NHSN Analysis Training 2024

Housekeeping

- **This call will be recorded, with recording and slides posted to the State HAI website**

- **Please use the chat-box for any questions.**

Agenda

- **Updates for 2024**
  - **Antibiotic Use and Resistance (AUR) Module Ratios**
  - **Bloodstream Infection Event (CLABSI) Module Ratios**

- **Analysis Tools**
  - **Standardized Infection Ratio (SIR)**
  - **SIR Models**
  - **Standardized Utilization Ratio (SUR)**
  - **SUR Models**
  - **Cumulative Attributable Difference (CAD)**
  - **Adjusted Ranking Metric (ARM)**

- **NHSN Analysis Report Tree**
  - **Navigating Tree**
  - **Modifying Reports**
  - **Creating Custom Report**

2024 Updates

Summary of Changes

- **Additions**
  - **Updated AR SRIR & pSIR section**
    - **Including adding quick reference analysis guides**

- **Clarifications**
  - **Predicted event calculations for CLABSI SIR**

- **2022 Rebaseline Coming Soon**

Additions: Analysis Guides

- **Antimicrobial Resistance Module's**
  - **Standardized Resistant Infection Ratio (SRIR)**

$$\text{SRIR} = \frac{\text{\# Observed Resistant Infections}}{\text{\# Predicted Resistant Infections}}$$

  - **Pathogen-specific Standardized Infection Ratio (pSIR) section**

$$\text{pSIR} = \frac{\text{\# Observed Infections of Specific Pathogens}}{\text{\# Predicted Infections of Specific Pathogens}}$$

- **Including added quick reference analysis guides (linked in Resources)**

Clarifications: 2023 Version

Types of CLABSI Analysis Reports

Standardized Infection Ratio (SIR):

The standardized infection ratio (SIR) is calculated by dividing the number of observed events by the number of predicted events. The number of predicted events is calculated using probabilities estimated from negative binomial models constructed from 2015 NHSN data, which represents the baseline population.

For more information on SIR and the CLABSI parameter estimates, please see the SIR guide:

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

$$SIR = \frac{Observed\ (O)\ HAIs}{Predicted\ (P)\ HAIs}$$

Clarifications: 2024 Version

Types of CLABSI Analysis Reports

Standardized Infection Ratio (SIR):

The standardized infection ratio (SIR) is calculated by dividing the number of observed events by the number of predicted events. The number of predicted events is calculated using probabilities estimated from statistical models constructed from national NHSN data, which represents the baseline population. For more information on SIR and the CLABSI parameter estimates, please see the SIR guide: https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf.

$$SIR = \frac{Observed\ (O)\ HAIs}{Predicted\ (P)\ HAIs}$$

CDC Rebaseline Effort

- **2022 Rebaseline Coming Soon**

  - **New baseline year will be 2022**
    - **Used for all SIR and SUR calculations**

  - **CDC's goal to have all new reports by end of 2024**
    - **Current details on the process included in the Resources section**

Analysis Tools

Standardized Infection Ratios

- **Adjusts for complexity of patients receiving care at your facility**

- **Adjusts for lab testing methods (CDI)**

- **Allows for scalability (facility-wide CLABSI SIR vs. unit-specific rates)**

- **Requires a baseline, progress can be measured**

Standardized Infection Ratio (SIR)

$$SIR = \frac{\text{Observed (O) HAIs}}{\text{Predicted (P) HAIs}}$$

- **Observed HAIs = sum of all HAIs**
- **Predicted HAIs = sum of factors from model* used**

- **SIR < 1.0 : Actual infections are LESS than predicted infections**
- **SIR > 1.0 : Actual infections are MORE than predicted infections**
- **SIR = 1.0 : Actual infections are EQUAL to predicted infections**

*Logistic Regression vs Negative Binomial Regression

Standardized Infection Ratios (Models)

Healthcare-associated Infection (HAI) Type	Model Type
SSIs	⭐ Logistic Regression Model
CLABSIs, CAUTIs, VAEs, LabID MRSA, and LabID CDI	Negative Binomial Regression Model

Standardized Infection Ratios (Predicted SSIs)

$$logit\ (\hat{p}) = \alpha + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_i X_i$$

α = Intercept

β_i = Parameter Estimate

X_i = Value of Risk Factor

i = Number of Predictors

Table 1. Risk Factors for SSI HYST: Complex 30-Day Model (2015 Baseline)

Factor	Parameter Estimate	P-value	Variable Coding
Intercept	-5.1801	-	-
Diabetes	0.3247	<0.0001	Yes= 1 No= 0
ASA Score	0.4414	<0.0001	1= 1 2= 2 3= 3 4/5= 4
Body Mass Index (BMI)	0.1106	0.0090	≥ 30= 1 < 30= 0
Patient Age	-0.1501	<0.0001	Patient's age/10
Oncology Hospital	0.5474	0.0005	Oncology hospital= 1 Non-oncology hospital= 0

Standardized Infection Ratios (Predicted SSIs)

$$logit\ (\hat{p}) = \alpha + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_i X_i$$

$$logit\ (\hat{p}) = -5.1801 + 0.3247(DIABETES) + 0.4414(ASA) + 0.1106(BMI) - 0.1501(AGE)$$
$$+ 0.5474(ONCOLOGY\ HOSPITAL)$$

$$logit\ (\hat{p}) = -5.1801 + 0.3247(1) + 0.4414(2) + 0.1106(0) - 0.1501(3.2) + 0.5474(1) = \boxed{-3.9055}$$

$$\hat{p} = \frac{e^{logit(\hat{p})}}{1 + e^{logit(\hat{p})}}$$

$$\hat{p} = \frac{e^{\boxed{-3.9055}}}{1 + e^{-3.9055}}$$

$$\boxed{\hat{p} = 0.020}$$

"There is a 2% risk of SSI for
Patient 1 undergoing this surgery."

Variable Coding
-
Yes= 1
No= 0
1= 1
2= 2
3= 3
4/5= 4
≥ 30= 1
< 30= 0
Patient's age/10
Oncology hospital= 1
Non-oncology hospital= 0

Standardized Infection Ratios (Calculating SSI SIRs)

Table 2. Risk Factors for 100 Patients Undergoing a HYST Procedure (Complex 30-Day model)

Patient	Diabetes	ASA score	BMI	Age	Oncology Hospital	SSI Identified?	Probability of SSI ($\hat{p}$)
1	Y	2	29	32	Y	1	0.020
2	N	3	35	49	Y	0	0.019
3	N	5	20	51	Y	1	0.026
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
100	N	4	27	27	Y	0	0.037
TOTAL	.	.	.	.	.	**8** (observed SSIs)	**6.750** (predicted SSIs)

$$SIR = \frac{Observed\ (O)\ HAIs}{Predicted\ (P)\ HAIs} = \frac{8}{6.750} = 1.190$$

Standardized Infection Ratios (Models)

Healthcare-associated Infection (HAI) Type	Model Type
SSIs	Logistic Regression Model
CLABSIs, CAUTIs, VAEs, LabID MRSA, and LabID CDI	★ Negative Binomial Regression Model

Standardized Infection Ratios (Predicted CDIs)

$$log\ (\lambda) = \alpha + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_i X_i$$

α = Intercept

β_i = Parameter Estimate

X_i = Value of Risk Factor (Categorical variables: 1 if present, 0 if not present)

i = Number of Predictors

Table 3. Risk Factors Used in the Acute Care Hospital CDI LabID Event Model

Factor	Parameter Estimate	P-value
Intercept	-8.9463	<0.0001
Inpatient community-onset (CO) admission prevalence rate	0.7339	<0.0001
CDI test type= EIA	-0.1579	<0.0001
CDI test type= NAAT	0.1307	<0.0001
# ICU beds: ≥ 43	0.7465	<0.0001
# ICU beds: 20-42	0.7145	<0.0001
# ICU beds: 10-19	0.6261	<0.0001
# ICU beds: 5-9	0.4394	<0.0001
Oncology hospital (facility type = HOSP-ONC)	1.2420	<0.0001
General acute care hospital (facility type = HOSP-GEN)	0.3740	<0.0001
Total facility bed size	0.0003	<0.0001
CDI LabID surveillance in ED or 24-hour observation location(s)	0.1119	<0.0001
Teaching facility (major, graduate, or undergraduate)	0.0331	0.0028

