Tracking Infections in Long-term Care Facilities (LTCFs) Using NHSN

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Nurse Epidemiologist
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If you wanted to compare your infection surveillance data to another nursing home in your community that cared for a similar resident population, how confident are you that events will be tracked in the same way?

- A. Completely confident
- B. Slightly Confident
- C. Highly doubtful
- D. I’m not even sure I can compare my own surveillance data from year to year
In this session, we will..

- Define the National Healthcare Safety Network (NHSN) and the different Components and Modules available for Long-term Care Facilities
- Describe how NHSN supports long-term care facilities (LTCFs) and infection surveillance activities
- Discuss steps in the “CHECKLIST” for participating in the NHSN
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Healthcare facilities: (1) Enroll in the NHSN, (2) complete an annual survey describing facility characteristics and practices; (3) submit process and outcome data manually or electronically to one or more NHSN Components; and (4) use facility level data and NHSN benchmarks for analysis and action.

Available Components:
- Healthcare Worker Safety Component
- Long Term Care Facility Component
- Patient Safety Component
- Outpatient Procedure Component (Planned)
- Neonatal Component (Planned)
- Biovigilance Component
- Dialysis Safety Component

**CDC:** Collects, analyzes, summarizes, and provides data on healthcare associated infections (HAIs), other adverse healthcare events, antimicrobial use and resistance, adherence to prevention practices, and use of antimicrobial stewardship programs.
NHSN Components Available for Long-term Care Facilities (LTCF)

- LTCFs can enroll and report in the following:
  1. Long-term Care Facility Component
     - To track resident infections
     - To track staff adherence with hand hygiene and gown/glove use
     - To track staff influenza vaccination
     - For more information about Healthcare Personnel Safety: http://www.cdc.gov/nhsn/hps.html
NHSN Long-term Care Facility Component

- NHSN reporting option specifically for LTCFs
- Standardizes surveillance definitions
- >2,400 facilities have enrolled since its launch in Sept 2012
Long-term Care Facility Component

Healthcare-associated Infections (HAI) Module
- Urinary Tract Infections (UTI)

Laboratory-Identified (LabID) Event Module
- Multi-drug Resistant Organisms (MDRO)
  - Clostridium difficile Infection (CDI)

Prevention Process Measures Module
- Hand Hygiene
- Gowns/Gloves
Facilities Eligible for Enrolling in NHSN LTCF Component

- Certified skilled nursing facilities (SNF) and nursing homes (NH)
- Intermediate/chronic care facilities for the developmentally disabled
- Assisted living facilities and residential care facilities
  - Currently limited to Prevention Process Measures
LTCF CHECKLIST for NHSN Participation

- Complete the *NHSN Annual Facility Survey* between January 1 and March 1 each year.
- Add/verify that LTCF resident care locations are mapped in NHSN (*performed during initial set-up and if change in location*).
- Complete the *NHSN Monthly Reporting Plan (MRP)* for each month facility will submit data to the NHSN.
- Identify and submit resident level HAI UTI and/or LabID event infection events to the NHSN. *This step is dependent on which modules a facility is participating during the month.*
- Enter denominator data for each month under surveillance.
- Data quality checks-resolve “Alerts”, *if applicable.*
- Add additional users to the NHSN application, *if applicable.*
NHSN Forms and Instructions for Completion

- Match resident data and surveillance criteria
- Customizable
- Available on NHSN website:

https://www.cdc.gov/nhsn/ltc/index.html
Annual Facility Survey

- Complete between January 1 and March 1 every year.
- Most survey questions are based on facility characteristics and practices during the previous calendar year.
- Recommend collecting all required information using NHSN paper form.
- Accuracy is important—responses in the annual survey may be used for risk adjustment of data.
ADD Annual Facility Survey
EDIT Annual Facility Survey

Remember to SAVE your edits
LTCF CHECKLIST for NHSN Participation

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LOCATIONS
LOCATIONS

- Most LTCFs have different physical locations where residents reside and receive care within the building
  - These locations might be known as units, wards, floors, neighborhoods, pod, etc.
- Each resident care location in your facility should be mapped to a CDC location code/description
  - This provides information about the type of residents or care services in that place.
- Nursing homes/skilled nursing facility units located within a hospital that have a CCN that is different from the hospital must be enrolled as a separate NHSN Facility within the LTCF Component
### Location Mapping:
**CDC Location Codes and Descriptions**

