National Healthcare Safety Network Members' Meeting

APIC 2018

June 14, 2018

5:00-6:30 p.m.

Minneapolis Convention Center, Auditorium 3

NHSN Presentations during APIC 2018

- **NHSN Analysis: The Ins and Outs of Risk Adjustment**
  - Margaret Dudeck
  - Wednesday 1:30-2:30 p.m.
- **NHSN Case Studies: Applied Surveillance**
  - **Katherine Allen-Bridson**
  - Wednesday 3-4 p.m.
- **NHSN Device-Associated Analysis: What Can SIRs and SURs Do for You?**
  - **Prachi Patel**
  - **Thursday 2:15-3:25 p.m.**
- **NHSN Options for MDRO/CDI Surveillance and LabID Event Reporting**
  - **Parneet Ghuman and Denise Leaptrot**
  - **Thursday 2:15-4:45 p.m**
- **Analytical Methods for Assessing Intervention Effectiveness**
  - **Jonathan Edwards**
  - **Friday 8:00-10:30 a.m.**
- **Lessons from a National Nursing Home CDI Surveillance Partnership**
  - **Elisabeth Mungai**
  - **Friday 9:30-10:30 a.m.**
- **Analyzing SSI Data in NHSN**
  - **Irene Khan**
  - **Friday 9:30-10:30 a.m.**
- **Implementation of the TAP Strategy to Enhance Prevention of HAIs: A Practical Approach**
  - **Rashad Arcement**
  - **Friday 1:15-3:45**
- **Preview of the New Outpatient Procedure Component**
  - **Henrietta Smith**
  - **Friday 1:30-2:30 p.m.**

Agenda

- **Welcome** – Dan Pollock
- **Beta Release Testing NHSN V9.2-** Kent Lemoine
- **Patient Safety Components Surveillance Definitions/Protocols-** Kathy Allen-Bridson , Denise Leaptrot, Parneet Ghuman
- **Patient Safety Component Training-** Kathy Allen-Bridson
- **Patient Safety Components Analysis-** Maggie Dudeck
- **Long-term Care Component-** Jeneita Bell
- **Clinical Document Architecture-** Ahmed Tahir
- **Antimicrobial Use and Resistance-** Casey Thompson
- **Dialysis Component Updates-** Maggie Dudeck
- **Questions** – All

Welcome

Dr. Daniel Pollock

NHSN Beta Testing – Release 9.2

Kent Lemoine

Recap of the 2017 NHSN 8.8 Beta Release

- Beta testing for release 8.8 took place from 10/23/2017 to 11/3/2017.
- Approximately 85 volunteer testers from all facility types participated in the beta testing.
- A few minor issues were reported and fixed prior to the production release of NHSN 8.8.
- This provided an opportunity for a “sneak peak” of 8.8 features as well as a forum to provide suggestions for future enhancements.
- The insertion of a beta testing period in the project schedule provides stability of the production release schedule.

NHSN 9.2 Beta Release

- The 2018 beta release is scheduled from 10/22/2018 to 11/2/2018.
- We need volunteers again! If you are interested, please email NHSNBeta@cdc.gov. We will begin monitoring this mailbox starting tomorrow.
- A flyer with more information will be sent in July and more on what to expect in September.
- A list of changed functionality will be provided at the start of the testing period so that you can focus on the changes to be found in NHSN 9.2
- Thank you!

CLABSI, PedVAE, SSI, Upcoming Components

Kathy Allen-Bridson

ECMO and VAD and CLABSI 2018- Oh My

- Extracorporeal Life Support, (ECMO) and Ventricular Assist Device (VAD)
- Optional fields 2018; Required 2019 (not 2020 as listed in BSI protocol)
- If in place > 2 days on DOE and still in place or discontinued day before
  - Mark “Central line” field as “No”- regardless of central line presence
  - Healthcare-associated BSI but NOT CLABSI
- 30+ events incorrectly entered into NHSN since 2018
- See pages 4-10 and 4-11 of BSI protocol for details https://www.cdc.gov/nhsn/pdfs/pscmanual/4psc_clabscurrent.pdf

Don’t overinflate your CLABSI SIR!

Device Day and Central Line Day Counts

- Device Day – The count of central lines on an inpatient unit that will be recorded in the monthly denominator summary data.
  - ALL central lines present on an inpatient unit should be included regardless of access.
  - Guidance: Table of Instructions for Denominators for NICU's, SCA's and ICU's
    - https://www.cdc.gov/nhsn/acute-care-hospital/clabsi/index.html
- Central Line Day - The days of access on an inpatient unit for central line-associated bloodstream infection (CLABSI) determinations.
  - If the central line is inserted during the current admission:
    - CL Day 1 = date of line placement
  - For central lines present on admission
    - CL Day 1 = date of 1st access on inpatient unit
  - Guidance: Table 3, page 4-16 of LCBI protocol

We Want to Hear From You

- CLABSI Surveillance Definitions Pre and Post 2015
  - Watch email for short survey from APIC
  - 1-2 weeks after APIC 2018
  - Let us know what you think

Pediatric Ventilator-Associated Event (PedVAE)

- Location based surveillance available for selection in monthly reporting plan in Pediatric and NICU locations only with planned release in January 2019
- Patient must be ventilated > 2 days to be eligible for PedVAE surveillance
- Detection of a PedVAE is determined by identification of deterioration in respiratory status after a period of stability or improvement on the ventilator using two key parameters:
  - Daily minimum FiO_2
  - Daily minimum Mean Airway Pressure (MAP)
- Secondary BSIs are not reported or attributable to a PedVAE
- Single tiered algorithm

Pediatric Ventilator-Associated Event (PedVAE) Surveillance Algorithm

Patient has a baseline period of stability or improvement on the ventilator, defined by ≥ 2 calendar days of stable or decreasing daily minimum* FiO_2 or MAP values. The baseline period is defined as the 2 calendar days immediately preceding the first day of increased daily minimum MAP or FiO_2.

*Daily minimum FiO_2 is defined as the lowest value of FiO_2 documented during a calendar day that is maintained for > 1 hour.
Daily minimum MAP is the lowest value documented during the calendar day.
For patients <30 days old, daily minimum MAP values 0-8 cm H_2O are considered equal to 8 cmH_2O for the purposes of surveillance.
For patients ≥30 days old, daily minimum MAP values 0-10 cmH_2O are considered equal to 10 cmH_2O for the purposes of surveillance.

After a period of stability or improvement on the ventilator, the patient has at least one of the following indicators of worsening oxygenation:

1) Increase in daily minimum FiO_2 of ≥ 0.25 (25 points) over the daily minimum FiO_2 of the first day in the baseline period, sustained for ≥ 2 calendar days.
2) Increase in daily minimum MAP values of ≥ 4 cmH_2O over the daily minimum MAP of the first day in the baseline period, sustained for ≥ 2 calendar days.

Pediatric Ventilator-Associated Event (PedVAE)

Additional Optional PedVAE Data Collection

- Clinical findings associated with a PedVAE may assist in better understanding the etiology and focusing efforts to prevent PedVAEs
- Optional data fields to report the following will be available:
    - Clinical diagnoses or events that were associated with the PedVAE
    - Antimicrobial agents that are administered on the date of event or within the 2 days before or 2 days after the event
    - Pathogens detected by culture or non-culture-based microbiological testing of upper or lower respiratory specimens or in blood during defined timeframes specified in the protocol

News Related to NHSN Operative Procedure Codes

- **Operative Procedure Codes included in the v8.9 release should be applied retrospectively to procedures preformed on or after 1/1/18**

Procedure Code Category	ICD-10 CODES	Procedure Code Descriptions	Code Status listed in 01-2018 document (OUTDATED)	Updated Code Status as of 03-2018 (CURRENT)
~~OVRY~~	~~0UC13ZZ~~	~~Extirpation of Matter from Left Ovary, Percutaneous Endoscopic Approach~~	~~Add~~	Remove
OVRY	**0UC14ZZ**	**Extirpation of Matter from Left Ovary, Percutaneous Endoscopic Approach**	-----	**Add**
OVRY	**0UC24ZZ**	**Extirpation of Matter from Bilateral Ovaries, Percutaneous Endoscopic Approach**	-----	**Add**
~~OVRY~~	~~0UC23ZZ~~	~~Extirpation of Matter from Bilateral Ovaries, Percutaneous Endoscopic Approach~~	~~Add~~	Remove
~~OVRY~~	~~0UDN3ZZ~~	~~Extraction of Ova, Percutaneous Endoscopic~~	~~No change~~	Remove
~~VHYS~~	~~0UT97ZZ~~	~~Resection of Uterus, Via Natural or Artificial Opening~~	~~No change~~	Remove
VHYS	0UT9FZZ	Resection of Uterus, Via Natural or Artificial Opening With Percutaneous Endoscopic Assistance	Remove	No change
CHOL	**0FB40ZZ**	**Excision of Gallbladder, Open Approach**	-----	**Add**

News Related to NHSN Operative Procedure Codes

- **Updates Related to the Continued Transition to ICD-10 Coding System**
  - **Harmonizing the NHSN operative procedure code category descriptions with the ICD-10-PCS coding system**
  - **Scope guidance for CBGB operative procedures is based on the 5th character of the chest**
    - Value of zero (0) = an open approach
    - Value of four (4) = percutaneous endoscopic approach
    - Value of F = via natural or artificial opening with endoscopic assistance approach

Upcoming NHSN Modules and Components

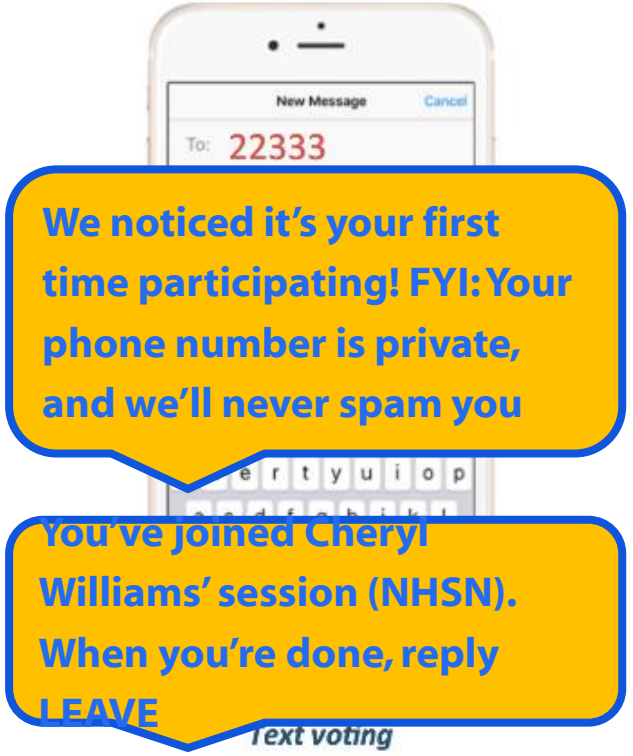
- September 2018
  - Outpatient Procedure Component
  - See *Preview of the New Outpatient Procedure Component*- Friday 1:30-2:30
- January 2019
  - Pediatric Ventilator-associated Events (PedVAE)
- January 2020
  - Neonatal Component
    - Level ll/lll and lll NICUs
    - Late-Onset Sepsis
    - Meningitis

