The National Healthcare Safety Network (NHSN)

Long Term Care Facility Component
Tracking Infections in Long-term Care Facilities

Division of Healthcare Quality Promotion
National Center for Emerging and Zoonotic Infectious Diseases
Atlanta, GA, USA

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NOTE: The embedded protocols, forms, table of instructions, and supporting website documents retain their individual page numbers as shown on the LTCF web-page. Additionally, the embedded hyper-links will redirect users to the documents posted on the LTCF website.

Section 1: LTCF Version History

Release Year	Summary of Revisions
2012	NHSN LTCF Component Launched
2015	• Denominator: two new variables, "new antibiotic starts for UTI indication" and "number of admissions on *C.difficile* treatment." • Ertapenem added as antimicrobial agent for MDR-*Acinetobacter*.
2016	• Generalized use of "with no alternate source" no longer applicable to all signs and symptoms in UTI protocols. • Fever and hypotension no longer excluded from UTI protocol if resident has another potential infection source. • Yeast and non-bacteria organisms removed as acceptable UTI pathogens. • "Has resident been discharged from an acute care facility in the previous 3 months" changed to 4 weeks in LabID Event protocol. • Analysis: new group-level and facility-level LO CDI Incident Rate tables.
2017	• UTI event protocol: "has resident been discharged from an acute care facility in the previous 3 months" changed to 4 weeks. • Annual survey: three additional questions added to antimicrobial stewardship section. • Denominator: new variable added, "number of urine cultures ordered." • Following clarifications made to LabID Event protocol o CDI testing on loose/unformed stool only o Qualifying specimens include specimens collected while resident is housed in the LTCF and specimens collected from emergency department or outpatient setting during the resident's • Clarification foot notes added to CDI LabID Event rate table. • Organism lists updated (impacts UTI reporting) o NHSN All Organisms list updated o Common Commensal list- 13 genera added
2018	• Events: The entry of the resident's social security number changed from "required" to "optional." • Annual survey: optional water management program section added to the survey to address Legionella and waterborne pathogen prevention. • Annual survey: PCR added as an example of Nucleic acid amplification test (NAAT) (e.g., PCR, LAMP) on question #3. • Analysis: business rules added to improve denominator reporting accuracy. • Analysis: facility name added as a variable to allow group users to produce a report with the facility name. • Analysis: custom field variable name table added to analysis to allow users to efficiently map their custom fields when producing a report.

	• UTI event page: updates made to UTI event section of the NHSN application to improve language consistency between event form and NHSN application. • General: e.g., replaced with "for example" and i.e., replaced with "specifically" throughout protocols. • Enrollment: updated language and consent process for NHSN Agreement to Participate.
2019	• *Annual Facility Survey*: To assist in improving data quality, a pop-up message will appear as a reminder to verify the primary testing method for *C. difficile* when: (1) An uncommon *C. difficile* testing method is selected (specifically, culture or cell cytotoxicity neutralization assay); or (2) "Other" is selected and the testing method that is manually typed in the space is equivalent to one of the provided testing methods. • *Summary Data*: Added a new required variable called "CDI Treatment Starts" to enable an estimate of CDI burden in a facility when empiric treatment for CDI occurs in the absence of confirmatory testing. • *General: Clostridium difficile* infection (CDI), also known as *C. difficile* infection, has been reclassified as *Clostridioides difficile* (CDI), also known as *C. difficile* infection. Note: Currently, the update is only reflected in the NHSN protocols, forms, and table of instructions. • *Event Reporting-All Modules*: To assist in improving data quality, a pop-up message will appear on the Event Page if the selected Resident Type (Short Stay [SS] or Long Stay [LS]) does not meet the NHSN definition based on the date of first admission and the event date. • *UTI Event*: Updates to urine culture requirements – removed collection method specific criteria. Instead, to be considered a qualifying urine culture, the positive culture must contain no more than 2 species of microorganisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml. • *Analysis and Reporting*: In the NHSN line listing and rate tables, the column titles were updated to reflect the descriptive variable names as the default instead of the variable names. • *Analysis and Reporting*: The following additional variables added as columns to the default Line Listing - All CDI LabID Events: (1) CDI Assay; (2) Onset; (3) Onset Description; and (4) Days: Admit to Event. Definitions for incident and recurrent CDI added as footnotes to Line Listing - All CDI LabID Events.

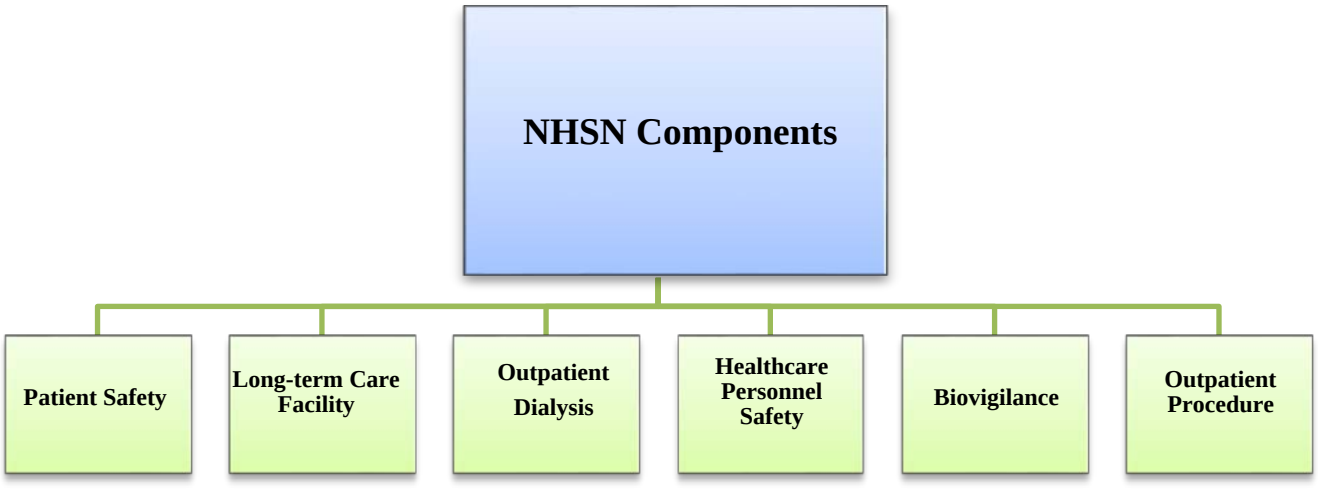
Section 2: National Healthcare Safety Network (NHSN) Overview

The National Healthcare Safety Network (NHSN) is a secure, Internet-based surveillance system that expands and integrates patient and healthcare personnel safety surveillance systems managed by the Division of Healthcare Quality Promotion (DHQP) at the Centers for Disease Control and Prevention. In addition, facilities that participate in certain reporting programs operated by the Centers for Medicare and Medicaid Services (CMS) can do so through use of NHSN. Furthermore, some U.S. states use NHSN as a means for healthcare facilities to submit data on healthcare- associated infections (HAIs) and transfusion-related adverse events mandated through their specific state legislation.

NHSN enables healthcare facilities to collect and use data about HAIs, adherence to clinical practices known to prevent HAIs, the incidence or prevalence of multidrug- resistant organisms within their organizations, trends and coverage of healthcare personnel safety and vaccination, and adverse events related to the transfusion of blood and blood products.

The NHSN includes six components: Patient Safety, Long-term Care Facility, Healthcare Personnel Safety, Biovigilance, Outpatient Dialysis, and Outpatient Procedure. (Figure 1)

Figure 1: NHSN Components



Options for Long-term Care Facilities

Long-term care facilities have two options for participating in the NHSN, which include the Long-term Care Facility (LTCF) Component and the Healthcare Personnel Safety (HPS) Component. The focus of this manual is on participation in the LTCF Component. If users are interested in learning more about reporting options for healthcare worker influenza vaccinations, the Healthcare Personnel Vaccination Module can be found here- https://www.cdc.gov/nhsn/ltc/vaccination/index.html

Section 3: Surveillance

Surveillance Overview

Surveillance is defined as the ongoing systematic collection, analysis, interpretation, and dissemination of data. A facility infection prevention and control (IPC) program should use surveillance to identify infections and monitor performance of practices to reduce infection risks among residents, staff and visitors. Information collected during surveillance activities can be used to develop and track prevention priorities for the facility.

When conducting surveillance, facilities should use clearly defined surveillance definitions that are collected in a consistent way. This method ensures accurate and comparable data regardless of who is performing surveillance. The NHSN LTCF modules provide standard surveillance definitions, allowing participating facilities to consistently apply well defined data elements to ensure accurate, reproducible, and comparable data.

Data collection require active, resident-based, prospective surveillance of events and their corresponding denominator data by someone trained in surveillance, such as an Infection Preventionist (IP). This means the IP shall seek out infections during a resident's stay by screening a variety of data sources, such as laboratory, pharmacy, medication regimen review, and admission/discharge/transfer reports, as well as resident charts, including history and physical exam notes, nurses/physicians notes, temperature charts, and more. This method incorporates the use of these data sources to monitor for signs and/or symptoms of an infection event (for example, urinary tract infection event) using the surveillance criteria. To minimize burden on the IP, other healthcare personnel may be trained to screen data sources for these infections (for example, Foley catheter days), but the IP should make the final determination of the event. This practice ensures consistent application of the surveillance criteria, even if different individuals are involved in the data collection process.

Laboratory-based surveillance should not be used alone, unless all possible criteria for identifying an infection are solely determined by laboratory evidence (for example, LabID event detection in the CDI/MDRO Module). NHSN provides paper forms and instructions that may be useful when collecting the required data.

Surveillance Measures and Techniques

Surveillance may include process surveillance and outcome surveillance. Process surveillance includes reviewing practices by healthcare workers directly related to resident care to identify whether facility infection prevention and control policies are being followed. Examples may include hand hygiene adherence, appropriate use of personal protective equipment such as gowns, gloves, and facemasks, adherence to safe injection practices, and infection prevention and control practices used during wound care. Using outcome surveillance, facilities incorporate infection criteria, such as those provided to NHSN users, to identify and report evidence of suspected or confirmed healthcare associated infection or communicable disease. Examples of outcome surveillance include monitoring staff and residents for infection events, which may be indicative of an outbreak or a complication as a result of care received in the facility, such as *C. difficile* infection or urinary tract infection.

There are different methods for performing outcome surveillance. The two most common methods are comprehensive and targeted. When determining which method to implement for a facility, one should consider staff time and available resources, the frequency of events being monitored, and the facility IPC program surveillance goals.

Comprehensive surveillance, also referred to as facility-wide surveillance, is an approach that involves tracking all infections among all residents in the facility. The benefit of this surveillance method is that a facility is likely to identify all infections occurring among the residents in that facility. However, comprehensive surveillance can be time and resource consuming, particularly for larger facilities, thereby limiting opportunities for analyzing data and implementing prevention activities.

A facility that conducts targeted surveillance, also referred to priority directed surveillance, focuses surveillance activities on high risk, preventable, and/or high consequence infections significant to their resident population. For example, by focusing on device associated infections in high risk units, such as skilled nursing or ventilator-dependent, facilities are able to implement prevention measures to reduce infection risks among residents in those units. Another example of targeted surveillance is monitoring epidemiological significant organisms, such as multi-drug resident organisms (for example, MRSA, VRE, and CRE) or *C. difficile* among residents in the facility. By focusing staff time and resources on a smaller number of clinically important events, more time is available for detailed data collection and analysis to identify trends and opportunities for prevention. Since targeted surveillance methods may result in missed infections and potential outbreaks, facilities should have a facility-wide process in place to detect outbreaks and multi-drug resistant organisms.

Section 4: Introduction to Long-term Care Facility Component of NHSN

Nursing homes (NH), skilled nursing facilities (SNF), and assisted living facilities, collectively known as long-term care facilities (LTCFs) provide a variety of services to people who are unable to manage independently in the community. These services may include both medical and personal care. It is estimated that over 3 million Americans receive care in U.S. NHs and SNFs each year and nearly one million persons reside in assisted living facilities. Data about infections in LTCFs are limited, but it has been estimated in the medical literature that:

- 1 to 3 million serious infections occur every year in these facilities.
- Infections include urinary tract infection, diarrheal diseases, antibiotic-resistant staph infections, and many others.
- Infections are a major cause of hospitalization and death; as many as 380,000 people die of the infections in LTCFs every year.

Eliminating infections, many of which are preventable, is a significant way to improve care and decrease costs. CDC's NHSN provides LTCFs with a customized system to track infections in a streamlined and systematic way. When facilities track infections, they can identify problems and track progress toward stopping infections. On the national level, data entered into NHSN will gauge progress toward national HAI goals.

The NHSN LTCF Component provides LTCFs with standardized surveillance methods and definitions. The Component is ideal for use by nursing homes, skilled nursing facilities, chronic care facilities, and assisted living and residential care facilities. The Component consists of three modules: (1) Healthcare-associated Infection-Urinary Tract Infections; (2) Laboratory-identified Event - *Clostridioides difficile* Infection and Multidrug-resistant Organism (CDI/MDRO); and (3) Prevention Process Measures. The LTCF surveillance protocols, training materials, data collection forms, instructions, and other supporting materials are provided on the Long-term Care Component website: https://www.cdc.gov/nhsn/ltc/index.html

Training

A variety of online training options are available for users on the NHSN LTCF Component training website, including presentations and recorded webinars. In additional to online trainings, the CDC-NHSN provides an annual in-person training at the CDC campus in Atlanta, Georgia. Additional trainings may be provided through scheduled webinars. Training opportunities are communicated to NHSN users through the NHSN quarterly newsletter and emails from the LTCF Team.

User Support

CDC-NHSN is available to answer your questions about the surveillance protocols and to help navigate the NHSN web application. Contact us via e-mail at nhsn@cdc.gov. Type "LTCF" in the subject line for quickest routing to the LTCF Team.

Long-term Care Facility Component Modules

1. Healthcare-Associated Infection Module for Urinary Tract Infection Events

The urinary tract is one of the most common sites of healthcare-associated infections, accounting for up to 20% of infections reported by long-term care facilities (LTCFs). Risk factors for developing bacteriuria and UTI include age-related changes to the genitourinary tract, comorbid conditions resulting in neurogenic bladder, and instrumentation required to manage bladder voiding. Though the prevalence of indwelling urinary catheter use in LTCFs is lower than the acute care setting, catheter-associated symptomatic UTI (CA-SUTI) can lead to complications such as cystitis, pyelonephritis, bacteremia, and septic shock. These complications can then lead to declined resident function and mobility, acute care hospitalizations, and increased mortality. NHSN enables facilities to monitor infectious complications associated with the use of indwelling urinary catheter devices and also to monitor processes related to their use, which might increase infection risk.

Urinary device-associated denominator data should be collected at the same time each day. When denominator data are available from electronic databases, these sources may be used as long as the counts are not substantially different (+/- 5%) from manually-collected counts that have been validated for a minimum of three months. See the respective device-associated event protocols for detailed surveillance instructions.

Web Page: https://www.cdc.gov/nhsn/ltc/uti/index.html

2. Laboratory-identified Event Module for *Clostridioides difficile* Infection and Multidrug Resistant Organism Events

The Laboratory-identified (LabID) Event Module of the NHSN LTCF Component is a tool designed for use in certified skilled nursing facilities/nursing homes (LTC:SKILLNURS) and intermediate/chronic care facilities for the developmentally disabled (LTC:DEVDIS) to help meet criteria outlined in guidelines for the prevention, control, and surveillance of multidrug resistance organisms (MDRO) and *C. difficile* infection (CDI). As outlined in these guidelines, these pathogens may require specialized monitoring to evaluate if intensified infection control efforts are required to reduce the occurrence of these organisms and related infections. The goal of this module is to provide a mechanism for facilities to collect, report, and analyze data that will inform infection prevention and control staff of the impact of prevention efforts. This module contains two options, one focused on CDI and the second on select MDROs.

Web Page: https://www.cdc.gov/nhsn/ltc/cdiff-mrsa/index.html

3. Prevention Process Measures Module

The Prevention Process Measures Module is a tool that allows long-term care facilities to measure the following practices: (1) adherence to hand hygiene; and/or (2) adherence to gown and glove use when caring for patients infected or colonized with a multi-drug resistant organisms or *C. difficile.*

Web Page: https://www.cdc.gov/nhsn/ltc/process-measures/index.html

Section 5: Long-Term Care Facility Annual Facility Survey

Participating facilities must complete the LTCF Annual Facility Survey at the time that they enroll in NHSN to activate the LTCF Component, and at the beginning of each calendar year thereafter. The survey is used by CDC to classify facilities for appropriate comparisons in aggregate data analyses and to learn more about common practices among LTCFs. Most survey questions are based on facility characteristics and practices during the previous calendar year. There is one exception to this rule, and that is the question about primary service type, which is based on current activities ON the day the survey is completed. For example, if the facility is enrolling in NHSN for the first time in March of 2018, report information for January 2017-December 2017 on the first LTCF Annual Facility Survey. In January 2019, complete a new survey with data from January 2018-December 2018.

The NHSN recommends that users collect all survey information using the paper form before attempting to enter data into the web application, as the survey will not save until all of the required questions are answered.

The *Instructions for Completion of Long-term Care Facility Annual Facility Survey* includes brief instructions for collection and entry of each data element on the form/web-page.

Form
https://www.cdc.gov/nhsn/forms/57.137_LTCFSurv_BLANK.pdf

Form Instructions
https://www.cdc.gov/nhsn/forms/instr/57.137-toi-annual-facility-survey.pdf

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Long Term Care Facility Component—Annual Facility Survey

*required for saving	Tracking #:
Facility ID:	*Survey Year:
*National Provider ID:	State Provider #:

Facility Characteristics

*Ownership (check one):

☐ For profit ☐ Not for profit, including church ☐ Government (not VA) ☐ Veterans Affairs

*Certification (check one):

☐ Dual Medicare/Medicaid ☐ Medicare only ☐ Medicaid only ☐ State only

*Affiliation (check one): ☐ Independent, free-standing ☐ Independent, continuing care retirement community

☐ Multi-facility organization (chain) ☐ Hospital system, attached ☐ Hospital system, free-standing

In the previous calendar year:

*Average daily census: _____

*Total number of short-stay residents: _____ Average length of stay for short-stay residents: _____

*Total number of long-stay residents:_____ Average length of stay for long-stay residents:_____

*Total number of new admissions: _____

*Number of Beds: _____ *Number of Pediatric Beds (age <21):_____

*Indicate which of the following primary service types are provided by your facility. On the day of this survey, indicate the number of residents receiving those services (list only one service type per resident, i.e. total should sum to resident census on day of survey completion):

Primary Service Type	Service provided?	Number of residents
a. Long-term general nursing:	☐	_____
b. Long-term dementia:	☐	_____
c. Skilled nursing/Short-term (subacute) rehabilitation:	☐	_____
d. Long-term psychiatric (non dementia):	☐	_____
e. Ventilator:	☐	_____
f. Bariatric:	☐	_____
g. Hospice/Palliative:	☐	_____
h. Other:	☐	_____

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Long Term Care Facility Component—Annual Facility Survey

Facility Microbiology Laboratory Practices

*1. Does your facility have its own laboratory that performs microbiology/antimicrobial susceptibility testing?

☐ Yes ☐ No

If No, where is your facility's antimicrobial susceptibility testing performed? (check one)

☐ Affiliated medical center, within same health system ☐ Medical center, contracted locally

☐ Commercial referral laboratory

*2. Indicate whether your facility screens new admissions for any of the following multidrug-resistant organisms (MDROs): (check all that apply)

☐ We do not screen new admissions for MDROs

☐ Methicillin-resistant *Staphylococcus aureus* (MRSA)

If checked, indicate the specimen types sent for screening: (check all that apply)

☐ Nasal swabs ☐ Wound swabs ☐ Sputum ☐ Other skin site

☐ Vancomycin-resistant *Enterococcus* (VRE)

If checked, indicate the specimen types sent for screening: (check all that apply)

☐ Rectal swabs ☐ Wound swabs ☐ Urine

☐ Multidrug-resistant gram-negative rods (includes carbapenemase resistant Enterobacteriaceae; multidrug-resistant *Acinetobacter*, etc.)

If checked, indicate the specimen types sent for screening: (check all that apply)

☐ Rectal swabs ☐ Wound swabs ☐ Sputum ☐ Urine

*3. What is the primary testing method for *C. difficile* used most often by your facility's laboratory or the outside laboratory where your facility's testing is performed? (check one)

☐ Enzyme immunoassay (EIA) for toxin

☐ Cell cytotoxicity neutralization assay

☐ Nucleic acid amplification test (NAAT) (e.g., PCR, LAMP)

☐ NAAT plus EIA, if NAAT positive (2-step algorithm)

☐ Glutamate dehydrogenase (GDH) antigen plus EIA for toxin (2-step algorithm)

☐ GDH plus NAAT (2-step algorithm)

☐ GDH plus EIA for toxin, followed by NAAT for discrepant results

☐ Culture (*C. difficile* culture followed by detection of toxins)

☐ Other (specify): _____

("Other" should not be used to name specific laboratories, reference laboratories, or the brand names of *C. difficile* tests; most methods can be categorized accurately by selecting from the options provided. Please ask your laboratory, refer to the Tables of Instructions for this form, or conduct a search for further guidance on selecting the correct option to report.)

*4. Does your laboratory provide a report summarizing the percent of antibiotic resistance seen in common organism identified in cultures sent from your facility (often called an antibiogram)?

☐ Yes ☐ No

If Yes, how often is this summary report or antibiogram provided to your facility? (check one)

☐ Once a year ☐ Every 2 years ☐ Other (specify): _____

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Long Term Care Facility Component—Annual Facility Survey

Infection Prevention and Control Practices

*5. Total staff hours per week dedicated to infection prevention and control activity in facility: _____

a. Total hours per week performing surveillance: _____

b. Total hours per week for infection prevention and control activities other than surveillance: _____

*6. Is it a policy in your facility that use of gowns/gloves are required for care of residents infected or colonized with MRSA? (check one)

☐ Yes, all infected and colonized residents

☐ Yes, only residents with active infection

☐ Yes, only those with certain characteristics that make them high-risk for transmission (e.g., wounds, diarrhea, presence of an indwelling device)

☐ No

*7. Is it a policy in your facility that use of gowns/gloves are required for care of residents infected or colonized with VRE? (check one)

☐ Yes, all infected and colonized residents

☐ Yes, only residents with active infection

☐ Yes, only those with certain characteristics that make them high-risk for transmission (e.g., wounds, diarrhea, presence of an indwelling device)

☐ No

*8. Is it a policy in your facility that use of gowns/gloves are required for care of residents infected or colonized with CRE? (check one)

☐ Yes, all infected and colonized residents

☐ Yes, only all residents with active infection

☐ Yes, only those with certain characteristics that make them high-risk for transmission (e.g., wounds, diarrhea, presence of an indwelling device)

☐ No

*9. Is it a policy in your facility that use of gowns/gloves are required for care of residents infected or colonized with ESBL-producing or extended spectrum cephalosporin resistant Enterobacteriaceae? (check one)

☐ Yes, all infected and colonized residents

☐ Yes, only residents with active infection

☐ Yes, only those with certain characteristics that make them high-risk for transmission (e.g., wounds, diarrhea, presence of an indwelling device)

☐ No

*10. When a resident colonized or infected with an MDRO is transferred to another facility, does your facility communicate the resident's MDRO status to the receiving facility at the time of transfer? ☐ Yes ☐ No

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Long Term Care Facility Component—Annual Facility Survey

Infection Prevention and Control Practices (continued)

*11. Among residents with an MDRO admitted to your facility from other healthcare facilities, what percentage of the time does your facility receive information from the transferring facility about the resident's MDRO status? _____ %

Antibiotic Stewardship Practices

*12. Are there one or more individuals responsible for the impact of activities to improve use of antibiotics at your facility? ☐ Yes ☐ No

If Yes, what is the position of the individual(s)? (select all that apply)

☐ Medical director ☐ Director of Nursing

☐ Consultant Pharmacist ☐ Other (please specify): _____

*13. Does your facility have a policy that requires prescribers to document an indication for all antibiotics in the medical record or during order entry? ☐ Yes ☐ No

If Yes, has adherence to the policy to document an indication been monitored? ☐ Yes ☐ No

*14. Does your facility provide facility-specific treatment recommendations, based on national guidelines and local susceptibility, to assist with antibiotic decision making for common clinical conditions? ☐ Yes ☐ No

If Yes, has adherence to facility-specific treatment recommendations been monitored? ☐ Yes ☐ No

*15. Is there a formal procedure for performing a follow-up assessment 2-3 days after a new antibiotic start to determine whether the antibiotic is still indicated and appropriate (e.g. antibiotic time out)? ☐ Yes ☐ No

*16. Does a physician, nurse, or pharmacist review courses of therapy for specified antibiotic agents and communicate results with prescribers (i.e., audit with feedback) at your facility? ☐ Yes ☐ No

If Yes, What type of feedback is provided to prescribers? (check all that apply)

☐ Feedback on antimicrobial route and/or dosing

☐ Feedback on the selection of antimicrobial therapy and/or duration of therapy

☐ Other (please specify): _____

*17. Does the pharmacy service provide a monthly report tracking antibiotic use (e.g., new orders, number of days of antibiotic treatment) for the facility? ☐ Yes ☐ No

*18. Has your facility provided education to clinicians and other relevant staff on improving antibiotic use in the past 12 months? ☐ Yes ☐ No

*19. Does your facility have a written statement of support from leadership that supports efforts to improve antibiotic use? ☐ Yes ☐ No

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Long Term Care Facility Component—Annual Facility Survey

Antibiotic Stewardship Practices (continued)

*20. Are antibiotic use and resistance data reviewed by leadership in quality assurance/performance improvement committee meetings? ☐ Yes ☐ No

*21. Does your facility have access to individual(s) with antibiotic stewardship expertise (e.g., consultant pharmacist trained in antibiotic stewardship, stewardship team at referral hospital, external infectious disease/stewardship consultant)? ☐ Yes ☐ No

Electronic Health Record Utilization

*22. Indicate whether any of the following are available in an electronic health record (check all that apply):

- ☐ Microbiology lab culture and antimicrobial susceptibility results
- ☐ Medication orders
- ☐ Medication administration record
- ☐ Resident vital signs
- ☐ Resident admission notes
- ☐ Resident progress notes
- ☐ Resident transfer or discharge notes
- ☐ None of the above

Facility Water Management and Monitoring Program

23. Have you ever conducted a facility risk assessment to identify where *Legionella* and other opportunistic waterborne pathogens (e.g. *Pseudomonas, Acinetobacter, Burkholderia, Stenotrophomonas*, nontuberculous mycobacteria, and fungi) could grow and spread in the facility water system (e.g., piping infrastructure)? ☐ Yes ☐ No

If Yes, when was the most recent assessment conducted? (Check one)

- ☐ ≤ 1 year ago
- ☐ >1 and ≤ 3 years ago
- ☐ > 3 years ago

24. Does your facility have a water management program to prevent the growth and transmission of *Legionella* and other opportunistic waterborne pathogens? ☐ Yes ☐ No

If Yes, who is represented on the team? (Check all that apply)

- ☐ Facility Administrator
- ☐ Nursing Leadership (e.g., DON or ADON)
- ☐ Consultant
- ☐ Facilities Manager/ Engineer
- ☐ Maintenance Staff
- ☐ Infection Preventionist
- ☐ Risk/Quality Management Staff
- ☐ Medical Director
- ☐ Equipment/ Chemical
- ☐ Other (specify):_____

25. Do you regularly monitor the following parameters in your building's water system? (Check all that apply)

Disinfectant (such as residual chlorine) ☐ Yes ☐ No

If Yes, do you have a plan for corrective actions when disinfectant levels are not within acceptable limits as determined by your water management program? ☐ Yes ☐ No

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Long Term Care Facility Component—Annual Facility Survey

Temperature ☐ Yes ☐ No		
If Yes, do you have a plan for corrective actions when temperatures are not within acceptable limits as determined by your water management program?	☐ Yes	☐ No
Heterotrophic plate counts ☐ Yes ☐ No		
If Yes, do you have a plan for corrective actions when heterotrophic plate counts are not within acceptable limits as determined by your water management program?	☐ Yes	☐ No
Specific tests for *Legionella* ☐ Yes ☐ No		
If Yes, do you have a plan for corrective actions when specific tests for *Legionella* are not within acceptable limits as determined by your water management program?	☐ Yes	☐ No

Table 1. Instructions for Completion of the Long-term Care Facility Component - Annual Facility Survey (CDC 57.137)

Note: unless otherwise stated, the responses to this annual survey should be based on the facility characteristics and practices during the previous calendar year (2018).

Data Field	Instructions for Form Completion
Facility ID	**Required**. The NHSN-assigned facility ID will be auto-entered by the system.
Survey Year	**Required**. Select the calendar year for which this survey was completed. The survey year should represent the last full calendar year, unless otherwise stated. For example, in 2019, a facility would complete a 2018 survey.
National Provider ID	**Required**. Enter your facility National Provider ID (10-digit number).
State Provider ID	*Optional*. If available, enter your facility State Provider ID.
Facility Characteristics	
Ownership	**Required**. Select the appropriate ownership of this facility (*check one*). • For profit • Not for profit, including church • Government (Not Veterans Affairs [VA]) • Veterans Affairs
Certification	**Required**. Select the appropriate certification of this facility (*check one*). • Dual Medicare/Medicaid • Medicare only • Medicaid only • State only
Affiliation	**Required**. Select the appropriate affiliation for this facility (*check one*): • Independent, free-standing - The facility does not share a building, staff, or policies (such as infection control) with any other healthcare institution. • Independent, continuing care retirement community – This facility is not affiliated with any other healthcare system, but is part of a campus containing other levels of elder care services. • Multi-facility organization (chain) - The facility is part of a regional or national network of specialty facilities. Facilities share policies (such as infection control), corporate leadership, and a common business structure. • Hospital system, attached - The facility is affiliated with a local healthcare system. Facility shares policies (such as infection control) with other institutions within the hospital system. The facility is physically connected to the hospital within the system. • Hospital system, free-standing - The facility is affiliated with a local healthcare system. Facility shares policies (such as infection control) with other institutions within the hospital system. The facility is not physically connected to the hospital within the system.

