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

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Nurse Epidemiologist

March 20, 2017

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

CDC LTC Team

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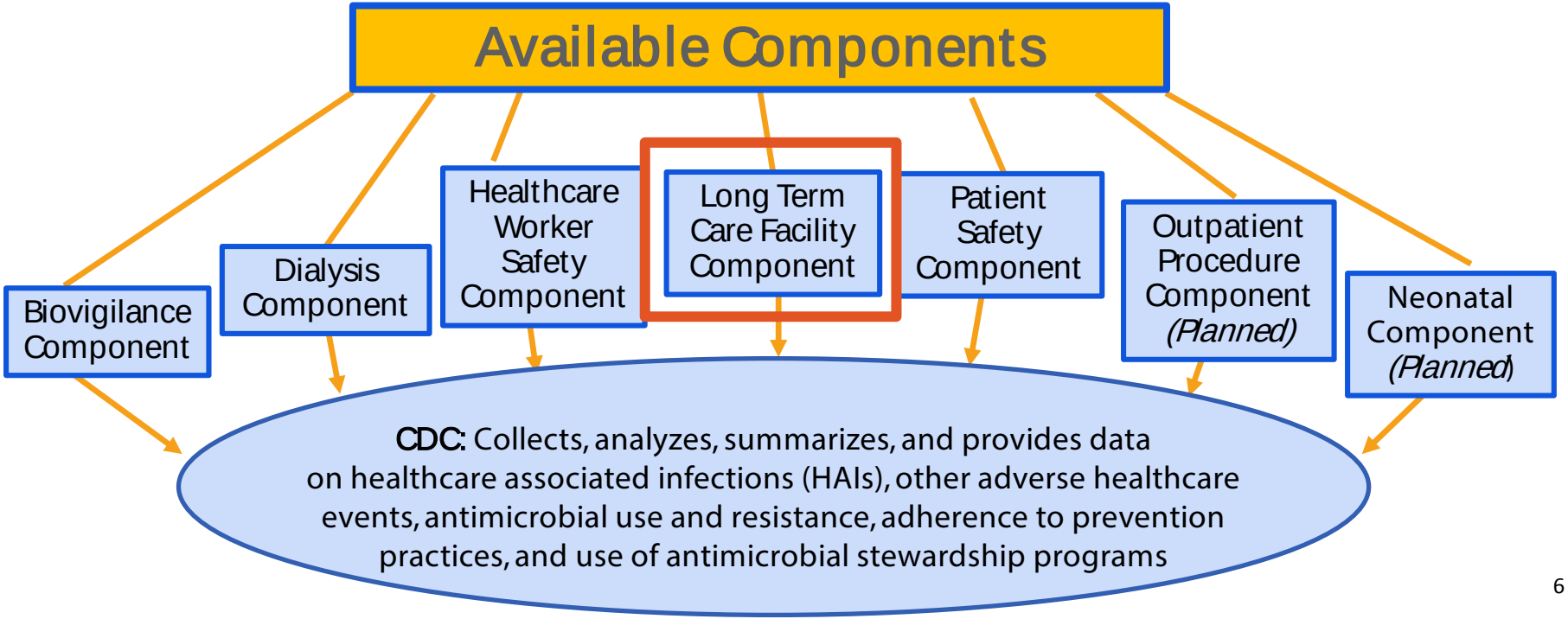
User Support Specialist

CDC's National Healthcare Safety Network (NHSN)

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



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
  2. Healthcare Personnel Safety Component
     - 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.
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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 Forms and Instructions for Completion

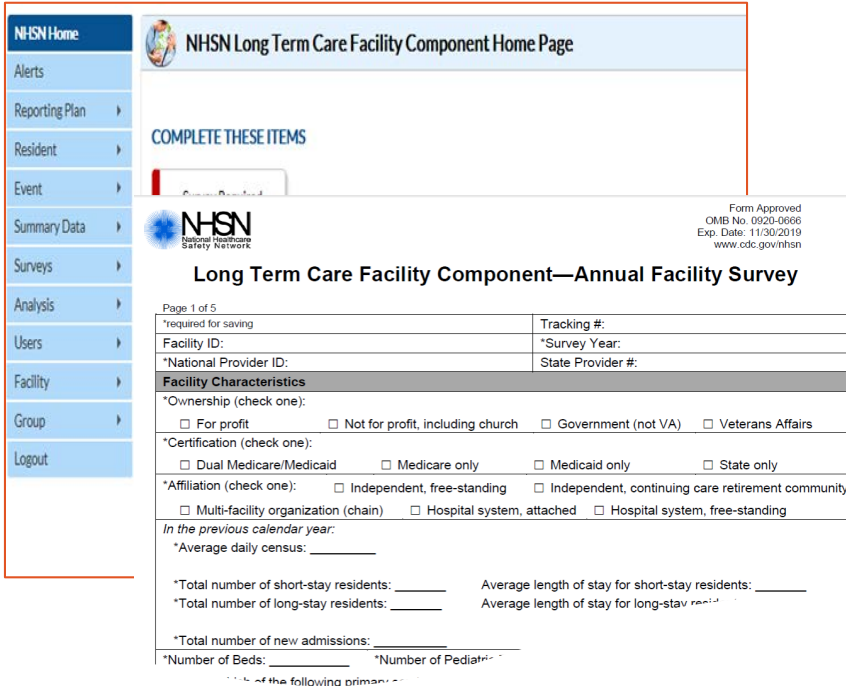
- Match resident data and surveillance criteria
- Customizable
- Available on NHSN website:

