

# Introduction to NHSN Analysis

Information for the MDCH SHARP User Group

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# Objectives

- NHSN Toolbar
- Generate datasets
- Helpful hints and tips
- Describe the analysis output options (CDC-Defined Output)
- Demonstrate modifications to the standard output options and exporting your data
- Explain analysis interpretations
- Introduce Standardized Infection Ratios (SIR)

# NHSN Toolbar

- Analysis
  - Generate Data Sets – first step
  - Output Options – where you'll be performing analyses

The screenshot shows the NHSN web application interface. At the top left is the CDC logo. To its right, the text reads "Department of Health and Human Services" and "Centers for Disease Control and Prevention". Below this, a blue navigation bar contains "NHSN - National Healthcare Safety Network" and "NHSN Home". The main content area is divided into a left sidebar and a main panel. The sidebar, titled "NHSN Home", lists several menu items: "Reporting Plan", "Event", "Procedure", "Summary Data", "Analysis", "Surveys", "Users", "Group", and "Log Out". Under the "Analysis" section, three items are listed: "Generate Data Sets", "Output Options", and "Statistics Calculator". The "Generate Data Sets" and "Output Options" items are circled in red. The main panel displays the heading "NHSN Patient Safety Component Hon" and a sub-heading "Use the Navigation bar on the left to access the feature". Below this, there is a section titled "Assurance of Confidentiality" with a paragraph of text. At the bottom of the main panel, a red dashed box contains the text "NHSN maintenance may occur nightly between 12am and 6am Eastern time." Below this box is a small icon for Adobe Reader and a link that says "Get Adobe Acrobat Reader for PDF files".

# Generate Datasets

- First step in performing analysis in NHSN
  - Organizes data into defined set
  - “Freezes” data until next report generation
- Each user has his/her own analysis dataset
- May take several minutes
  - While it is loading, you will have a message on your screen with instructions to not close this page. You can minimize it and continue working, but do not close the loading page or shut off your computer during this time.

# Generate Datasets

- You will see:

Generate Data Sets

Generate Patient Safety Analysis Data Sets

Date Last Generated	Action
Aug 16 2011 9:18AM	Generate New

The data set generation process will take several minutes. Do not logoff or is running. You may minimize the browser window and work in other appl

Back

**Generate new data sets?**

Your rights have changed. New rights will be applied when new data sets are generated. Would you like to generate new data sets now?

Yes, generate new data sets

No, leave existing data sets

- The date that you last generated a new dataset.
- If no new data has been added, you won't need to generate a new dataset.
- If you have added new information since your last generation, you will receive the pop-up message shown on this screen. You can decide which option to choose.

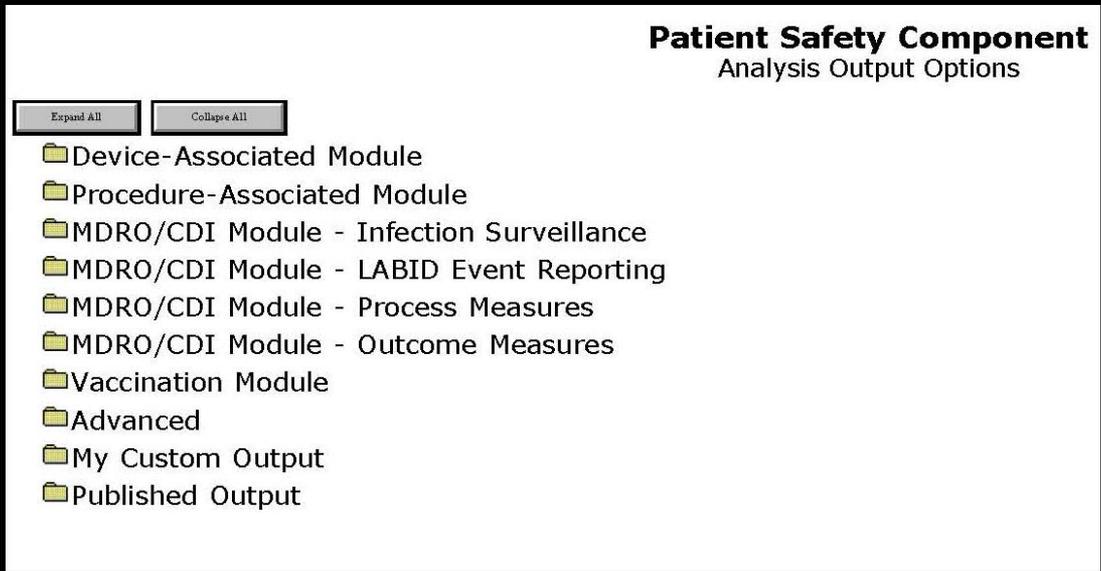
# Helpful Hints and Tips

- Only generate new datasets if you want to include the data most recently input
  - An individual facility will probably want to generate a new dataset every time
- Always use the NHSN back button at the bottom of the screen – NOT your internet back button
- Don't be afraid to play around – you won't hurt any of your data!