Average daily census	**Required**. Enter the average daily census for your facility during the last full calendar year (12 months).
Total number of short-stay residents	**Required**. Enter the total number of unique residents who stayed **≤ 100** days in the previous calendar year. **Note:** If a person starts off as short stay but converts to long-stay, then count the resident in the total number of long-stay.
Total number of long-stay residents	**Required**. Enter the total number of unique residents who stayed **> 100** days in the previous calendar year.
Average length of stay for short-stay residents	*Optional.* Enter the average length of stay for short-stay residents for your facility during the last full calendar year.
Average length of stay for long-stay residents	*Optional.* Enter average length of stay for long-stay residents for your facility during the last full calendar year.
Total number of new admissions	**Required**. Enter the total number new admissions to your facility during the last full calendar year. A new admission is defined as a new resident entering the facility for the first time or a readmission if the resident was out of the facility >2 calendar days (specifically, a change to the *Current Admission Date*)
Number of beds	**Required**. Enter the total number of beds (including any pediatric beds) for your facility.
Number of pediatric (age < 21) beds	**Required**. Enter the number of pediatric beds for your facility. Pediatric beds are defined as those beds dedicated to residents that are less than 21 years of age. If you have no pediatric beds at your facility report zero.
Indicate which of the following primary service types are provided by your facility. For each service indicated: ***On the day of this survey***, how many residents are receiving care in your facility by the following primary service types	**Required**. For each primary service type listed, check the box only if your facility provides this primary service type. For the primary service types your facility provides (those with boxes checked), indicate the number of residents primarily receiving that service ***on the day this survey is completed***. Only list one service type per resident and this should be the primary service (or most specialized care) the resident is receiving. For example, a resident may be admitted for skilled care while on a ventilator. That resident would be counted as "ventilator care". A resident who is long-stay but on a specialized dementia unit would be listed as "long-term dementia". The total sum of residents per service type reported should be equal to the resident census on the day the survey is completed. • Long-term general nursing: • Long-term dementia: • Skilled nursing and/or short-term (sub-acute) rehabilitation: • Long-term psychiatric (non-dementia): • Ventilator: • Bariatric: • Hospice/Palliative: • Other:

Facility Microbiology Laboratory Practices *Completion of this section may require the assistance from the microbiology laboratory.*	
1. Does your facility have its own laboratory that performs antimicrobial susceptibility testing? If 'No', where is the facility's antimicrobial susceptibility testing performed? *(Check One)*	**Required**. Select 'Yes' if your laboratory performs antimicrobial susceptibility testing. Otherwise, select 'No'. *Conditionally Required*. If 'No' is selected, select the location where your facility's antimicrobial susceptibility testing is performed (*check one*): • Affiliated medical center, within same health system • Commercial referral laboratory • Medical center, contracted locally • Other **Note:** If multiple laboratories are used, select the laboratory which performs the **majority** of the bacterial susceptibility testing.
2. Indicate whether your facility screens new admissions for any of the following multidrug-resistant organisms (MDROs). *(Check all that apply)* For each MDRO selected, indicate the specimen type(s) sent for screening. *(Check all that apply)*	**Required.** Indicate, by checking the appropriate box(es), if your facility obtains screening cultures (Active Surveillance Testing) on newly admitted residents for the following multidrug-resistant organisms (MDROs): (c*heck all that apply*) • **We do not screen new admissions for MDROs**: Select this box if your facility <u>does not</u> obtain screening cultures on new admissions for any of the MDROs listed. **NOTE:** if this box is checked, no other boxes should be selected. • **Methicillin-resistant *Staphylococcus aureus* (MRSA)**: *Conditionally Required*. If checked, indicate the specimen type(s) that are sent for screening. (C*heck all that apply*) o Nasal swabs o Wound swabs o Sputum o Other skin site • **Vancomycin-resistant *Enterococcus* (VRE)**: *Conditionally Required*. If checked, indicate the specimen type(s) that are sent for screening. (*Check all that apply*) o Rectal swabs o Wound swabs o Urine • **Multidrug-resistant gram-negative rods** (includes carbapenemase-resistant *Enterobacteriaceae*; multidrug-resistant *Acinetobacter*, etc.): If checked, indicate the specimen type(s) that are sent for screening. (*Check all that apply*) o Rectal swabs o Wound swabs o Sputum o Urine

3. What is the primary testing method for *C. difficile* used most often by your facility's laboratory or the outside laboratory where your facility's testing is performed? (*Check one)*	**Required.** Select, from the choices listed, the testing methods used to perform *C. difficile* testing by your facility's laboratory or the outside laboratory where your facility's testing is done. If 'Other' is selected, please specify. • Enzyme immunoassay (EIA) for toxin • Cell cytotoxicity neutralization assay (CCNA): **this option is an uncommon testing method. Verify with the laboratory before selecting this method.** • Nucleic acid amplification test (NAAT): Includes Polymerase Chain Reaction (PCR) and loop-mediated isothermal amplification (LAMP) • NAAT plus EIA, if NAAT positive (2-step algorithm) • Glutamate dehydrogenase (GDH) antigen plus EIA for toxin: two step testing method • GDH plus NAAT: two step testing method • GDH plus EIA for toxin, followed by NAAT for discrepant results: three step testing method • Culture: **this option is an uncommon testing method. Verify with the laboratory before selecting this method.** • Other: **this is an uncommon choice, as most methods can be categorized accurately by selecting from the options provided**. **Notes:** **1.** 'Other' should not be used to name specific laboratories, reference laboratories, or the brand names of C. *difficile* tests; most methods can be categorized accurately by selecting from the options provided. Please ask your laboratory or conduct a search for further guidance on selecting the correct option to report. **2.** If your facility uses more than one laboratory, you are encouraged to contact the diagnostic laboratory to which the majority of the resident samples/specimens are sent. In discussion with that laboratory, facilities can identify the primary diagnostic testing method for *C. difficile* used by that laboratory.
4. Does your laboratory provide a report summarizing the percent of antibiotic resistance seen in common organisms identified in cultures sent from your facility (often called an antibiogram)? If 'Yes', indicate how often this summary report is provided.	**Required.** Select 'Yes' if your laboratory provides your facility with a summary report of antibiotic resistance patterns in common bacterial organisms identified in cultures sent from your facility. This report may be called a facility antibiogram. Otherwise, select 'No'. **Note:** This summary is NOT the same as antibiotic susceptibility testing provided on culture reports for individual residents. ***Conditionally required***. If 'Yes' is selected, indicate whether the summary report or antibiogram is provided once a year, every two years, or Other. If 'Other' is selected, specify the frequency.

Infection Prevention and Control Practices	
5. Total staff hours dedicated to infection prevention and control activities in the facility.	**Required**. Enter estimated hours per week that are dedicated to ALL infection prevention and control activities in your facility. If multiple staff members are responsible for parts of the infection prevention and control program, combine the hours spent per week by each person.
a. Total hours per week performing surveillance	**Required**. Based on the total hours dedicated to all program activities, enter the estimated number of hours per week engaged in identifying and reporting healthcare-associated infections and the appropriate denominators.
b. Total hours per week for infection prevention activities other than surveillance	**Required**. Based on the total hours dedicated to all program activities, enter the estimated number of hours per week spent on infection prevention and control activities other than surveillance. These activities include, but are not limited to, education, prevention, meetings, etc.
6. Is it a policy in your facility that use of gowns/gloves are required for care of residents infected or colonized with MRSA? *(Check one)*	**Required.** Select the single best choice from the choices listed that most accurately describes the policy's primary approach to using gowns/gloves for care of residents with methicillin resistant *Staphylococcus aureus* (MRSA) at your facility. Select 'No' if your facility does not have a policy that requires use of gowns/gloves during care of residents infected or colonized with MRSA.
7. Is it a policy in your facility that use of gowns/gloves are required for care of residents infected or colonized with VRE?	**Required.** Select the single best choice from the choices listed that most accurately describes the policy's primary approach to using gowns/gloves for care of residents with vancomycin resistant *Enterococcus* (VRE) at your facility. Select 'No' if your facility does not have a policy that requires the use of gowns/gloves during care of residents infected or colonized with VRE.
8. Is it a policy in your facility that use of gowns/gloves are required for care of residents infected or colonized with CRE? *(Check one)*	**Required.** Select the single best choice from the choices listed that most accurately describes the policy's primary approach to using gowns/gloves for care of residents with Carbapenem resistant *Enterobacteriaceae* (CRE) at your facility. Select 'No' if your facility does not have a policy that requires the use of gowns/gloves during care of residents infected or colonized with CRE. **Note:** The term "*Enterobacteriaceae"* refers to a family of common gram negative bacteria which can colonize the gastrointestinal (GI) or urinary tract of frail and/or older adults. Examples of these bacteria include *E. coli, Klebsiella,* and *Enterobacter*.

9. Is it a policy in your facility that use of gowns/gloves are required for care of residents infected or colonized with ESBL-producing or extended spectrum cephalosporin resistant *Enterobacteriaceae*? *(Check one)*	**Required.** Select the single best choice from the choices listed that most accurately describes the policy's primary approach to using gowns/gloves for care of residents with extended-spectrum beta-lactamase producing (ESBL) or extended-spectrum cephalosporin resistant *Enterobacteriaceae* at your facility. Select 'No' if your facility does not have a policy that requires the use of gowns/gloves during care of residents infected or colonized with ESBL producing or extended cephalosporin resistant *Enterobacteriaceae.* **Note:** The term "*Enterobacteriaceae"* refers to a family of common gram negative bacteria which can colonize the gastrointestinal (GI) or urinary tract of frail and/or older adults. Examples of these bacteria include *E. coli, Klebsiella,* and *Enterobacter.*
10. When a resident colonized or infected with an MDRO is transferred to another facility, does your facility communicate the resident's MDRO status to the receiving facility at the time of transfer?	**Required.** Select 'Yes' if your facility **routinely** communicates the status of a patient known to be colonized or infected with a multidrug-resistant organism (MDRO) to the receiving facility at the time of patient transfer; otherwise, select 'No'.
11. Among residents with an MDRO admitted to your facility from other healthcare facilities, what percentage of the time does your facility receive information from the transferring facility about the resident's MDRO status?	**Required.** Enter the estimated percentage of the time that your facility receives information from a transferring facility about the status of a resident known to be colonized or infected with a multidrug-resistant organism (MDRO).

Antibiotic Stewardship Practices. *Completion of this by section may require assistance from the consultant pharmacist, director of nursing, and/or medical director who focus on efforts to improve antibiotic use and monitoring (known as Stewardship) for your facility.*	
12. Are there one or more individuals responsible for the impact of activities to improve use of antibiotics at your facility?	**Required.** Select 'Yes' if there are one or more individuals who have been identified as being responsible for antibiotic stewardship activities as evidenced by responsibility for improving antibiotic use in the job description or performance review, authority to coordinate activities of staff from multiple departments (for example, laboratory, pharmacy, information technology), and/or responsibility to report to facility administration/senior leaders on the antibiotic stewardship program planning and outcomes. Select 'No' if the facility leadership has not specifically given one or more individuals the responsibility, support, and authority to oversee antibiotic use and stewardship efforts in the facility.
If 'Yes', what is the position of the individuals? *(select all that apply)*	***Conditionally required***. If 'Yes', specify the qualification or job title of the leader(s). More than choice one may be selected. If 'Other' is selected, please specify the position.
13. Does your facility have a policy that requires prescribers to document an indication for all antibiotics in the medical record or during order entry?	**Required.** Select 'Yes' if your facility has a policy requiring documentation of an indication for all antibiotics in the medical record or during order entry; otherwise, select 'No'.
If 'Yes', has adherence to the policy to document an indication been monitored?	***Conditionally required***. If 'Yes' to question 13, select 'Yes' if charts or other medical record documentation are routinely reviewed to confirm documentation of an indication; otherwise, select 'No'.
14. Does your facility provide facility-specific treatment recommendations, based on national guidelines and local susceptibility, to assist with antibiotic decision making for common clinical conditions?	**Required.** Select 'Yes' if there are facility-specific recommendations for antibiotic treatment selection based on evidence-based guidelines and/or local susceptibility reports for ANY common clinical infections diagnosed and treated (for example, community required pneumonia, urinary tract infections, or skin and soft tissue infections); otherwise, select 'No'.
If 'Yes', has adherence to facility-specific treatment recommendations been monitored?	***Conditionally required***. If 'Yes' to question 14, indicate if charts have been audited to confirm adherence to facility-specific treatment guidelines for ANY of the common clinical conditions listed above by selecting 'Yes' or 'No'.

15. Is there a formal procedure for performing a follow-up assessment 2-3 days after a new antibiotic start to determine whether the antibiotic is still indicated and appropriate (for example, antibiotic time out)?	**Required.** Select 'Yes' if your facility has developed a standardized way for clinicians or nurses caring for a resident to reassess the continuing need and choice of antibiotics between 2-3 days after a new antibiotic start in order to determine the following: confirm indication, review microbiology results, and review antibiotic choice, dose, and duration; Otherwise, select 'No'.
16. Does a physician, nurse or pharmacist review courses of therapy for specified antibiotic agents and communicate results with prescribers (specifically, audit with feedback) at your facility? If 'Yes', What type of feedback is provided to prescribers? (check all that apply)	**Required.** Select 'Yes' if your facility has a physician, nurse or pharmacist knowledgeable in antibiotic use, *and not part of the treating team*, review courses of therapy for specified antibiotic agents **and** communicate the results to the providers caring for the resident; otherwise, select 'No'. ***Conditionally required***. If 'Yes', specify the what type of feedback is provided to prescribers. More than choice one may be selected. If 'Other' is selected, please specify the position.
17. Does the pharmacy service provide a monthly report of antibiotic use (for example, new orders, number of days of antibiotic treatment) for the facility?	**Required.** Select 'Yes' if your pharmacy service provides your facility with a report which summarizes the antibiotic use in your facility on a monthly basis. This report could include a list of all antibiotics started each month or number of days of antibiotics used each month; Select 'No' if no report specifically describing on antibiotic use is provided to the facility every month.
18. Has your facility provided education to clinicians and other relevant staff on improving antibiotic use in past 12 months?	**Required.** Select 'Yes' if your facility has provided specific education on ways to improve antibiotic use to providers, nurses, and other relevant staff (for example, in-service training, direct instruction, etc.); Otherwise, select 'No'.
19. Does your facility have a written statement of support from leadership that supports efforts to improve antibiotic use?	**Required.** Select 'Yes' if your facility has a written statement of support from leadership that supports efforts to improve antibiotic use; Otherwise, select 'No'.
20. Are antibiotic use and resistance data reviewed by leadership in quality assurance/performance improvement committee meetings?	**Required.** Select 'Yes' if antibiotic use and resistance data reviewed by leadership in quality assurance/performance improvement committee meetings; Otherwise, select 'No'.

21. Does your facility have access to individual(s) with antibiotic stewardship expertise (for example, consultant pharmacist trained in antibiotic stewardship, stewardship team at referral hospital, external infectious disease/stewardship consultant)?	**Required.** Select 'Yes' if your facility access to individual(s) with antibiotic stewardship expertise (for example, consultant pharmacist trained in antibiotic stewardship, stewardship team at referral hospital, external infectious disease/stewardship consultant); Otherwise, select 'No'.
Electronic Health Record Utilization	
22. Indicate whether any of the following are available in an electronic health record. (*Check all that apply*)	**Required**. Indicate by checking the appropriate box(es) whether any of the following are available in an electronic health record at your facility. (*Check all that apply*). • Microbiology lab culture and antimicrobial susceptibility results • Medication orders • Medication administration record • Resident vital signs • Resident admission notes • Resident progress notes • Resident transfer or discharge notes • None of the above
Facility Water Management and Monitoring Program	
23. Have you ever conducted a facility risk assessment to identify where *Legionella* and other opportunistic waterborne pathogens could grow and spread in the facility water system?	*Optional.* Select 'Yes' if your facility has conducted a facility risk assessment to identify where *Legionella* and other opportunistic waterborne pathogens (for example, *Pseudomonas*, *Acinetobacter, Burkholderia*, *Stenotrophomonas*, nontuberculous mycobacteria, and fungi) could grow and spread in the facility water system (for example, piping infrastructure); Otherwise, select 'No'
If Yes, when was the most recent assessment conducted? *(Check one)*	***Conditionally required***. If 'Yes', specify the time period in which the most recent assessment was conducted. If 'Other' is selected, please specify the time period.

24. Does your facility have a water management program to prevent the growth and transmission of *Legionella* and other opportunistic waterborne pathogens? If Yes, who is represented on the team? *(Check all that apply)*	*Optional*. Select 'Yes' if your facility has a water management program to prevent the growth and transmission of *Legionella* and other opportunistic waterborne pathogens; Otherwise, select 'No' ***Conditionally required***. If 'Yes', specify the roles of the team members represented on the water management program team. If 'Other' is selected, please specify the role of the team member.
25. Do you regularly monitor the following parameters in your building's water system? *(Check all that apply)* If Yes, do you have a plan for corrective actions when disinfectant levels are not within acceptable limits as determined by your water management program?	*Optional*. Select 'Yes' if your facility regularly monitors the following parameters in your building's water system; Otherwise, select 'No' • Disinfectant (such as residual chlorine) • Temperature • Heterotrophic plate counts • Specific tests for *Legionella* ***Conditionally required***. For each parameter, if 'Yes', specify if your facility has a plan for corrective actions when the specific parameter is not within acceptable limits as determined by your water management program?

Section 6: Long-term Care Facility Monthly Reporting Plan

Participating facilities must enter a monthly reporting plan for each month they plan to submit data to NHSN. The purpose of the Long-term Care Facility Monthly Reporting Plan is to inform CDC-NHSN which long-term care modules are used during a given month. This guides NHSN on what data to expect from the user in a given month and allows CDC-NHSN to select the data that should be included into the aggregate data pool for analysis. Each participating facility is to enter a monthly plan to indicate the module to be used, if any.

A plan must be completed for every month that data are entered into NHSN, although a facility may choose "No Long-term care Modules Followed this Month" as an option if a plan was initially completed, but the facility later decided not to perform surveillance for the specified calendar month. The *Instructions for Completion of Long-term Care Facility Monthly Reporting Plan* includes brief instructions for collection and entry of each data element on the form/web-page.

Form
https://www.cdc.gov/nhsn/forms/57.141_ReportPlan_LTCF_BLANK.pdf

Form Instructions
https://www.cdc.gov/nhsn/forms/instr/57.141-toi-monthly-reporting.pdf

Form Approved
OMB No. 0920-0666
Exp. Date: 11/30/2021
www.cdc.gov/nhsn

Monthly Reporting Plan for LTCF

*required for saving

Facility ID: _____ *Month/Year:_____/_____

Healthcare Associated Infection (HAI)

+Locations	UTI
FacWideIN	☐

LabID Event

+Locations	Specific Organism Type	±LabID Event All Specimens
FacWideIN	_____	☐
FacWideIN	_____	☐
FacWideIN	_____	☐
FacWideIN	_____	☐
FacWideIN	_____	☐
FacWideIN	_____	☐
FacWideIN	_____	☐

Prevention Process Measures

+Location	Hand Hygiene	Gown and Gloves Use
FACWIDEIN	☐	☐

+ FacWideIN = Facility-wide Inpatient
± LabID Event = Laboratory-identified Event

Table 2. Instructions for Completion of the Long-term Care Facility Component - Monthly Reporting Plan for LTCF (CDC 57.141)

Data Field	Instructions for Form Completion
Facility ID	**Required.** The NHSN-assigned facility ID will be auto-entered by the system.
Month/Year	**Required.** Enter the month and year for the surveillance plan being recorded; use MM/YYYY format.
Healthcare-Associated Infection (HAI)	
Locations	***Conditionally required.*** The location under surveillance will always be FacWideIN (Facility-wide Inpatient) for Long-term Care Facilities. This means surveillance and reporting must be performed for all resident care locations.
UTI	***Conditionally required.*** Check this box if you plan to follow urinary tract infection (UTI) Events. You will collect and report urinary tract infection (UTI) Event data and the corresponding denominator data for the month. **Note:** Surveillance and reporting includes UTI events in residents with and without an indwelling urinary device.
LabID Event	
Locations	***Conditionally required.*** The location under surveillance will always be FacWideIN (Facility-wide Inpatient) for Long-term Care Facilities. This means surveillance and reporting must be performed for all resident care locations.
Specific Organism Type	***Conditionally required***. Select each organism you will be following for LabID Event reporting: MRSA, MRSA/MSSA (if tracking MRSA & MSSA), VRE, CephR-*Klebsiella* species, CRE (CRE-*E. coli*, CRE-*Enterobacter*, and CRE-*Klebsiella),* MDR-*Acinetobacter* species, or *C. difficile.* **Note:** If performing surveillance for CRE, the facility must include in the monthly reporting plan and conduct surveillance for all three organisms (CRE-*E.coli*, CRE-*Enterobacter*, and CRE-*Klebsiella*).
LabID Event All Specimens	***Conditionally required.*** Check the box to indicate that you plan to follow LabID Events for the specific organism type(s) entered. You will collect and report LabID Event data and the corresponding denominator data for the month. **Note:** For *C. difficile*, only loose stool specimen sources are included in surveillance and reporting. For MDROs, all specimen sources in which the organism is identified must be included in surveillance and reporting.
Prevention Process Measures	
Hand Hygiene	***Conditionally required.*** Select this option if the facility plans to monitor hand hygiene adherence in the facility.
Gown and Glove Use	***Conditionally required.*** Select this option if the facility plans to monitor gown and gloves use adherence in the facility.

Healthcare-associated Infection Surveillance Protocol for Urinary Tract Infection Events for Long-term Care Facilities

Background: The urinary tract is one of the most common sites of healthcare-associated infections, accounting for up to 20% of infections reported by long-term care facilities (LTCFs).[1] Risk factors for developing bacteriuria and UTI include age-related changes to the genitourinary tract, comorbid conditions resulting in neurogenic bladder, and instrumentation required to manage bladder voiding. The point prevalence of asymptomatic bacteriuria in LTCF residents can range from 20-50%. Although the incidence of symptomatic UTI is lower, it still comprises a significant proportion of infections manifesting in LTCF residents and results in a large amount of antibiotic use.[5]

Though the prevalence of indwelling urinary catheter use in LTCFs is lower than the acute care setting, catheter-associated UTI (CAUTI) can lead to complications such as cystitis, pyelonephritis, bacteremia, and septic shock. These complications can then lead to declined resident function and mobility, acute care hospitalizations, and increased mortality. Prevention of CAUTIs is discussed in the CDC/HICPAC document, *Guideline for Prevention of Catheter-associated Urinary Tract Infections.*[2]

Efforts to examine antibiotic use for UTI have demonstrated a discrepancy between the number UTI events identified through the application of evidence-based surveillance criteria and the numbers of clinically identified and treated UTI.[3,4] Consistent tracking and reporting of symptomatic UTIs using surveillance criteria will help identify opportunities to examine, understand, and address differences between surveillance events and clinically identified events.

References:

1. Genao L, Buhr G. T. Urinary Tract Infections in Older Adults Residing in Long-Term Care Facilities. *Annals of Long-term Care*, vol. 20, no. 4, 2012, pp. 33-38.
2. Healthcare Infection Control Practices Advisory Committee (HICPAC) Approved Guidelines for the Prevention of Catheter-associated Urinary Tract Infections, 2009. Available at www.cdc.gov/hicpac/pdf/CAUTI/CAUTIguideline2009final.pdf
3. Juthani-Mehta M., et al. Diagnostic Accuracy of Criteria for Urinary Tract Infection in a Cohort of Nursing Home Residents. *Journal of the American Geriatrics Society*, vol. 55, 2007, pp. 1072-77.
4. Wang L., et al. Infection Rate and Colonization with Antibiotic-resistant Organisms in Skilled Nursing Facility Residents with Indwelling Devices. European *Journal of Clinical Microbiology & Infectious Diseases*, vol. 31, no. 8, 2012, pp. 1797-804.
5. Nace D. A., et al. Clinical Uncertainties in the Approach to Long Term Care Residents with Possible Urinary Tract Infection. *Journal of American Medical Directors Association*. vol. 15, no. 2014, 2014, pp. 133-39.

Methods: Facilities may choose to monitor urinary tract infections (UTIs) using healthcare-associated infection (HAI) surveillance. This surveillance method incorporates the use of laboratory data and clinical evaluation of the resident for signs and/or symptoms to monitor for catheter and non-catheter-associated urinary tract infection events.

Settings: UTI Event reporting is currently available for certified skilled nursing facilities/nursing homes (LTC: SKILLNURS), and intermediate/chronic care facilities for the developmentally disabled (LTC: DEVDIS). Surveillance for UTIs should be performed facility-wide (FacWideIN).

Only UTI events presenting **> 2 calendar days** after admission (where date of admission is equal to day 1) are considered facility onset events. If a resident is transferred from an acute care facility and develops signs/symptoms of a UTI within the first 2 calendar days of admission to the LTCF, it would be considered present at the time of transfer to the LTCF. An event present at the time of transfer should be reported back to the transferring facility and not reported to NHSN as a LTCF UTI event.

Example: NHSN Classification of reportable LTCF UTI Events				
Admission date June 4th	June 5th	June 6th	June 7th	June 8th
day 1	day 2	day 3	day 4	day 5
Not a LTCF reportable UTI event		**LTCF reportable UTI event**		

Requirements: A *NHSN Monthly Reporting Plan* for the LTCF (CDC 57.141) must be completed for each calendar month in which a facility plans to enter data into the NHSN. For each participating calendar month, facilities must report numerator (catheter-associated and non-catheter-associated UTI events) and denominator data for the entire facility, referred to as facility-wide inpatient (FacWideIN). UTI surveillance should be reported for at least 6 consecutive months to provide meaningful measures.

Definitions:

Date of Event: The date when the first clinical evidence (signs/symptoms) of the UTI appeared or the date the specimen used to meet the infection criteria was collected, **whichever comes first**.

Indwelling urinary catheter: A drainage tube that is inserted into the urinary bladder *through the urethra,* is left in place, and is connected to a drainage bag/collection system (including leg bags); also called a Foley catheter. Indwelling urinary catheters do not include straight in-and-out catheters or suprapubic catheters.

Urinary tract infections (UTI) are defined using Symptomatic UTI (SUTI) criteria for residents *without* an indwelling urinary device, Catheter-Associated Symptomatic UTI (CA-SUTI) criteria for residents *with* an indwelling urinary device, or Asymptomatic Bacteremic UTI (ABUTI) criteria for residents *with or without* an indwelling urinary device.

Symptomatic UTI (SUTI): Events that occur when the resident manifests signs and symptoms, such as acute dysuria, new and/or marked increase in urinary frequency, suprapubic tenderness, etc., which localize the infection to the urinary tract. These events can occur in residents without urinary devices or those managed with urinary devices other than indwelling urinary catheters, such as suprapubic catheters, straight in-and-out catheters and condom catheters. Events occurring in residents with indwelling urinary catheters (defined below) are a sub-set of SUTIs referred to as Catheter-Associated SUTI (CA-SUTI) events. (See Figure 1 and Table 2).

Catheter-associated SUTIs (CA-SUTI): Events that occur when a resident develops signs and symptoms of a UTI while having an indwelling urinary catheter in place or removed within the 2 calendar days prior to the date of event, where day of catheter removal is equal to day 1 (*urinary catheter is in place on the day of event or the day before the event*). (See Figure 2 and Table 3). **Note:** to be considered a CA-UTI, the indwelling catheter must be in place for >2 calendar days on the date of event, with day of device placement being Day 1.

> *EXAMPLE*: Mr. T, is a resident in your facility. On March 1st, he developed an increase in incontinence and new suprapubic pain. Later that day a Foley catheter was inserted. The following day, on March 2nd, a specimen collected from the Foley catheter was sent to the lab and subsequently tested positive for greater than 100,000 ($\geq 10^5$) CFU/ml of *E. coli*. Mr. T does meet criteria for a SUTI, but it is not considered as a CA-SUTI because the Foley catheter had not been in place >2 calendar days on the date of event (March 1st).

Asymptomatic Bacteremic UTI (ABUTI): Events that occur when the resident has NO signs or symptoms localizing to the urinary tract but has matching urine and blood cultures positive for at least one organism (see Table 1) regardless of whether a catheter is in place or not. (See Figure 3 and Table 4).

Table 1. Examples of ‘‘sameness’’ by organism speciation

Culture	Companion Culture	Report as…
S. epidermidis	Coagulase-negative *staphylococcus*	*S. epidermidis*
Klebsiella oxytoca	*Klebsiella* spp.	*K. oxytoca*
S. salivarius	*Streptococcus* viridans	*S. salivarius*

Key Points:

1. An indwelling urinary catheter should be in place for > 2 calendar days on the date of event (where day of catheter insertion = Day 1) in order for the SUTI to be catheter-associated.
2. If a resident is transferred to the facility with an indwelling urinary catheter in place, and the facility replaces the catheter with a new one while the resident is in the care of the facility, then the date of insertion of the device corresponds to the date the new catheter was placed in the LTCF.
3. UTIs in residents managed with suprapubic, in and out straight catheters, or condom (males only) catheters will be captured as SUTIs, not CA-SUTIs.