TN

Standardized Infection Ratios (Predicted CDIs)

predicted HO CDI = Exp [-8.9463
+ 0.7339 (CO prevalence rate)
- 0.1579 (CDI test type = EIA)
+0.1307 (CDI test type = NAAT)
+ 0.7465 (ICU beds ≥ 43)
+ 0.7145 (ICU beds: 20 − 42)
+ 0.6261 (ICU beds: 10-19)
+ 0.4394 (ICU beds: 5-9)
+1.2420 (Oncology hospital)
+ 0.3740 (General hospital)
+ 0.0003 (Total facility bed size)
+ 0.1119 (Reporting from ED or 24 hr. Obs)
+ 0.0331 (Teaching hospital)] X CDI patient days

predicted HO CDI = Exp [-8.9463
+ 0.7339 (1.25)
- 0.1579 (0)
+0.1307 (1)
+ 0.7465 (0)
+ 0.7145 (0)
+ 0.6261 (0)
+ 0.4394 (1)
+1.2420 (0)
+ 0.3740 (0)
+ 0.0003 (100)
+ 0.1119 (1)
+ 0.0331 (0)] X 5,000 = 3.321 predicted CDI LabID events

 # predicted HO CDI = [-8.9463

+ 0.7339 (1.25)

- 0.1579 (0)

+0.1307 (1)

+ 0.7465 (0)

+ 0.7145 (0)

+ 0.6261 (0)

+ 0.4394 (1)

+1.2420 (0)

+ 0.3740 (0)

+ 0.0003 (100)

+ 0.1119 (1)

+ 0.0331 (0)] X 5,000 = 3.321 predicted CDI LabID events

$$SIR = \frac{5 \; observed \; HO \; CDI \; LabID \; events}{3.321 \; predicted \; HO \; CDI \; LabID \; events} = 1.506$$

Standardized Utilization Ratios

$$\text{SUR} = \frac{\textit{Observed } (\textbf{O}) \textit{ device days}}{\textit{Predicted } (\textbf{P}) \textit{ device days}}$$

- **Observed Device Days = sum of all Device Days**
- **Predicted Device Days = sum of factors from model**

- **SUR < 1.0 : Actual Device Days are LESS than predicted Device Days**
- **SUR > 1.0 : Actual Device Days are MORE than predicted Device Days**
- **SUR = 1.0 : Actual Device Days are EQUAL to predicted Device Days**

Standardized Utilization Ratio (Predicted NICU Central Line Days)

$$log(\lambda) = \alpha + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_i X_i$$

α = Intercept

β_i = Parameter Estimate

X_i = Value of Risk Factor (Categorical variables: 1 if present, 0 if not present)

i = Number of Predictors

Table 1. Factors Predicting Unit Level Central Line Use; Central Line SUR, NICU (2015 Baseline)

Factor	Variable Coding	Parameter Estimate	P-value
Intercept	-	-1.7745	<0.0001
Major Teaching Hospital	Yes= 1 No= 0	0.1538	<0.0001
General Hospital	General Hospital= 1 Other hospital type= 0	-0.5650	<0.0001
Location	IN:ACUTE:CC:NURS= 1 IN:ACUTE:CC_STEP:NURS= 0	0.1781	<0.0001
Facility Bed Size	≥460 beds= 1 325-459 beds= 1 212-324 beds= 1 36-211 beds= 0	0.2783 0.1770 0.0987	<0.0001 <0.0001 0.0330
Birthweight	Birthweight Code A= 1 Birthweight Code B= 1 Birthweight Code C= 1 Birthweight Code D/E= 0	1.3932 1.0765 0.6519	<0.0001 <0.0001 <0.0001

Standardized Utilization Ratio (Predicted NICU Central Line Days)

$$logit\ (\hat{p}) = -1.7745 + 0.1538(MAJOR\ TEACHING\ HOSPITAL) - 0.5650(GENERAL\ HOSPITAL)$$
$$+ 0.1781(NICU) + 0.0987(BEDSIZE\ BETWEEN\ 212 - 324)$$
$$+ 1.3932(BIRTHWEIGHT\ CODE\ A)$$

$$logit\ (\hat{p}) = -1.7745 + 0.1538(1) - 0.5650(1) + 0.1781(1) + 0.0987(1) + 1.3932(1) = \boxed{-0.5157}$$

$$\hat{p} = \frac{e^{logit(\hat{p})}}{1 + e^{logit(\hat{p})}}$$

$$\hat{p} = \frac{e^{\boxed{-0.5157}}}{1 + e^{-0.5157}}$$

$$\hat{p} = \boxed{0.3739}$$

$$number\ of\ predicted\ central\ line\ days = \boxed{0.3739}\ X\ 155$$

$$number\ of\ predicted\ central\ line\ days = 57.9545$$

Standardized Utilization Ratio (Predicted NICU Central Line Days)

Table 2. Central Line SUR for a Level III NICU

Birthweight Code	Major Teaching Affiliation	NICU	General Hospital	Facility Bed Size	Patient Days	Probability of CL use ($\hat{p}$)	Total Predicted Device Days
A	Y	Y	Y	300	155	.3739	57.9545
B	Y	Y	Y	300	82	.3031	24.8542
C	Y	Y	Y	300	90	.2215	19.9350
D/E	Y	Y	Y	300	56	.1291	7.2296
Total							**109.9733**

$$SUR = \frac{Observed\ (O)\ CL\ Days}{Predicted\ (P)\ CL\ Days} = \frac{270}{109.9733} = 2.4551$$

Cumulative Attributable Difference

CAD = Observed # HAIs – (Predicted # HAIs x SIR goal)

CAD	Observed	Predicted	SIR goal
15	30	30	0.5
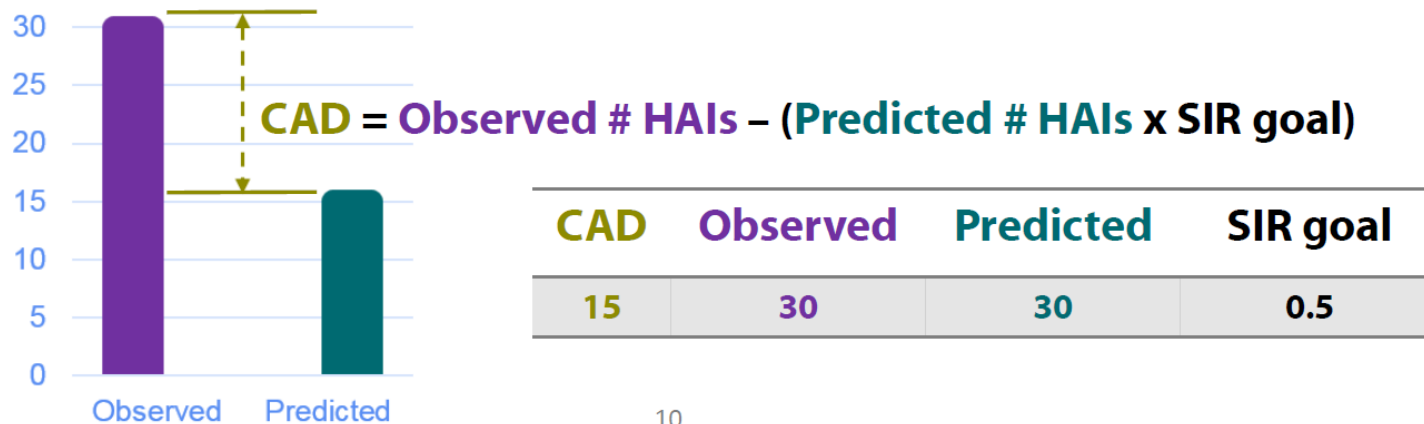
- **Provides the number of infections needed to prevent in order to reach reduction goal**

