# National Healthcare Safety Network Member's Meeting

## APIC 2016

June 12, 2016

4:15-5:45 p.m.

Junior Ballroom C

# Agenda

- Welcome – Dan Pollock
- SSI Update – Janet Brooks
- Worksheet Generator – Cindy Gross
- VAE update – Cindy Gross
- MDRO/CDI Update – Denise Leaptrot
- Training update – Kathy Allen-Bridson
- Organism list update and changes to common commensals and MBI lists – Kathy Allen-Bridson
- Rebaseline – Maggie Dudeck
- Dialysis Event – Maggie Dudeck
- Long-Term Care Update – Angela Anttila
- CDA Update – Amy Webb
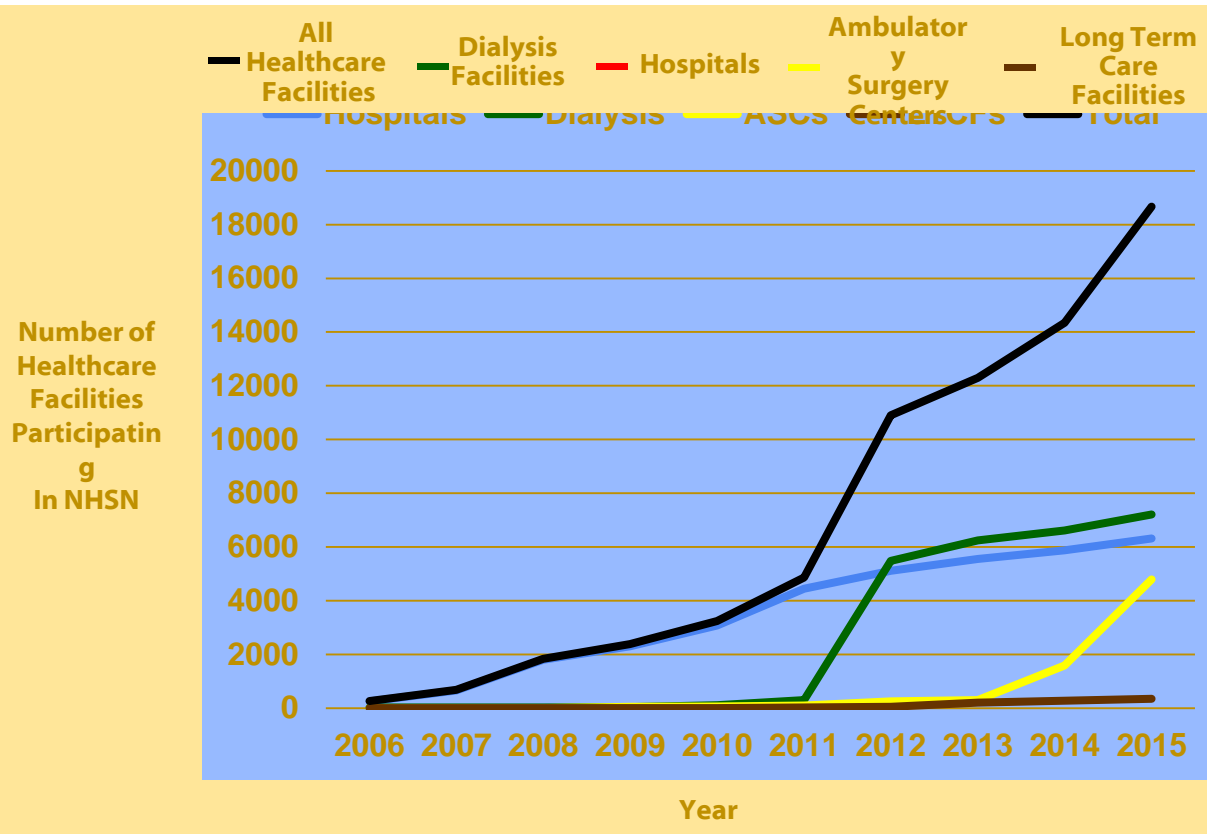- Questions – All

# Welcome

Dr. Daniel Pollock

**The First Decade:
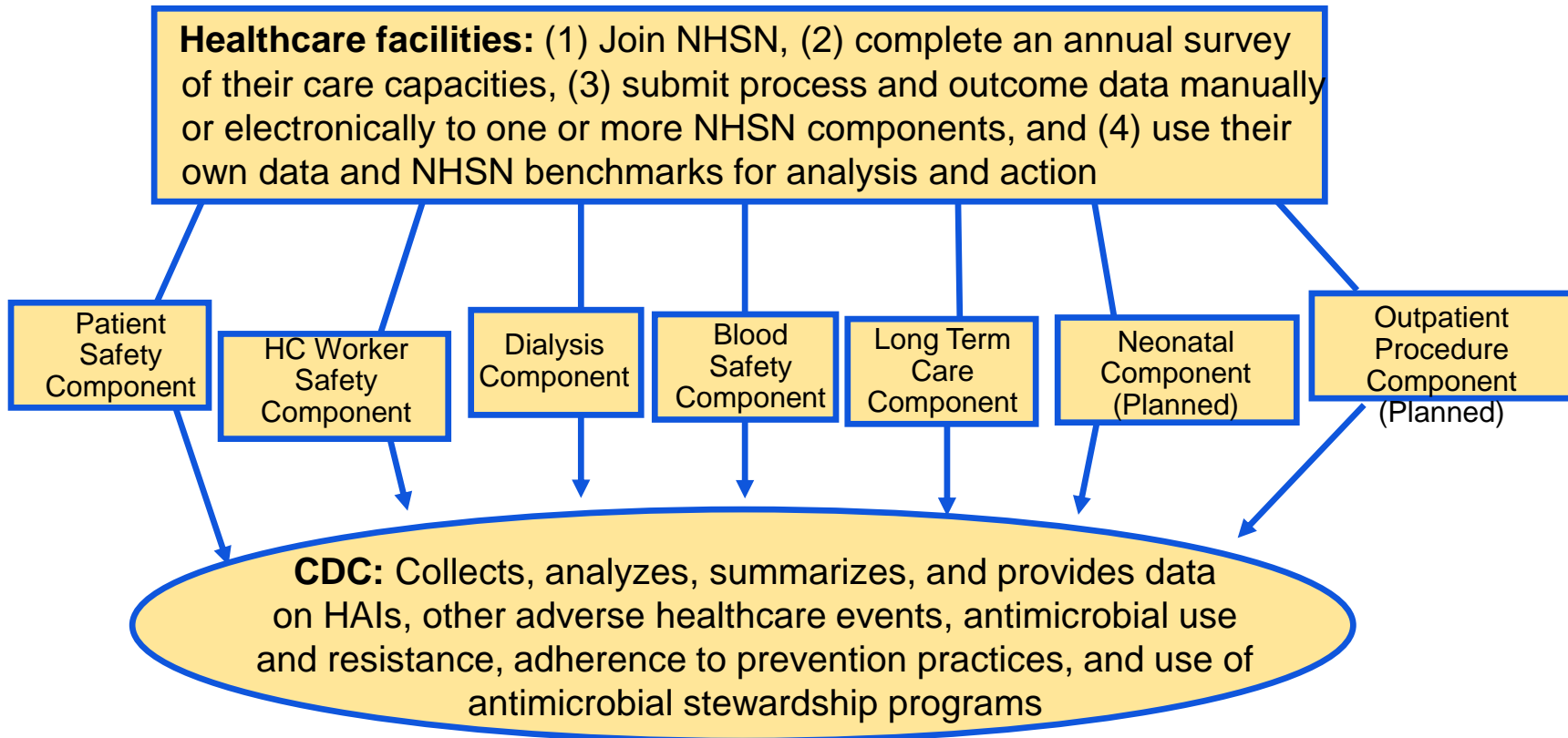2005 – 2015**

Exponential growth

Expanding purposes

Evolving challenges

NHSN: Growth in Facility Participation, 2006-2015

# CDC's National Healthcare Safety Network (NHSN) – Current and Planned Components

**Healthcare facilities:** (1) Join NHSN, (2) complete an annual survey of their care capacities, (3) submit process and outcome data manually or electronically to one or more NHSN components, and (4) use their own data and NHSN benchmarks for analysis and action

