
Reporting CLABSI to the National Healthcare Safety Network

Roza Tammer, MPH, CIC
HAI Reporting Epidemiologist



Oregon
Health
Authority

Primary audiences

- Oregon acute-care, critical access, and long-term acute care hospitals who are
 - Newly reporting central line-associated bloodstream infections (CLABSI) to the National Healthcare Safety Network (NHSN) at the facility level
 - Need a refresher regarding reporting CLABSI to NHSN
 - Training new infection preventionists to report CLABSI to NHSN

Objectives

- Define CLABSI and the public health significance of these infections
- Review reporting requirements for CLABSI in Oregon
- Understand the key steps to reporting CLABSI in NHSN
- Access guidance documents and reporting forms
- Locate resources to complete self-guided training
- List ways to connect with Oregon's Healthcare-Associated Infections (HAI) Program

What is a CLABSI?

- Central line: An intravascular catheter that terminates at, close to the heart, or in one of the great vessels that is used for infusion, withdrawal of blood, or hemodynamic monitoring
- CLABSI: A laboratory-confirmed bloodstream infection where an eligible organism is identified and a central line is present on the day of event (DOE) or the day before
- Population at risk
 - Patients with central lines
 - Patients in intensive care units (ICUs)
 - Patients with mucosal barrier injuries
- Prevention strategies
 - Proper insertion technique, management, and prompt removal of the central line

CLABSI in the U.S. and Oregon

- Burden of disease
 - Associated with significant morbidity, mortality, increased length and cost of hospital stay
 - Estimated approximately 30,000 CLABSIs occur in ICUs and wards of U.S. hospitals each year
- Benchmarks
 - The Oregon Health Authority (OHA) compares Oregon hospital data to two national benchmarks, both standardized infection ratios (SIR)
 - 2013 U.S. Department of Health and Human Services (HHS) target SIR for acute care hospital HAI prevention: 0.50
 - 2014 national SIR established by NHSN: 0.45
 - Both benchmarks have been updated to assess data reported for 2017 and later

<https://health.gov/hcq/prevent-hai-action-plan.asp>

<https://www.cdc.gov/HAI/pdfs/progress-report/hai-progress-report.pdf>

<https://www.ahrq.gov/professionals/quality-patient-safety/cusp/clabsi-final-companion/clabsicomp1.html>

CLABSI in Oregon

Executive summary 2016

Health care-associated infections in Oregon hospitals

Health care-associated infections (HAIs) can have devastating consequences for patients. The summary below shows how 2016 data from Oregon's acute care hospitals compares to: 1) national baselines and 2) 2013 national HAI reduction targets set by the U.S. Department of Health and Human Services (HHS).

CLABSI in NICUs*

CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS 13 INFECTIONS

Oregon } *▼ Better than 2006–08 national baseline*
hospitals } *✗ Did not meet 2013 HHS target*

CLABSI in adult and pediatric ICUs*

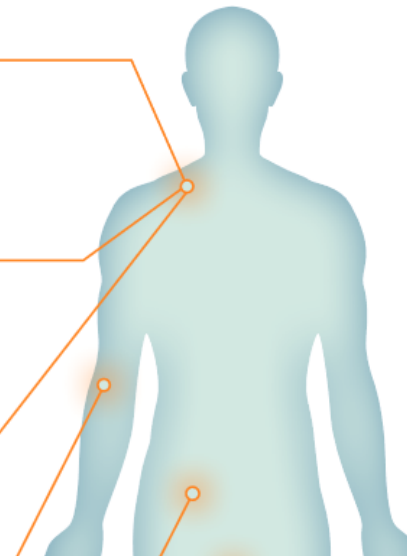
CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS 57 INFECTIONS

Oregon } *▼ Statistically better than 2006–08 national baseline*
hospitals } *✓ Met 2013 HHS target*

CLABSI in adult and pediatric wards*

CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS 43 INFECTIONS

Oregon } *▼ Statistically better than 2006–08 national baseline*
hospitals } *✓ Met 2013 HHS target*



Reporting CLABSI in Oregon

- Legislative context
 - Established by OAR 333-018
- Oregon CLABSI reporting requirement (updated 2015)
 - All hospitals (acute-care, critical access, long-term acute care)
 - Location-based: all adult, pediatric, and neonatal ICUs; all adult and pediatric medical, surgical, and medical/surgical wards
- Exemptions for CLABSI reporting will not be offered starting 2019
 - Previously, facilities with <50 central line days per year could request an exemption to CLABSI reporting to OHA
 - June 2018 HAI Advisory Committee (HAIAC) meeting: Vote to remove exemptions based on HAI Program staff proposal
 - All applicable facilities must report CLABSI data for 2019 forward

HAI MEASUREMENT TYPE	HOSPITALS AND LONG-TERM ACUTE CARE HOSPITALS ¹	
	CMS Requirements (date requirement enacted) ²	OREGON Requirements (date requirement enacted) ^{3,4}
CLABSI	<i>Hospitals: All adult, pediatric and neonatal ICUs (2011) Adult and pediatric medical, surgical and medical/surgical wards (2015) LTACH: All adult and pediatric ICUs and wards (Oct. 2012)</i>	<i>Adult medical, surgical and medical/surgical ICUs (2009) Neonatal ICUs (2011) All adult, pediatric and neonatal ICUs and adult and pediatric medical, surgical and medical/surgical wards (2015)</i>

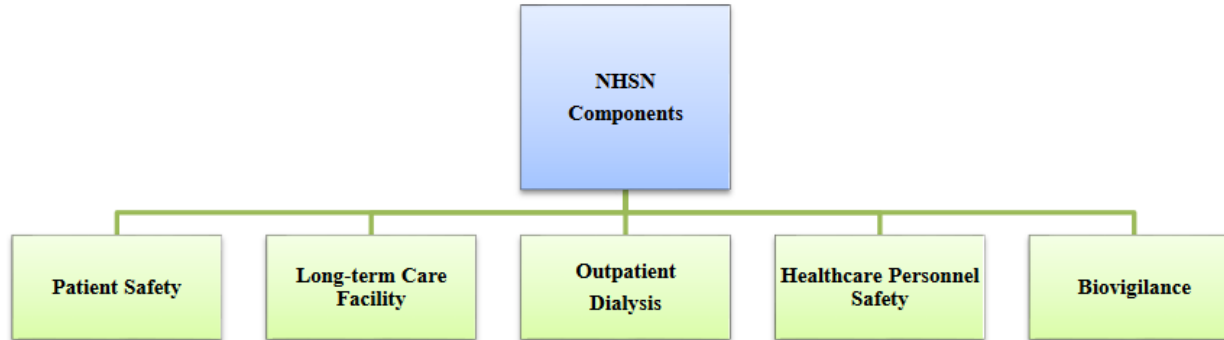
arcweb.sos.state.or.us/pages/rules/oars_300/oar_333/333_018.html