- **CAD is not a comparison metric like SIR**
  - **Detects burden of infection**
  - **Positive CAD = additional burden of infections than what would be predicted for the SIR goal ("excess" infections)**
  - **Negative CAD = fewer infections than what would be predicted**

SIR vs CAD

Standardized Infection Ratio SIR	Cumulative Attributable Difference CAD
• Ratio of observed to predicted infections • Summary measure used to track HAIs at a national, state, or local level over time • Risk adjusted • Used as a *comparative* metric	• # of infections that need to be prevented to achieve SIR goal • Summary measure to target prevention • Influenced by exposure size • Used as a *prioritization* metric

Hospital	Patient days	Observed	Predicted	SIR	CAD
Major Teaching	9,000	27	9	3	18
Rural	1,000	3	1	3	2

Adjusted Ranking Metric (ARM)

- **The ARM accounts for differences in volume of exposure (specifically denominator) between facilities and is preferable for ranking facilities.**

- **Annual, facility-specific Reliability-Adjusted Rankings based on the ARM are displayed as percentiles on the Reliability-Adjusted Ranking dashboard within NHSN.**

- **Dashboard deactivated temporarily.**
  - **Users will receive notification when it reactivates.**
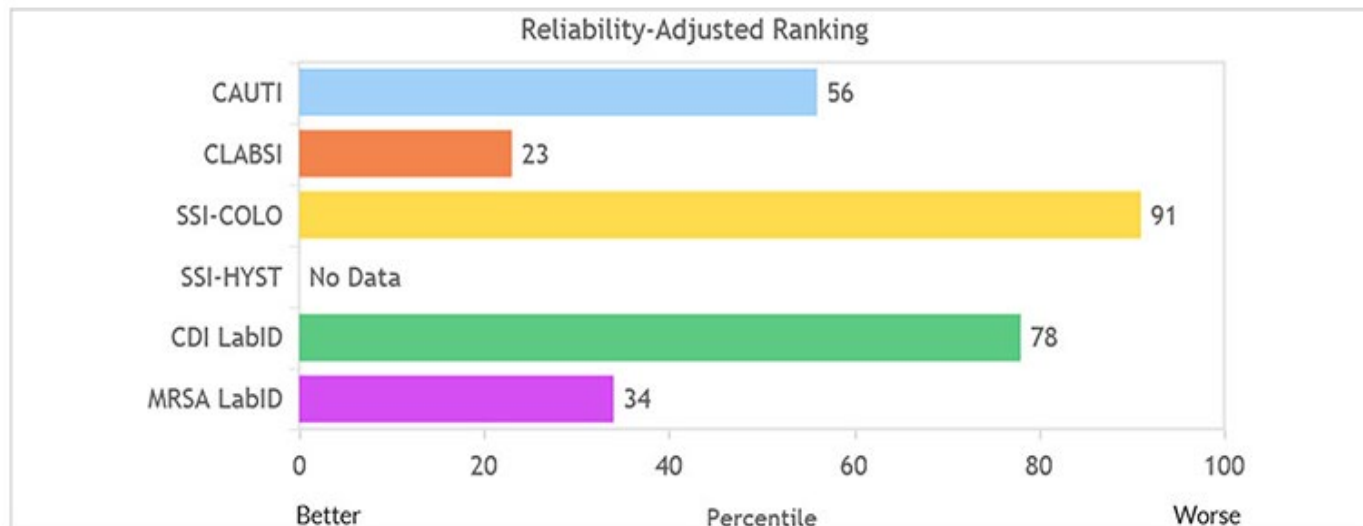
Adjusted Ranking Metric (ARM)

- **The ARM is calculated as a ratio of numerator divided by denominator**
  - **The ARM denominator is identical to that of the SIR.**

ARM

$$\frac{Reliability\ adjusted\ number\ of\ events}{Risk\ adjusted\ predicted\ number\ of\ events}$$

SIR

$$\frac{Number\ of\ events}{Risk\ adjusted\ predicted\ number\ of\ events}$$
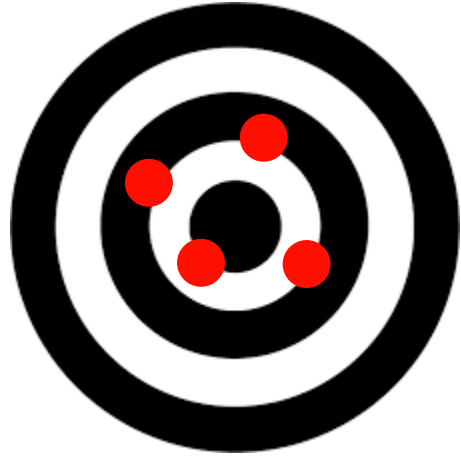
Accurate/Valid
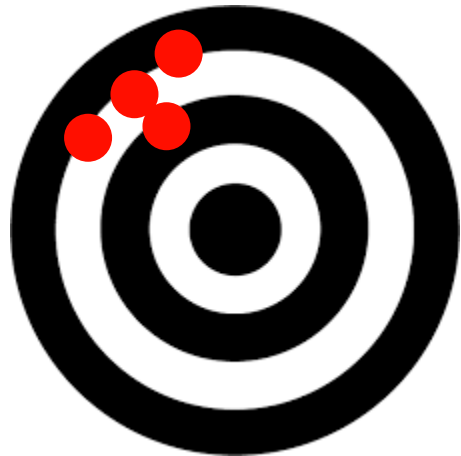
Precise/Reliable

ARM vs SIR

Adjusted Ranking Metric (ARM)	Standardized Infection Ratio (SIR)
• Shared on the Reliability-Adjusted Ranking dashboard for ACHs	• Generated in Analysis Reports
• Allows for facility comparison to other ACHs in the U.S.	• Allows for facility comparison to static national baseline
• Adjusts for volume of exposure between facilities as well as risk adjustment	• Risk-adjusted for each facility
• Preferable for ranking facilities	• Used for target setting and for tracking HAIs over time
• Calculated annually by NHSN	• Scalable measure, partially controlled by the individual user
• Displayed as a percentile where lower percentiles imply better performance	• Value of measure is subject to change when data are added, edited, or deleted in NHSN
	• Time period for calculation can be modified by user
	• Used by CMS as part of pay-for-reporting and pay-for-performance programs

NHSN Analysis Report Tree

NHSN Analysis Report Tree

NHSN Analysis Report Tree

Updating Datasets

Generate Data Sets (Patient Safety)

| Reporting Data Sets | Participation Alerts Data Set (Optional) |

Include data for the following time period:

Beginning   **Ending**

01/2015   📅1   12/2022   📅1   ✕ **Clear Time Period**

Generate Reporting Data Sets

Last Generated:
December 5, 2022 5:57 PM
to include data beginning 01/2015 and ending 12/2022