Poll Everywhere

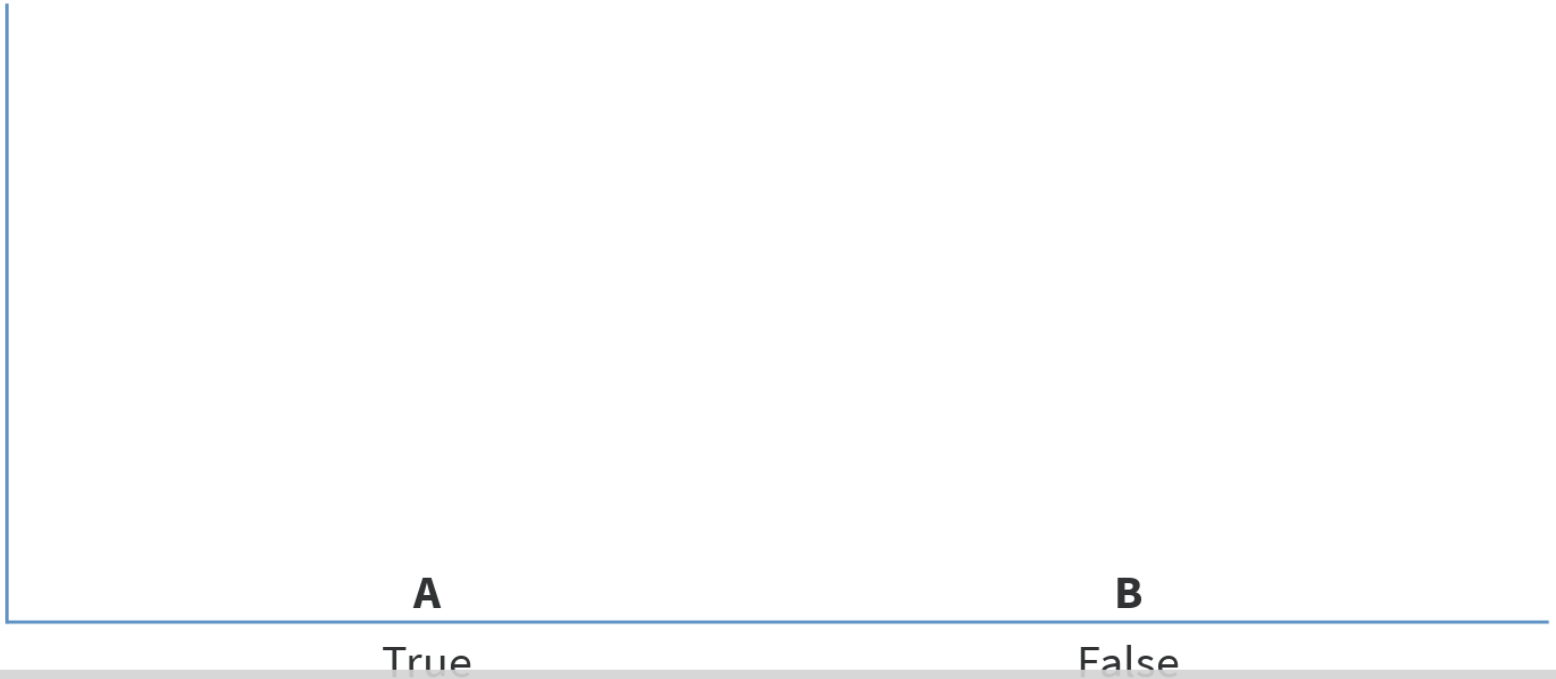
- A real time audience response tool
  - Participate by texting the message **NHSN** to **22333** once to join

    OR

  - On cellphone or computer visit the web address **PollEv.com/nhsn** via any web browser



True or False: Following the identification surgical site infections, I have observed addendums to operative procedure reports to note infection present at the time of surgery.



Start the presentation to see live content. Still no live content? Install the app or get help at **PollEv.com/app**

MDRO/CDI Update

Denise Leaptrot

No change to MDRO/CDI reporting guidance or definitions

- **Clarification note added for CDI multistep testing, pg. 12-21**
- **Multistep testing occurs on same unformed stool specimen.**

CDI-positive laboratory assay:

A positive laboratory test result for *C. difficile* toxin A and/or B, (includes molecular assays [PCR] and/or toxin assays) tested on an unformed stool specimen (must conform to the container)

OR

A toxin-producing *C. difficile* organism detected by culture or other laboratory means performed on an unformed stool sample (must conform to the container).

Note:

- When using a multi-testing methodology for CD identification, the final result of the last test finding which is placed onto the patient medical record will determine if the CDI positive laboratory assay definition is met.

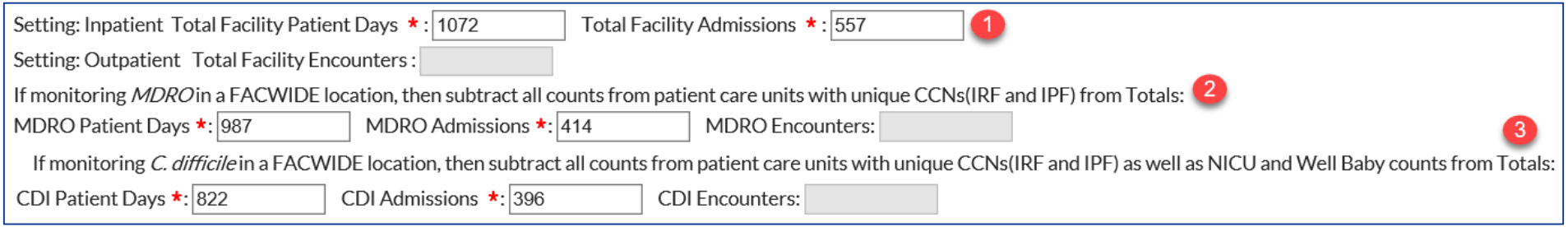
Updates to FacWideIn MDRO/CDI Denominator Form

Parneet Ghuman

Updates to FacWideIN MDRO/CDI Denominator Form

- Our goal is to minimize data quality issues with LabID denominator data entry
- We want to ensure that complete and accurate data are being used for CMS/internal purposes
- Updates are anticipated to go into effect in early 2019

Current FacWideIN MDRO/CDI Denominator Form



- Changes include:
  - Simplified title and revised language for clarity
  - Encounters field will display conditionally for outpatient units
  - Row 2 and Row 3
    - Added formulas for counts
    - No mention of MDRO and CDI

Sneak Peek!

- Example of inpatient FacWideIN MDRO/CDI denominator form

Setting: Inpatient Total Patient Days * : 203 Total Admissions * : 151 1

If your facility has a CMS-certified rehab unit (IRF) or CMS-certified psych unit (IPF), please subtract these counts from "Total Facility Patient Days" and "Total Admissions" (Line 1). If you do not have these units, enter the same values you entered on Line 1. 2

Counts = [Total Facility - (IRF + IPF)]
Patient Days * : 140 Admissions * : 85

If your facility has a CMS-certified IRF, CMS-certified IPF, NICU, or Well Baby Unit, please subtract those counts from "Total Facility Patient Days" and "Total Admissions" (Line 1). If you do not have these units, enter the same values you entered on Line 1. 3

Counts = [Total Facility - (IRF + IPF + NICU + Well Baby Unit)]
Patient Days * : 88 Admissions * : 67

NHSN Patient Safety Component Training Updates

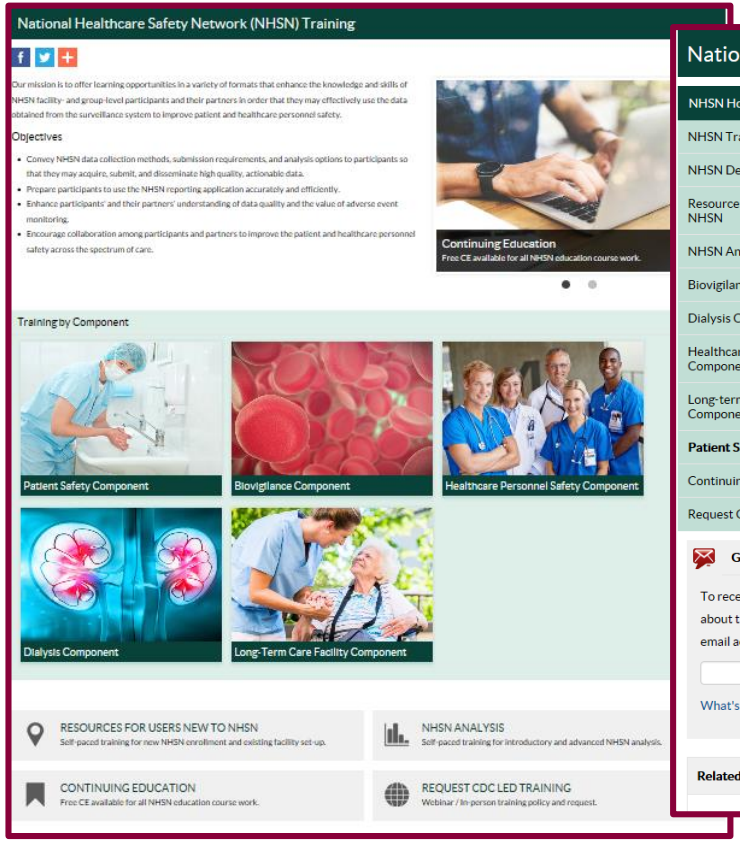
Kathy Allen-Bridson

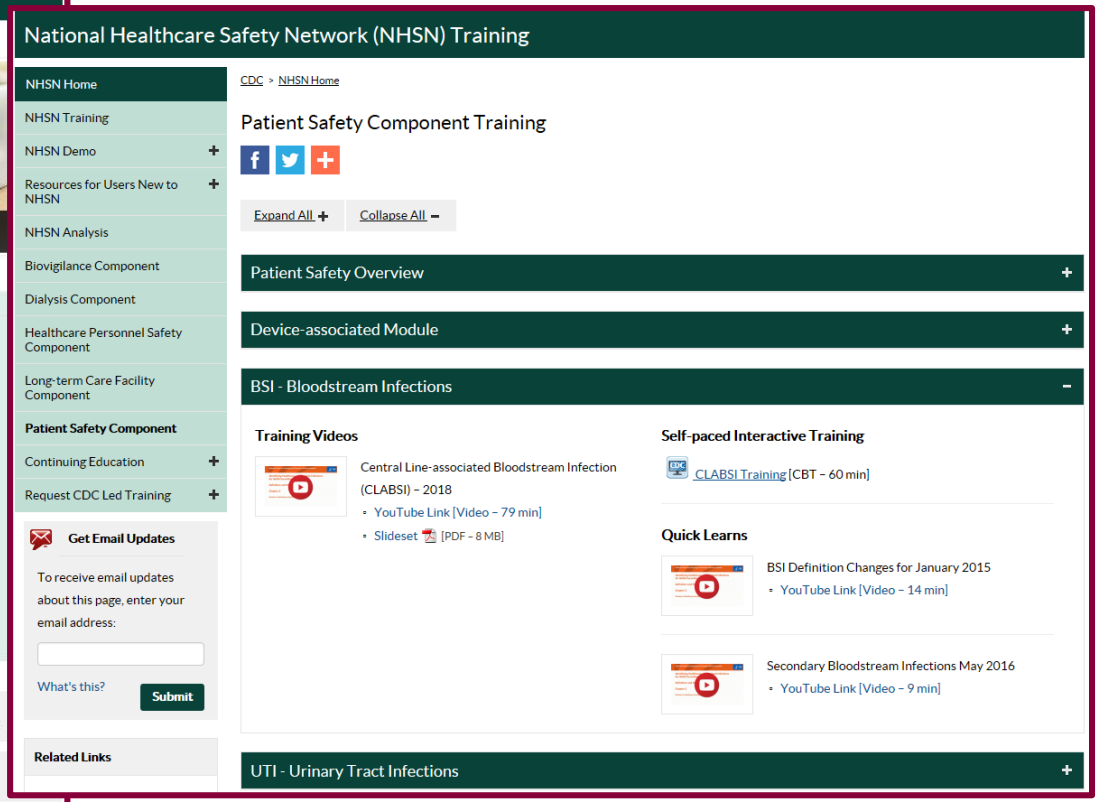
NHSN Available Training – Overview

- 2018 NHSN Training Archived Webstream Videos - available now!
  - CLABSI, CAUTI, VAE, LabID Events, SSI, Analysis, and AUR sessions
- Quick Learns
  - 5 – 10 minute videos addressing specific NHSN topics
- Self-paced Interactive Trainings - CBTs
  - Self-paced slides with detailed graphics, screen shots of step-by-step examples of form completion for instructional purposes, practice questions, and case study examples.
  - Available for: Device and Procedure-associated Modules, MDRO/CDI LabID Events, Dialysis Event, and Biovigilance
  - Coming July 2018 – Ventilator-associated Events!
- In-Person Training – March 25 - 29, 2019
  - The training course will provide information on CMS reporting, definition and protocol clarification, interactive case studies, analysis, validation, and any updates in reporting for 2019.
  - Webstreaming will be available for those not attending in-person

