



Collaborative Solutions for Outbreak Response and Prevention in Healthcare Settings

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POPULATION HEALTH INNOVATION LAB

Northwest Center FOR PUBLIC HEALTH PRACTICE

hot topics in practice
www.nwcenter.org

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Question for the Viewers

Where are you joining us from today?

- A. Local Health Department
- B. State Health Department
- C. Tribal Health Department
- D. National Public Health Organization
- E. Non-profit or Academic Institution
- F. Other (please type in chat)

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Question for the Viewers

How long have you been conducting outbreak response and prevention work in healthcare settings?

- A. Less than 1 year
- B. 1-2 years
- C. 3-5 years
- D. 6-10 years
- E. 10+ years
- F. I do not conduct outbreak response and prevention work in healthcare settings
- G. Other (please type in chat)

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Project Background

Purpose

To support Local Health Departments in harnessing data for effective and equitable outbreak response and prevention in healthcare settings

Project Phases

Phase 1 – Qualitative Evaluation (2023)

Phase 2 – Resource Development & Trainings (2024)

Seven horizontal lines for notes.

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Phase 1 Evaluation Recommendations



Strengthen Partnerships

NACCHO can support regular forums or meetings among LHDs, state health departments, local partners, and healthcare facilities to leverage collective capabilities, insights, and resources towards synergized outbreak responses.



Expand LHD Capacity

NACCHO can find ways to support LHDs in accessing essential resources, e.g., funding, technology, and expertise, especially to enhance personnel capacity for smaller LHDs.



Support Improvement of State-Level Disease Surveillance Systems

NACCHO and partners can encourage state departments of health (DOH) to regularly review and update end user training materials to improve the user experience of their electronic disease surveillance and reporting systems.

NACCHO can also organize a repository for states' point of contact, such that LHDs, specifically those that are smaller or rural, can inquire about guidance, resources, facilitations, or training.

Seven horizontal lines for notes.

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Phase 1 Evaluation Recommendations



Address Access Barriers

State DOHs should implement processes to simplify and expedite processes to access essential data portals and systems to facilitate smoother operational workflows and strengthen outbreak response mechanisms



Facilitate Training

NACCHO can facilitate diverse trainings for LHDs and supplement them with resources to support learning and application of acquired skills in outbreak responses.



Emphasize Equity

NACCHO can support LHDs in leveraging data to develop equity-driven interventions that provide at-risk populations with appropriate resources and care during healthcare outbreaks.

Seven horizontal lines for notes.

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Phase 2: Resource Development

Data Utilization and Management Guide

Strategic Collaboration Guide

Equity Framework Guide

Webinars & Workshops

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Now available for download from the NACCHO website!



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NACCHO Resources

Download the guides and open in Adobe Reader for best functionality.

Outbreak Response and Prevention in Healthcare Settings Resources

- Download Data Utilization and Management Guide for Outbreak Prevention and Response in Healthcare Settings
- Download Strategic Collaboration for Outbreak Response and Prevention in Healthcare Settings
- Download Equity Framework for Outbreak Response and Prevention in Healthcare Settings

NACCHO

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Data Utilization and Management Guide

Describes how various LHDs have implemented impactful data utilization and management strategies in their own outbreak prevention and response work

September 2018
NACCHO
Data Utilization and Management Guide for Outbreak Prevention and Response in Healthcare Settings
Success Stories and Resources for Local Health Departments

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Success Story and Interview Participants

Local Health Department	State	Consus Region	Population Category*	Governance	Jurisdiction	Urban/Rural**
Chicago Department of Public Health	IL	Midwest	Large	Local	City	Urban
Cater Health District - Virginia Department of Health	VA	South	Medium	State	Multi-county	Urban
DuPage County Health Department	IL	Midwest	Large	Local	County	Urban
Fairfax County Health Department	VA	South	Large	State	Multi-county	Urban
Florida Department of Health in Brevard County	FL	South	Large	State	County	Urban
Local Health Department	TX	South	Medium	Local	County	Rural
Long Beach Health and Human Services	CA	West	Medium	Local	City	Urban
Monmouth County Health Department	NJ	Northeast	Medium	Local	County	Urban
Monongalia County Health Department	WV	South	Medium	Local	County	Urban
Orange County Department of Health	NY	Northeast	Medium	Local	County	Urban
Pima County Health Department	AZ	West	Large	Local	County	Urban
Public Health - Seattle & King County	WA	West	Large	Local	County	Urban
Snohomish County Health Department	WA	West	Large	Local	County	Urban
Stouffville County Health Department	IN	Midwest	Small	Local	County	Rural
South Carolina Department of Health and Environmental Control, Spartanburg Region	SC	South	Large	State	Multi-county	Urban
Washington County Public Health Division	OR	West	Large	Local	County	Urban