Table 2. Criteria for Symptomatic Urinary Tract Infection (SUTI)

Criterion	*For residents **without** an indwelling catheter in place or removed >2 calendar days prior to the date of event, where day of catheter removal is equal to day 1:*
1	**Either** of the following (Signs & Symptoms): 1. Acute dysuria 2. Acute pain, swelling, or tenderness of the testes, epididymis, or prostate **AND** **Either** of the following (Laboratory and Diagnostic Testing): 1. Specimen collected from clean catch voided urine and positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml 2. Specimen collected from in/out straight catheter and positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml
2	**Either** of the following: 1. Fever[+] [Single temperature ≥ 37.8°C (>100°F), or >37.2°C (> 99°F) on repeated occasions, or an increase of >1.1°C (>2°F) over baseline] 2. Leukocytosis (>14,000 cells/mm^3 or Left shift [>6% or 1,500 bands/mm^3]) **AND** **One or more** of the following (New and/or marked increase): 1. Costovertebral angle pain or tenderness 2. Suprapubic tenderness 3. Visible (Gross) hematuria 4. Incontinence 5. Urinary urgency 6. Urinary frequency **AND** **Either** of the following (Laboratory and Diagnostic Testing): 1. Specimen collected from clean catch voided urine and positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml 2. Specimen collected from in/out straight catheter and positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml

Criterion	*For residents **without** an indwelling catheter in place or removed >2 calendar days prior to the date of event, where day of catheter removal is equal to day 1:*
3	**Two or more** of the following (New and/or marked increase): 1. Costovertebral angle pain or tenderness 2. Incontinence 3. Urinary urgency 4. Urinary frequency 5. Suprapubic tenderness 6. Visible (gross) hematuria **AND** **Either** of the following (Laboratory and Diagnostic Testing): 1. Specimen collected from clean catch voided urine and positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml 2. Specimen collected from in/out straight catheter and positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml **Footnote:** 1. $^{+}$ Fever can be used to meet SUTI criteria even if the resident has another possible cause for the fever (for example, pneumonia).

Table 3. Criteria for Catheter-associated Symptomatic Urinary Tract Infection (CA-SUTI)

Criterion	*For residents **with** an indwelling catheter in place or removed within 2 calendar days prior to event onset, where day of catheter removal is equal to day 1:*
	One or more of the following (Signs and Symptoms and Laboratory and Diagnostic Testing): 1. Fever[+][Single temperature ≥ 37.8°C (>100°F), or >37.2°C (> 99°F) on repeated occasions, or an increase of >1.1°C (>2°F) over baseline] 2. Rigors 3. New onset hypotension, with no alternate non-infectious cause 4. New onset confusion/functional decline with no alternate diagnosis **AND** leukocytosis (>14,000 cells/mm^3 or Left shift [>6% or 1,500 bands/mm^3]) 5. New or marked increase in suprapubic tenderness 6. New or marked increase in costovertebral angle pain or tenderness 7. Acute pain, swelling, or tenderness of the testes, epididymis, or prostate 8. Purulent discharge from around the catheter insertion site **AND** **Any** of the following: *If urinary catheter removed within last 2 calendar days:* 1. Specimen collected from clean catch voided urine and positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of ≥10^5 CFU/ml 2. Specimen collected from in/out straight catheter and positive culture with no more than 2 species of microorganisms, at least one of which is bacterium of ≥10^5 CFU/ml *If urinary catheter in place:* 3. Specimen collected from indwelling catheter and positive with no more than 2 species of microorganisms, at least one of which is a bacterium of ≥10^5 CFU/ml **Footnote:** 1. [+] Fever can be used to meet CA-SUTI criteria even if the resident has another possible cause for the fever (for example, pneumonia).

Table 4. Criteria for Asymptomatic Bacteremic Urinary Tract Infection (ABUTI)

Criterion	*Resident **with or without** an indwelling urinary catheter*
	No qualifying fever or signs or symptoms (specifically, no urinary urgency, urinary frequency, acute dysuria, suprapubic tenderness, or costovertebral angle pain or tenderness). *If no catheter is in place, fever alone would not exclude ABUTI if other criteria are met.* **AND** **One** of the following: 1. Specimen collected from clean catch voided urine and positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml 2. Specimen collected from in/out straight catheter and positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml 3. Specimen collected from indwelling catheter and positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml **AND** A positive blood culture with at least 1 matching bacteria to the urine culture

Notes:

1. "Mixed flora" is not available in the pathogen list within NSHN, and cannot be reported as a pathogen to meet the NHSN UTI criteria. Additionally, "mixed flora" often represents contamination and likely represents presence of multiple organisms in culture.
2. Yeast and other microorganisms, which are not bacteria, are not acceptable UTI pathogens.
3. To remove the subjectivity about whether a fever is attributable to a UTI event, the presence of a fever, even if due to another cause (for example, pneumonia), should still be counted as part of meeting a UTI definition.

Numerator and Denominator Data:

Numerator: The *Urinary Tract Infection (UTI) for LTCF* form (CDC 57.140) is used to collect and report each UTI that is identified during the month selected for surveillance. The *Table of Instructions for Completion of a Urinary Tract Infection for LTCF form* include brief instructions for collection and entry of each data element on the form.

The UTI form includes resident demographic information and information on whether or not a catheter (or other urinary device) was present. Additional data include the specific clinical criteria evidence (signs and symptoms) and laboratory and diagnostic testing that were used for identifying the UTI; whether the resident developed a secondary bloodstream infection; whether the resident was transferred to an acute care facility for any reason or died from any cause within 7 days of the UTI event; and the organisms isolated from cultures and their antimicrobial susceptibilities.

Denominator: Includes monthly totals for resident-days, urinary catheter-days, new antibiotic starts for UTI indication, and number of urine cultured ordered. The Denominator for LTCF form (CDC 57.142) may be used to collect denominator data. The daily counts are summed and only the totals for the month are entered into the NHSN. The *Table of Instructions for Completion of the Long-term Care Facility Component-Denominators for LTCF* include brief instructions for collection and entry of each data element on the form.

Catheter-days, defined as the number of residents with an indwelling urinary (Foley) catheter, are collected daily for all residents in the facility. These daily counts are summed and only the total for the month is entered into NHSN, under Summary Data.

Notes:

1. None of the following urinary management devices should be included when counting indwelling catheter-days: suprapubic catheters, straight in-and-out catheters, or condom catheters.
2. If a resident is transferred to an acute care facility, no additional indwelling catheter-days are reported after the day of transfer.

Resident-days are calculated using the daily census of residents in the facility each day of the month.

New antibiotic starts for UTI indication refers to a new prescription for an antibiotic ordered for a resident who is suspected of having or diagnosed with a UTI, either catheter-associated or non-catheter associated, regardless of whether that UTI meets the NHSN event definition.

Notes:

1. There is no minimum number of doses or days of therapy that define a new antibiotic start—count all new orders.
2. Include only antibiotics that are started while the resident is receiving care in your facility, either by clinical providers working in the facility or by outside physicians who see the resident in an outpatient clinic or emergency department.
3. Do not include antibiotic courses started by another healthcare facility prior to the resident's admission or readmission back to your facility, even if the antibiotic is continually administered while the resident is in your facility.
4. Data may be collected daily or summarized at the end of each month.

Number of urine cultures ordered refers to new urine cultures ordered for a resident regardless of whether the resident has a UTI meeting the NHSN event definition.

Notes:

1. Include only urine culture orders that are ordered while the resident is receiving care in your facility, either by clinical providers working in the facility or by outside physicians who see the resident in an outpatient clinic or Emergency department.
2. Do not include urine cultures ordered by another healthcare facility prior to the resident's admission or readmission back to your facility.
3. Data may be collected daily or summarized at the end of each month.

Data Analyses:

Line listing of UTI events and UTI events by catheter status are available as part of the UTI event within the NHSN LTCF component. Below are measures and calculations that are incorporated into the analytics output.

Calculated UTI Rates and Metrics

Data will be stratified by time (month, quarter, year) and aggregated across the entire facility.

Total UTI incidence rate/1,000 resident-days = Total Number of UTI Events (specifically, SUTI + CA-SUTI + ABUTI) / Total resident-days x 1,000.

Percent that are SUTI = Number of SUTI Events / Total number of UTI Events x 100.

Percent that are CA-SUTI = Number of CA-SUTI Events / Total number of UTI Events x 100.

Percent that are ABUTI = Number of ABUTI Events / Total number of UTI Events x 100.

SUTI incidence rate/1,000 resident-days = Number of SUTI Events / Total resident days x 1,000.

Note: Only SUTIs that are NOT catheter-associated will be included in the SUTI incidence rate.

CA-SUTI incidence rate/1,000 catheter-days = Number of CA-SUTI events / Total catheter days x 1,000

Urinary Catheter Utilization Ratio = Total urinary catheter days / Total resident days

Number of Urine Cultures Ordered = Number of urine cultures ordered / Total resident days x 1,000

UTI treatment ratio = New antibiotic starts for UTI / Total Number of UTI Events (SUTI + ABUTI + CA-SUTI)

Note:

1. When the UTI treatment ratio is <1, there are fewer reported antibiotic starts for UTI than symptomatic UTI events submitted; when the UTI treatment ratio equals 1, there are the same number of new antibiotic starts for UTI events submitted; when the UTI treatment ratio is >1, there are more reported antibiotic starts for UTI than UTI events submitted.

Figure 1: Criteria for Defining Non-Catheter Associated Symptomatic Urinary Tract Infection (SUTI):

Resident *without* an indwelling catheter (Meets criteria 1 **OR** 2 **OR** 3)**:**

SUTI – Criteria 1

Either of the following:

1. Acute dysuria
2. Acute pain, swelling, or tenderness of the testes, epididymis or prostate

OR

SUTI - Criteria 2

Either of the following:

1. Fever[+ a]
2. Leukocytosis[b]

AND

ONE or more of the following:

- ❑ Costovertebral angle pain or tenderness
- ❑ New or marked increase in suprapubic tenderness
- ❑ Gross hematuria
- ❑ New or marked increase in incontinence
- ❑ New or marked increase in urgency
- ❑ New or marked increase in frequency

OR

SUTI - Criteria 3

TWO or more of the following:

- ❑ Costovertebral angle pain or tenderness
- ❑ New or marked increase in suprapubic tenderness
- ❑ Gross hematuria
- ❑ New or marked increase in incontinence
- ❑ New or marked increase in urgency
- ❑ New or marked increase in frequency

AND

Either of the following:

1. Specimen collected from clean catch voided urine and positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml
2. Specimen collected from in/out straight catheter and positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml

NOTE: Yeast and other microorganisms, which are not bacteria, are not acceptable UTI pathogens

SUTI

[+] Fever can be used to meet SUTI criteria even if the resident has another possible cause for the fever (for example, pneumonia)
[a] Fever: Single temperature $\geq 37.8^{o}$C (>100^{o}F), or > 37.2^{o}C (>99^{o}F) on repeated occasions, or an increase of >1.1^{o}C (>2^{o}F) over baseline
[b] Leukocytosis: >14,000 cells/mm^3, or Left shift (> 6% or 1,500 bands/mm^3)

Figure 2: Criteria for Defining Catheter Associated Symptomatic Urinary Tract Infection (CA-SUTI)

Resident with an indwelling urinary catheter:

ONE or more of the following:

- ❑ Fever[+ a]
- ❑ Rigors
- ❑ New onset hypotension, with no alternate noninfectious cause
- ❑ New onset confusion/functional decline with no alternate diagnosis **AND** Leukocytosis[b]
- ❑ New costovertebral angle pain or tenderness
- ❑ New or marked increase in suprapubic tenderness
- ❑ Acute pain, swelling or tenderness of the testes, epididymis or prostate
- ❑ Purulent discharge from around the catheter

↓

AND

↓

Any of the following:

If urinary catheter removed within last 2 calendar days:

1. Specimen collected from clean catch voided urine and positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml
2. Specimen collected from in/out straight catheter and positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml

If urinary catheter in place:

3. Specimen collected from indwelling catheter and positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml

↓

CA-SUTI

[+] Fever can be used to meet SUTI criteria even if the resident has another possible cause for the fever (for example, pneumonia)

[a] Fever: Single temperature ≥ 37.8ºC (>100ºF), or > 37.2ºC (>99ºF) on repeated occasions, or an increase of >1.1ºC (>2ºF) over baseline

[b] Leukocytosis: >14,000 cells/mm^3 or Left shift (> 6% or 1,500 bands/mm^3)

Figure 3: Criteria for Defining Asymptomatic Bacteremic Urinary Tract Infection (ABUTI)

Resident *with or without* an indwelling catheter:

Resident has **no qualifying fever or localizing urinary signs or symptoms** (specifically, no urgency, frequency, acute dysuria, suprapubic tenderness, or costovertebral angle pain or tenderness). *If no catheter is in place, fever as only sign would not exclude ABUTI if other positive culture criteria are met.*

↓

AND

↓

Any of the following:

1. Specimen collected from clean catch voided urine and a positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml
2. Specimen collected from in/out straight catheter and positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of $\geq 10^5$ CFU/ml
3. Specimen collected from indwelling catheter and positive culture with no more than 2 species of microorganism, at least one of which is a bacterium of $\geq 10^5$ CFU/ml

NOTE: Yeast and other microorganisms which are not bacteria, are not acceptable UTI pathogens

↓

AND

↓

Positive blood culture with at least 1 matching organism in urine culture

↓

ABUTI

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Urinary Tract Infection (UTI) for LTCF

*required for saving

*Facility ID:	Event #:
*Resident ID:	Social Security #:
Medicare number (or comparable railroad insurance number):	
Resident Name, Last: First:	Middle:
*Gender: M F Other	*Date of Birth: / /
Ethnicity (specify):	Race (specify):

*Resident type: ☐ Short-stay ☐ Long-stay

*Date of First Admission to Facility: / / *Date of Current Admission to Facility: / /

*Event Type: UTI *Date of Event: / /

*Resident Care Location:

*Primary Resident Service Type: (check one)

☐ Long-term general nursing ☐ Long-term dementia ☐ Long-term psychiatric

☐ Skilled nursing/Short-term rehab (subacute) ☐ Ventilator ☐ Bariatric ☐ Hospice/Palliative

*Has resident been transferred from an acute care facility to your facility in the past 4 weeks? ☐ Yes ☐ No

If Yes, date of last transfer from acute care to your facility: / /

If Yes, did the resident have an indwelling urinary catheter at the time of transfer to your facility? ☐ Yes ☐ No

*Indwelling Urinary Catheter status at time of event onset (check one):

☐ In place ☐ Removed within last 2 calendar days ☐ Not in place

If indwelling urinary catheter status in place or removed within last 2 calendar days:

Site where indwelling urinary catheter Inserted (check one): ☐ Your facility ☐ Acute care hospital ☐ Other ☐ Unknown

Date of indwelling urinary catheter Insertion: / /

If indwelling urinary catheter not in place, was another urinary device type present at the time of event onset? ☐ Yes ☐ No

If Yes, other device type: ☐ Suprapubic ☐ Condom (males only) ☐ Intermittent straight catheter

Event Details

*Specify Criteria Used: (check all that apply)

Signs & Symptoms

☐ Fever: Single temperature ≥ 37.8°C (>100°F), or > 37.2°C (>99°F) on repeated occasions, or an increase of >1.1°C (>2°F) over baseline

☐ Rigors ☐ New onset hypotension

☐ New onset confusion/functional decline

☐ Acute pain, swelling, or tenderness of the testes, epididymis, or prostate

☐ Acute dysuria ☐ Purulent drainage at catheter insertion site

New and/or marked increase in (check all that apply):

☐ Urgency ☐ Costovertebral angle pain or tenderness

☐ Frequency ☐ Suprapubic tenderness

☐ Incontinence ☐ Visible (gross) hematuria

Laboratory & Diagnostic Testing

☐ Specimen collected from clean catch voided urine and a positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of ≥ 10^5 CFU/ml

☐ Specimen collected from in/out straight catheter and a positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of ≥ 10^5 CFU/ml

☐ Specimen collected from indwelling catheter and a positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of ≥ 10^5 CFU/ml

☐ Leukocytosis (> 14,000 cells/mm^3), or Left shift (> 6% or 1,500 bands/mm^3)

☐ Positive blood culture with 1 matching organism in urine culture

*Specific Event (Check one):

☐ Symptomatic UTI (SUTI) ☐ Symptomatic CA-UTI (CA-SUTI) ☐ Asymptomatic Bacteremic UTI (ABUTI)

Secondary Bloodstream Infection: Yes No	Died within 7 days of date of event: Yes No
*Transfer to acute care facility within 7 days: Yes No	

*Pathogens identified: Yes No *If Yes, specify on page 2

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Urinary Tract Infection (UTI) for LTCF

Pathogen #	Gram-positive Organisms							
_____	*Staphylococcus* coagulase-negative (specify species if available): _____	**VANC** S I R N						
_____	____*Enterococcus faecium* ____*Enterococcus faecalis* ____*Enterococcus* spp. (Only those not identified to the species level)	**DAPTO** S NS N	**GENTHL**[§] S R N	**LNZ** S I R N	**VANC** S I R N			
	Staphylococcus aureus	**CIPRO/LEVO/MOXI** S I R N	**CLIND** S I R N	**DAPTO** S NS N	**DOXY/MINO** S I R N	**ERYTH** S I R N	**GENT** S I R N	**LNZ** S R N
		OX/CEFOX/METH S I R N	**RIF** S I R N	**TETRA** S I R N	**TIG** S NS N	**TMZ** S I R N	**VANC** S I R N	

Pathogen #	Gram-negative Organisms							
_____	*Acinetobacter* (specify species) _____	**AMK** S I R N	**AMPSUL** S I R N	**AZT** S I R N	**CEFEP** S I R N	**CEFTAZ** S I R N	**CIPRO/LEVO** S I R N	**COL/PB** S I R N
		GENT S I R N	**IMI** S I R N	**MERO/DORI** S I R N		**PIP/PIPTAZ** S I R N	**TETRA/DOXY/MINO** S I R N	
		TMZ S I R N	**TOBRA** S I R N					
_____	*Escherichia coli*	**AMK** S I R N	**AMP** S I R N	**AMPSUL/AMXCLV** S I R N		**AZT** S I R N	**CEFAZ** S I R N	**CEFEP** S I/S-DD R N
		CEFOT/CEFTRX S I R N	**CEFTAZ** S I R N	**CEFUR** S I R N	**CEFOX/CETET** S I R N		**CIPRO/LEVO/MOXI** S I R N	**COL/PB**[†] S R N
		ERTA S I R N	**GENT** S I R N	**IMI** S I R N	**MERO/DORI** S I R N		**PIPTAZ** S I R N	**TETRA/DOXY/MINO** S I R N
		TIG S I R N	**TMZ** S I R N	**TOBRA** S I R N				
	Enterobacter (specify species) _____	**AMK** S I R N	**AMP** S I R N	**AMPSUL/AMXCLV** S I R N		**AZT** S I R N	**CEFAZ** S I R N	**CEFEP** S I/S-DD R N
		CEFOT/CEFTRX S I R N	**CEFTAZ** S I R N	**CEFUR** S I R N	**CEFOX/CETET** S I R N		**CIPRO/LEVO/MOXI** S I R N	**COL/PB**[†] S R N
		ERTA S I R N	**GENT** S I R N	**IMI** S I R N	**MERO/DORI** S I R N		**PIPTAZ** S I R N	**TETRA/DOXY/MINO** S I R N
		TIG S I R N	**TMZ** S I R N	**TOBRA** S I R N				
_____	____*Klebsiella pneumonia* ____*Klebsiella oxytoca*	**AMK** S I R N	**AMP** S I R N	**AMPSUL/AMXCLV** S I R N		**AZT** S I R N	**CEFAZ** S I R N	**CEFEP** S I/S-DD R N
		CEFOT/CEFTRX S I R N	**CEFTAZ** S I R N	**CEFUR** S I R N	**CEFOX/CETET** S I R N		**CIPRO/LEVO/MOXI** S I R N	**COL/PB**[†] S R N
		ERTA S I R N	**GENT** S I R N	**IMI** S I R N	**MERO/DORI** S I R N		**PIPTAZ** S I R N	**TETRA/DOXY/MINO** S I R N
		TIG S I R N	**TMZ** S I R N	**TOBRA** S I R N				

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Pathogen #	Gram-negative Organisms (*continued*)							
_______	*Pseudomonas aeruginosa*	**AMK** S I R N	**AZT** S I R N	**CEFEP** S I R N	**CEFTAZ** S I R N	**CIPRO/LEVO** S I R N	**COL/PB** S I R N	**GENT** S I R N
		IMI S I R N	**MERO/DORI** S I R N		**PIP/PIPTAZ** S I R N	**TOBRA** S I R N		
Pathogen #	**Fungal Organisms**							
_______	*Candida* (specify species if available) _____________	**ANID** S I R N	**CASPO** S NS N	**FLUCO** S S-DD R N	**FLUCY** S I R N	**ITRA** S S-DD R N	**MICA** S NS N	**VORI** S S-DD R N

Pathogen #	Other Organisms									
_______	Organism 1 (specify) _____________	_____ Drug 1 S I R N	_____ Drug 2 S I R N	_____ Drug 3 S I R N	_____ Drug 4 S I R N	_____ Drug 5 S I R N	_____ Drug 6 S I R N	_____ Drug 7 S I R N	_____ Drug 8 S I R N	_____ Drug 9 S I R N
_______	Organism 1 (specify) _____________	_____ Drug 1 S I R N	_____ Drug 2 S I R N	_____ Drug 3 S I R N	_____ Drug 4 S I R N	_____ Drug 5 S I R N	_____ Drug 6 S I R N	_____ Drug 7 S I R N	_____ Drug 8 S I R N	_____ Drug 9 S I R N
_______	Organism 1 (specify) _____________	_____ Drug 1 S I R N	_____ Drug 2 S I R N	_____ Drug 3 S I R N	_____ Drug 4 S I R N	_____ Drug 5 S I R N	_____ Drug 6 S I R N	_____ Drug 7 S I R N	_____ Drug 8 S I R N	_____ Drug 9 S I R N

Result Codes

S = Susceptible I = Intermediate R = Resistant NS = Non-susceptible S-DD = Susceptible-dose dependent N = Not tested

§ GENTHL results: S = Susceptible/Synergistic and R = Resistant/Not Synergistic

† Clinical breakpoints have not been set by FDA or CLSI, Sensitive and Resistant designations should be based upon epidemiological cutoffs of Sensitive MIC ≤ 2 and Resistant MIC ≥ 4

Drug Codes:

AMK = amikacin	CEFTRX = ceftriaxone	FLUCY = flucytosine	OX = oxacillin
AMP = ampicillin	CEFUR= cefuroxime	GENT = gentamicin	PB = polymyxin B
AMPSUL = ampicillin/sulbactam	CETET= cefotetan	GENTHL = gentamicin –high level test	PIP = piperacillin
AMXCLV = amoxicillin/clavulanic acid	CIPRO = ciprofloxacin	IMI = imipenem	PIPTAZ = piperacillin/tazobactam
ANID = anidulafungin	CLIND = clindamycin	ITRA = itraconazole	RIF = rifampin
AZT = aztreonam	COL = colistin	LEVO = levofloxacin	TETRA = tetracycline
CASPO = caspofungin	DAPTO = daptomycin	LNZ = linezolid	TIG = tigecycline
CEFAZ= cefazolin	DORI = doripenem	MERO = meropenem	TMZ = trimethoprim/sulfamethoxazole
CEFEP = cefepime	DOXY = doxycycline	METH = methicillin	TOBRA = tobramycin
CEFOT = cefotaxime	ERTA = ertapenem	MICA = micafungin	VANC = vancomycin
CEFOX= cefoxitin	ERYTH = erythromycin	MINO = minocycline	VORI = voriconazole
CEFTAZ = ceftazidime	FLUCO = fluconazole	MOXI = moxifloxacin	

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Urinary Tract Infection (UTI) for LTCF

Custom Fields

Label		Label	
_____	____/____/_ _	_____	____/____/_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Comments

Table 4. Instructions for Completion of the Urinary Tract Infection for LTCF form (CDC 57.140)

Data Field	Instructions for Form Completion
Facility ID	The NHSN-assigned facility ID number will be auto-entered by the system.
Event ID	Event ID number will be auto-entered by the system.
Resident ID	**Required**. Enter the alphanumeric resident ID. This is the resident identifier assigned by the facility and may consist of any combination of numbers and/or letters. This should be an ID that remains the same for the resident across all admissions and stays.
Social Security #	*Optional.* Enter the resident's 9-digit numeric Social Security Number or Tax Identification (ID) Number.
Medicare number	*Optional*. Enter the resident Medicare number or comparable railroad insurance number.
Resident Name – last, first, middle	*Optional.* Enter the name of the resident.
Gender	**Required**. Select M (Male) or F (Female) to indicate the gender of the resident.
Date of Birth	**Required**. Record the date of the resident's birth using this format: MM/DD/YYYY.
Ethnicity (specify)	*Optional*. Enter the resident's ethnicity: Hispanic or Latino; Not Hispanic or Not Latino
Race (specify)	*Optional*. Enter the resident's race: American Indian or Alaska Native Asian; Black or African American; Native Hawaiian or Other Pacific Islander; White
Resident type	**Required**. Select short-stay or long-stay to indicate the resident type: • ***Short-stay***: Resident has been in facility for 100 or less days from date of **first** admission. In other words, if the Event Date minus the First Admission Date is less than or equal to 100; then resident type should be "SS". • ***Long-stay***: Resident has been in facility for more than 100 days from date of **first** admission. In other words, if the Event Date minus the First Admission Date is greater than 100 then the resident type should be "LS".
Date of First Admission to Facility	**Required**. The date of first admission is defined as the date the resident **first** entered the facility. This date remains the same even if the resident leaves the facility (for example, transfers to another facility) for short periods of time (less than 30 consecutive days). If the resident leaves the facility and is away for 30 or more consecutive days, the date of first admission should be updated to the date of return to the facility. Enter date using this format: MM/DD/YYYY.
Date of Current Admission	**Required**. The date of current admission is the most recent date the resident entered the facility. *If the resident enters the facility for the first time and has not left, then the date of current admission will be the same as the data of first admission.* Enter date using this format: MM/DD/YYYY. **Notes:** • If the resident leaves the facility for more than 2 calendar days (the day the resident leaves the facility is equal to day 1) and returns, the date of current admission should be updated to the date of return to the facility.

Data Field	Instructions for Form Completion
	• If the resident has not left the facility for more than 2 calendar days, then the date of current admission should not change. • Date of current admission must occur BEFORE the date of event *Example*: A resident is transferred from your facility to an acute care facility on June 2, 2018 and returns on June 5, 2018, the current admission date would be 06/05/2018. One week later, the same resident goes to the ED for evaluation on June 12, 2018 and returns on June 13, 2018. The date of current admission stays 06/05/2018.
Event Type	**Required**. Event type = UTI.
Date of Event	**Required**: Enter the date when the first clinical evidence (signs or symptoms) of infection were documented **or** the date the specimen used to meet the infection criteria was collected, *whichever comes first*. **Note**: Date of event must occur AFTER the current admission date. Enter date using this format: MM/DD/YYYY. *Example*: A resident had an indwelling urinary catheter (also called a Foley catheter) in place and had documentation of new suprapubic pain on June 1st. The resident had a urine specimen collected and sent for culture June 3rd. The Date of Event would be June 1st since this is the date of symptom onset and occurred before the date of culture collection.
Resident Care Location	**Required**. Enter the location where the resident was residing on the Date of Event.
Primary Resident Service Type	**Required**. Check the single primary service that best represents the type of care the resident is receiving on the Date of Event: Long-term general nursing, long-term dementia, long-term psychiatric, skilled nursing/short-term rehab (subacute), ventilator, bariatric, or hospice/palliative.
Has resident been transferred from an acute care facility in the past 4 weeks?	**Required**. Select "Yes" if the resident has been an inpatient of an acute care facility (Hospital, Long-term acute care hospital, or acute inpatient rehabilitation facility only) and was directly admitted to your facility in the past 4-weeks, otherwise, select "No". **Note**: An ED visit and/or outpatient visit (physician's office) is excluded since these outpatient visits do not represent and an inpatient admission.
If yes, date of last transfer from acute care to your facility?	***Conditionally required***: If the resident was transferred from acute care to your facility in the past 4-weeks, enter the most recent date of transfer using format: MM/DD/YYYY.
If yes, did resident have an indwelling urinary catheter at the time of transfer to your facility?	***Conditionally required***: Select "Yes" if the resident was transferred from acute care to your facility with an indwelling urinary catheter (also called a Foley catheter); otherwise, select "No".

Data Field	Instructions for Form Completion
Indwelling urinary catheter status at time of event onset	**Required**. Select one of the three options below: Check: In place only if an indwelling urinary catheter (also called a Foley catheter) was in place on the Date of Event. **Note**: This field does not refer to how the specimen was collected. Check: Removed within last 2 calendar days if an indwelling urinary catheter was removed within the 2 calendar days prior to Date of Event (where date of catheter removal = day 1). Check: Not in place if no indwelling urinary catheter was in place on the Date of Event. **Note**: Check "Not in place" even if a different urinary device is in place (for example, suprapubic catheter) *Example*: A resident had an indwelling urinary (Foley) catheter in place and had documentation of new suprapubic pain on June 1st. The resident had a urine specimen collected and sent for culture June 3rd. The culture was positive for E. coli at 100,000 CFU/ml. Check In place as the urinary catheter status on the Date of Event. If the indwelling catheter from the above example had been removed on May 31st, check Removed within last 2 calendar days since the May 31st, the date of removal, is day 1 and June 1st (Date of Event) is day 2. If the indwelling catheter from the above example was removed on May 30th (May 30th = day 1, May 31st = day 2), then check Not in place since the catheter was removed > 2 calendar days prior to June 1st (Date of Event).
Site where Device Inserted (check one)	***Conditionally Required***. If an indwelling urinary catheter was in place or removed within last 2 calendar days, select one of the four options below: Check "Your facility" if the catheter present on the Date of Event was placed or changed in your LTCF; Check "Acute care hospital" if the catheter present on the Date of Event was placed in an acute care facility (Hospital, Long-term acute care hospital, or acute inpatient rehabilitation facility only) *and not changed in your facility*; Check "Other" if the catheter present on the Date of Event was placed in another non-acute care facility *and not changed in your facility*; Check "Unknown" if it is not known where the catheter present on the Date of Event was inserted. **Note***:* Site of device insertion corresponds to the site of insertion or replacement of the indwelling urinary catheter in place at the time of the UTI event.