<https://www.oregon.gov/oha/PH/DiseasesConditions/CommunicableDisease/ReportingCommunicableDisease/Documents/ReportingPosters/poster-hai.pdf>

Key steps to reporting CLABSI

- Setup
 - Enroll in the Patient Safety Component (PSC) in NHSN
 - Ensure facility users have access and rights
 - Join the State of Oregon NHSN group
 - Facility location mapping - look at the required locations and review old mapped locations
 - Check that your confer rights template is up to date
- Ongoing reporting
 - Enter monthly reporting plans
 - Report denominator data (central line days, patient days)
 - Report numerator data (infections)
- Review alerts and data

Activate the Patient Safety Component



PSC Modules

Device-associated module

Procedure-associated module

Antimicrobial use and Resistance module


MDRO/CDI module

- Component enrollment lets facilities access and report certain data in NHSN
- Can only be done by the NHSN Facility Administrator
- Since all Oregon hospitals report laboratory-identified (LabID) MRSA and *Clostridium difficile* infection (CDI) events, all are already enrolled in the PSC.

Review your confer rights template

- Ensure your facility has accepted the most recent confer rights template
 - If not, your facility will be notified upon login (Confer Rights Not Accepted alert)
 - Click the link under Group Name to view requested data and accept the template
- Make sure you are looking at the correct group
- Checked “N/A” boxes next to required locations for reporting mean those data will not be shared with the group, and should only be checked if there is no location of that type mapped in the facility

Confer Rights Not Accepted List

 Define rights have been changed or new locations have been added affecting the Group below. You may accept new rights or leave the group. Click the Group Name to view and accept new rights.

First | Previous | Next | Last

Displaying 1 - 1 of 1

Group Name	Group ID	Status	Status Date
Paul's Test Group	10676	Not Accepted	Apr 27 2011 3:06PM

First | Previous | Next | Last

Displaying 1 - 1 of 1

Infections and other Events (Not specific to MDRO/CDI)
Includes Applicable Denominators and "No Events" Indicators

Plan	Month	Year	To	Month	Year	Event
<input checked="" type="checkbox"/>	In	January	2009			BSI - Bloodstream Infection (CLA)
	Location type:		Location:			Other Location Requirements:
	CC		Medical Critical Care			Adult
<input checked="" type="checkbox"/>	In	January	2009			BSI - Bloodstream Infection (CLA)
	Location type:		Location:			Other Location Requirements:
	CC		Surgical Critical Care			Adult
<input checked="" type="checkbox"/>	In	January	2009			BSI - Bloodstream Infection (CLA)
	Location type:		Location:			Other Location Requirements:
	CC		Medical/Surgical Critical Care			Adult



Ensure user access and rights

- If your facility has newly enrolled in the PSC, the NHSN Facility Administrator must make sure at least one user may access it
- New users may be added, or existing users may be given access to the PSC
- For all users intended to access the PSC, be sure that “Patient Safety” box is checked under “Edit User Rights” and save

The screenshot shows the NHSN Home navigation menu on the left, with 'Users' circled in red. The main content area displays the 'Edit User Rights' table. A red arrow points to the 'Patient Safety' checkbox for the 'All Rights' row, which is checked. Another red arrow points to the 'Save' button at the bottom right of the table.

Rights	Patient Safety	Healthcare Personnel Safety	Biovigilance	
Administrator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
All Rights	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Analyze Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Add, Edit, Delete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
View Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Customize Rights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Advanced

Effective Rights Save Back

Review mapped locations

- Like catheter-associated urinary tract infection (CAUTI), CLABSI reporting is location-based: all adult, pediatric, and neonatal ICUs; all adult and pediatric medical, surgical, and medical/surgical wards
- Which locations a facility must perform surveillance for are defined specifically by the way they are mapped according to CDC Location Codes

Location type(s)	CDC Location Code
All ICUs	Begin with IN:ACUTE:CC
Adult medical ward	IN:ACUTE:WARD:M
Adult surgical ward	IN:ACUTE:WARD:S
Adult medical/surgical ward	IN:ACUTE:WARD:M/S
Pediatric medical ward	IN:ACUTE:WARD:M_PED
Pediatric surgical ward	IN:ACUTE:WARD:S_PED
Pediatric medical/surgical ward	IN:ACUTE:WARD:MS_PED

Review mapped locations



- Review all mapped locations in your facility
 - Review “Facility” “Locations” and hit “Find” to create a list of all mapped locations.
- Add applicable locations to the monthly reporting plan
- Review all existing mapped locations to ensure they are accurate
 - Define acuity of care and type of service to ensure mapped accurately
 - Edit, add, delete as needed; re-map as applicable and add to monthly reporting plan
 - Incorrectly mapped locations will impact the completeness of the data you report and the accuracy of your data analyses
- Recommendation is to review locations annually and whenever changes that may impact mapping are anticipated

Enter/edit monthly reporting plans

- Reporting plans allow NHSN users to inform CDC which data is going to be reported by the facility
 - Each month must have its own plan
 - Plans can be copied and pasted from one month to another
- Each component has its own plan
- “Off plan” surveillance is data only for facility use, and will not be shared with CMS/OHA or included in NHSN reports/publication
- PDF version of plan and table of instructions are useful to review
- Accuracy of plans can impact ability to enter/edit/access data as well as ensure complete reporting and alert function



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Patient Safety Monthly Reporting Plan

Page 1 of 2
*required for saving
Facility ID: _____ *Month/Year: _____ / _____
 No NHSN Patient Safety Modules Followed this Month

Device-Associated Module					
Locations	CLABSI	VAE	PedVAP	CAUTI	CLIP
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Instructions for Completion of the Patient Safety Monthly Reporting Plan Form (CDC 57.106)

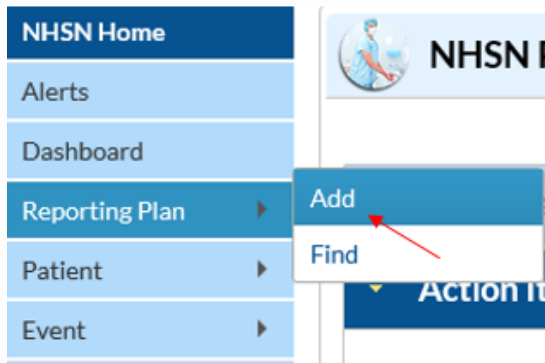
Data Field	Instructions for Form Completion
Facility ID #	The NHSN-assigned facility ID will be auto-entered by the computer.
Month/Year	Required. Enter the month and year for the surveillance plan being recorded; use MM/YYYY format.
No NHSN Patient Safety Modules Followed this Month	Conditionally required. Check this box if the facility does <u>not</u> plan to follow any of the NHSN Patient Safety Modules during the month and year selected. Checking this box will mean that no data will be shared on the facility's behalf for CMS quality reporting programs.
Device-Associated Module	
Locations	Conditionally required. If the facility plans to follow device-associated events, enter the location codes for those facility locations where patients are housed overnight and from which denominator data

https://www.cdc.gov/nhsn/pdfs/pscmanual/3psc_monthlyreportingplancurrent.pdf
https://www.cdc.gov/nhsn/forms/instr/57_106.pdf