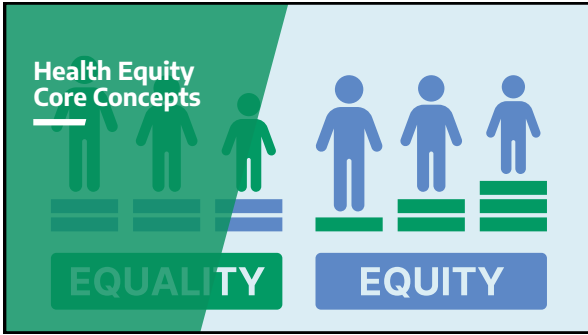
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Data Utilization and Management Guide: Contents

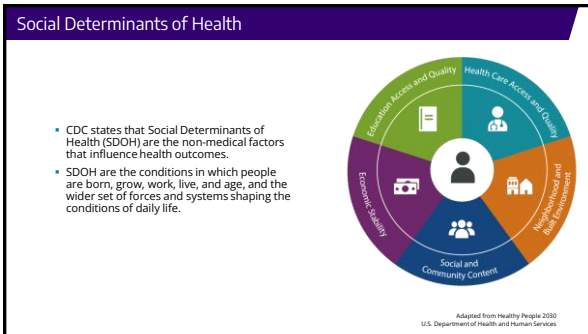
- The guide is organized into 5 main categories of data utilization and management topics.
- Categories are broken down into specific questions that are answered in the guide.
 - Example: "How can LHDs use data to identify and prioritize high-risk facilities for intervention?"
- The guide can be used in any order.

Introduction and Purpose	4
Outbreak Reporting and Data Management	5
What Strategies Can LHDs Use to Collect Initial Outbreak Reports from Facilities?	5
What Systems and Tools Can LHDs Employ to Manage Outbreak Data?	7
How Can LHDs Use Data to Identify Integrated Outbreaks in Healthcare Facilities?	10
Infection Control Assessments and ICAR Tools	13
What Are ICAR Tools and When Are They Useful?	13
Who Conducts Infection Control Assessments and Collects ICAR Data?	15
How Can ICAR Tools and Assessment Processes Be Standardized for the Needs of the LHD?	16
How is ICAR Data Stored and Managed by LHDs?	18
Data-Informed Decision-Making	19
How Can LHDs Use Data to Identify and Prioritize High-Risk Facilities for Intervention?	19
How Can LHDs Use Surveillance Data to Inform and Prepare Facilities?	23
Collaborating with Facilities and Increasing Engagement	26
How Can LHDs Use Data to Improve Collaboration and Engagement with Healthcare Facilities?	26
How Can LHDs Collaborate with the Facilities to Ensure They Are Receiving Quality Data and Providing Quality Health Information?	28
Streamlining and Improving Internal Data Processes	33
How Can LHDs Streamline and Create Consistency in Their Internal Data Processes?	33
How Can LHDs Use Outbreak Alerts to Improve Preparedness and Response Capacity?	35