https://www.cdc.gov/nhsn/ltc/index.html

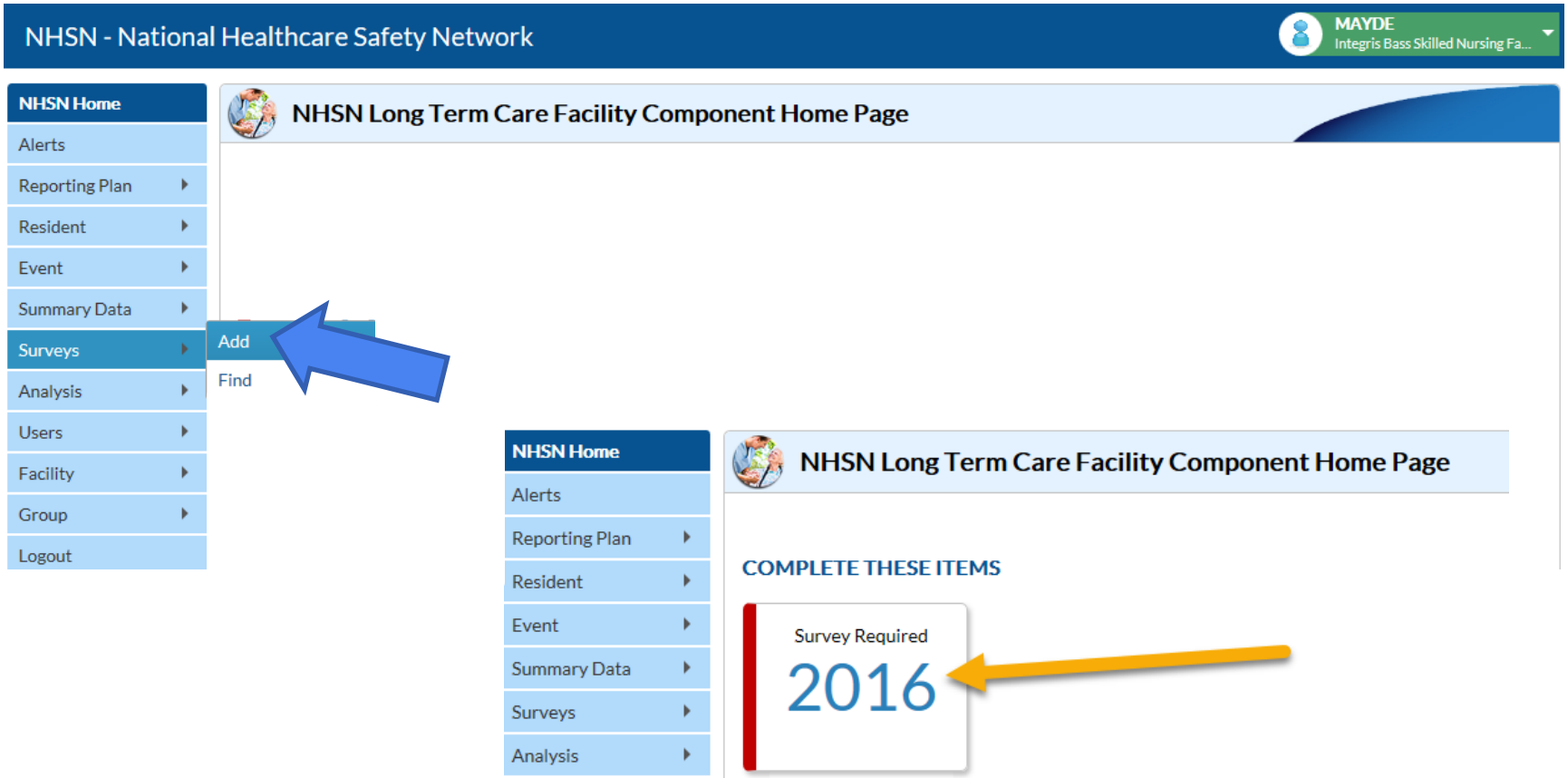
ANNUAL FACILITY SURVEY

Annual Facility Survey

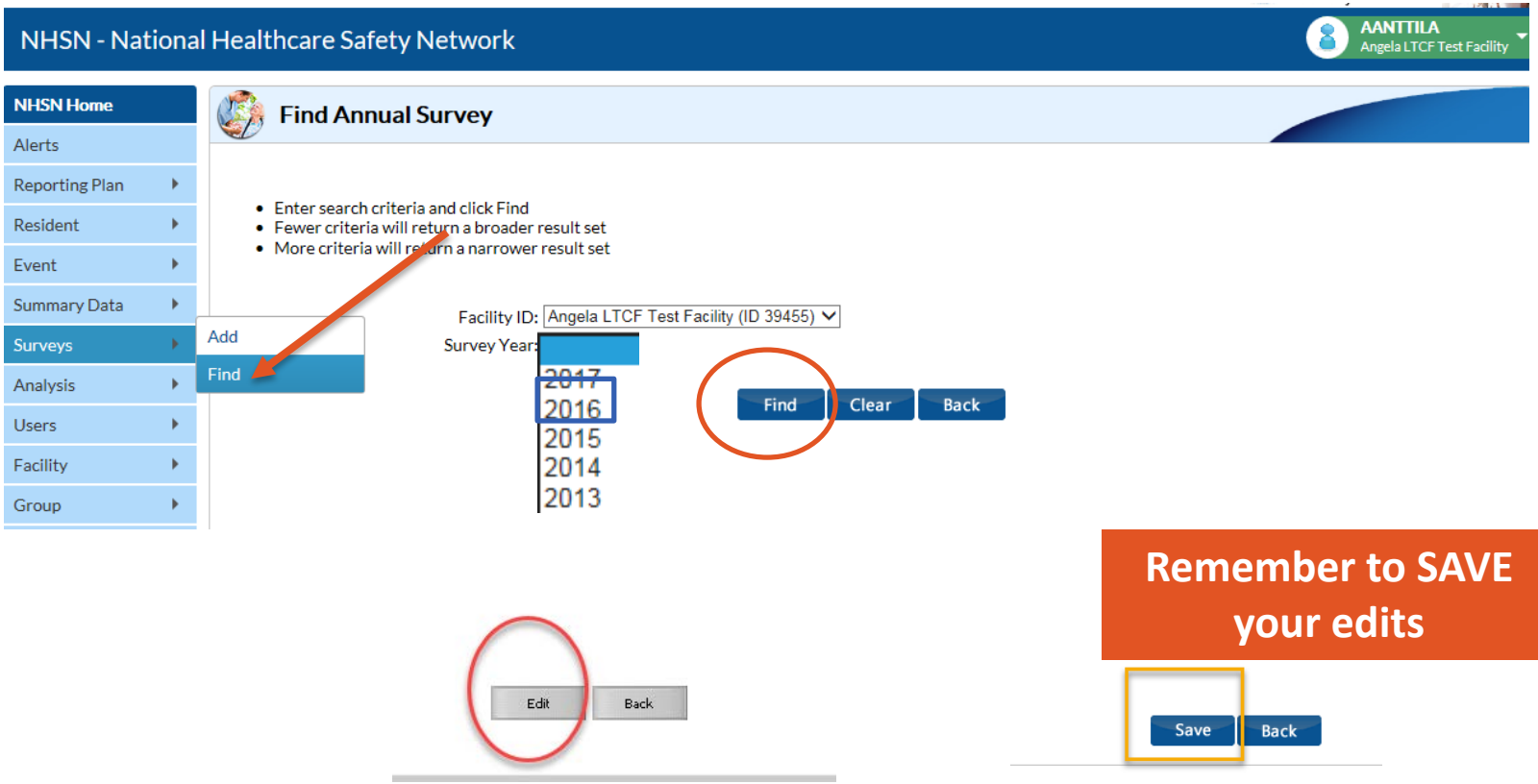
- Complete between January 1 and March 1 every year.
- Most survey questions are based on facility characteristics and practices during the *previous* calendar year.
- Recommend collecting all required information using NHSN paper form.
- **Accuracy is important**-responses in the annual survey may be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



ADD Annual Facility Survey



EDIT Annual Facility Survey



Remember to SAVE your edits

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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**

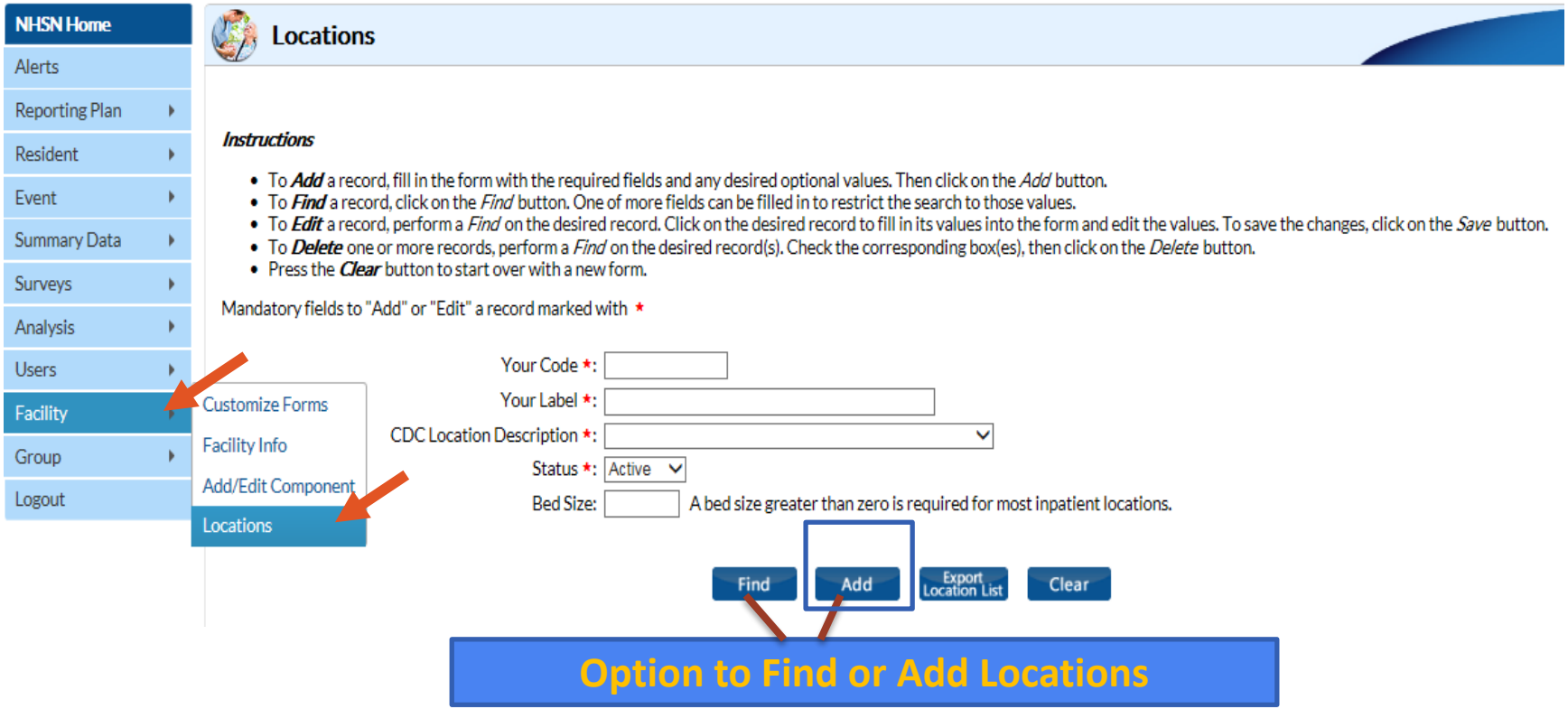
Location Mapping:
CDC Location Codes and Descriptions