Enter/edit monthly reporting plans

- Select Reporting Plan and Add



Add Monthly Reporting Plan

Mandatory fields marked with *

Facility ID *: NHSN State Users Test Facility #2 (ID 15165) ▼

Month *: ▼

Year *: ▼

No NHSN Patient Safety Modules Followed this Month

Device-Associated Module

	Locations	CLABSI	VAE	CAUTI	CLIP	PedVAP (<18 years)
🗑️	▼	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Add Row Clear All Rows Copy from Previous Month

Enter/edit monthly reporting plans

- Ensure that the location codes for all locations for which CLABSI reporting is required are represented under “locations” and “CLABSI”

Mandatory fields marked with *

Facility ID *: NHSN State Users Test Facility #2 (ID 15165)

Month *: January

Year *: 2015

No NHSN Patient Safety Modules Followed this Month

Device-Associated Module

Locations	CLABSI	VAE	CAUTI	CLIP	PedVAP (<18 years)
5M - ICU	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NICU - NICU	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5S - MED - MEDICAL WARD (5 SOUTH)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6S - SURG - SURGICAL WARD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MED/SURGE - MED/SURGE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6E - PED 2 - PEDIATRIC MED/SURG WARD 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PED MED - PEDIATRIC MEDICAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PED SURG - PEDIATRIC SURGICAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
REHAB UNIT - REHAB UNIT	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Add Monthly Reporting Plan

Mandatory fields marked with *

Facility ID *: NHSN State Users Test Facility #2 (ID 15165)

Month *: ▼

Year *: ▼

No NHSN Patient Safety Modules Followed this Month

Device-Associated Module

Locations	CLABSI	VAE	CAUTI	CLIP	PedVAP (<18 years)
1160-1 - URGENT CARE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 - 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24H OBS - 24H OBSERVATION					
2E - MS 2 - M/S WARD					
2S - BMT - BONE MARROW TRANSPLANT WARD					
3E - ORTHO - ORTHO WARD					
3EAST - MED WARD 3RD FLOORS EAST					
3N - SICU - SICU					
3S - ONC - HEME/ONC WARD					
4E - GI - GI WARD					
4N - NURS - NURSERY					
4N - TRAUMA - TRAUMA UNIT					
4S - NICU - LEVEL II/III NICU					
4T - L&D - LABOR AND DELIVERY					
4WARD - 4 WARD TEST					
5 WEST - 5 WEST -- MED/SURG					
54321-2 - MEDSURG1					
5E - PSYCH - PSYCHIATRIC WARD					
5GNORTH - MEDICAL SURGICAL WARD - AU					
5GPED - PED MED SURG - AU					
5ICU - NEW 5TH ICU					
5M - ICU					
5N - NICU - LEVEL III NICU					
5S - MED - MEDICAL WARD (5 SOUTH)					
5T - MED - MEDICAL WARD (5 TOWER)					
6E - PED 2 - PEDIATRIC MED/SURG WARD 2					
6S - SURG - SURGICAL WARD					
6T - MED - MEDICAL WARD (6 TOWER)					
Multi 7 EAST - 7 EAST -- MEDICAL					

SSi


IN: OUT:

Antimicrobial Use

Antimicrobial Resistance

Report denominator data

- Central line days and patient days are entered on the appropriate denominator form, depending upon setting
- Protocols define methods for data collection and reporting
 - Manual daily data collection
 - Manual sampled weekly data collection
 - Electronic
- For every month and location in which no central line days are identified, enter “0”
- PDF version of denominator reporting and table of instructions are useful to review



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**Denominators for Intensive Care Unit (ICU)/Other Locations
(not NICU or SCA)**

Page 1 of 1

*required for saving Facility ID:		*Location Code:	*Month:	*Year:		
Date	*Number of Patients	**Number of patients with 1 or more central lines	**Number of patients with a urinary catheter	**Number of total patients on a ventilator	Number of patients on APRV	Number of Episodes of Mechanical Ventilation
1						
2						
3						
4						

https://www.cdc.gov/nhsn/forms/57.118_DenominatorICU_BLANK.pdf
https://www.cdc.gov/nhsn/forms/instr/57_118.pdf

Report denominator data

- Select Summary Data and Add
- Depending on the location you are reporting for, select the appropriate Summary Data Type
- Enter denominators and Save

NHSN - National Healthcare Safety Network

NHSN Home

- Alerts
- Dashboard
- Reporting Plan
- Patient
- Event
- Procedure
- Summary Data
 - Add
 - Find
 - Incomplete
 - Delete AUR Data
- Import/Export
- Surveys
- Analysis
- Logout

Denominator

Mandatory fields marked with *

Facility ID *: NHSN

Location Code *:

Month *:

Year *:

Urinary Catheter Days:

Ventilator Days:

NHSN - National Healthcare Safety Network

NHSN Home

- Alerts
- Dashboard
- Reporting Plan
- Patient
- Event
- Procedure
- Summary Data
- Import/Export
- Surveys
- Analysis
- Logout

Add Patient Safety Summary Data

Summary Data Type:

- Device Associated - SCA/ONC (SCA)
- Device Associated - SCA/ONC (SCA)
- Device Associated - Neonatal Intensive Care Unit (NICU)
- Device Associated - Intensive Care Unit / Other Locations (ICU)
- MDRO Prevention Process and Outcome Measures Monthly Monitoring Form (MDRO)

Denominators for Intensive Care Unit (ICU)/Other locations (not NICU or SCA)

Mandatory fields marked with *

Facility ID *: NHSN State Users Test Facility #1 (ID 15164)

Location Code *:

Month *:

Year *:

Report No Events

Total Patient Days:

Central Line Days: CLABSI:

Urinary Catheter Days: CAUTI:

Ventilator Days:

APRV Days: VAE:

Episodes of Mechanical Ventilation: PedVAP:

Sample Values For Estimating Denominator Data

Sample Patient Days: Check Box(es) if Sampling Used

Sample Central Line Days:

Sample Urinary Catheter Days:

Custom Fields

Save Back

Report numerator data

- CLABSI events are reported on the Primary BSI Form
- PDF version of denominator reporting and table of instructions are useful to review
- Protocols provide definitions, guidelines, and reporting criteria
- In every month for which no CLABSI events are identified, the “Report No Events” box on the monthly reporting plan must be checked



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Primary Bloodstream Infection (BSI)