Patient Safety Component

HC Worker Safety Component

Dialysis Component

Blood Safety Component

Long Term Care Component

Neonatal Component (Planned)

Outpatient Procedure Component (Planned)

**CDC:** Collects, analyzes, summarizes, and provides data on HAIs, other adverse healthcare events, antimicrobial use and resistance, adherence to prevention practices, and use of antimicrobial stewardship programs

# Implications of Public Reporting, Pay for Reporting, and Pay for Performance for NHSN

**New scrutiny of HAI definitions and case criteria**
> CDC response: Updates of HAI definitions and case criteria in 2015 that reflect users' concerns about misclassification of some events as HAIs using old definitions and criteria

**Pressure to simplify HAI definitions and data requirements and move to electronic HAI detection and reporting**
> CDC response: Revise definitions and data requirements in ways that reduce complexity, maintain clinical relevance, and avoid potential case misclassification
> CDC response: Accelerate use of electronic healthcare data for event detection and reporting purposes

**Heightened emphasis on data quality and completeness**
> CDC response: Assistance to states and CMS for data validation
> CDC response: Joint communique with CMS on requirement for adherence to the NHSN surveillance protocol

# CDC-CMS Joint Communique on Adherence to NHSN's HAI Surveillance Protocol - October 2015

CDC has received reports from NHSN users indicating that in some healthcare facilities, some decisions about what infections should be reported to NHSN are made by individuals who may chose to disregard CDC's protocol, definitions, and criteria or who are not familiar with the NHSN specifications. CDC and CMS take any deviation from NHSN protocols seriously.

CMS reminds hospitals that intentionally reporting incorrect data, or deliberately failing to report data that are required to be reported, may violate applicable Medicare laws and regulations.

http://www.cdc.gov/nhsn/cms/cms-reporting.html

# Continuing Concerns

Case adjudication and overruling infection preventionists' determinations

Departures from standard diagnostic practices to avoid case reporting

Time constraints on NHSN training

# Toward a Safer Health Care System
## The Critical Need to Improve Measurement

It has been more than 15 years since *To Err Is Human*, the landmark report by the Institute of Medicine (IOM), revealed the su... ity related to medical... recent developments... getting patient safety... ing that deaths assoc... exceed 400 000 ann... controversial, with q... which medical errors t... and how many deaths... error when death was... error is likely a major... the United States. Th... Act, which has, throu... Purchasing and Hospi... ties, made patient saf... tals. While greater foc... opment, there is little... attention alone will le... the health care indust... sures, which are fund... out these measures, t... is missing: systemat... events with timely fe... care organizations. W... and reporting, progres... ous and slow.

Whether meaning... patient safety is contro... tion's internal evaluat... ment on a subset of p... some questions about... lack of a valid approach... there is no disagreeme... more to improve safety measurement.

should not be between using flawed approaches that penalize the best physicians and hospitals or not mea...



"The Centers for Disease Control and Prevention (CDC) and its National Healthcare Safety Network have a very good track record of working effectively with professional societies and hospitals on a subset of these [nosocomial] infections to develop valid and reliable measures. The CDC's work has made substantial gains in making hospital care safer, particularly with regard... li... associated bloodstream infec... su... infections."

2016;315(17):1831-32

eties and hospitals on a subset of these infections to de-

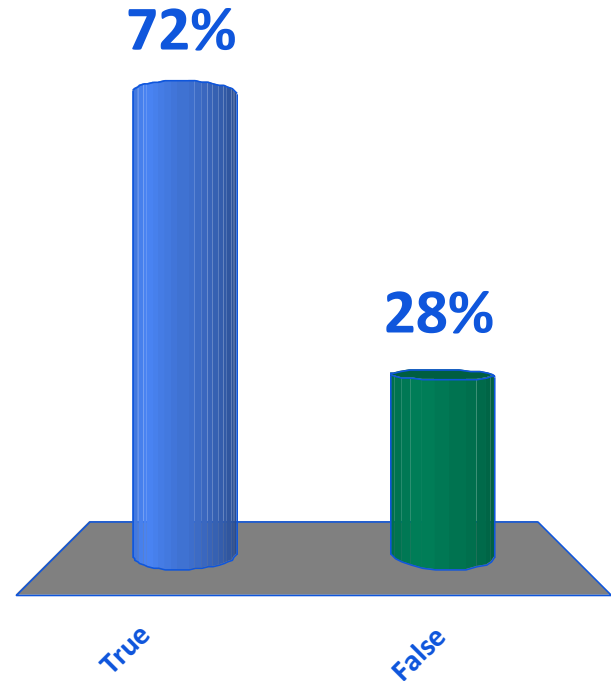I am aware of the joint communique issued in Oct. 2015, by the CDC/CMS regarding the need for complete NHSN reporting.

88% A. True

12% B. False

# I have read the communique.

A. True

B. False

# I have made use of the communique.

A. True

B. False
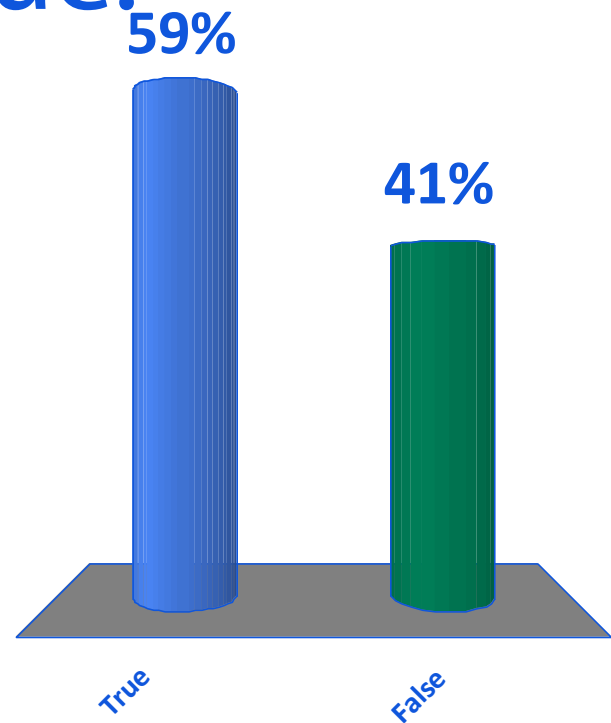
# Does your facility enable you to obtain necessary NHSN training, either on-line or in-person?

A. Yes
73%

B. No
7%

C. Sometimes

# SSI Update

Janet Brooks

# GI-GIT 2c will be updated in 2017

**GIT-Gastrointestinal tract infection (esophagus, stomach, small and large bowel, and rectum) excluding gastroenteritis, appendicitis, and *C. difficile* infection**

The same set of pathogens that are available for use when blood is an element of the criteria for IAB - Intraabdominal (i.e., 2b and 3b) will be the same set of (+) pathogens that are available for GI-GIT 3c.