CDC Location Label	NHSN Healthcare Service Location Code	CDC Location Code	Location Description
Inpatient Hospice Unit	1254-2	IN:NONACUTE:LTCF:HSP	A unit or designed area which provides palliative and supportive care services to individuals diagnosed with life limiting (terminal) conditions.
Dementia Unit	1255-9	IN:NONACUTE:LTCF:DEM	A unit or designed area which provides specialized care for individuals diagnosed with dementia or related conditions, including Alzheimer's disease.
Psychiatric Unit	1256-7	IN:NONACUTE:LTCF: REHAB	A unit or designated area which provides specialized care for individuals diagnosed with psychiatric or behavioral disorders.

Location Mapping:
CDC Location Codes and Descriptions, (cont.)

CDC Location Label	NHSN Healthcare Service Location Code	CDC Location Code	Location Description
Skilled Nursing/ Short Term Rehabilitation	1257-5	IN:NONACUTE:LTCF: REHAB	A unit or designated area which primarily provides short term (<90 days), medical, skilled nursing or rehabilitation services to individuals requiring restorative care following recent hospitalization.
General Nursing Unit	1258-3	IN:NONACUTE:LTCF:GEN	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 (>90 days) support
Ventilator Dependent Unit	1259-1	IN:NONACUTE:LTCF:VEN	A unit or designated area which provides nursing and respiratory care to individuals who require mechanical ventilation.
Bariatric Unit	1260-9	IN:NONACUTE:LTCF:BAR	A unit or designated area which provides specializing care for individuals who are preparing for or have undergone bariatric surgery.

LOCATIONS


NHSN Home
Alerts
Reporting Plan
Resident
Event
Summary Data
Surveys
Analysis
Users
Facility
Group
Logout
Customize Forms
Facility Info
Add/Edit Component
Locations
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 of 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.
Find
Add
Export Location List
Clear
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 of more fields can be filled in to restrict the search to those values.
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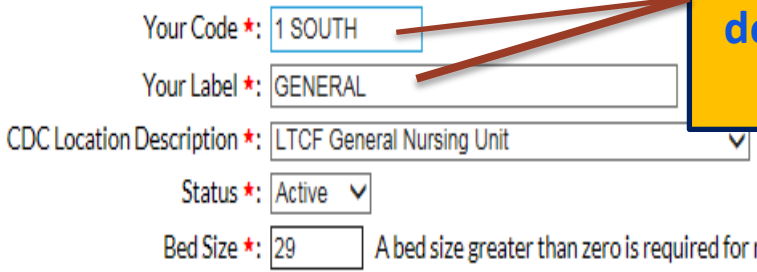
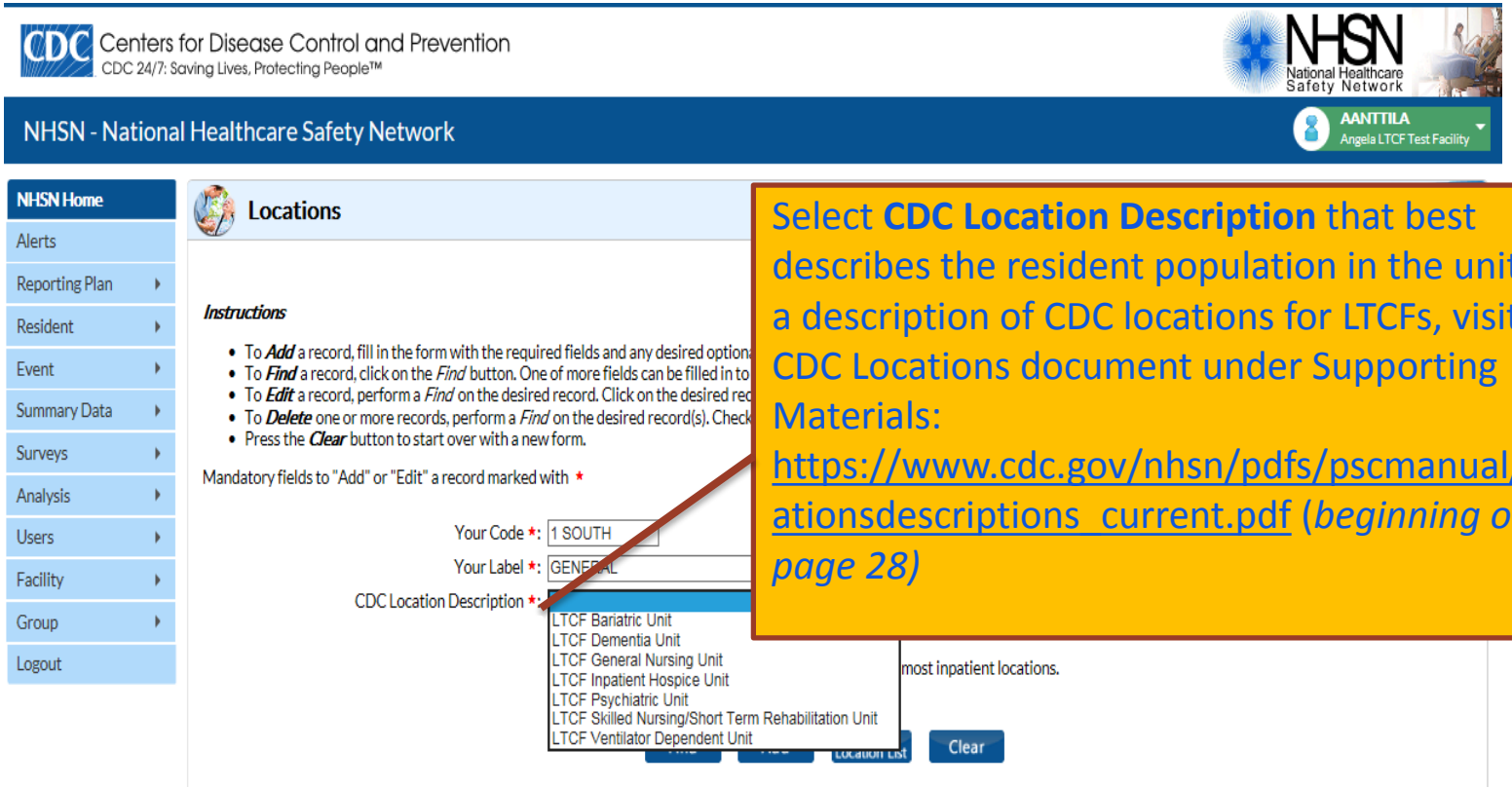
Mandatory fields to "Add" or "Edit" a record marked with *



Selections are facility specific. "Your Code" & "Your Label" best describe how units are identified in your facility

LOCATIONS: ADD



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

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

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

Your Code *: 1 SOUTH

Your Label *: GENERAL

CDC Location Description *: LTCF General Nursing Unit

Status *: Active

Bed Size *: 29 A bed size greater than zero is required for most inpatient locations.