NHSN Analysis Report Tree

NHSN Analysis Report Tree

NHSN Analysis Report Tree

NHSN Analysis Report Tree

NHSN Analysis Report Tree

- HAI Detailed Reports (Line Lists, Rate Tables, etc.)
  - Device-Associated (DA) Module
  - Procedure-Associated (PA) Module
    - All Procedure-Associated Events
      - Line Listing - All Procedure-Associated Events
      - Frequency Table - All Procedure-Associated Events
      - Bar Chart - All Procedure-Associated Events
      - Pie Chart - All Procedure-Associated Events
    - SSIs
      - Line Listing - All SSI Events
      - Frequency Table - All SSI Events
      - Bar Chart - All SSI Events
      - Pie Chart - All SSI Events
      - Rate Table - SSI Data by Procedure and Risk Index
      - Run Chart - SSI Data by Procedure and Risk Index
      - Rate Table - Specific Event SSI Rates by Procedure
      - Run Chart - Specific Event SSI Data by Procedure
      - Rate Table - SSI Data by Surgeon, Procedure, and Risk Index
      - Run Chart - SSI Data by Surgeon, Procedure, and Risk Index
  - HAI Antimicrobial Resistance (DA+PA Modules)
  - MDRO/CDI Module - LABID Events
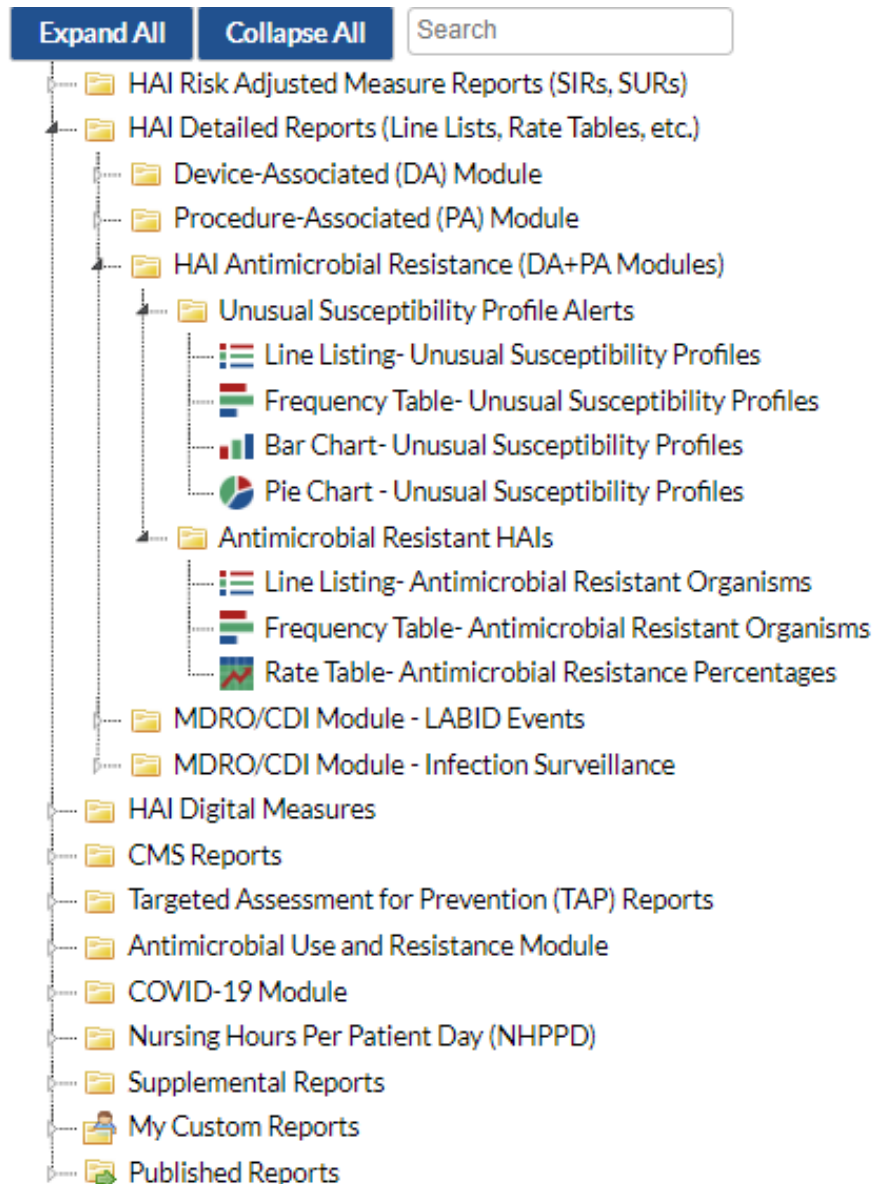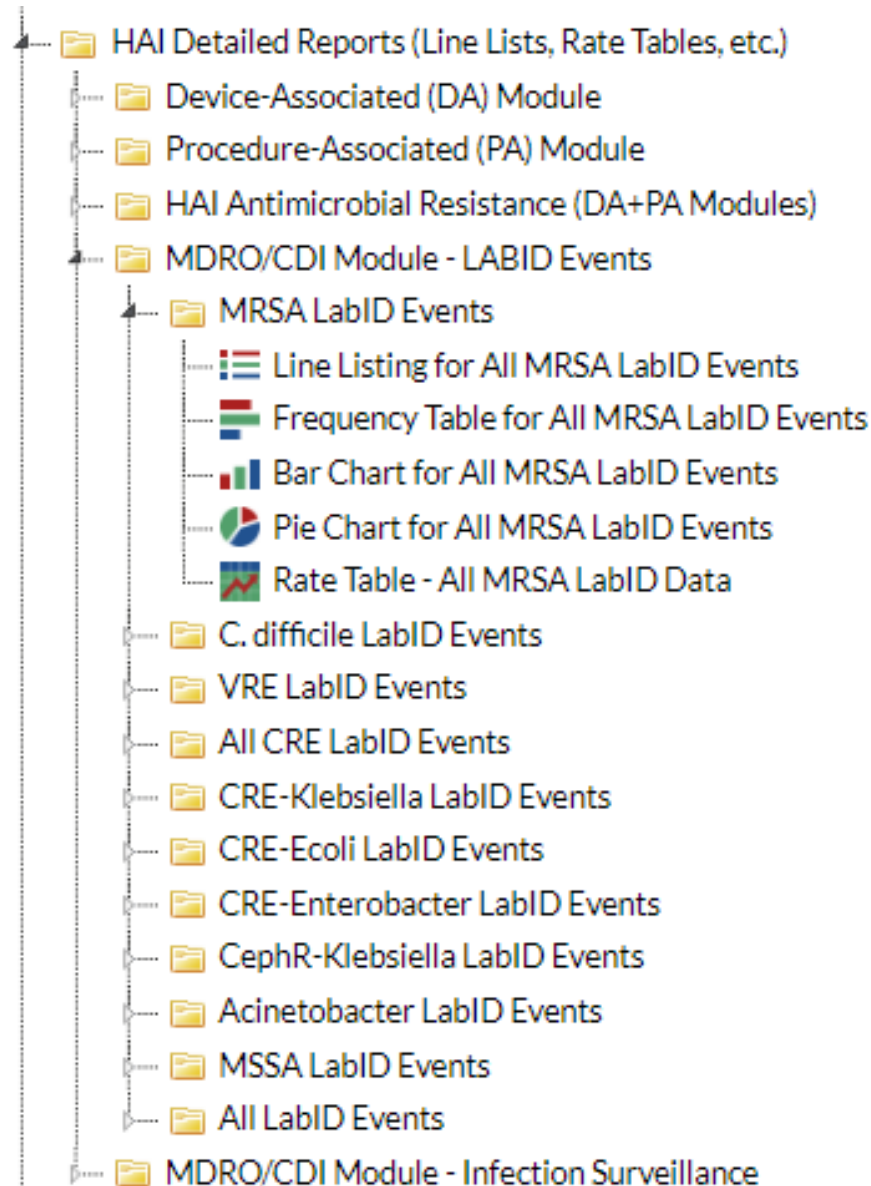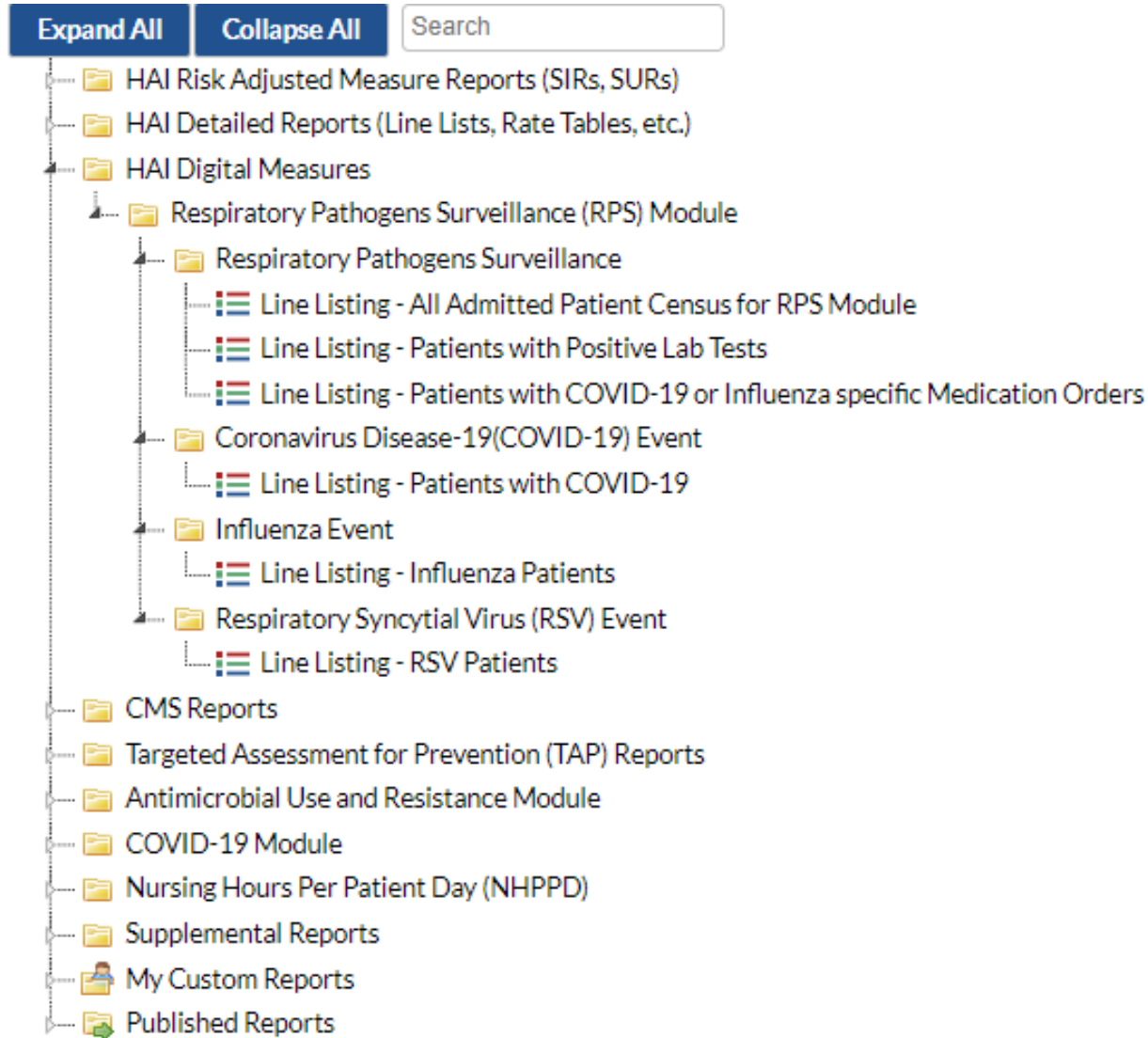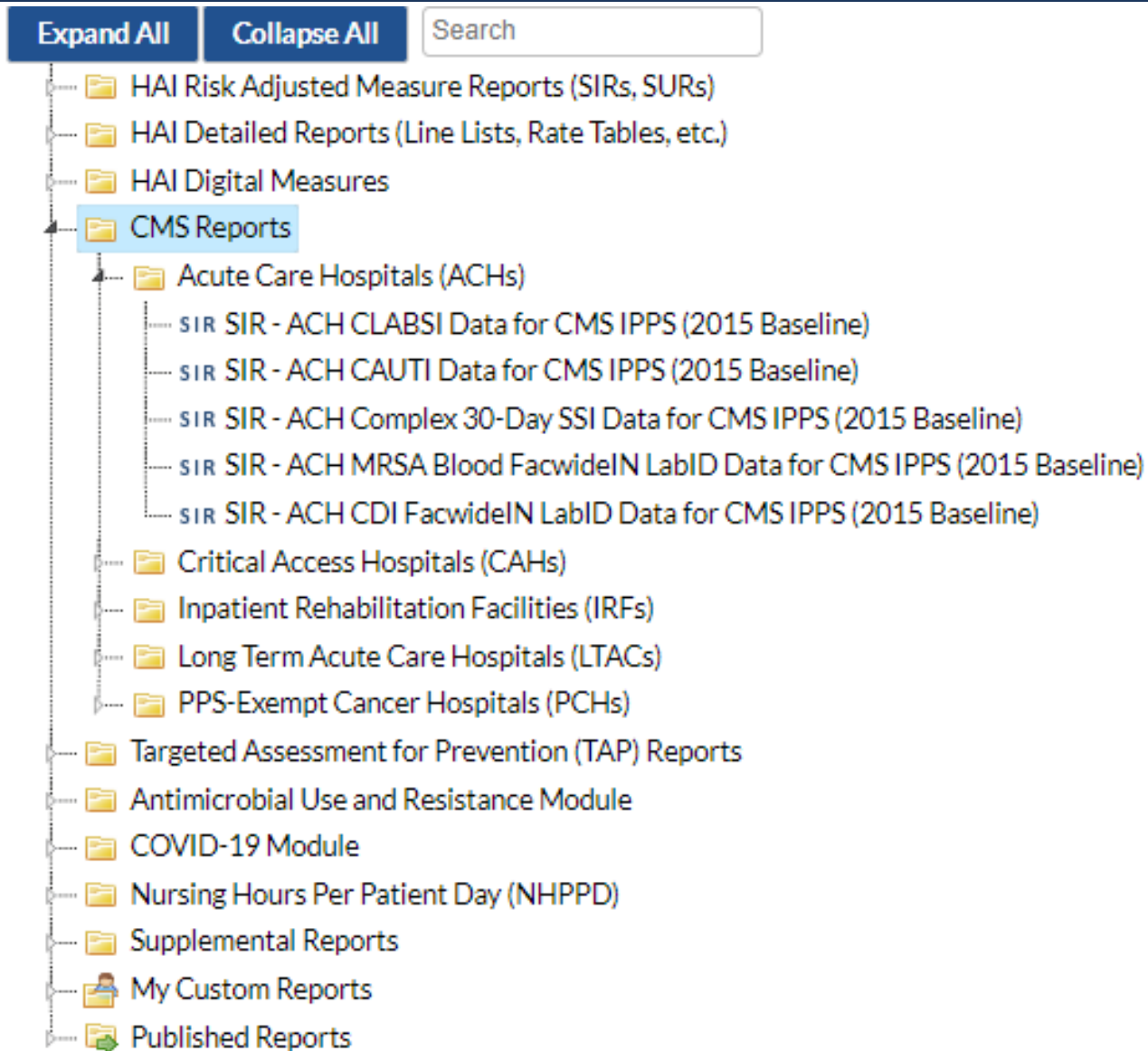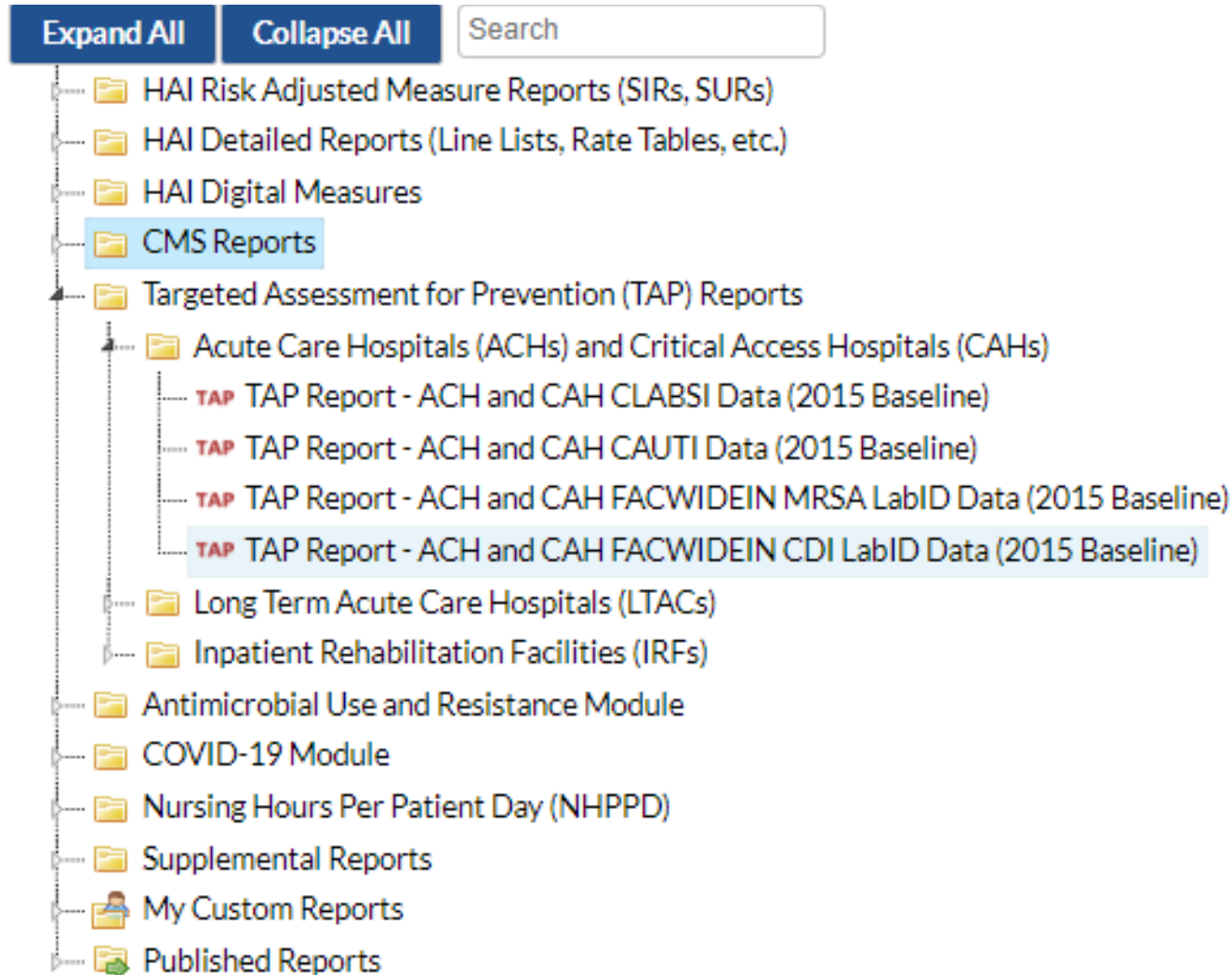 - MDRO/CDI Module - Infection Surveillance