# Confirm that the codes that are being used are most up to date version on the NHSN website

# ICD-10-PCS and CPT Code FAQ

**NEW**

### New! FAQs for 2016:

- FAQs: Surgical Site Infections (SSI) April 2016 [PDF - 379 KB]
- FAQs: SSI Procedure Codes April 2016 [PDF - 279 KB]
- FAQs: Analysis April 2016 [PDF - 269 KB]
- FAQs: Annual Survey April 2016 [PDF - 256 KB]
- FAQs: CDA
- FAQs: Locations April 2016 [PDF - 281 KB]
- FAQs: Miscellaneous April 2016 [PDF - 250 KB]

# ICD-10-PCS Quick Learn

**NEW**

## ∨ Training

- Surgical Site Infections (SSI) Training [CBT - 60 min]
- **New!** SSI Surveillance and Case Studies - March 2016
    - Slideset - SSI Surveillance and Case Studies 📄 [PDF - 5 MB]
- **New!** ICD-10 PCS and CPT Transition - January 2016 [Video - 8 min]
    - YouTube link - ICD-10 PCS and CPT Transition
    - CDC Streaming Video - ICD-10 PCS and CPT Transition
- **New!** Patient Safety Component (PSC) Annual Survey - January 2016 [Video - 6 min]
    - YouTube link - Completing the 2015 Facility Survey
    - CDC Streaming Video - Completing the 2015 Facility Survey
- **New!** Surgical Site Infections (SSI) Event form for PATOS - January 2016 [Video – 6 min]
    - YouTube Link – SSI Event Form for PATOS - January 2016
    - CDC Streaming Video - SSI Event Form for PATOS - January 2016

# ICD-10-PCS and CPT Code Update Process

- NHSN is collaborating with ICD-10-PCS and CPT coding consultants
  - Reviewing all issues and concerns that have been sent by NHSN users
  - Performing a validation of the codes found in all NHSN operative procedure groups
- Upon completion of the validation both the ICD-10-PCS and the CPT codes will be updated
  - The mappings in the SSI "Supporting Materials" section will be updated
  - Once complete all NHSN users and vendors will be sent a blast email
  - The IDM will be updated to reflect the updated codes
  - Each code will have a code descrition
  - At this time NSHN does not have an exact date for when this update will be complete

# Worksheet Generator and VAE Update

Cindy Gross

# NHSN Tools: Calculators and Worksheet Generator

# NHSN Tools: Calculators and Worksheet Generator

- MDRO & CDI LabID Event Calculator
  http://www.cdc.gov/nhsn/labid-calculator/index.html

- VAE Calculator
  http://www.cdc.gov/nhsn/vae-calculator/index.html

- Healthcare–associated Infection (HAI) and Present on Admission Infection (POA) Worksheet Generator
  http://www.cdc.gov/nhsn/poa/index.html

## Surveillance for C. difficile, MRSA, and other Drug-resistant Infections

[Facebook] [Twitter] [More]

### Resources for NHSN Users Already Enrolled

> **Training**

> **Protocols**

> **Frequently Asked Questions**

> **Data Collection Forms**

∨ **MDRO & CDI LabID Event Calculator**

- MDRO & CDI LabID Event Calculator Version 1.0
  (must have javascript enabled)
  Operates based upon the currently posted (January 2015) LabID Event protocols in the NHSN
  MDRO & CDI Module.

> **CMS Supporting Materials**

> **Supporting Material**

> **Analysis Resources**

## Surveillance for Ventilator-associated Events

[Facebook] [Twitter] [More]

VAE surveillance is available in plan for adult inpatient locations only. See PNEU/VAP for in-plan surveillance for p
for ventilated associated PNEU is no longer available for neonatal patients.

The Ventilator-Associated Event Calculator (Version 3.0) (must have javascript enabled) operates based upon the

### Resources for NHSN Users Already Enrolled

> **Training**

> **Protocols**

> **Frequently Asked Questions**

> **Data Collection Forms**

> **Supporting Materials**

∨ **Calculator and Worksheets**

- Ventilator-Associated Event Calculator (Version 3.0)
  (javascript must be enabled)
- VAE Data Collection Worksheet January 2015 [PDF - 161 KB]
  - VAE Data Collection Worksheet January 2015 [DOCX - 30 KB]
- VAE Antimicrobial Worksheet January 2015 [PDF - 76 KB]
  - VAE Antimicrobial Worksheet January 2015 [DOCX - 33 KB]
- VAE Antimicrobial Worksheet Instructions January 2015 [PDF - 203 KB]

> **Related Publications and Other Resources**

> **Analysis Resources**

# Resources for NHSN Users Already Enrolled

> **Training**

> **Protocols**

> **Frequently Asked Questions**

**(BSI, UTI, PNEU Websites)**

> **Data Collection Forms**

> **CMS Supporting Materials**

> **Supporting Material**

**NEW**

∨ **Worksheet Generator (electronic) and Worksheets (manual)**

- Healthcare–associated Infection (HAI) and Present on Admission Infection (POA) Worksheet Generator (must have JavaScript enabled)
- Worksheet for Determining Date of Event, Infection Window Period, Repeat Infection Timeframe, and Secondary BSI Attribution Period [XLSX - 19 KB]
- Example Worksheet for Determining Date of Event, Infection Window Period, Repeat Infection Timeframe, and Secondary BSI Attribution Period [XLSX - 21 KB]

> **Analysis Resources**

# Healthcare–associated Infection (HAI) and Present on Admission Infection (POA) Worksheet Generator

**NEW**

## Healthcare–associated Infection (HAI) and Present on Admission Infection (POA) Worksheet Generator

Welcome to the NHSN Healthcare–associated Infection (HAI) and Present on Admission Infection (POA) Worksheet Generator Version 1.0. The Generator operates based upon the currently posted guidance found in the Patient Safety Component Manual, Chapter 2, Identifying Healthcare-associated Infections (HAIs) in NHSN January 2016 [PDF - 369 KB].

The Worksheet Generator is a web-based tool that is designed to identify the:

- 7-day Infection Window Period
- Date of Event and POA or HAI determination
- 14-day Repeat Infection Timeframe (RIT)
- Secondary Bloodstream Infection Attribution Period (if applicable)

This Worksheet Generator **does not** determine that all NHSN infection criteria have been met. It is incumbent upon the user to determine that the infection criterion was met as reflected in the dates and information supplied.

Please note that the Worksheet Generator will not ask you to enter any patient identifiers. The Worksheet Generator does not store any data that you enter, and it will not report any data that you enter or any determinations to the NHSN. You will not be able to export data entered into the Worksheet Generator but you will be able to print the worksheet.

Healthcare–associated Infection (HAI) and Present on Admission Infection (POA) Worksheet Generator Version 1.0. (must have JavaScript enabled)

# Healthcare–associated Infection (HAI) and Present on Admission Infection (POA) Worksheet Generator

- Enter admission date

- Enter diagnostic test date

- Select  event type
  - BSI
  - Other event

- Check the boxes that correspond to presence of elements used to meet the infection definition

- Generate table
  - Free text capability

# NHSN Healthcare-associated Infection (HAI) and Present on Admission Infection (POA) Worksheet Generator

**INTRODUCTION:**

Welcome to the NHSN Healthcare–associated Infection (HAI) and Present on Admission Infection (POA) Worksheet Generator Version 1.0. The Worksheet Generator operates based upon the currently posted guidance found in the Patient Safety Component Manual, Chapter 2, Identifying Healthcare-associated Infections (HAI) for NHSN Surveillance. It is strongly encouraged that you read and study this guidance found in the Identifying Healthcare-associated Infections (HAI) for NHSN Surveillance [PDF - 365KB] document.

The Worksheet Generator will provide an electronically generated worksheet that identifies:

- 7-day Infection Window Period
- Date of Event and POA or HAI determination
- 14-day Repeat Infection Timeframe (RIT)
- Secondary Bloodstream Infection Attribution Period

It *DOES NOT* determine that all NHSN infection criteria have been met. *It is incumbent upon the user* to determine that an infection criterion was met as reflected in the dates and information supplied.

