Collaborative Solutions for Outbreak Response and Prevention in Healthcare Settings

Cassandra Mohan, MSPH

Research Associate

Seun Aluko, MPH

Lead Research Scientist

POPULATION HEALTH INNOVATION LAB

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)

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

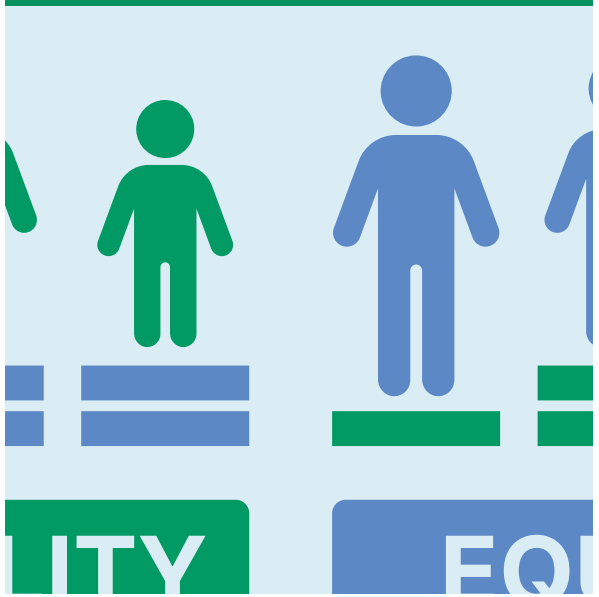
E. 10+ years

F. I do not conduct outbreak response and prevention work in healthcare settings

G. Other (please type in chat)

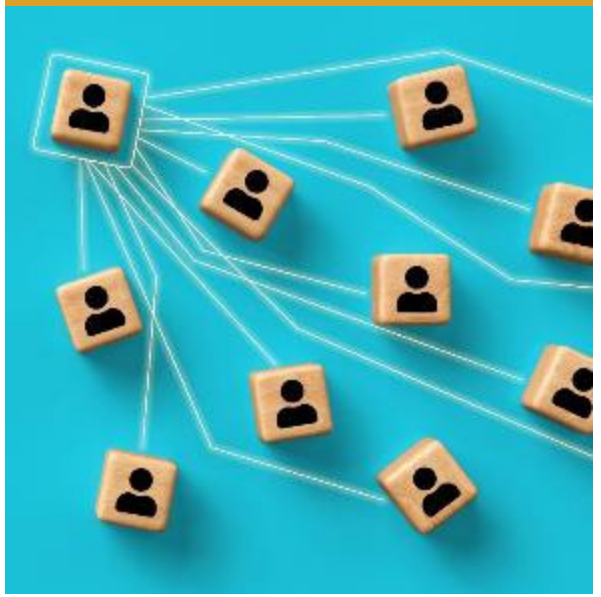
Project Background

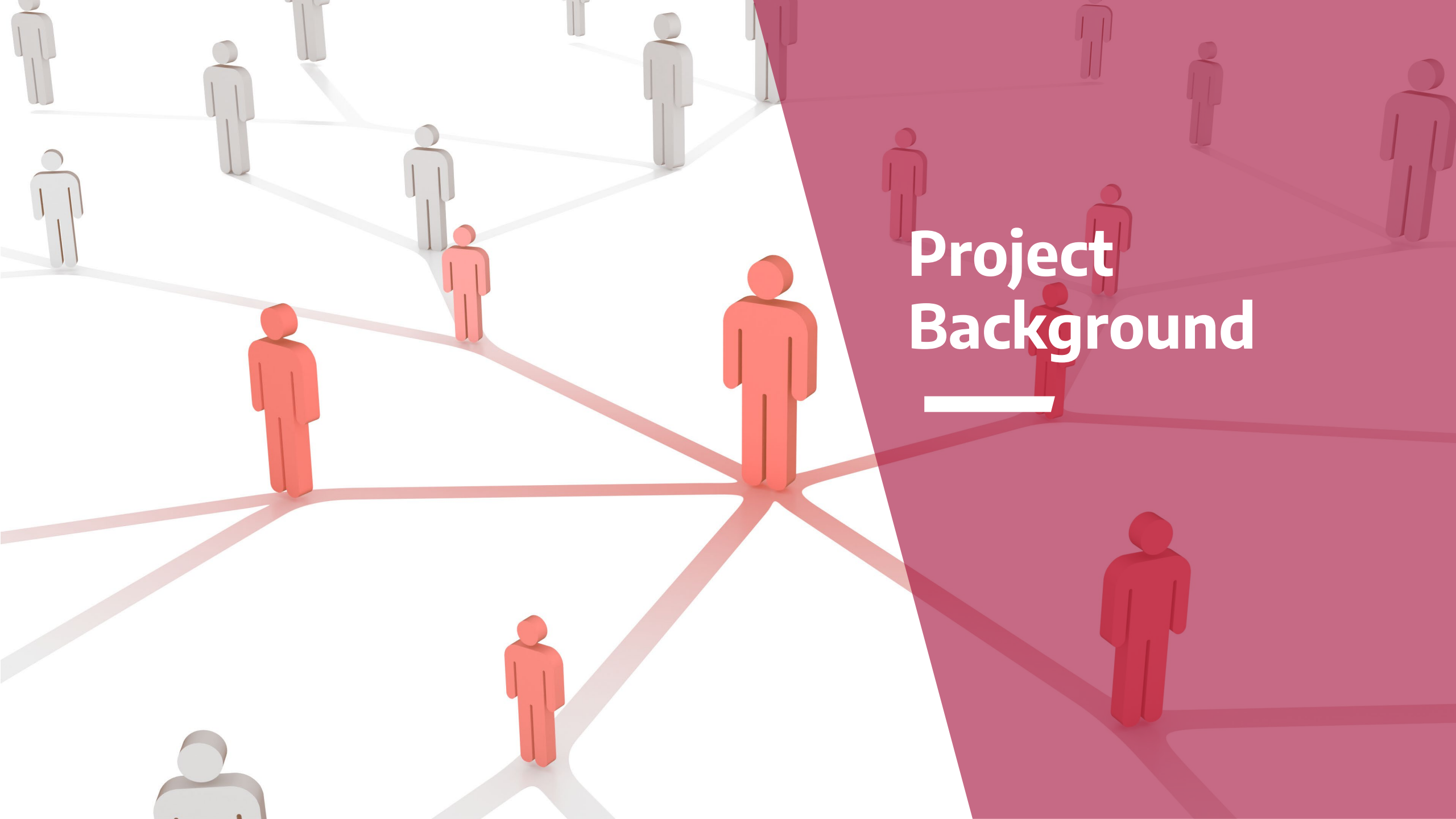
Health Equity Key Concepts



Data Collection and Metrics

Applying the Equity Framework





Project Background

About PHIL

The Population Health Innovation Lab (PHIL) provides innovative training, research, and technical assistance designed to catalyze and accelerate community efforts aimed at enhancing equity, well-being, and systems through cross-boundary collaboration.

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)

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.

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

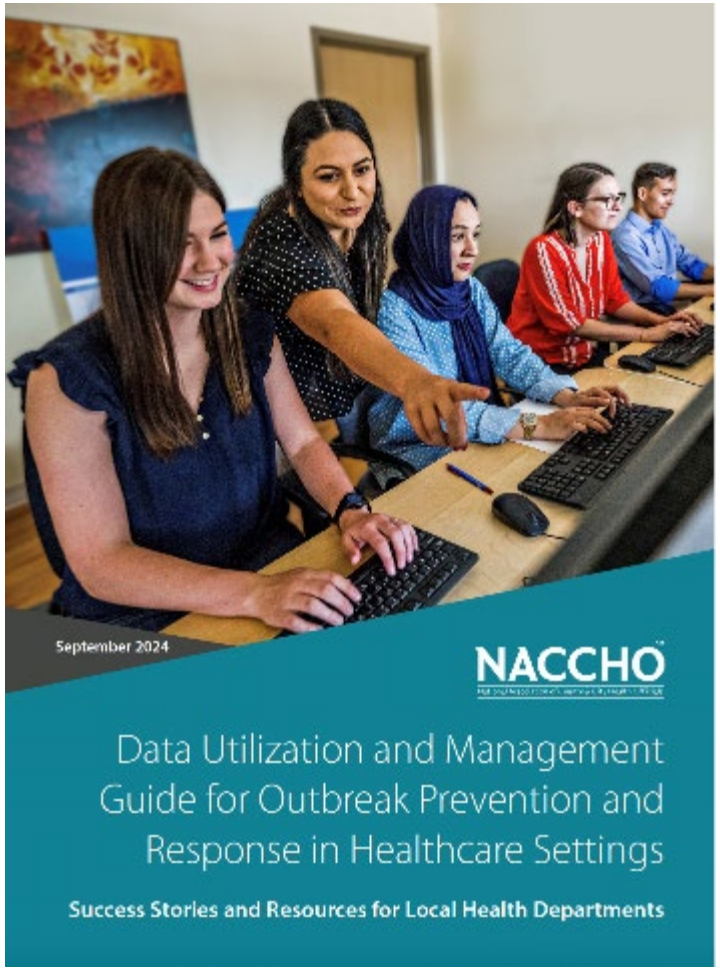
Facilitate Training
NACCHO can facilitate diverse trainings for LHDs and supplement them with resources to support learning and application of acquired skills in outbreak responses.

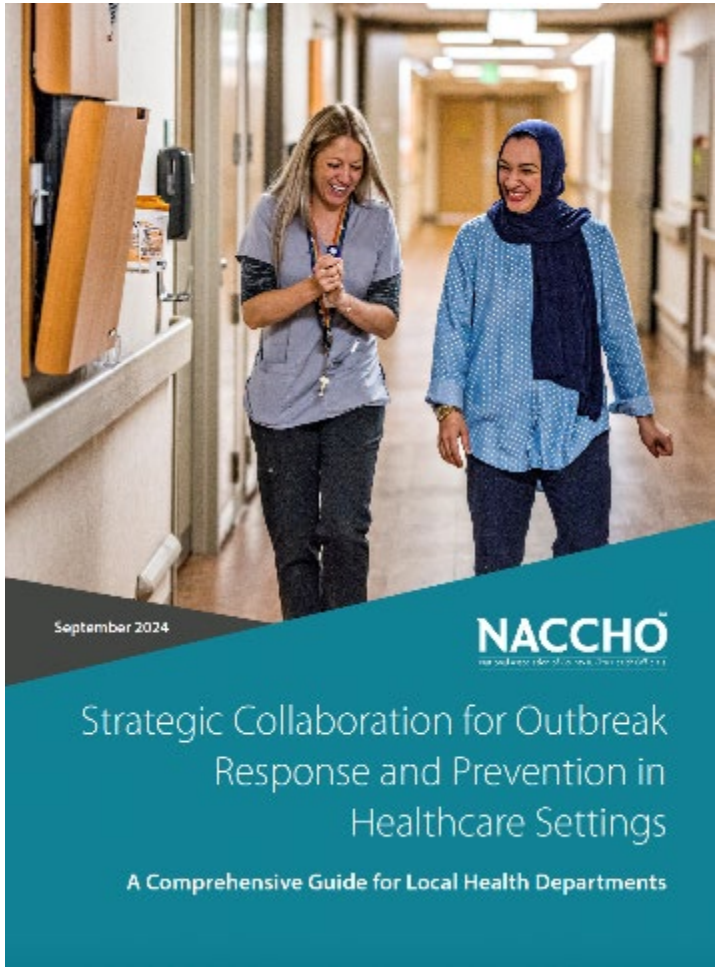
Emphasize Equity
NACCHO can support LHDs in leveraging data to develop equity-driven interventions that provide at-risk populations with appropriate resources and care during healthcare outbreaks.

