



## National Healthcare Safety Network (NHSN)

# NHSN Connectivity Initiative: Hospital Bed Capacity Project

ELC Cooperative Agreement SHARP 2 Supplemental Special Project

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# Agenda

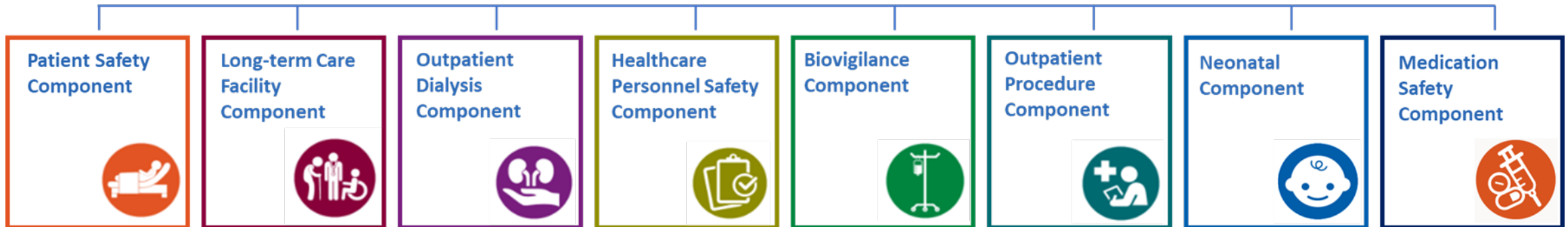
- Introduction
- Project Overview
- Technical Details – Data Elements
- Q&A

# Mission of CDC's Division of Healthcare Quality Promotion (DHQP)

To protect patients; protect healthcare personnel; and promote safety, quality, and value in both national and international healthcare delivery systems.

# NHSN: The Nation's Healthcare Surveillance System

Standards-based, vendor-neutral, surveillance program  
*Meaningful, rigorously collected data to support impactful interventions*



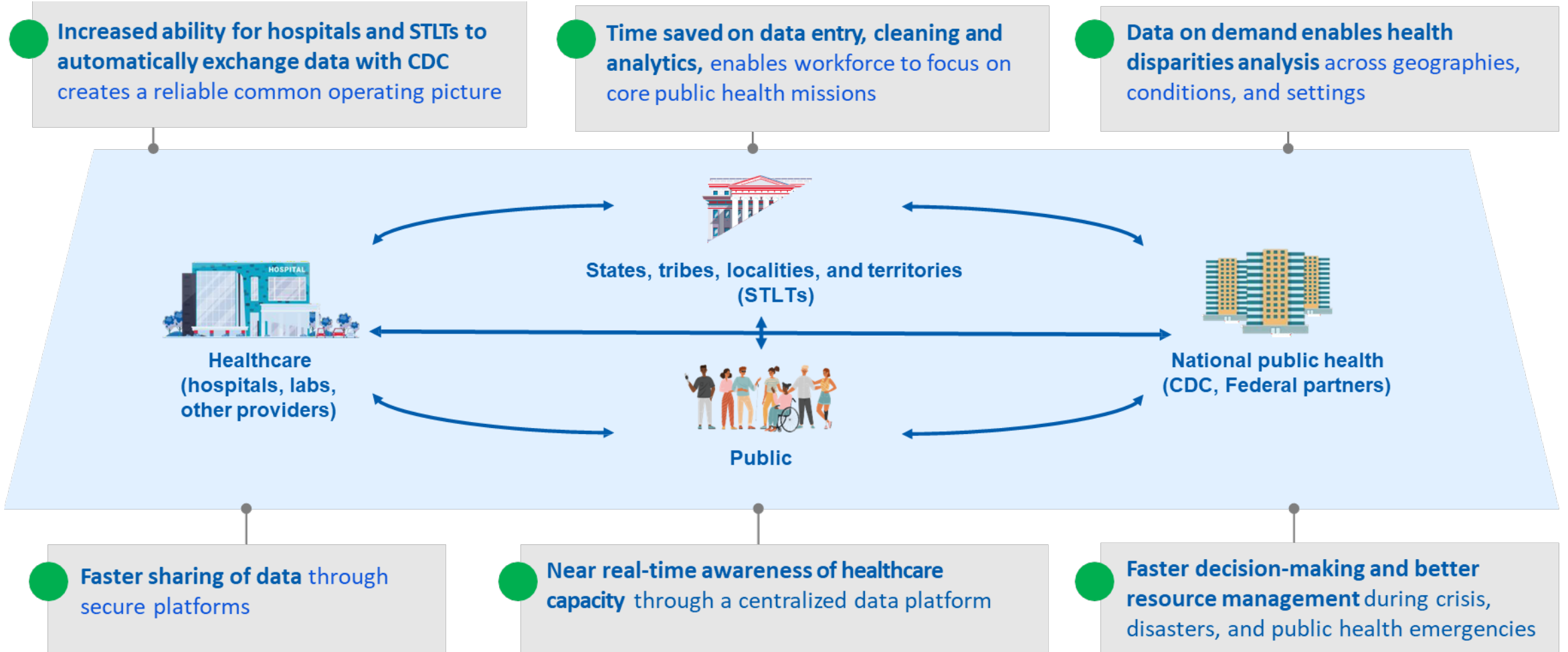
- ~38,000 facilities across the nation send data to NHSN, which includes over 5,500 hospitals currently reporting