This Worksheet Generator is developed for use with multiple site-specific infection types (e.g., BSI, UTI, PNEU, IAB etc. ). The Worksheet Generator requires the user to enter the date of admission, the date of the first diagnostic test used to meet the NHSN site-specific infection criterion and any other date(s) of required infection elements needed to satisfy an NHSN site-specific infection criterion.

Note, please use the VAE calculator and MDRO & CDI LabID Event calculator when conducting VAE or MDRO/LabID event surveillance. The Worksheet Generator is not intended for use when conducting SSI surveillance.

**Click on the calendar icon below to choose the admission date for this patient and then click the "Next" button.**

Admit Date: [                    ] 🗓

Start Over...      Next...

# NHSN Healthcare-associated Infection (HAI) and Present on Admission Infection (POA) Worksheet Generator

Click on the calendar icon to choose the date the first positive diagnostic test used as an element of the site-specific infection criterion was obtained (e.g., culture collection date, imaging test date, date of procedure or exam).

In the absence of a diagnostic test, choose the date of the first documented localized sign or symptom that is an element of the NHSN infection criterion (e.g., diarrhea, site-specific pain, purulent exudate).

Next, select the type of event for which the worksheet is being generated and then click the "Next" button.

Admit Date: 5/2/2016

Date of First Diagnostic Test: [                    ] 📅

○ BSI  ○ Other Event Type

**Start Over...**     **Back...**     **Next...**

Admit date: 5/2/2016

| Hospital Day/Date | First Diagnostic Test | Infection Window Period (*) | Date of Event | Repeat Infection Timeframe (*) | Secondary BSI Attribution Period (*) |
|---|---|---|---|---|---|
| 7. - 5/8/2016 | | ☐ | - | | |
| 8. - 5/9/2016 | | ☐ | - | | |
| 9. - 5/10/2016 | | ☐ | - | | |
| 10. - 5/11/2016 | ✔ | ☑ | - | | |
| 11. - 5/12/2016 | | ☐ | - | | |
| 12. - 5/13/2016 | | ☐ | - | | |
| 13. - 5/14/2016 | | ☐ | - | | |
| 14. - 5/15/2016 | | | - | | |
| 15. - 5/16/2016 | | | - | | |
| 16. - 5/17/2016 | | | - | | |
| 17. - 5/18/2016 | | | - | | |
| 18. - 5/19/2016 | | | - | | |
| 19. - 5/20/2016 | | | - | | |
| 20. - 5/21/2016 | | | - | | |
| 21. - 5/22/2016 | | | - | | |
| 22. - 5/23/2016 | | | - | | |

Start Over...     Back...     Generate Table...

## Left Panel

### National Healthcare Safety Network (NHSN)

NHSN Healthcare-associated Infection (HAI) and Present on Admission Infection (POA) Worksheet Generator

The diagnostic test date is used to define the 7-day infection window period. The infection window period is the date of the diagnostic test, 3 days before and 3 days after.

**For each calendar day within the infection window period that there is at least one element of the NHSN site-specific criterion present, place a check in the corresponding box.**

Then click on the "Generate Table" button below.

*You can enter descriptive text for the element(s) that the check mark represents.

Admit date: 5/2/2016

| Hospital Day/Date | First Diagnostic Test | Infection Window Period (*) | Date of Event | Repeat Infection Timeframe (*) | Secondary BSI Attribution Period (*) |
|---|---|---|---|---|---|
| 7. - 5/8/2016 | | ☐ Foley inserted | - | | |
| 8. - 5/9/2016 | | ☐ | | | |
| 9. - 5/10/2016 | | ☑ Fever | - | | |
| 10. - 5/11/2016 | ✔ | ☑ Urine Culture ≥ 100,000 E.coli , Fever | | | |
| 11. - 5/12/2016 | | ☑ Fever | | | |
| 12. - 5/13/2016 | | ☐ Foley removed | | | |
| 13. - 5/14/2016 | | ☐ | - | | |
| 14. - 5/15/2016 | | | | | |
| 15. - 5/16/2016 | | | - | | |
| 16. - 5/17/2016 | | | | | |
| 17. - 5/18/2016 | | | | | |
| 18. - 5/19/2016 | | | | | |
| 19. - 5/20/2016 | | | | | |
| 20. - 5/21/2016 | | | | | |
| 21. - 5/22/2016 | | | | | |
| 22. - 5/23/2016 | | | | | |

Start Over...   Back...   Generate Table...

## Right Panel

Based on the information you provided:

Admit Date: Mon May 02 2016

The event is: HAI

Date of Event: Tue May 10 2016

Infection Window Period: Sun May 08 2016 - Sat May 14 2016

Repeat Infection Timeframe (RIT): Tue May 10 2016 - Mon May 23 2016

Secondary BSI Attribution Period: Sun May 08 2016 - Mon May 23 2016

Event Type: Other

NOTE: This worksheet Generator is developed for use with multiple site-specific infection types (e.g., BSI, UTI, PNEU, IAB etc.). It does not determine that all NHSN infection criteria have been met. That is incumbent upon the user. Instead the results represent an electronically generated worksheet that outlines the Infection Window Period, Repeat Infection Timeframe (RIT) and when appropriate Secondary BSI Attribution Period, all of which are accurate, if an infection criterion was met as reflected in the dates and information supplied by the user.

*You can enter descriptive text for the element(s) that the check mark represents.

Admit date: 5/2/2016

| Hospital Day/Date | First Diagnostic Test | Infection Window Period (*) | Date of Event | Repeat Infection Timeframe (*) | Secondary BSI Attribution Period (*) |
|---|---|---|---|---|---|
| 7. - 5/8/2016 | | ☐ Foley inserted | | | |
| 8. - 5/9/2016 | | ☐ | | | |
| 9. - 5/10/2016 | | ☑ Fever | - HAI | | |
| 10. - 5/11/2016 | ✔ | ☑ Urine Culture ≥ 100,000 E.coli , Fever | - | | |
| 11. - 5/12/2016 | | ☑ Fever | - | | |
| 12. - 5/13/2016 | | ☐ Foley removed | - | | |
| 13. - 5/14/2016 | | ☐ | - | | |
| 14. - 5/15/2016 | | | - | | |
| 15. - 5/16/2016 | | | - | | |
| 16. - 5/17/2016 | | | - | | |
| 17. - 5/18/2016 | | | - | | |
| 18. - 5/19/2016 | | | - | | |
| 19. - 5/20/2016 | | | - | | |
| 20. - 5/21/2016 | | | - | | |
| 21. - 5/22/2016 | | | - | | |
| 22. - 5/23/2016 | | | - | | |

Start Over...   Back...   Print Friendly Window...   Generate Table...

# Ventilator Associated Event (VAE) Update

- New VAE calculator appearance
- Pediatric VAE projected for 2018
- Adult VAE CDA projected for 2019

# VAE Calculator

- New appearance but same functionality

- Addition of 6 antimicrobial agents that were added to the 2016 VAE protocol

- Clarification for Fever and WBC data entry

## National Healthcare Safety Network (NHSN)

## NHSN Ventilator-Associated Event (VAE) Calculator Ver. 4.0

Welcome to the Ventilator-Associated Event Calculator. Version 4.0 operates based upon the currently posted VAE protocol. It is strongly encouraged that you read and study the VAE protocol.

- The calculator recognizes PEEP values ≤ 5 and corrects entries according to the VAE protocol prior to making a VAC determination.
- For periods of time where a patient is on APRV or a related type of mechanical ventilation for a full calendar day, a daily minimum PEEP value should not be entered into the calculator (i.e., do not enter zero).
- The calculator finds multiple VAEs per patient as long as they conform to the 14 day rule.