Page 1 of 4 *required for saving **required for completion

Facility ID:	Event #:	
*Patient ID:	Social Security #:	
Secondary ID:	Medicare #:	
Patient Name, Last:	First:	Middle:
*Gender: F M Other	*Date of Birth:	
Ethnicity (Specify):	Race (Specify):	
*Event Type: BSI	*Date of Event:	
Post-procedure BSI: Yes No	Date of Procedure:	
NHSN Procedure Code:	ICD-9-CM Procedure Code:	
*MDRO Infection Surveillance:		
<input type="checkbox"/> Yes, this infection's pathogen & location are in-plan for Infection Surveillance in the MDRO/CDI Module <input type="checkbox"/> No, this infection's pathogen & location are not in-plan for Infection Surveillance in the MDRO/CDI Module		
*Date Admitted to Facility:	*Location:	
Risk Factors		
*If ICU/Other locations, Central line: Yes No	Any hemodialysis catheter present: Yes No	
*If Specialty Care Area/Oncology,	Extracorporeal life support present (e.g. ECMO): Yes No	
Permanent central line: Yes No	Ventricular assist device (VAD) present: Yes No	
Temporary central line: Yes No		
*If NICU,	Location of Device Insertion: _____	
Central line, including umbilical catheter: Yes No	Date of Device Insertion: ___/___/___	
Birth weight (grams):		

https://www.cdc.gov/nhsn/pdfs/pscmanual/4psc_clabscurrent.pdf
<https://www.cdc.gov/nhsn/pdfs/training/2018/clabsi-508.pdf>
https://www.cdc.gov/nhsn/forms/57.108_PrimaryBSI_BLANK.pdf

Report numerator data

- Select Event and Add

NHSN - National Healthcare Safety

NHSN Home
Alerts
Dashboard
Reporting Plan
Patient
Event
Procedure
Summary Data
Import/Export
Surveys
Analysis
Logout

Add Event

Mandatory fields marked with *
Fields required for record completion marked with **
Fields required when in Plan marked with >

Patient Information

Facility ID *: NHSN State Users Test Facility #1 (ID 15164) v

Patient ID *: Find Find Events for Patient

Secondary ID:

Last Name:

Middle Name:

Gender *:

Ethnicity:

Race: American Indian/Alaska Native Asian
 Black or African American Native Hawaiian/Other Pacific Islander
 White

Event #:

Social Security #:

Medicare #:

First Name:

Date of Birth *: 7

Event Information

Event Type *:

Date of Event *: 7

Custom Fields

Comments

Save Back

Report numerator data

- Select BSI – Bloodstream Infection as Event Type
- Additional data fields will populate
- Enter data and Save

NHSN - National Healthcare Safety Network

Add Event

Mandatory fields marked with *
Fields required for record completion
Fields required when in Plan mode

Patient Information

Facility ID *
Patient ID *
Secondary ID:
Last Name:
Middle Name:
Gender *
Ethnicity:
Race:

Asian
 Native Hawaiian

Event Information
 Event Type *

Custom Fields

Comments

BSI - Bone and Joint Infection
BSI - Bloodstream Infection
 CLIP - Central Line Insertion Practices
 CNS - Central Nervous System
 CVS - Cardiovascular
 EENT - Eye, Ear, Nose and Throat
 GI - Gastrointestinal
 LABID - Laboratory-identified MDRO or CDI Event
 LRI - Lower Respiratory Infection
 PNEU - Pneumonia
 REPR - Reproductive Tract
 SSI - Surgical Site Infection
 SST - Skin and Soft Tissue
 UTI - Urinary Tract Infection
 VAE - Ventilator-Associated Event

Event Information

Event Type *: BSI - Bloodstream Infection
 Post-procedure:
 MDRO Infection Surveillance *:
 Location *:
 Date Admitted to Facility >:

Date of Event *:

Risk Factors

Central line *:
 Any hemodialysis catheter present:

Event Details

Specific Event >: LCBI - Laboratory confirmed bloodstream infection

Specify Criteria Used *

Signs & Symptoms (check all that apply)

Fever
 Chills
 Hypotension

Fever
 Hypothermia
 Apnea
 Bradycardia

Any patient
 <=1 year old

Laboratory (check one)

Recognized pathogen(s) from one or more blood specimens
 Common commensal from >= 2 blood specimens

Underlying Conditions for MRI-LCBI (check all that apply)

Allo-SCT with Grade >= 3 GI GVHD
 Allo-SCT with diarrhea
 Neutropenia

Died **:
 Discharge Date:
 Pathogens Identified: Y - Yes If Yes, specify below ->

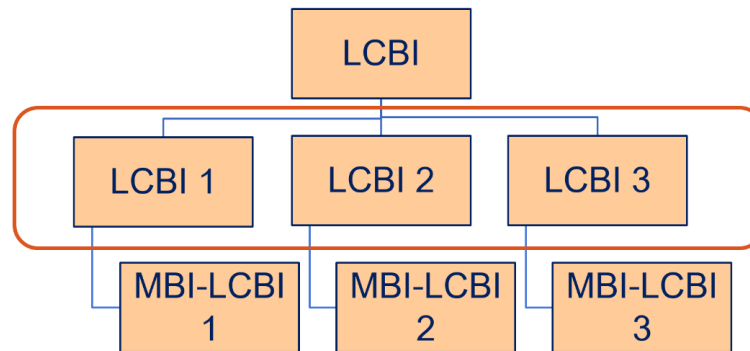
Pathogens

Pathogen 1: Search
 Pathogen 2: Search
 Pathogen 3: Search

Report numerator data

- CLABSIs are categorized into six subtypes
 - Laboratory-Confirmed Bloodstream Infection (LCBI) 1, 2, 3
 - Mucosal Barrier Injury (MBI)-LCBI 1, 2, 3
 - Each has different criteria that must be met

Laboratory Confirmed Bloodstream Infection



Selected universal terms for HAI surveillance

- Date of event (DOE)
 - Depends on the type of LCBI; for LCBI 1, DOE = date of blood specimen collected. For LCBI 2 or 3, DOE = first date an element of criteria occurs within the infection window period
- Healthcare associated infection (HAI)
 - Applies to an infection if the DOE occurs on or after the 3rd calendar day of admission to an inpatient location
- Infection window period (IWP)
 - 7 day period in which all site-specific infection criteria must be met. Date of collection of first positive blood specimen, 3 days before, 3 days after
- Present on admission (POA)
 - Applies to an infection if the DOE occurs during the POA time period (day of admission to an inpatient location, 2 days before admission, 1 day after admission)
- Repeat infection timeframe (RIT)
 - 14-day timeframe during which no new infections of the same type are reported
- Location of Attribution (LOA)
 - The inpatient location where the patient was assigned on the DOE