# CDC-Defined Output

## After generating datasets

- This is the analysis treeview
  - Press “expand all” to see all of the possible analysis options within this section of NHSN
  - Press “collapse all” to bring the expanded folders back to the picture on this screen
  - Click on any of the folders to expand them individually
    - This will bring you to a “CDC Output” folder, which you can expand further to conduct your analyses



**Patient Safety Component**  
Analysis Output Options

Expand All Collapse All

- Device-Associated Module
- Procedure-Associated Module
- MDRO/CDI Module - Infection Surveillance
- MDRO/CDI Module - LABID Event Reporting
- MDRO/CDI Module - Process Measures
- MDRO/CDI Module - Outcome Measures
- Vaccination Module
- Advanced
- My Custom Output
- Published Output

The screenshot shows a software interface for the Patient Safety Component. At the top right, the title 'Patient Safety Component' is displayed in bold, with 'Analysis Output Options' below it. On the left side, there are two buttons: 'Expand All' and 'Collapse All'. Below these buttons is a list of folders, each represented by a small folder icon. The folders are: 'Device-Associated Module', 'Procedure-Associated Module', 'MDRO/CDI Module - Infection Surveillance', 'MDRO/CDI Module - LABID Event Reporting', 'MDRO/CDI Module - Process Measures', 'MDRO/CDI Module - Outcome Measures', 'Vaccination Module', 'Advanced', 'My Custom Output', and 'Published Output'.

# Available Outputs

- **Linelist:**
  - **Linelist:** Provides detailed information on different aspects of the data you're observing
  - You can create a Linelist within:
    - Device-Associated Modules
    - Procedure-Associated Modules
    - MDRO/CDI Modules: LabID and Surveillance Reporting
    - Vaccination Module
    - Advanced Module

# Linelist - CLABSI

**Patient Safety Component**  
Analysis Output Options

Expand All   Collapse All

- Device-Associated Module
  - All Device-Associated Events
  - Central Line-Associated BSI
    - CDC Defined Output
      - Line Listing - All CLAB Events**   Run   Modify
      - Frequency Table - All CLAB Events   Run   Modify
      - Bar Chart - All CLAB Events   Run   Modify
      - Pie Chart - All CLAB Events   Run   Modify
      - Rate Table - CLAB Data for ICU-Other   Run   Modify
      - Run Chart - CLAB Data for ICU-Other   Run   Modify
      - Rate Table - UCAB/CLAB Data for NICU   Run   Modify
      - Run Chart - UCAB/CLAB Data for NICU   Run   Modify
      - Rate Table - CLAB Data for SCA   Run   Modify
      - Run Chart - CLAB Data for SCA   Run   Modify
      - SIR - In-Plan CLAB Data   Run   Modify
      - SIR - All CLAB Data   Run   Modify

# Available Outputs

- Rate Table:
  - **Rate Table:** Provides information to calculate rates within your data as well as basic aggregate rates calculated by NHSN
  - You can create a Rate Table within:
    - All Device-Associated Modules
    - Procedure-Associated Module: Specific Procedures
    - MDRO/CDI: All Specific LabID or Infection Surveillance Modules
    - MDRO/CDI: All Process and Outcome Measures
    - Vaccination Module
    - Advanced Module:
      - Event-Level Data
      - Procedure-Level Data
      - Summary-Level Data

# Rate Table - CLABSI

**Patient Safety Component**  
Analysis Output Options

Expand All Collapse All

- Device-Associated Module
  - All Device-Associated Events
  - Central Line-Associated BSI
    - CDC Defined Output
      - Line Listing - All CLAB Events
      - Frequency Table - All CLAB Events
      - Bar Chart - All CLAB Events
      - Pie Chart - All CLAB Events
      - Rate Table - CLAB Data for ICU-Other
      - Run Chart - CLAB Data for ICU-Other
      - Rate Table - UCAB/CLAB Data for NICU
      - Run Chart - UCAB/CLAB Data for NICU
      - Rate Table - CLAB Data for SCA
      - Run Chart - CLAB Data for SCA
      - SIR - In-Plan CLAB Data
      - SIR - All CLAB Data