To get started, <u>enter a date below that corresponds to the first day the patient was placed on mechanical ventilation during the mechanical ventilation episode of interest.</u> You may type in a date or use the popup calendar when it appears. You may only enter dates within the past year. If the patient has been on mechanical ventilation for more than one year during the current mechnaical ventilation episode, choose a start date that is more recent but is at least 7 days before the period of interest. more...

Mechanical Ventilation Start Date: [                    ] 🔲 (mm/dd/yyyy)

[ Print ]  [ Close ]

# NHSN Ventilator-Associated Event (VAE) Calculator Ver. 4.0

The event on 5/7/2016 conforms to a Possible Ventilator-Associated Pneumonia (PVAP) definition. For a discussion of why, click on the Explain button.

Start Over    Explain...    Go to PVAP

| MV Day | Date | Hide... Min. PEEP (cmH₂O) | Hide... Min. FiO₂ (20 - 100) | VAE | T<36° or T>38° | WBC ≤ 4,000 or WBC ≥ 12,000 cells/mm³ | Add... Remove... Choose a Drug: AZTREONAM | QAD |
|---|---|---|---|---|---|---|---|---|
| 3 | 5/3/2016 | 5 (3)* | 20 | | | | ☐ | |
| 4 | 5/4/2016 | 5 (3)* | 20 | | | | ☐ | |
| † 5 | 5/5/2016 | 5 | 30 | | ☑ | ☐ | ☑ | ¶ yes |
| † 6 | 5/6/2016 | 5 | 30 | | ☑ | ☐ | ☐ | ¶ yes |
| † 7 | 5/7/2016 | 8 | 40 | ‡ PVAP | ☑ | ☐ | ☑ | ¶ yes |
| † 8 | 5/8/2016 | 10 | 30 | | ☐ | ☐ | ☐ | ¶ yes |
| † 9 | 5/9/2016 | 10 | 30 | | ☐ | ☐ | ☑ | ¶ yes |
| 10 | 5/10/2016 | 8 | 30 | | | | ☐ | ¶ yes |
| 11 | 5/11/2016 | 8 | 30 | | | | ☑ | ¶ yes |
| 12 | 5/12/2016 | | | | | | ☐ | |
| 13 | 5/13/2016 | | | | | | ☐ | |

Legend:   † - VAE Window   ‡ - VAE Date   ¶ - Qualifying Antimicrobial Day (QAD)

# NHSN Pediatric VAE

- CDC moving forward with plans to develop PedVAE in NHSN application
  - projected deployment in 2018
  - pediatric and neonatal locations
- Single tier algorithm called PedVAC with determination based on an increase over the baseline period of either
  - 0.25 increase in daily minimum $FiO_2$

    OR

  - 4 cm $H_2O$ increase in daily minimum mean airway pressure
- Preparing surveillance materials for field testing in 2017
  - Email NHSN@cdc.gov if interested in participating

**NHSN** National Healthcare Safety Network

# Pediatric Ventilator-Associated Event (PedVAE)

*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: PedVAE | *Date of Event: | |
| Post-procedure PedVAE:  Yes  No | Date of Procedure: | |
| NHSN Procedure Code: | ICD-10-PCS or CPT Procedure Code: | |

*MDRO Infection Surveillance:

☐ Yes, this infection's pathogen & location are in-plan for Infection Surveillance in the MDRO/CDI Module

☐ No, this infection's pathogen & location are not in-plan for Infection Surveillance in the MDRO/CDI Module

| | | |
|---|---|---|
| *Date Admitted to Facility: | *Location: | |
| * Location of Mechanical Ventilation initiation: _____ | *Date initiated: __ /__ /_____ | |

## Event Details

*Specific Event:  ☐ PedVAC

*Specify Criteria Used:

☐ Daily min FIO₂ increase ≥ 0.25 (25 points) for ≥ 2 days*  OR

☐ Daily min Mean Airway Pressure ≥ 4 cm H₂O for ≥ 2 days*

*after 2+ days of stable or decreasing daily minimum values.

*Antimicrobial Agent Administered
Did the patient receive antimicrobial agent(s) on the event date or within the 2 days before or 2 days after the event date?

☐ Yes  ☐ No  ☐ Unknown

If Yes, select up to 3 antimicrobial agents:
Drug1:_____;  Drug1 start date: __ /__ /_____
Drug2:_____;  Drug2 start date: __ /__ /_____
Drug3:_____;  Drug3 start date: __ /__ /_____

*Pathogen identified by culture or non-culture based microbiological test performed on a specimen below with a collection date on the event date or within 2 days before or 2 days after the event date?

☐ Yes

  ☐ Lower Respiratory (e.g., sputum, tracheal aspirate, bronchial washing, bronchoalveolar lavage)
  ☐ Upper Respiratory (e.g., nasopharyngeal wash or swab)
  ☐ Lung Tissue    ☐ Pleural Fluid    ☐ Urine for *Legionella* or *Streptococcus pneumoniae* antigen testing

☐ No  ☐ Unknown

*Pathogen identified by culture or non-culture based microbiological test performed on a BLOOD specimen, with a specimen collection date 2 days before the event date to 13 days after the event date?

☐ Yes

  ☐ Blood culture    ☐ Blood non-culture microbiological test

☐ No  ☐ Unknown

| | | |
|---|---|---|
| **Died:  Yes  No | PedVAE contributed to death:  Yes  No | |
| Discharge Date: | *Pathogens identified:  Yes  No  *If Yes, specify on pages 2-3 | |

# Adult VAE

- Beginning the process to make reporting of VAE available by CDA
- Projected to be available in 2019

# MDRO/CDI Update

Denise Leaptrot

# What's Coming in 2016-

UPDATE!

## Changes to LabID Event form:

- ☐ Question: Has patient been discharged from your facility in past 3 months ? 3 months will change to 4 weeks to offer better alignment with CO-HCFA categorization
- ☐ 2 Optional questions move to Required status
  - Last physical overnight location of patient immediately prior to arrival into facility (specific to outpatient and CO events)
  - Has the patient been discharged from another facility in past 4 weeks

For CRE reporting, additional questions added in relation to CRE laboratory test methods.

Minor wording changes made to improve clarification and adherence to reporting rules.

**2016**   **2017**

NEW

# Surveillance for C. difficile, MRSA, and other Drug-resistant Infections

## Resources for NHSN Users Already Enrolled

> **Training**

> **Protocols**

- Multidrug-Resistant Organism & Clostridium difficile Infection (MDRO/CDI) Module Protocol January 2016 [PDF - 577 KB]
- NHSN Overview January, 2016 [PDF - 171 KB]
- Identifying Healthcare-associated Infections (HAIs) in NHSN January 2016 [PDF - 369 KB]
- Patient Safety Monthly Reporting Plan January 2016 [PDF - 164 KB]

> **Frequently Asked Questions**

> **Data Collection Forms**

> **MDRO & CDI LabID Event Calculator**

> **CMS Supporting Materials**

> **Supporting Material**

> **Analysis Resources**

| | |
|---|---|
| Last physical overnight location of patient immediately prior to arriving into facility. | Optional for specimens collected from the emergency department, observation location(s), or less than four days after admission into an inpatient unit. Using the available variables, select the location in which the patient spent the night immediately prior to arrival into the facility. Selections include: (1) Nursing Home/Skilled Nursing Facility; (2) Other Inpatient Healthcare Setting (i.e., acute care hospital, inpatient rehabilitation facility/IRF, long term acute care facility/LTAC, etc.); or (3) Personal Residence/Residential Care , which includes personal homes or assisted living environments in which 24/7 care is **not** provided in a group setting; **Note:** If the patient's personal residence is a nursing home or skilled nursing facility, then your selection should be Nursing Home/Skilled Nursing Facility. |
| Has the patient been discharged from another facility in the past 4 weeks? | Optional. Circle "Yes" if the patient has been discharged, after an inpatient stay, from another facility in the past four weeks. Select "No" if the patient has not been discharged, after an inpatient stay, from another facility in the past four weeks. Select "Unknown" if previous inpatient history is not known. |
| Last discharging facility | Optional. If the patient was discharged from an inpatient stay from another facility in the past four weeks, (previous question is circled "Yes"), select all that apply from the provided list, which includes: (1) Nursing Home/Skilled Nursing Facility; or (2) Other Inpatient Healthcare Setting (i.e., acute care hospital, inpatient rehabilitation facility/IRF, long term acute care facility/LTAC, etc.). |

# Polling Question:  Background

The current process for MDRO/CDI LabID event reporting requires facilities to determine if a positive specimen meets the definition, i.e. no prior positive specimen for same patient/ same location within 14 days.  Within the protocol is a recommendation that each facility keep an internal line listing of all positive tests as a reference in LabID event reporting.  There is discussion for submitting all positive specimens to NHSN and allowing the application to determine which events meet definition.