Selected definitions specific to CLABSI surveillance

- Primary bloodstream infection
 - An LCBI that is not secondary to an infection at another body site
- Secondary BSI
 - A BSI thought to be seeded from a site-specific infection at another body site
- Secondary BSI attribution period
 - The period in which a blood specimen must be collected for a secondary BSI to be attributed to a primary site of infection
- Access
 - Line placement, or use of any CL for infusion, withdrawal of blood, or hemodynamic monitoring during the current inpatient admission
- Eligible central line
 - A CL that has been in place for >2 consecutive calendar days, following the first access of the central line, in an inpatient location, during the current admission
- Eligible BSI organism
 - An organism that is not an excluded pathogen for use in meeting LCBI or MBI-LCBI criteria

Steps for assessing presence of CLABSI

- After a positive blood specimen
 - Determine the IWP
 - Determine elements present in IWP
 - Consider the organism and determine DOE
 - Determine if POA or HAI
 - If POA, stop! Nothing to report
 - If HAI, determine device association and location of attribution
 - Determine RIT
 - Determine if another site-specific source of infection is present
 - If secondary, stop! No CLABSI to report – go to secondary BSI
 - If not secondary, determine LCBI 1, 2, or 3 based on organism and symptom (if required)

Example: LCBI Criterion 1

Eligible Central Line: A CL that has been in place for **more than two consecutive calendar days** (on or after CL day 3), following the *first access* of the central line, in an inpatient location, during the current admission. Such lines are eligible for CLABSI events and remain eligible for CLABSI events until the day after removal from the body or patient discharge, whichever comes first. See [Table 3](#) for examples

<p>LCBI 1 If LCBI 1 criteria is met, consider MBI-LCBI 1</p>	<p>Patient of any age has a recognized pathogen, which is an organism not included on the NHSN common commensal list, identified from one or more blood specimens obtained by a culture or non-culture based microbiologic testing method</p> <p style="text-align: center;">AND</p> <p>Organism(s) identified in blood is not related to an infection at another site (See Appendix B: Secondary BSI Guide).</p> <p>Notes:</p> <ol style="list-style-type: none">1. If a patient meets both LCBI 1 and LCBI 2 criteria, report LCBI 1 with the recognized pathogen entered as pathogen #1 and the common commensal as pathogen #2.2. No additional elements (in other words, no sign or symptom such as fever) are needed to meet LCBI 1 criteria; therefore, the LCBI 1 DOE <u>will always be</u> the collection date of the first positive blood specimen used to set the BSI IWP.
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Case study: Mr. Rhoades

- **June 3rd** Mr. Rhoades was admitted to CCU after having a heart attack.
- **June 4th** A central line was placed in CCU.
- **June 7th** A blood culture was collected because he became confused and was having chills.
 - Culture resulted *Serratia marcescens* (a recognized pathogen).
- No other source of infection was identified.

- Is this an LCBI?
 - Yes
 - No

Case study: Mr. Rhoades

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 - Culture resulted *Serratia marcescens* (a recognized pathogen).
- No other source of infection was identified.

- Is this an LCBI?

 Yes

– No

Case study: Mr. Rhoades

- HAI LCBI 1 has been met
- *S. marcescens*
- Attributed to CCU
- CLABSI
 - CL in place >2 calendar days on day of event; still in place
- DOE: 6/7
- IWP: 6/4-6/10
- RIT: 6/7-6/20

Hospital Day	Date	First Diagnostic Test	IWP	DOE	RIT	Notes
1	6/3					Admitted
2	6/4		I W P			Central Line inserted, CCU
3	6/5					
4	6/6					
5	6/7	Blood cx – <i>Serratia marcescens</i>			DOE	R I T
6	6/8					
7	6/9					
8	6/10					
9	6/11					
10	6/12					
11	6/13					
12	6/14					
13	6/15					
14	6/16					
15	6/17					
16	6/18					
17	6/19					
18	6/20					
19	6/21					
20	6/22					






Complete self-guided training

NHSN's Educational Roadmaps provide a guided tour to training materials/information



Welcome to the NHSN Educational Roadmaps. The NHSN Educational Roadmaps will provide a guided tour of the training materials and information needed to provide a solid foundation of NHSN – from the basics to more advanced training for each individual component or protocol. Below is a list of NHSN components, in each component is a selection of educational and supplemental materials and tools to improve your comprehension of NHSN surveillance definitions, reporting, and analysis (while supporting your work as an NHSN user). To begin this learning experience, select the component below. This training should be used after the enrollment/activation process. If you have not enrolled into NHSN please [enroll here](#).

Select Roadmap for a Component

-  Patient Safety Component
Surveillance definitions, reporting, and analysis
-  Biovigilance Component
Surveillance definitions, reporting, and analysis
-  Healthcare Personnel Safety Component
Surveillance definitions, reporting, and analysis
-  Long-term Care Facility Component
Surveillance definitions, reporting, and analysis
-  Dialysis Component
Surveillance definitions, reporting, and analysis

<https://www.cdc.gov/nhsn/training/roadmap/index.html>

PSC Training Basics

- Chapter 1: NHSN Overview [PDF - 300 KB]
- Chapter 2: Identifying Healthcare-associated Infections (HAIs) in NHSN [PDF - 1 MB]
- Chapter 16: NHSN Key Terms [PDF - 370 KB]
- Introduction to Device Associated Module [CBT - 60 min]
- Introduction to Procedure Associated Module [CBT - 60 min]
- General NHSN Definitions for 2018 [Video - 59 min]
- Chapter 3: Patient Safety Monthly Reporting Plan and Surveys [PDF - 100 KB]
- Chapter 15: CDC Location Labels and Location Descriptions [PDF - 1 MB]

PSC Module Training



BSI EVENTS

Surveillance for Bloodstream Infections



UTI EVENTS

Surveillance for Urinary Tract Infections



SSI EVENTS

Surveillance for Surgical Site Infection Events



VAE AND PNEU EVENTS

Surveillance for VAE, pedVAP and PNEU



MDRO/C.DIFF EVENTS

Surveillance for C. difficile, MRSA and other drug resistant Infections



CLIP EVENTS

Surveillance for Central Line Insertion Practice Adherence



AUR DATA

Surveillance for Antimicrobial Use and Antimicrobial Resistance Options

PSC Analysis Training



ANALYSIS

Clicking on a component will provide






















- Component-wide training basics
- Training materials for each module in the component
- Training materials for analysis

<https://www.cdc.gov/nhsn/training/roadmap/psc-roadmap.html>

BSI - Surveillance for Bloodstream Infections



BSI - Surveillance for Bloodstream Infections

-  Chapter 4: Bloodstream Infection Event  [PDF - 1 MB]
-  Chapter 17: CDC/NHSN Surveillance Definitions for Specific Types of Infections  [PDF - 1 MB]
-  Bloodstream Infection (BSI) Event 2018 [CBT - 60 min]
-  Secondary Bloodstream Infections (May 2016) [Video - 14 min]
-  Central Line-associated Bloodstream Infection (CLABSI) - 2018 [Video - 79 min]
-  Distinguishing Secondary from Primary Bloodstream Infections in NHSN [Video - 72 min]
-  FAQs: BSI
-  Primary BSI Event Form  [PDF - 400 KB] (Print-only)
Table of Instructions  [PDF - 100 KB]
-  NICU Denominator Form  [PDF - 100 KB] (Print-only)
Table of Instructions  [PDF - 100 KB]
-  Specialty Care Area Denominator Form  [PDF - 100 KB] (Print-only)
Table of Instructions  [PDF - 100 KB]
-  ICU and Other Locations Form  [PDF - 100 KB] (Print-only)
Table of Instructions  [PDF - 100 KB]

Analysis



Phase 1: Getting Started with NHSN Analysis

Your first stop on the NHSN Analysis Roadmap is to understand the basic elements of the NHSN analysis features and basic statistics.