Find | Add | Export Location List | Clear

Location Table

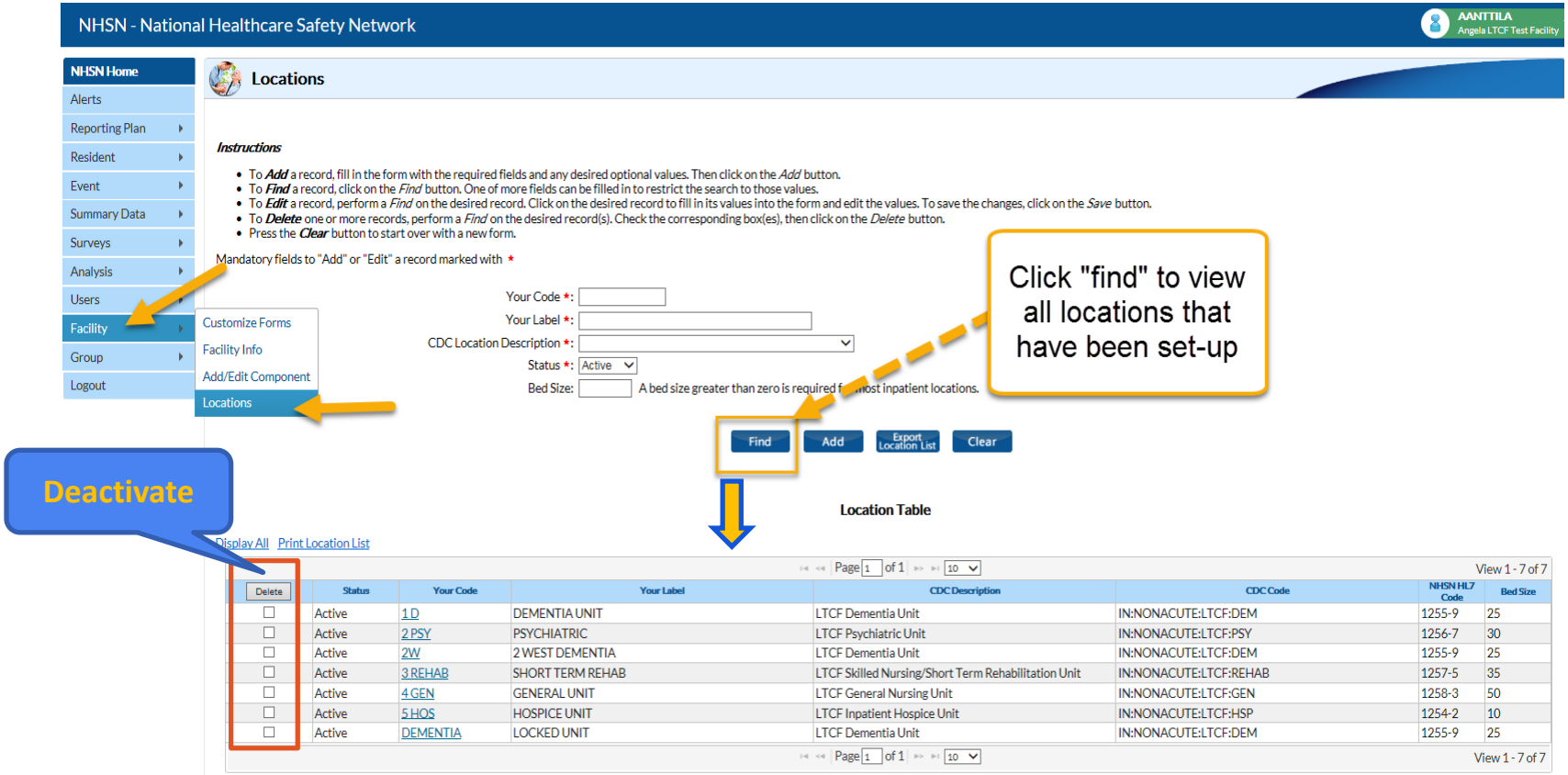
Display All | Print Location List

Page 1 of 1 | 10 | View 1 - 1 of 1

Delete	Status	Your Code	Your Label	CDC Description	CDC Code	NHSN HL7 Code	Bed Size
☐	Active	1 SOUTH	GENERAL	LTCF General Nursing Unit	IN:NONACUTE:LTCF:GEN	1258-3	29

Page 1 of 1 | 10 | View 1 - 1 of 1

LOCATIONS: FIND/DEACTIVATE



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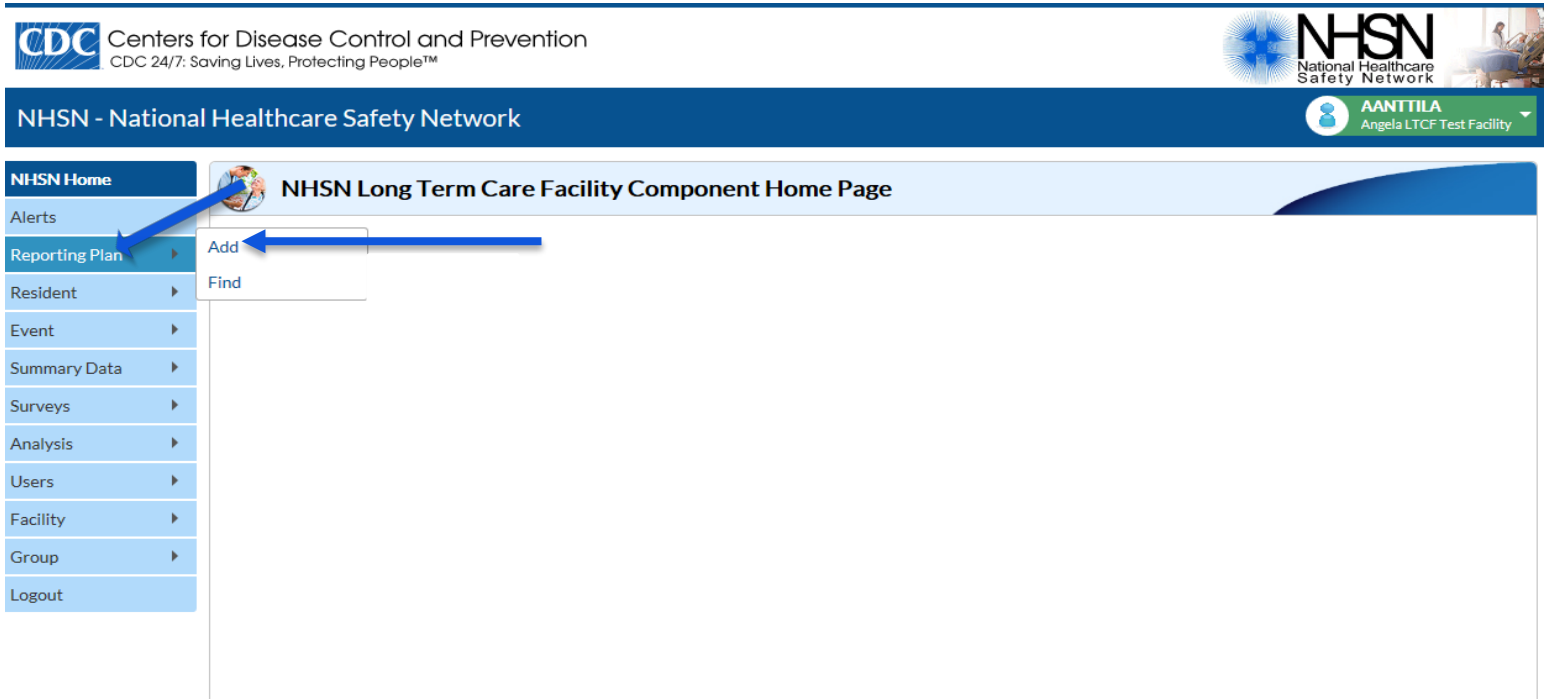
NHSN MONTHLY REPORTING PLAN