**Advantages** to reporting all positive specimens include:

- Removes decision making from users

- Decreases time related to electronic download/import

- Eliminates the need to keep an internal line listing of all positive tests as a reference

- Removes inaccurate categorization of 'incident' events in situations where the patient changes location and positive specimen is > 14 days from a prior positive


**Disadvantages**:

- Potential for increased time for data entry if submitting LabID events manually

# Polling Question

- For LabID Event Reporting, would you be in favor of submitting all positive specimens to NHSN and allow the application to determine which specimens meet the LabID event definition?

  1. Yes
  2. No
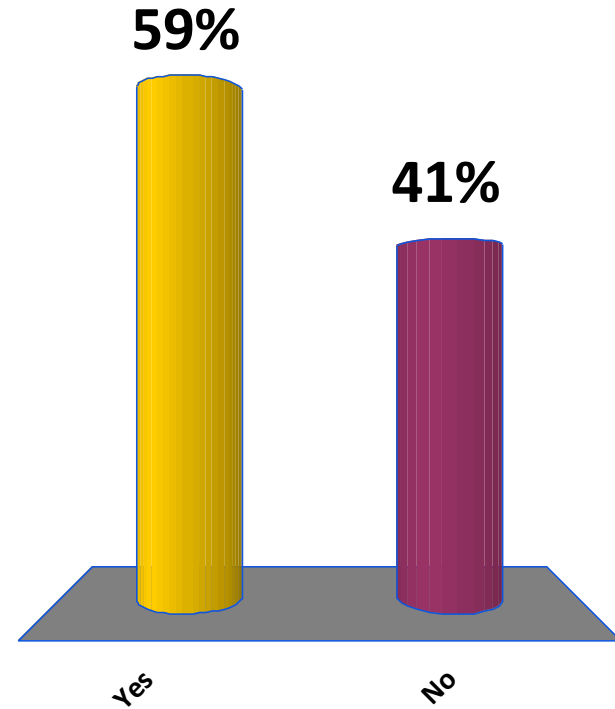
# Training Update

Katherine Allen-Bridson

# Available Training – Overview

❑ Quick Learns

  ▪ 5 – 10 minute videos addressing specific NHSN topics

❑ 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, Dialysis Event

  ▪ More coming soon! (e.g., VAE, Analysis)

❑ Archived Webstreaming Trainings - available now!

  ▪ Available for: LTCF, CLABSI, CAUTI, VAE, LabID Events, SSI, Analysis, and AUR

❑ In-Person Training - coming March 2017

  ▪ The training course will provide information on CMS reporting, definition and protocol clarification, interactive case studies, analysis, Re-baseline, and any updates in reporting for 2017

  ▪ Webstreaming will be available for those not attending in-person

# NHSN Training Website: http://www.cdc.gov/nhsn/training/

## National Healthcare Safety Network (NHSN) Training

Our mission is to offer learning opportunities in a variety of formats that enhance the knowledge and skills of NHSN facility- and group-level participants and their partners in order that they may effectively use the data obtained from the surveillance system to improve patient and healthcare personnel safety.

### Objectives

- Convey NHSN data collection methods, submission requirements, and analysis options to participants so that they may acquire, submit, and disseminate high quality, actionable data.
- Prepare participants to use the NHSN reporting application accurately and efficiently.
- Enhance participants' and their partners' understanding of data quality and the value of adverse event monitoring.
- Encourage collaboration among participants and partners to improve the patient and healthcare personnel safety across the spectrum of care.

**COURSE CATALOG**
Course descriptions for NHSN components, modules and events.

**ENROLLMENT AND SETUP TRAINING**
Self-paced training for new NHSN enrollment and existing facility set-up.

**DATA ENTRY AND ANALYSIS**
Self-paced training for data entry, import, customization and analysis.

**REQUEST CDC LED TRAINING**
Webinar / In-person training policy and request.

**CONTINUING EDUCATION**
CE available free of charge for all NHSN education course work.

**PATIENT SAFETY COMPONENT TRAINING**
Self-paced training for specific modu...

**DIALYSIS COMPONENT TR...**
Self-paced training for outpatient di...

**HEALTHCARE PERSONNEL SAFETY COMPONENT TRAINING**
Self-paced training for specific module and events.

**BIOVIGILANCE COMPONENT TRAINING**
Self-paced training for specific module and events.

**LONG-TERM CARE FACILITY COMPONENT TRAINING**
Self-paced training for long-term care facilities enrollment and set-up.

**Quick Learn Videos**

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CDC > NHSN Home

## Patient Safety Component Training

### Training Resources

- NHSN Home
- NHSN Training
- NHSN Demo +
- Course Catalog
- Long-term Care Facility Component
- Enrollment and Setup Training
- Data Entry and Analysis
- **Patient Safety Component**
- Dialysis Component +
- Healthcare Personnel Safety Component

> **Overview of the Patient Safety Component**

> **Device-associated Module**

> **Procedure-associated Module**

> **Multidrug-resistant Organism and Clostridium difficile Infection (MDRO/CDI) Module**

> **Vaccination Module**

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- ❑ **Home Training Page**
- ❑ **Archived Webstreaming Events**
- ❑ **Quick Learns**
- ❑ **Interactive Trainings**

# 2016 Quick Learns



**2016 Quick Learns**: NHSN Definition and Rule Changes, CAUTI FAQs, ICD-10 PCS and CPT Transition, PSC Annual Survey, Reporting MRSA & CDI LabID Data for Acute Care IRFs, SSI Event form for PATOS, SSI Exclusion Criteria for SIR, TAP Reports in NHSN

# 2016 NHSN Live Training: Slidesets and Webstream Videos

# NHSN Continuing Education

❑ **Continuing Education is available for Interactive CBTs and Archived Webstreaming Training**

❑ **CE available: CNE, CEU, CME, CPH**

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

## Continuing Education

National Healthcare Safety Network provides online access to complete the continui... ...ess includes registration for a course on the CDC Training and Continuing Education Online... ...and printing of the CE certificate. To receive CE, participants must complete this process online...

### Expiration

You must submit your answers online before the stated expiration date to be e... ...ach course for expiration dates.