[Introduction to NHSN Analysis – 2018 \[Video – 50 min\]](#)



[Introduction to NHSN Analysis](#) [PDF – 4 MB]

Explanation of different analysis reports users can run and how to modify them



[General Tips and Tools for NHSN Analysis](#) [PDF – 150 KB]

Quick reminders to ensure optimal generation and interpretation of your data



[Basic Statistics for NHSN Analysis \[Video – 11 min\]](#)

Explanation of introductory statistical concepts to aid the interpretation of certain NHSN analysis reports

Phase 2: Standardized Infection Ratio (SIR) for Reporting Purposes

Your next step is to understand how to generate reports required for reporting purposes. Select the appropriate report for the specific HAI you'd like to run analyses for. These reports reflect the data and necessary criteria to comply with various Centers for Medicare and Medicaid Services (CMS) Quality Reporting Programs. For more information about how HAI data is risk adjusted to generate a specific SIR, please visit [NHSN's Guide to the SIR](#) [PDF – 3 MB].

Acute Care Hospitals



[Using the "SIR – CLABSI Data for Hospital IQR" Output Option](#) [PDF – 250 KB]

Complete self-guided training

- NHSN Materials for Enrolled Facilities
 - Training, Protocols, Data Collection Forms
 - Some resources may be provided more than once

National Healthcare Safety Network (NHSN)

CDC > NHSN > Materials for Enrolled Facilities > Acute Care Hospitals/Facilities


NHSN	
NHSN Login	Surveillance for Bloodstream Infections
About NHSN	+
Enroll Here	+
Materials for Enrolled Facilities	-
Ambulatory Surgery Centers	+
Acute Care Hospitals/Facilities	-
Surveillance for Antimicrobial Use and Antimicrobial Resistance Options	
Surveillance for UTI (CAUTI)	
Surveillance for C. difficile, MRSA, and other Drug-resistant Infections	
Surveillance for BSI (CLABSI)	
Surveillance for CLIP	
Surveillance for SSI Events	

Central Line-Associated Bloodstream Infection (CLABSI) and non-central line-associated Bloodstream Infection

Resources for NHSN Users Already Enrolled

- > Training
- > Protocols
- > Frequently Asked Questions
- > Data Collection Forms
- > CMS Supporting Materials
- > Supporting Material
- > Worksheet Generator (electronic) and Worksheets (manual)
- > Analysis Resources

New Users - Start Enrollment Here



- Step 1: Enroll into NHSN
- Step 2: Set up NHSN
- Step 3: Report

[Click here to enroll](#)

Resources for NHSN Users Already Enrolled

Training

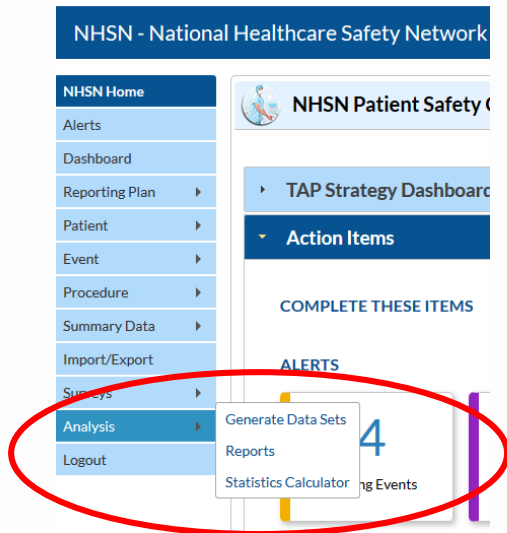
- [CLABSI Training \[CBT - 60 min\]](#)
- **New!** Central Line-associated Bloodstream Infection (CLABSI) - 2018
 - [YouTube Link \[Video - 79 min\]](#)
 - [Slideset](#) [PDF - 8 MB]
- **New!** Secondary BSI and NHSN Site-specific Infections - 2018
 - [YouTube Link \[Video - 85 min\]](#)
 - [Slideset](#) [PDF - 9 MB]
- Secondary Bloodstream Infections May 2016 [Video - 9 min]
 - [YouTube Link - Secondary Bloodstream Infections](#)
 - [CDC Streaming Video - Secondary Bloodstream Infections](#)
- Patient Safety Component (PSC) Annual Survey - January 2016
 - [YouTube Link \[Video - 6 min\]](#)
- BSI Definition Changes for January 2015
 - [YouTube Link \[Video - 14 min\]](#)

Additional Training

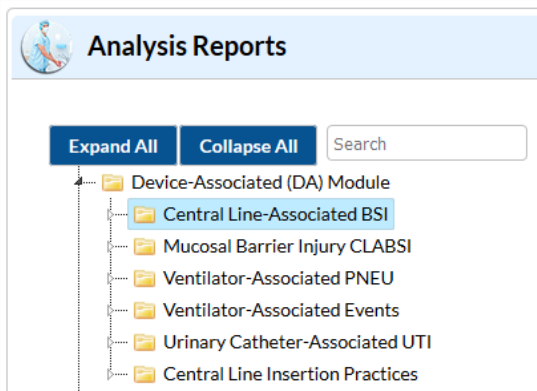
- [Introduction to Device-associated Module Training \[CBT - 60 min\]](#)
- **New!** General NHSN Definitions for 2018
 - [YouTube Link \[Video - 59 min\]](#)
 - [Slideset](#) [PDF - 6 MB]
- Determining Healthcare Association or Present on Admission Infections and Other Rules - July 2017
 - [YouTube Link \[Video - 16 min\]](#)