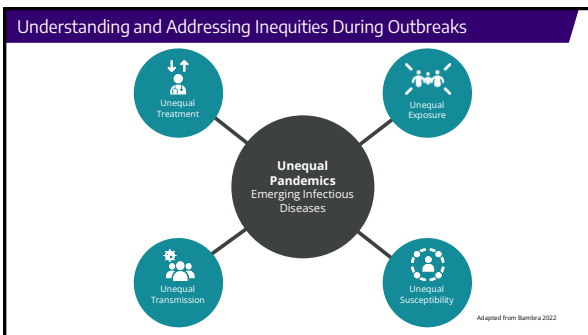
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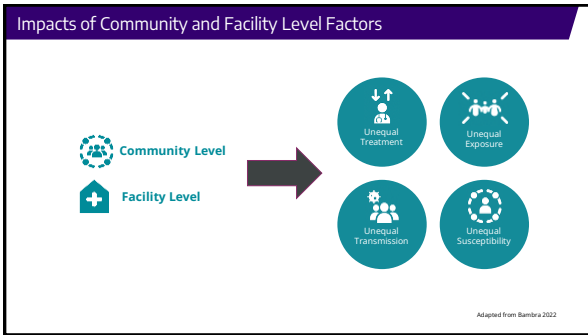
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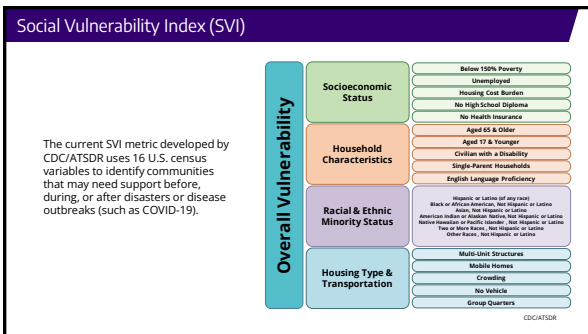
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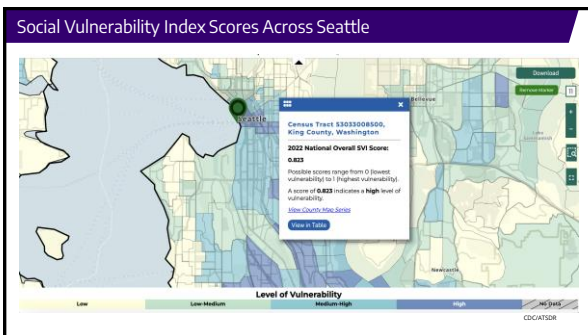
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Community-Level Factors in the Literature

Impact of SVI

During the COVID-19 pandemic, Michigan skilled nursing facilities within high SVI regions experienced greater shortages of personal protective equipment (PPE) and increased rates of COVID-19 cases and deaths (*LeRose et. al 2021*)



Adapted from Bamira 2022

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Facility-level Factors in the Literature: Impact of CMS Ratings and Staff Ratios



Adapted from Bamira 2022

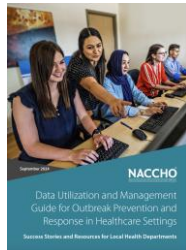
West Virginia nursing homes with higher CMS Overall Ratings (indicating higher quality) had significantly lower odds of experiencing COVID-19 outbreaks (*Bui DP et. al 2020*)

In **Pennsylvania hospitals**, lower nurse staffing ratios and higher nurse burnout were associated with increased rates of urinary tract infections and surgical site infections (*Cmiatti et. al 2012*)

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LHDs Using Data to Identify and Prioritize High-Risk Facilities for Interventions

- South Carolina Department of Health, Upstate Region
 - Monmouth County Health Department in New Jersey
 - Chicago Department of Public Health in Illinois
- See pages 19 – 22 in the *Data Utilization and Management Guide* to read these Success Stories



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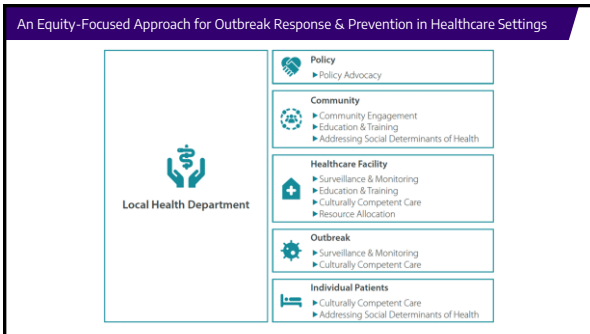
Question for the Viewers