Monthly Reporting Plan

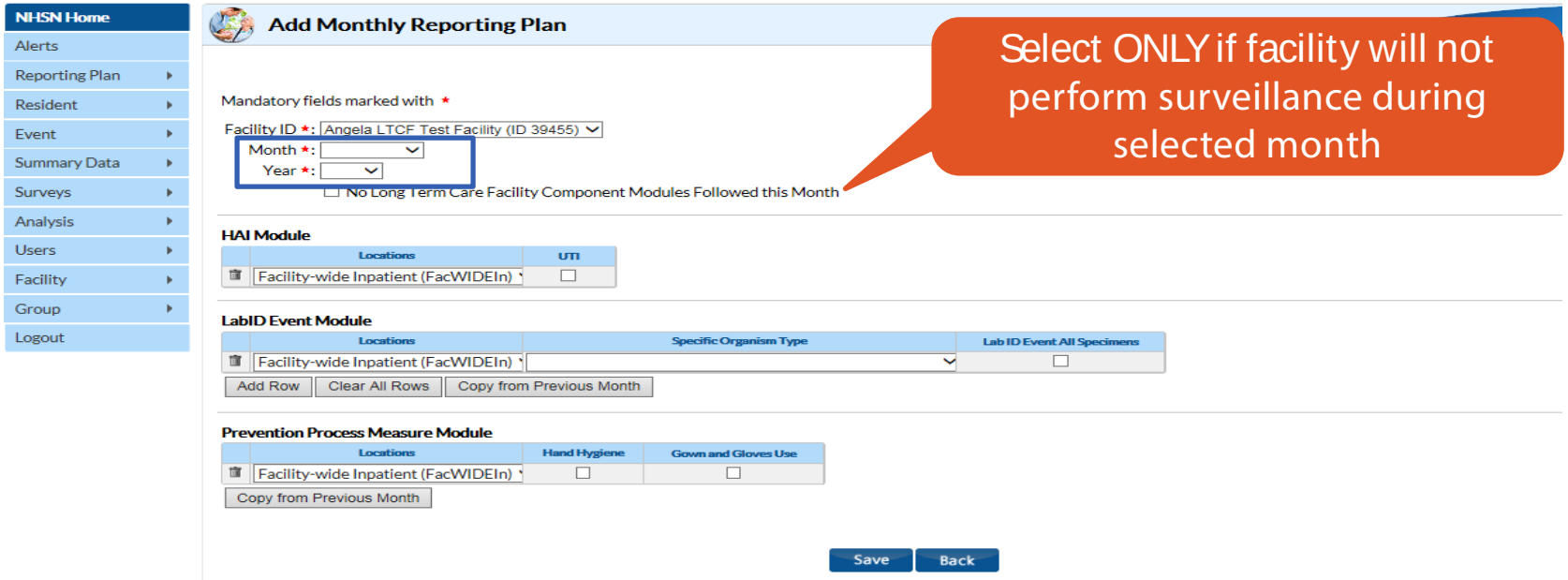
- The Monthly Reporting Plan informs CDC-NHSN which module(s) a facility is following during a given month
  - A plan must be in place before events can be entered into NHSN
- “Plans” can be modified retrospectively
- “Plans” can be entered for up to one year in advance

Add Monthly Reporting Plan for LTCF



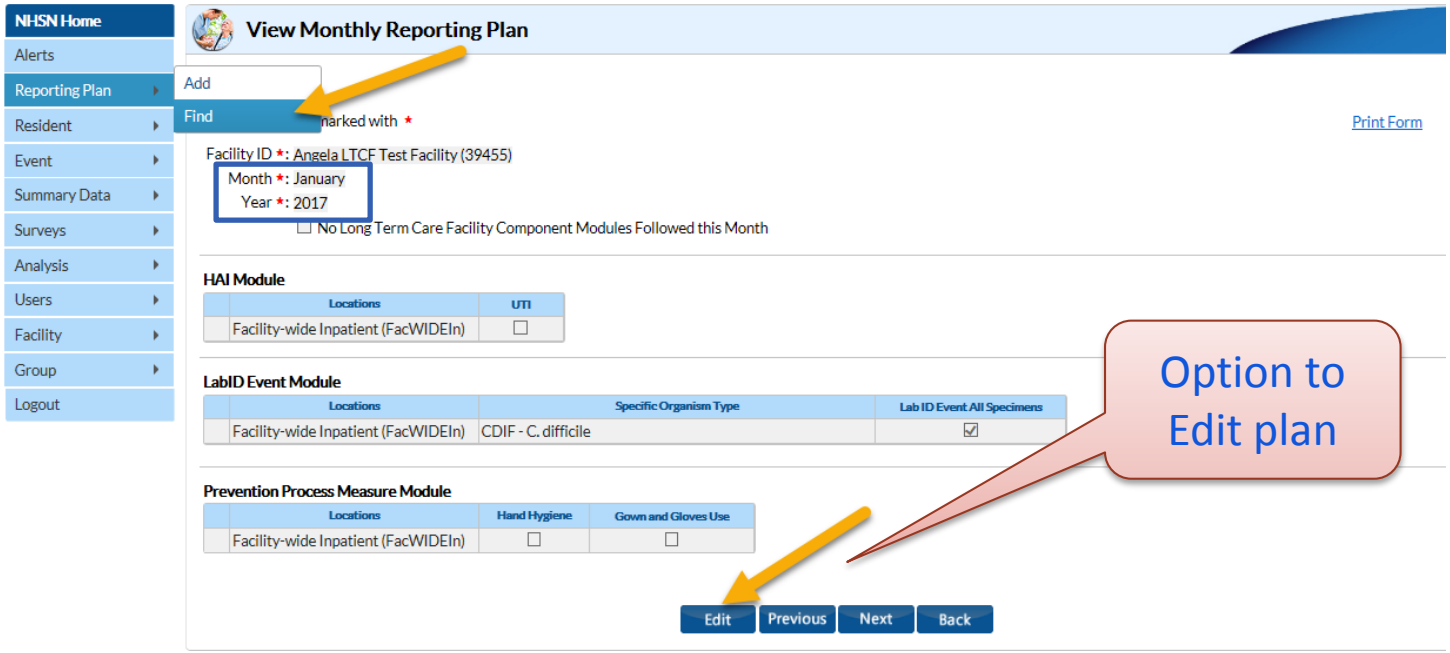
Monthly Reporting Plan for LTCF

- 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



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.