### Obtaining Continuing Education for NHSN Training Events

*Instructions for obtaining Continuing Education for NHSN training activities.*

1. Once you completed viewing the courses, go to CDC Training and Continuing Education Online.
   a. If you have not registered as a participant, click on **New Participant** to create a user ID and password; otherwise click on **Participant Login** and login.
   b. If you have registered in this system before, please use the same login name and password. This will ensure an accurate transcript.
2. Once you have logged in, you will be on the Participant Services page. Click on **Search and Register**. Then click on the second option **keyword search** and enter the course number. You can only register and enter one course at a time.
3. Click on the course title (at the bottom of the page). The course information page will come up. Scroll down to **Register Here**. Click on the type of CE that you would like to receive and then **Submit**. Three demographic questions will come up. Complete the questions and then **Submit**.
4. From **Participant Services**, click on **Evaluations and Tests**.
5. Complete the course evaluation and **Submit**. Once you hit submit, it will give you the option of completing the posttest. The posttest for each training course is very brief.
6. Upon achieving a passing posttest score (of 80% or higher), you will be able to immediately print your continuing education certificate from your personal transcript. If you do not post a passing score, you may retake the test.
   • A record of your completion will be located in the transcript and certificate section of your record.
7. If you have any questions or problems contact CDC Training and Continuing Education Online at: 1-800-41TRAIN or 404-639-1292 or ce@cdc.gov.

### Continuing Education Resources

> NHSN Web streaming / Webinar Events

> Self-Paced Interactive Training

> Continuing Education

> Disclaimer and Disclosure

# Update of the NHSN Organisms Lists

Katherine Allen-Bridson

# Question: When will the NHSN organism lists be updated?

- January 2017 updates to the following lists:
  - All Organisms
  - Common Commensals
  - MBI-LCBI Organisms
  - UTI Bacteria

- Proposed 2-year future update schedule

# Organisms-Continued

- All Organisms List-
  - Addition of organisms from a university lab information system
  - Taxonomic updates according to SNOMED CT; inactivate old organisms
- MBI Organisms List-  Work with small group of microbiologists and ID MDs
  - Addition of missing Enterobacteriaciae and viridans group streptococci
  - Add organism to the list, if moved to new genus;  Entire Genus.
  - Considered input from users since MBI-LCBI inception- some additions made

# Organisms-Continued

- Common Commensal List
  - Add organism to the list, if moved to new genus; Entire Genus.
  - Considered input from users -some additions made
- UTI Bacteria List
  - List expands from newly added bacteria

# Would you support a requirement to collect hemodialysis catheter days to enable identify the proportion of CLABSIs that are HD related?

23%  A.  Yes

61%  B.  No

C.  I'm not sure

# Re-baseline Update
# Dialysis Event Update

Maggie Dudeck

# The Rebaseline: Overview

- Data reported to NHSN for 2015 will be used as the NEW baseline for future SIRs
    - CDC is using a <u>complete</u> year of data for the final risk adjustment
- Risk adjustment methods and risk models will vary from original baselines
    - All applicable factors will be assessed/re-assessed (incl. use of quarterly prevalence rates and quarterly CDI Test type for LabID)
- All new risk models will be implemented into the NHSN application in the form of new SIRs

# The Rebaseline: CDC's Timeline

- Now through August 15th: Develop and validate final models
  - All 2016Q1 HAI SIRs reported to NHSN as part of a CMS Quality Reporting Program will be calculated using the new risk models/2015 baseline

- August 15th – December 9th:
  - Develop new output options in NHSN application
  - EDUCATION!!! (via newsletters, quick reference guides, and potential Rebaseline webinars)

- December 10th : scheduled release date for NHSN v8.6

# The Rebaseline: New Models

- Approximately 190 new models will be developed and implemented in NHSN

- All new models related to CMS quality reporting programs will be used for CMS submissions beginning with **2016Q1 data** (due Aug. 15th)
  - **What this means:** SIR calculations using the new risk models will be sent to CMS *prior* to being available within the NHSN application.

# The Rebaseline: Implementation
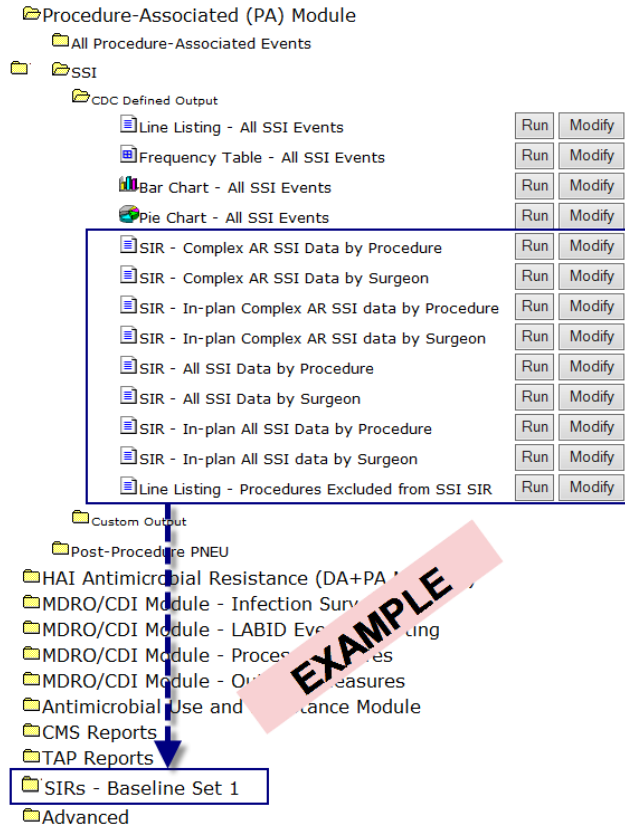


- Original baselines are referred to as "Baseline Set 1"

- The "Baseline Set 1" output will be placed in a new output options folder, above "Advanced"

- Sub-folders will be organized by event type

- Sub-folders will be added for all CMS-related reports and TAP Reports that use "Baseline Set 1"

# The Rebaseline: Implementation

- All new SIR output options will use analysis datasets that begin with "bs2_"(baseline set 2)
- New SIRs will be available in the corresponding Module/Event folders
  - Due to the modeling strategy, more SIR output options will be available.
    - Example: separate CAUTI SIRs for each setting (e.g., ACHs, CAHs)
- New SIRs will be limited to 2015 data and forward

# "Where can I find more information about the Rebaseline?"

- Tomorrow: Session 3100 "Sneak Preview: New NHSN Methods for Analyzing HAI Data" – we'll be discussing SAARs, ARMs, SIRs, and SURs!
- March 2016 presentation from Annual NHSN Training: http://www.cdc.gov/nhsn/training/continuing-edu.html
- Rebaseline webpage…Coming Soon!
- NHSN Quarterly Newsletters (next one: June 2016)
- Additional educational resources will be provided later this year:
  - New, and updated, Quick Reference Guides
  - Quick Learn Videos

# Dialysis Event Surveillance

- Currently, >6,000 dialysis facilities report to NHSN using the Dialysis Event Protocol:
  - For hemodialysis outpatients, all positive blood cultures from specimens collected as an outpatient (e.g., dialysis facility, E.D.) and on the day of or day following hospitalization are reportable:
  - **Surveillance challenges that IPs can help overcome:**
    - Notifying dialysis facilities that a positive blood culture occurred in their patient.
    - Communicating pathogen and susceptibility data to the dialysis facility.
- Resources for infection prevention in hemodialysis, including CDC-Recommended Core Interventions:
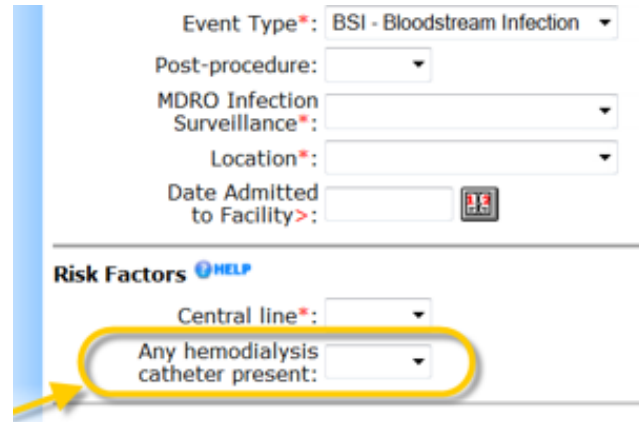  - http://www.cdc.gov/dialysis/prevention-tools/index.html

# Assess Potential CLABSI Prevention Needs with the "Any Hemodialysis Catheter Present" Field in NHSN

- Prompted by IPs who saw high numbers of CLABSIs among their hemodialysis patients, NHSN added an optional field on the NHSN BSI form:
  - "Any hemodialysis catheter present: Yes/No"

- This field is designed to help IPs assess potential CLABSI prevention needs;
  since both hospital staff and specialized dialysis staff care for hospitalized hemodialysis patients, a high proportion of CLABSIs among these patients may signal the need to increase or target CLABSI prevention efforts among dialysis staff.