# CDC's Data Modernization Initiative & NHSN

- Drivers for a new approach for NHSN:
  - Become more **response-ready**
  - Adopt **new data collection methods**
  - Adopt **new healthcare data exchange standards**, e.g., Fast Healthcare Interoperability Resources (FHIR)
  - Move towards **fully electronic definitions**
  - **Reduce time and complexity** of reporting data

# The Public Health Ecosystem & NHSN Connectivity Initiative

- CDC's [Public Health Data Strategy](#) (PHDS) outlines the data, technology, policy, and administrative actions essential to exchange critical core data efficiently and securely across healthcare and public health.
- NHSN healthcare capacity data is included in the PHDS Core Data Sources<sup>1</sup>.



1. Case (including Electronic Case Reporting eCR), Lab (including Electronic Lab Reporting ELR, Electronic Test Orders and Results ETOR), Emergency department (including National Syndromic Surveillance Program NSSP emergency department data), Vital statistics, Immunization, Healthcare capacity (including National Healthcare Safety Network NHSN data)

# Project Overview

## Current State of Healthcare Capacity Data

- The Patient Safety Component collects some hospital bed capacity data through required COVID-19 reporting as detailed in CMS Conditions of Participation (CoP)
- While there are similarities and some overlap in the existing bed capacity data elements currently reported, the NHSN Connectivity Initiative data elements are more granular
- The NHSN Connectivity Initiative will be a separate, automated data feed into NHSN

