What is the Scoop? All Things Data for the NHSN LTC Component - How data is used, dashboards, where data goes

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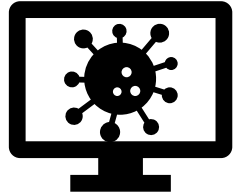Selom Agbobli Nuwoaty MPH[2],

June 7, 2024

Goldbelt C6[1] and CACI[2] contractors

Surveillance Branch | Post-Acute Care Team

Division of Healthcare Quality Promotion (DHQP)

Centers for Disease Control and Prevention (CDC)
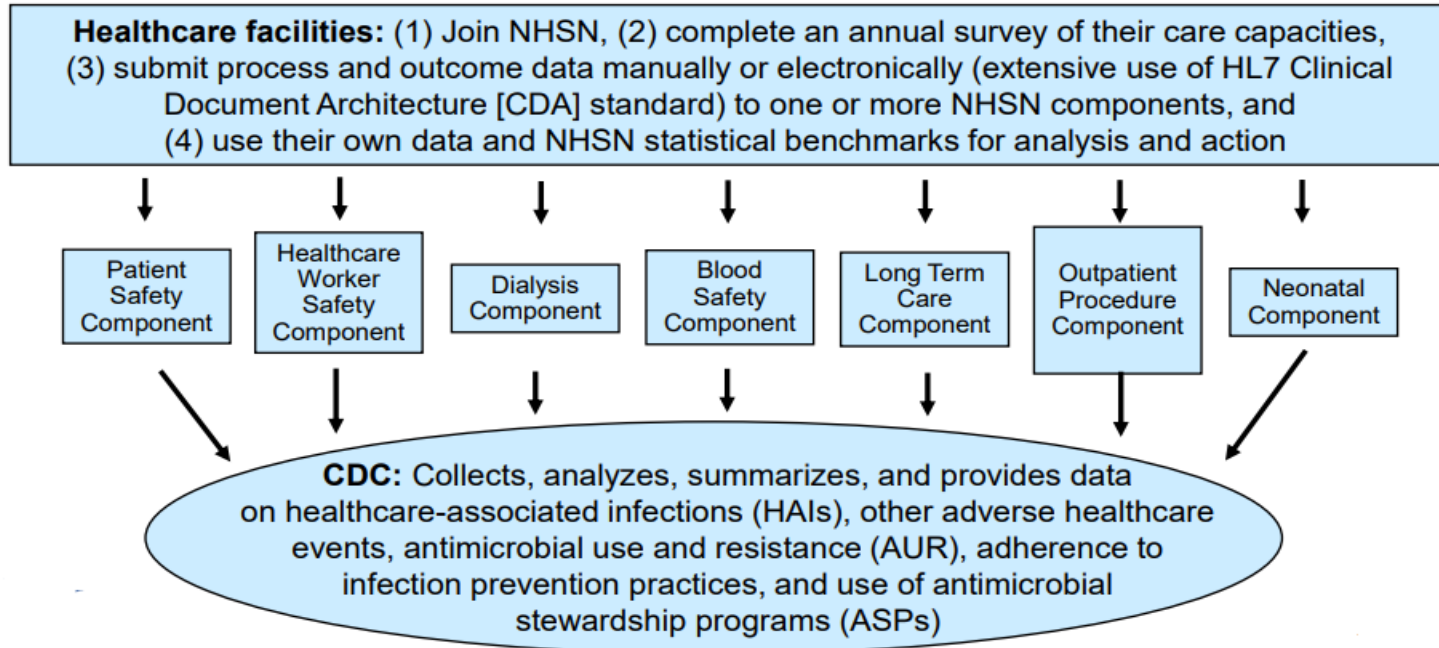
NHSN overview

What is the National Healthcare Safety Network (NHSN)?

- A secure, internet-based system for monitoring healthcare-associated adverse events and practices

- Participating healthcare facilities use the NHSN web application to enter, analyze, and share data

- Data entry can be manual by users in the healthcare facility or electronic via file submission or uploads

- NHSN fulfills CMS and state requirements for HAI-AR reporting, and CMS nursing home COVID-19 reporting requirements

What is the National Healthcare Safety Network (NHSN)?