<table>
<thead>
<tr>
<th>CDC Location Label</th>
<th>NHSN Healthcare Service Location Code</th>
<th>CDC Location Code</th>
<th>Location Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient Hospice Unit</td>
<td>1254-2</td>
<td>IN:NONACUTE:LTCF:HSP</td>
<td>A unit or designed area which provides palliative and supportive care services to individuals diagnosed with life limiting (terminal) conditions.</td>
</tr>
<tr>
<td>Dementia Unit</td>
<td>1255-9</td>
<td>IN:NONACUTE:LTCF:DEM</td>
<td>A unit or designed area which provides specialized care for individuals diagnosed with dementia or related conditions, including Alzheimer’s disease.</td>
</tr>
<tr>
<td>Psychiatric Unit</td>
<td>1256-7</td>
<td>IN:NONACUTE:LTCF:REHAB</td>
<td>A unit or designated area which provides specialized care for individuals diagnosed with psychiatric or behavioral disorders.</td>
</tr>
</tbody>
</table>
**Location Mapping: CDC Location Codes and Descriptions, (cont.)**

<table>
<thead>
<tr>
<th>CDC Location Label</th>
<th>NHSN Healthcare Service Location Code</th>
<th>CDC Location Code</th>
<th>Location Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skilled Nursing/Short Term Rehabilitation</td>
<td>1257-5</td>
<td>IN:NONACUTE:LTCF:REHAB</td>
<td>A unit or designated area which primarily provides short term (&lt;90 days), medical, skilled nursing or rehabilitation services to individuals requiring restorative care following recent hospitalization.</td>
</tr>
<tr>
<td>General Nursing Unit</td>
<td>1258-3</td>
<td>IN:NONACUTE:LTCF:GEN</td>
<td>A unit or designated area which primarily provides nursing, rehabilitative or custodial services to individuals with varying levels of chronic conditions or disability requiring long term (&gt;90 days) support</td>
</tr>
<tr>
<td>Ventilator Dependent Unit</td>
<td>1259-1</td>
<td>IN:NONACUTE:LTCF:VEN</td>
<td>A unit or designated area which provides nursing and respiratory care to individuals who require mechanical ventilation.</td>
</tr>
<tr>
<td>Bariatric Unit</td>
<td>1260-9</td>
<td>IN:NONACUTE:LTCF:BAR</td>
<td>A unit or designated area which provides specializing care for individuals who are preparing for or have undergone bariatric surgery.</td>
</tr>
</tbody>
</table>
LOCATIONS

Instructions:
- To Add a record, fill in the form with the required fields and any desired optional values. Then click on the Add button.
- To Find a record, click on the Find button. One or more fields can be filled in to restrict the search to those values.
- To Edit a record, perform a Find on the desired record. Click on the desired record to fill in its values into the form and edit the values. To save the changes, click on the Save button.
- To Delete one or more records, perform a Find on the desired record(s). Check the corresponding box(es), then click on the Delete button.

Press the Clear button to start over with a new form.

Mandatory fields to "Add" or "Edit" a record marked with *

- Your Code:
- Your Label:
- CDC Location Description:
- Status: Active
- Bed Size: A bed size greater than zero is required for most inpatient locations.

Option to Find or Add Locations
LOCATIONS: ADD

Instructions

- To **Add** a record, fill in the form with the required fields and any desired optional values. Then click on the **Add** button.
- To **Find** a record, click on the **Find** button. One or more fields can be filled in to restrict the search to those values.
- To **Edit** a record, perform a **Find** on the desired record. Click on the desired record to fill in its values into the form and edit the values. To save the changes, click on the **Save** button.
- To **Delete** one or more records, perform a **Find** on the desired record(s). Check the corresponding box(es), then click on the **Delete** button.
- Press the **Clear** button to start over with a new form.