Data Field	Instructions for Form Completion
Date of device insertion	*Optional*. If available, enter the date the device was placed using this format: MM/DD/YYYY. **Note:** if the resident was transferred into the facility with an indwelling urinary catheter in place, and the LTCF replaces the catheter with a new one, then the date of device insertion should represent the date the new catheter was inserted.
If no indwelling urinary catheter, was another urinary device type present at the time of event onset?	***Conditionally required.*** Select "Yes" if another urinary management device (for example, suprapubic catheter or condom catheter) was being used; otherwise, select "No"
Other urinary device type	***Conditionally required.*** If a device other than an indwelling urinary catheter is being used, check the box that best describes the device: Suprapubic, Condom (males only), or Intermittent straight catheter.
Event Details	
Signs and Symptoms	**Required**. Check all of the clinical criteria identified and documented in the resident record that were used to identify the UTI being reported. Please refer to the flow diagram in the protocol to determine which criteria are needed to qualify as a specific event type. ☐ Fever: Single temperature above 100°F or repeated temperature readings (more than one reading) above 99°F or an increase of more than 2°F over the residents' baseline temperature (temperature when resident is well). **Note**: fever can be used to meet UTI criteria even if resident has another infection, such as pneumonia, that may be the cause of the fever. ☐ Rigors (a sudden feeling of cold with shivering accompanied by a rise in temperature). ☐ New onset of hypotension (low blood pressure) with no alternate non-infectious cause (for example, medication known to cause low blood pressure). **Note**: hypotension can be used to meet CA-SUTI criteria even if resident has another infection, such as pneumonia, that may be the cause of the hypotension. ☐ New onset of confusion or functional decline with no alternate diagnosis. **Note**: resident must also have leukocytosis to meet this criteria for CA-SUTI. ☐ Acute pain, swelling, or tenderness of the testes, epididymis, or prostate. ☐ Acute dysuria (painful urination). ☐ Purulent (milky, pus-like) drainage/discharge from around the catheter insertion site. ☐ New or marked increase in urinary urgency. ☐ New or marked increase in urinary frequency. ☐ New or marked increase in incontinence. ☐ New or marked increase in acute costovertebral (CV) angle pain or tenderness. **Note**: CV angle is one of the two angles that outline a space over the kidneys; the angle is formed by the lateral and downward curve of the lowest rib and the vertical column of the spine. ☐ New or marked increase in suprapubic (lower, center part of the abdomen) tenderness. ☐ New or marked increase in visible (also referred to gross) hematuria (visible blood in the urine).

Data Field	Instructions for Form Completion
Laboratory and Diagnostic Testing	**Required**. Check all of the laboratory and diagnostic testing obtained and documented in the resident record that were used to confirm the UTI being reported. **Note**: A positive urine culture with at least one bacterium is required to meet criteria for UTI. ☐ A clean catch voided urine culture with no more than 2 species of microorganisms, at least one of which is bacterium of ≥ 10^5 CFU/ml (≥100,000 cfu/ml). ☐ A positive urine culture collected from a straight in/out catheter with no more than 2 species of microorganisms, at least one of which is bacterium of ≥ 10^5 CFU/ml (≥100,000 cfu/ml). ☐ A positive urine culture collected from an indwelling urinary catheter, also referred to as a Foley catheter, no more than 2 species of microorganisms, at least one of which is bacterium of ≥ 10^5 CFU/ml (≥100,000 cfu/ml). ☐ Leukocytosis (> 14,000 cells/mm^3) or Left shift (> 6% or 1,500 bands/mm^3). ☐ A positive blood culture with at least one matching organism to an organism identified in the urine culture. **Note:** The microorganisms must be identified to the genus and species level. If the culture reports "mixed flora" or "contamination", this would NOT meet criterion.
Secondary Bloodstream infection?	*Optional*. Check Yes if resident has a microorganism reported in a urine culture and has the same microorganism reported from a blood culture. Otherwise, check No.
Died within 7 days of event date?	*Optional*. Check Yes if resident died from any cause *within 7 days* after the Date of Event, otherwise check No.
Transfer to acute care facility within 7 days?	**Required**. Check Yes if resident was transferred to an acute care facility (hospital, long-term acute care hospital, or acute inpatient rehabilitation facility only) for any reason *in the 7 days* after Date of Event, otherwise check No.
Pathogens identified	**Required**. Enter Yes and specify organism name(s) and sensitivities on page 2. For SUTI with secondary BSI and ABUTI, enter **only** the matching organism(s) identified in both urine and blood cultures.
Custom fields and labels	*Optional*. Up to 50 fields may be customized for local or group use in any combination of the following formats: date (MMDDYYYY), numeric or alphanumeric. **Note:** Each Custom Field must be set up in the Facility/Custom Options section of NHSN before the field can be selected for use.
Comments	*Optional*. Enter any information on the event. This information is not analyzed.

Laboratory-identified Event Surveillance Protocol for *Clostridioides difficile* Infection and Multidrug Resistant Organism Events for Long-term Care Facilities

Background: Multi-drug resistant bacteria including methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant Enterococci (VRE), and multi-drug resistant Gram-negative bacilli (for example, *Carbapenem-resistant Enterobacteriaceae*) have increased in prevalence in US long-term care facilities (LTCF) over the past several decades. Over 35% of nursing home residents are colonized with a multi-drug resistant organism (MDRO).[1] This has important public health implications as MDRO infections are associated with increased number of hospitalizations and hospital readmissions, higher healthcare costs, increased mortality due to more severe illnesses, and increased use of broad spectrum antibiotics.

Clostridioides (previously known as *Clostridium*) *difficile* infection (CDI) is one of the most common healthcare-associated infections in nursing homes and often a consequence of antibiotic overuse. The clinical presentation of CDI ranges from uncomplicated diarrhea to severe pseudomembranous colitis, toxic megacolon, and even death.

It is critical for LTCF to monitor MDRO and CDI rates using standardized surveillance definitions to obtain a more complete understanding of how these organisms manifest and are transmitted in the long-term care setting. The Laboratory-identified (LabID) Event Module of the NHSN LTCF Component is a tool designed for use in certified skilled nursing facilities/nursing homes (LTC:SKILLNURS) and intermediate/chronic care facilities for the developmentally disabled (LTC:DEVDIS) to help meet criteria outlined in guidelines for the prevention, control, and surveillance of MDRO and CDI [1-6]

As outlined in these guidelines, these pathogens may require specialized monitoring to evaluate if intensified infection control efforts are required to reduce the occurrence of these organisms and related infections. The goal of this module is to provide a mechanism for facilities to collect, report, and analyze data that will inform infection prevention and control staff of the impact of prevention efforts. This module contains two options, one focused on CDI and the second on select MDROs.

References:

1: Cassone, M., et al. Colonization with Multi-drug Resistant Organisms in Nursing Homes: Scope, Importance, and Management. *Current Geriatrics Report,* vol. 4, no. 1, 2015, pp. 87-95.
2: Smith et al., SHEA/APIC Guideline: Infection Prevention and Control in the Long-Term Care Facility. *Infection Control and Hospital Epidemiology*, vol. 29, 2008, pp. 785-814.
3: Healthcare Infection Control Practices Advisory Committee (HICPAC) Approved Guidelines for the Control of Multidrug Resistant Organism (MDRO). Available at www.cdc.gov/hicpac/pdf/MDRO/MDROGuideline2006.pdf
4: McDonald, C., et al. Clinical Practice Guideline for *Clostridium difficile* Infection in Adults and Children: 2017 Update by Infectious Disease Society of America (IDSA) and Society for Healthcare Epidemiology of America (SHEA). *Clinical Infectious Diseases*, vol. 44, no. 77, 2018, pp. e1-e48.
5: Simor, A. E., et al. *Clostridium difficile* in Long-Term Care Facilities for the Elderly. SHEA Position Paper. *Infection Control and Hospital Epidemiology*, vol. 23, no. 11, 2002, pp. 696-703.
6: Cohen, A. L., et al. Recommendations for Metrics for Multidrug-Resistant Organisms in Healthcare Settings: SHEA/HICPAC Position Paper. *Infection Control and Hospital Epidemiology*, vol. 29, no. 10, 2008, pp. 901-13.

I. *Clostridioides difficile* Infection (CDI) Surveillance using LabID Event Methodology

Methods: Facilities may choose to monitor *Clostridioides difficile* infections (CDI) using laboratory-identified (LabID) event surveillance. This surveillance method allows laboratory data to be used without clinical evaluation of the resident for signs or symptoms, allowing for a less labor intensive method to track CDI. This method provides proxy measures of CDI and healthcare exposure based solely on laboratory data and limited resident admission/transfer data.

The data collected will enable participating facilities and the CDC to calculate several infection measures for CDI. NHSN forms should be used to collect all required data, using the definitions of each data field as indicated in the *Table of Instructions.*

Settings: CDI LabID Event reporting is currently available for certified skilled nursing facilities/nursing homes (LTC: SKILLNURS) and intermediate/chronic care facilities for the developmentally disabled (LTC: DEVDIS). Events reported should include *C. difficile* positive laboratory assays from any resident receiving care from the reporting LTCF.

Laboratory results obtained before a resident's admission to the LTCF or during an admission in another facility are excluded from LabID Event reporting. Laboratory results obtained from an emergency department (ED) or outpatient (OP) setting, such as a physician's office, during a resident's current admission (specifically, no change in current admission date) are eligible to be included in LabID Event reporting for the LTCF.

> *EXAMPLE*: Mr. T is a resident in your LTCF. He does not have a history of *C. difficile.* On March 1st, he was transferred to the local emergency department (ED) for evaluation of diarrhea and fever. While in the emergency department, a loose stool specimen was collected and tested positive for *C. difficile*. He received IV fluids and was transferred back to the LTCF the next calendar day, on March 2nd. Since the specimen was collected in an ED and Mr. T returned to the LTCF within 2 calendar days (specifically, during his current admission in the LTCF, the *C. difficile* specimen was entered into NHSN as a CDI LabID Event for the LTCF.

Requirements: A *NHSN Monthly Reporting Plan* for the LTCF (CDC 57.141) must be completed for each calendar month in which a facility plans to enter data into the NHSN. For each participating month, the facility must report numerators (CDI LabID Events) and denominators (total number of resident admissions, total number of resident-days, and total number of LTCF admissions on *C. difficile* treatment) for the entire facility, referred to as facility-wide inpatient (FacWideIN). *C. difficile* surveillance and reporting is limited to testing performed on unformed/loose stool specimens (conforms to the shape of the container). Facilities should report for at least 6 consecutive months to provide meaningful measures.

Definitions: The following definitions apply to CDI LabID Event reporting.

C. difficile positive laboratory assay: An unformed/loose stool that tests positive for *C. difficile* toxin A and/or B, (includes molecular assays [PCR] and/or toxin assays)
OR
A toxin-producing *C. difficile* organism detected in an unformed/loose stool sample by culture or other laboratory means.

Duplicate *C. difficile* positive laboratory assay: Any *C. difficile* positive laboratory assay from the same resident following a previous *C. difficile* positive laboratory assay within the past two weeks (<15 days). Duplicate assays should not be reported to NHSN. There should be at least 14 calendar days with no *C. difficile* positive laboratory assay for the resident before another *C. difficile* LabID Event is entered into NHSN for the resident. (see *Settings*)

CDI Laboratory-identified (LabID) Event: Non-duplicate *C. difficile* positive laboratory assay obtained while a resident is receiving care from the long-term care facility (see *Settings*). See Figure 1 - *C. difficile* Test Result Algorithm for Laboratory-identified (LabID) Events.

EXAMPLE: Mr. T is a long-term resident in your facility. On December 30th, he developed diarrhea and abdominal pain. On January 1st, a loose stool specimen was collected and subsequently tested positive for *C. difficile* toxin. After verifying that Mr. T did not have a *C. difficile* positive laboratory assay in the previous 14 calendar days, a CDI LabID Event was entered into the NHSN for January 1. Over the next week, Mr. T seemed to improve and the diarrhea resolved. On January 13th, he had several more episodes of diarrhea, and another loose stool specimen was collected, which subsequently tested positive for *C. difficile* toxin. Since it had not been more than 14 calendar days since the most recent *C. difficile* toxin-positive laboratory assay, this test result was considered a duplicate and not entered into the NHSN. On January 20th, Mr. T had another positive *C. difficile* toxin result. While it had been more than 14 calendar days since the most recent CDI LabID Event was entered into the NHSN (January 1st), it had not been more than 14 calendar days since his most recent *C. difficile* positive laboratory assay (January 13th). Therefore, the *C. difficile* positive laboratory assay collected on January 20th was considered a duplicate and not entered into the NHSN as a CDI LabID Event. On February 10th, Mr. T had another *C. difficile* positive laboratory assay. Since it had been more than 14 calendar days since his most recent *C. difficile* positive laboratory assay (January 20th), this specimen was entered into NHSN as a CDI LabID Event.

Date of Specimen Collection	**Duplicate**	**Enter as a CDI LabID Event?**
January 1	No	Yes. No previous positive C. diff assay
January 13	Yes	No. Less than 2-weeks since previous positive C. diff assay
January 20	Yes	No Less than 2-weeks since previous positive C. diff assay
February 10	No	Yes. More than 2-weeks since previous positive C. diff assay

Key Points:

1. Only results from unformed/loose stool specimens, conforming to the shape of the container, should be included in CDI LabID Event surveillance and reporting.
2. All non-duplicate *C. difficile* assays must be reported, even if the resident had a positive specimen prior to transfer or admission to the LTCF. **Note:** This practice is important to understand the burden of CDI in the LTCF.
3. When applying the LabID Event rules, the date of specimen collection is considered as Day 1 of the count.
4. LabID Event rules apply to specimens collected while the resident is receiving care from the LTCF, including specimens collected from an emergency department (ED) or outpatient (OP) setting during a resident's current admission. **Note:** Laboratory results obtained before a resident's admission to the LTCF or during an admission in another facility are excluded from LabID Event reporting.
5. If a specimen is collected while the resident is receiving care from an ED or OP setting, the *Resident Care Location* and *Primary Resident Service Type* should indicate the resident's primary LTCF location and service type prior to the ED or OP visit.
6. When performing LabID Event reporting for CDI, the facility must identify and report from all locations within the LTCF, referred to as FacWideIN.
7. NHSN recommends that each facility keep an internal line listing log of all *C. difficile* positive laboratory assay's as a reference in LabID event reporting to ensure the 14-day rule is applied correctly.

Numerator and Denominator Data:

Numerator: The *Laboratory-identified MDRO or CDI Event for LTCF* form (CDC 57.138) is used to collect and report each CDI LabID Event. The *Table of Instructions for Completion of the LTCF Laboratory- identified (LabID) MDRO or CDI Event form* includes brief instructions for collection and entry of each data element on the form. Report one event per form.

Denominator: Resident admissions, resident days, number of admissions on *C. difficile* treatment, and CDI treatment starts are used for denominators. Monthly totals for denominator data are collected using the *MDRO and CDI LabID Event Reporting Monthly Summary Data for LTCF* form (CDC. 57.139). The *Table of Instructions for Completion of the MDRO and CDI Monthly Monitoring for Long-term Care Facility* form includes brief instructions for collection and entry of data elements on the form. Facilities may also choose to use the optional *Denominators for LTCF* form (CDC 57.142) to collect daily denominator data. Only the monthly totals are entered into the NHSN. The *Table of Instructions for Completion of the LTCF Component Denominators for LTCF* provides brief instructions for collection and entry of data elements on the form.

Categorizations of CDI LabID Events: Based on data entered into the NHSN application, each event will be categorized by the NHSN to populate different measures.

The following categorizations are based on the specimen collection date for the current CDI event being entered into the NHSN and the specimen collection date for the previous CDI LabID Event entered into the NHSN for a resident. *Note*: the date of specimen collection is considered as day 1.

- Incident CDI LabID Event: Either the first CDI LabID Event ever entered for an individual resident in the facility, or a subsequent LabID Event entered > 56 days (8 weeks) after the most recent CDI LabID Event reported for an individual resident while receiving care in the LTCF.

- Recurrent CDI LabID Event: Any CDI LabID Event entered > 14 days (2 weeks) and < 57 days (8 weeks) after the most recent CDI LabID Event reported for an individual resident while receiving care from the LTCF.

EXAMPLE: **NHSN Classification of CDI LabID Events as Incident or Recurrent**

Resident ID	Current Admit Date	CDI Event Date (specifically, date of specimen collection)	Categorization
1111	01/01/2016	01/05/2016	Incident
1111	01/01/2016	01/25/2016	Recurrent
1111	01/01/2016	03/11/2016	Recurrent
1111	01/01/2016	05/20/2016	Incident

Further Categorizations of CDI LabID Events: All incident and recurrent CDI LabID Events will be further categorized by the NHSN. The following categorizations are based on the date of current admission to the facility, date specimen collected (event date), and date of last transfer from acute care to your facility. Because of variability in documenting time of admission to the LTCF, calendar days are used to categorize LabID Events.

- Community-onset (CO) LabID Event: Date specimen collected ≤ 3 calendar days after date of current admission to the facility (specifically, days 1, 2, or 3 of admission).

- Long-term Care Facility-onset (LO) LabID Event: Date specimen collected > 3 calendar days after date of current admission to the facility (specifically, on or after day 4).

    - LO LabID Events can be further sub-classified as:
      Acute Care Transfer-Long-term Care Facility-onset (ACT-LO): LTCF-onset (LO) LabID Event with date specimen collected ≤ 4 weeks following date of last transfer from an Acute Care Facility (hospital, long-term acute care hospital, or acute inpatient rehabilitation facility only) to the LTCF.

EXAMPLE: **NHSN Classification of CDI LabID Events as Community-onset (CO) or Long-term Care Facility-onset (LO).**

Ms. T was first admitted to the LTCF on June 4th. On June 5th she developed diarrhea, and on June 6th a loose stool specimen was collected and subsequently tested positive for *C. difficile* toxin. Since she had not had a positive *C. difficile* laboratory assay performed in the previous 14 days while receiving care from the LTCF, the result was entered into NHSN as a CDI LabID Event for June 6th (date of specimen collection). The NHSN application categorized the LabID Event as Community-onset (CO) since the specimen was collected within the first 3 days of her current admission date into the facility. If the specimen had been first collected four or more days (June 7th or later) after her current admission date into the facility, the NHSN application would've categorized the LabID Event as Long-term Care Facility-onset (LO).

Example: NHSN Classification of Lab ID Events as **Community-onset or LTCF-onset**				
Admission date June 4th	June 5th	June 6th	June 7th	June 8th
day 1	day 2	day 3	day 4	day 5
Community-onset (CO)			**Long-term Care Facility-onset (LO)**	

Calculated CDI Rates and Metrics: The following section describes the various measures calculated for CDI LabID event surveillance.

Total CDI Rate/10,000 resident-days **=** Number of CDI LabID Events per month regardless of time spent in the facility (specifically, CO + LO) / Number of resident-days per month x 10,000.

Percent of CDI LabID events that are Community-onset (CO) = Number of CDI LabID Events that are CO / Total number of CDI LabID Events x 100.

Percent of CDI LabID events that are Long-term Care Facility-onset (LO) = Number of incident and recurrent CDI LabID Events that are LO / Total number of CDI LabID Events x 100.

Percent of LO LabID events that are Acute Care Transfer-Long-term Care Facility-onset = Number of ACT-LO CDI LabID Events / Total number of LO CDI LabID Events x 100.

Percent of CDI LabID events that are Recurrent CDI = Number of CDI LabID Events that are recurrent / Total number of CDI LabID Events x 100.

CDI Long-term Care Facility-onset Incidence Rate/10,000 resident-days* = Number of all incident LO CDI LabID Events per month / Number of resident-days x 10,000.

***NOTE**: This formula excludes recurrent CDI events.

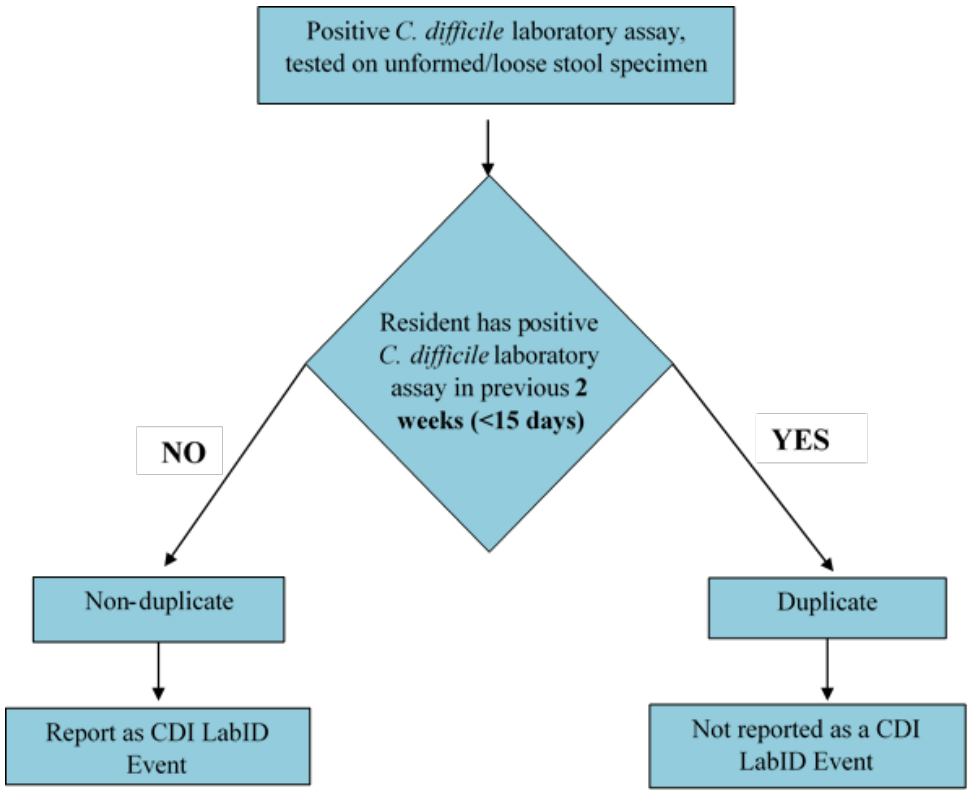
CDI Treatment Prevalence on Admission = Residents on *C. difficile* treatment on admission to facility / Number of admissions x 100.

CDI Treatment Ratio = Number of CDI medication treatment starts for CDI / Total number of CDI LabID Events

NOTE:

When the CDI treatment ratio is <1, there are fewer reported medication starts for CDI than CDI events submitted to NHSN; when the CDI treatment ratio equals 1, there are the same number of new medication starts for CDI events submitted; when the CDI treatment ratio is >1, there are more reported medication starts for CDI than CDI events submitted to NHSN.

Figure 1. *C. difficile* Test Result Algorithm for Laboratory-identified (LabID) Events



Notes:

1. LabID event reporting is based on specimens collected by the LTCF during the care of the resident, and specimens collected in an ED or OP (for example, physician's office) during the current admission. Laboratory results obtained prior to the resident's admission to the LTCF or during an admission in another healthcare facility are excluded. See *Settings*
2. Day of specimen collection equals day one of the specimen count.

II. MDRO Surveillance using LabID Event Protocol

Methods: Facilities may choose to monitor one or more of the following MDROs: *Staphylococcus aureus*, both methicillin-resistant (MRSA) and methicillin-susceptible (MSSA), vancomycin-resistant *Enterococcus spp.* (VRE), cephalosporin-resistant *Klebsiella* spp., Carbapenem-resistant *Enterobacteriaceae* (CRE), and multidrug-resistant *Acinetobacter* spp.

Laboratory-identified (LabID) Event reporting allows laboratory data to be used without clinical evaluation of the resident for signs or symptoms, creating a less labor intensive method to track MDROs. This method provides proxy measures of MDRO infections, and healthcare exposure based solely on laboratory data and limited resident admission/transfer data.

The data collected will enable participating facilities and the CDC to calculate several measures, depending on which MDROs the facility chooses to track. NHSN forms are available and should be used to collect all required data, using the definitions of each data field as indicated in the *Table of Instructions*.

Setting: MDRO LabID Event reporting is currently available for certified skilled nursing facilities/nursing homes (LTC: SKILLNURS) and intermediate/chronic care facilities for the developmentally disabled (LTC: DEVDIS). Events reported should include MDRO positive laboratory cultures obtained from any resident while receiving care from the reporting LTCF.

Laboratory results obtained before a resident's admission to the LTCF or during an admission in another healthcare facility are excluded from LabID Event reporting. Laboratory results obtained from an emergency department (ED) or outpatient (OP) setting, such as a physician's office, during a resident's current admission (specifically, no change in current admission date) are eligible to be included in LabID Event reporting for the LTCF.

> *EXAMPLE*: Mr. T is a resident in your LTCF. He does not have a history of *MRSA*. On March 1, he was transferred to the local emergency department (ED) for evaluation of a foot ulcer. While in the emergency department, the wound was cultured and tested positive for MRSA. Antibiotics were ordered and Mr. T was transferred back to the LTCF on the same calendar day, March 1st. Since the MRSA positive wound culture was collected in an outpatient setting (specifically, the ED) and within 2 calendar days of leaving the LTCF (specifically, during the resident's current admission in the LTCF), the specimen was entered into the NHSN as a MRSA LabID Event for the LTCF.

Requirements: A *NHSN Monthly Reporting Plan* for the LTCF (CDC 57.141) must be completed for each calendar month in which a facility plans to enter data into the NHSN. For each participating month, the facility must report numerators (MDRO LabID Events) and denominators (total number of resident admission and total number of resident-days) for the entire facility, referred to as facility-wide inpatient (FacWideIN). Facilities should report for at least 6

consecutive months to provide meaningful measures. For each MDRO being monitored, all MDRO test results are evaluated using the algorithm in Figure 2, keeping in mind the following:

1. All first MDRO isolates (chronologically) per resident, per month are reported as a LabID event regardless of the specimen source [EXCLUDES tests related to active surveillance testing];
2. If a blood isolate is the first positive MDRO specimen for the month, it should be entered as a LabID Event even if the resident had a prior blood reported within two weeks in the previous month;
3. If a blood specimen is entered as the first specimen of the month, then no non-blood specimens can be entered for the remainder of that calendar month for that resident. However, another blood specimen may be entered if it represents a unique blood isolate (see below definition for unique blood source).

Definitions: The following MDROs can be selected for tracking in the LabID Event module:

Gram-stain positive organisms:

- MRSA: Any ***S. aureus*** testing resistant to oxacillin, methicillin, or cefoxitin, by standard susceptibility testing methods or by a positive result from an FDA-approved test for direct MRSA detection from that specimen source.

- MSSA: Any ***S. aureus*** testing intermediate or susceptible to oxacillin, methicillin, and cefoxitin by standard susceptibility testing methods; a positive result from an FDA-approved test for direct MSSA detection from that specimen source; or a negative result from an FDA-approved test for direct MRSA detection from a specimen source. Note: MSSA is only an option when surveillance includes MRSA.

- VRE: Any ***Enterococcus* species** that is resistant to vancomycin, by standard susceptibility testing methods or by a positive result from an FDA-approved test for VRE detection from that specimen source.

Gram-stain negative organisms:

- CephR-*Klebsiella*: Any ***Klebsiella* species** testing non-susceptible (specifically, resistant or intermediate) to cephalosporin antibiotics like ceftazidime, cefotaxime, ceftriaxone, or cefepime.

- CRE- Any ***Escherichia coli (E. coli)*, *Klebsiella* species, or *Enterobacter* species** testing resistant to imipenem, meropenem, doripenem, or ertapenem by standard susceptibility testing methods (specifically, minimum inhibitory concentrations of ≥4 mcg/mL for doripenem, imipenem and meropenem or ≥2 mcg/mL for ertapenem) OR by production of a carbapenemase (specifically, KPC, NDM, VIM, IMP, OXA-48) demonstrated using a recognized test (for example, polymerase chain reaction, metallo-β-lactamase test,

modified-Hodge test, Carba-NP). **Note:** CRE surveillance requires facilities to monitor and report for all three organisms (CRE-*E. coli*, CRE-*Klebsiella spp.*, ***and*** CRE-*Enterobacter spp.).*

- MDR-*Acinetobacter:* Any ***Acinetobacter* species** testing non-susceptible (specifically, resistant or intermediate) to at least one agent in at least 3 antimicrobial classes of the following 6 antimicrobial classes:

Antimicrobial Class	**Antimicrobial Agents**
β-lactams and β-lactam/β-lactamase inhibitor combinations	Piperacillin, Piperacillin/tazobactam
Sulbactam	Ampicillin/sulbactam
Cephalosporins	Cefepime, Ceftazidime
Carbapenems	Imipenem, Meropenem, Doripenem,
Aminoglycosides	Amikacin, Gentamicin, Tobramycin
Fluoroquinolones	Ciprofloxacin, Levofloxacin

MDRO positive isolate: Any specimen, obtained for clinical decision making, testing positive for an MDRO (as defined above). **Note**: Excludes tests related to active surveillance testing.

Duplicate MDRO laboratory isolate: Any subsequent MDRO positive isolate collected from the *same* resident after the first isolate of the same MDRO during a calendar month, regardless of the specimen source except when a unique blood source is identified (see definition below and Figure 2). **Note**: A duplicate MDRO laboratory isolate should not be reported as a LabID Event.

> *EXAMPLE*: On January 2, Mr. T had a positive MRSA urine culture that was entered as a MDRO LabID Event. The following week, he had MRSA cultured from an infected decubitus ulcer. The MRSA wound culture was considered a duplicate MDRO isolate, since it was the second non-blood MRSA isolate collected from the same resident during the same calendar month.