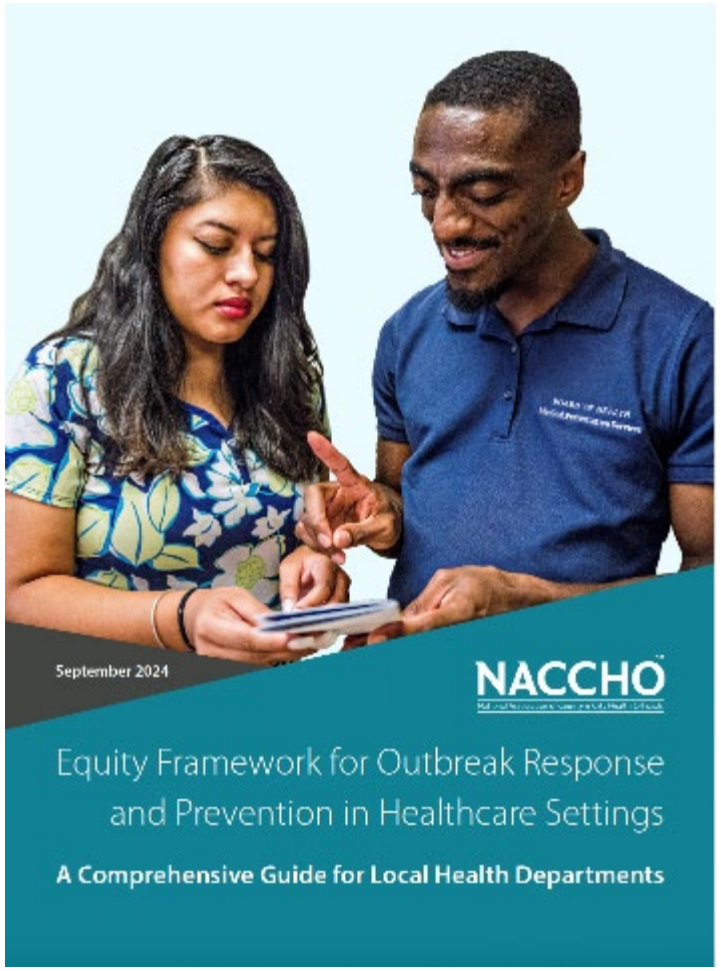
Phase 2: Resource Development

- Data Utilization and Management Guide
- Strategic Collaboration Guide
- Equity Framework Guide
- Webinars & Workshops

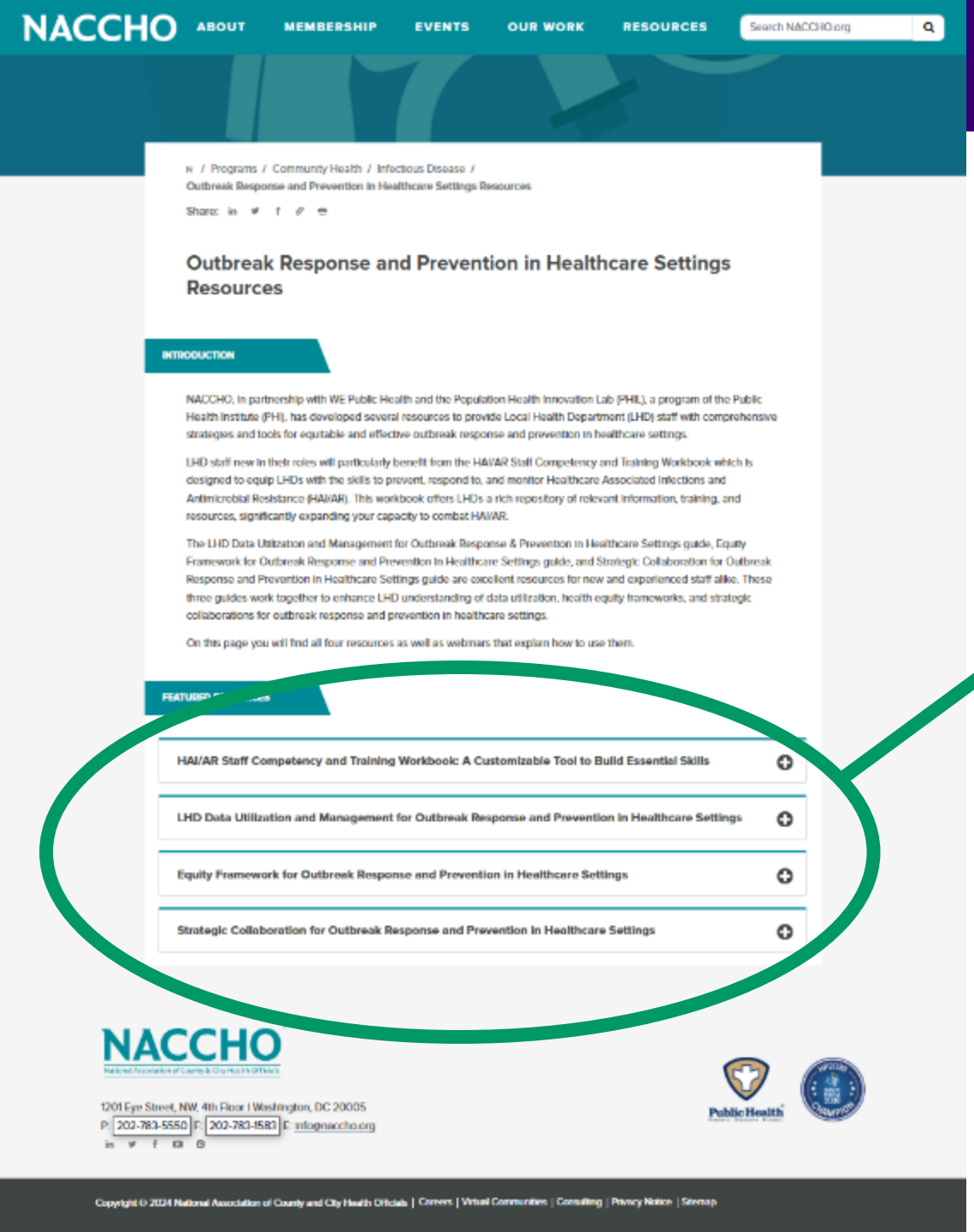
Now available for download from the NACCHO website!





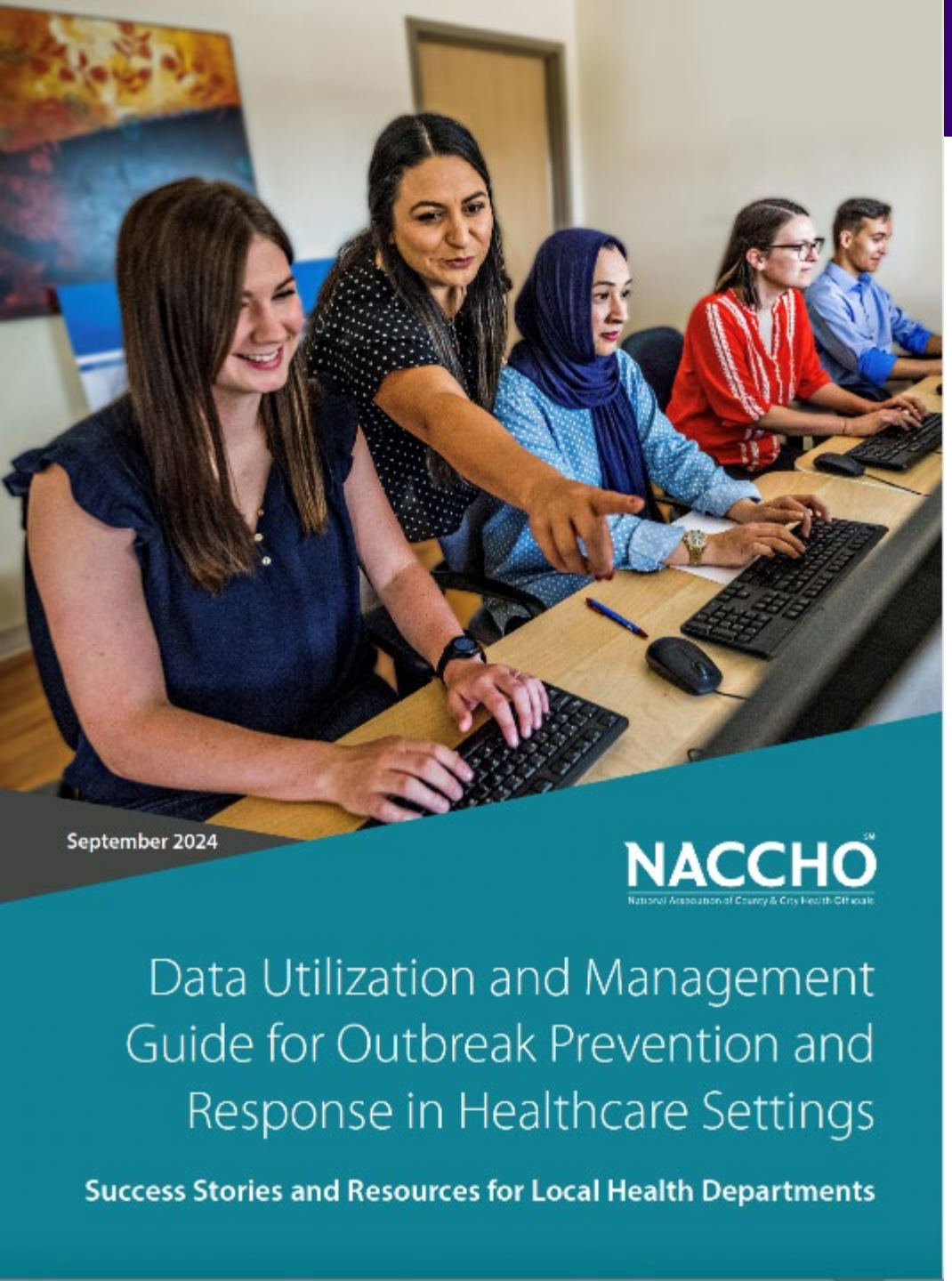


NACCHO Resources



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

bitly



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

Success Story and Interview Participants

Local Health Department	State	Census Region	Population Category*	Governance	Jurisdiction	Urban/ Rural**
Chicago Department of Public Health	IL	Midwest	Large	Local	City	Urban
Crater 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 Polk 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
Steuben County Health Department	IN	Midwest	Small	Local	County	Rural
South Carolina Department of Health and Environmental Control, Upstate Region	SC	South	Large	State	Multi-county	Urban
Washington County Public Health Division	OR	West	Large	Local	County	Urban

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.

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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 Unreported Outbreaks in Healthcare Facilities? 10

Infection Control Assessments and ICAR Tools 13
- What Are ICAR Tools and When Are They Utilized? 13
- Who Conducts Infection Control Assessments and Collects ICAR Data? 15
- How Can ICAR Tools and Assessment Processes Be Streamlined 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 Protecting Sensitive Health Information? 28

Streamlining and Improving Internal Data Processes 31
- How Can LHDs Streamline and Create Consistency in Their Internal Data Processes? 31
- How Can LHDs Use Outbreak Metrics to Improve Preparedness and Response Capacity? 32

What Systems and Tools can LHDs Employ to Manage Outbreak Data?

LHDs employ a variety of systems and tools to help manage the data collected during or after an outbreak investigation.

- Many LHDs use Microsoft Excel to record and manage outbreak information in the form of a line list. This line list is a case log that can include variables related to patient demographics, onset details, symptoms, and other outcomes. In addition to offering a simple and easily adaptable line list approach, additional features can be built into the Excel workbook to help generate Epi curves and run other analyses.
- For LHDs that want a streamlined data entry process and a more robust system that provides advanced organization and analysis of complex data, it can be beneficial to use a database program (such as Epi Info, Microsoft Access, and REDCap) to record and manage outbreak data.
- Some LHDs work with their local or state information technology (IT) team to create outbreak modules within their reportable disease case management system. This outbreak module can be an effective option to help streamline the management of case and outbreak data and may include additional variables, such as laboratory results, address, facility name, and close contacts.

Success Story: Creating Excel Line Lists for Outbreak Data Management and Analysis

Washington County Public Health Division in Oregon created an Excel spreadsheet where line list data can be entered, and an automated epi curve is created. This automated spreadsheet is a time saver for this LHD's staff, as they do not have to duplicate the manual data entry of illness onset information into another system to generate the epi curve.

In addition, Washington County Public Health Division developed a template for their outbreak close out report to help streamline the process and ensure that the same information is routinely captured across different outbreaks.

Outbreak Line List Resources

- Download the line list template for gastrointestinal outbreaks developed by Washington County Public Health Division.
- Download the line list template for respiratory outbreaks developed by Washington County Public Health Division.
- Access the HAI program resources provided by the California Department of Public Health, including downloadable line-list templates for COVID-19, MDRO, and CDI under the Outbreaks tab.

Data Utilization and Management Guide: Sections

Data Utilization and Management Strategies

Success Stories

Resources

Strategic Collaboration Guide

Provides resources to enhance LHD's partnership and collaboration practices for outbreak response work in healthcare settings

Strategic Collaboration Guide: Contents

- The guide shares strategic collaboration guidance for outbreak response and prevention work in healthcare settings.
- There are 10 main topics to explore.

  Example: *Resource Allocation and Management*

- The guide can be used in any order.

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Importance of Collaboration in Public Health 5
Role of LHDs: Roles and Responsibilities in Outbreak Response 6
Establishing Effective Partnership 10
Maintaining and Strengthening Partnerships 11
Communication Strategies 13
Resource Allocation and Management 14
Data Management and Surveillance 16
Operationalizing an Equitable Outbreak Response 18
Rapid Response and Flexibility 20
Sustainable and Resilient Partnerships 22
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Communication Strategies

Effective communication is essential for maintaining partnerships and ensuring successful implementation of outbreak response strategies. Newell et al. and Martin et al. highlight the importance of clear communication and conflict management in partnerships, particularly during high-stakes situations like outbreaks.[7,8] This includes developing clear communication protocols, resolving conflicts that may arise, and ensuring equitable and inclusive partnership practices.

For more information on communication strategies, refer to Appendix 1: Collaboration Research, Theories, and Frameworks.