NHSN Analysis Report Tree

NHSN Analysis Report Tree

NHSN Analysis Report Tree

Expand All   Collapse All   Search

- HAI Risk Adjusted Measure Reports (SIRs, SURs)
- HAI Detailed Reports (Line Lists, Rate Tables, etc.)
- HAI Digital Measures
    - Respiratory Pathogens Surveillance (RPS) Module
        - Respiratory Pathogens Surveillance
            - Line Listing - All Admitted Patient Census for RPS Module
            - Line Listing - Patients with Positive Lab Tests
            - Line Listing - Patients with COVID-19 or Influenza specific Medication Orders
        - Coronavirus Disease-19(COVID-19) Event
            - Line Listing - Patients with COVID-19
        - Influenza Event
            - Line Listing - Influenza Patients
        - Respiratory Syncytial Virus (RSV) Event
            - Line Listing - RSV Patients
- CMS Reports
- Targeted Assessment for Prevention (TAP) Reports
- Antimicrobial Use and Resistance Module
- COVID-19 Module
- Nursing Hours Per Patient Day (NHPPD)
- Supplemental Reports
- My Custom Reports
- Published Reports

NHSN Analysis Report Tree

Expand All Collapse All Search

- HAI Risk Adjusted Measure Reports (SIRs, SURs)
- HAI Detailed Reports (Line Lists, Rate Tables, etc.)
- HAI Digital Measures
- CMS Reports
  - Acute Care Hospitals (ACHs)
    - SIR - ACH CLABSI Data for CMS IPPS (2015 Baseline)
    - SIR - ACH CAUTI Data for CMS IPPS (2015 Baseline)
    - SIR - ACH Complex 30-Day SSI Data for CMS IPPS (2015 Baseline)
    - SIR - ACH MRSA Blood FacwideIN LabID Data for CMS IPPS (2015 Baseline)
    - SIR - ACH CDI FacwideIN LabID Data for CMS IPPS (2015 Baseline)
  - Critical Access Hospitals (CAHs)
  - Inpatient Rehabilitation Facilities (IRFs)
  - Long Term Acute Care Hospitals (LTACs)
  - PPS-Exempt Cancer Hospitals (PCHs)
- Targeted Assessment for Prevention (TAP) Reports
- Antimicrobial Use and Resistance Module
- COVID-19 Module
- Nursing Hours Per Patient Day (NHPPD)
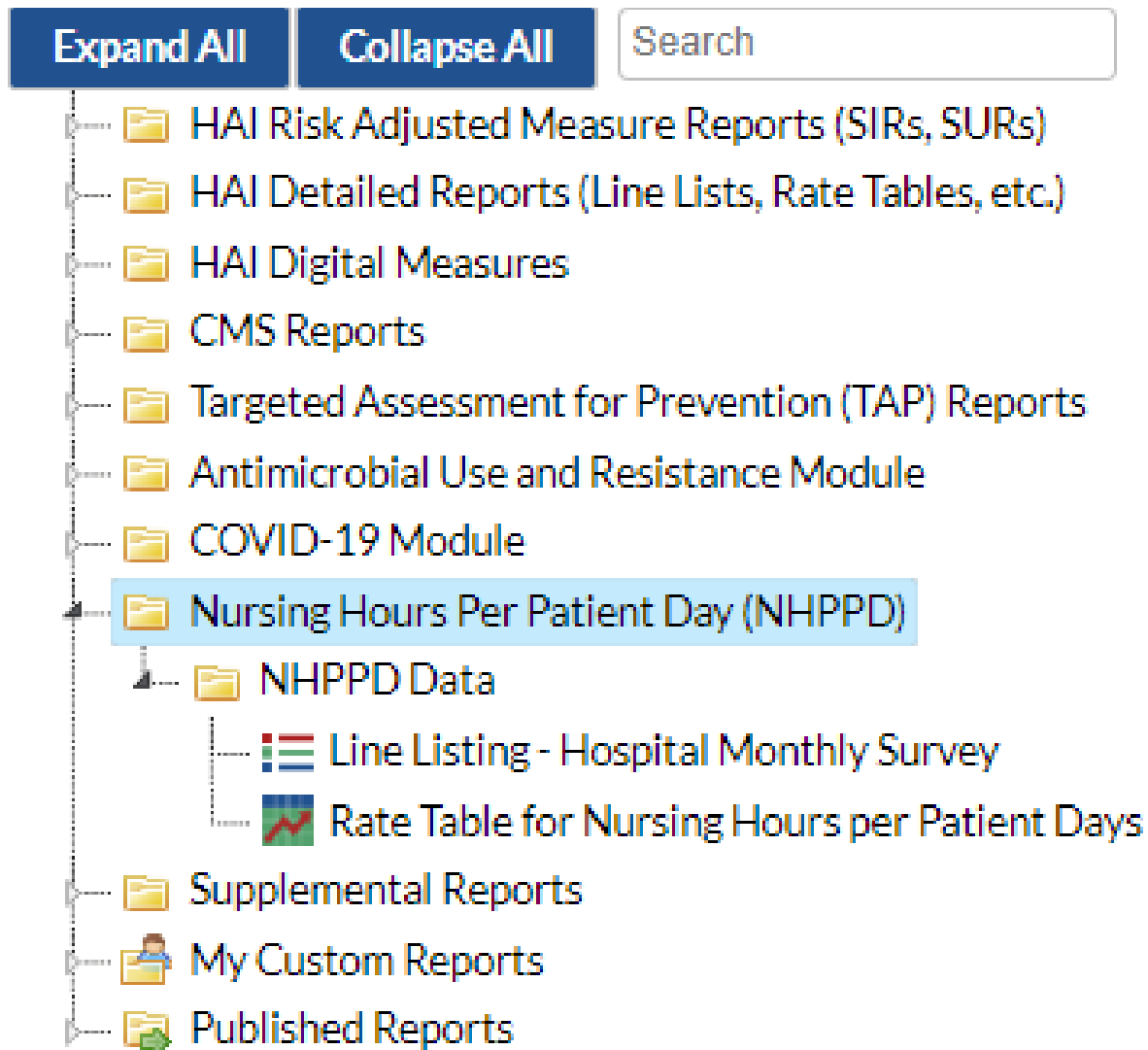- Supplemental Reports
- My Custom Reports
- Published Reports