Set  
S  
ulate

Line Listing - All CLAB Events	Run	Modify
Frequency Table - All CLAB Events	Run	Modify
Bar Chart - All CLAB Events	Run	Modify
Pie Chart - All CLAB Events	Run	Modify
Rate Table - CLAB Data for ICU-Other	Run	Modify
Run Chart - CLAB Data for ICU-Other	Run	Modify
Rate Table - UCAB/CLAB Data for NICU	Run	Modify
Run Chart - UCAB/CLAB Data for NICU	Run	Modify
Rate Table - CLAB Data for SCA	Run	Modify
Run Chart - CLAB Data for SCA	Run	Modify
SIR - In-Plan CLAB Data	Run	Modify
SIR - All CLAB Data	Run	Modify

# Available Outputs

- **Bar Chart/Pie Chart:**
  - **Chart:** Provides basic bar and pie charts – if you want more advanced graphing capabilities, it is recommended to export your data to excel or other programs
  - You can create charts within:
    - All Device-Associated Events
    - All Procedure-Associated Events
    - MDRO/CDI Module:
      - Infection Surveillance
      - LabID Event Reporting
    - Vaccination Module
    - Advanced Module
      - Summary-Level Data

# Charts - CLABSI

**Patient Safety Component**  
Analysis Output Options

Expand All Collapse All

- Device-Associated Module
  - All Device-Associated Events
  - Central Line-Associated BSI
    - CDC Defined Output
      - Line Listing - All CLAB Events
      - Frequency Table - All CLAB Events
      - Bar Chart - All CLAB Events
      - Pie Chart - All CLAB Events
      - Rate Table - CLAB Data for ICU-Other
      - Run Chart - CLAB Data for ICU-Other
      - Rate Table - UCAB/CLAB Data for NICU
      - Run Chart - UCAB/CLAB Data for NICU
      - Rate Table - CLAB Data for SCA
      - Run Chart - CLAB Data for SCA
      - SIR - In-Plan CLAB Data
      - SIR - All CLAB Data

# Available Outputs

- Frequency Table:
  - **Frequency Table:** Provides frequency of a variable compared to another variable (example: number of MRSA cases at different onset times)
  - You can create Frequency Tables within:
    - All Device-Associated Modules
    - All Procedure-Associated Modules
    - MDRO/CDI Module:
      - Infection Surveillance
      - LabID Event Reporting
    - Vaccination Module
    - Advanced Module
      - Event-Level Data
      - Procedure-Level Data

# Frequency Table - CLABSI

**Patient Safety Component**  
Analysis Output Options

Expand All Collapse All

- Device-Associated Module
  - All Device-Associated Events
  - Central Line-Associated BSI
    - CDC Defined Output
      - ~~Line Listing - All CLAB Events~~
      - Frequency Table - All CLAB Events**
      - Bar Chart - All CLAB Events
      - Pie Chart - All CLAB Events
      - Rate Table - CLAB Data for ICU-Other
      - Run Chart - CLAB Data for ICU-Other
      - Rate Table - UCAB/CLAB Data for NICU
      - Run Chart - UCAB/CLAB Data for NICU
      - Rate Table - CLAB Data for SCA
      - Run Chart - CLAB Data for SCA
      - SIR - In-Plan CLAB Data
      - SIR - All CLAB Data

<del>Line Listing - All CLAB Events</del>	Run	Modify
<b>Frequency Table - All CLAB Events</b>	Run	Modify
Bar Chart - All CLAB Events	Run	Modify
Pie Chart - All CLAB Events	Run	Modify
Rate Table - CLAB Data for ICU-Other	Run	Modify
Run Chart - CLAB Data for ICU-Other	Run	Modify
Rate Table - UCAB/CLAB Data for NICU	Run	Modify
Run Chart - UCAB/CLAB Data for NICU	Run	Modify
Rate Table - CLAB Data for SCA	Run	Modify
Run Chart - CLAB Data for SCA	Run	Modify
SIR - In-Plan CLAB Data	Run	Modify
SIR - All CLAB Data	Run	Modify

# Available Outputs

- SIR
  - Provides the Standardized Infection Ratio for your facility for specific outcomes
  - You can create SIRs within:
    - Device-Associated Module:
      - CLABSI
    - Procedure-Associated Module:
      - SSI
- \*Note: this is currently what is available – these options may be made available for more modules as more facilities participate with NHSN