Success Story: Enhancing Communication through Regular Meetings

The Long Beach Department of Health and Human Services (LBDHHS) strengthened their response to healthcare-associated infections by implementing effective communication strategies. LBDHHS holds weekly internal meetings to review outbreak data and provide targeted facility-specific guidance. Using Cisco Jabber for phone calls and Microsoft outlook for email messaging, they maintain open communication with healthcare facilities. Microsoft Forms surveys are used to collect data on PPE and testing supplies, aiding in resource allocation. LBDHHS also customizes the CDC's Infection Control Assessment and Response (ICAR) tool, to reduce assessment time and allow for rapid report turnaround and to provide healthcare facilities immediate guidance for improvement in infection prevention and control practices. These communication strategies ensured effective coordination and support for healthcare facilities during outbreaks.

This success story demonstrates how robust communication strategies supported by strong partnerships and collaboration are vital to effective and timely outbreak response in healthcare settings.

Resources

To support your LHD's communication strategies with outbreak response partners, consider the following resources:

- Access the CDC's Health Communication Playbook.
- Building Community Resilience: Coalition Building and Communications Guide, a resource developed by the Center for Community Resilience at the George Washington University.
- Communications Plan for Vulnerable Populations, a tool developed by the Escambia County Health Department in Florida.
- Communications Annex, a resource developed by the Marion County Health Department in Florida.

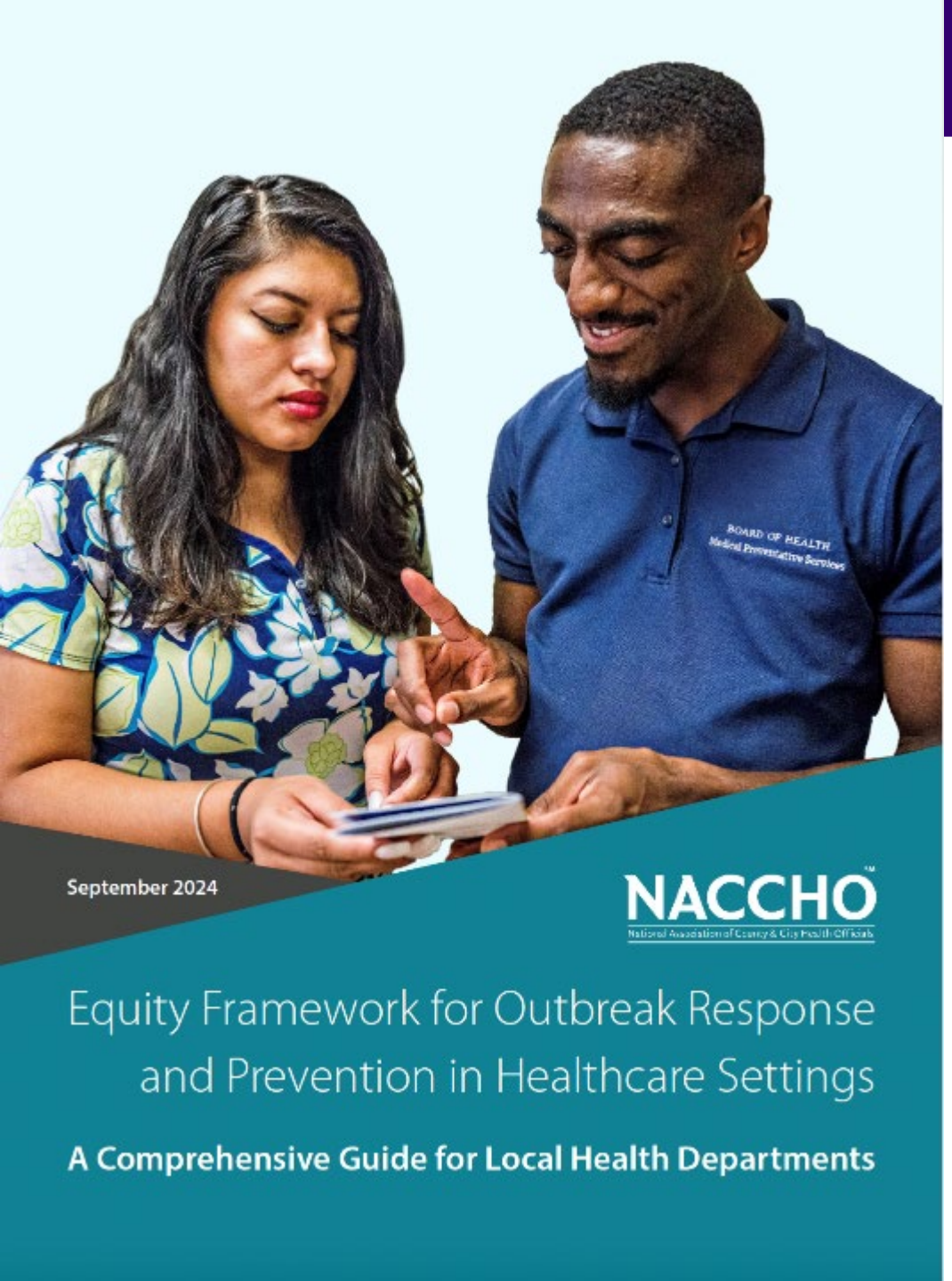
Strategic Collaboration Guide: Sections

Partnership and Collaboration Approach

Success Stories

Resources

Equity Framework Guide



Provides strategies and tools for health departments to integrate equity in outbreak response and prevention work in healthcare settings.

Equity Framework Guide: Contents

- The guide is organized into 3 main categories:
  - Background on Health Equity and its Applications to Outbreak Response and Prevention
  - Equity Framework for Outbreak Response and Prevention in Healthcare Settings
  - Monitoring and Evaluation for Continuous Quality Improvement

Introduction and Purpose 4

Background on Health Equity and its Applications to Outbreak Response and Prevention 5

Introduction to Health Equity 5
Social Determinants of Health 6
Understanding and Addressing Inequities During Outbreaks 7
An Equity-Focused Approach for LHD Outbreak Response and Prevention in Healthcare Settings 9
Case Studies and Literature Findings Supporting Equity-Focused Strategies during Outbreak Response and Prevention in Healthcare Settings 12

Equity Framework for Outbreak Response and Prevention in Healthcare Settings 14

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Customizing Equity Indicators and Applying the Framework for Local Context 18
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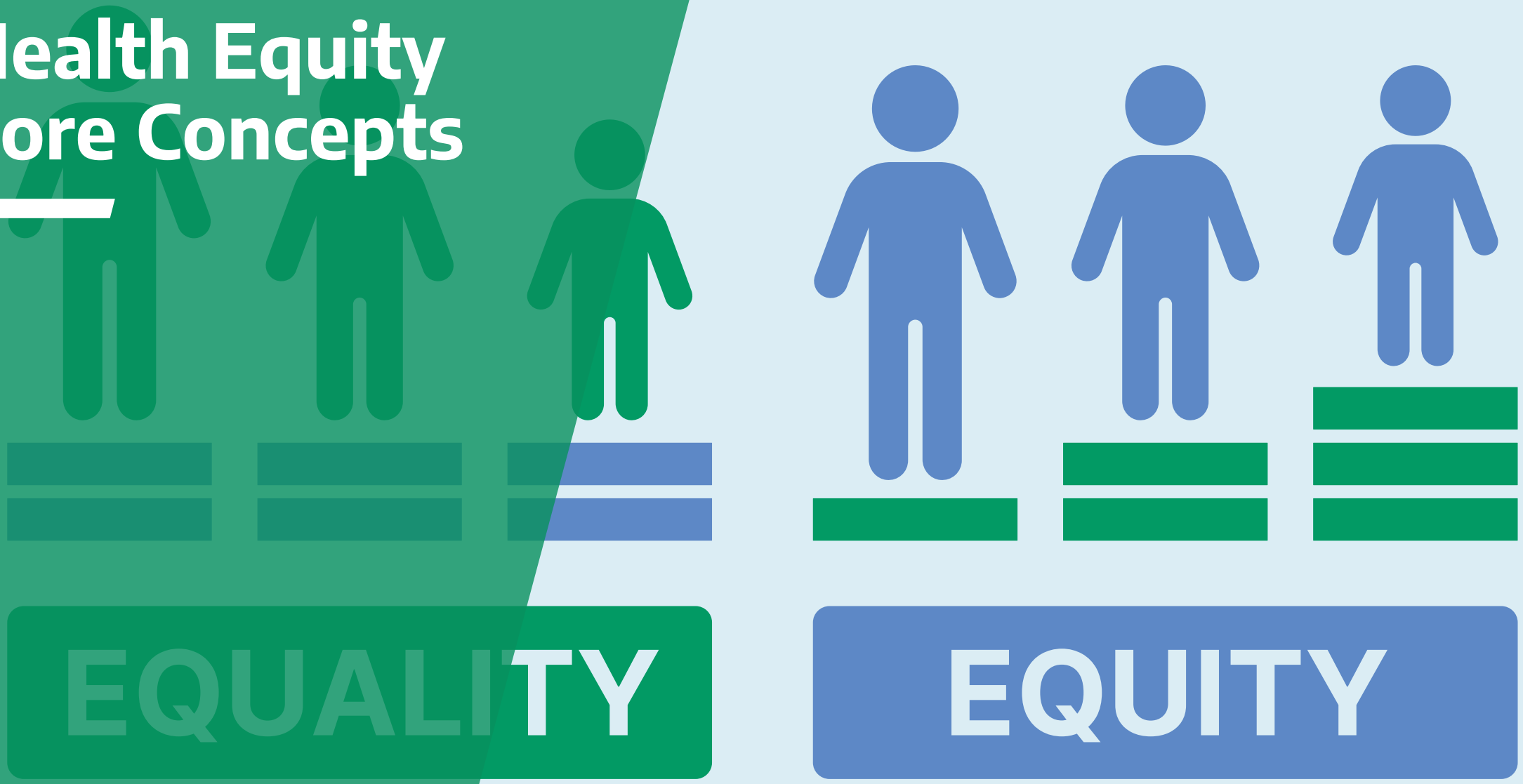
Health Equity Core Concepts

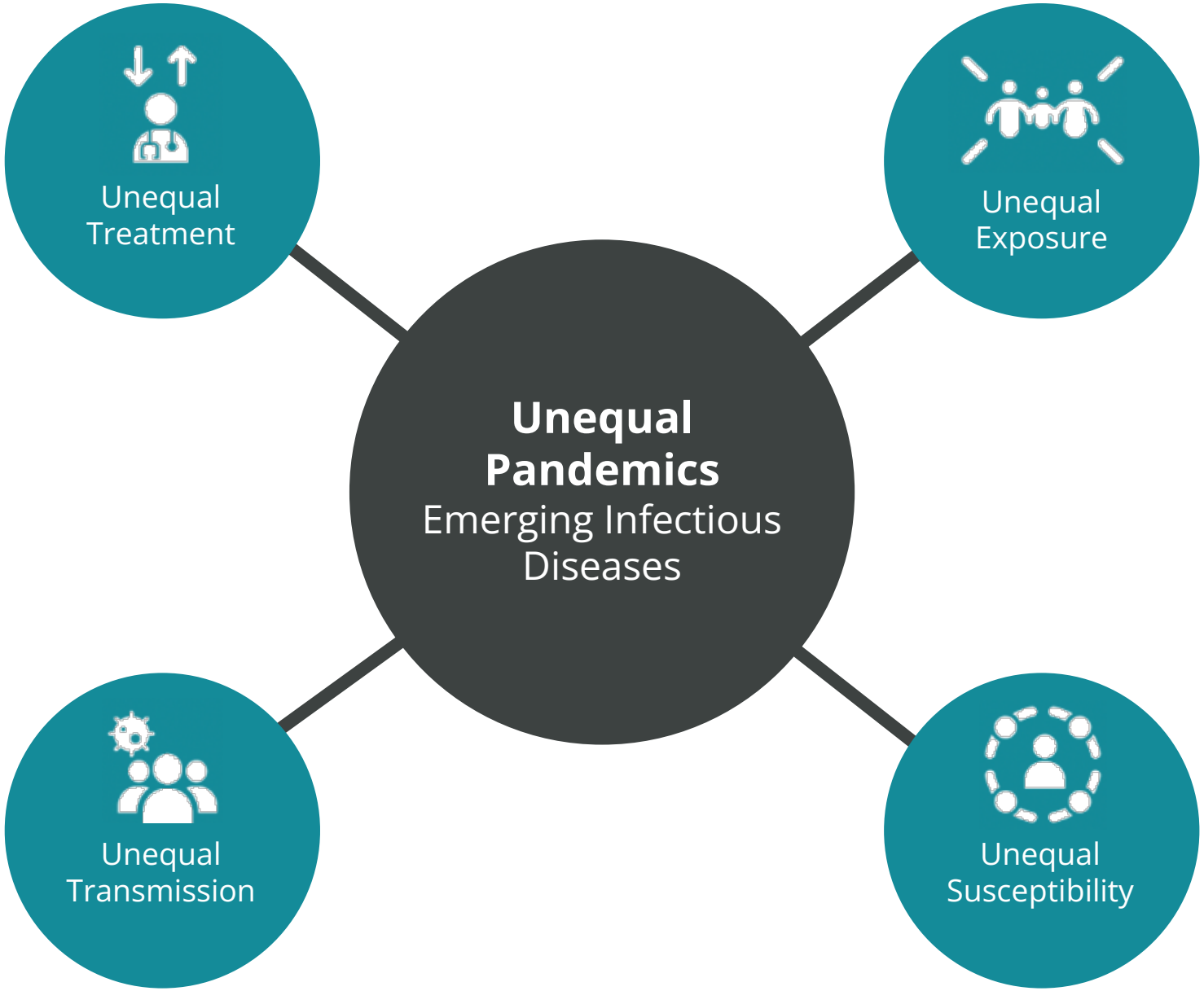


Social Determinants of Health

- CDC states that Social Determinants of Health (SDOH) are the non-medical factors that influence health outcomes.
- SDOH are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life.