Unique blood source MDRO laboratory isolate: A MDRO isolate identified in a resident with no prior positive blood culture for the same MDRO in the past 2 weeks (<15 days), even across calendar months and admissions. **Note:** If the first MDRO isolate for the resident and calendar month is a blood isolate, the specimen should be reported as a LabID event, even if a previous MDRO blood isolate was reported in the previous 2 weeks across calendar months. See Figure 2.

MDRO Laboratory-identified (LabID) Event: All non-duplicate MDRO positive laboratory isolates from any culture specimen, regardless of specimen source or MDRO unique blood source isolates obtained while a resident is receiving care from the facility (see *Settings*). See Figure 2- MDRO Test Result Algorithm for Laboratory-identified (LabID) Events.

> *EXAMPLE*: On December 27, Mr. T had a positive MRSA blood culture that was entered into the NHSN as a MRSA LabID Event. On January 2, he had another positive MRSA blood culture that was entered into the NHSN because it was the first positive MRSA blood isolate for the new calendar month. He had a wound that also tested positive for MRSA on January 20. This specimen was not entered into the NHSN since it represented a duplicate MDRO laboratory isolate for January. Again, on January 27, Mr. T had another positive MRSA blood culture. Since the isolate represented a unique blood source (>14 days since the last positive MRSA blood specimen), the MRSA blood specimen was entered into the NHSN as a MRSA LabID Event.

Key Points:

1. MDRO LabID Event reporting is ONLY for collecting and tracking isolates from positive cultures that are taken for "clinical" purposes (specifically, for diagnosis and treatment), which means that Active Surveillance Culture/Testing (for example, nasal swabs for MRSA or perirectal swabs for VRE) results are not reported as LabID Events.
2. LabID Event rules apply to specimens collected while resident is receiving care from the LTCF and includes specimens collected from an ED or OP setting during a resident's current admission. Laboratory results obtained before a resident's admission to the LTCF or during an admission in another facility are excluded from LabID Event reporting.
3. If a specimen is collected while the resident is receiving care from an ED or OP setting, the *Resident Care Location* and *Primary Resident Service Type* should indicate the resident's primary LTCF location and service type prior to the ED or OP visit.
4. When performing LabID Event reporting for MDROs, the facility must report the selected MDRO(s) from all specimen sources, and from all locations within the long-term care facility setting, referred to as FacWideIN.
5. The date of specimen collection is considered Day 1.
6. If the first MDRO isolate for the resident and calendar month is a blood isolate, the specimen should be reported as a LabID event, even if a previous MDRO blood isolate was reported in the previous 2 weeks across calendar months. (See Figure 2).
7. A unique blood source isolate should be reported even if the resident had this same MDRO previously isolated in a non-blood specimen earlier during the same calendar month (See Figure 2).

8. As a general rule, at a **maximum,** there should be no more than 2 blood isolates (which would be very rare) and 1 other specimen source isolate per MDRO type reported for the same resident during a calendar month.
9. NHSN recommends facilities keep an internal line listing log of all positive isolates for reference in LabID event reporting.

Numerator and Denominator Data:

Numerator: Data on each MDRO LabID Event will be reported using the *Laboratory identified MDRO or CDI Event for LTCF* form (CDC 57.138). The *Table of Instructions for Completion of the LTCF Laboratory- identified (LabID) MDRO or CDI Event form* includes instructions for collection and entry of each data element on the form. Report one event per form.

Denominator: Resident admissions and resident days are used for denominators. Monthly totals for denominators are collected using the *MDRO and CDI LabID Event Reporting Monthly Summary Data for LTCF* form (CDC. 57.139). The *Table of Instructions for Completion of the MDRO and CDI Monthly Monitoring for Long-term Care Facility* form includes brief instructions for collection and entry of data elements on the form. Facilities may also choose to use the *Denominators for LTCF* form (CDC 57.142) to collect daily denominator data. Only the monthly totals are entered into the NHSN. The *Table of Instructions for Completion of the LTCF Component- Denominators for LTCF* provides brief instructions for collection and entry of data elements on the form.

Categorizations of MDRO LabID Events: Based on data entered into the NHSN application, each event will be categorized by the NHSN to populate different measures.

The following categorizations are based on date of current admission to the facility, date specimen collected (event date), and date of last transfer from acute care to your facility. Because of variability in documenting time of admission to the LTCF, calendar days are used to categorize LabID Events.

- Community-onset (CO) LabID Event: Date specimen collected ≤ 3 calendar days after date of current admission to the facility (specifically, days 1, 2, or 3 of admission).

- Long-term Care Facility-onset (LO) LabID Event: Date specimen collected > 3 calendar days after date of current admission to the facility (specifically, on or after day 4).
    - LO LabID Events can be further sub-classified as:
        Acute Care Transfer-Long-term Care Facility-onset (ACT-LO): LTCF-onset (LO) LabID Event with date specimen collected ≤ 4 weeks following date of last transfer from an Acute Care Facility (hospital, long-term acute care hospital, or acute inpatient rehabilitation facility only) to the LTCF.

EXAMPLE: Ms. T was first admitted to the LTCF on June 4th. On June 6th, a foot ulcer tested positive for MRSA. Since she had not had a positive MRSA positive isolate performed in the previous 14 days, while receiving care in the LTCF, the result was entered into NHSN as a MRSA LabID Event for June 6th (date of specimen collection). The NHSN application categorized the LabID Event as Community-onset (CO) since the specimen was collected within the first 3 days of her current admission date into the facility. If the specimen had been first collected four or more days (June 7th or later) after her current admission date into the facility, the NHSN application would've categorized the LabID Event as Long-term Care Facility-onset (LO).

Example: NHSN Classification of Lab ID Events as **Community-onset or LTCF-onset**			
Admission date June 4th	June 5th June 6th	June 7th	June 8th
day 1	day 2 day 3	day 4	day 5
Community-onset (CO)		**Long-term Care Facility-onset (LO)**	

Calculated MDRO Rates and Metrics*:
The following section describes the various measures calculated for MDRO LabID event surveillance.

*NOTE: These calculations will be performed for each specific MDRO included in the reporting plan during a month (for example, MRSA, VRE, etc.)

MDRO Long-term Care Facility-onset Incidence Rate/ 1,000 resident days = Number of all LO MDRO LabID Events per month / Number of resident days x 1,000.

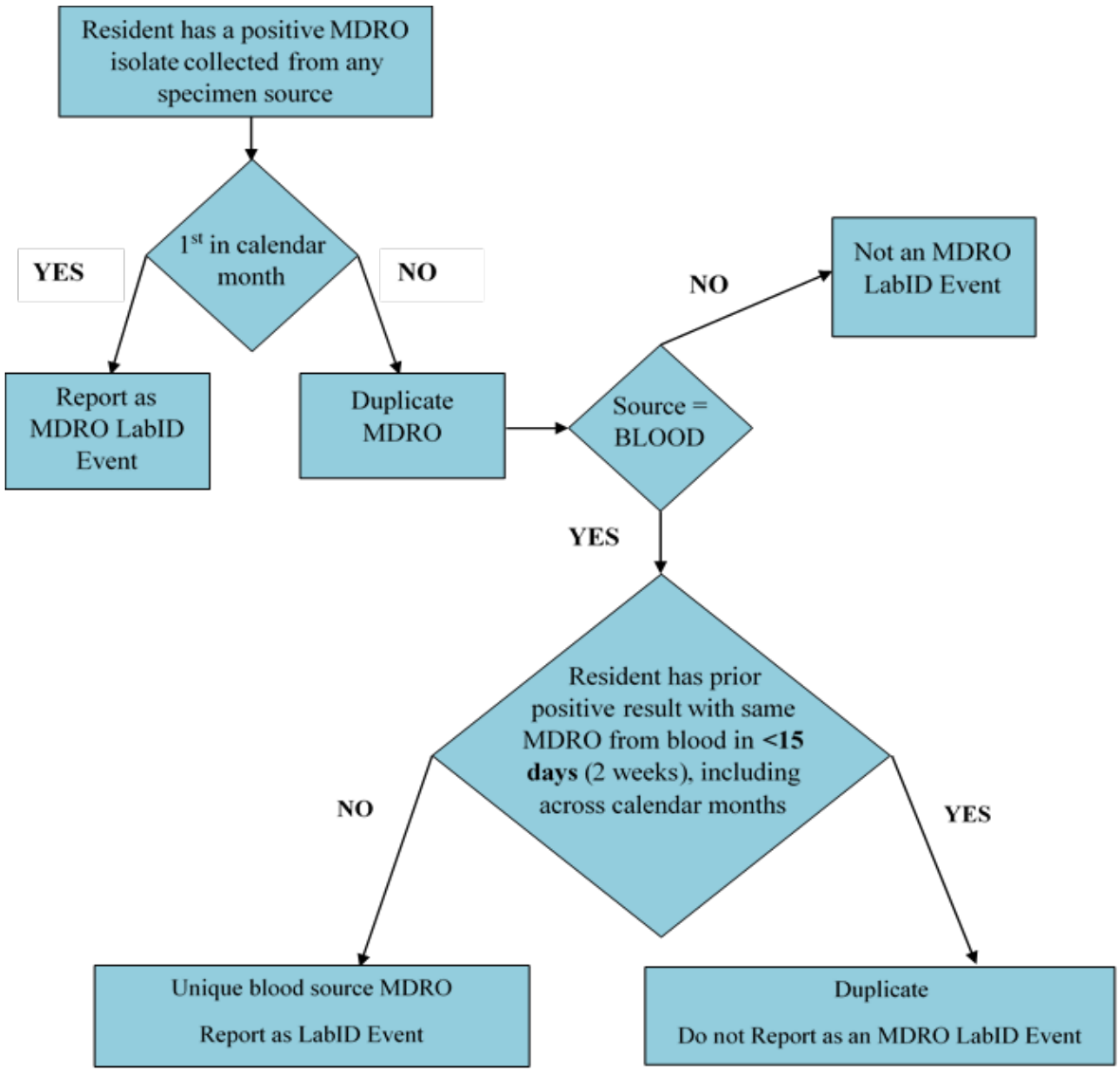
Total MDRO Rate/1,000 resident days = Number of MDRO LabID Events per month (regardless of time spent in the facility specifically, CO + LO) / Number of resident days per month x 1,000.

Percent of MDRO LabID Events that are Community-onset = Number of MDRO LabID Events that are CO / Total number of MDRO LabID Events x 100.

Percent of MDRO LabID Events that are Long-term Care Facility-onset = Number of MDRO LabID Events that are LO / Total number of MDRO LabID Events x 100.

Percent of LO LabID Events that are Acute Care-Transfer-Long-term Care Facility-onset = Number of ACT-LO MDRO LabID Events / Total number of LO MDRO LabID Events x 100.

Figure 2. MDRO Test Result Algorithm for Laboratory-identified (LabID) Events.



Notes:

1. LabID event reporting is based on specimens collected by the LTCF during the care of the resident, and specimens collected in an ED or OP setting (for example, physician's office) during the current admission. Laboratory results obtained prior to the resident's admission to the LTCF or during an admission in another healthcare facility are excluded. See *Settings*
2. Day of specimen collection equals Day 1 of the specimen count.

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Laboratory-identified MDRO or CDI Event for LTCF

*required for saving Facility ID:	Event #:
*Resident ID:	Social Security #:
Medicare number (or comparable railroad insurance number):	
Resident Name, Last: First: Middle:	
*Gender: M F Other	*Date of Birth: ___/___/____
Ethnicity (specify):	Race (specify):

*Resident type: ☐ Short-stay ☐ Long-stay

*Date of First Admission to Facility: __/__/____ *Date of Current Admission to Facility: __/__/____

Event Details

*Event Type: LabID	*Date Specimen Collected: __/__/____

*Specific Organism Type: (check one)

☐ MRSA ☐ MSSA ☐ VRE ☐ *C. difficile* ☐ CephR-*Klebsiella*

☐ CRE-*E. coli* ☐ CRE-*Enterobacter* ☐ CRE-*Klebsiella* ☐ MDR-*Acinetobacter*

*Specimen Body Site/System: *Specimen Source:

*Resident Care Location:

*Primary Resident Service Type: (check one)

☐ Long-term general nursing ☐ Long-term dementia ☐ Long-term psychiatric

☐ Skilled nursing/Short-term rehab (subacute) ☐ Ventilator ☐ Bariatric ☐ Hospice/Palliative

*Has resident been transferred from an acute care facility in the past 4 weeks? Yes No

If Yes, date of last transfer from acute care to your facility: __/__/____

If Yes, was the resident on antibiotic therapy for this specific organism type at the time of transfer to your facility? Yes No

Custom Fields

Label		Label	
_____	____/____/_____	_____	____/____/_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Comments

Table 5. Instructions for Completion of the LTCF Laboratory- identified (LabID) MDRO or CDI Event form (CDC 57.138)

Data Field	Instructions for Form Completion
Facility ID	The NHSN-assigned facility ID number will be auto-entered by the system.
Event ID	Event ID number will be auto-entered by the system.
Resident ID	**Required**. Enter the alphanumeric resident ID. This is the resident identifier assigned by the facility and may consist of any combination of numbers and/or letters. This should be an ID that remains the same for the resident across all visits and admissions.
Social Security #	*Optional*. Enter the resident's 9-digit numeric Social Security Number or Tax Identification (ID) Number.
Medicare number	*Optional*. Enter the resident Medicare number or comparable railroad insurance number.
Resident Name, Last, First, Middle	*Optional*. Enter the name of the resident.
Gender	**Required**. Select M (Male) or F (Female) to indicate the gender of the resident.
Date of Birth	**Required**. Record the date of the resident's birth using this format: MM/DD/YYYY.
Ethnicity (specify)	*Optional*. Enter the resident's ethnicity: Hispanic or Latino Not Hispanic or Not Latino
Race (specify)	*Optional*. Enter the resident's race: American Indian or Alaska Native; Asian; Black or African American; Native Hawaiian or Other Pacific Islander; White
Event Details	
Resident Type	**Required**. Select short-stay or long-stay to indicate the resident type: • ***Short-stay***: Resident has been in facility for 100 or less days from date of **first** admission. In other words, if the Event Date minus the First Admission Date is less than or equal to 100; then resident type should be "SS". • ***Long-stay***: Resident has been in facility for more than 100 days from date of **first** admission. In other words, if the Event Date minus the First Admission Date is greater than 100 then the resident type should be "LS".
Date of First Admission to Facility	**Required**. The date of first admission is defined as the date the resident first entered the facility. This date remains the same even if the resident leaves the facility (for example, transfers to another facility) for short periods of time (less than 30 consecutive days). If the resident leaves the facility and is away for 30 or more consecutive days, the date of first admission should be updated to the date of return to the facility. Enter date using this format: MM/DD/YYYY.

Data Field	Instructions for Form Completion
Event Details	
Date of Current Admission to Facility	**Required**. The date of current admission is the most recent date the resident entered the facility. *If the resident enters the facility for the first time and has not left, then the date of current admission will be the same as the date of first admission.* Enter date using this format: MM/DD/YYYY. **Notes:** • If the resident leaves the facility for more than 2 calendar days (the day the resident leaves the facility is equal to day 1) and returns, the date of current admission should be updated to the date of return to the facility. • If the resident has not left your facility for more than 2 calendar days, then the date of current admission should not be changed. • Date of current admission must occur BEFORE the date of event. *Example:* A resident is transferred from your facility to an acute care facility on June 2, 2017 and returns on June 5, 2017, the current admission date would be 06/05/2017. One week later, the same resident goes to the ED for evaluation on June 12, 2017 and returns on June 13, 2017. The date of current admission stays 06/05/2017.
Event Type	**Required**. Event type = LabID. This will be auto-entered by the system.
Date Specimen Collected	**Required**. Enter the date the specimen was **collected** for this Event using format: MM/DD/YYYY. This is also referred to as the Date of Event.
Specific Organism Type	**Required**. Check the laboratory-identified MDRO identified from this specimen: MRSA, MSSA (if tracking MRSA & MSSA together), VRE, *C. difficile*, CephR-*Klebsiella*, CRE-*E. coli*, CRE- *Enterobacter*, CRE-*Klebsiella*, or MDR-*Acinetobacter*. **Notes:** • If multiple MDROs are identified from the same culture, create a new Event report for each one (specifically, 1 form for each pathogen). • If conducting surveillance for CRE, the facility must include all three CRE organisms (*E. coli*, *Klebsiella*, and *Enterobacter*) in the monthly reporting plan and conduct surveillance for all three organisms.
Specimen Body Site/System	**Required.** Select the main body site/system from which the specimen was taken using the description that is most specific. Cardio/Circulatory/Lymph (CARD); Central Nervous System (CNS); Digestive System (DIGEST); Eyes, Ears, Nose, and Throat (EENT); Endocrine (ENDCRN); Genitourinary (GU); Musculoskeletal (MSC); Reproductive Female (REPRF); Reproductive Male (REPRM); Respiratory (RESP); Skin/Soft Tissue (SST); Unspecified

Data Field	Instructions for Form Completion
Event Details	
Specimen Source	**Required**. Enter the specific source from which the specimen was taken using the most accurate from the available choices. Examples of specimen source by each specimen body site/system include: *Cardio/Circulatory/Lymph (CARD)*: Blood, Lymph node, Vein, Spleen *Central Nervous System (CNS):* Brain , CSF, Spinal Cord *Digestive System (DIGEST)*: Stool, Rectal Swab, Liver, Stomach *Eyes, Ears, Nose, and Throat (EENT*): Mouth, Throat, Eye fluid *Endocrine (ENDCRN):* Thyroid, Thymus *Genitourinary (GU):* Genital swab, Perineal, Urethral swab, Urine *Musculoskeletal (MSC)*: Fat, Bone, Muscle, Synovial fluid *Reproductive Female (REPRF)*: Amniotic fluid, Ovary, Vaginal fluid *Reproductive Male (REPRM):* Prostatic fluid, Sperm *Respiratory (RESP)*: BAL, Lung, Nasopharyngeal wash, Pleural fluid *Skin/Soft Tissue (SST):* Abscess, Skin, Soft tissue biopsy
Resident Care Location	**Required**. Enter the location where the resident was residing on the date the specimen was collected. If a specimen was collected while the resident was receiving care from an ED or OP location, the *Resident Care Location* should indicate the resident's primary LTCF location prior to visiting the outpatient setting.
Primary Resident Service Type	**Required**. Check the single primary service that best represents the type of care the resident is receiving on the date the specimen was collected: Long-term general nursing, long-term dementia, long-term psychiatric, skilled nursing/short-term rehab (subacute), ventilator, bariatric, or hospice/palliative. **Note**: If a specimen was collected while the resident was receiving care from an ED or OP setting, the Primary Resident Service Type should indicate the resident's primary service type prior to visiting the outpatient setting.
Has resident been transferred from an acute care facility in the past 4 weeks?	**Required**. Select "Yes" if the resident has been an <u>inpatient</u> of an acute care facility (hospital, long-term acute care hospital, or acute inpatient rehabilitation facility only) <u>and</u> was directly admitted to your facility in the past four weeks, otherwise select "No". **Note**: An ED visit and/or outpatient visit (physician's office) is excluded since these outpatient visits do **not** represent and an inpatient admission.
If yes, date of last transfer from acute care to your facility	***Conditionally required***. If the resident was transferred from acute care to your facility in the past four weeks, enter the most recent date of transfer. Use format: MM/DD/YYYY

Data Field	Instructions for Form Completion
Event Details	
If yes, was the resident on antibiotic therapy for this specific organism type at the time of transfer to your facility?	***Conditionally required***. If the resident was on antibiotic therapy for this specific organism at the time of transfer to your facility select "Yes", otherwise select "No".
Documented prior evidence of infection or colonization with this specific organism type from a previously reported LabID Event?	**Non-editable. This is a system auto-populated field and is based on prior months LabID Events.** "Yes" or "No" will be auto-filled by the system only, depending on whether there is prior LabID Event entered for the same organism and same patient in the prior month. Cannot be edited by user. If there is a previous LabID event for this organism type entered in NHSN in a **prior month**, the system will auto-populate with a "Yes." **Note**: This question is not used in the categorization of *C. difficile* LabID Events.
Custom Fields	
Labels	*Optional*. Up to 50 fields may be customized for local or group use in any combination of the following formats: date (MMDDYYYY), numeric, or alphanumeric. **Note:** Each Custom Field must be set up in the Facility/Custom Options section of the NHSN application before the field can be selected for use.
Comments	*Optional.* Enter any information on the event. This information is not analyzed.

Prevention Process Measures Surveillance Protocol for Long-term Care Facilities

Background: Healthcare-associated infections (HAIs) can be reduced with adherence to infection prevention measures. The CDC's Healthcare Infection Control Practices Advisory Committee (CDC/HICPAC) *Guidelines for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings*[1] recommends practices known to reduce the risk of HAIs. These practices include hand hygiene, gloves use, and gown use. Despite evidence supporting these prevention measures, adherence to these practices is sub-optimal. Several facilities have found it useful to monitor adherence to these prevention practices as a method for identifying quality improvement opportunities and strategically targeting interventions. Feedback of adherence data has been a component of multifaceted interventions that have successfully reduced HAI rates[2].

Participation in NHSN Prevention Process Measures Surveillance is open to all types of long term care facilities (LTCF), including Nursing Homes/Skilled Nursing Facilities (LTC:SKILLNURS); intermediate/chronic care facilities for the developmentally disabled (LTC:DEVDIS); Assisted Living Facilities and Residential Care Facilities (LTC:ASSIST). Participation enables facilities and CDC to:

- Monitor practices in facilities and provide aggregate adherence data for all participating facilities.
- Facilitate quality improvement by identifying specific gaps in adherence to recommended prevention practices, thereby helping to target intervention strategies for reducing HAI rates.

References:

1: Healthcare Infection Control Practices Advisory Committee (HICPAC) Guidelines for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Setting. Available at www.cdc.gov/hicpac/pdf/isolation/Isolation2007.pdf

2: Smith et al. SHEA/APIC Guideline: Infection Prevention and Control in the Long-Term Care Facility. *Infection Control and Hospital Epidemiology*, vol.29, 2008, pp. 785-814.

1. Monitoring Adherence to Hand Hygiene

Introduction: This surveillance option will allow LTCFs to monitor adherence to hand hygiene (HH) after healthcare personnel (HCP) have come in contact with a resident or objects/surfaces in the immediate vicinity of a resident (for example, within resident's room, equipment handled during therapy). For the purposes of monitoring, HCP include all staff members providing direct care for residents (for example, physicians, nurses, certified nursing assistants, therapists), as well as staff members who perform services in resident care areas (for example, environmental services and meal delivery). Research data suggests that improved after-contact HH is associated with reduced HAI transmission. While there are multiple opportunities for proper HH during resident care, the focus of this option is to observe and report HH adherence only after contact with a resident or the objects/surfaces in the immediate vicinity of the resident. (www.cdc.gov/handhygiene/)

Settings: Participation in NHSN Prevention Process Measures Surveillance is open to all types of long term care facilities (LTCF), including Nursing Homes/Skilled Nursing Facilities (LTC:SKILLNURS); intermediate/chronic care facilities for the developmentally disabled (LTC:DEVDIS); Assisted Living Facilities and Residential Care Facilities (LTC:ASSIST).

Requirements: Facilities must indicate their reporting for the calendar month in the *Monthly Reporting Plan for LTCF* (CDC 57.141). Surveillance for hand hygiene adherence in the LTCF must be reported for at least 6 consecutive months to provide meaningful measures.

Perform ***at least 30*** different unannounced observations after contact with residents for as many individual HCPs as possible. For example, try to observe all types of HCPs (physicians, nurses, technicians, aides, etc.) performing a variety of resident care tasks during the course of the month. No personal identifiers will be collected or reported.

Hand hygiene process measure data are reported using the *Prevention Process Measures Monthly Monitoring for LTCF* form (CDC 57.143). (See *Table of Instructions* for instruction on how to complete this form.)

Definitions:

Antiseptic hand wash: Washing hands with water and soap or other detergents containing an antiseptic agent.

Antiseptic hand rub: Applying an antiseptic hand-rub product to all surfaces of the hands to reduce the number of organisms present.

Hand hygiene: A general term that applies to either: hand washing, antiseptic hand wash, antiseptic hand rub, or surgical hand antisepsis.

Hand washing: Washing hands with water and plain (specifically, non-antimicrobial) soap.

Numerator: Hand Hygiene Performed = Total number of observed contacts during which a HCP touched either a resident or objects/surfaces in the immediate vicinity of a resident and appropriate hand hygiene was performed.

Denominator: Hand Hygiene Indicated = Total number of observed contacts during which a HCP touched either a resident or objects/surfaces in the immediate vicinity of a resident where appropriate hand hygiene was indicated.

Data Analysis: Data are stratified by time (for example, month, quarter, etc.).

Hand Hygiene Percent Adherence = Number of contacts for which hand hygiene was performed / Number of contacts for which hand hygiene was indicated X 100.

II. Monitoring Adherence to Gown and Gloves Use as Part of Contact Precautions

Introduction: Transmission-based Contact Precautions are additional infection prevention measures implemented to limit the transmission of pathogens by direct or indirect contact with a resident or a resident's immediate environment. This option will allow facilities to monitor adherence to gown and glove use when a HCP has contact with a resident or objects/surfaces within a resident's room when that resident is on Transmission-based Contact Precautions. While numerous aspects of adherence to Contact Precautions could be monitored, this surveillance option is only focused on gown and glove use.
https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html

Settings: Participation in NHSN Prevention Process Measures Surveillance is open to all types of long term care facilities (LTCF), including Nursing Homes/Skilled Nursing Facilities (LTC:SKILLNURS); intermediate/chronic care facilities for the developmentally disabled (LTC:DEVDIS); Assisted Living Facilities and Residential Care Facilities (LTC:ASSIST).

Requirements: Facilities must indicate their reporting for the calendar month in the *Monthly Reporting Plan for LTCF* (CDC 57.141). Surveillance for gown and gloves use adherence in the LTCF must be reported for at least 6 consecutive months to provide meaningful measures.

Perform ***at least 30*** different unannounced observations for as many individual HCP as possible. An observable contact would be the entry of a HCP into a room to interact with a resident on Transmission-based Contact Precautions. Try to observe all types of HCPs

(physicians, nurses, therapists, aides, etc.) performing a variety of resident care tasks during the course of the month (for example, not only nurses, or not only during catheter or wound care). Both gown and gloves must be donned prior to contact for compliance. No personal identifiers will be collected or reported.

Gown and glove use process measure data are reported using the *Prevention Process Measures Monthly Monitoring for LTCF* form (CDC 57. 143). (See *Table of Instructions* for instruction on how to complete this form.)

Definitions:

Gown and glove use**:** In the context of Transmission-based Contact Precautions, the donning of both gown and gloves prior to contact with a resident or objects/surfaces within the resident's room. Both gown and gloves must be donned prior to contact for compliance.

Numerator: Gown and Gloves Used = Total number of observed contacts between a HCP and a resident or objects/surfaces within a resident's room, when that resident is on Transmission-based Contact Precautions, for which gown and gloves were donned prior to contact.

Denominator: Gown and Gloves Indicated = Total number of observed contacts between a HCP and a resident or objects/surfaces within a resident's room on Transmission-based Contact Precautions, for which gown and gloves were indicated.

Data Analysis: Data are stratified by time (for example, month, quarter, etc.).

Gown and Glove Use Percent Adherence = Number of contacts for which gown and gloves were used / Number of contacts for which gown and gloves were indicated X 100.

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Prevention Process Measures Monthly Monitoring for LTCF

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

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

Prevention Process Measures

Hand Hygiene

**Performed: _____

**Indicated: _____

Gown and Gloves

**Used: _____

**Indicated: _____

Custom Fields

Label _____ _____ _____ _____ _____

Data _____ _____ _____ _____ _____

Assurance of Confidentiality: The voluntarily provided information obtained in this surveillance system that would permit identification of any individual or institution is collected with a guarantee that it will be held in strict confidence, will be used only for the purposes stated, and will not otherwise be disclosed or released without the consent of the individual, or the institution in accordance with Sections 304, 306 and 308(d) of the Public Health Service Act (42 USC 242b, 242k, and 242m(d)).

Table 6. Instructions for Completion of the Prevention Process Measures Monthly Monitoring for LTCF form (CDC 57.143)

Data Field	Instructions for Form Completion
Facility ID #	The NHSN-assigned facility ID number will be auto-entered by the system.
Month	**Required.** Enter the 2-digit month during which prevention process measures monitoring was performed.
Year	**Required.** Enter the 4-digit year during which prevention process measures monitoring was performed.
Location Code	**Required.** For Long-term Care Facilities this code will be FacWideIN (Facility-wide Inpatient).
Process Measures: Hand Hygiene	
Performed	***Conditionally required,*** if enrolled in hand hygiene adherence process measures. Enter the total number of observed contacts during which healthcare personnel touched either a resident or inanimate objects in the immediate vicinity of a resident and appropriate (*based on facility policy and procedures and/or recommended guidelines*) hand hygiene was performed.
Indicated	***Conditionally required***, if enrolled in hand hygiene adherence process measures. Enter the total number of observed contacts during which healthcare personnel touched either a resident or inanimate objects in the immediate vicinity of the resident and therefore, appropriate (*based on facility policy and procedures and/or recommended guidelines*) hand hygiene was indicated.
Process Measures: Gown and Gloves	
Used	***Conditionally required***, if enrolled in gown and gloves use adherence process measures. Among residents on Transmission-based Contact Precautions, enter the total number of observed contacts between healthcare personnel and a resident or inanimate object in the immediate vicinity of the resident for which gown and gloves were donned *prior* to contact.
Indicated	***Conditionally required***, if enrolled in gown and gloves use adherence process measures. Among residents on Transmission-based Contact Precautions, enter the total number of observed contacts between healthcare personnel and a resident or inanimate objects in the immediate vicinity of the resident and therefore, gown and gloves were indicated.
Custom Fields	
Label	*Optional*. Up to 50 fields may be customized for local or group use in any combination of the following formats: date (MMDDYYYY), numeric, or alphanumeric. **Note:** Each Custom Field must be set up in the Facility/Custom Options section of NHSN before the field can be selected for use.
Comments	*Optional.* Enter information for internal facility use.