- This field is most beneficial if used consistently.

- CDC wants to know! Have you used this field and found it beneficial? Please email the NHSN Helpdesk (nhsn@cdc.gov) and let us know.

# Long-Term Care Update

Angela Anttila

# Spotlight on Infection Prevention and Control (IPC) in Long-term Care Facilities (LTCFs)

- **July 2015**: CMS proposed new Federal Regulations for LTCFs
  - Designated infection prevention and control (IPC) officer
  - Annual facility risk assessment and review/update IPC program and policies
  - IPC specific education and training for all staff
- **September 2015**: CDC released the Core Elements of Antibiotic Stewardship for Nursing Homes
  - http://www.cdc.gov/longtermcare/pdfs/core-elements-antibiotic-stewardship.pdf
  - New stewardship questions added for 2016 LTCF annual survey
- **October 2015**: CMS announced the *C. difficile* Infection Reporting and Reduction project within the nursing home 11th Scope of work for Quality Innovation Networks – Quality Improvement Organizations (QIN-QIO)

# CMS 11th Scope of Work
# *C. difficile* Reporting and Reduction Project

- Official contract start date- Monday, May 23, 2016

- Recruitment and enrollment through October 2016

- Project goal is to recruit 15% of nursing homes in the U.S. (~2300 NHs) to enroll into NHSN and sustain *C. difficile* infection (CDI) reporting using NHSN CDI LabID Event module

- Collaborative participants will receive training in long-term care communication (TeamSTEPPS) and antibiotic stewardship

- CDC will monitor changes in CDI rates among NHSN reporters before and after educational interventions

- Opportunity to establish a national baseline for CDI in nursing homes

# Expanded Training Resources for LTCFs

- Series of 6 Webinar trainings available on the following url:
  http://qioprogram.org/national-healthcare-safety-network-nhsn-trainings

  1. Secure Access Management Services (SAMS)

  2. NHSN enrollment

  3. Setting up a facility in the NHSN

  4. Reporting *C. difficile* LabID events

  5. Analyzing *C. difficile* LabID events

  6. Creating and managing group access for data sharing.

- Additional enrollment training resources and guidance documents available on NHSN training and enrollment websites:

  – http://www.cdc.gov/nhsn/training/enrollment-setup/index.html

  – http://www.cdc.gov/nhsn/training/ltc/index.html

# Clinical Document Architecture (CDA) Update

Amy Webb

# 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

```xml
<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

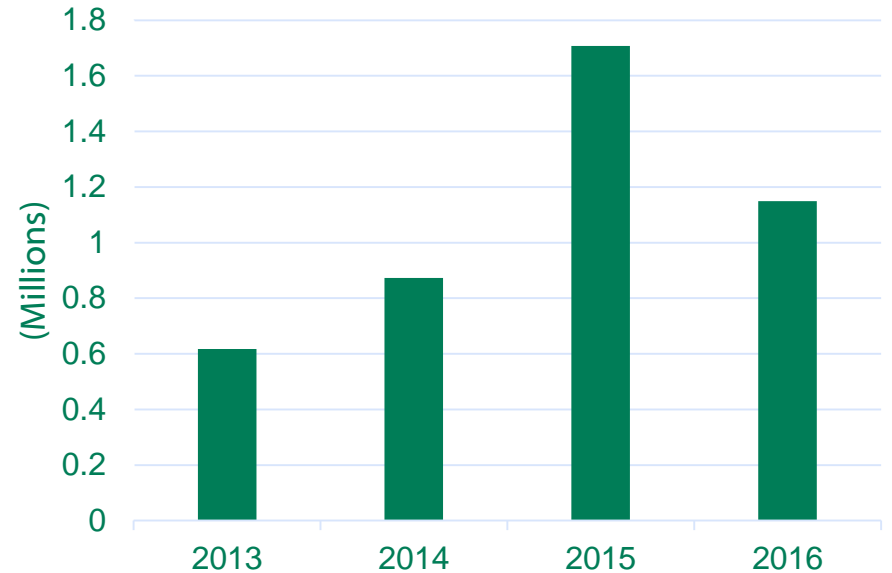# NHSN Data Currently Accepted via CDA

- 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

# CDA Reporting Status

## Facilities Submitting via CDA
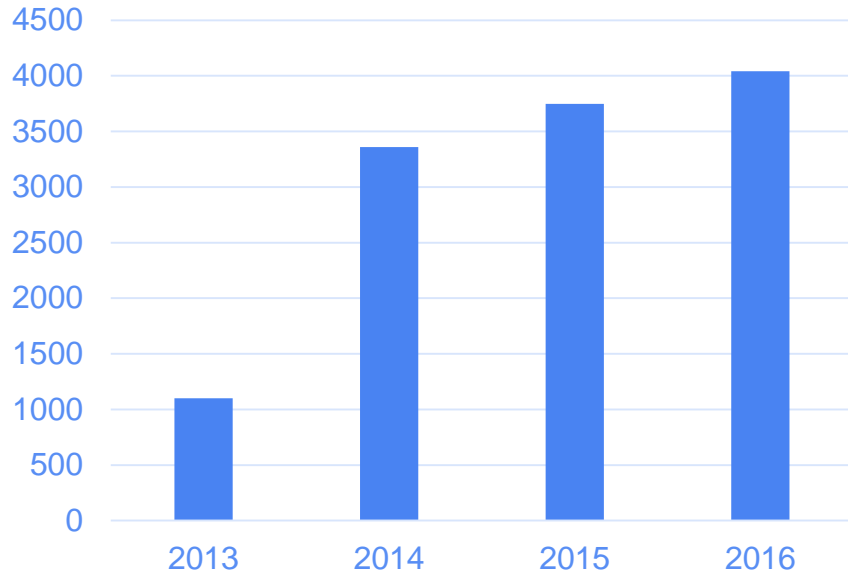
## Records Imported via CDA
(Millions)

As of May 27, 2016

# DIRECT CDA Automation

- "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
- Over 2,500 facilities from 14 vendors using DIRECT
- Learn more here: [DIRECT information](#)

# NEW! CDA Submission Support Portal

- [Direct link](#)
- Vendors & facilities
- New & experienced

# NHSN & Meaningful Use Stage 3

- NHSN AUR Module option for public health registry reporting in MU 3
- Monthly data for <u>both</u> AU and AR Option required
- AUR data can be submitted via CDA only
- Timeline
  - Summer 2016: NHSN declaration of readiness
  - January 2017: MU 3 Option Year 1
  - January 2017: NHSN facilities can register intent & begin submitting data
  - January 2018: Submission required for MU 3 participants
- **Important note**: AUR Module is **<u>only</u>** part of NHSN that qualifies for MU 3
- More info on NHSN AUR Module: Monday, June 13: 1:30 - 2:30pm
  - 3402: NHSN Antimicrobial Use & Resistance Module

It's QUESTION TIME!!

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.