Adapted from Healthy People 2030
U.S. Department of Health and Human Services

Understanding and Addressing Inequities During Outbreaks

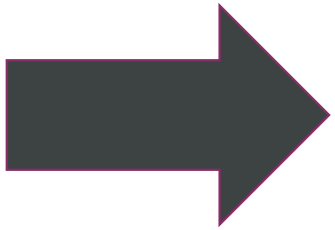


Adapted from Bambra 2022

Impacts of Community and Facility Level Factors

Community Level

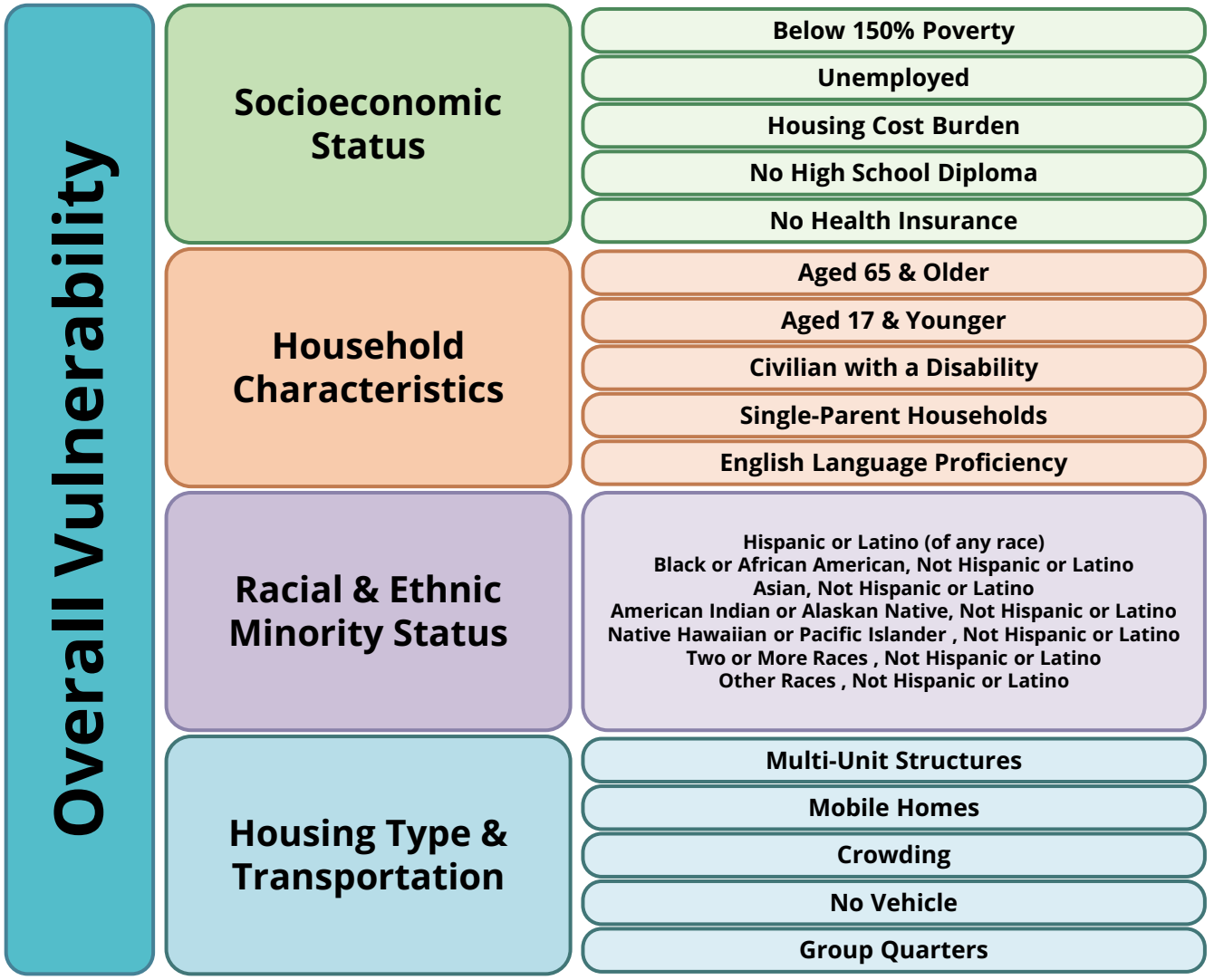
Facility Level



Adapted from Bambra 2022

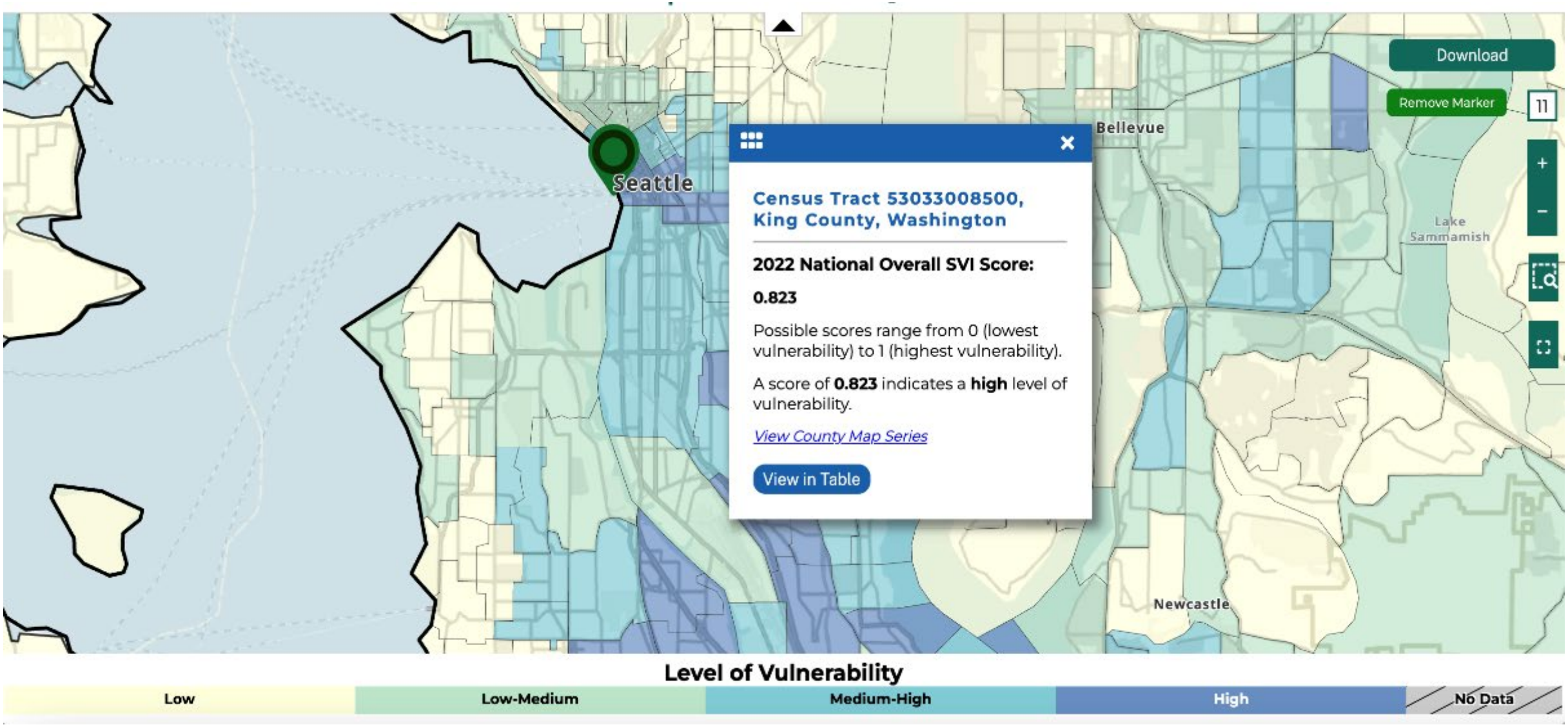
Social Vulnerability Index (SVI)

The current SVI metric developed by CDC/ATSDR uses 16 U.S. census variables to identify communities that may need support before, during, or after disasters or disease outbreaks (such as COVID-19).



CDC/ATSDR

Social Vulnerability Index Scores Across Seattle



CDC/ATSDR

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 Bambra 2022

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

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)*

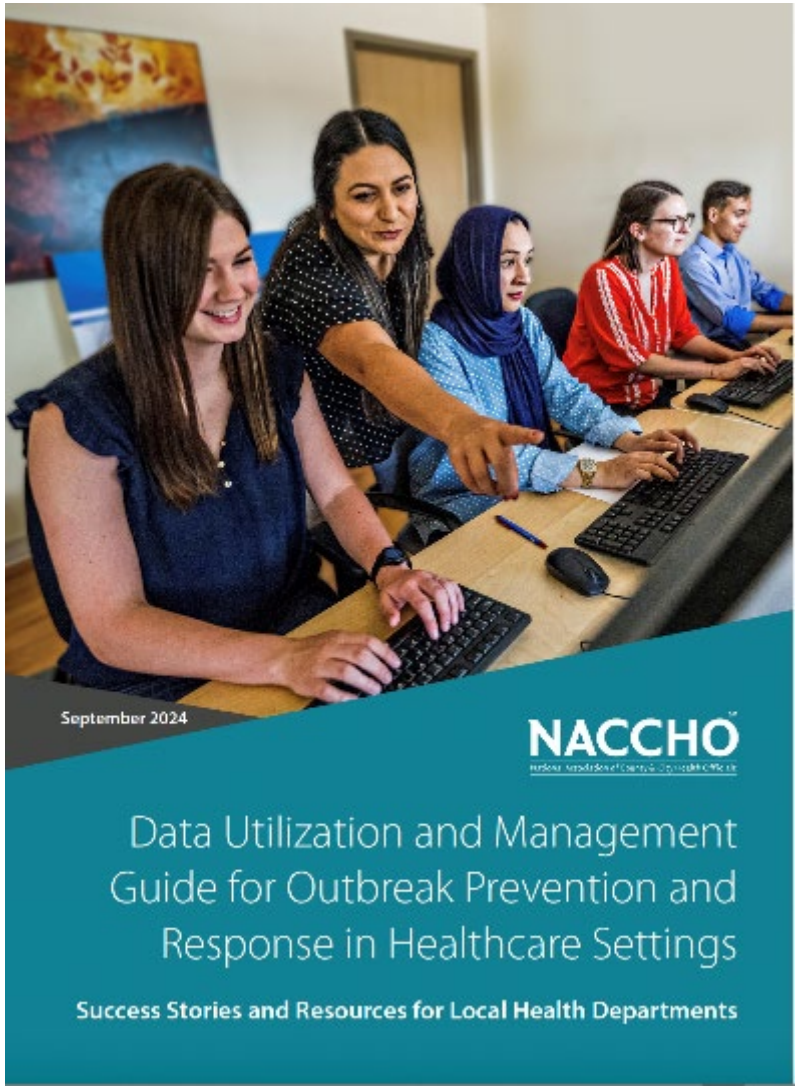
In **Pennsylvania hospitals**, lower nurse staffing ratios and higher nurse burnout were associated with increased rates of urinary tract infections and surgical site infections *(Cimiotti et. al 2012)*

Adapted from Bambra 2022

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*



Question for the Viewers

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

An Equity-Focused Approach for Outbreak Response & Prevention in Healthcare Settings

Local Health Department

Policy
- Policy Advocacy

Community
- Community Engagement
- Education & Training
- Addressing Social Determinants of Health

Healthcare Facility
- Surveillance & Monitoring
- Education & Training
- Culturally Competent Care
- Resource Allocation

Outbreak
- Surveillance & Monitoring
- Culturally Competent Care

Individual Patients
- Culturally Competent Care
- Addressing Social Determinants of Health

Equity Framework for Outbreak Response and Prevention in Healthcare Settings

1. Systematically Collect Data and Metrics for Equity Indicators

- Surveillance and Monitoring Data for Outbreak Detection
- Standardized Data and Metrics for Equity Indicators

2. Analyze Data and Metrics to Inform Decisions

- Data Analysis and Data Sharing
- Informed Decision-Making

3. Develop Targeted Outbreak Interventions with an Equity Lens

- Infection Control Recommendations and Education
- Resource Allocation
- Culturally Competent Care and Communication
- Community Engagement
- Continuous Quality Improvement

Data Collection and Metrics

Standardized Data and Metrics for Equity Indicators

1. **Systematically Collect Data and Metrics for Equity Indicators**

- Surveillance and Monitoring Data for Outbreak Detection
- Standardized Data and Metrics for Equity Indicators