CDC's National Healthcare Safety Network (NHSN) – A Healthcare Surveillance System

Healthcare facilities: (1) Join NHSN, (2) complete an annual survey of their care capacities, (3) submit process and outcome data manually or electronically (extensive use of HL7 Clinical Document Architecture [CDA] standard) to one or more NHSN components, and (4) use their own data and NHSN statistical benchmarks for analysis and action

- Patient Safety Component
- Healthcare Worker Safety Component
- Dialysis Component
- Blood Safety Component
- Long Term Care Component
- Outpatient Procedure Component
- Neonatal Component

CDC: Collects, analyzes, summarizes, and provides data on healthcare-associated infections (HAIs), other adverse healthcare events, antimicrobial use and resistance (AUR), adherence to infection prevention practices, and use of antimicrobial stewardship programs (ASPs)

Long-term Care Facilities (LTCF) Component

Modules of the LTCF Component

- COVID-19/Respiratory Pathogens

- Multidrug-Resistant Organism &

  Clostridioides difficile (MDRO/CDI) Infection

  Event Reporting

  - Also called LabID Event module

- Healthcare-Associated Infections (HAIs)

  - UTI Event Reporting

- Prevention Process Measures

Reporting to the LTCF Component Modules

- Public health surveillance activity

- What is public health surveillance?

  - Ongoing and systematic health data collection, management, analysis, and interpretation for public health action

Use of the Data Reported to LTCF Component Modules

- Perform data quality check

    - Data validation activity

- Create weekly and monthly reports

- Feed our weekly dashboards

- Conduct facility outreach activities

Data Reported Weekly:

COVID-19 Data

Data Reported Monthly:

LabID Event

UTI Event

Prevention Process Measures

Use of the Data Reported to LTFC Component Modules: Example of a __Weekly Data Report__

The weekly data report includes the following:

- ✓ Confirmed cases among residents and staffs

- ✓ Variability of the COVID-19 rates (stable, increase, or decrease)

- ✓ Change in incident rates of confirmed COVID-19 cases among residents and staff in skilled nursing facilities

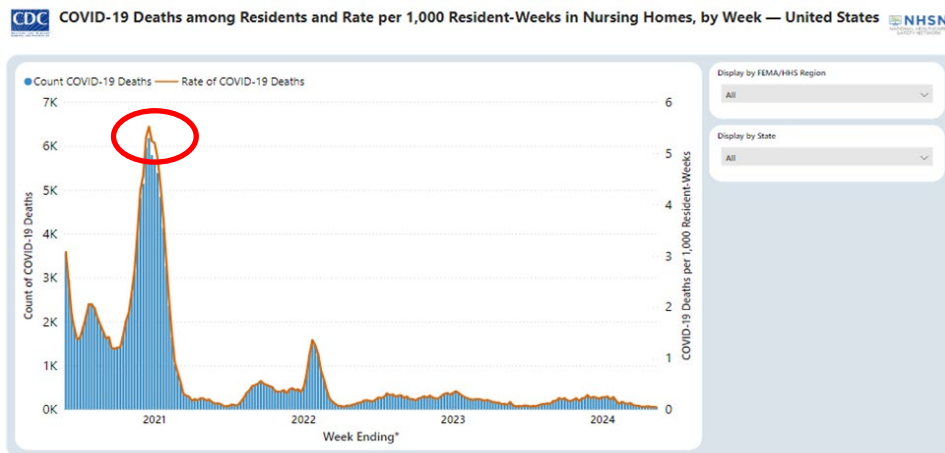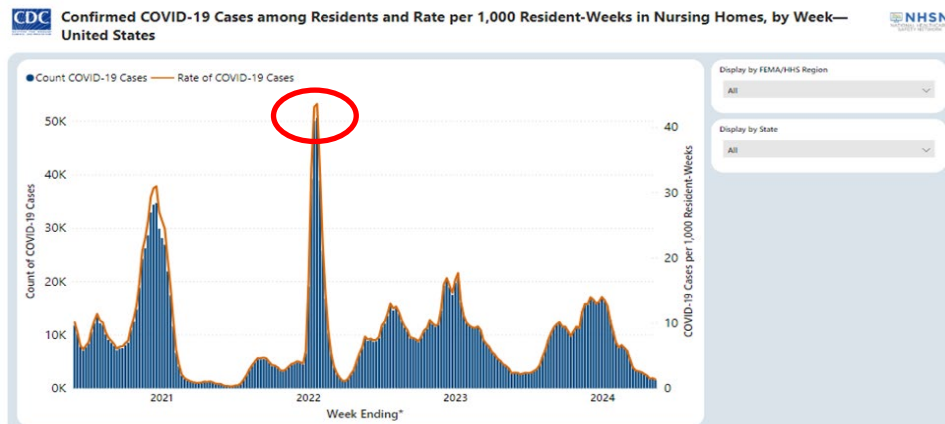- ✓ Visualizations including maps, epi curve, and tables

Use of the Data Reported to LTFC Component Modules: Example of the Weekly State Report

- Number of skilled nursing facilities (SNF) reporting into the NHSN Long-term Care COVID-19 module