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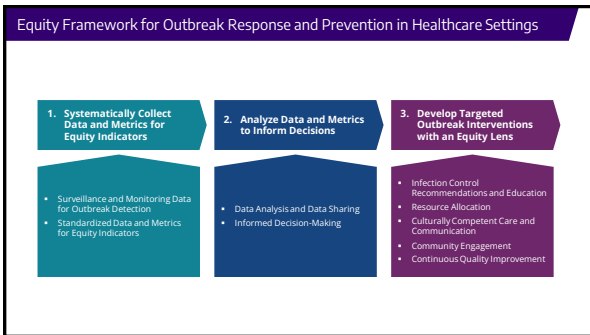
Does your health department use facility-level or community-level data to inform outbreak prevention and response work in healthcare settings? (Select all that apply)

- A. Yes, we use facility-level data
- B. Yes, we use community-level data
- C. No, we do not currently use facility-level or community-level data
- D. Unsure
- E. I do not work at a health department

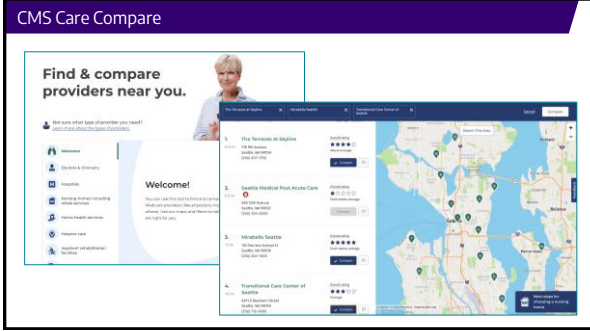
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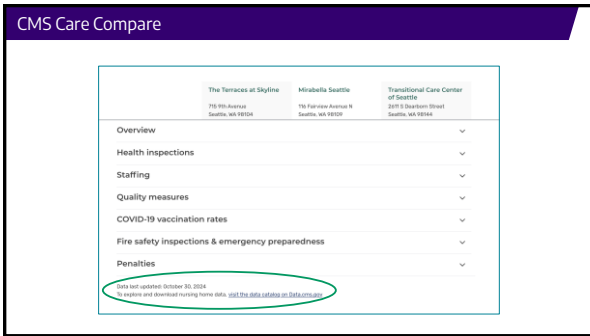
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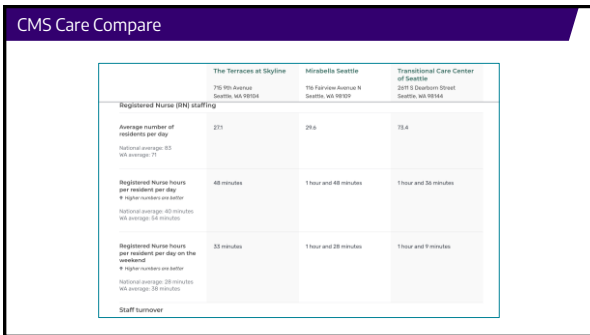
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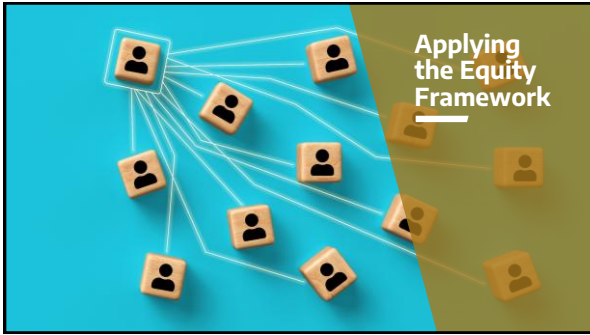
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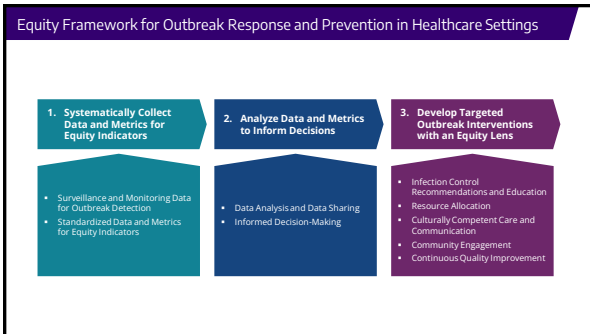
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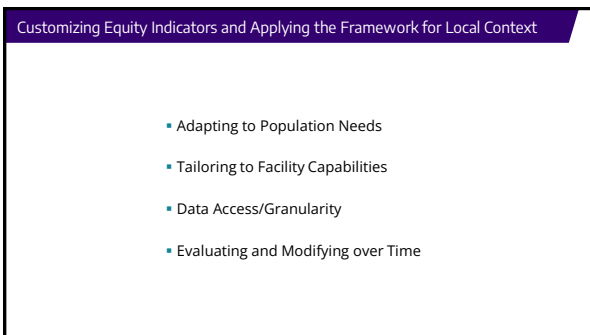
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Use Cases in Implementing the Equity Framework