Community Level

Facility Level

Outbreak Level

Table 1. Standardized Data and Metrics for Equity Indicators

Table 1. Standardized Data and Metrics for Equity Indicators

Category Level	Standardized Metrics
Community Level Community level data and metrics help LHDs understand and assess the factors that can impact community susceptibility and resilience to health emergencies.	• Social Vulnerability Index (SVI) • Area Deprivation Index • Medically Underserved Area or Population (MUA/MUP) • Census Profile

Facility Level
Facility-level data and metrics focus on healthcare settings, assessing healthcare quality and structural capabilities to gauge a facility's outbreak preparedness.
	All Healthcare Facilities:
	• Facility Healthcare Setting
	• Facility Bed Count
	• Facility Bed Capacity/Utilization Rate
	• Insurance Distribution of Patients (e.g., % Medicare/Medicaid, % Private, etc.)
	• CMS Overall Rating
	• Healthcare Personnel Vaccination Coverage for COVID-19
	• Healthcare Personnel Vaccination Coverage for Seasonal Influenza
	• Healthcare Personnel Vaccination Coverage for Additional Relevant Vaccines
	• Facility Level of Stocked Personal Protective Equipment
	Specific to Nursing Homes:
	• Average Number of Residents per Day
	• Registered Nurse Staff Turnover
	• Registered Nurse Hours (per resident per day)
	• Resident Vaccination Coverage for COVID-19
	• Resident Vaccination Coverage for Seasonal Influenza
	• Percent of Short Stay Residents Appropriately Given Vaccination for Seasonal Influenza
	• Resident Vaccination Coverage for Additional Relevant Vaccines
	Specific to Hospitals:
	• Staffing Levels
	• Hospital Infection Scores
	  - Central line-associated bloodstream infections (CLABSI) in ICUs and select wards
	  - Catheter associated urinary tract infections (CAUTI) in ICUs and select wards
	  - Surgical site infections (SSI) from colon surgery
	  - Surgical site infections (SSI) from abdominal hysterectomy
	  - Methicillin-resistant Staphylococcus Aureus (MRSA) blood infections
	  - Clostridium difficile (CDIFF) intestinal infections
	• Percent of ICU, NICU, and/or PICU beds currently occupied

Outbreak Level
Outbreak level data and metrics provide a real-time snapshot of the outbreak's status and impact, capturing data on case numbers, testing availability, and patient demographics necessary for a robust and immediate response.
	Outbreaks in All Healthcare Facilities:
	• Number of Confirmed Cases
	• Number of Probable Cases
	• Number of Suspected Cases
	• Pathogen Testing Availability
	• Outbreak Case Demographics (including but not limited to):
	  - Gender Distribution
	  - Age Distribution
	  - Race and Ethnicity Distribution
	  - Primary Language Distribution
	  - Comorbidities Distribution
	Specific to Hospital Outbreaks:
	• Percent of hospitalized patients that are confirmed cases
	• Percent of ICU patients that are confirmed cases

Equity Framework for Outbreak Response and Prevention in Healthcare Settings: A Comprehensive Guide for Local Health Departments

19

Community Level

Facility Level

Outbreak Level

→ *See page 19 of the guide for the interactive table*

Community-Level Metrics

Table 1. Standardized Data and Metrics for Equity Indicators

Category Level	Standardized Metrics
Community Level Community-level data and metrics help LHDs understand and assess the factors that can impact community susceptibility and resilience to health emergencies.	▸ Social Vulnerability Index (SVI) ▸ Area Deprivation Index ▸ Medically Underserved Area or Population (MUA/MUP) ▸ Census Profile

- **Community-level data and metrics** help LHDs understand and assess the factors that can impact community susceptibility and resilience to health emergencies.
  - **Social Vulnerability Index (SVI)** and **Area Deprivation Index** provide insights into social and economic factors impacting a community's ability to respond to outbreaks.
  - **Medically Underserved Areas/Populations (MUA/MUP)** data identify regions with limited access to healthcare resources.
  - **Census Profile** offers demographic data to understand community structure and potential disparities in outbreak response.

Community-Level Metrics

- In Table 1 of the guide, users can click on a specific metric. This will then take you to the section of the Appendix where the specific metric is defined in more detail.
- Row for each metric provides description and data source.
- Data Source column provides links to access public data sources when available.

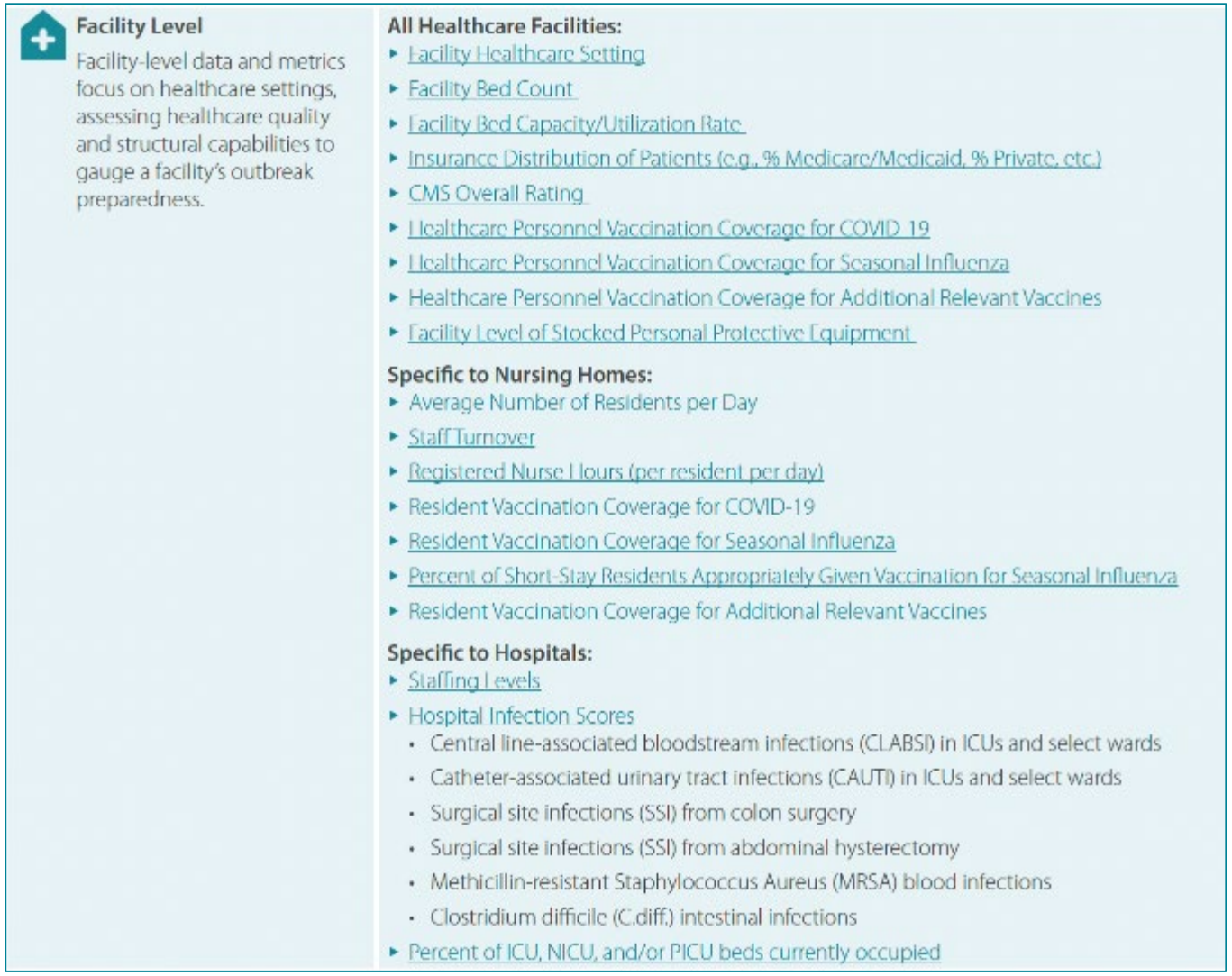
Appendix 1: Equity Framework Data and Metrics Descriptions and Supporting Literature

Community-Level Data and Metrics

Metric	Description	Data Source
Social Vulnerability Index (SVI)	The CDC/ATSDR Social Vulnerability Index uses 16 U.S. census variables to help local officials identify communities that may need support before, during, or after disasters (Score of 0 lowest vulnerability, 1 highest vulnerability). "Social vulnerability refers to the potential negative effects on communities caused by external stresses on human health. Such stresses include natural or human-caused disasters, or disease outbreaks."	CDC/ATSDR: SVI Interactive Map CMS Dashboard: Mapping Disparities by Social Determinants of Health User can search the CMS Dashboard for SVI within "Social and Community Context" domain drop down. User can search by county or census tract, then view map or download a data table to access data provided at census tract level. Note: User needs to know census tract of healthcare facility. There is a tool linked at the top of the CMS Dashboard page to find census tract using facility address.
Area Deprivation Index	The Area Deprivation Index (ADI) is based on a measure created by the Health Resources & Services Administration (HRSA) over three decades ago, and has since been refined, adapted, and validated to the Census block group neighborhood level. It allows for rankings of neighborhoods by socioeconomic disadvantage in a region of interest (e.g., at the state or national level).	https://www.neighborhoodatlas.medicine.wisc.edu/mapping
Medically Underserved Area or Population (MUA/MUP)	This designation of MUA or MUP is assigned to neighborhoods as a whole and not to individual portions of it.	HRSA Website: MUA Find Tool User can only search by state and county. Results are presented by neighborhood and further expansion (user can click + for drop down) also provides census GEOIDs within the MUA. Note: Only neighborhoods that are designated MUA/MUP will be listed. Designation dates should be noted as the information provided may be outdated.
Census Profile	Census profiles provide a variety of demographic data on a specific census tract (race/ethnicity breakdown, income/poverty, health care coverage, education, housing, etc.).	Data.Census.gov User can search by county, city, and census tract level. User can click on map to view profile of demographics for different census tracts.

Facility-Level Metrics

- **Facility-level data and metrics** focus on healthcare settings, assessing healthcare quality and structural capabilities to gauge a facility's outbreak preparedness.
- Includes proposed metrics for **all healthcare facilities**, as well as metrics specific to **nursing homes** and **hospitals**.



Facility Level

Facility-level data and metrics focus on healthcare settings, assessing healthcare quality and structural capabilities to gauge a facility's outbreak preparedness.

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- Healthcare Personnel Vaccination Coverage for COVID-19
- Healthcare Personnel Vaccination Coverage for Seasonal Influenza
- Healthcare Personnel Vaccination Coverage for Additional Relevant Vaccines
- Facility Level of Stocked Personal Protective Equipment

Specific to Nursing Homes:

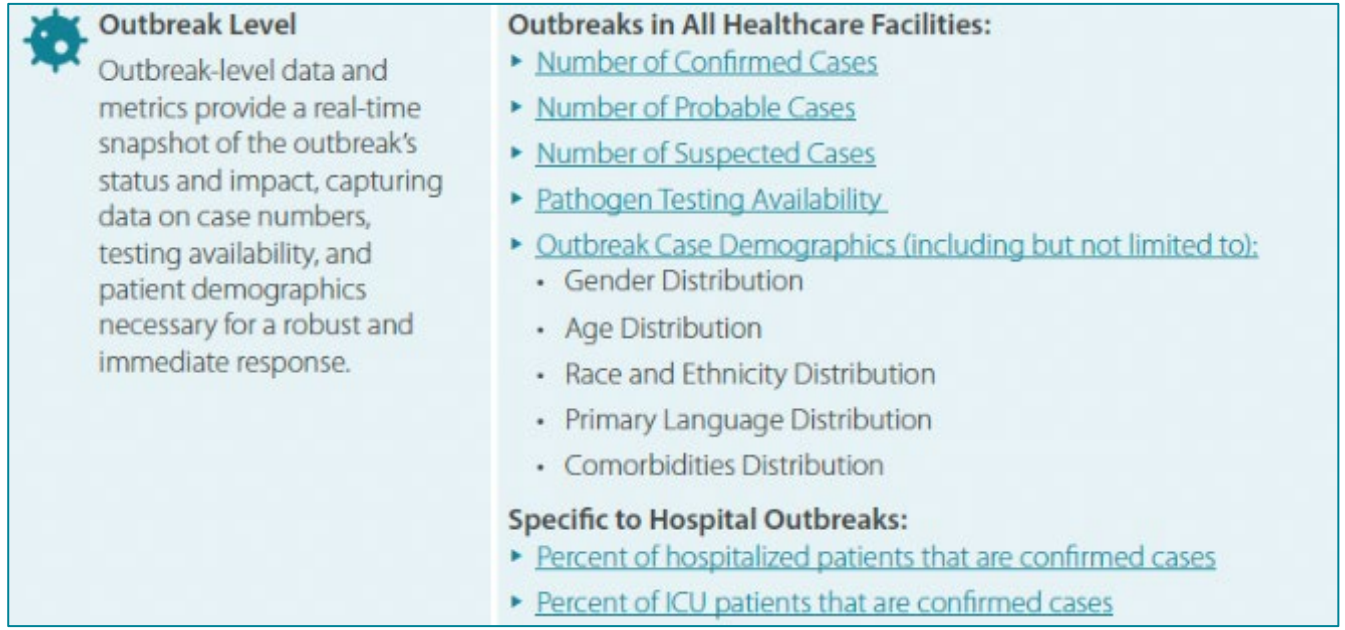
- Average Number of Residents per Day
- Staff Turnover
- Registered Nurse Hours (per resident per day)
- Resident Vaccination Coverage for COVID-19
- Resident Vaccination Coverage for Seasonal Influenza
- Percent of Short-Stay Residents Appropriately Given Vaccination for Seasonal Influenza
- Resident Vaccination Coverage for Additional Relevant Vaccines