- COVID-19 cases and deaths among SNF residents

- COVID-19 national resident case rate

- Hospitalization coverage for residents

- Vaccination coverage for residents and staff

- COVID-19 potential outbreak alert
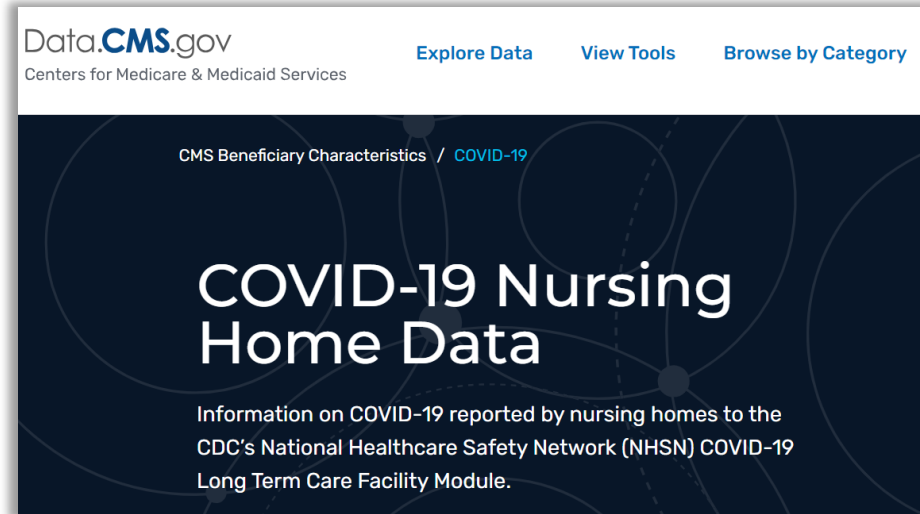
Examples of Created Reports: the Dashboard

Residents and staff information, including:

- COVID-19 case count
- Case rate
- Death rate in SNFs

Data Dissemination

- CDC staff review and presentations

- Sharing of reports with partners

- Publication of CDC's NHSN data on CMS's website

- Participation in conference presentations

  - Posters/abstracts

- Submission of manuscripts to scientific/peer-reviewed journals

https://data.cms.gov/covid-19/covid-19-nursing-home-data

Recent Publication by the Post-Acute Care Team

- Article published in MMWR

  - COVID-19 data

  - Pathway data reporting

- Attention received on the internet

  - Altmetric Attention Score: 81

  - Article cited by 6 news outlets, including Yahoo

Morbidity and Mortality Weekly Report (MMWR)

Search

COVID-19 Vaccination Coverage, and Rates of SARS-CoV-2 Infection and COVID-19–Associated Hospitalization Among Residents in Nursing Homes — National Healthcare Safety Network, United States, October 2023–February 2024

Weekly / April 18, 2024 / 73(15);339–344

Print

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Article Metrics

Altmetric:

81

News (6)
X (45)
Facebook (2)
Mendeley (2)

Data as of June 4, 2024

Pulling Data from NHSN for Facility Specific Analysis

Demonstration from the SAMS portal

1.) Login to the NHSN application

2.) Hover over "Analysis" under the "NHSN Home" tab and click "Generate Data Sets"

Pulling Data from NHSN for Facility Specific Analysis (continued)

3.) Click "Generate Reporting Data Sets"

4.) Alert showing that the data has been generated

Pulling Data from NHSN for Facility Specific Analysis (con't)

5.) View Report

6.) Run Report, Modify Report and Export Data under "Analysis" and "Reports" tabs

References

Centers for Disease Control and Prevention (CDC). National Healthcare Safety Network (NHSN). https://www.cdc.gov/nhsn/about-nhsn/index.html.

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Thacker SB, Qualters JR, Lee LM, Centers for Disease Control and Prevention. Public health surveillance in the United States: evolution and challenges. MMWR Suppl. 2012 Jul 27;61(3):3-9. https://www.cdc.gov/mmwr/preview/mmwrhtml/su6103a2.htm

Franklin D, Barbre K, Rowe TA, et al. COVID-19 Vaccination Coverage, and Rates of SARS-CoV-2 Infection and COVID-19–Associated Hospitalization Among Residents in Nursing Homes — National Healthcare Safety Network, United States, October 2023–February 2024. MMWR Morb Mortal Wkly Rep 2024;73:339–344.DOI: https://www.cdc.gov/mmwr/volumes/73/wr/mm7315a3.htm

US Department of Health and Human Services (DHHS). Healthy People 2030. National Healthcare Safety Network (NHSN). https://health.gov/healthypeople/objectives-and-data/data-sources-and-methods/data-sources/national-healthcare-safety-network-nhsn

Questions?

Thank you

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

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