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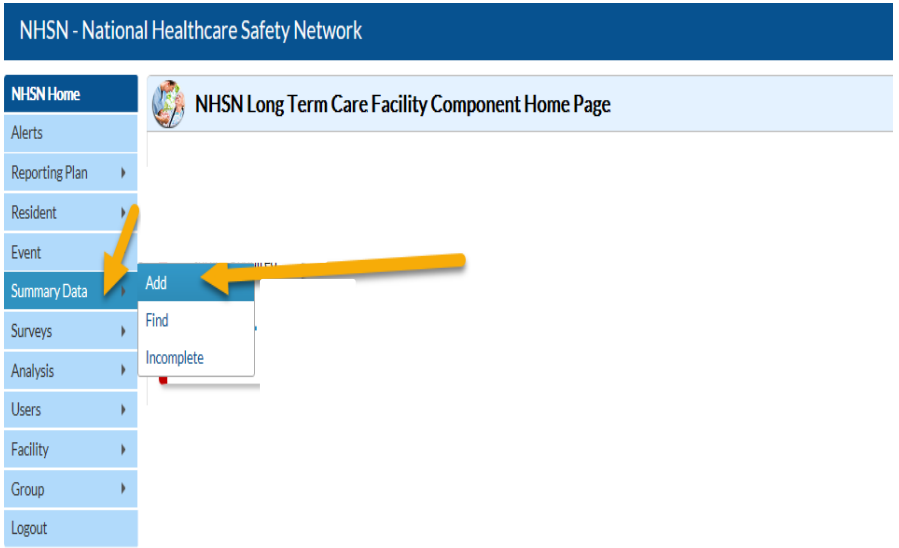
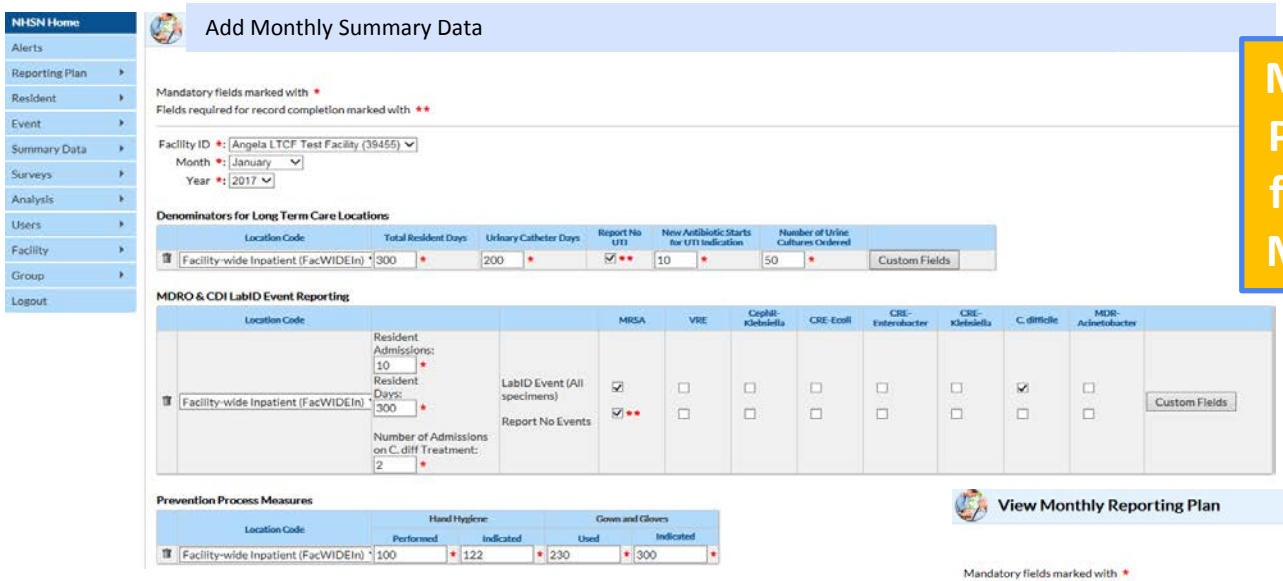
DENOMINATOR DATA-MONTHLY SUMMARY

Entering Denominator Data into NHSN

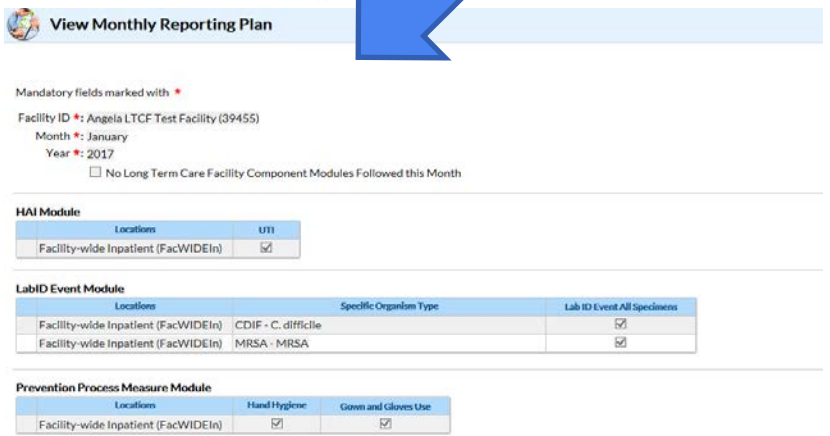
- Referred to as Summary Data
- At the end of the month, enter each monthly total denominator for the month into the NHSN application
- Locate ‘Summary Data’ on left-hand navigation Bar, and then ‘Add’



Entering Denominator Data in NHSN



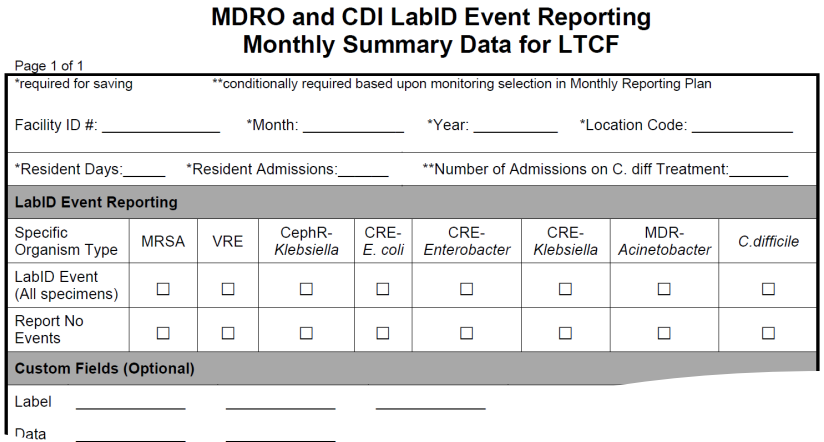
Monthly Summary Page Pre-populates based on facility selections in the Monthly Reporting Plan



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



MDRO and CDI LabID Event Reporting
Monthly Summary Data for LTCF

Page 1 of 1

*required for saving **conditionally required based upon monitoring selection in Monthly Reporting Plan

Facility ID #: _____ *Month: _____ *Year: _____ *Location Code: _____

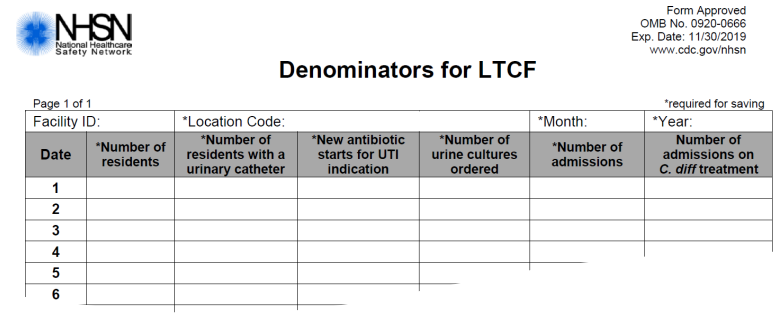
*Resident Days:_____ *Resident Admissions:_____ **Number of Admissions on C. diff Treatment:_____

LabID Event Reporting								
Specific Organism Type	MRSA	VRE	CephR-*Klebsiella*	CRE-*E. coli*	CRE-*Enterobacter*	CRE-*Klebsiella*	MDR-*Acinetobacter*	*C.difficile*
LabID Event (All specimens)	☐	☐	☐	☐	☐	☐	☐	☐
Report No Events	☐	☐	☐	☐	☐	☐	☐	☐

Custom Fields (Optional)

Label _____ _____ _____

Data _____ _____



NHSN National Healthcare Safety Network

Form Approved
OMB No. 0920-0666
Exp. Date: 11/30/2019
www.cdc.gov/nhsn

Denominators for LTCF

Page 1 of 1 *required for saving

Facility ID:	*Location Code:				*Month:	*Year:
Date	***Number of residents**	***Number of residents with a urinary catheter**	***New antibiotic starts for UTI indication**	***Number of urine cultures ordered**	***Number of admissions**	**Number of admissions on *C. diff* treatment**
1						
2						
3						
4						
5						
6						