Specific to Hospitals:

- Staffing Levels
- Hospital Infection Scores
  - Central line-associated bloodstream infections (CLABSI) in ICUs and select wards
  - Catheter-associated urinary tract infections (CAUTI) in ICUs and select wards
  - Surgical site infections (SSI) from colon surgery
  - Surgical site infections (SSI) from abdominal hysterectomy
  - Methicillin-resistant Staphylococcus Aureus (MRSA) blood infections
  - Clostridium difficile (C.diff.) intestinal infections
- Percent of ICU, NICU, and/or PICU beds currently occupied

Outbreak-Level Metrics

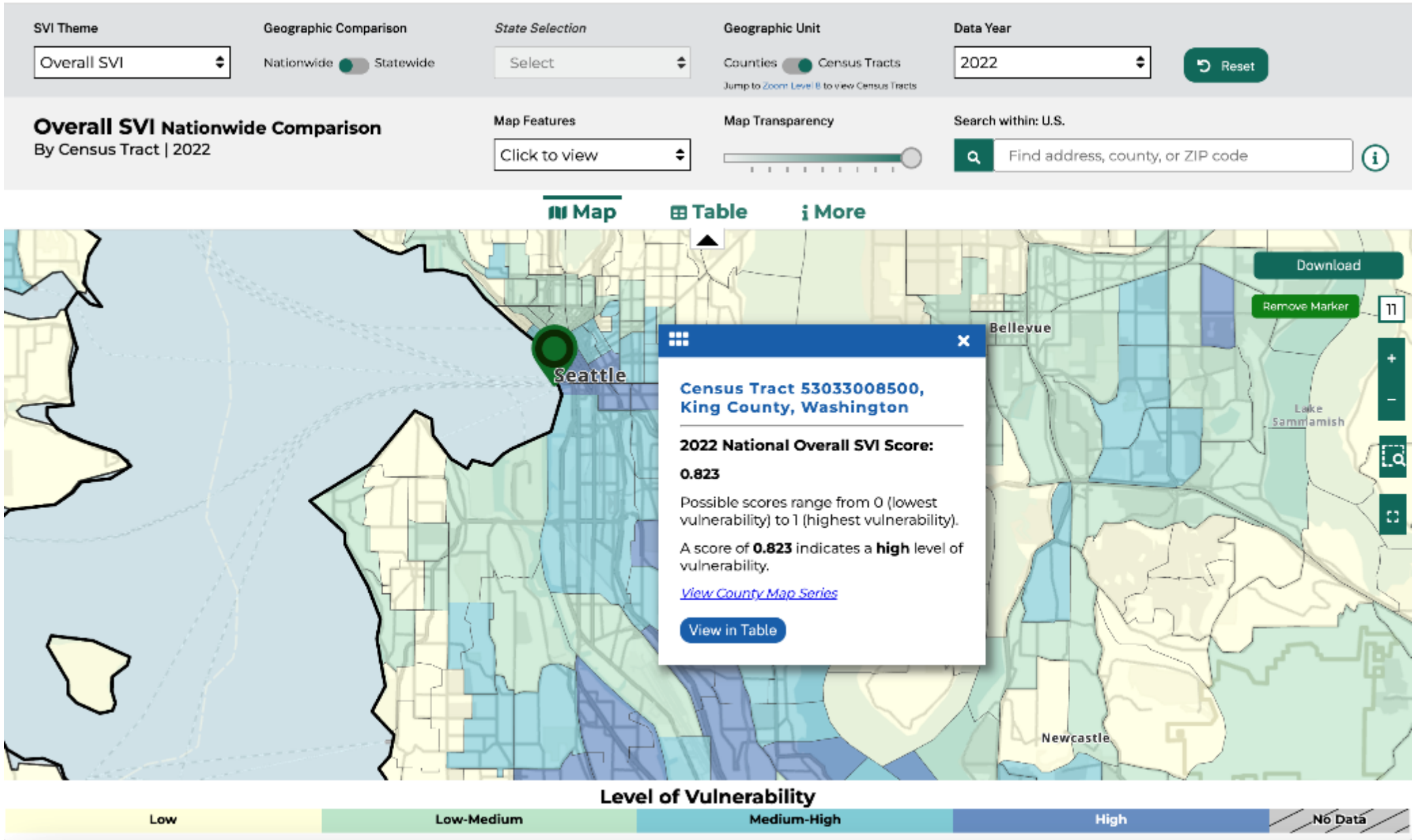
- **Outbreak-level data and metrics** provide a real-time snapshot of the outbreak's status and impact, capturing data on case numbers, testing availability, and patient demographics necessary for a robust and immediate response.
- Metrics like **confirmed, probable, and suspected cases** give a snapshot of the outbreak's status in healthcare facilities.
- **Pathogen testing availability** is critical for timely diagnosis and containment.
- **Demographics** of outbreak cases help LHDs understand who is most affected and guide equitable resource distribution.



Public Websites and Data Collection Tools

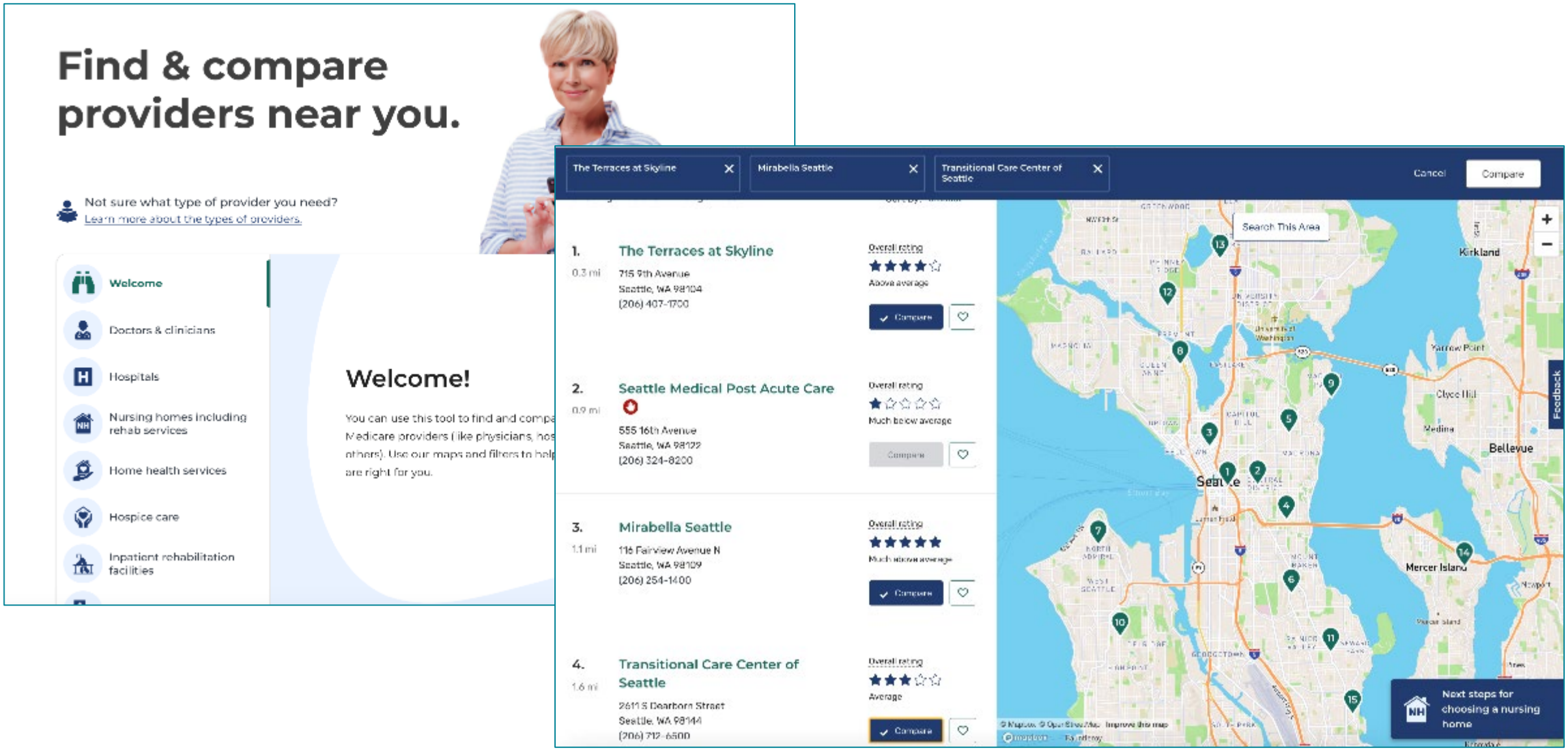
- CDC/ATSDR SVI Interactive Map
- CMS Care Compare
- CMS Provider Data Catalog
- And many more websites linked in the guide appendix!