NHSN Training Website: New Look!

http://www.cdc.gov/nhsn/training/

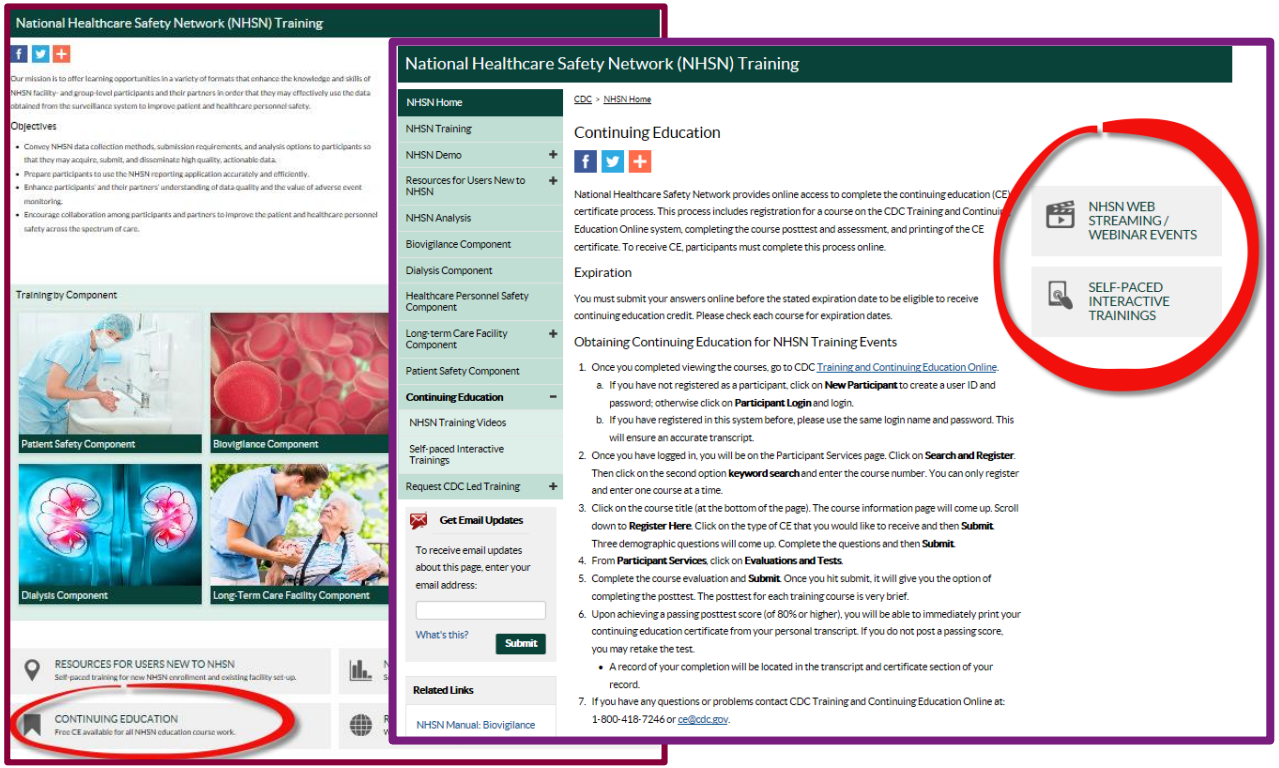




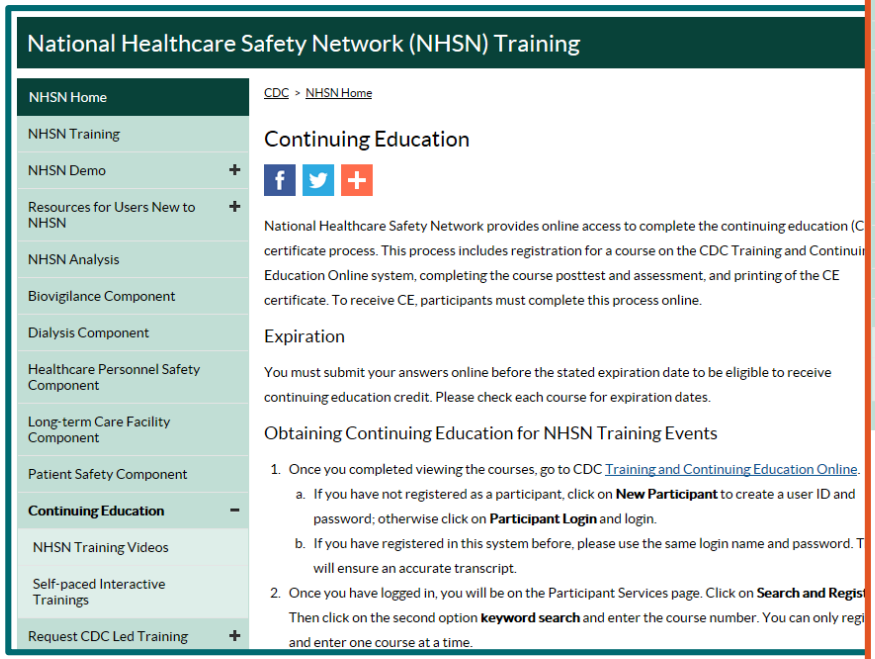
NHSN Continuing Education

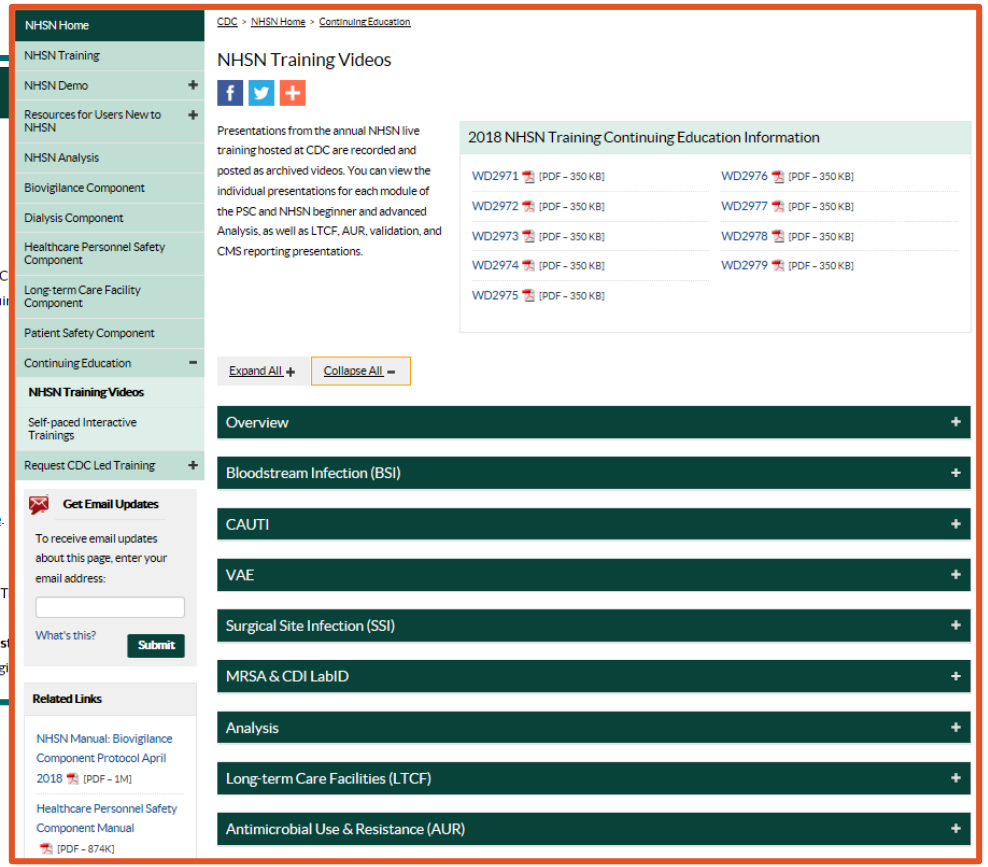
http://www.cdc.gov/nhsn/training/continuing-edu.html

- Continuing Education is available for Self-paced Interactive Training and Archived Webstreaming Training
- CE available: CNE, CEU, CME, CPH



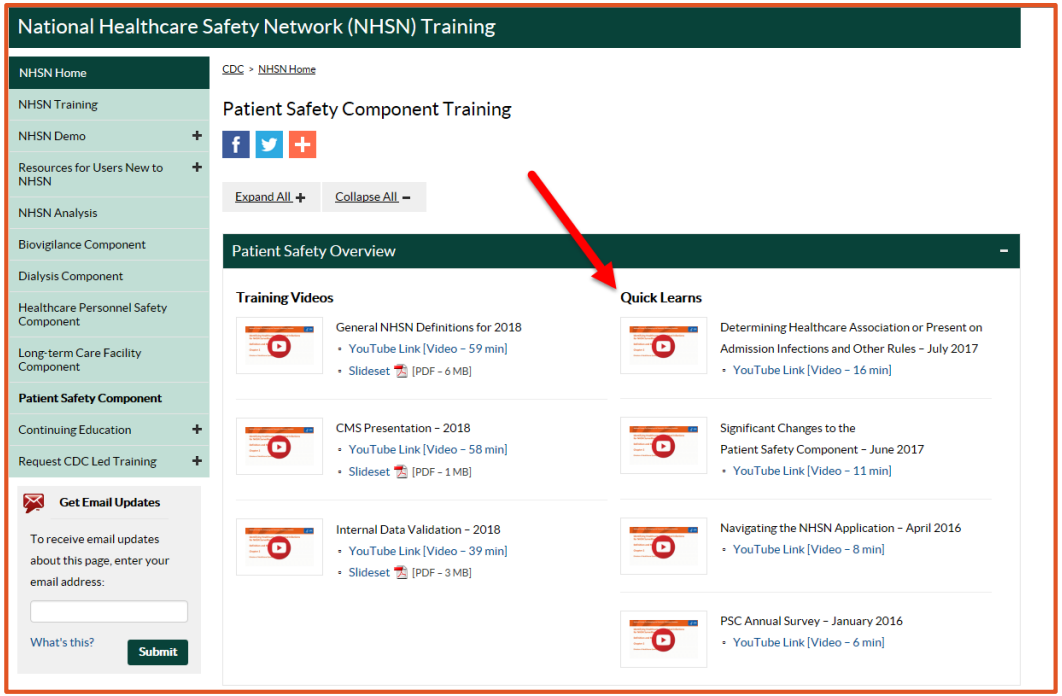
2018 NHSN Live Training: Slidesets and Webstream Videos