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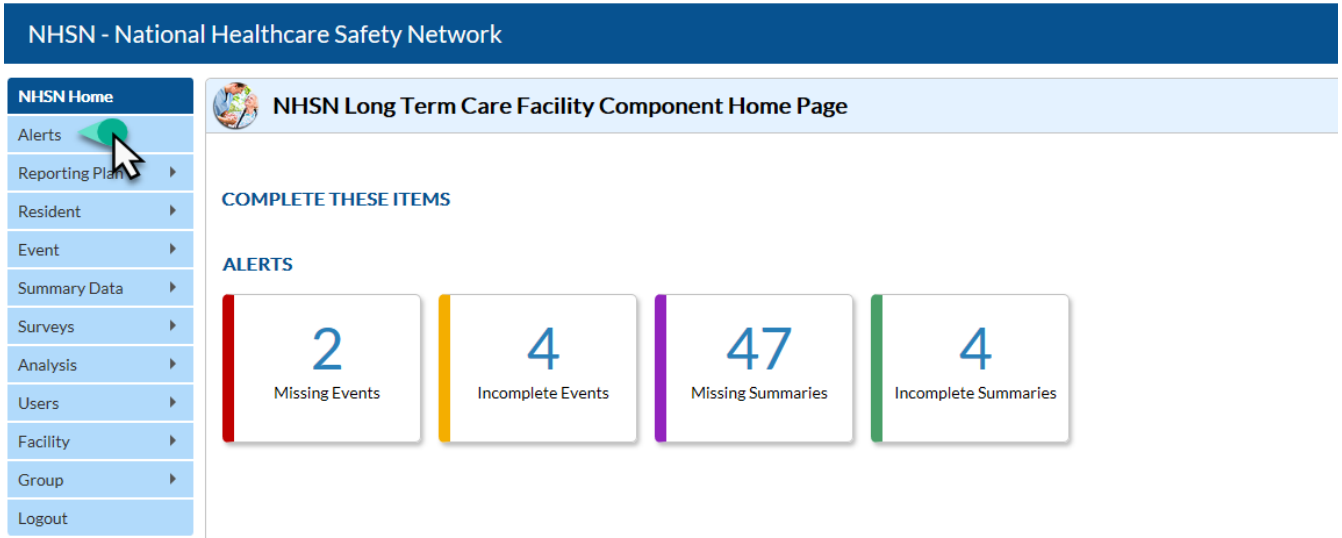
RESOLVE ALERTS

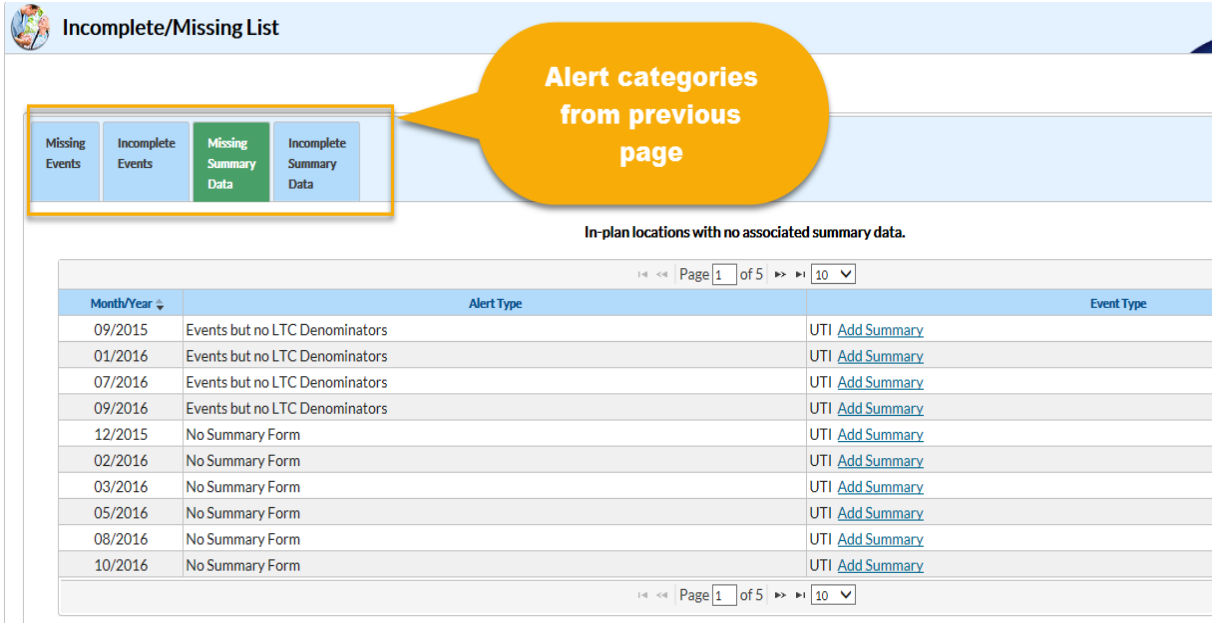
Alerts

- 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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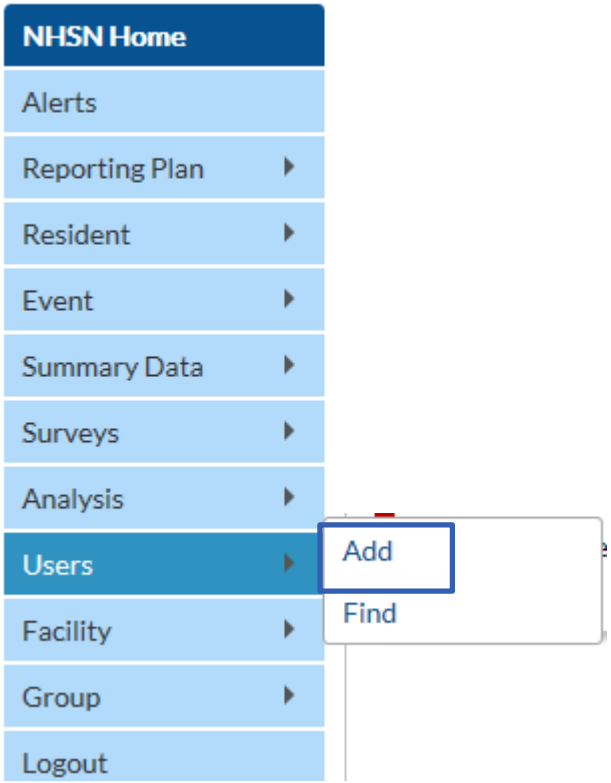
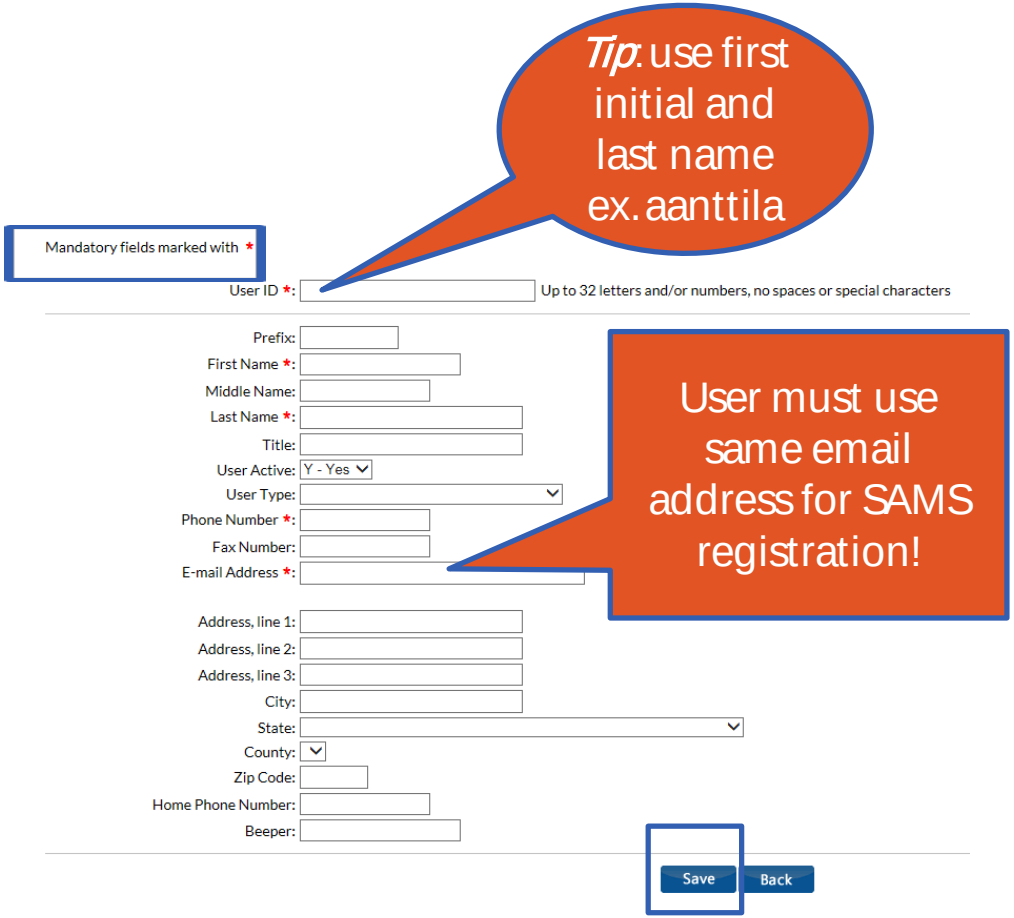
ADD NHSN USERS