Mandatory fields to “Add” or “Edit” a record marked with *

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your Code *</td>
<td>1 SOUTH</td>
<td>Mandatory fields to “Add” or “Edit” a record marked with *</td>
</tr>
<tr>
<td>Your Label</td>
<td>GENERAL</td>
<td>Mandatory fields to “Add” or “Edit” a record marked with *</td>
</tr>
<tr>
<td>CDC Location Description</td>
<td>LTCF General Nursing Unit</td>
<td>Mandatory fields to “Add” or “Edit” a record marked with *</td>
</tr>
<tr>
<td>Status</td>
<td>Active</td>
<td>Mandatory fields to “Add” or “Edit” a record marked with *</td>
</tr>
<tr>
<td>Bed Size *</td>
<td>29</td>
<td>Mandatory fields to “Add” or “Edit” a record marked with *</td>
</tr>
</tbody>
</table>

Selections are facility specific. “Your Code” & “Your Label” best describe how units are identified in your facility.
Select **CDC Location Description** that best describes the resident population in the unit. For a description of CDC locations for LTCFs, visit the CDC Locations document under Supporting Materials: https://www.cdc.gov/nhsn/pdfs/pscmanual/15locationsdescriptions_current.pdf (beginning on page 28)
LOCATIONS: ADD

Instructions

- To Add a record, fill in the form with the required fields and any desired optional values. Then click on the Add button.
- To Find a record, click on the Find button. One or more fields can be filled in to restrict the search to those values.
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- To Delete one or more records, perform a Find on the desired record(s). Check the corresponding box(es), then click on the Delete button.
- Press the Clear button to start over with a new form.

Mandatory fields to “Add” or “Edit” a record marked with *

![Form with fields](image)

- Your Code: 1 SOUTH
- Your Label: GENERAL
- CDC Location Description: LTCF General Nursing Unit
- Status: Active
- Bed Size: 28

A bed size greater than zero is required for most inpatient locations.

Location Table

<table>
<thead>
<tr>
<th>Delete</th>
<th>Status</th>
<th>Your Code</th>
<th>Your Label</th>
<th>CDC Description</th>
<th>NHINHL7 Code</th>
<th>Bed Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Active</td>
<td>1 SOUTH</td>
<td>GENERAL</td>
<td>LTCF General Nursing Unit</td>
<td>IN:NONACUTE;LTCF:GEN</td>
<td>1258:3</td>
</tr>
</tbody>
</table>

Display All  Print Location List
LOCATIONS: FIND/DEACTIVATE

Click "find" to view all locations that have been set-up

Deactivate
LTCF CHECKLIST for NHSN Participation

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- Enter denominator data for each month under surveillance.
- Data quality checks-resolve “Alerts”, *if applicable.*
- Add additional users to the NHSN application, *if applicable.*
NHSN MONTHLY REPORTING PLAN
Monthly Reporting Plan

- The Monthly Reporting Plan informs CDC-NHSN which module(s) a facility is following during a given month
  - A plan must be in place before events can be entered into NHSN
- “Plans” can be modified retrospectively
- “Plans” can be entered for up to one year in advance
Add Monthly Reporting Plan for LTCF
Monthly Reporting Plan for LTCF

- Three Surveillance Modules:
  1. HAI for urinary tract infection (UTI) events
  2. LabID Event for *C. difficile* and/or multi-drug resistant organisms
  3. Prevention Process Measures for gown and glove use adherence

Select ONLY if facility will not perform surveillance during selected month
Edit Monthly Reporting Plan

✓ Plans may be edited to add or remove surveillance selections.
✓ If event data has already been entered for a selected month, the plan may not be deleted unless the event data is also deleted.
LTCF CHECKLIST for NHSN Participation

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☐ Enter denominator data for each month under surveillance.

☐ Data quality checks-resolve “Alerts”, if applicable.

☐ Add additional users to the NHSN application, if applicable.
DENOMINATOR DATA - MONTHLY SUMMARY
Entering Denominator Data into NHSN

- Referred to as Summary Data
- At the end of the month, enter each monthly total denominator for the month into the NHSN application
- Locate ‘Summary Data’ on left-hand navigation Bar, and then ‘Add’
Entering Denominator Data in NHSN

Monthly Summary Page
Pre-populates based on facility selections in the Monthly Reporting Plan
Denominator Reporting (Monthly Summary)

1. CDC 57.139: MDRO and CDI LabID Event Reporting Monthly summary Data for LTCF
   - Resembles Summary Data page in the NHSN application
   - Specific to LabID Event reporting (CDI and/or MDRO)
   - Total counts only

2. CDC 57.142: Denominators for LTCF
   - One form for the month to collect MDRO, CDI, and/or UTI denominator data
   - Daily counts that must be summed at the end of the month