NHSN Analysis Report Tree

NHSN Analysis Report Tree

NHSN Analysis Report Tree


Expand All | Collapse All | Search

- 📁 HAI Risk Adjusted Measure Reports (SIRs, SURs)
- 📁 HAI Detailed Reports (Line Lists, Rate Tables, etc.)
- 📁 HAI Digital Measures
- 📁 CMS Reports
- 📁 Targeted Assessment for Prevention (TAP) Reports
- 📁 Antimicrobial Use and Resistance Module
- 📁 COVID-19 Module
  - 📁 NHSN Hospital COVID-19 Data
    - Line Listing - Patient Impact and Hospital Capacity
    - Line Listing - Healthcare Worker Staffing Impact
    - Line Listing - Healthcare Supply Impact
- 📁 Nursing Hours Per Patient Day (NHPPD)
- 📁 Supplemental Reports
- 📁 My Custom Reports
- 📁 Published Reports

NHSN Analysis Report Tree

Expand All   Collapse All   Search

📁 HAI Risk Adjusted Measure Reports (SIRs, SURs)

📁 HAI Detailed Reports (Line Lists, Rate Tables, etc.)

📁 HAI Digital Measures

📁 CMS Reports

📁 Targeted Assessment for Prevention (TAP) Reports

📁 Antimicrobial Use and Resistance Module

📁 COVID-19 Module

📁 Nursing Hours Per Patient Day (NHPPD)

   📁 NHPPD Data

      ▤ Line Listing - Hospital Monthly Survey

      📈 Rate Table for Nursing Hours per Patient Days

📁 Supplemental Reports

👤 My Custom Reports

📁 Published Reports

NHSN Analysis Report Tree

Specialized Reports (Data Quality)

- 📁 Data Quality
  - Line Listing - CDI Test Method History
  - Line Listing - Duplicate Procedures
  - Line Listing - Procedures with 0 Duration
  - Line Listing - Duplicate BSI/PNEU/UTI Events
  - Line Listing - Duplicate SSI Events
  - Line Listing - SSIs On Procedure Date
  - Line Listing - Extremely High Incidence of SSI
  - Line Listing - Events Reported with 0 Device Days
- 👤 My Custom Reports
- 📁 Published Reports

Modifying Report (Line Listing)
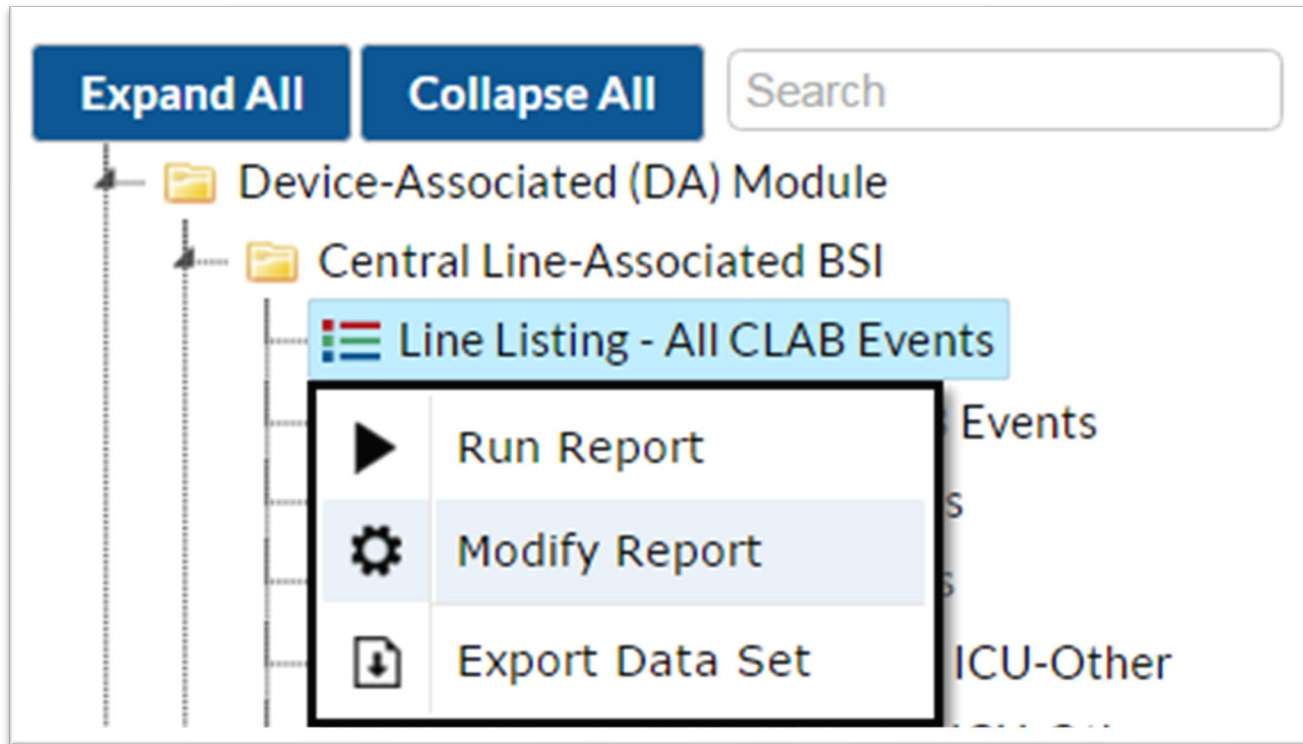
Modifying Report (Line Listing)

Modifying Report (Line Listing)

Modify "Line Listing - All CLAB Events"

☐ Show descriptive variable names (Print List)

Analysis Data Set: CLAB_Events

| Title/Format | **Time Period** | Filters | Display Variables | Sort Variables | Display Options |

Time Period:

Date Variable	Beginning	Ending	
evntDateYQ ▾	2015Q1	2015Q2	✂ Clear Time Period

☐ Enter Date variable/Time period at the time you click the Run button

Modifying Report (Line Listing)

Modify "Line Listing - All CLAB Events"

☐ Show descriptive variable names (Print List)   Analysis Data Set: CLAB_Events   Type: Line Listing

| Title/Format | Time Period | **Filters** | Display Variables | Sort Variables | Display Options |

Additional Filters: ▨ Show   ✂ Clear

AND **OR**

　AND OR

　　location ▾   equal ▾   MICU - MEDICAL ICU ▾

Modifying Report (Line Listing)

Modify "Line Listing - All CLAB Events"

☐ Show descriptive variable names (Print List)   Analysis Data Set: CLAB_Events   Type: Line Listing   Data Set Generated On: 01/25/2017 09:25:00

| Title/Format | Time Period | Filters | **Display Variables** | Sort Variables | Display Options |

Display Variables:

Available Variables:

- evntDateYH
- evntDateYM
- evntDateYQ
- evntDateYr
- evntToDisDays
- id2
- lcbiPath
- lcbiPathDesc
- linkedproc
- locationType
- locCDC
- locCDCDesc
- locLabel
- locStatus
- mbi_lcbi

| All ►► |
| Selected ❯ |
| ◄◄ All |

Add selected variables to the report

Selected Variables:

- orgID
- patID
- dob
- gender
- eventDate
- eventType
- spcEvent
- location

| ∧ Up |
| ∨ Down |
| ↶ Undo |

Modifying Report (Line Listing)

Modify "Line Listing - All CLAB Events"

☐ Show descriptive variable names (Print List)   Analysis Data Set: CLAB_Events   Type: Line Listing   Last Generated: December 5, 2022 5:24 PM

| Title/Format | Time Period | Filters | Display Variables | **Sort Variables** | Display Options |

Sort Variables:

Available Variables:
```
admDateYH
admDateYM
admDateYQ
admDateYr
admitDate
admToDisDays
admToEvntDays
bedsize
birthWtCode
birthWtCodeDesc
cdad
centralLine
clab_exclude
completedFlag
contribDeath
```

All ▶▶
Selected ▶
◀ Selected
◀◀ All

Selected Variables:
```
ageAtEvent
birthWt
CCN
```

∧ Up
∨ Down
↩ Undo

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Modifying Report (Line Listing)

Modify "Line Listing - All CLAB Events"

☐ Show descriptive variable names (Print List)   Analysis Data Set: CLAB_Events   Type: Line Listing   Last Generated: December 5, 2022 5:24 PM

Title/Format	Time Period	Filters	Display Variables	Sort Variables	**Display Options**

Line Listing Options:

Page by variable: [⌄]

- orgID
- patID
- dob
- gender
- sexAtBirth
- genderIdentity
- admitDate
- eventID
- eventDate
- eventType
- spcEvent
- location

Modifying Report (SIR Report)

Modifying Report (SIR Report)

Modify "SIR - Acute Care Hospital CLAB Data"

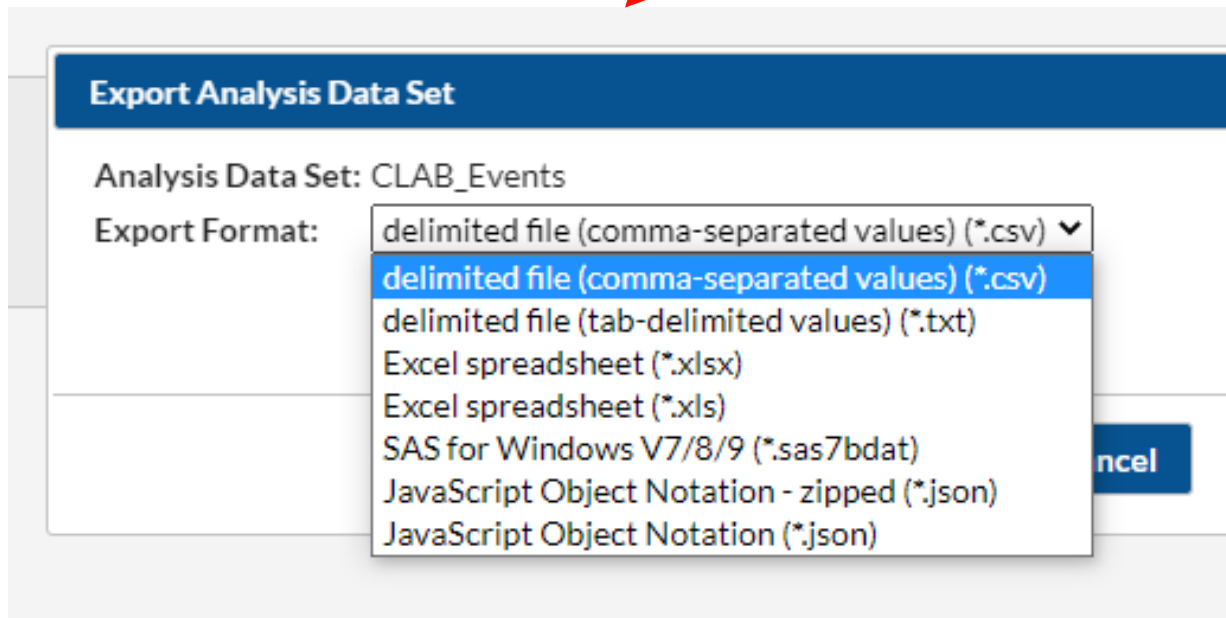☐ Show descriptive variable names (Print List)

| Title/Format | Time Period | Filters | **Display Options** |

SIR Options:

Group by: summaryYH ▼

Cumulative
summaryYH
summaryYM
summaryYQ
summaryYr

Viewing Report

Interpreting Report (SIR Report – Option "Run")

National Healthcare Safety Network
SIR for Central Line-Associated BSI Data for Acute Care Hospitals (2015 baseline) - By OrgID
As of: March 10, 2017 at 9:58 AM
Date Range: BS2_CLAB_RATESALL summaryYr 2015 to 2015

orgID=10000 CCN=32M22222 medType=M

orgID	summaryYQ	infCount	numPred	numcldays	SIR	SIR_pval	sir95ci
10000	2015Q1	4	1.903	1917	2.102	0.1701	0.668, 5.070
10000	2015Q2	4	2.310	2018	1.731	0.2878	0.550, 4.176
10000	2015Q3	0	0.026	32	.	.	
10000	2015Q4	0	0.042	49	.	.	

Creating a Custom Report
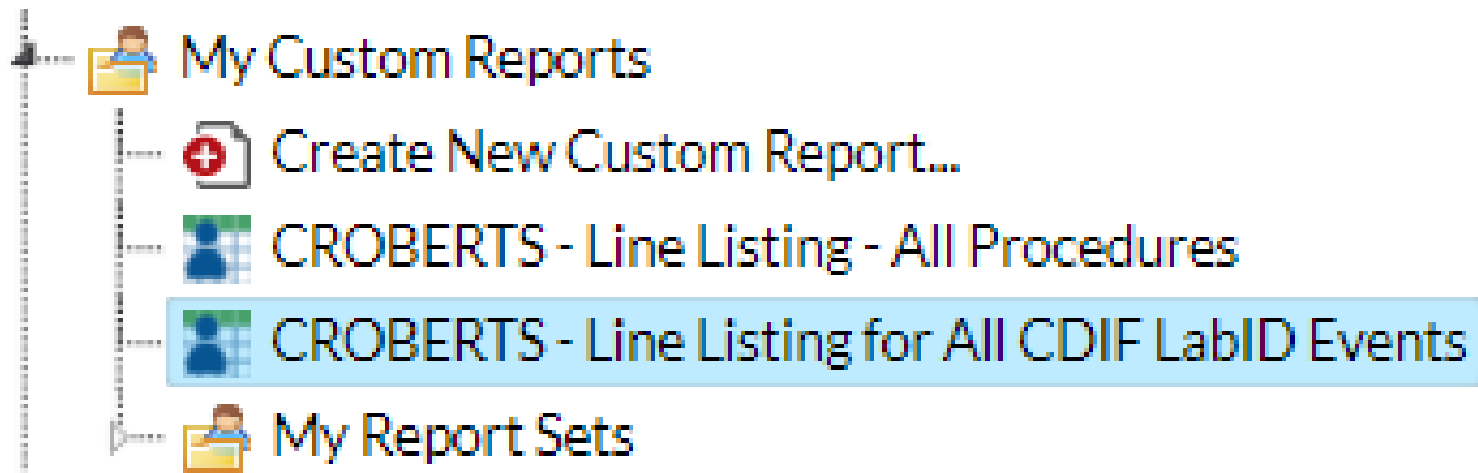
Creating a Custom Report

NHSN Resources

Analysis Tools

- **A Guide to the Standardized Infection Ratio**
- **A Guide to the Standardized Utilization Ratio**
- **AR Option Standardized Resistant Infection Ratio Guide**
- **AR Option Pathogen-specific Standardized Infection Ratio Guide**
- **NHSN Patient Safety Component Analysis Quick References Guides**

General Tools

- **2024 Patient Safety Component Manual**
- **Charting the Course: 2022 NHSN HAI Rebaseline**
- **CDC's Rebaseline Project FAQ**

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Contact

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- **AU/AR Module**
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