2018 Quick Learns

As of January 2018, the NHSN Quick Learns are no longer located on a separate page on the NHSN Training site.
Instead, Quick Learns are posted under the dropdown for the specific module they pertain to, see example below:



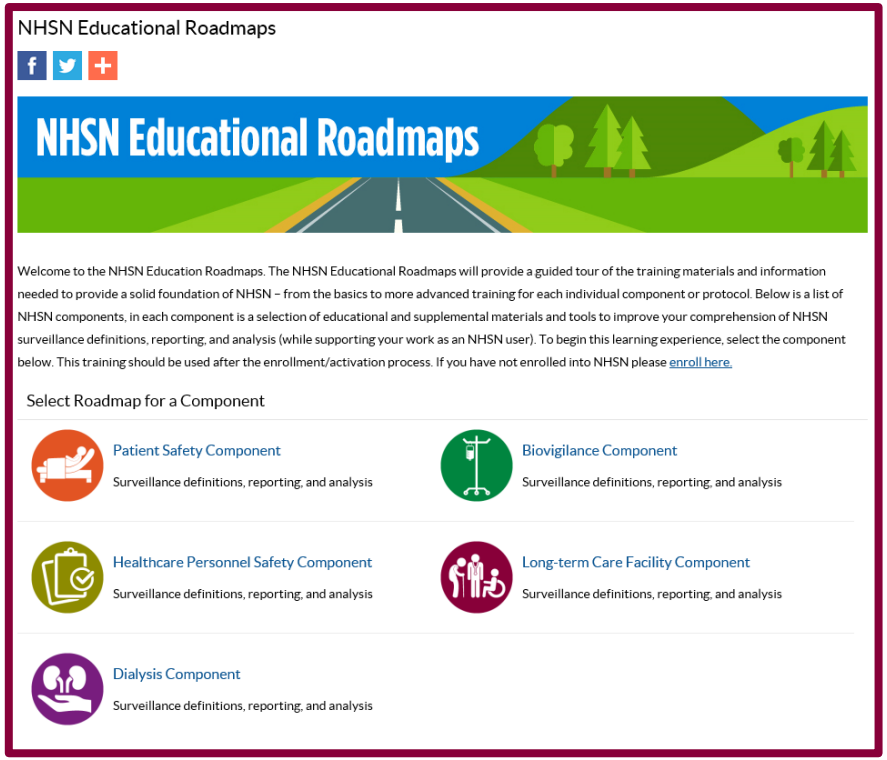
Quick Learns Coming Soon…

- Introduction to Analysis Basics: PSC Data Set Generation
- Introduction to Analysis Basics: PSC Analysis Output
- Introduction to Analysis Basics: Basic Example
- Introduction to Analysis Basics: Advanced Example
- Updates to the 2018 Patient Safety Annul Survey

NHSN Educational Roadmaps - Available Now!

http://www.cdc.gov/nhsn/training/roadmap

- We have recently completed the NHSN Educational Roadmaps for each NHSN component
- Tools to improve your comprehension of NHSN surveillance definitions, reporting, and analysis.
- Guided tour of the NHSN training materials and information – from the basics to more advanced training for each individual component and protocol



Patient Safety Component Analysis and Survey Updates

Maggie Dudeck

TAP Strategy Update: MRSA TAP Reports

- MRSA TAP Reports for ACHs were added to NHSN in April 2018

National Healthcare Safety Network
TAP Report for FACWIDEIN MRSA LabID data for Acute Care and Critical Access Hospitals (2015 Baseline)
Facilities Ranked by CAD 'Cumulative Attributable Difference'
SIR Goal: 0.5

A TAP Report is the first step in the CDC TAP Strategy. For more information on the TAP strategy, please visit: http://www.cdc.gov/hai/prevent/tap.html
As of: June 6, 2018 at 2:25 PM
Date Range: All BS2 MRSA TAP

orgID	name	state	facType	medType	numBeds	numpatdays	MRSA_bldInc Count	numPred	facCAD	SIR	SIRtest
14810	Arcement Medical Center	LA	HOSP-GEN	G	435	136109	38	6.304	33.27	6.028	SIG

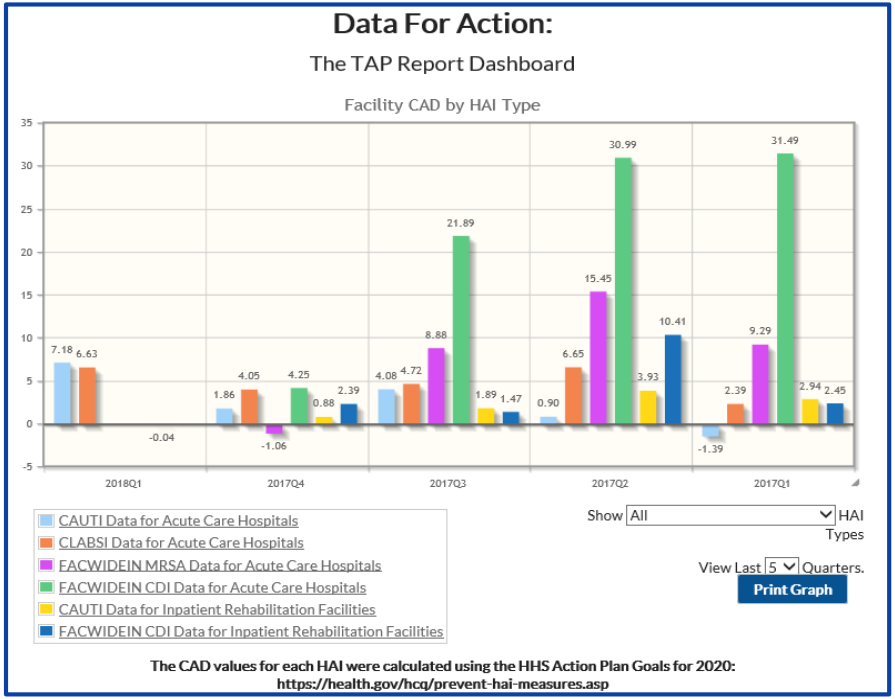
1. This report includes facility-wide inpatient data from acute care hospitals for 2015 and forward.
2. Facility Rank = Priority ranking for Targeted Assessment of Prevention by CAD in descending order
3. CAD = Observed - Predicted*SIR Goal
4. SIR is set to '.' when predicted number of events is <1.0. SIR TEST = 'SIG' means SIR > SIR Goal significantly

Source of aggregate data: 2015 NHSN MRSA Blood LabID Data
Data contained in this report were last generated on June 4, 2018 at 8:45 AM.

- MRSA data included in the ACH TAP Dashboard

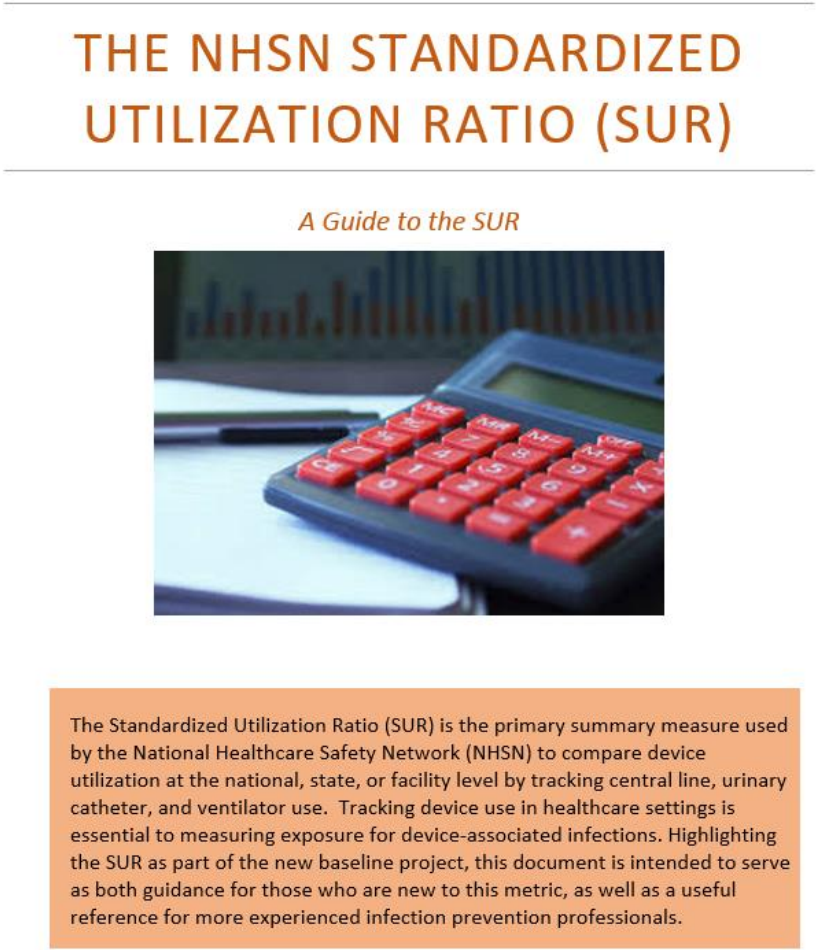
MRSA added to TAP Dashboard

- MRSA has been added to TAP Dashboard reports
  - Summary of MRSA data by recent five quarters
  - Number of MRSA infections to prevent to reach SIR Goal



A Guide to the SUR

- The SUR Guide is live as of January 2018!
- Mirrors the style of the SIR Guide
- Includes definition, calculation steps, and models for each device and facility type



https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sur-guide-508.pdf

Device-Associated Denominator Data Quality Checks

- One potential issue affecting device-associated HAIs is having patient days equal to device days.
  - While possible in certain critical care units, such as NICU locations, patient days should rarely be equal to device days.
- A “soft” alert will be added to device-associated denominator pages when users try to save summary records with any device days (CL, UC, V) that are equal to the patient days in that location and month.
  - A pop-up will appear that will prompt users to review their patient and device day counts and revise if necessary. It will not prevent users from entering patient days equal to device days.

Coming Soon: Analysis Reports Using Frozen Data

- Facilities will soon be able to run CMS-related SIRs based on data frozen as of each CMS prescribed deadline
  - Will aide in facilities comparing data in NHSN to CMS preview reports for Hospital Compare, HVBP, etc.
  - Datasets will be available going back to 2015Q1 deadline, using the 2015 NHSN baseline calculations
- SIRs will still be available in the traditional manner (e.g., based on current data)
- More information will be provided when this feature becomes available

Coming Soon: SIRs for Outpatient Procedures

- The new risk adjustment calculations (using the 2015 NHSN baseline) and SIR reports for outpatient procedures will soon be available
- Risk models developed for outpatient procedures in ASCs separate from hospitals (HOPD)
- The outpatient procedure SIR reports use the **All SSI Data SIR Model only**
  - For the Patient Safety Component, outpatient procedure SIR reports will be separate from the inpatient procedure SIR report
  - For ASCs, the new SIRs will become available in the new Outpatient Procedure Component
- The anticipated release date for the NEW reports:
  - Fall 2018

Coming Soon: 2016 National and State HAI Progress Report

- The 2016 report uses the 2015 baseline and risk adjustment calculations
  - Also compares 2016 data to 2015 SIRs as measure of progress
- The report consists of standardized infection ratio (SIR) and standardized utilization ratio (SUR) data and is produced by facility type:
  - Acute Care Hospitals (ACHs)
  - Critical Access Hospitals (CAHs)
  - Inpatient Rehabilitation Facilities (IRFs)
  - Long Term Acute Care Hospitals (LTACHs)
- The report consists of
  - Detailed technical tables
  - National and State factsheets that will be published in the Patient Safety Atlas
- Previous reports accessible from: https://www.cdc.gov/hai/surveillance/data-reports/index.html

Accessing other HAI Reports

- https://www.cdc.gov/hai/surveillance/data-reports/index.html

Coming Soon: 2018 Patient Safety Annual Survey Updates

- Numerous changes to are coming to all three of the PSC surveys, to be completed by facilities in 2019
- 9 New, required questions added to the Hospital Survey, 4 questions added to LTAC and IRF surveys
  - 5 new required questions on the Hospital survey about neonatal antimicrobial use to assist in the creation of a neonatal specific benchmark metric
  - 3 previous survey questions removed due to being outdated and/or not producing useful information for prevention and response activities
- Updated wording and response options for several questions in the facility microbiology lab practices section

Coming Soon: 2018 Patient Safety Annual Survey Updates (cont.)