<https://www.cdc.gov/nhsn/acute-care-hospital/clabsi/index.html>

Review your CLABSI data

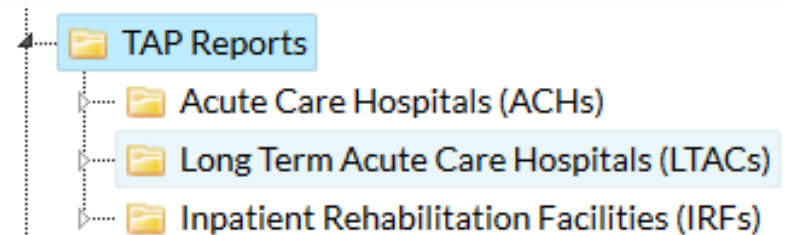
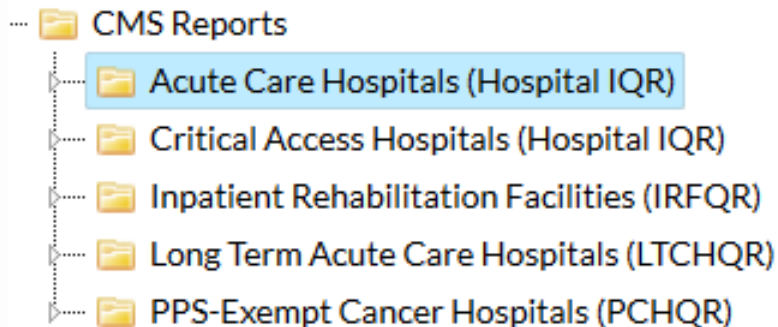
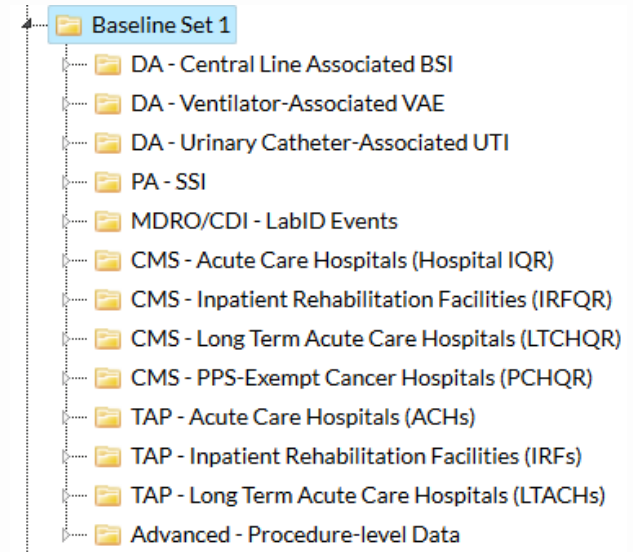


- Analysis > Generate Dataset
- Analysis > Reports
- Data re: infection as well as device utilization available
- DA Module > CLABSI (2015 baseline)
 - Line listings, frequency tables, bar chart, pie chart, rate table, run chart
 - SIR and SUR
 - Include TAP dashboard/reports



Review your CLABSI data

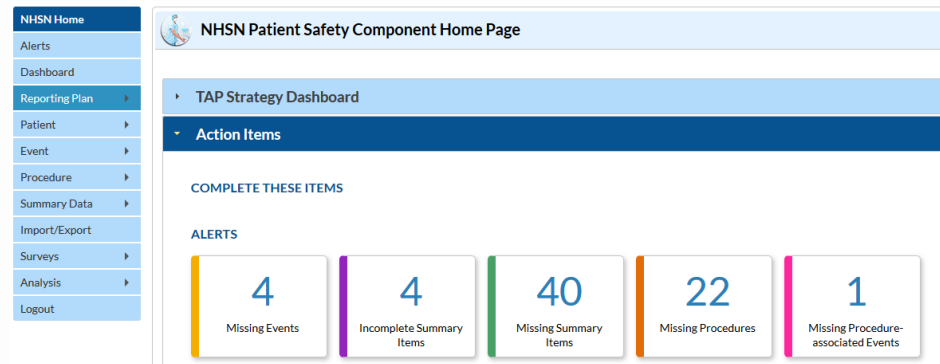
- CMS reports
 - SIR by facility type, based on IQR reporting
- TAP Reports
 - CAD and ranking by facility type
 - Also shown on TAP dashboard
- BS1 provides TAP and other CLABSI data under the original baseline



Review your CLABSI data

- Reports can be customized to include specific subsets of data (custom date range, for example)
- Advanced options provide data by pathogen, location, additional line listing options

- Alerts
 - Displayed upon login
 - Can be found via navigation bar
 - Resolve to improve data quality
- OHA's Internal Validation Guidance



Review NHSN materials in AJIC

- NHSN publishes case studies in the American Journal of Infection Control (AJIC)
 - Open access
 - Case studies using current protocols
 - Provides questions, answers, and rationale for protocol application
 - Summaries of past case studies
- Links in June 2018 NHSN newsletter
 - June 2017 AJIC
 - December 2017 AJIC
 - May 2018 AJIC

Participate in the HAIAC

- OHA's HAIAC is a multidisciplinary group of stakeholders including providers, consumers, insurers and experts that provide the HAI program with oversight and input regarding HAI surveillance and prevention
- Meetings occur quarterly
 - Remote option available
 - In person at 800 NE Oregon St., Portland, OR
- Anyone may attend and apply for vacant committee positions
- We are currently seeking to fill the following vacancies:
 - Healthcare Insurer Representative
 - Patient and Consumer Advocate/Representative
- Visit the website to see schedule and meeting materials

Join the CDC's One & Only Campaign

Who can be a member?

- Professional and nonprofit organizations
- Healthcare systems
- Provider groups
- Private companies

What do members do?

- Raise awareness
- Share materials
- Receive updates
- Be recognized



To join, email injectionsafety@cdc.gov

Subscribe to the CD Summary

- 2-page newsletter followed by short quiz for free CMEs
- Audience: licensed health care providers, public health and health care agencies, media representatives, medical laboratories, hospitals, those interested in epidemiology and public health



TAKING A SHOT AT INJECTION SAFETY

<https://www.oregon.gov/oha/PH/DISEASES/CONDITIONS/COMMUNICABLEDISEASE/CDSUMMARYNEWSLETTER/Pages/index.aspx>

Follow us on Facebook

<https://www.facebook.com/Oregon.aware>

Prevent Infections in Your Patients
Injection Safety is Every Provider's Responsibility