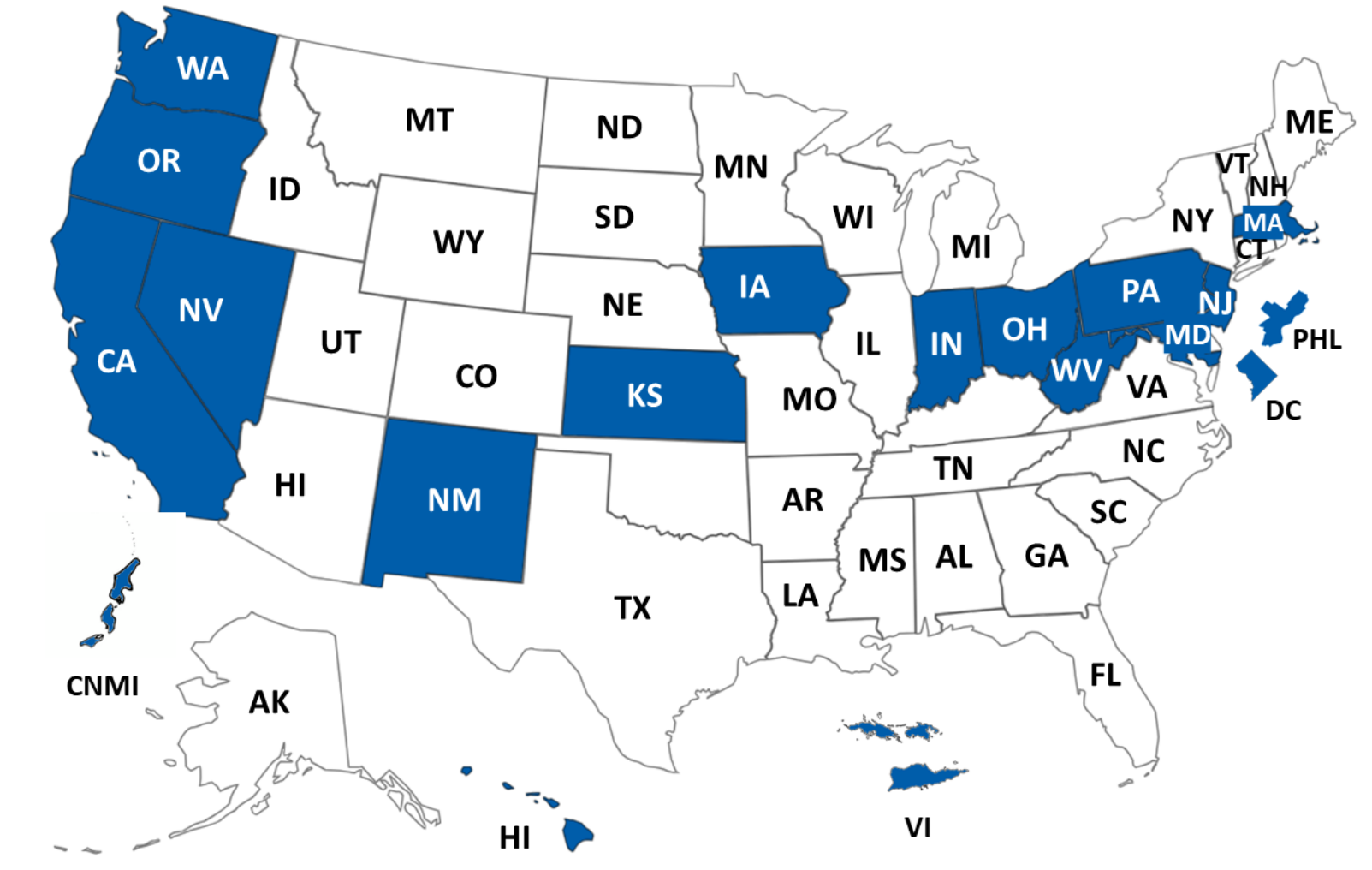


# NHSN Connectivity Initiative Background

- In 2022/2023, CDC funded Oregon, Massachusetts, and Hawaii for a pilot project to establish a daily automated reporting feed of state hospital bed capacity data to NHSN
- Pilot Successes:
  - Oregon and Hawaii have established data connection to NHSN
  - Massachusetts targets submitting data by the end of Q1 2024
- This next phase of the project expands data collection to additional states/jurisdictions
- NHSN Connectivity Initiative contributes to the US government's strategic priorities

# NHSN Connectivity Initiative: Hospital Bed Capacity Project

- ELC Cooperative Agreement SHARP 2 Supplement Special Project
- 19 recipients awarded combined total of \$24.9M
- Period of Performance is January 2024 – July 31, 2027



# Why This Matters

- **Vision**

- Build infrastructure for the near-time national datastore for healthcare capacity that supports local, state, regional decision-making needs for situational awareness and emergency response
- Opportunities for expansion and innovation: collecting bed capacity data in other healthcare settings and combining capacity data with other data sources (pathogen specific, vaccination, PPE, etc.)

- **Expected Outcomes**

- More accurate and timely tracking of hospitalizations
- Improved collaboration among decision-makers to optimize and mitigate resource constraints
- Better understanding of healthcare system capacity across the nation

# Project Goals and Objectives

## ■ Goals

- Establish and sustain ongoing automated bed capacity data collection
- Standardize core bed capacity data definitions

## ■ Objectives

- Develop and implement secure mechanisms to submit **near real-time hospital bed capacity data** to NHSN
  - *No Personally Identifiable Information (PII) or Protected Health Information (PHI) is collected or transmitted*
- Achieve a minimum of **90% of acute care hospitals** participation
- **Optimize state/jurisdiction capacity system** for daily, surge, and crisis needs
- Gather feedback for **continuous improvement**

# Key Partnership: Hospital Associations

- Hospital Association support is a strong indicator of project success and for onboarding hospitals
- Hospital Association Collaboration can assist with
  - Reducing logistical and administrative burden to recipients such as providing hospital services and information at a facility level
- Reach out to your hospital association for support and assistance
  - Recruitment of your facility to participate
  - Handle direct contact with your facility's key stakeholders
  - Serve as liaison between your jurisdiction health department

## Relevance to Facility-Level Users

- Historically, infection preventionists (IPs) have served as NHSN Subject Matter Experts (SMEs) for their facilities
  - Opportunity for emergency preparedness, information technology, and infection preventionists to collaborate on a new NHSN initiative
- Improved patient flow between health facilities, particularly in the event of an emergency (internal or external)
- Strengthen relationships between healthcare facility, health departments, hospital associations, and local emergency medical service providers

# Technical Details - Data Elements

# Data Elements – Detailed List

- **Bed counts and censuses reported separately for adult and pediatric, occupied and unoccupied beds**
  - Total beds
  - ICU
  - Non-ICU
  - Progressive care
  - MTMS (telemetry, general medicine/surgery/acute care)
  - Observation
  - Psychiatric
- **Emergency department fields**
  - Total ED census, and # admitted
  - Adult ED census, and # admitted
  - Pediatric ED census, and # admitted
- **Bed counts and censuses not reported separately for adult and pediatric, occupied and unoccupied beds**
  - Surge
    - Total active, inactive
    - ICU active, inactive
    - Non-ICU active, inactive
  - Specialty
    - Total
    - Non-crib
    - Obstetrics
    - NICU (levels 1, 2, 3, and 4)
    - Nursery
    - Rehab
  - Burn
  - Negative pressure



**Q&A**

# Thank you!

For more information, contact CDC  
1-800-CDC-INFO (232-4636)  
TTY: 1-888-232-6348 [www.cdc.gov](http://www.cdc.gov)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



# For any questions or concerns, contact the NHSN Helpdesk using

**NHSN-ServiceNow** to submit questions to the NHSN Help Desk.

The new portal can be accessed at <https://servicedesk.cdc.gov/nhsncsp>

Users will be authenticated using CDC's Secure Access Management Services (SAMS) the same way you access NHSN. If you do not have a SAMS login, or are unable to access ServiceNow, you can still email the NHSN Help Desk at [nhsn@cdc.gov](mailto:nhsn@cdc.gov).

**For more information please contact Centers for Disease Control and Prevention**

1600 Clifton Road NE, Atlanta, GA 30333

Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348

E-mail: [cdcinfo@cdc.gov](mailto:cdcinfo@cdc.gov) Web: [www.cdc.gov](http://www.cdc.gov)

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