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MDRO and CDI LabID Event Reporting
Monthly Summary Data for LTCF

*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:_____

**Number of C. diff Treatment Starts: _____

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 _____ _____ _____ _____ _____

Table 7. Instructions for Completion of the MDRO and CDI Monthly Monitoring for Long-term Care Facility form (CDC 57.139)

Note: This form aligns with what the user will see in the NHSN application when entering denominator data for MDRO and/or CDI. A facility may choose to use this form (CDC 57.139) to record the aggregate MDRO and/or CDI monthly data that will be entered into NHSN or form CDC 57.142 to manually record daily counts that will be summed and entered into the NHSN application.

Data Field	Instructions for Form Completion
Facility ID	**Required**. The NHSN-assigned facility ID will be auto-entered by the system.
Location Code	**Required**. Enter the code for the location where the monthly monitoring data was collected. For Long-term Care Facilities this code will be FacWideIN (Facility-wide Inpatient).
Month	**Required**. Record the 2-digit month during which the data were collected.
Year	**Required.** Record the 4-digit year during which the data were collected.
Resident Days	**Required.** For each day of the month, record the number of residents in the facility and record the **total count** for the calendar month. Do not include residents for whom a bed is being held but are not actually present in the facility. **Comments:** • To calculate resident days, for each day of the month, at the same time each day, record the number of residents in the facility. At the end of the month, sum the daily counts and enter the total into NHSN. • When resident days are available from electronic databases (for example, ADT-admission, discharge, transfer records), these sources may be used as long as the counts are not substantially different (+/- 5%) from manually collected counts.
Resident Admissions	**Required**. For each day of the month, count, and record the number of residents admitted to the facility and record the total count for the calendar month. Include both new admissions and re-admissions (a resident was out of the facility >2 calendar days and then returned). **Note:** Only the total number of resident admissions for the calendar month are to be entered into the NHSN application.

Data Field	Instructions for Form Completion
Number of admissions on *C.difficile* treatment	***Conditionally required***. Complete only if you are performing LabID event for *C.difficile* surveillance for this month. For each day of the month, count and record the number of residents who are receiving antibiotic therapy for *C.difficile* infection at the time of admission to your facility and record the total count for the calendar month. Include both new admissions and re-admissions (specifically, a resident was out of the facility >2 calendar days and then returned). **Note:** A resident admitted on CDI treatment should be included in this count even if he/she does not have a CDI LabID event for the LTCF. **Comments:** • The most common medications used to treat *Clostridioides difficile* (previously referred to as *Clostridium difficile*) infection are oral (PO) vancomycin and/or oral (PO) metronidazole (Flagyl); and Fidaxomicin. In the absence of CDI documentation, users are encouraged to consult with the physician or nurse to verify treatment for *C. difficile* since these medications could be prescribed for other conditions.
Number of *C. difficile* treatment starts	***Conditionally required*.** Complete only if you are performing LabID event for *C.difficile* surveillance for this month. Record the total count of new prescriptions for a medication (for example, antibiotic) given for residents suspected or diagnosed with having a *C. difficile* infection in the facility for the calendar month. Capture all new medication treatments (for example, antibiotic orders), regardless of: (1) results of *C. difficile* testing, including those without a positive CDI test; and (2) number of doses or days of therapy. The aggregate count for the calendar month should be entered as the total *C. difficile* Treatment Starts. **Notes:** • Include only CDI medications (for example, antibiotics) that are started while the resident is receiving care in your facility, either by clinical providers working in the facility or by outside physicians/providers who see the resident in an outpatient clinic or emergency department. • Do not include treatment (for example, antibiotic courses) started by another healthcare facility prior to the resident's admission or readmission back to your facility, even if the resident continues to take the medication (for example, antibiotic) while in the facility. • Common medications used to treat *Clostridioides difficile* infection (previously referred to as *Clostridium difficile* infection) are oral (PO) vancomycin and/or oral (PO) metronidazole (Flagyl); and Fidaxomicin. In the absence of CDI documentation, users are encouraged to consult with

Data Field	Instructions for Form Completion
	the physician or nurse to verify treatment for *C. difficile* since these medications could be prescribed for other conditions.
Specific Organism Type: LabID All Specimens	**Required.** Selections for LabID event reporting for All Specimen sources will be auto-filled for each organism included in the Monthly Reporting Plan for this month.
Report No Events	***Conditionally required.*** For each organism included in your monthly reporting plan for this calendar month, put an "X" in the *Report No Events* box only if there were no LabID events reported into the NHSN application for that organism during the calendar month. **Note:** Selections for *Report No Events* will be disabled for each organism in which a LabID event was already entered into the NHSN during the calendar month and for organisms that were not selected in the monthly reporting plan for the calendar month.
Custom Fields	*Optional*. Up to 50 fields may be customized for local or group use in any combination of the following formats: date (MMDDYYYY), numeric, or alphanumeric. **Note:** Each Custom Field must be set up in the Facility/Custom Options section of NHSN before the field can be selected for use.

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Denominators for LTCF

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

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	*Number of *C. diff* treatment starts
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
*Total							
	Resident-days	Urinary-catheter days	Total antibiotic starts for UTI indication	Total urine cultures ordered	Resident-admissions	Resident-admissions on *C. diff* treatment	*Number of *C. diff* treatment starts

Label: _____ _____ _____ _____ _____ _____

Data: _____ _____ _____ _____ _____ _____

Table 3. Instructions for Completion of the Long-term Care Facility Component - Denominators for LTCF (CDC 57.142)

Data Field	Instructions for Form Completion
Facility ID	**Required**. The NHSN-assigned facility ID will be auto-entered by the system.
Location Code	**Required:** Enter the code for the location where surveillance was performed. For Long-term Care Facilities this code will be FacWideIN (Facility-wide Inpatient).
Month	**Required**. Record the 2-digit month during which the data were collected.
Year	**Required**. Record the 4-digit year during which the data were collected.
Number of residents	**Required**. For each day of the month, record the number of residents in the facility. The total count for the calendar month should be entered into the NHSN as the total Resident Days. **Note**: Do not include residents for whom a bed is being held but are not actually present in the facility. **Comments:** • To calculate resident days, for each day of the month, at the same time each day, record the number of residents in the facility. At the end of the month, sum the daily counts and enter the total into NHSN. • When resident days are available from electronic databases (for example, ADT-admission, discharge, transfer records), these sources may be used as long as the counts are not substantially different (+/- 5%) from manually collected counts.
Number of residents with a urinary catheter	***Conditionally required***. Complete only if you are performing urinary tract infection (UTI) surveillance for this month. For each day of the month, count and record the number of residents in the facility who have an *indwelling urinary catheter*. The aggregate count for the calendar month should be entered as the total *Urinary-Catheter Days*. **Note**: Indwelling urinary catheter is a drainage tube that is inserted into the urinary bladder *through the urethra*, is left in place, and is connected to a collection system; also called a Foley catheter. Do not include straight in-and-out catheters, suprapubic catheters, or condom catheters in your count.

Data Field	Instructions for Form Completion
New antibiotic starts for UTI indication	***Conditionally required***. Complete only if you are performing urinary tract infection (UTI) surveillance for this month. For each day of the month, count and record the number of new prescriptions for an antibiotic given for residents suspected or diagnosed with having a urinary tract infection, (both catheter-associated and not catheter associated), in the facility. Capture all new antibiotic orders, regardless of number of doses or days of therapy. The aggregate count for the calendar month should be entered as the total *Antibiotic Starts for UTI Indication*. **Note**: Include only antibiotics that are started while the resident is receiving care in your facility, either by clinical providers working in the facility or by outside physicians who see the resident in an outpatient clinic or emergency department. Do not include antibiotic courses started by another healthcare facility prior to the resident's admission or readmission back to your facility, even if the resident continues to take the antibiotic while in the facility.
Number of urine cultures ordered	***Conditionally required.*** Complete only if you are performing urinary tract infection (UTI) surveillance for this month. For each day of the month, count and record the number of urine cultures ordered for residents in the facility. The aggregate count for the month should be entered as the total *Urine Cultures Ordered*. Capture all new urine culture orders for a resident regardless of whether the resident has a UTI meeting the NHSN event definition. **Note**: Include only urine culture orders that are placed while the resident is receiving care in your facility, either by clinical providers working in the facility or by outside physicians who see the resident in an outpatient clinic or Emergency department. Do not include urine cultures ordered by another healthcare facility prior to the resident's admission or readmission back to your facility.
Number of admissions	***Conditionally required***. Complete only if you are performing LabID Event surveillance for this month. For each day of the month, count and record the number of residents admitted to the facility. The total count for the calendar month should be entered as the total *Resident Admissions*. Include both new admissions and re-admissions when a resident was out of the facility >2 calendar days (specifically, change to the Current Admission Date).

Data Field	Instructions for Form Completion
Number of admission on *C. difficile* treatment	***Conditionally required***. Complete only if you are performing LabID event for *C.difficile* surveillance for this month. For each day of the month, count and record the number of residents who are receiving medication therapy (such as antibiotics) for the treatment of *C.difficile* infection at the time of admission to your facility. The total count for the calendar month should be entered into the NHSN as the total *Number of Admissions on C. diff Treatment*. Include both new admissions and re-admissions when a resident was out of the facility >2 calendar days (specifically, change to the Current Admission Date). **Note**: A resident admitted on CDI treatment should be included in this count even if he/she does not have a CDI LabID event for the LTCF. **Comments:** • The most common medications used to treat *Clostridioides difficile* infection (previously referred to as *Clostridium difficile* infection) are oral (PO) vancomycin and/or oral (PO) metronidazole (Flagyl); and Fidaxomicin. In the absence of CDI documentation, users are encouraged to consult with the physician or nurse to verify treatment for *C. difficile* since these medications could be prescribed for other conditions.

Data Field	Instructions for Form Completion
Number of *C. difficile* treatment starts	***Conditionally required*.** Complete only if you are performing LabID event for *C.difficile* surveillance for this month. For each day of the month, count and record the number of new prescriptions or orders for a medication (for example, antibiotic) given for residents suspected or diagnosed with having a *C. difficile* infection in the facility. Capture all new medication treatments (for example, antibiotic orders), regardless of: (1) results of *C. difficile* testing, including those without a positive CDI test; and (2) number of doses or days of therapy. The aggregate count for the calendar month should be entered as the total *C. difficile* Treatment Starts. **Comments:** • Include only CDI medications (for example, antibiotics) that are started while the resident is receiving care in your facility, either by clinical providers working in the facility or by outside physicians/providers who see the resident in an outpatient clinic or emergency department. • Do not include treatment (for example, antibiotics) started by another healthcare facility prior to the resident's admission or readmission back to your facility, even if the resident continues to take the medication while in the facility. • Common medications used to treat *Clostridioides difficile* infection (previously referred to as *Clostridium difficile* infection) are oral (PO) vancomycin and/or oral (PO) metronidazole (Flagyl); and Fidaxomicin. • In the absence of CDI documentation, users are encouraged to consult with the physician or nurse to verify treatment for *C. difficile* since these medications could be prescribed for other conditions.
Total (for Resident-days, Urinary catheter-days, New antibiotic starts for UTI indication, Resident admissions, Number of Urine cultures ordered, Admissions on *C. difficile* treatment)	**Required**. A total for each column should be calculated by summing the numbers recorded for each individual day of the month. Alternatively, if available, these monthly totals can be obtained from LTCF administrative data sources in place of performing daily counts. **Note:** Only the monthly total will be entered into the NHSN application
Custom Fields	*Optional.* Up to 50 fields may be customized for local- or group-use in any combination of the following formats: date (MMDDYYYY), numeric, or alphanumeric. **Note**: Each Custom Field must be set up in the Facility/Custom Options section of NHSN before the field can be selected for use.

NHSN Key Terms, Acronyms, and Definitions

Long-term Care Facility Component

1. **80% Rule:** A principle used to determine which location label to select when different types of service are provided on a single unit. A location label selected for a given unit should describe the service provided to the majority (~80%) of residents housed there in the previous year. See CDC Location for additional details.
2. **Annual Facility Survey:** Completed at the beginning of each calendar year to describe the facility characteristics and practices for the previous calendar year. For example, in 2019, facilities will complete the 2018 annual facility survey to document facility characteristics and practices during the 2018 calendar year.
3. **ASC/AST:** Active Surveillance Cultures or Testing. For purposes of NHSN surveillance, Active Surveillance Culture/Testing (ASC/AST) refers to testing that is intended to identify the presence/carriage of microorganisms for the purpose of instituting or discontinuing isolation precautions (for example, nasal swab for MRSA, rectal swab for VRE), or monitoring for eradication of a carrier state. ASC/AST does NOT include identification of microorganisms with cultures or tests performed for diagnosis and treatment purposes (for example, specimens collected from sterile body sites including blood specimens). Also see Surveillance cultures.
4. **Assisted Living Facility (ALF):** These facilities provide help with activities of daily living (for example, taking medicine, using eye drops, getting to appointments, and preparing meals). Residents often live in their own room or apartment within a building or group of buildings.
5. **BSI**: Bloodstream Infection. The LTCF Component does not have a protocol for reporting BSIs. However, when reporting a UTI using the NHSN UTI protocol, users will mark "Yes" to "Secondary Bloodstream Infection" if the resident has a microorganism reported in a urine culture and has the same microorganism reported from a blood culture.

NHSN Key Terms, Acronyms, and Definitions

Long-term Care Facility Component

6. **CAUTI:** Catheter-associated Urinary Tract Infection. Referred to as CA-SUTI (catheter associated symptomatic urinary tract infection) in the LTCF protocol. See LTCF UTI Event protocol.
7. **CCN:** CMS Certification Number (CCN). May also be referred to as Medicare Provider Number.
8. **CDC Location:** A CDC-defined designation given to a resident care area housing residents who have similar disease conditions or who are receiving care for similar medical specialties. Each facility location that is monitored is "mapped" to one CDC Location. The specific CDC Location label is determined by the type of resident cared for in that area according to the 80% Rule. That is, if 80% of residents are of a certain type (for example. individuals requiring restorative care following recent hospitalization) then that area is designated as that type of location (in this case, a LTCF Skilled Nursing/Short Term Rehabilitation unit). For detailed instructions on how to map locations, see "Instructions for Mapping Patient Care Locations in NHSN" in the Locations and Descriptions chapter.
9. **CDI:** *Clostridioides difficile* infection. Previously referred to as *Clostridium difficile* infection. Frequently referred to as C. diff or *C. difficile.* See LabID Event protocol.
10. **Catheter Days:** A daily count of the number of residents in the LTCF with an indwelling urinary (Foley) catheter. To calculate catheter days, for each day of the month, at the same time each day, record the number of residents who have an indwelling urinary (Foley) catheter. At the end of the month, sum the daily counts and enter the total into the NHSN. See LTCF UTI Event protocol.
11. **Date of Event:** The date of event is defined as the date when the first clinical evidence (signs/symptoms) of the UTI appeared or the date the specimen used to make or confirm the diagnosis was collected, whichever comes first. This definition does not apply to LabID event. See Event Date in LabID Event protocol.

NHSN Key Terms, Acronyms, and Definitions

Long-term Care Facility Component

12. **Device-associated Infection:** A healthcare-associated Infection (HAI) in a resident with a device (for example, indwelling urinary catheter) if the device was in place for >2 calendar days on the date of event and was also in place on the date of event or the day before. If the device was in place for >2 calendar days and then removed, the date of event must be the day of discontinuation or the next day to be device associated.
13. **Dysuria:** The sensation of pain, burning, or discomfort on urination.
14. **Event Contributed to Death:** The event either directly caused death or exacerbated an existing disease condition, which then led to death.
15. **Event Date:** See date of event.
16. **Fever:** See vital signs.
17. **HAI:** Healthcare-associated Infection. An infection is considered a HAI if the date of event of the NHSN site-specific infection criterion (for example, UTI) occurs on or after the 3rd calendar day of current admission to the LTCF where day of current admission is calendar day 1. There must be no evidence that the infection was present or incubating at the time of admission to the LTCF, unless a change in pathogen or signs and symptoms strongly suggests the acquisition of a new infection. **Note:** The HAI definition is not to be used in the LabID Event protocols.
18. **HPS:** Healthcare Personal Safety (HPS). May be used by LTCFs to report healthcare staff safety events such as influenza vaccination. See Surveillance for Healthcare Personnel Vaccination home page.
19. **Hypotension:** See vital signs.
20. **Indwelling Urinary Catheter**: A drainage tube that is inserted into the urinary bladder through the urethra, is left in place, and is connected to a collection system; also called a Foley catheter. Straight in-and-out catheters are *not* considered as indwelling urinary catheters.
21. **Infection Date:** See date of event.

NHSN Key Terms, Acronyms, and Definitions

Long-term Care Facility Component

22. **IP:** Infection preventionist or infection prevention.
23. **ICPO:** Infection control and prevention officer.
24. **Incomplete Event Alert:** Reported events that are missing required information. All incomplete events must be resolved before event data are considered as complete and included in analyses for the month.
25. **Incomplete Summary Data Alert:** Occurs when the monthly summary data submission is incomplete for a given month. This often occurs when a monthly reporting plan is updated to include an additional event(s) after summary data have been submitted or when the "Report No Events" box has been left unchecked when at least one in-plan event was not reported. Incomplete summary data alerts must be resolved before data are considered as complete and included in analyses for that month.
26. **In-plan Surveillance:** Facility has indicated in their monthly reporting plan that the NHSN surveillance protocol(s) will be used, in its entirety, for that particular event. A monthly reporting plan must be completed each month before a facility is able to enter event data into the NHSN application.
27. **LabID Event:** Laboratory-identified event. See Laboratory-identified Multidrug-Resistant Organism (MDRO) & Clostridium difficile Infection (CDI) Events for Long-term Care Facilities (LTCFs) module.
28. **Location:** The resident care area to which a resident is assigned while receiving care in facility.
29. **Long-term Care Hospital (LTCH):** A hospital in which extended medical and rehabilitative care is provided to individuals with clinically complex problems, such as multiple acute or chronic conditions, that need hospital-level care for relatively extended periods. Also referred to by the NHSN as long-term acute care (LTAC).
30. **Long-term Care Facility (LTCF):** Facilities providing a spectrum of medical and non-medical supports and services to frail or older adults unable to reside independently in the

NHSN Key Terms, Acronyms, and Definitions

Long-term Care Facility Component

community. The following LTCFs are able to use NHSN for surveillance: nursing homes (NH) and skilled nursing facilities (SNF), intermediate/chronic care facilities for the developmentally disabled, and assisted living facilities and residential care facilities.

31. **MDRO:** Multidrug resistant organism. See Laboratory-identified Multidrug-Resistant Organism (MDRO) & Clostridium difficile Infection (CDI) Events for Long-term Care Facilities (LTCFs) module.
32. **Missing Event Alert:** Occurs when a module and event type is selected on the monthly reporting plan, but no events were reported for that month and the monthly summary data submission is either missing or does not indicate that in-plan events were not identified during the month (referred to on the monthly summary page as "Report No Events").
33. **Missing Summary Data Alert:** Occurs when a module and event type is selected on the monthly reporting plan, but no summary/denominator was submitted for the month. Complete summary data are required to be submitted before data are considered complete and included in analyses for the month.
34. **MRP:** Monthly reporting plan. The Monthly Reporting Plan informs the NHSN which modules and events a facility will be tracking for the month. A facility must have a MRP for each month in which the facility will perform surveillance in the NHSN.
35. **NHSN:** National Healthcare Safety Network.
36. **NHSN Facility Administrator:** A specific individual identified by a healthcare facility as the person who will be managing the facility within the NHSN application. This person serves as the primary point of contact for NHSN communication to the facility, and is responsible for NHSN facility enrollment and set-up and adding and inactivating users. The NHSN facility administrator is often the person who oversees infection prevention program activities and *does not* have to be the organization's facility administrator or part of the executive leadership.

NHSN Key Terms, Acronyms, and Definitions

Long-term Care Facility Component

37. **Nursing Home (NH):** A nursing facility providing primarily long-term maintenance and restorative care for individuals needing support with their activities of daily living. A large percentage of certified nursing homes in the U.S. provide a combination of long-term nursing care or restorative services and skilled nursing services.
38. **Org ID:** Organization ID. The unique identification number created by NHSN, which is assigned to a facility at the time of enrollment.
39. **PSC:** Patient Safety Component. Used by hospitals and other acute care and healthcare facilities for infection reporting.
40. **Resident Days:** A daily count of the number of residents in a long-term care facility location during a time period. To calculate resident days, for each day of the month, at the same time each day, record the number of residents. When resident days are available from electronic databases, these sources may be used as long as the counts are not substantially different (+/- 5%) from manually collected counts. At the end of the month, sum the daily counts and enter the total into NHSN.
41. **SAMS:** Secure Access Management Services**.** SAMS provides secure online access to and exchange of information between CDC and healthcare facilities and public health partners. U.S. law requires federal government agencies like CDC to perform an identity check on each person before granting access to non-public information.
42. **Skilled Nursing Facility (SNF):** A facility engaged primarily in providing skilled nursing care and rehabilitation services for residents who require such care because of injury, disability, or illness. A large percentage of SNFs are dually certified as both SNFs and nursing homes.
43. **SAMS Grid Card:** A grid card issued through Secure Access Management Services (SAMS) that adds a layer of security when users access NHSN through a web-based portal to submit data to CDC. Users will receive a SAMS grid card after successfully registering through SAMS.

NHSN Key Terms, Acronyms, and Definitions

Long-term Care Facility Component

44. **Summary Data:** Also referred to as denominator data that must be entered for each month a facility is participating in NHSN reporting. Examples of denominator/summary data include total resident days for the month, total admissions for the month, and total urinary catheter days, to name a few. The required data depends on which module(s) a facility participated during the given month. Best practice is to complete denominator data by the end of the following month. For example, denominator data for July should be submitted to NHSN by the end of August. Timely and complete event and summary data submission ensures complete data are included in analyses.
45. **Surveillance Cultures:** Those cultures reported as part of infection prevention and control surveillance including, but not limited to perirectal cultures for vancomycin-resistant *Enterococci* (VRE) and/or nasal swabs for methicillin-resistant *Staphylococcus aureus* (MRSA) surveillance. Not for use in resident diagnosis. Also called active surveillance cultures or testing (ASC/AST). Positive surveillance cultures do not contribute or preclude a resident from meeting NHSN HAI or LabID event criteria. Also see Active Surveillance Culture/Testing (ASC/AST).
46. **Temperature:** See Vital Signs. The temperature value applied to meet surveillance criteria should be the value documented in the medical record regardless of site tested (for example, tympanic, oral, or axillary).
47. **UTI:** Urinary tract infection. See NHSN LTCF UTI protocol.
48. **Vital Signs:** If a specific value for a vital sign is not stated in a CDC/NHSN HAI definition criterion (for example, hypotension), the facility should use the vital sign parameters as stated in its policies and procedures for clinical practices. For fever, which NHSN does have as a stated value, use the temperature documented in the patient's medical record (specifically, no conversion of temperature based on route of collection).

NHSN Long Term Care Facility Component
Frequently Asked Questions (FAQs)

TOPIC	QUESTION	ANSWER
General Questions		
Data entry due date	Is there a cut-off date for facilities to enter data and correct alerts?	The expectations are that data will be entered and alerts will be resolved in a timely manner so data are available for analysis. While there is not an established cut-off date for entering LTCF data, CDC-NHSN recommends users to complete data entry and resolve alerts by the end of each month for the previous month's submission to prevent data backlog, which is more prone to errors. For example, if a user has outstanding data and/or alerts for October, the data entry and alerts should be resolved no later than the 30th day of November.
HIPAA	Do I have to get resident permission before reporting data to the NHSN?	Public health surveillance does not fall under HIPAA and CDC-NHSN has safeguards to protect PII and ensure privacy. Additionally, NHSN was developed as a quality improvement tool to support infection surveillance and prevention activities. Therefore, individual patient/resident permission would not be required for a facility to use the system for their own, local, quality improvement activities.
NHSN facility administrator for multiple facilities	Can a person be the NHSN administrator for multiple facilities?	Yes. The person will use the same SAMS grid card to access all facilities in which he /she is listed as a user. **Note**--the same email address must be used for NHSN and SAMS.
Locations	I am trying to enter an event into NHSN and my facility locations are not showing in the "location" drop-down box.	Verify that resident locations have been set-up (mapped) in the NHSN application for your facility. NHSN provides step-by-step instructions for mapping resident locations, which is accessible on the following link: https://www.cdc.gov/nhsn/PDFs/LTC/slides/Facility_Set_up_slides_LTCF_v5_Final_with_508_3-2015.pdf

NHSN Long Term Care Facility Component
Frequently Asked Questions (FAQs)

TOPIC	QUESTION	ANSWER
Re-assign NHSN facility administrator	How do we reassign/change the NHSN Facility Administrator?	The NHSN facility administrator role will need to be re-assigned if the previous NHSN facility administrator is no longer available. In order for the NHSN facility administrator role to be re-assigned, at the facility must submit a written letter, on facility letterhead, requesting a new individual be assigned to the NHSN facility administrator role. This request can come from an administrative or clinical leader in the facility or corporation, such as the Director of Nursing, a Medical Director, Regional Manager or Administrator. This letter must have the following: • The name of the new NHSN facility administrator to be assigned • The new NHSN facility administrator's phone number • The new NHSN facility administrator's email address • The 5-digit NHSN Facility ID, if known • All information typed onto facility letterhead • Letter must be physically signed (a typed signature or signature line, alone, is not acceptable) The letter must be faxed to NHSN at 404-929-0131 or scanned and emailed to nhsn@cdc.gov. ***Note:*** *The individual signing the written request cannot be the same person being named as the new NHSN facility administrator.* After NHSN receives the letter, the role of NHSN facility administrator will be re-assigned to the designated person. If the new NHSN facility administrator does not already have access to NHSN, then he or she will be then emailed SAMS instructions to register. A helpdesk ticket may be submitted to nhsn@cdc.gov for additional instruction, if needed.

NHSN Long Term Care Facility Component
Frequently Asked Questions (FAQs)

TOPIC	QUESTION	ANSWER
Annual Survey		
NPI	What is a National Provider ID (10-digit number)?	An NPI (National Provider Identifier) is an identification number given to health care providers by the CMS (Centers for Medicare and Medicaid Services). It is a 10-digit number used for a variety of reasons in the health industry. It is not the same number as the CCN. The facility billing department should have this number. There is a national registry for the NPI number which can be accessed online at https://npiregistry.cms.hhs.gov/ or https://npidb.org/
Primary testing method for *C. difficile*	The NHSN LTCF Annual Facility Survey requires nursing homes to identify the primary diagnostic testing method for *C. difficile*. How does the nursing home answer this question if the facility uses more than one laboratory?	LTCFs are encouraged to contact the diagnostic laboratory to which the majority of the resident samples/specimens are sent. In discussion with that laboratory, facilities can identify the primary diagnostic testing method for *C. difficile* used by that laboratory to report on the NHSN annual facility survey.
Saving survey	When a LTCF is entering information for the Annual Facility Survey, can the entered data be saved and completed at a later time?	No. When completing the LTCF Annual Facility Survey, all data entry must occur in one sitting. Meaning, a user cannot enter information, save the survey, and complete data entry at later time. Users are encouraged to print the enrollment form and manually complete the Annual Facility Survey prior to entering the information in the NHSN application. The form and instructions for completing the Annual Facility Survey are located on the LTCF home page under data collection forms: https://www.cdc.gov/nhsn/forms/57.137_LTCFSurv_BLANK.pdf https://www.cdc.gov/nhsn/forms/instr/57.137-toi-annual-facility-survey.pdf
Submission timeline	Will facilities be required to complete the annual facility survey on a yearly basis?	Yes. NHSN Annual Facility Survey must be completed in the NHSN application at the beginning of every calendar year, and unless otherwise stated, the survey year represents the last full calendar year.

NHSN Long Term Care Facility Component
Frequently Asked Questions (FAQs)

TOPIC	QUESTION	ANSWER
Edits	Can I make edits to an annual facility survey after it has been submitted?	Yes. A user may edit the annual facility survey by logging into the NHSN application home page and on the left navigation bar, Click SURVEYS > FIND >. Next, select the SURVEY YEAR for the survey you are making edits and click FIND. Once the survey opens, scroll all the way to the bottom and select EDIT. Once updates are made, select SAVE.
Enrollment		
Generic e-mail	My facility assigned me a generic e-mail address. Will this impact NHSN enrollment since an individual e-mail address is needed for NHSN and SAMS?	Maybe. When enrolling a facility in the NHSN or when adding a new user in an enrolled NHSN facility, employees must provide a valid email address. This email address will be used to receive correspondence from the NHSN and to gain access to the NHSN through SAMS. It is strongly recommended that employees use their own company email address (for example, firstnamelastname@organization.org) and NOT a generic email address (for example, genericDON@organization.org) since the e-mail address will be used as a unique identifier to gain access to the system. If a facility is unable to provide an individualized or unique email address to the employee responsible for entering data into NHSN and a generic email address (for example, genericDON@organization.org) is used, the facility is ultimately responsible for working with the employee to: (1) delete their SAMS account or (2) remove the generic email address from their SAMS account once they leave and are no longer employed at the facility (see details below). The SAMS user support team is not able to delete an existing account unless the account holder (specifically, employee) contacts them directly. A guidance document with additional information is located on the LTCF home page under Supporting Materials - https://www.cdc.gov/nhsn/pdfs/ltc/nhsn-sams-registration-email-use.pdf
Stand-alone verses non-stand-alone facility	Does my skilled nursing facility (SNF) have to enroll separately in NHSN if located inside of a hospital?	Maybe. If your SNF is located inside of an acute care hospital (ACH) and has a separate 6-digit CMS certification number (CCN), then the SNF should be enrolled as a separate NHSN facility type (LTC:SKILLNURS) and report using the protocols in the Long-term Care Facility Component. The SNF will have its own 6-digit CCN with the last four digits between 5000-6499.