# SIR - CLABSI

## Patient Safety Component

Analysis Output Options

Expand All

Collapse All

Device-Associated Module

All Device-Associated Events

Central Line-Associated BSI

CDC Defined Output

Line Listing - All CLAB Events

Run

Modify

Frequency Table - All CLAB Events

Run

Modify

Bar Chart - All CLAB Events

Run

Modify

Pie Chart - All CLAB Events

Run

Modify

Rate Table - CLAB Data for ICU-Other

Run

Modify

Run Chart - CLAB Data for ICU-Other

Run

Modify

Rate Table - UCAB/CLAB Data for NICU

Run

Modify

Run Chart - UCAB/CLAB Data for NICU

Run

Modify

Rate Table - CLAB Data for SCA

Run

Modify

Run Chart - CLAB Data for SCA

Run

Modify

SIR - In-Plan CLAB Data

Run

Modify

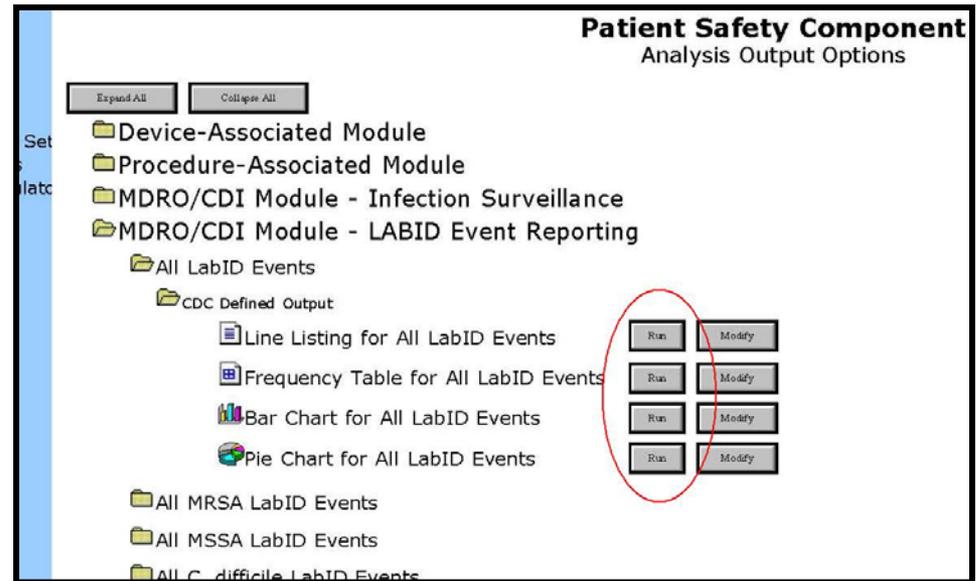
SIR - All CLAB Data

Run

Modify

# CDC-Defined Output

- Click “Run” to view any analysis with pre-defined settings
  - This will provide a cumulative output
  - Clicking only the “Run” button will produce a pop-up output screen of the output (linelist, frequency table, etc...) with all default specifications



# Modify the Output

**Patient Safety Component**  
Analysis Output Options

Expand All Collapse All

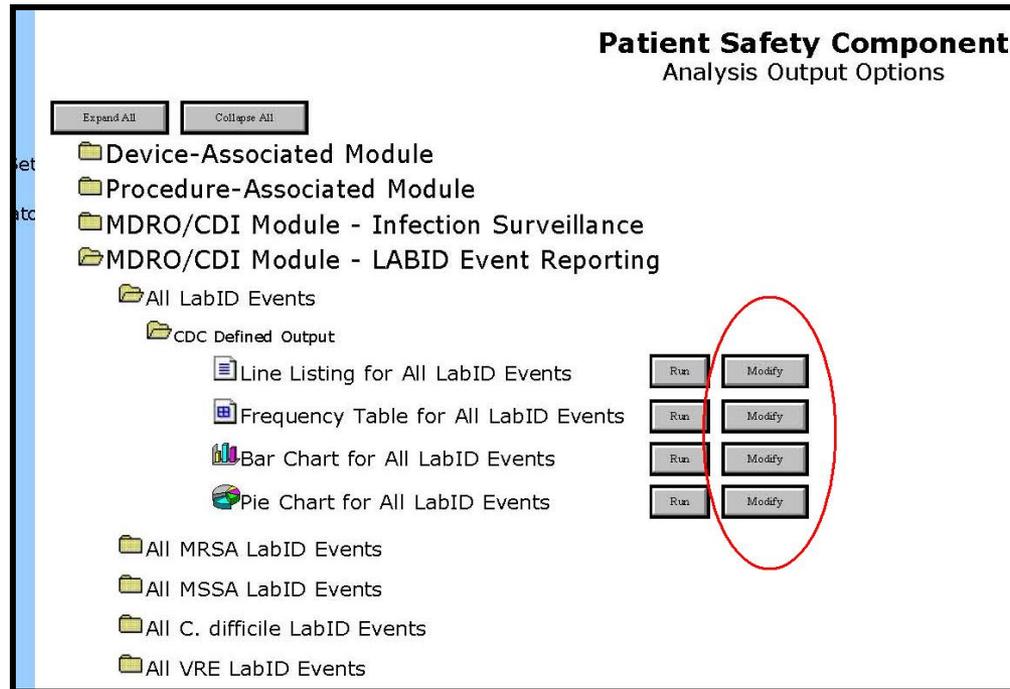
- Device-Associated Module
- Procedure-Associated Module
- MDRO/CDI Module - Infection Surveillance
- MDRO/CDI Module - LABID Event Reporting
  - All LabID Events
    - CDC Defined Output
      - Line Listing for All LabID Events
      - Frequency Table for All LabID Events
      - Bar Chart for All LabID Events
      - Pie Chart for All LabID Events
    - All MRSA LabID Events
    - All MSSA LabID Events
    - All C. difficile LabID Events
    - All VRE LabID Events