Forms and Table of Instructions (TOIs) available under Data Collection Forms at: [https://www.cdc.gov/nhsn/ltc/cdiff-mrsa/index.html](https://www.cdc.gov/nhsn/ltc/cdiff-mrsa/index.html)
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RESOLVE ALERTS
Alerts

- Automatic checks in the NHSN that remind users of incomplete or missing in-plan data
- Generated from the Monthly Reporting Plan
- Before using the analysis function, make sure to clear all (relevant) alerts
- Found on the Home Page, or by clicking on the ‘Alerts’ tab on the sidebar
Alerts

- When an alert category is selected all occurrences will be listed on a separate page for selection.
- Each occurrence will need to be resolved in order for alert category to clear.
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☐ Add additional users to the NHSN application,  *if applicable.*
ADD NHSN USERS
ADD NHSN Users

- The NHSN Facility Administrator has option to add additional users to access NHSN data
- It is recommended that each facility have at least two NHSN users
- The NHSN Facility Administrator assigns rights to each user
  - enable users to view, add, edit, delete, analyze NHSN data
- Once a new user is added, an email is automatically sent to the email address entered with instructions for registering with SAMS (required)
ADD NHSN Users

Tip: use first initial and last name ex. aanttila

User must use same email address for SAMS registration!
## ADD NHSN User

### Assign and Save Rights

<table>
<thead>
<tr>
<th>Rights</th>
<th>Patient Safety</th>
<th>Healthcare Personnel Safety</th>
<th>Biovigilance</th>
<th>Long Term Care</th>
<th>Dialysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Rights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analyze Data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add, Edit, Delete</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>View Data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customize Rights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**User ID:** MANTTIJA (ID 238556)

**Facility List:**
- Fac: Angela LTCF Test Facility

**Options:**
- Advanced
- Effective Rights
- Save
- Back
Remember…...

**Log-out** of the NHSN application before closing your browser
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LTCF COMPONENT UPDATES FOR 2017
2017 Component Updates: All Modules

- **Annual survey** includes three additional questions added to the antimicrobial stewardship section.

- **Analysis Reports**: *Number of Core Elements for Antibiotic Stewardship Program (ASP)* line listing (facility and group users) and frequency table (group users only) added to “Advanced” analysis to specify the number of core elements met, as reported by the facility on the annual survey.

- **NHSN Key Terms & Acronyms**: New supporting document added to each infection event/module, under Supporting Materials.

- **Organism lists** include additional organisms as well as updated taxonomy of previously included organisms.
2017 Component Updates: LabID Event Module

- **Definition** of a *C. difficile* positive laboratory assay was updated to add clarity by specifying *testing on loose/unformed stool only*.

- **Settings** for LabID Event reporting updated to specify *specimens obtained while a resident is receiving care from a LTCF and specimens collected from an emergency department (ED) or outpatient (OP) setting, such as a clinic/physician’s office, during a resident’s current admission in the LTCF* (i.e., resident returns to the LTCF on the same calendar day or the next calendar day).

  - **Note**: Specimens collected prior to admission to the LTCF and during a resident’s inpatient admission in another facility continue to be excluded from LabID Event reporting for the LTCF.
2017 Component Updates: LabID Event Module

- **Denominator/Summary Data Forms:** Additional, *optional* form and Table of Instructions added for collecting aggregate LabID Event denominator data (*CDC 57.139- MDRO and CDI LabID Event Reporting. Monthly Summary Data for LTCF*). **Facilities may continue to use previous form (CDC 57.142- Denominators for LTCF) to collect denominator data.

- **Analysis Reports:** Foot notes added to CDI LabID Event rate table for additional clarification.
2017 Component Updates: UTI Module

- **Event Reporting:** The following question “has resident been discharged from an acute care facility in the previous 3 months” was changed to “has resident been discharged from an acute care facility in the previous 4 weeks.”

- **Denominator:** The following new variable added, “Number of urine cultures ordered.”
NHSN Resources

Long-term Care Facility Component

❖ NHSN LTCF website: https://www.cdc.gov/nhsn/ltc/index.html
  ❖ Training
  ❖ Protocols
  ❖ Data collection forms
  ❖ Tables of instructions for completing all forms
  ❖ Key terms

Questions or Need Help? Contact User Support at nhsn@cdc.gov

****All e-mail Inquiries should be sent to nhsn@cdc.gov for triage and delegation
Time for a break!
Stretch your legs!

When we come back....

“Laboratory-identified Event Reporting”