NHSN Long Term Care Facility Component
Frequently Asked Questions (FAQs)

TOPIC	QUESTION	ANSWER
CCN	Do I need to update the CMS Certification Number (CCN)? If so, how to I update the CCN for our facility?	In the event that a facility is newly certified, changes ownership, or, enrolled into NHSN using a temporary ID number instead of their CMS Certification Number (CCN), the NHSN facility administrator or an NHSN user with administrative rights is able to add/update the facility's CCN within the facility contact information section of the application. To edit the CCN: on the left navigation bar, select FACILITY > FACILITY INFO. If a CCN is **NOT** listed, click ADD ROW button and enter the new CCN and effective date in the appropriate boxes and then click SAVE and receive a pop-up box acknowledging the information was successfully saved. If a CCN **IS** listed, but is wrong, click EDIT CCN in the upper right corner of screen and then replace the incorrect CCN with the correct value. Lastly, click SAVE and receive a pop-up box acknowledging the information was successfully saved.
E-mail address	Can an employee use their own personal email address (for example, Gmail account) to enroll in NHSN and SAMS?	Yes. There are no email address restrictions when registering to participate in NHSN. Any functional email account may be used. Facilities should develop their own policy for use of non-facility email addresses. It is important to note however, that all NHSN communications are sent to the email address used to register with NHSN and SAMS. Thus, if a personal email address is used, employees should have access to their personal email (for example, Gmail account) during work hours in order to receive timely and up-to-date information sent by the NHSN.
SAMS		
Who needs a SAMS grid card	Do all NHSN users need a SAMS card or can one card be used for an entire facility?	All NHSN users are required to be registered with SAMS, and have their own SAMS grid card. It is important to note that SAMS registration is owned by the employee registering and NOT the facility.
Purpose of SAMS grid card	What is the SAMS grid used for?	The SAMS Grid is used as part of the NHSN log in process as an identity verification step to provide additional security. All users must have a SAMS grid card to access the NHSN application.

NHSN Long Term Care Facility Component
Frequently Asked Questions (FAQs)

TOPIC	QUESTION	ANSWER
Sharing SAMS account	Can an individual with a SAMS account just share their credentials with others in the facility?	No, only the user who underwent the SAMS registration process and accepted the NHSN Rules of Behavior should have access to their account for security purposes. Each SAMS account is owned by the individual who enrolled and thus, they are responsible for all activity under their account. Under no circumstances should employees share their GRID cards or other protected information with other personnel. Each employee needing access to NHSN should open their own SAMS account and proceed through the credentialing process.
Adding new user	What do I do if I add a user to NHSN, but he/she does not receive the NHSN e-mail with instructions to agree to the NHSN Rules of Behavior to initiate the SAMS process?	Be sure the correct e-mail was entered for the user. If so, contact nhsn@cdc.gov for help resolving the issue.
Identification proofing	When submitting ID proof can a user take a photo with a cell phone and upload the picture?	Yes. Users are able to upload documents using their Smart Phones. Uploading/scans are always better as they are easier to read. SAMS helpdesk can be reached at: SAMShelp@cdc.gov
Lost SAMS grid card	What should I do if I lose my SAMS Grid?	Contact the SAMS helpdesk in order to receive a new Grid Card --SAMShelp@cdc.gov You can reach the SAMS Help Desk between the hours of 8:00 AM and 8:00 PM EST Monday through Friday (except for U.S. Federal holidays) at the following: Local: 404-498-6065 Toll Free: 877-681-2901 Email: samshelp@cdc.gov
Terminated employee	If an employee leaves a facility, is their SAMs account automatically terminated?	No, each SAMS account is owned by an individual. Thus, if an employee leaves a facility, they still have access to their SAMS account. However, a facility can and should deactivate the employee's NHSN profile to disable further access to the facility's NHSN account.

NHSN Long Term Care Facility Component
Frequently Asked Questions (FAQs)

TOPIC	QUESTION	ANSWER
Change email address	What do I need to do if I get a new e-mail address?	An e-mail update must be done in **both** SAMS and the NHSN application. First, follow the below instructions to change the email address in SAMS: 1. Go to https://sams.cdc.gov. 2. Log in with the SAMS Credentials. 3. Click on My Profile in the upper right corner. 4. Then, from the menu on the left select Change My Email. 5. Then just follow the prompts to complete the change. 6. After the above steps are completed, you will receive an e-mail from SAMS at your *new* e-mail address. 7. Click on the verification link in the e-mail to verify your new email address. 8. **After completing step 7,** you must notify NHSN of your new e-mail address by sending an e-mail to nhsn@cdc.gov. Include your name, NHSN user name, and new –mail address. *After completing the verification, it will take approximately 2 business days to process the change in SAMS.*
Transferring to another LTCF	If an employee with SAMS/NHSN access is transferring to another facility, but still needs their SAMS account, would they have to recreate an account at the new facility?	Not necessarily, the user enrolling in SAMS owns their SAMS account, so they may transfer that account to a new facility. However, it is their responsibility to ensure they have access to the email address used to create the account. If they will no longer have access to the email account once they are no longer employed at the facility, the EMPLOYEE must change their email in SAMS to another functioning email (for example, either the new facilities email or a personal email address such as Gmail).
UTI Event Protocol		
Protocol in different facility types	Do the same NHSN UTI definitions used in hospitals apply to nursing homes?	No. The NHSN protocols and definitions used by LTCFs in the LTCF Component Module are different from the protocols/definitions used by acute care facilities in the Patient Safety Component module. This means the following rules do **not** apply to LTCFs: 1. The NHSN Infection Window Period; and 2. The Repeat Infection Timeframe. Please refer LTCF UTI protocol on the NHSN webpage https://www.cdc.gov/nhsn/pdfs/ltc/ltcf-uti-protocol-current.pdf

NHSN Long Term Care Facility Component
Frequently Asked Questions (FAQs)

TOPIC	QUESTION	ANSWER
Aseptic technique	Do I still count a urine culture if aseptic technique was not used during collection?	Yes. Technique to obtain a urine culture is not part of the UTI protocol. NHSN's aim is not to direct care, but rather to measure the effect of care on outcomes. The facility should use the urine culture technique parameters as stated in its policies and procedures for clinical practice.
Confusion	How confusion and/or functional decline is define	We recognize that McGeer and the MDS have specific parameters to define a new onset of confusion. NHSN surveillance criteria do not require specific parameters. For NHSN surveillance purposes, a documented change in mental status, such as new or worsening mental status (deviation from the normal) can be used to meet NHSN definitions for CA-SUTI, but only when accompanied by leukocytosis.
Repeat UTI	Do the NHSN criteria for UTI have a specific time period for identifying a second UTI in a resident?	No. The protocol does not incorporate specific rules for identifying subsequent UTI in a resident. Users should take into consideration the overall clinical presentation of the resident when determining if he/she has a new UTI verses a continuation of a recent UTI. Some considerations may include: (1) new or acutely worsening of signs and symptoms; (2) continuation of antibiotics; and (3) new/change in culture results. For example, did the resident get better before the new onset of signs and symptoms or new urine culture? Did the resident complete antibiotics from the first identified UTI? If unsure how to apply the NHSN criteria, users are encouraged to submit specific resident cases (without resident identifier information) to nhsn@cdc.gov for feedback.
Baseline temperature	How do I determine a baseline temperature for a resident?	Since the LTCF UTI protocol does not specify parameters for what is considered a baseline, facilities should use their internal policy and procedures to define how they will measure/determine a baseline temperature for a resident. In other words, what is "normal" for the resident without outside influences of illness, medications, dehydration, etc.? The primary goal for this criterion to increase the sensitivity and specificity of using 'fever" as an indicator for infection. Some facilities will establish a baseline vital sign measurement starting point during the initial admission assessment into the LTCF, and when the resident is at his/her healthiest (without infection, dehydration, etc.). These baseline measurements then become a basis for comparison with subsequent measurements to detect changes and abnormal findings.

NHSN Long Term Care Facility Component
Frequently Asked Questions (FAQs)

TOPIC	QUESTION	ANSWER
Repeat fever	Define what is meant by "fever of >99°F on repeated occasions"	"Repeated occasions" means more than one documented temperature reading of >99°F. These readings do not have to be consecutive, but should be within a reasonable time-frame to indicate a change from the residents' baseline.
Time-frame for meeting criteria	Is there a time-frame that all UTI criteria must be met to be considered a reportable UTI event?	No. The protocol does not include a time-frame in which all of the UTI criteria must be met, so clinical judgement must be used when determining if the resident meets NHSN UTI criteria when culture collection and signs and/or symptoms occur on different days. Some facilities use a three-day window, which is reasonable and can be used an arbitrary time-frame.
Specific event	When I entered a UTI event into the NHSN application, the "specific event" box is blank. How do I fix this?	The "Specific Event" box will automatically populate with the type of NHSN defined UTI the resident meets (for example, CA-SUTI, SUTI, ABUTI) based on the reported event data including: (1) presence of an indwelling urinary catheter; (2) laboratory and diagnostic data; and (3) signs and symptoms. If the entered data does not meet the NHSN UTI criteria, the "Specific Event" will not populate in the application. This means either the resident does not meet NHSN UTI criteria in which you would not report the event to NHSN, or the correct criteria were inadvertently selected/unselected.
Suprapubic catheter	If a resident has a suprapubic catheter, do I still need to report a UTI?	Even though a suprapubic catheter is not considered as an indwelling urinary device, a UTI in a resident with a suprapubic catheter should be reported as a symptomatic urinary tract infection (SUTI) if the NHSN SUTI/non-catheter associated criteria are met.
Denominator	Does prophylactic antibiotic use count in the denominator for "new antibiotic starts for UTI indication"?	Yes. All new prescriptions for an antibiotic given for a resident for UTI treatment (suspected, diagnosed, prophylaxis) should be included in the count.
Paraplegic and quadriplegic residents	How would I assess UTI symptoms in paraplegic and quadriplegic adults who do not have sensation that may meet NHSN UTI criteria?	These scenarios are quite unique and represent a good example of a resident who may have a clinical UTI, but the documentation does not meet the NHSN criteria. Since the LTCF UTI surveillance definitions are designed to improve consistency in tracking events in populations rather than individual clinical care, surveillance criteria may not be equally sensitive for all resident populations, including those with spinal cord injury, comatose, brain injuries, and heavily sedated residents. A set of criteria that covered every subpopulation with high specificity and sensitivity would be

TOPIC	QUESTION	ANSWER
		so complicated that it would be very difficult to employ and next to impossible to do so consistently across different facilities. Our recommendation is to use the documented signs and symptoms to determine if the NHSN UTI criteria are met. If the resident appears to have CV or other pain based on facial grimaces and/or other signs, then you can use that documentation to meet the NHSN UTI criteria. However, if the signs/symptoms are not documented, the recommendation is to not report the UTI to NHSN even though the resident may have a clinically treated UTI.
Lab-ID Event		
***C. difficile* treatment**	What are the most common medications I should look for when determining if a resident is on treatment for *C. difficile* infection?	Common *C. difficile* drugs to look for are oral vancomycin, metronidazole, and fidaxomicin.
Specimens collected in outpatient (OP) settings	Are laboratory results obtained from an emergency department (ED) or outpatient (OP) setting, such as a physician's office, eligible to be included in LabID Event reporting for the LTCF?	Yes-if the resident returns back to the LTCF within 2 calendar days of leaving. In efforts to follow the continuum of care when residents briefly leave the LTCF, specimens collected from OP settings should be reported to NHSN if the resident returns to the LTCF on the calendar day of the OP visit or the next calendar day. Since these specimens are collected during the "current admission" in the LTCF, the categorization of these specimens will be the same as if the specimen was collected while the resident was physically in the LTCF.
Specimens collected in other facilities before admission	If the resident was admitted to our facility with *C. difficile*, do I have to report positive *C. difficile* specimens collected in our facility?	Yes. Specimens collected prior to admission to your facility (for example, during an admission in another healthcare facility) do **not** preclude your facility from reporting positive *C. difficile* specimens that are collected while the resident is receiving care from your facility.

NHSN Long Term Care Facility Component
Frequently Asked Questions (FAQs)

TOPIC	QUESTION	ANSWER
Specimens collected during an admission in another healthcare facility	If our resident leaves the LTCF and is subsequently admitted to the hospital, do I need to report a positive *C. difficile* result that was collected while the resident was a patient in the hospital?	No. Any specimens collected during an admission in another healthcare facility are excluded from LabID event reporting for your LTCF.
Community-onset LabID Events	Do I have to report a LabID event for a specimen collected on the first or second day a resident is admitted to our facility?	Yes. All non-duplicate positive C. diff specimens must be reported. NHSN LabID event reporting is designed to capture both community-onset (CO) and LTCF-onset (LO) events. Users should enter all non-duplicate LabID events, and then the NHSN application will correctly categorize these events as Community-onset (CO) or LTCF-onset (LO) based on the current admission date for the resident and the specimen collection date.
Assigning categorizations	How do I assign a LabID Event as community-onset or long-term care facility onset?	The NHSN application will automatically categorize all LabID Events entered into the application based on the date the specimen was collected and the entered first admission date. The user does not assign these categorizations.
Duplicate laboratory results	If a nursing home resident has a positive CDI, is discharged, readmitted to the same facility and re-tested all within that 14 day window, how is the second CDI result classified and should it be entered into NHSN?	The 14-day rule for reporting CDI LabID Events expands across admissions to the SAME facility. This means if a nursing home resident has a positive C. difficile lab result, is discharged, readmitted to the same facility and re-tested all within that 14 day window, the second result is considered as a duplicate CDI assay and should not be entered into the NHS application.
Number of Admissions on C. diff Treatment	What do I need to report to NHSN if a resident is admitted to our nursing home on treatment for C. difficile? Am I supposed to submit a LabID event for the resident?	If a resident is admitted to the facility while on treatment for *C. difficile*, the resident should always be included in that month's denominator count for "Number of Admissions on C. diff Treatment." A LabID Event would only be submitted to NHSN if the resident also had a positive *C. difficile* lab result when the specimen was collected while the resident was receiving care in the nursing home.

NHSN Long Term Care Facility Component
Frequently Asked Questions (FAQs)

TOPIC	QUESTION	ANSWER
		Remember: CDI LabID events (numerator data) and "Number of Admissions on C. diff Treatment" (denominator data) are not mutually exclusive. Meaning, a resident may be included in the denominator count only for the given month.

Section 13: Data Quality

An important step to improving data quality and accuracy is ensuring complete data have been submitted to the NHSN. Data are considered complete in NHSN once facilities do ALL of the following:

- Complete the Annual Facility Survey at the beginning of every calendar year. ***Note***- enrolled facilities must **not** re-enroll in the NHSN to complete the annual facility survey. Instead, facilities must log-in to the currently enrolled NHSN facility to complete the survey.
- Complete a monthly reporting plan to indicate which module(s) and event(s) a facility plans to report for each month in which facility plans to perform surveillance and submit data to NHSN
- Submit event data to NHSN using one or more of the NHSN Module protocols
- Indicate "no events" on monthly summary data page if no events were found for the selected events/module(s) in which the facility is participating during the month
- Submit monthly summary data to NHSN
- Resolve all outstanding alerts

Data quality checks are important to ensure that the information entered into the NHSN application is accurate and complete. This verification will prevent misrepresentation of disease trends and ensure complete data for facility level and national benchmarking. The NHSN application has several analysis reports that can be accessed to validate completeness and accuracy of data being submitted to NHSN, including: (1) Facility Survey Data Line List; (2) Monthly Reporting Plan Line List; (3) Event Level Data Line List; and (4) Summary Level Data Line List. These reports may be particularly useful for group level users. Guidance for accessing these reports is located on the LTCF home page under the Analysis section of each Module.

PERFORMING DATA QUALITY CHECKS FOR GROUP DATA IN NHSN: *C. DIFFICILE* INFECTION (CDI) LABID EVENT REPORTING

This document was prepared by the CDC LTCF NHSN support team to provide information for group users on how to review the data submitted by the nursing homes in their groups. Data quality checks are important to ensure that the information entered into HNSN is accurate and complete. This verification will prevent misrepresentation of disease trends. This document discusses the steps and reports available in NHSN that can help in verifying data accuracy for facilities participating in *C. difficile* infection (CDI) LabID event reporting.

Contents

WHEN ARE DATA CONSIDERED COMPLETE IN NHSN?

Data are considered complete in NHSN once facilities do **ALL** of the following:

- Complete the Annual Facility Survey
- Complete a monthly reporting plan to indicate which module(s) and event(s) a facility plans to report for each month in which facility plans to perform surveillance and submit data to NHSN
- Submit event data to NHSN using the NHSN Multidrug-Resistant Organism & *Clostridium difficile* Infection (MDRO/CDI) Module protocols
- Indicate "no events" on monthly summary data page if no CDI events were found for the month
- Submit monthly summary data to NHSN
- Resolve all outstanding alerts

STEPS FOR PERFORMING QUALITY CHECKS OF NHSN DATA

The NHSN application has several analysis reports that can be accessed to validate completeness and accuracy of data being submitted to NHSN, including: (1) Facility Survey Data Line List; (2) Monthly Reporting Plan Line List; (3) Event Level Data Line List; and (4) Summary Level Data Line List.

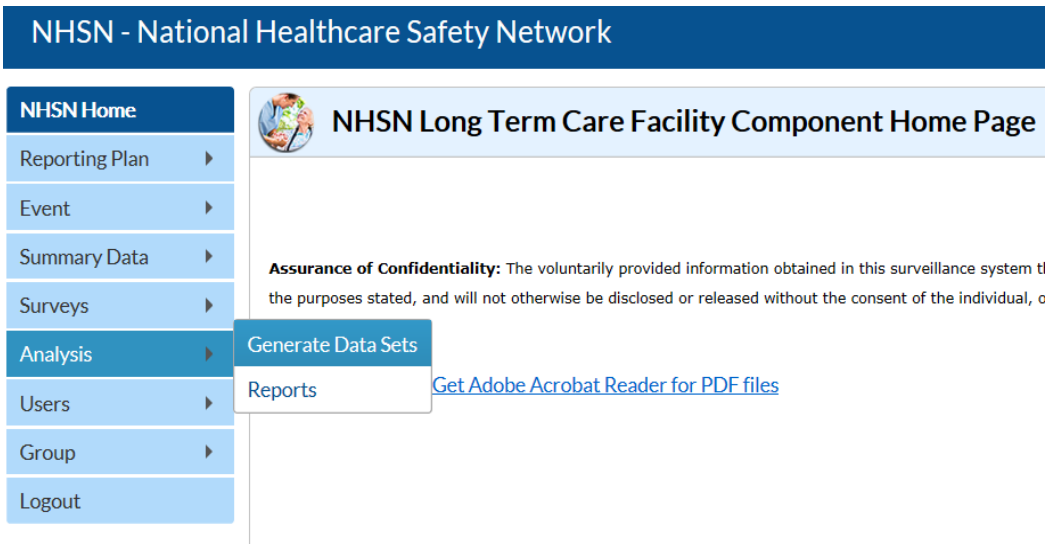
Generating Datasets

Before accessing analysis reports in NHSN, datasets must be generated to ensure the most recent data are included in the reports. Generating datasets will take a snapshot of the data that have been submitted.

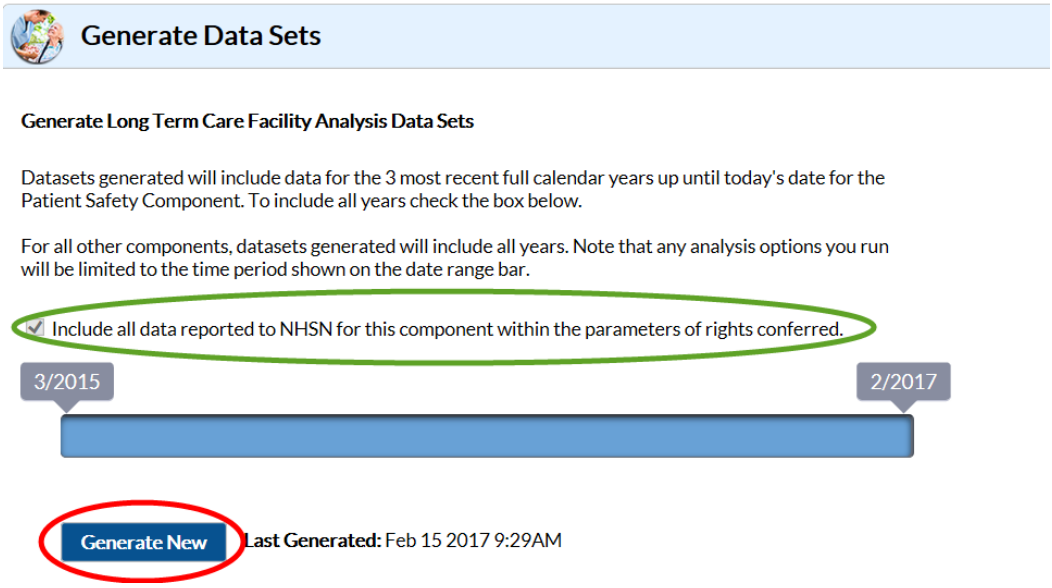
Remember: Datasets must be generated prior to analyzing the data or the data will not be current.

To generate datasets:

On your NHSN landing page, select *"Analysis"* then *"Generate Data Sets"*



You will see a page titled "Generate Data Sets." Next, check the box highlighted in the green circle below, before selecting *"Generate New."* Generating datasets may take a few minutes; however, you can still navigate within the NHSN application while the dataset is generating.



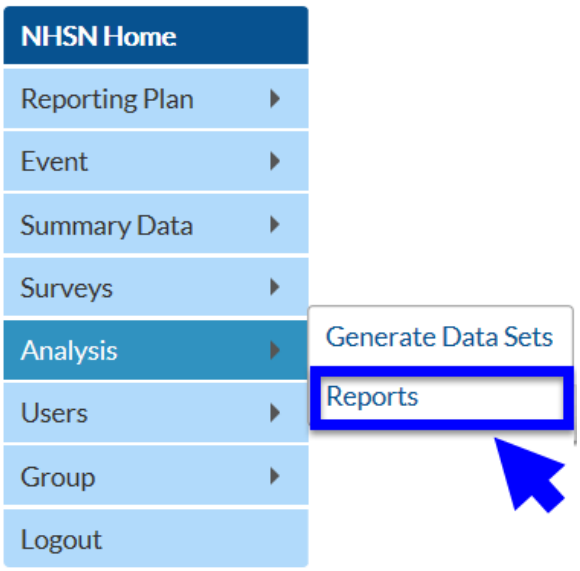
Analysis

Once your dataset has been successfully generated, select *"Analysis"* then *"Reports."*

Remember: Make sure that you have generated a new dataset before completing this step or you will risk analyzing an older dataset without the most recent updates.

<u>To analyze NHSN data:</u>

On your NHSN landing page, select *"Analysis"* then *"Reports"*



*** Please note: The reports shown below are generated from test facilities and are hypothetical.**

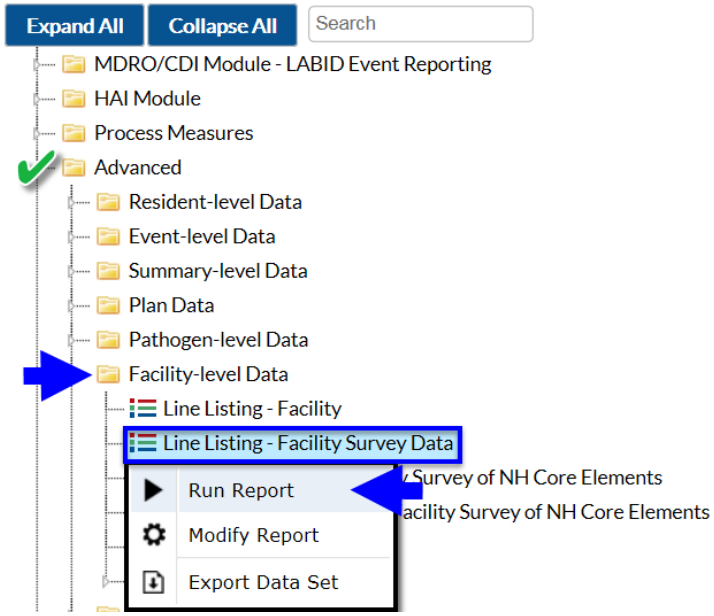
HOW TO VERIFY FACILITY LEVEL INFORMATION?

Facility Survey Data Line List. To verify facility level information, a report can be generated that summarizes data from the Annual Survey. The report is a line list of facility survey data and contains information such as CCN, facility affiliation, number of beds, and average daily census.

To create a line list of facility survey data, navigate to the "Advanced folders": Open the "Facility-level data" folder

1. Select "Line listing – Facility survey data"
2. Select "run report"

Remember: Make sure that you have generated a new dataset before completing this step or you will risk analyzing an older dataset without the most recent updates.



Data Source: Annual survey

Line Listing of Facility Survey Data
As of: October 26, 2017 at 1:32 PM
Date Range: All LTCSURVEY

Facility Org ID	Survey Year	CMS Certification Number	Certification	Affiliation	Average Daily Census	Number of Beds	Primary C. dif Test Method
39455	2014	324569	DUAL	IFS	50	34	EIA
39455	2015	324569	MCARE	IFS	77	92	NAAT
39455	2016	324569	MCARE	IFS	100	200	ToxiCul
41141	2014		DUAL	IFS	88	100	EIA
41141	2016		DUAL	IFS	95	100	NAAT

Common Errors in Annual survey data include:

- Incorrect or missing CCN number
- Incorrect census data (example: average daily census greater than number of beds)
- Incorrect CDI test method -- verify that "other" or "toxigenic culture" has not been selected as primary testing method

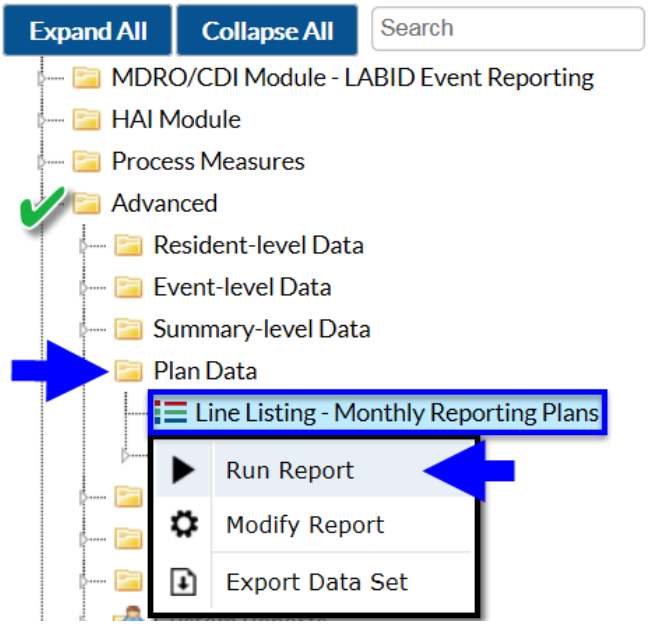
HAVE THE FACILITIES CORRECTLY COMPLETED THE MONTHLY REPORTING PLAN?

Monthly Reporting Plan line list. This report summarizes the monthly plans reported by each facility in your group. The monthly reporting plan line list allows group-users to review the organisms that the facilities plan to report monthly. Additionally, this report allows group-users to verify that a completed monthly reporting plan has been submitted for each month.

To create a line list of monthly reporting plans, navigate to the "Advanced folders":

1. Open the "Plan data " folder
2. Select "Line listing – Monthly Reporting Plan"
3. Select "run report"

Remember: Make sure that you have generated a new dataset before completing this step or you will risk analyzing an older dataset without the most recent updates.



Data Source: Monthly Reporting Plan form

Line Listing of Monthly Reporting Plans
As of: October 26, 2017 at 2:07 PM
Date Range: LTCPLAN planYM 2017M01 to 2017M04

orgID	planYM	ltcfNoPlan	utiPlan	mrsa_labID	vre_labID	acine_labID	cephRKleb_labID	creEcoli_labID	creEntero_labID	creKleb_labID	cdif_labID
39455	2017M01		Y	Y		Y	Y	Y	Y	Y	Y
39455	2017M02		Y	Y							Y
39455	2017M03		Y	Y	Y	Y	Y	Y	Y	Y	Y
39455	2017M04		Y	Y							Y
41141	2017M01			Y				Y	Y	Y	Y
41141	2017M02										Y
41141	2017M03										Y
41141	2017M04										Y

Common Errors in Annual survey data include:

- CDI reporting plan missing for one or more months
- Incorrect organism selected for surveillance (example: an organism such as VRE or creEcoli selected for one month but missing for other months)

HAVE THE FACILITIES CORRECTLY ENTERED CDI EVENTS IN NHSN?

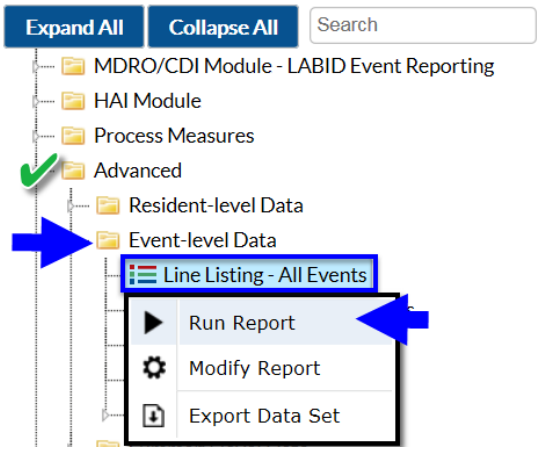
Line Listing – All events. The line listing of an event allows group-users to view all of the events reported by each facility each month.