CDC/ATSDR SVI Interactive Map

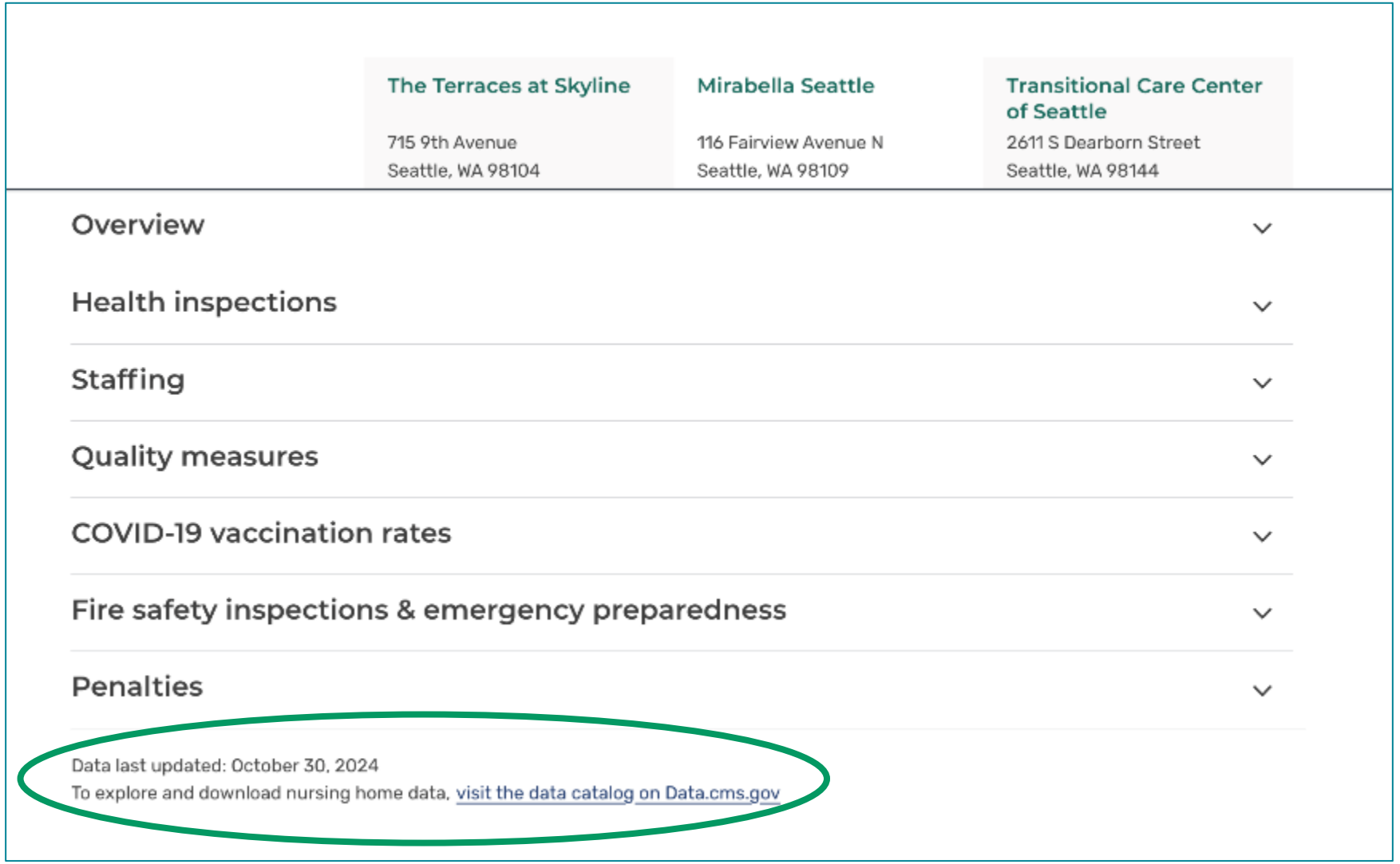


CDC/ATSDR

CMS Care Compare

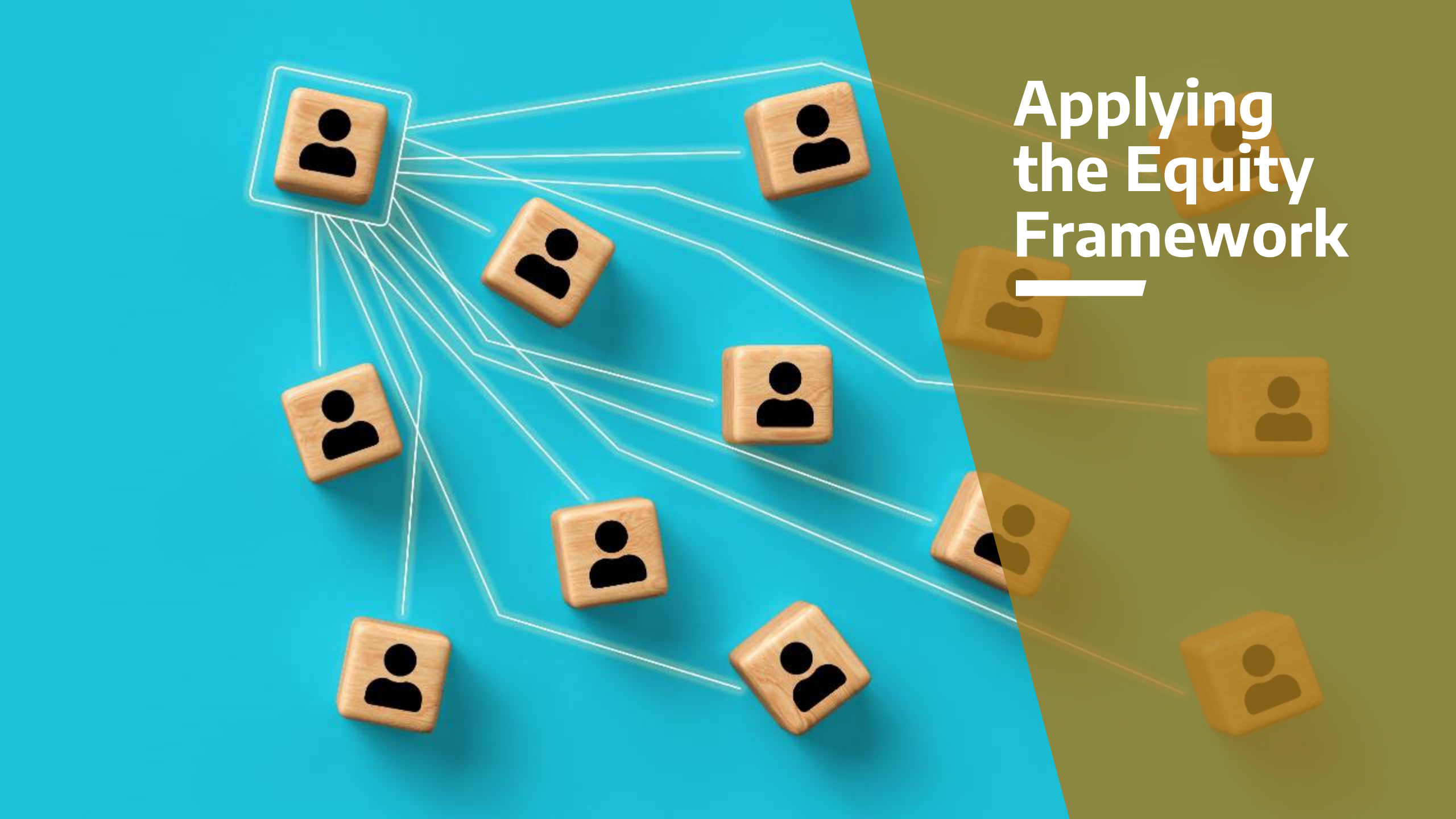


CMS Care Compare



CMS Care Compare

	The Terraces at Skyline 715 9th Avenue Seattle, WA 98104	Mirabella Seattle 116 Fairview Avenue N Seattle, WA 98109	Transitional Care Center of Seattle 2611 S Dearborn Street Seattle, WA 98144
Registered Nurse (RN) staffing			
Average number of residents per day National average: 83 WA average: 71	27.1	29.6	73.4
Registered Nurse hours per resident per day ↑ *Higher numbers are better* National average: 40 minutes WA average: 54 minutes	48 minutes	1 hour and 48 minutes	1 hour and 36 minutes
Registered Nurse hours per resident per day on the weekend ↑ *Higher numbers are better* National average: 28 minutes WA average: 38 minutes	33 minutes	1 hour and 28 minutes	1 hour and 9 minutes
Staff turnover			



Applying the Equity Framework

Equity Framework for Outbreak Response and Prevention in Healthcare Settings

1. Systematically Collect Data and Metrics for Equity Indicators

- Surveillance and Monitoring Data for Outbreak Detection
- Standardized Data and Metrics for Equity Indicators

2. Analyze Data and Metrics to Inform Decisions

- Data Analysis and Data Sharing
- Informed Decision-Making

3. Develop Targeted Outbreak Interventions with an Equity Lens

- Infection Control Recommendations and Education
- Resource Allocation
- Culturally Competent Care and Communication
- Community Engagement
- Continuous Quality Improvement

Customizing Equity Indicators and Applying the Framework for Local Context

- Adapting to Population Needs
- Tailoring to Facility Capabilities
- Data Access/Granularity
- Evaluating and Modifying over Time

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

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.

Data and Metrics of Interest for Use Case 2

Community Level Metrics

- Social Vulnerability Index (SVI)
- Census Profile

Facility Level Metrics

- CMS Overall Rating
- RN Nurse Hours (per resident per day)
- Nursing Staff Turnover
- Average Number of Residents per Day
- Healthcare Staff Vaccination Coverage
- Resident Vaccination Coverage

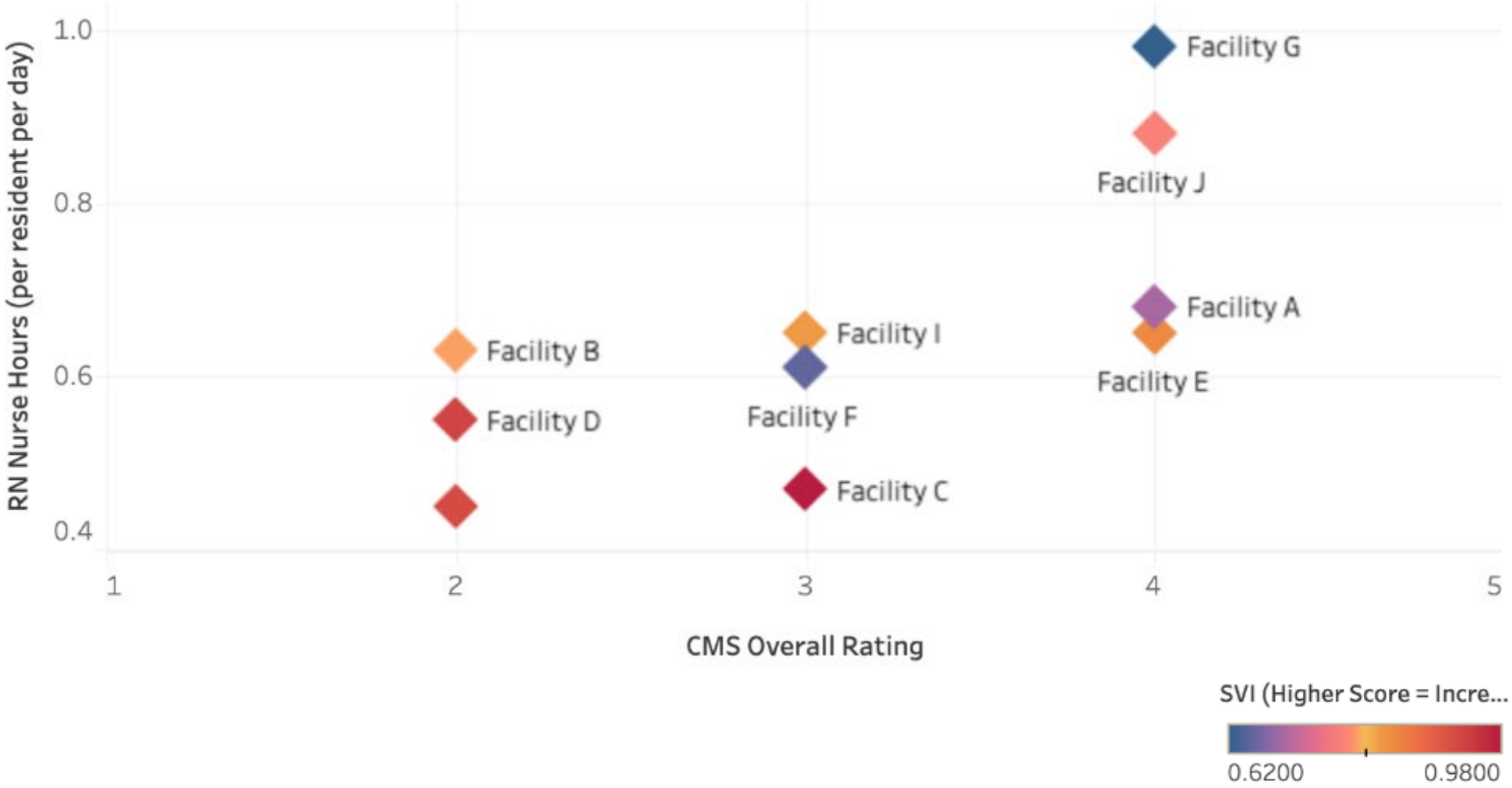
Public Websites

Facility Level Metrics

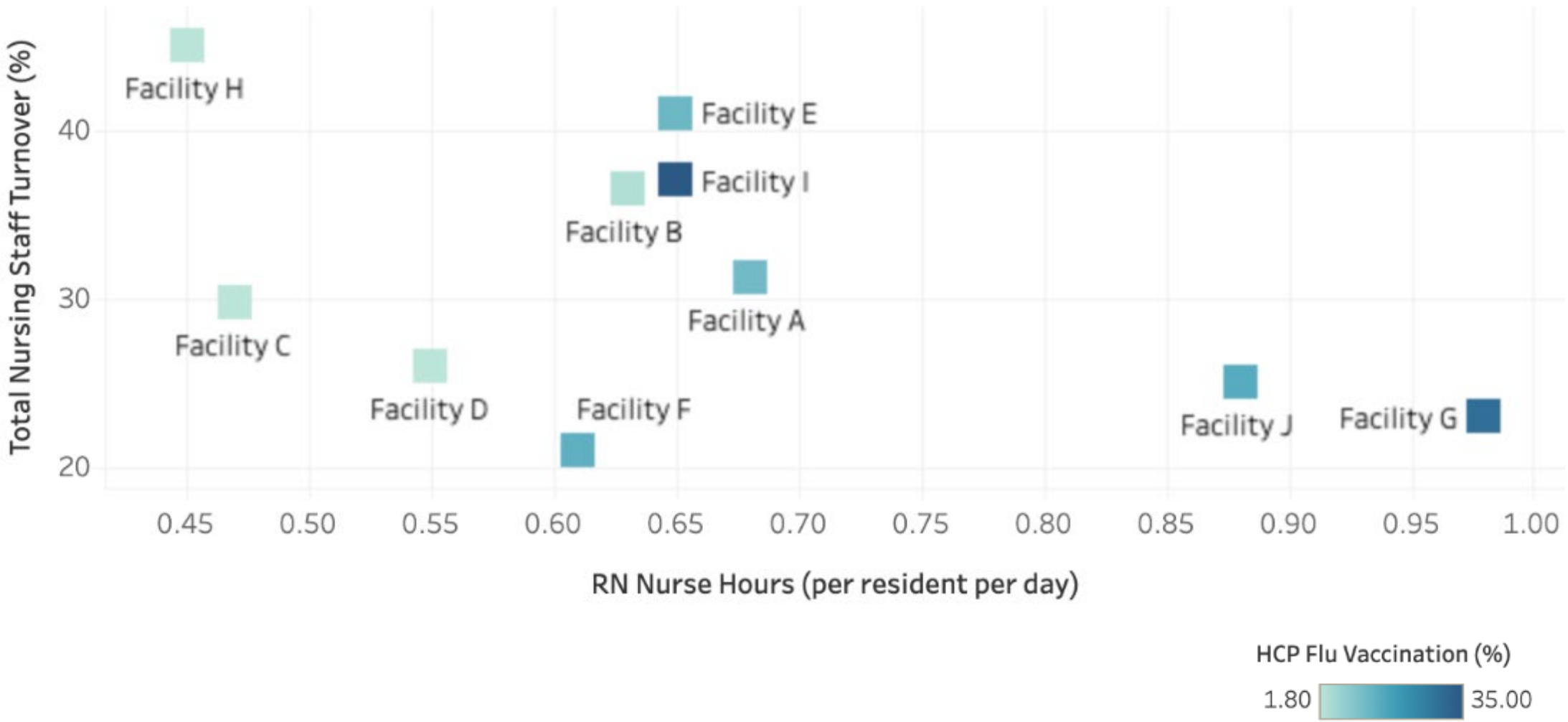
- Level of Stocked PPE
- Primary Language of Facility Staff