ADD NHSN Users

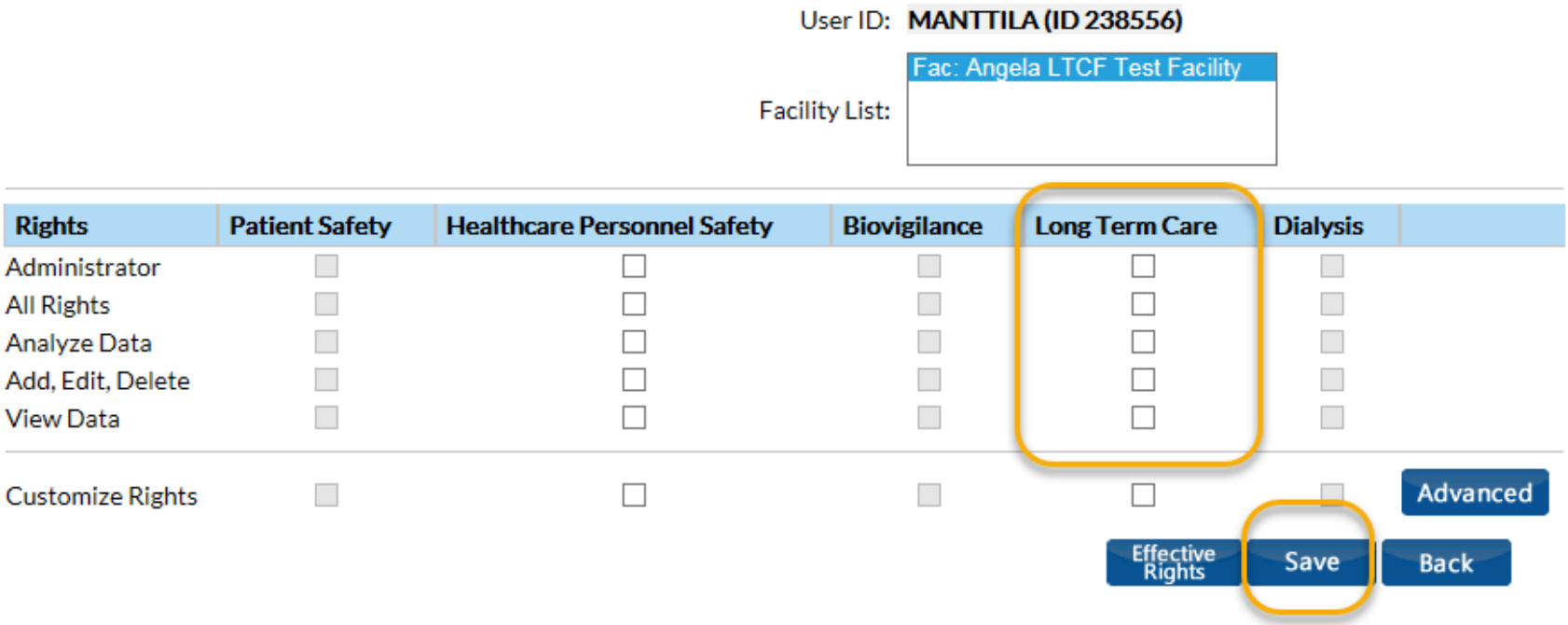
- The NHSN Facility Administrator has option to add additional users to access NHSN data
- It is recommended that each facility have at least two NHSN users
- The NHSN Facility Administrator assigns rights to each user
  - enable users to view, add, edit, delete, analyze NHSN data
- Once a new user is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

ADD NHSN Users



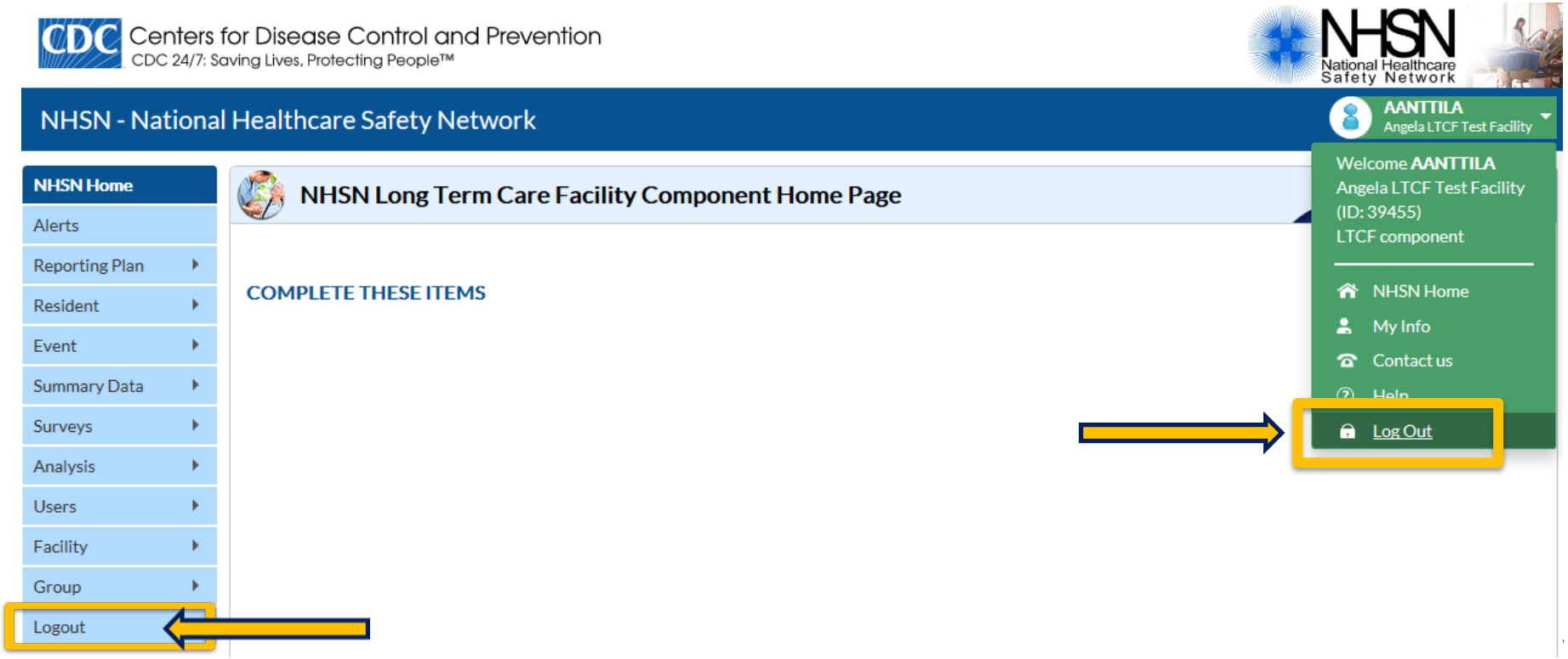


ADD NHSN User
Assign and Save Rights



Remember……

Log-out of the NHSN application before closing your browser



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- ☑ 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.*

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”