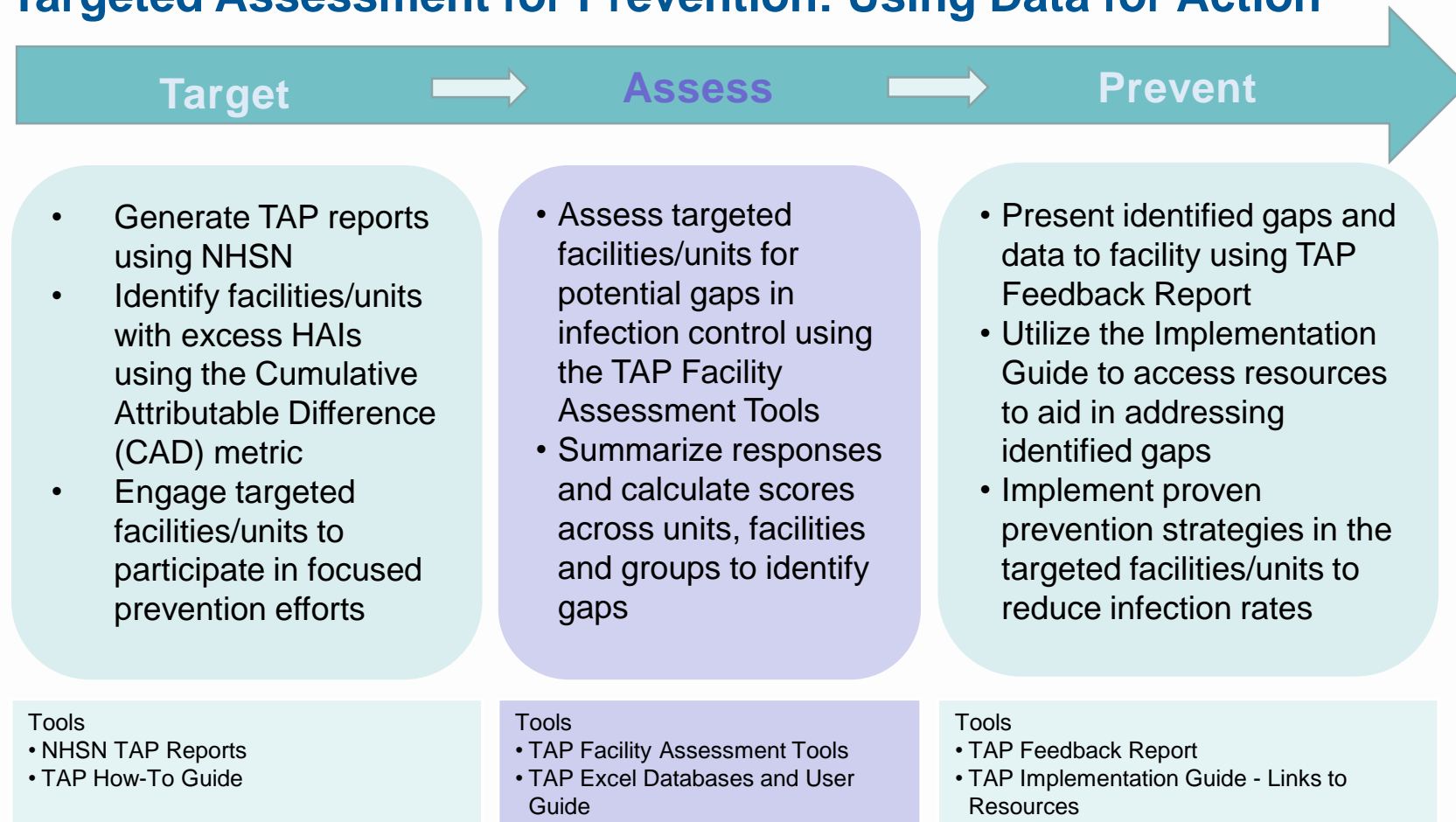
**1 ONE NEEDLE,
ONE SYRINGE,
ONLY ONE TIME.**



Safe Injection Practices Coalition
www.ONEandONLYcampaign.org

Complete a TAP Assessment

Targeted Assessment for Prevention: Using Data for Action



Resources & references

- OHA resources
 - OAR: <https://secure.sos.state.or.us/oard/displayChapterRules.action?selectedChapter=89>
 - Facebook: <https://www.facebook.com/Oregon.aware>
 - HAI Program Publications and Maps:
<https://www.oregon.gov/oha/PH/DISEASESCONDITIONS/COMMUNICABLEDISEASE/HAI/Pages/Reports-and-Data.aspx>
 - HAI Reporting Poster:
<https://www.oregon.gov/oha/PH/DiseasesConditions/CommunicableDisease/ReportingCommunicableDisease/Documents/ReportingPosters/poster-hai.pdf>
 - Exemptions Proposal Summary:
https://www.oregon.gov/oha/PH/DISEASESCONDITIONS/COMMUNICABLEDISEASE/HAI/Documents/haiac-meetings/2018/March_%2028_%202018_Meeting%20Materials.pdf
 - CD Summary:
<https://www.oregon.gov/oha/PH/DISEASESCONDITIONS/COMMUNICABLEDISEASE/CDSUMMARYNEWSLETTER/Pages/index.aspx>
 - HAIAC:
<https://www.oregon.gov/oha/PH/DISEASESCONDITIONS/COMMUNICABLEDISEASE/HAI/PREVENTION/Pages/meetings.aspx>
 - Internal Validation Guidance:
https://www.oregon.gov/oha/PH/DISEASESCONDITIONS/COMMUNICABLEDISEASE/HAI/REPORTING/Documents/Hosp_HAI_Intern_Valid_Guide_2017.pdf

Resources & references

- DHHS Action Plan: <https://health.gov/hcq/prevent-hai-action-plan.asp>
- CDC resources:
 - NHSN Protocols, forms, TOIs, and trainings:
 - <https://www.cdc.gov/nhsn/acute-care-hospital/clabsi/index.html>
 - https://www.cdc.gov/nhsn/forms/57.108_PrimaryBSI_BLANK.pdf
 - https://www.cdc.gov/nhsn/forms/57.118_DenominatorICU_BLANK.pdf
 - https://www.cdc.gov/nhsn/forms/instr/57_106.pdf
 - <https://www.cdc.gov/nhsn/pdfs/newsletters/nhsn-nl-jun18-508.pdf>
 - https://www.cdc.gov/nhsn/PDFs/pscManual/15LocationsDescriptions_current.pdf
 - https://www.cdc.gov/nhsn/pdfs/pscmanual/1psc_overviewcurrent.pdf
 - https://www.cdc.gov/nhsn/pdfs/pscmanual/3psc_monthlyreportingplancurrent.pdf
 - https://www.cdc.gov/nhsn/pdfs/pscmanual/4psc_clabscurrent.pdf
 - <https://www.cdc.gov/nhsn/pdfs/training/2018/clabsi-508.pdf>
 - https://www.cdc.gov/nhsn/pdfs/training/enroll/nhsn_getting_started.pdf
 - <https://www.cdc.gov/nhsn/training/roadmap/psc/analysis.html>
 - <https://www.cdc.gov/nhsn/training/roadmap/psc-roadmap.html>
 - One & Only Campaign membership: <http://www.oneandonlycampaign.org/campaign-members>
 - HAI Progress report: <https://www.cdc.gov/HAI/pdfs/progress-report/hai-progress-report.pdf>

Questions & discussion

Join the second webinar in this series!

Exemptions and Reporting for Surgical Site Infections (SSI)

September 25, 2018, 12pm-1pm

Register here:

<https://register.gotowebinar.com/register/4302975431386158594>

Roza Tammer, MPH, CIC

(971) 673-1074

Roza.p.tammer@state.or.us