Run Modify

Run Modify

Run Modify

Run Modify



- Click “Modify” to change the settings of your output
  - This will allow you to change the time period, variables, and sort your output
  - You can export your data after modifications (rather than just having a pop-up output screen)

# Modification Screen

- Entire Modification Screen
  - This sample is from a “line listing” output type
  - We will cover the modification screen in three sections:
    - Attributes (top part)
    - Filter (middle part)
    - Run/Export (bottom part – not shown here)

NHSN 6.4.2.4 Analysis

 Department of Health and Human Services  
Centers for Disease Control and Prevention

NHSN - National Healthcare Safety Network | [NHSN Home](#) | [My Info](#) | [Contact us](#) | [Help](#) | [Log Out](#)

Logged into MDCH\_SHARP (ID 14793) as GIBS/CH44.  
Facility NHSN State Users Test Facility #2 (ID 15165) is following the PS component.

## Line Listing

Analysis Data Set: LabID\_Events

---

**Modify Attributes of the Output:**

Last Modified On: 08/16/2011

Output Type: **Line Listing**

Output Name:

Output Title:

---

**Select output format:**

Output Format:

Use Variable Labels

---

**Select a time period or Leave Blank for Cumulative Time Period:**

Date Variable:  Beginning:  Ending:

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

---

**Specify Other Selection Criteria:**

[Show Criteria](#) [Column +](#) [Row +](#) [Clear Criteria](#)



---

**Other Options:** [Print Variable Reference List](#)

Modify Variables To Display By Clicking: [Modify List](#)

Specify Sort Variables By Clicking: [Modify List](#)

Select Page by variable:

[https://sdn7.cdc.gov/nhsn/analysisrequest.do\(9/15/2011 2:21:39 PM\)](https://sdn7.cdc.gov/nhsn/analysisrequest.do(9/15/2011 2:21:39 PM))

# Modification Screen

- Attributes (section 1):
  - Output Name: If you export your data, this will change the file name. You can leave this as-is, or type in your own created name.
  - Output Title: If you run or export your data, this will change the title at the top of the page. You can leave this as-is, or type in your own created title.
  - Output Format: Default is HTML
    - Allow pop-ups from .cdc.gov when you are using HTML format

**Line Listing**

Analysis Data Set: LabID\_Events

---

**Modify Attributes of the Output:**

Last Modified On: 08/16/2011

Output Type: **Line Listing**

Output Name:

Output Title:

---

**Select output format:**

Output Format:

Use Variable Labels

# Modification Screen

- Filter (Section 2)
  - Date variable:
    - Can specify by specific date, month, quarter, half year, or full year. These variables are found in a drop-down menu under “Date Variable”.
  - Other Selection Criteria
    - Can filter by location, event type, age of patient, etc... These variables and options can be found in a drop-down menu in the table.
  - Other Options
    - These are different for linelist, rate, graph, etc... (the displayed sample is from a linelist output)

Select a time period or Leave Blank for Cumulative Time Period:

Date Variable  Beginning  Ending

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

---

**Specify Other Selection Criteria:**

[Show Criteria](#) [Column +](#) [Row +](#) [Clear Criteria](#)



---

**Other Options:**

Modify Variables To Display By Clicking: [Modify List](#)