- The antibiotic stewardship section will have the most noticeable changes
  - The previously required 11 questions will transition to a total of 20 questions (10 required and 10 optional)
  - The reason for this change is to add more granularity and context to facilities stewardship practices
  - All questions will continue to align with the CDC's Core Elements of Hospital Antibiotic Stewardship Program
- Full explanation of these changes and updates will be provided prior to the release of the 2018 Annual survey
  - Information will be provided in several different formats (newsletters, tables of instructions, and quick learn videos)

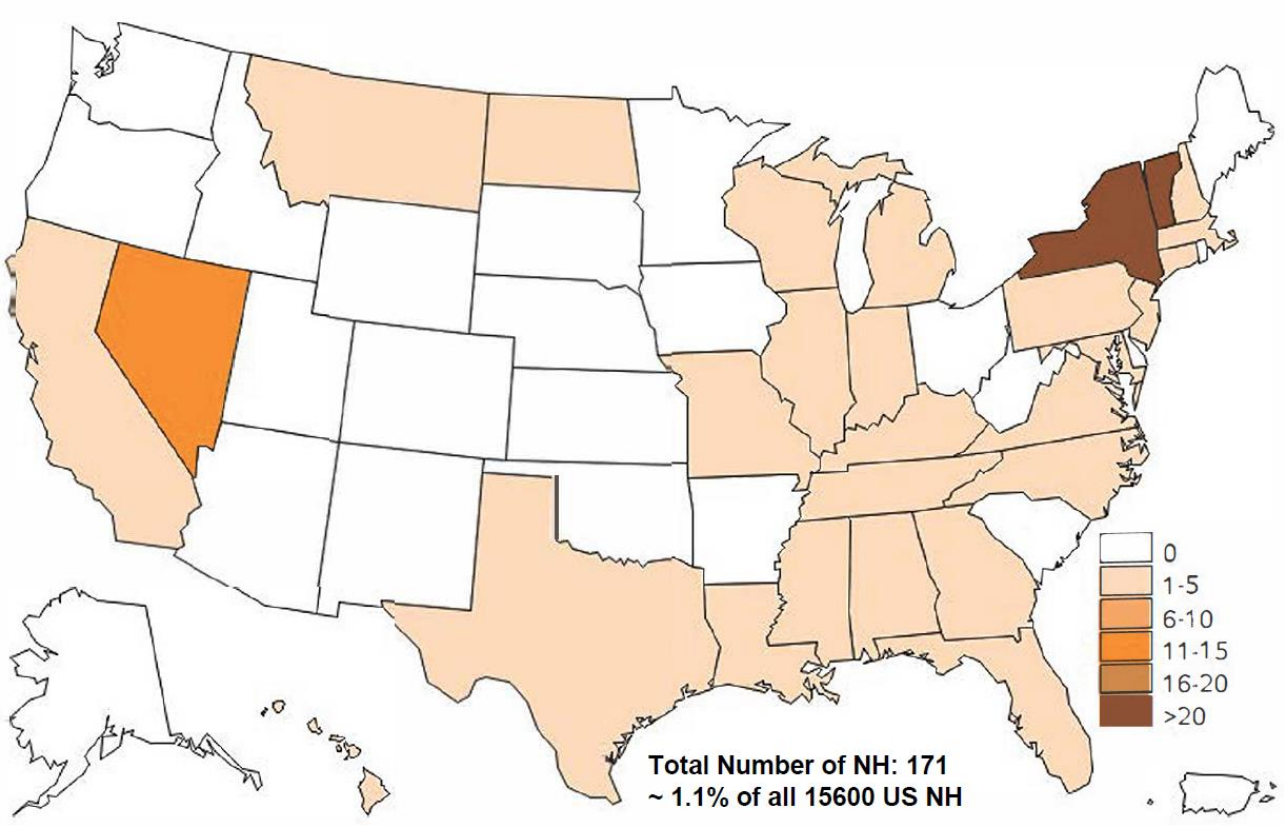
Long-term Care Facility Component Updates

Jeneita Bell

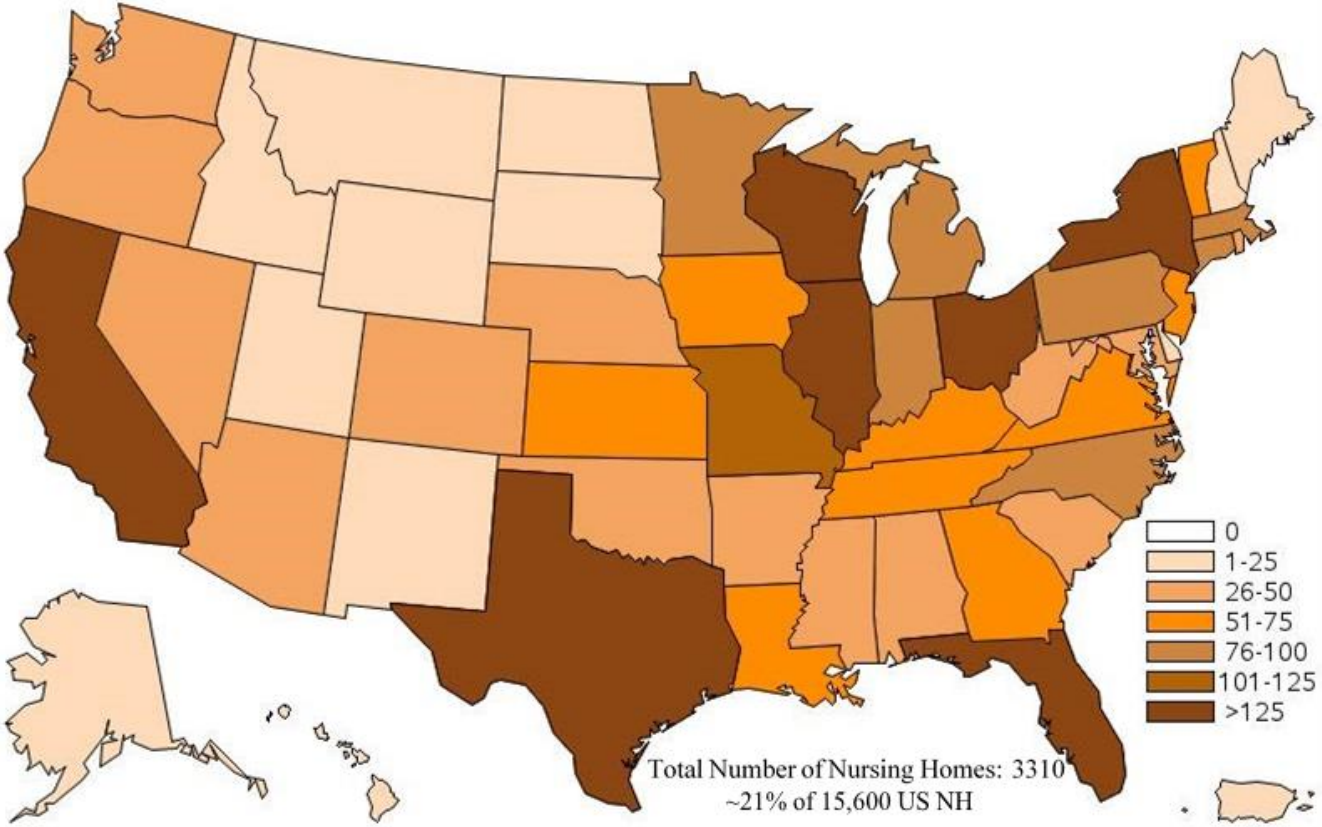
Outline

- Long-term Care Facility (LTCF) Component enrollment
- Clostridium *difficile* Infection (CDI) Reporting and Reduction Project
- APIC presentation
- CDI validation
- LTCF annual training

NURSING HOMES ENROLLED IN NHSN — August 2013



NURSING HOMES ENROLLED IN NHSN — March 2018



Clostridium difficile (CDI) Reporting and Reduction Project

- Collaboration between CDC, CMS, QIN-QIOs
- Objectives:
  - Increase NHSN reporting; establish CDI baseline; improve outcomes
- Project timeline: May 23, 2016 – December 28, 2018
- Recruitment and NHSN enrollment:
  - May 23, 2016 – April 7, 2017
  - National Target: 2,330
- Nursing Home CDI data submission for baseline:
  - March 1, 2017 – December 31, 2017
  - National Target submitting data: 1,864 (min. 80%)

CDI Project Accomplishments

- 2,594 facilities recruited and enrolled
  - 72% privately owned
  - 97% dually Medicare and Medicaid certified
  - 85% 50 to 199 beds
- 2,511 NHs reporting CDI data
  - 99% reported at least one month of complete data
- Exceeded recruitment and data submission target
- Reporting and evaluation on-going

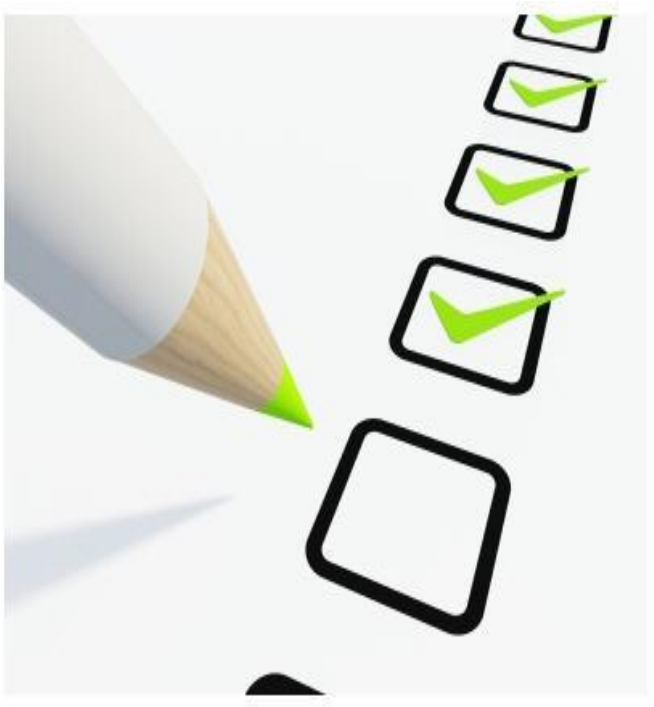
APIC Presentation

- **Lessons from a National Nursing Home CDI Surveillance Partnership**
  Friday, June 15, 2018
  9:30 AM - 10:30 AM

- Speakers:
  - Elisabeth Mungai (CDC, NHSN)
  - Kathie Nichols (Stratis Health, QIN-QIO)
  - Katie Pelofske (Masonic Home Care Center)

CDI Data Validation

- Improve data quality
  - Check accuracy of reported data
  - Understand users' protocol comprehension
  - Identify education and support needs
- Can be done internally and externally
  - Long-term care facility (LTCF)
  - State health department
  - QIN-QIO
- Interested or need help?
  - Contact NHSN@cdc.gov