- 1. **Use Case:** Flu Outbreak Management Across Several Long-Term Care Facilities
- 2. **Use Case:** LHD Prevention Efforts for Respiratory Illness Season in Long-Term Care Facilities
- 3. **Use Case:** An LHD Conducting Outbreak Response at a Large, Urban Hospital
- 4. **Use Case:** A Regional LHD Conducting Outbreak Response in Healthcare Settings Across Multiple Counties

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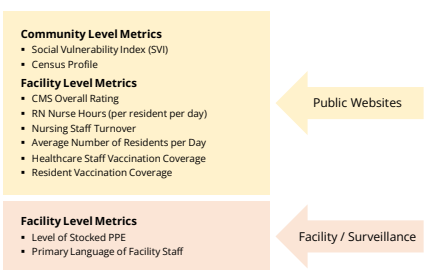
Use Case 2: LHD Prevention Efforts for Respiratory Illness Season in Long-Term Care Facilities

In the fall, the LHD is working to prepare for the upcoming respiratory illness season across the region's ten long-term care facilities.

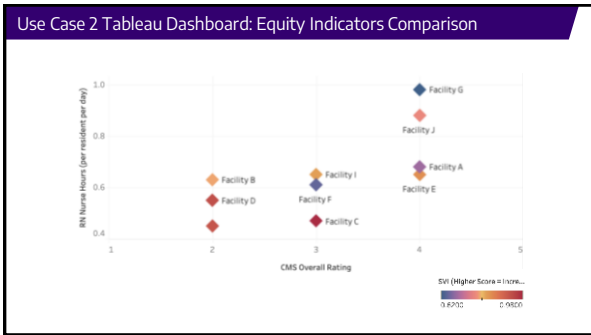
The LHD conducting this prevention work is located in a medium-sized county with diverse communities across the jurisdiction.

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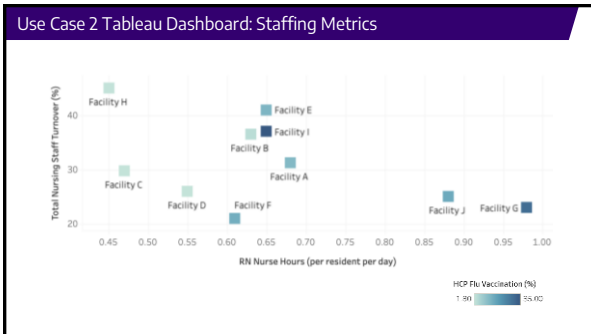
Data and Metrics of Interest for Use Case 2



