their closest family member)					
How to Notify (one or more of the following, as appropriate)	When to Notify	What to Notify (public health agency to be involved on an ongoing basis to ensure accuracy)	Justification (one or more of the following)		
Verbally, in person or by phone calls if the patient has already been discharged, with the opportunity to ask questions. Written FAQs and descriptive statement should also be given or sent. If unable to reach patients = in person or by phone, a written communication should be sent.	First tier.	Applicable counseling and information about potential risk of transmission, infection, clinical illness, testing, treatment and additional care measures may need to be communicated and implemented (e.g., isolation, personal protective equipment [PPE], cohorting, screening, and/or changes in antibiotics).	To prevent and control transmission and assist with outbreak investigation activities. To fully inform patients about the event and implications for their health. To allow patients to seek appropriate treatment.		

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Chapter 8: Communications, Media, Public Reporting, Notification, and Disclosure for Healthcare Acquired Infections

Draft
Interim Version October 2022

Outline

(Preface)

8.0 Introduction

8.0.1 Patients' Stories

8.0.2 Considerations for Notification

8.1 Notification of Patients, Stakeholders, and General Public of Outbreaks

8.1.1 Immediate Notification

8.1.1.1 Affected and Exposed Patients

8.1.1.2 Healthcare Providers and Personnel

8.1.1.3 Visitors

8.1.1.4 Other Healthcare Facilities

8.1.2 Expanded Notification

8.1.2.1 Affected and Exposed Patients

8.1.2.2 Healthcare Providers and Personnel

8.1.2.3 Visitors

8.1.2.4 Other Healthcare Facilities

8.1.3 Public Notification

8.1.3.1 When to Notify the Public

8.1.3.2 How to Notify the Public

8.1.3.3 Additional Considerations

8.2 Communication Techniques

8.2.1 Risk Communication Principles

8.2.2 Managing Differing Opinions Between Public Health and Healthcare Facility

8.2.3 Tailoring Communication to Audience and Setting

8.2.4 Tools

8.3 Media

8.3.1 Types of Media

8.3.2 Engaging the Media

8.3.3 Proactive versus Reactive Media

Chapter

(Preface)

When patients are placed at risk as a result of an outbreak in a healthcare setting, an infection control breach, or another situation that decreases their safety in a healthcare setting, they have a right to know what happened, what has been done, what their risk is, and what they need to do. Incorporating a patient notification into an outbreak response can be challenging, particularly when not all the information has been collected or analyzed; but is necessary for public health agencies to protect the health of their populations. This chapter describes the rationale for patient notification, the who/what/how of patient notification events, and communication considerations.

CORHA Principles and Practices for Healthcare Outbreak Response: Chapter 8

- **Box 8.3** for an example involving *Legionella* pneumophila
- **Box 8.4** for New-Delhi metallo-beta-lactamase-producing carbapenem-resistant *Enterobacteriaceae*
- Discusses use of written notification postings

NOTIFICATION SUMMARY AND **EXAMPLE SCENARIOS**

https://www.corha.org/resources-and-products/?filter_cat=patient-notification

https://www.corha.org/wp-content/uploads/2023/11/HAI-Patient-Notification-Fra mework-one-pager Oct-2023.pdf



CORHA's Framework for Healthcare-Associated Infection Outbreak Notification | Summary

This one-pager summarizes the Framework for Healthcare-Associated Infection Outbreak Notification, which offers guidance and justification for notification of healthcare-associated infection (HAI) outbreaks. An outbreak is defined as "the occurrence of more cases of disease than expected in a given area or among a specific group of people over a particular period of time." Partners in the investigation, especially healthcare providers and public health authorities, should address communication needs for affected populations. Timely, transparent, and instructional communication is vital to control infection risks, reduce patient harm, and enable proper treatment. Below are two examples of application of the three steps of the HAI Outbreak Patient Notification Framework.



Intended Audience:

This document is meant for healthcare facilities, state hospital associations, state health departments, healthcare executive groups, and licensing agencies.

Immediate Notification

A suspected outbreak should be immediately reported to relevant stakeholders and notification should be initiated as soon as possible after an outbreak is suspected.



Example Scenario: Legionella outbreak in a hospital setting where 2 patients stayed in the same single occupancy hospital room 7 days apart from each other.



Example Scenario: Outbreak of NDM-CRE+ in a long-term care facility setting in three patients who stayed in the same unit and received wound care.

Case-Patients: Notify them immediately about their Legionella infection diagnosis and keep them informed throughout the

Case-Patients (Residents): Immediately inform all patients or their healthcare proxies about their positive NDM-CRE culture. Explain that an investigation will occur, including identifying commonalities among patients and evaluating infection control practices.

Exposed and Potentially Exposed Patients: Notify all patients who shared the same room or ward within a relevant time frame. Inform them about Legionella, their risk, and symptoms to watch Exposed and Potentially Exposed Patients: Notify exposed and potentially exposed individuals as soon as they are identified, even if it's not possible to identify them all initially. Consider notifying the entire facility due to the contact-based transmission of NDM-CRE. Notify former residents if necessary.

Patients at Future Risk: Notify patients who will be admitted to the affected area and inform them of the investigation and outbreak.

Patients at Future Risk: Inform residents or their healthcare proxies who will be admitted to the affected area about the ongoing investigation and outbreak.

Healthcare Providers: Inform healthcare providers caring for affected and potentially exposed patients about the outbreak, location details, mitigation measures, and testing.

Healthcare Providers: Notify healthcare providers caring for affected residents and provide information on location, initial mitigation measures, and infection control. Ensure that affected residents are placed in transmission-based precautions.

Healthcare Personnel: Notify potentially exposed healthcare personnel who might need to make behavioral changes or could be at risk due to underlying illnesses.

Healthcare Personnel: Notify all healthcare providers in the facility, providing information like that given to providers caring for affected

Visitors: Inform potentially exposed hospital visitors, including family members, of any necessary behavioral changes, room closures, or increased risk due to specific health conditions.

Visitors: Inform visitors, including family members, about their role in transmission-based precautions and any necessary precautions, such as handwashing.

Other Healthcare Facilities: Communicate with receiving facilities when transferring patients who are exposed, at risk, or affected by the outbreak.

Other Healthcare Facilities: Communicate with receiving facilities when transferring affected, exposed, or at-risk residents, ensuring that transmission-based precautions are continued.

Expanded Notification

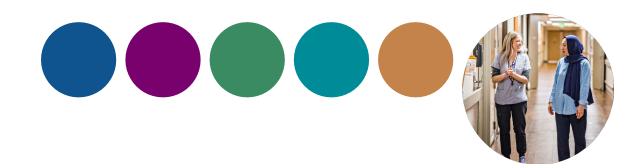
As an investigation progresses and more information becomes available, notification should be revisited. This is especially true if the investigation expands to additional units or to additional healthcare settings.

Public Notification

Public notification provides an important opportunity to communicate ongoing risks and advocate actions to a broader audience, especially if the event involves many cases or exposures, or when it is necessary to provide information to potentially exposed persons who cannot be reached through other means. See Chapter 8 of the CORHA Principles and Practices for Healthcare Outbreak Response for case examples on how to apply the above guiding principles for public notification.



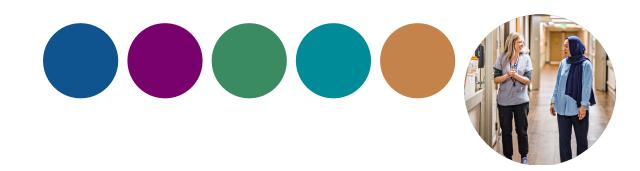




Panel Conversation







Thank you!