Specify Sort Variables By Clicking: [Modify List](#)

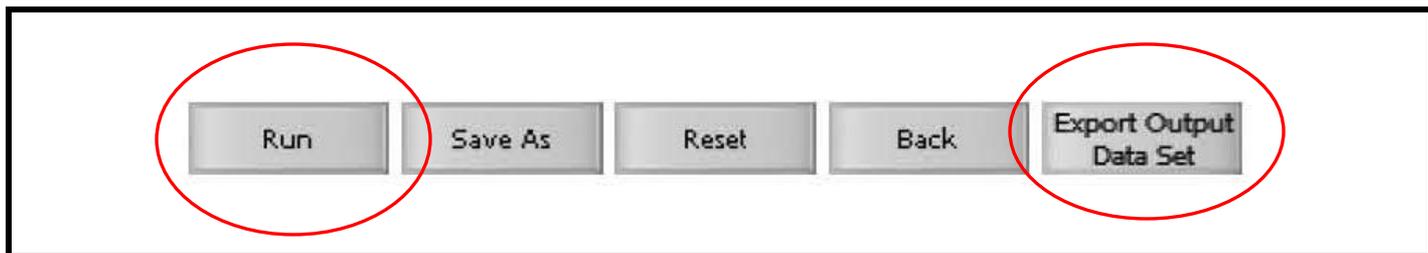
Select Page by variable:

# Exporting Data

- **Run/Export (Section 3)**
- At the top of the screen:
  - “Export Analysis Data Set”: will export all data as-is without any modifications or NHSN aggregate data (generally not recommended)



- At the bottom of the screen:
  - Click “Run”: will provide a new screen with output
  - Click “Save As”: will save your modifications for later use
  - Click “Export Output Data Set”: will export your data in a format of your choice
  - Clicking on the bottom “Export Output Data Set” is recommended!



# Analysis

- Now that you've output your data...  
...what does it mean??

# Analysis

- **Linelist:** Provides detailed information on different aspects of the data you're observing
- **Rate Table:** Provides information to calculate rates within your data as well as basic aggregate rates calculated by NHSN
- **Chart:** Provides basic bar and pie charts – if you want more advanced graphing capabilities, it is recommended to export your data to excel or other programs
- **Frequency Table:** Provides frequency of a variable compared to another variable (example: number of MRSA cases at different onset times)
- **SIR:** Provides the Standardized Infection Ratio for your facility for specific outcomes

# Linelist – Screen Shot of Modifications

 Department of Health and Human Services  
Centers for Disease Control and Prevention

NHSN - National Healthcare Safety Network | NHSN Home | My Info | Contact us | Help | Log Out

Logged into NHSN State Users Test Facility #2 (ID 15165) as AGIBSON.  
Facility NHSN State Users Test Facility #2 (ID 15165) is following the PS component.

## Line Listing

**Analysis Data Set: DA\_Events**

---

**Modify Attributes of the Output:**

Last Modified On: **09/27/2011**

Output Type: **Line Listing**

Output Name:

Output Title:

---

**Select output format:**

Output Format:

Use Variable Labels

---

**Select a time period or Leave Blank for Cumulative Time Period:**

Date Variable Beginning Ending

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

---

**Specify Other Selection Criteria:**

[Show Criteria](#) [Column +](#) [Row +](#) [Clear Criteria](#)

AgeAllEvent				
> 30				

---

**Other Options:** [Print Variable Reference List](#)

Modify Variables To Display By Clicking: [Modify List](#)

Specify Sort Variables By Clicking: [Modify List](#)

Select Page by variable:

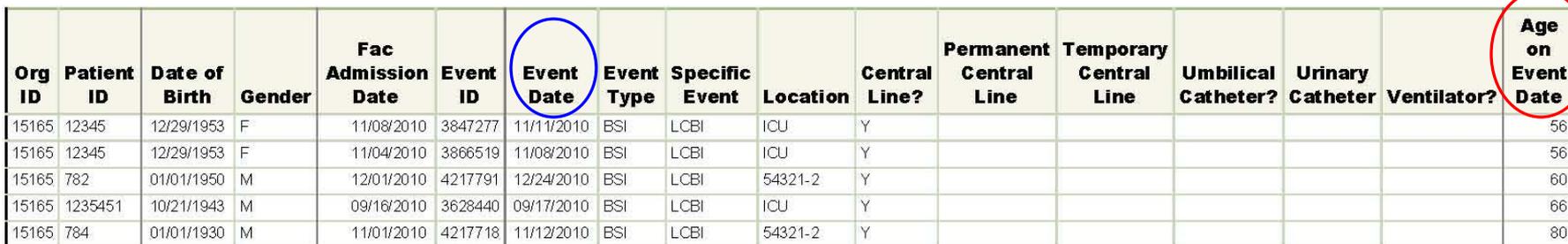
# Linelist – Screen Shot

NHSN Output - Sample Facility

## National Healthcare Safety Network Sample Facility

As of: September 29, 2011 at 2:20 PM

Date Range: DA\_EVENTS evtDateYQ 2010Q3 to 2010Q4



Org ID	Patient ID	Date of Birth	Gender	Fac Admission Date	Event ID	Event Date	Event Type	Specific Event	Location	Central Line?	Permanent Central Line	Temporary Central Line	Umbilical Catheter?	Urinary Catheter	Ventilator?	Age on Event Date
15165	12345	12/29/1953	F	11/08/2010	3847277	11/11/2010	BSI	LCBI	ICU	Y						56
15165	12345	12/29/1953	F	11/04/2010	3866519	11/08/2010	BSI	LCBI	ICU	Y						56
15165	782	01/01/1950	M	12/01/2010	4217791	12/24/2010	BSI	LCBI	54321-2	Y						60
15165	1235451	10/21/1943	M	09/16/2010	3628440	09/17/2010	BSI	LCBI	ICU	Y						66
15165	784	01/01/1930	M	11/01/2010	4217718	11/12/2010	BSI	LCBI	54321-2	Y						80

Sorted by eventType ageAtEvent

Data contained in this report were last generated on September 27, 2011 at 11:54 AM.

# Rate Table – Screen Shot of Modifications

**CDC** Department of Health and Human Services  
Centers for Disease Control and Prevention

NHSN - National Healthcare Safety Network | NHSN Home | My Info | Contact us | Help | Log Out

Logged into NHSN State Users Test Facility #2 (ID 15165) as AGIBSCFN.  
Facility NHSN State Users Test Facility #2 (ID 15165) is following the PS component.

**NHSN Home**  
Reporting Plan  
Patient  
Event  
Procedure  
Summary Data  
Import/Export  
Analysis  
Generate Data Sets  
Output Options  
Statistics Calculator

**Analysis Rate Table**

Analysis Data Set: DA\_Rates

**Modify Attributes of the Output:**  
Last Modified On: 09/27/2011  
Output Type: **Rate Table**  
Output Name:   
Output Title:

**Select output format:**  
Output Format:   
 Use Variable Labels

**Select a time period or Leave Blank for Cumulative Time Period:**  
Date Variable:  Beginning:  Ending:    
 Enter Date variable/Time period at the time you click the Run button

**Specify Other Selection Criteria:**  
[Show Criteria](#) [Column +](#) [Row +](#) [Clear Criteria](#)

<input type="text" value="weekdays"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
> 10				

**Other Options:** [Print Variable Reference List](#)  
Group by:   
 Show Histogram

# Rate Table – Screen Shot

NHSN Output - Rate Table for All Device-Associated Data

## National Healthcare Safety Network Rate Table for All Device-Associated Data

As of: ~~September 28, 2011~~ at 2:29 PM

Date Range: DA\_RATES summaryYr 2011 to 2011

### Device-Associated Rates

orgID=15165 loccdc=IN:ACUTE:CC:S location=3N - SICU

evnttype	inf	numddays	rate	NHSN_mean	IDR_pval	IDR_pctl
CAU (cath assoc UTI)	1	720	1.389	2.6	0.4420	40
CLAB (central line assoc BSI)	0	356	0.000	1.8	0.5359	10
VAP (vent assoc PNEU)	0	200	0.000	3.8	0.4717	10

Source of aggregate data: NHSN Report, Am J Infect Control 2011;39:349-367

Data contained in this report were last generated on September 27, 2011 at 11:54 AM.

Device-specific rates will only be generated for time periods with reported device days

## National Healthcare Safety Network Rate Table for All Device-Associated Data

As of: ~~September 29, 2011~~ at 2:29 PM

Date Range: DA\_RATES summaryYr 2011 to 2011

### Device Utilization Ratios

orgID=15165 loccdc=IN:ACUTE:CC:S location=3N - SICU

device	numpatdays	DU	NHSNdu_mean	P_pval	P_pctl
Urinary Catheter	1450	0.497	0.79	0.0000	8
Central Line	1450	0.246	0.60	0.0000	6
Ventilator	1450	0.138	0.40	0.0000	4

Source of aggregate data: NHSN Report, Am J Infect Control 2011;39:349-367

Data contained in this report were last generated on September 27, 2011 at 11:54 AM.