Facility / Surveillance

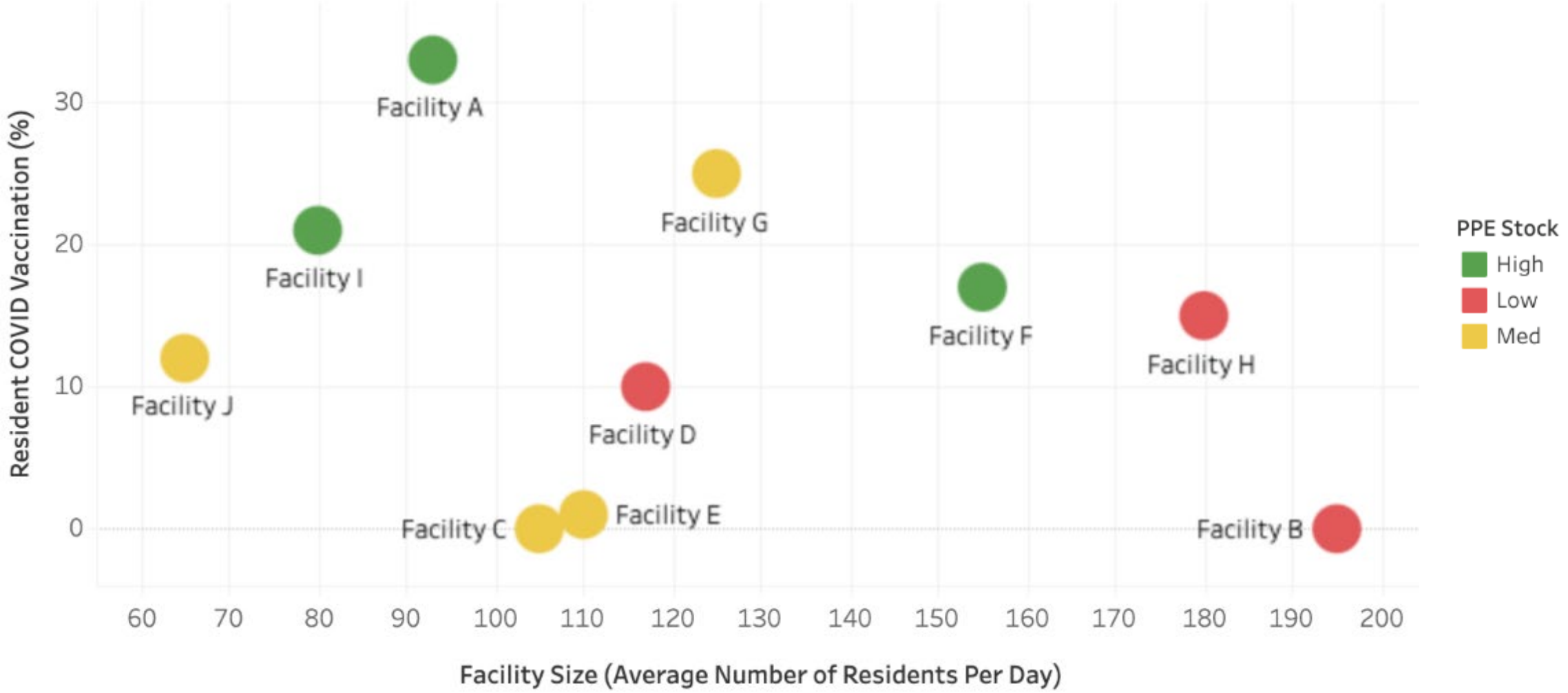
Use Case 2 Tableau Dashboard: Equity Indicators Comparison



Use Case 2 Tableau Dashboard: Staffing Metrics



Use Case 2 Tableau Dashboard: Resource Allocation



Equity Framework for Outbreak Response and Prevention in Healthcare Settings

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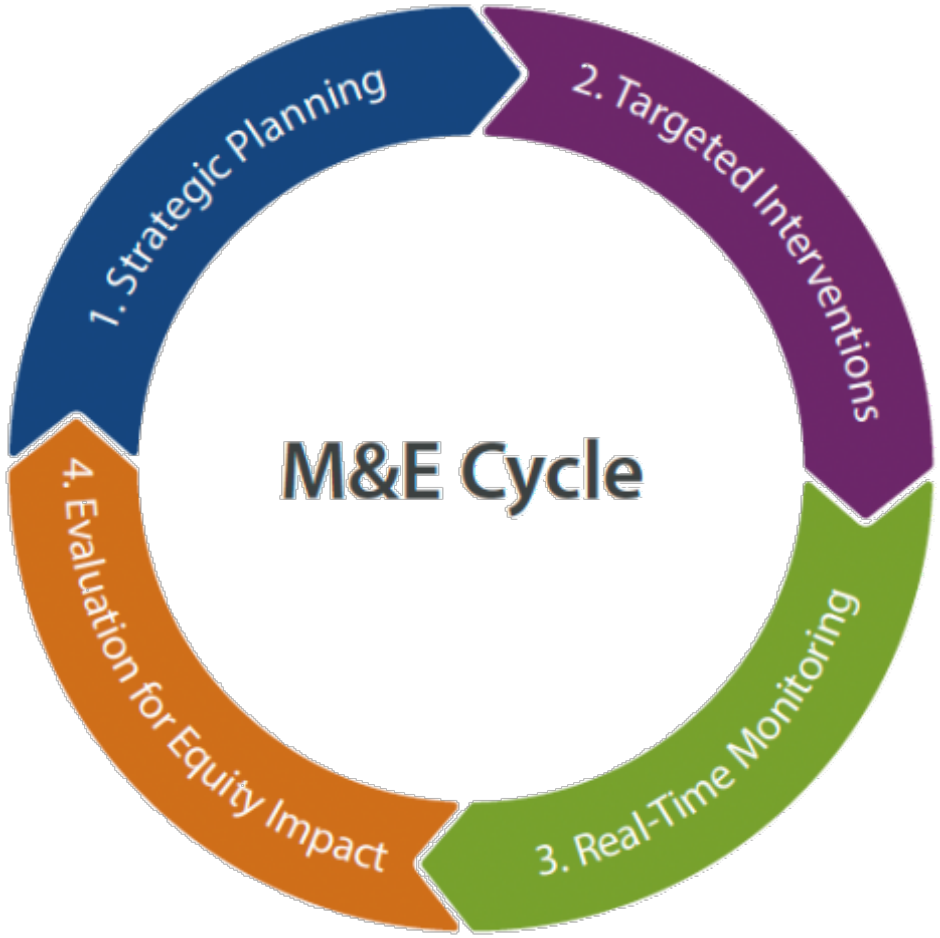
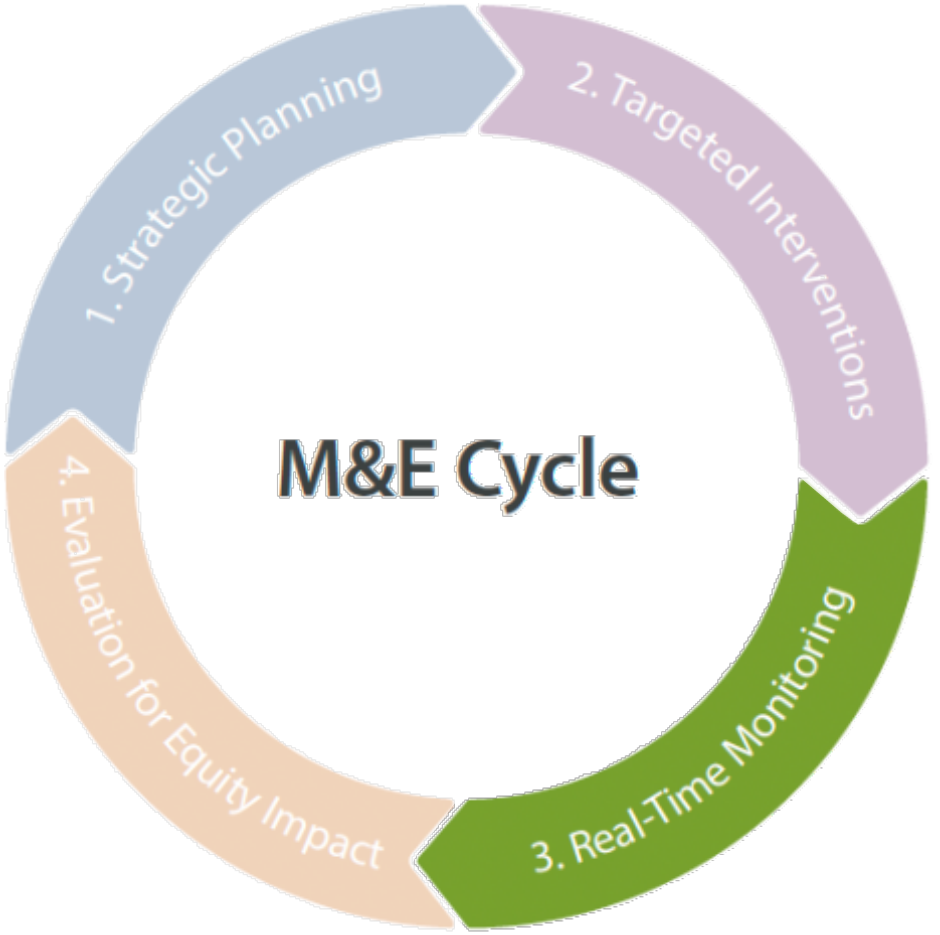
Monitoring and Evaluation (M&E)



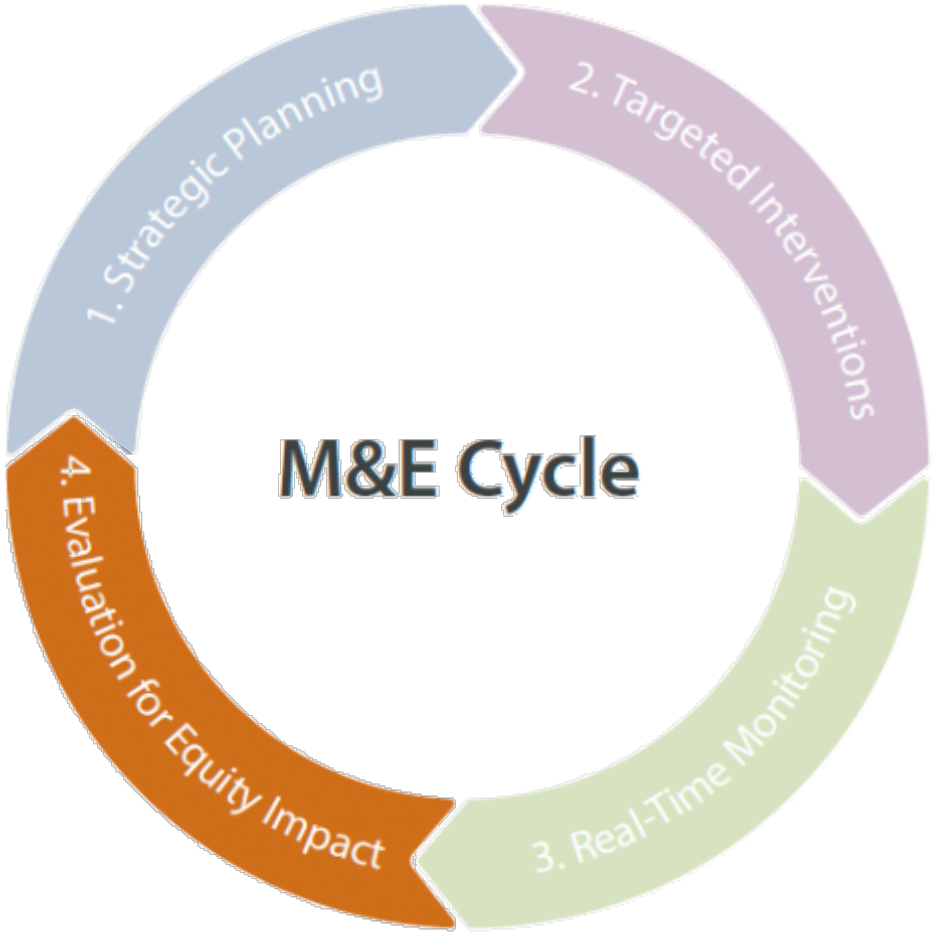
3. Real-Time Monitoring

- ✓ Utilize Technology to Track Key Metrics
- ✓ Enable Swift Adjustments to Strategies as Needed



4. Evaluation for Equity Impact

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



Additional Considerations

- ✓ Training and Capacity Building
- ✓ Policy and Advocacy

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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.

A Chat with Cassandra and Seun

Sue
Grinnell

Cassandra
Mohan

Seun
Aluko

QUESTIONS?

To ask a question, please click the

icon in the Zoom toolbar to open your Q&A Pod.

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.atsdr.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/