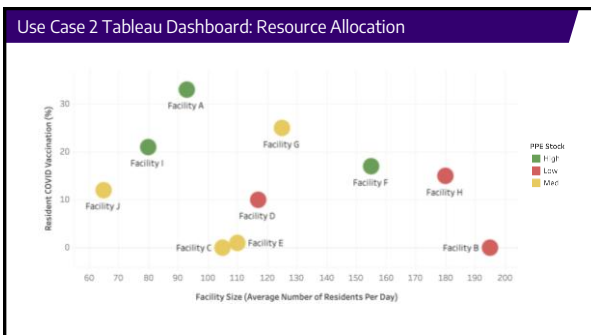
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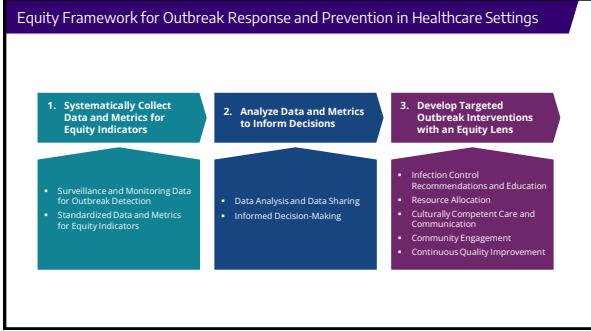
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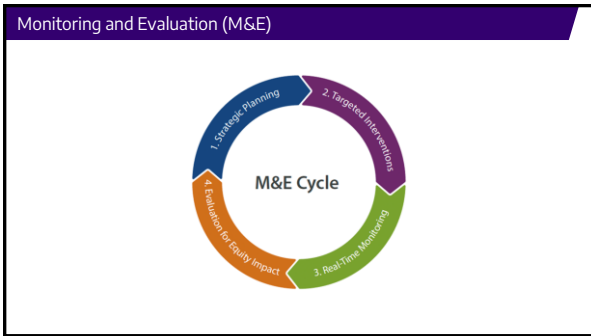
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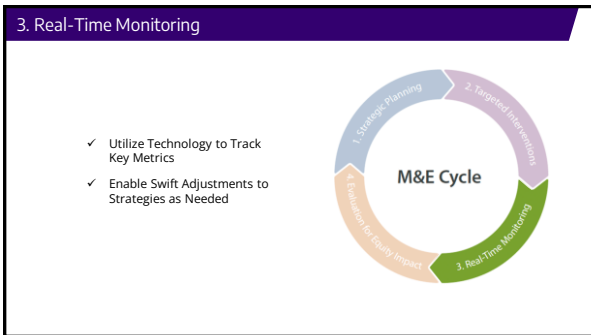
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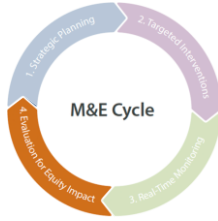
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4. Evaluation for Equity Impact

- ✓ Analyze the Success of Interventions in Reducing Disparities
- ✓ Gather Feedback from Healthcare Facility
- ✓ Develop Comprehensive Reports and Share Findings



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Additional Considerations

- ✓ Training and Capacity Building
- ✓ Policy and Advocacy



NACCHO The Roots of Health Inequity Course Series

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Upcoming Workshops and Trainings:



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Key Takeaways

- ✓ This guide emphasizes the importance of applying the Equity Framework in outbreak response and prevention to address health disparities, customize interventions based on local context, and ensure equitable resource allocation.
- ✓ Community-level and facility-level metrics, such as the Social Vulnerability Index (SVI) and CMS ratings, are pivotal for identifying high-risk populations and prioritizing intervention efforts effectively.
- ✓ Success stories shared by LHDs in the Data Utilization and Strategic Collaboration guides provide best practices for enhancing outbreak response and prevention work. Incorporating these practical strategies can support the implementation of equity-focused data strategies.

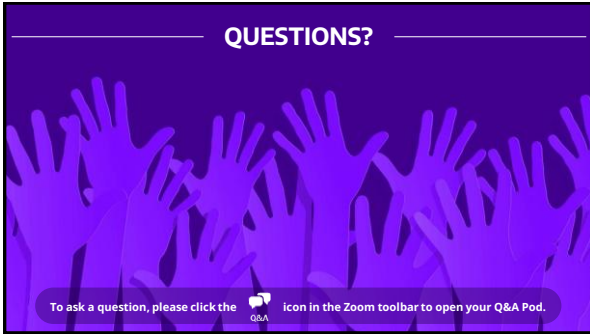
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A Chat with Cassandra and Seun

Sue Grinnell Cassandra Mohan Seun Aluko

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Resources

Outbreak Response and Prevention in Healthcare Settings Resources
NACCHO
<https://www.naccho.org/programs/community-health/infectious-disease/outbreak-response-and-prevention-in-healthcare-settings-resources>

Social Vulnerability Index Interactive Map
CDC/ATSDR
<https://www.watsdr.cdc.gov/place-health/php/svi/svi-interactive-map.html>

Care Compare
CMS
<https://www.medicare.gov/care-compare/>

Provider Data Catalog
CMS
<https://data.cms.gov/provider-data/>

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