NHSN Long-term Care Facility Annual Training

- Centers for Disease Control and Prevention

  Atlanta, GA

  July 16 – 19, 2018

- Highlights:
  - NHSN Healthcare-associated infection protocols
  - Using data for prevention
  - Introduction to conducting analyses
  - Guest speakers describe the benefits of NHSN in their LTCF

Clinical Document Architecture (CDA) Update

Ahmed Tahir

Overview of CDA

- Stands for Clinical Document Architecture
- Standard format developed by HL7 (Health Level 7)
- Used for electronic reporting of data into NHSN
- XML programming language

```
<recordTarget>
   <patientRole>
      <id root="2.16.840.1.113883.3.117.1.1.5.1.1.1" extension="123456"/>
      <id root="2.16.840.1.113883.3.117.1.1.5.1.1.1" extension="2ND ID"/>
      <id root="2.16.840.1.113883.4.1" extension="546465465"/>
      <id root="2.16.840.1.113883.4.338" extension="465465465T"/>
      <patient>
         <name>
            <family>last</family>
            <given>first</given>
            <given>mid</given>
         </name>
         <administrativeGenderCode codeSystem="2.16.840.1.113883.5.1" code="F"/>
         <birthTime value="19951209"/>
```

Using CDA

- Many infection control/EHR software systems can create CDAs for NHSN import
  - NHSN does not rank, evaluate, or endorse any software vendor!
  - APIC maintained list of HAI CDA Vendors
  - SIDP maintained list of AU CDA Vendors

- Can also use “Homegrown” solutions to develop CDAs

NHSN Data Currently Accepted via CDA

- DA Module
  - CLABSI
  - CAUTI
  - CLIP
  - ICU/Other Denom
  - SCA/ONC Denom
  - NICU Denom
- PA Module
  - SSI
  - Procedures
- MDRO Module
  - LabID
  - MDRO Denom
- AUR Module
  - AU
  - AR Event
  - AR Denom
- Dialysis
  - Dialysis Event
  - Dialysis Denom
- Hemovigilance
  - HV Denom

Future CDAs

- Planned for January 2019
  - Ventilator Associated Event (VAE)
  - Healthcare Personnel Influenza Vaccination Summary (FLU)
  - Update for BSI event
- Planned for January 2020
  - Update for Summaries: ICU/Other, NICU, SCA, MDRO, & Dialysis
    - “Report No Event” will be added to CDA
  - Updates for BSI event
- Planned for Summer 2020
  - Neonatal Component
    - Late Onset Sepsis – event and summary

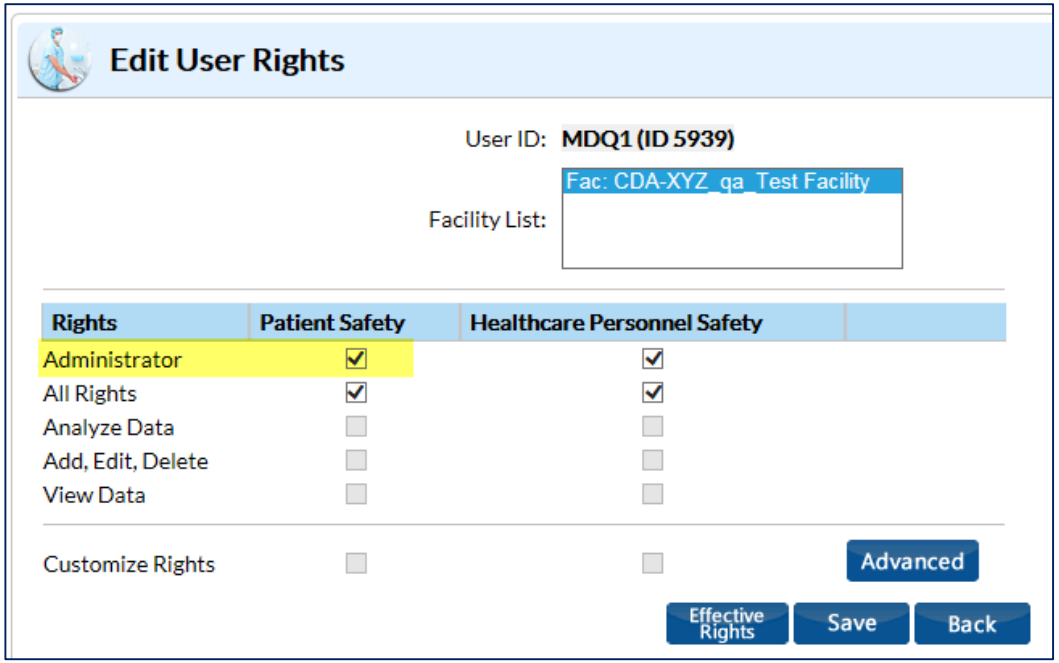
CDA Imports as a Percentage of All Reports Submitted to NHSN, Jan 1, 2017 - Dec 31, 2017

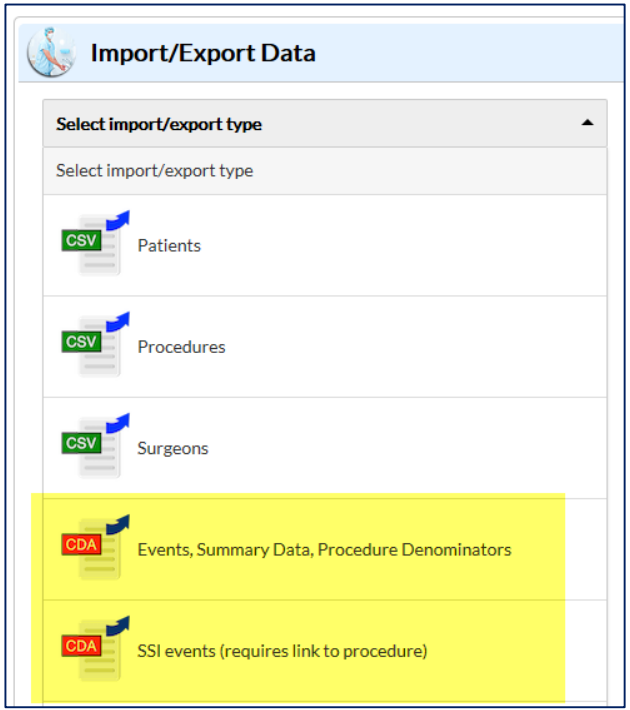
NHSN Numerator Data	
Bloodstream Infections (BSIs)	42%
Urinary Tract Infections (UTIs)	39%
Surgical Site Infections (SSIs)	31%
Laboratory Identified Events (LabID Events)	56%
Dialysis Events (DEs)	71%

NHSN Denominator Data	
ICU/Other Summary	22%
SCA/ONC Summary	25%
NICU Summary	22%
Surgical Procedure	35%
MDRO Summary	6%
Dialysis Denominator	56%

Manually Importing CDAs

- For importing all CDA file types (except AU & AR), user must have Administrator rights!





DIRECT CDA Automation

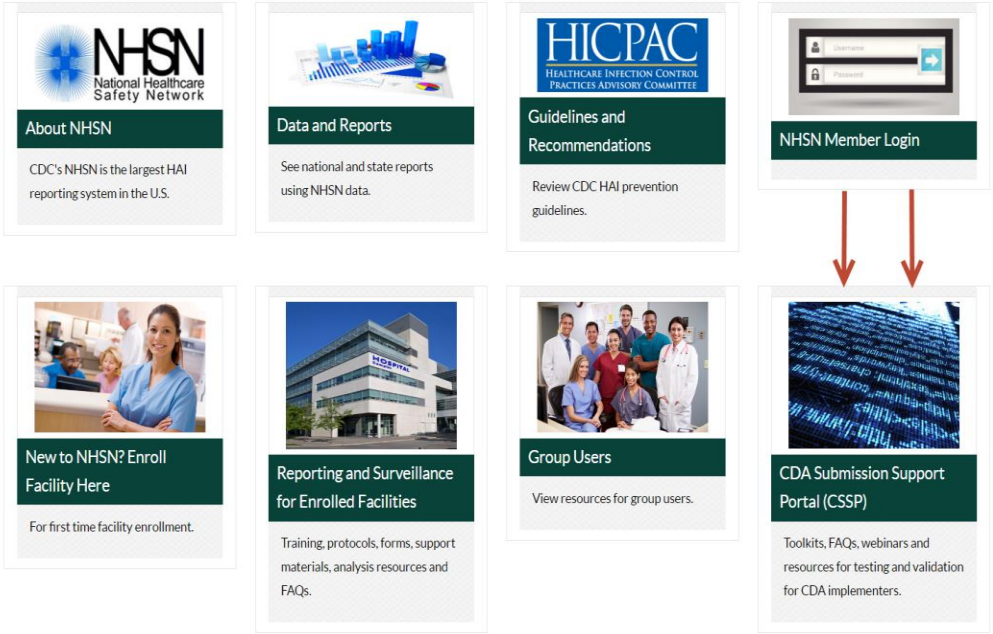
- Over 5,900 facilities from 15 vendors using DIRECT
- “Automated” sending of CDA files from vendor/homegrown solution to NHSN
  - Facility must already be able to send CDAs to NHSN
  - Data sent securely using Health Information Services Provider (HISP)
  - Advantages:
    - Not required to log into each facility
    - Send data for multiple facilities at once
    - Notification of submission success/failure sent via email
- Learn more here: DIRECT information

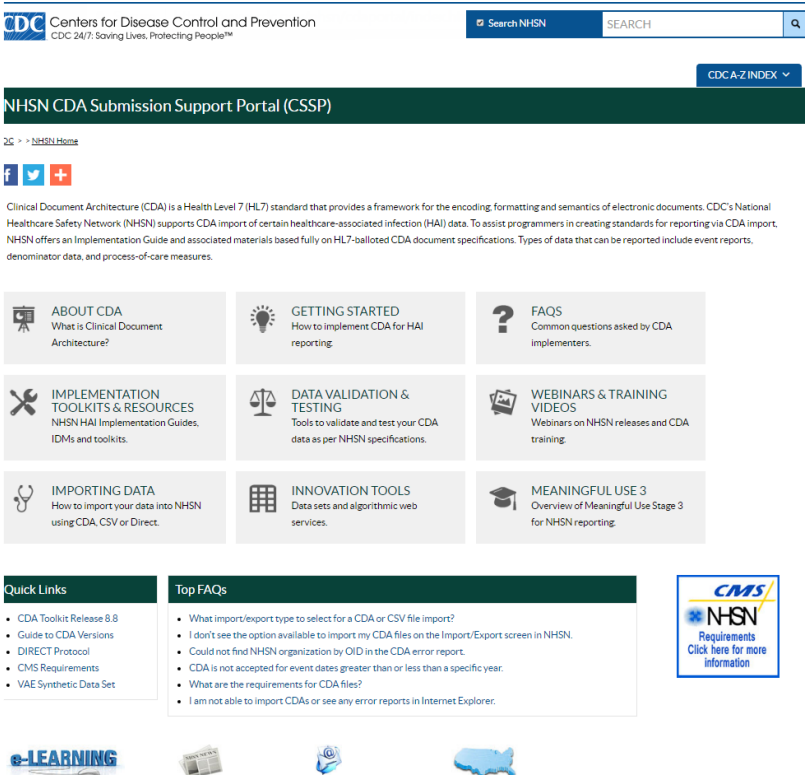
Updating/Replacing Data via CDA

- Data uploaded via CDA can be easily updated or replaced
- Re-export from vendor software then re-upload into NHSN
  - Automatically updates version number in CDA file so NHSN knows which record to update