To create a line list of all events, navigate to the "Advanced folders":

1. Open the "Event-Level Data " folder
2. Select "Line listing – All Events"
3. Select "run report"

Remember: Make sure that you have generated a new dataset before completing this step or you will risk analyzing an older dataset without the most recent updates.

Report: Line List for all Events



Data Source: LabID Event Form

National Healthcare Safety Network
Line Listing for All Events
As of: October 26, 2017 at 3:00 PM
Date Range: LTCEVENTS eventDateYM 2017M01 to 2017M12

Facility Org ID	Event ID	Event Date	Event Type	Location
39455	8218	01/10/2017	LABID	4 GEN
39455	8944	01/24/2017	LABID	4 GEN
39455	9255	02/08/2017	LABID	4 GEN
39455	10383	02/14/2017	LABID	3 REHAB
39455	10382	02/28/2017	LABID	3 REHAB
39455	10380	03/01/2017	LABID	1 SOUTH
39455	10397	03/04/2017	LABID	3 REHAB
39455	10381	03/20/2017	LABID	1 SOUTH
39455	10670	04/07/2017	LABID	4 GEN
39455	10671	04/12/2017	LABID	3 REHAB
39455	10699	04/12/2017	LABID	4 GEN
39455	11309	04/19/2017	LABID	4 GEN
39455	11325	04/19/2017	LABID	4 GEN

Common Errors in Event level data include:

- Missing reporting month -- If a facility does not enter an event for a given month, that month will not appear in the line list of events. Missing months should be further investigated to verify whether there were no events to report for the month or if a facility has incomplete reporting for the month.

Assess accuracy of '0' events reported 6 months or more

- If no event reported, follow-up with NH and ask:
  In the past month……
  - a) Did you submit any stool specimens for C. diff testing to lab?
  - b) Did you start any residents on treatment for CDI?

HAVE THE FACILITIES CORRECTLY ENTERED DENOMINATOR DATA INTO NHSN?

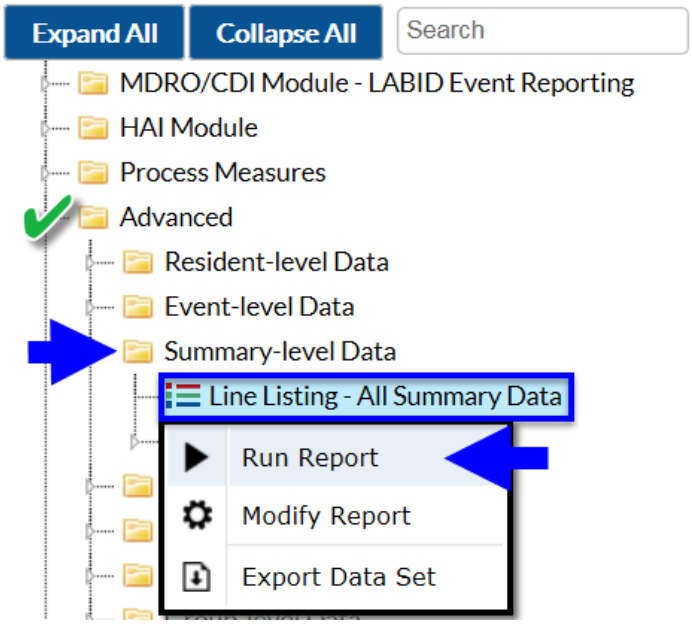
All Summary Data line list. The line list for all summary data allows group users to view the denominator data entered by each facility in a group by month including the number of resident days and number of admissions on CDI treatment. Even if a facility has no events for a given month, the monthly summary data form is still required and provides further information on the events entered by the facility. Therefore, this table can be used along with the line listing of events to verify that all events have been entered correctly in NHSN.

To create a line list of all summary data, navigate to the "Advanced folders":

1. Open the "Summary-Level Data " folder
2. Select "Line listing – All Summary Data"
3. Select "run report"

Remember: Make sure that you have generated a new dataset before completing this step or you will risk analyzing an older dataset without the most recent updates.

Report: Line List for all Summary Data



Data Source: Monthly Summary Data Form

Line Listing for All Summary Data
As of: October 26, 2017 at 3:35 PM
Date Range: LTCSUMMARY summaryYM 2017M01 to 2017M04

Facility Org ID	Summary Year/Month	Event Type	Number of Resident Days	Admissions on C. diff Treatment	No Events
39455	2017M01	CDIF	5,700	1	N
39455	2017M02	CDIF	5,450	3	N
39455	2017M03	CDIF	5,350	3	N
39455	2017M04	CDIF	5,895	120	
41141	2017M01	CDIF	2,800	10	N
41141	2017M02	CDIF	2,800	8	Y
41141	2017M03	CDIF	0	5	N
41141	2017M04	CDIF	3,000	3	N

Common Errors in Monthly Summary data include:

- Number of resident days =0
- Incorrect number of residence days (see section analysis tip)
- Missing events :
  - "No Events" column:
    - NoEvents = N – Events entered into NHSN for the month
    - NoEvents = "Y" – No events to report for the month
    - No Events= " " – Incomplete or missing event for the month
- CDI event incorrectly entered as part of the " Number of Admissions on C. diff Treatment,"
  - Look for possible inconsistencies for example: number of admissions on C. diff treatment that is greater than the number of beds (see **Facility Survey Data Line List).**

ANALYSIS TIPS:

HOW TO CALCULATE AN ESTIMATE FOR THE NUMBER OF RESIDENT DAYS USING NUMBER OF BEDS IN A FACILITY?

The number of beds from the "Facility Survey Data Line List" is helpful in calculating an estimate of the number of resident days reported in the summary data line list.

Variables used:

Number of beds: Obtained from facility survey line list
Occupancy: How many beds are occupied in the facility? You can choose between 50% - 100% in order to estimate the resident days when the facility is between at half capacity to full capacity.
100% = 1
50% = 0.50
Number of days: 30 days (1 month)

Estimated number of resident days = number of beds * occupancy* number of days

1. Look up the number of beds reported for the 2016 survey year. In this example, we will look up the number of beds for OrgID 39455 for the 2016 survey year.

National Healthcare Safety Network
Line Listing of Facility Survey Data
As of: October 26, 2017 at 1:32 PM
Date Range: All LTCSURVEY

Facility Org ID	Survey Year	CMS Certification Number	Certification	Affiliation	Average Daily Census	Number of Beds	Primary C. dif Test Method
39455	2014	324569	DUAL	IFS	50	34	EIA
39455	2015	324569	MCARE	IFS	77	92	NAAT
39455	2016	324569	MCARE	IFS	100	200	ToxiCul
41141	2014		DUAL	IFS	88	100	EIA
41141	2016		DUAL	IFS	95	100	NAAT

2. Plug in the number of beds in the calculation above:

   Estimating resident days for a facility at full capacity:
   200 * 1 * 30 days = 6000 resident days

   Estimating resident days for a facility at half capacity:
   200 * 0.5 *30 days = 3000 resident days

3. The estimated resident days is between 3000 – 6000 days. We can use this estimate to assess the number of residence days reported by the facility.

Line Listing for All Summary Data
As of: October 26, 2017 at 3:35 PM
Date Range: LTCSUMMARY summaryYM 2017M01 to 2017M04

Facility Org ID	Summary Year/Month	Event Type	Number of Resident Days	Admissions on C. diff Treatment	No Events
39455	2017M01	CDIF	5,700	1	N
39455	2017M02	CDIF	5,450	3	N
39455	2017M03	CDIF	5,350	3	N
39455	2017M04	CDIF	5,895	8	
41141	2017M01	CDIF	2,800	10	N
41141	2017M02	CDIF	2,800	8	Y
41141	2017M03	CDIF	0	5	N
41141	2017M04	CDIF	3,000	3	N

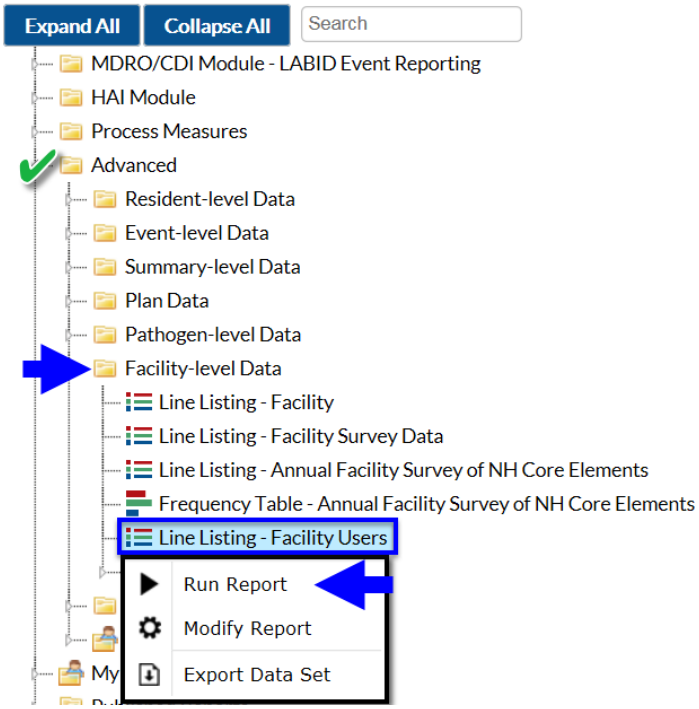
The number of resident days reported by the facility (orgID 39455) from January – April 2017 is 5,350 – 5,895 resident days. This is within the range for our estimate of 3,000 – 6,000 resident days.

HOW TO ACCESS FACILITY NAME AND ORGID?

Facility Users Line list. At this time, the tables listed above only display the facility orgID and it can be difficult to look up the orgID for each facility in a group. The facility-user line list allows users to create a table that includes the facility orgID, CCN, Name and address information.

To access the facility user line list:

1. Open the "Facility level data" folder
2. Select "Line listing-Facility Users"
3. Select "run report"



National Healthcare Safety Network
Line Listing - Facility Users
As of: October 31, 2017 at 9:51 AM
Date Range: All LTCFACILITY_USERS

CMS Certification Number	Facility Name	Facility Org ID	City	State
324569	Angela LTCF Test Facility	39455		
324569	Angela LTCF Test Facility	39455		
324569	Angela LTCF Test Facility	39455	Atlanta	GA
324569	Angela LTCF Test Facility	39455		
324569	Angela LTCF Test Facility	39455		
324569	Angela LTCF Test Facility	39455		
324569	Angela LTCF Test Facility	39455		
324569	Angela LTCF Test Facility	39455		
324569	Angela LTCF Test Facility	39455		
324569	Angela LTCF Test Facility	39455		
324569	Angela LTCF Test Facility	39455		
	GVB3_test	41141	Atlanta	GA
	GVB3_test	41141		

DEFINITIONS

Users are required to enter data about the total number of "short-stay" and "long-stay" residents when completing the Annual Facility Survey. The respective NHSN definitions may differ from your facility's billing data. Therefore, we encourage you to adhere to the outlined NHSN definitions, which are described in the Table of Instructions for completing the LTCF Component Annual Facility Survey and below. If you have questions about collecting this information, consider consulting the facility administrator, MDS coordinator, business office, or billing personnel at your facility.

NHSN definition of total number of long stay residents

Total number of unique residents who stayed > 100 days in the previous calendar year.

NHSN definition of total number of short stay residents

Total number of unique residents who stayed ≤ 100 days in the previous calendar year. NOTE: If a resident starts as short stay but converts to long-stay, then count the resident in the total number of long-stay.

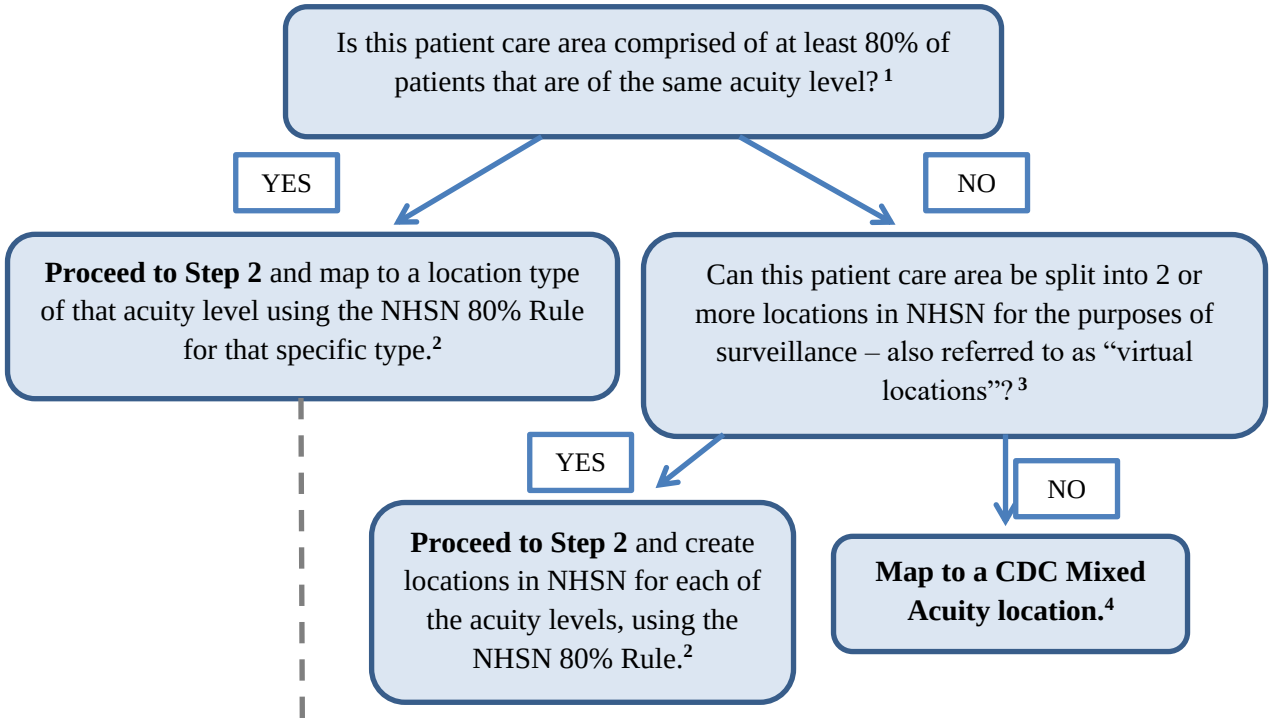
Table of Contents

Note: This document serves as an abbreviated list of locations specifically for LTCFs. The ***Master CDC Locations and Descriptions*** document is located on the LTCF website under the *Supporting Materials* tab - https://www.cdc.gov/nhsn/pdfs/pscmanual/15locationsdescriptions_current.pdf

Instructions for Mapping Patient Care Locations in NHSN

NHSN requires that facilities map each patient care area in their facility to one or more locations as defined by NHSN in order to report surveillance data collected from these areas. This document functions as a decision-making tool when determining the appropriate CDC location for NHSN surveillance, as defined in the NHSN Manual. This process should be followed when adding any new unit to NHSN for surveillance and should be repeated for any unit when there has been a significant change in patient mix (e.g., merging of units, taking on a new service).

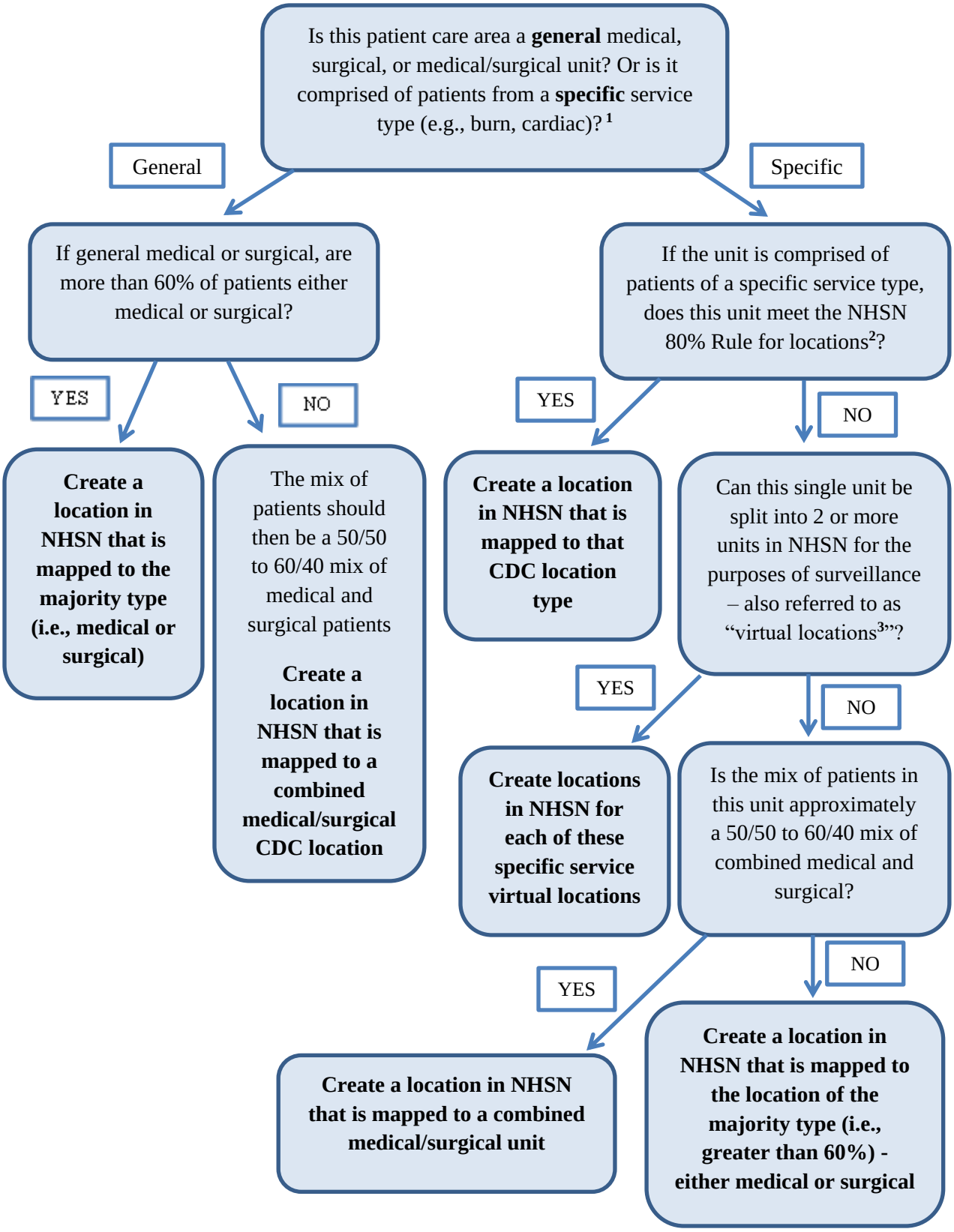
Step 1: Define the acuity level for the location



List of Acuity Levels:

Adult Critical Care Units	Mixed Acuity Units
Pediatric Critical Care Units	Operating Rooms
Neonatal Critical Care Units	Chronic Care
Specialty Care Areas (SCA)/Oncology	Long Term Acute Care
Adult Wards	Rehabilitation
Pediatric Wards	Outpatient (ACUTE) Locations
Neonatal Wards	Clinic (Nonacute) Settings
Step Down Units	

Step 2: Define the type of service for the location



Please see the CDC Location descriptions for definitions of each CDC Location used for NHSN surveillance in this chapter.

1. Patient mix: When determining the appropriate CDC Location mapping for a unit, facilities should review the patient mix in that unit for the last full calendar year. If a full year is not available, facilities should review patient mix based on the data they have available for that unit. When determining the acuity level, as well as the specific service type of a location, the admission/transfer diagnosis should be used when determining the appropriate location mapping. The admission diagnosis is considered the most accurate depiction of the patient's illness and reason for being admitted to a particular unit.

2. NHSN 80% Rule: Each patient care area in a facility that is monitored in NHSN is "mapped" to one CDC Locations. The specific CDC Location code is determined by the type of patients cared for in that area according to the 80% Rule. That is, if 80% of patients are of a certain type (e.g., pediatric patients with orthopedic problems) then that area is designated as that type of location (in this case, an Inpatient Pediatric Orthopedic Ward).

3. Virtual locations: Virtual locations are created in NHSN when a facility is unable to meet the 80% rule for location designation in a single physical unit but would like to report their NHSN surveillance data for each of the major, specific patient types in that unit. The use of virtual locations is recommended only for those physical units that are geographically split by patient service or those in which beds are designated by service. For example, a facility has an ICU – called 5 West – that is comprised of approximately 50% neurology patients and 50% neurosurgery patients. Additionally, the neurology patients are housed in beds 1 thru 10 and the neurosurgery patients are housed in beds 11 thru 20. Rather than map as a medical/surgical critical care unit, the facility decides to create 2 new locations in NHSN:

5WEST_N: Neurologic Critical Care (10 beds)
5WEST_NS: Neurosurgical Critical Care (10 beds)

This facility will collect and enter data for 5WEST_N and 5WEST_NS separately. The facility will also be able to obtain rates and standardized infection ratios (SIRs) for each location separately. Note that the data collected and reported for each virtual location will be limited to the designated 10 beds assigned (i.e., overflow from 5WEST_N into 5WEST_NS will be counted with **5WEST_NS**). For those facilities that use an electronic source for collecting their data, we recommend that you discuss compatibility of virtual locations in NHSN with your facility's EHR contact prior to reporting data for these locations.

4. Mixed Acuity Unit: This location is intended for those units comprised of patients with varying levels of acuity.

NOTE: Mapping a location in NHSN to the CDC "Mixed Acuity" designation may have implications on data that your facility reports for the CMS Hospital Inpatient Quality Reporting Program and/or your state's reporting mandate(s). Although a Mixed Acuity location may have ICU beds and ICU patients, it is not considered an ICU location type for the purposes of NHSN reporting and therefore, would not be included in any ICU-specific reporting requirements. Mixed Acuity units are also excluded from ward-specific reporting requirements. For information about how this location designation may impact your facility's compliance with CMS HAI reporting measures, please contact your Quality Improvement Organization (QIO). For information about how this location designation may impact your facility's compliance with your state mandate (if applicable), please contact your state HAI coordinator: www.cdc.gov/HAI/state-based/index.html.

Examples

Example 1: An ICU that is 85% Burn patients, 15% Trauma

CDC Location: Burn Critical Care (IN:ACUTE:CC:B)

Why? Meets 80% rule for critical care acuity level and 80% rule for specific service (burn)

Example 2: An ICU that is 55% medical and 45% surgical

CDC Location: Medical/Surgical Critical Care (IN:ACUTE:CC:MS)

Why? Meets 80% rule for critical care acuity level and does not meet the 60% rule for designation as either medical or surgical service level alone, therefore, use combined medical/surgical designation

Example 3: A unit that is comprised of 60% medical inpatients and 40% general observation patients

CDC Location: Medical Ward (IN:ACUTE:WARD:M)

Why? This is a special scenario due to the mix of inpatients and outpatients in this unit. A location where at least 51% of the patients have been formally admitted to the facility should be mapped as in inpatient unit, rather than an outpatient observation unit. The 60% rule for general service and the 80% rule for specific service still apply when deciding on the specific type of inpatient location to use; this location met the 60% rule for medical service. All patients housed in this unit should be included in the surveillance efforts for this location.

Example 4: An ICU that is 40% Neurosurgical, 40% Surgical, and 20% Medical

Option 1 - Single CDC Location: Surgical Critical Care

Why? Meets 80% rule for critical care acuity level and does not meet the 80% rule for a specific service level alone, but when surgical patients are combined, that total does equal 80%.

Option 2 - Multiple CDC Virtual Locations: Neurosurgical Critical Care and Surgical Critical Care, with the medical patients reported with the Surgical Critical Care location since the general surgical designation is the least specific of the two

Why? By splitting this unit into 2 virtual locations, each meets the 80% rule for critical care acuity level and one meets the 80% rule for designation as Neurosurgical Critical Care, while the other meets the 60% rule as general surgical service (when combining surgical and medical patients).

Example 5: A unit that is comprised of 60% Medical ICU and 40% Step Down patients

Option 1 - Single CDC Location: Mixed Acuity Unit

Why? This location is not comprised of at least 80% of the patients of the same acuity level and therefore meets the single location definition of a mixed acuity unit. Note that this location is not considered an ICU location type for the purposes of NHSN reporting and therefore, would not be included in any ICU-specific reporting requirements.

Option 2 - Multiple CDC Virtual Locations: Medical Critical Care and Step Down Unit

Why? By splitting this unit into 2 virtual locations, each meets the 80% rule for the appropriate acuity level and each meets the 80% rule for type of service.

Example 6: A pediatric ward that is comprised of 70% neurosurgical patients and 30% orthopedic patients

Option 1 - Single CDC Location: Pediatric Surgical Ward

Why? Meets 80% rule for ward-level acuity and does not meet the 80% rule for a specific service level alone, but meets the 60% rule for general surgical service.

Option 2 - Multiple CDC Virtual Locations: Pediatric Neurosurgical Ward and Pediatric Orthopedic Ward

Why? By splitting this unit into 2 virtual locations, each meets the 80% rule for the appropriate acuity level and each meets the 80% rule for type of service.

Appendix: Creation and Management of Locations in NHSN

Create New Locations:

If there are any operational locations in your hospital that are not already set-up in NHSN, you will need to create these locations for the purposes of NHSN surveillance and reporting.

Locations can be set up by following these steps:

1. Go to Facility > Locations.
2. On the Locations screen, enter a location code ("Your Code") and location label ("Your Label").
3. Select a CDC Location Description from the drop-down menu. NOTE: When selecting a CDC Location Description, your location must meet the 80% Rule in order to be assigned as that CDC Location Description.
4. Make sure the Status is set to "Active" and then enter the number of beds that are set up and staffed in that location.
5. Once all information for this new location is entered, click 'Add'.

Manage Existing Locations:

Facilities should make sure that the only locations with an "Active" status in NHSN are those that are operational units within the facility. The number of beds indicated for each location should also be checked for accuracy and, if necessary, updated to reflect the current number of beds set up and staffed.

Location information can be updated by following these steps:

1. Go to Facility > Locations.
2. On the Locations screen, click 'Find'.
3. Review the information that appears in the Location Table at the bottom of the screen. Review the Status of each location, as well as Bed size.
4. If a location's information needs to be updated, click the location code under the "Your Code" column; the location's information will auto-fill in the fields above the Location Table.
5. Make any modifications to the Status and/or Bed size, then click 'Save'.

Manage Physically Moved Locations

Units within a facility may physically move to another area of the same facility, and be given a different name. If the staff are moving with these locations, and the type of patients remains the same (i.e., the only difference is the geographical location and/or Bed size), then it's recommended to change "Your Code" and "Your Label" (and Bed size, if appropriate) on the existing location records. These fields can be updated by following the instructions for "Manage Existing Locations" above. Updating the value of "Your Code" will also update all previously-entered records for these locations, allowing for continuous analysis and reporting.

Inaccurate CDC Location Description

Please note that the CDC Location Description cannot be edited after a location is mapped in NHSN. If you believe that the CDC Location Description assigned to your existing location is incorrect, there are additional steps you will need to follow, depending on the scenario:

Scenario 1: The patient population in this unit has changed such that the current CDC Location Description, using the 80% rule, is inaccurate.

> Solution: Because the patient population has changed, a new location should be created in NHSN and should be mapped to a CDC Location Description that most accurately reflects the type of patients receiving care in that location, using the 80% rule. The old location should be put into "Inactive" status. When creating a new location, you will need to use a different "Your Code" and

"Your Label" value. Note that data that have been reported from inactive locations can continue to be analyzed within NHSN for the months during which they appear in the Monthly Reporting Plans. Please note that these inactive locations will not be linked to new, active locations.

Scenario 2: The CDC Location Description initially assigned has been inaccurate for much, if not all, of the reporting to NHSN, based on the updated location guidance for 2016.

Solution: Users cannot change the CDC Location Description on existing locations within NHSN. Facilities should ensure that the locations set up in NHSN are accurate for 2016 reporting per the updated guidance. If a new CDC Location Description is needed, users must create a new location in NHSN and inactivate the old location, per the instructions above. Note that data for the old location can still be analyzed, but these data will not be connected to data reported under the new location. To connect data to the new location, facility administrators must edit the older location event and summary records to the newly created locations. This **must** be done before the old location is put into "Inactive" status. Once the new location is active, facilities need to change their monthly reporting plan to record the change and capture the new location data.

CDC Locations and Descriptions for Long-term Care Facilities

Note: This document serves as an abbreviated list of locations specifically for LTCFs. The ***Master CDC Locations and Descriptions*** document is located on the LTCF website under the *Supporting Materials* tab - https://www.cdc.gov/nhsn/pdfs/pscmanual/15locationsdescriptions_current.pdf

CDC Location Label	NHSN Healthcare Service Location Code	CDC Location Code	Location Description
LONG TERM CARE FACILITIES			
Long Term Care Facility Inpatient Hospice Unit	1254-2	IN:NONACUTE:LTCF:HSP	A unit or designated area which provides palliative and supportive care services to individuals diagnosed with life limiting (terminal) conditions.
Long Term Care Facility Dementia Unit	1255-9	IN:NONACUTE:LTCF:DEM	A unit or designated area which provides specialized care for individuals diagnosed with dementia or related conditions, including Alzheimer's disease.

CDC Location Label	NHSN Healthcare Service Location Code	CDC Location Code	Location Description
Long Term Care Facility Psychiatric Unit	1256-7	IN:NONACUTE:LTCF:PSY	Unit or designated area which provides specialized care for individuals diagnosed with psychiatric or behavioral disorders.
Long Term Care Facility 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 orrehabilitation services to individuals requiring restorative care following recent hospitalization.
Long Term Care Facility 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.
Long Term Care Facility 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.
Long Term Care Facility Bariatric Unit	1260-9	IN:NONACUTE:LTCF:BAR	A unit or designated area which provides specialized care for individuals who are preparing for or have undergone bariatric surgery.