CDA Submission Support Portal

- CSSP





NHSN & Meaningful Use Stage 3

- NHSN AUR Module option for public health registry reporting in MU 3
- Monthly data for both AU and AR Option required
- AUR data can be submitted via CDA only

- **Important note**: AUR Module is **only** part of NHSN that qualifies for MU 3

- NHSN facility guidance: https://www.cdc.gov/nhsn/pdfs/cda/MU3-Facility-Guidance.pdf

Antimicrobial Use and Resistance (AUR) Updates

Casey Thompson

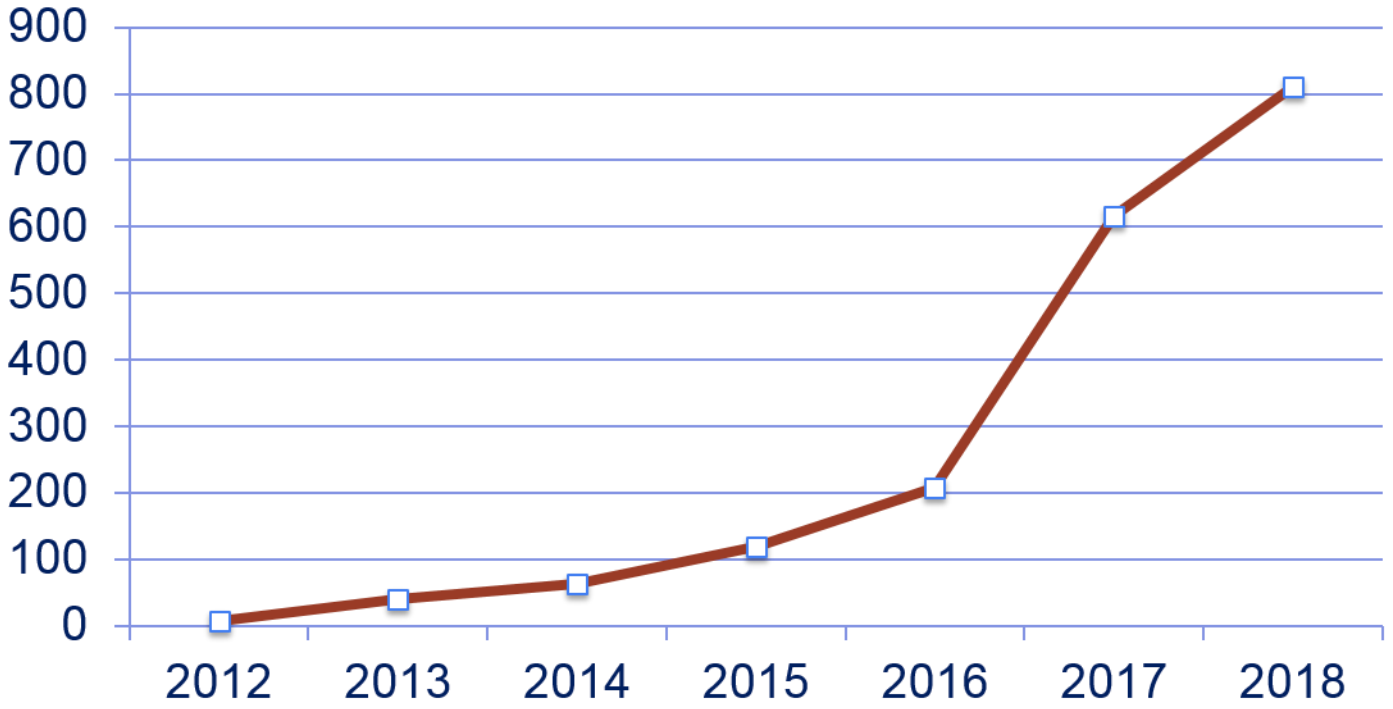
Submission Metrics

- 805 facilities submitted at least one month of data
  - From 49 states (+AE & DC)
  - Bed size
    - Average = 215
    - Median = 168
    - Min/Max = 6, 1455
  - Teaching status
    - Teaching: 65%
      - (of all Teaching) Major teaching: 47%
- 326 facilities submitted at least one month of AR Option data

*As of May 1, 2018

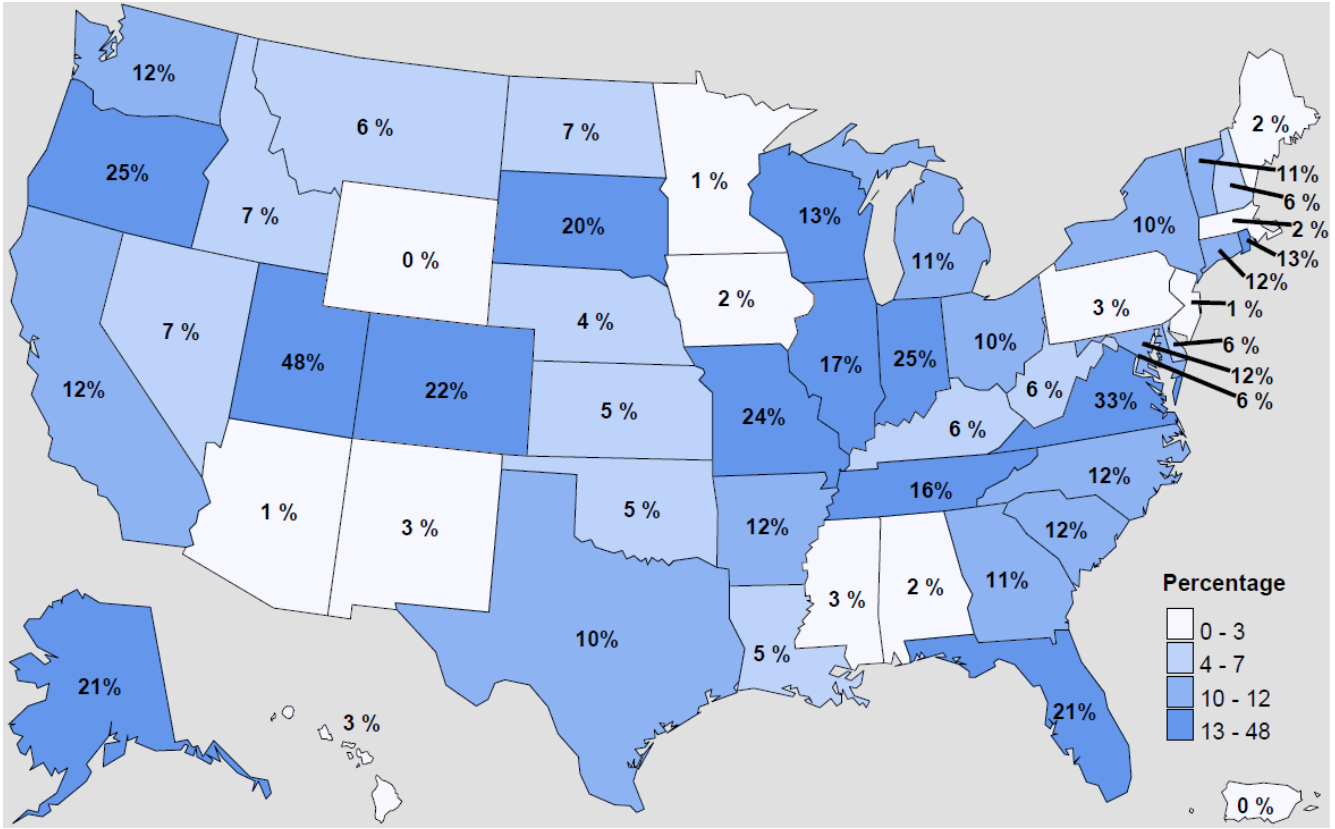
Yearly Submission into the AU Option*

No. of Facilities Reporting or that have Reported AU Data



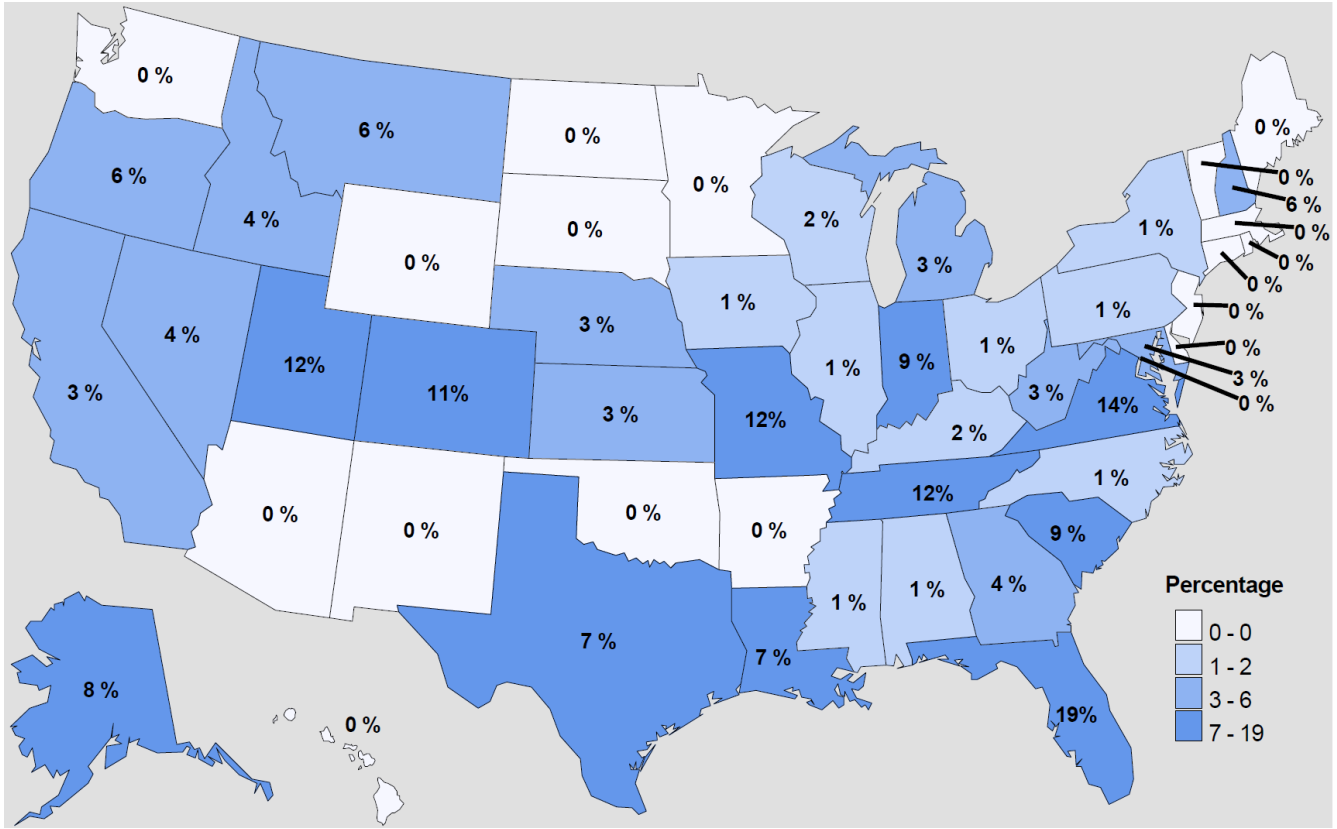
*As of May 1, 2018

Percentage of facilities ever-reporting into NHSN's AU Option, May 2018



*Denominator is all NHSN-enrolled acute care hospitals

Percentage of facilities ever-reporting into NHSN's AR Option, May 2018



*Denominator is all NHSN-enrolled acute care hospitals

Plans for the SAAR

- Current SAARs are based on 2014 AU data
- Plan to update adult and pediatric SAARs using 2017 data
  - Reassess all variables potentially associated with AU
  - If sample sizes are sufficient and data are clean, we can investigate new factors and location types not previously assessed:
    - Adult step down, Oncology units, other ICU types

New Resources posted to NHSN AUR Website

AU Option and AR Option FAQs

- Reflect common questions including general reporting, troubleshooting CDA file upload errors, interpreting analysis reports and more
- https://www.cdc.gov/nhsn/acute-care-hospital/aur/index.html

AU Option Annual Data Validation Guidance

- Use on annual basis or in the event of extreme high or low SAAR values
- Focus validation efforts on key AU Option protocol definitions and common data errors
- https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/aur/annual-au-data-validation-508.pdf

New Resources posted to NHSN AUR Website

Analysis Quick Reference Guide: AU Bar Chart – Selected Drugs

- https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/aur/AU-QRG-BarChart-drugs-508.pdf
- How to modify report to view specific drugs

2018 Annual NHSN Training Antimicrobial Use & Resistance Module video

- https://www.youtube.com/watch?v=sVpz7eNAQ2s

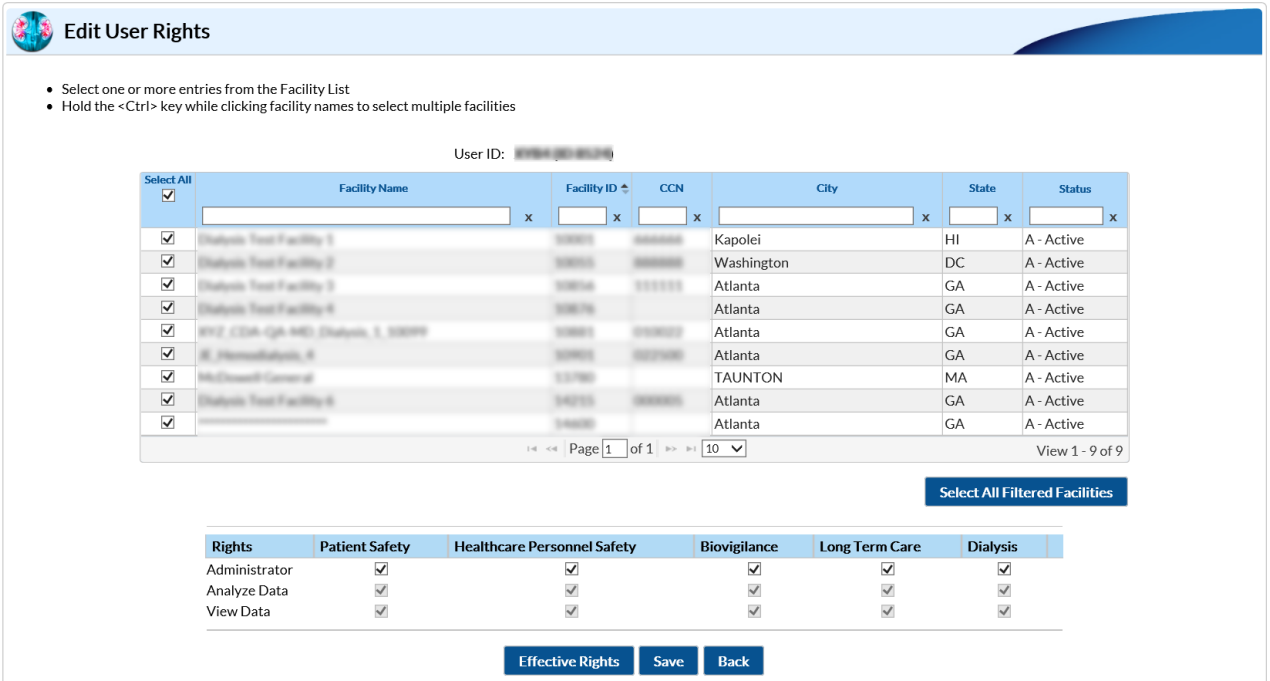
NHSN Helpdesk (protocol & submission questions): NHSN@cdc.gov

NHSN Dialysis Component Release 8.9 Updates

Release Date: April 28, 2018

User Interface Improvement – Edit Group User Rights

- Improvement to facility selection menu on Edit Group User Rights screen
  - Easier for users to sort, filter, and select multiple facilities



Analysis Updates – Aggregate Data

- NHSN Dialysis Event rate tables and run charts updated with 2016 national aggregate data for benchmarking
  - Includes: IV antimicrobial starts, IV vancomycin starts, local access site infections, bloodstream infections, access-related bloodstream infections, vascular access infections

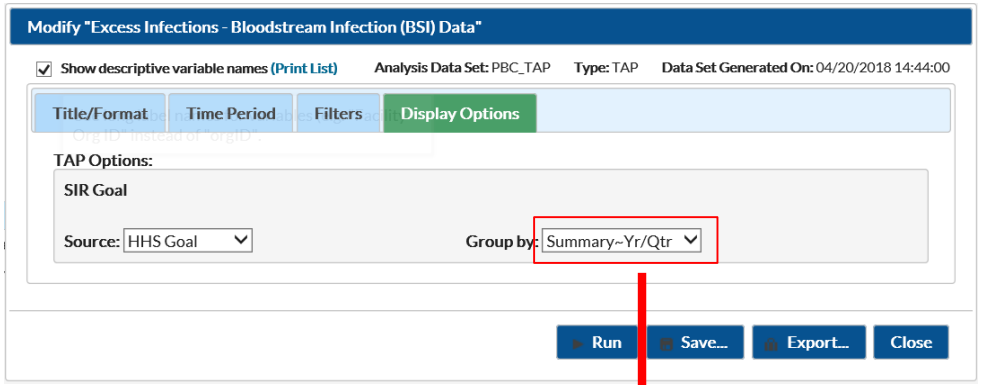
National Healthcare Safety Network
Rate Table for Bloodstream Infection
Facility-level Rate Data
As of: April 21, 2018 at 12:03 AM
Date Range: PBC_RATES summaryYQ 2017Q1 to 2017Q1
Bloodstream Infection: Any positive blood culture.

Facility Org ID	CMS Certification Number	State	Location	Access Type	Summary Yr/Qtr	Months	Number Bloodstream Infections	Patient-months	Bloodstream Infection Rate/100 patient-months	NHSN Bloodstream Infection Pooled Mean Rate/100 patient-months	Incidence Density p-value	Incidence Density Percentile
10055	888888	DC	[redacted]	All	2017Q1	2	1	46	2.17	0.56	0.2556	.
10055	888888	DC	[redacted]	Fistula	2017Q1	2	0	13	0.00	0.22	0.9713	25
10055	888888	DC	[redacted]	Graft	2017Q1	2	0	10	0.00	0.37	0.9636	50
10055	888888	DC	[redacted]	Other Access	2017Q1	2	0	6	0.00	0.65	0.9618	.
10055	888888	DC	[redacted]	Tunneled Central Line	2017Q1	2	1	10	10.00	1.85	0.1841	100
10055	888888	DC	[redacted]	Nontunneled Central Line	2017Q1	2	0	7	0.00	2.14	0.8608	.
10055	888888	DC	[redacted]	Any CVC	2017Q1	2	1	17	5.88	1.86	0.3113	94

Source of aggregate data: 2016 NHSN Dialysis Event Data
Data contained in this report were last generated on April 18, 2018 at 11:48 AM.
"Incidence Density Percentile" values were suppressed for "All" stratum and strata with insufficient data.

Analysis Updates – Excess Infections Report

- Group-level ‘TAP’ Report has been renamed to ‘Excess Infections – Bloodstream (BSI) Data’ report
- Can group by calendar quarter and calendar half-year by modifying the ‘Group by’ variable under the ‘Display Options’ tab



National Healthcare Safety Network
Excess Infections - Bloodstream Infection (BSI) Data
Totals for all Facilities in Group
SIR Goal : SIR Goal = 1
As of: April 21, 2018 at 12:18 AM
Date Range: PBC_TAP summaryYQ 2016Q1 to 2016Q4

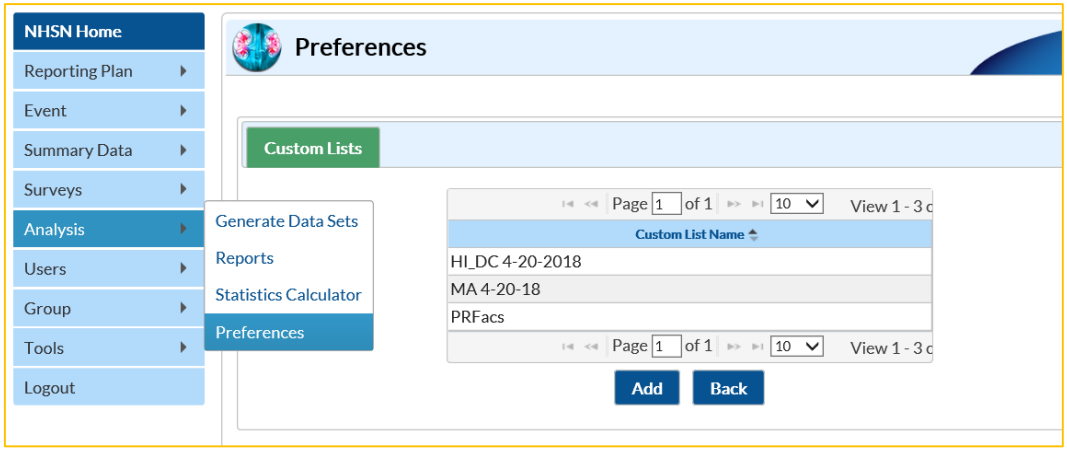
Number of Facilities	Summary Yr/Qtr	In-Plan Patient Months	Events	Predicted BSI	Excess Infections	SIR_Goal
5	2016Q1	535	20	5.1882	14.812	1
3	2016Q2	213	7	1.9922	5.008	1
4	2016Q3	348	17	3.5609	13.439	1
1	2016Q4	77	4	0.8866	3.113	1

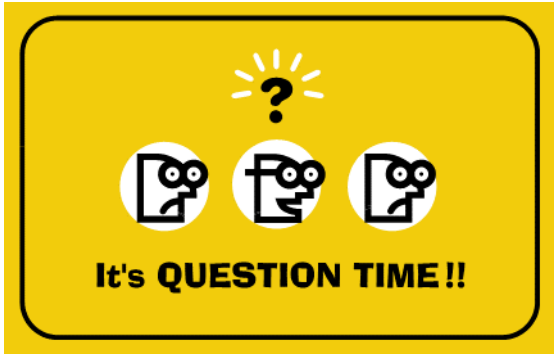
National Healthcare Safety Network
Excess Infections - Bloodstream Infection (BSI) Data
Facilities within the Group ranked by Number of Excess Infections
SIR Goal : SIR Goal = 1
As of: April 21, 2018 at 12:18 AM
Date Range: PBC_TAP summaryYQ 2016Q1 to 2016Q4

Facility Rank	Facility Org ID	CMS Certification Number	Summary Yr/Qtr	Facility Name	State	In-Plan Patient Months	Events	Predicted BSI	Excess Infections
1	10856	111111	2016Q1	Dialysis Test Facility 3	GA	277	9	2.1295	6.871
2	10055	888888	2016Q1	Dialysis Test Facility 2	DC	100	6	1.1701	4.830

Analysis Updates – Creating Custom Lists

- Create custom lists for use as filters in all analysis reports at the group level
- Create and modify custom lists by going to Analysis>Preferences
  - When adding a custom list, select facilities to include in the custom list, name the custom list, and click ‘Save’
  - Select the custom list on the ‘Filters’ tab on the Modify screen of any report to view data only for the facilities in the list





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

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