Device-specific rates will only be generated for time periods with reported device days

# Interpreting Your Analysis

- Rate Tables
  - Example: Device-Associated Module
    - **Eventtype**: which type of event is being analyzed
    - **Inf**: number of infections in your facility
    - **Numddays**: number of device days in your facility
    - **Rate**: your facility's rate per 1,000 device days
    - **NHSN mean**: NHSN rate per 1,000 device days in a facility/unit like your own (source of the aggregate data will be on the footer for each rate table)

# Interpreting Your Analysis

- Example: Device-Associated Module
  - **Incidence Density P-value**: demonstrates if your rate is significantly different from the national rate. It is common practice that if a p-value is  $<0.05$ , the values are considered significantly different (either higher or lower) than your hypothesized variable (typically the national value, especially in NHSN calculations).
  - **Incidence Density Percentile**: what percentile your data is in all of NHSN. For example, if your Incidence Density Percentile is 23, then your value is in the 23<sup>rd</sup> percentile nationally. This means that you have a higher value than 22% of all facilities, and 77% of facilities have a higher value than your facility.

# Interpreting Your Analysis

- Example: Device-Associated Module
  - **Device**: Which device is being analyzed
  - **Numpatdays**: number of patient days in your facility
  - **DU** (Device Utilization Ratio):  
device days / patient days (in your facility)
  - **NHSN DU Mean**: NHSN DU from the aggregate data shown at the footer of the rate table
  - **P-value**: test to see if your facility's DU is significantly different from the NHSN DU
  - **P-percentile**: the percentile your facility's DU ranks in all of NHSN

# SIR

- Standardized Infection Ratio (SIR)
  - $SIR = \text{observed \# infections} / \text{predicted \# infections}$
  - More NHSN SIR information can be found at:  
[www.cdc.gov/nhsn/PDFs/Newsletters/NHSN\\_NL\\_OCT\\_2010SE\\_final.pdf](http://www.cdc.gov/nhsn/PDFs/Newsletters/NHSN_NL_OCT_2010SE_final.pdf)
  - Currently, MDCH analyzes SIR data from CLABSIs and SSIs
  - Output Modifications: Similar to all other output modifications (linelist, rate table, etc...)

# SIR – Screen Shot of Modifications

 Department of Health and Human Services  
Centers for Disease Control and Prevention

NHSN – National Healthcare Safety Network | NHSN Home | My Info | Contact us | Help | Log Out

Logged into NHSN State Users Test Facility #2 (ID 15165) as AGIBSON.  
Facility NHSN State Users Test Facility #2 (ID 15165) is following the PS component.

## Analysis SIR

**Analysis Data Set:** CLAB\_RatesICU

---

**Modify Attributes of the Output:**

Last Modified On: 09/27/2011

Output Type: **SIR**

Output Name:

Output Title:

---

**Select output format:**

Output Format:

Use Variable Labels

---

**Select a time period or Leave Blank for Cumulative Time Period:**

Date Variable    Beginning    Ending

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

---

**Specify Other Selection Criteria:**

[Show Criteria](#)   [Column +](#)   [Row +](#)   [Clear Criteria](#)



---

**Other Options:** [Print Variable Reference List](#)

Group by:

# SIR – Screen Shot of Output

## National Healthcare Safety Network SIR for All Central Line-Associated BSI Data - By OrgID

As of: September 29, 2011 at 2:40 PM  
Date Range: CLAB\_RATESALL summaryYr 2010 to 2011

orgid=15165

orgid	infCount	numExp	numCLDays	SIR	SIR_pval	SIR95CI
15165	4	2.149	969	1.861	0.1707	0.507, 4.766

If infCount in this table is less than you reported, aggregate data are not available to calculate numExp.  
Lower bound of 95% Confidence Interval only calculated if infCount > 0. SIR values only calculated if numExp >= 1.  
Source of aggregate data: NHSN Report, Am J Infect Control 2009;37:783-805  
Data contained in this report were last generated on September 27, 2011 at 11:54 AM.

## National Healthcare Safety Network SIR for All Central Line-Associated BSI Data - By OrgID/Location Type

As of: September 29, 2011 at 2:40 PM  
Date Range: CLAB\_RATESALL summaryYr 2010 to 2011

orgid=15165

orgid	locationtype	infCount	numExp	numCLDays	SIR	SIR_pval	SIR95CI
15165	ICU-OTHER	4	2.056	944	1.946	0.1530	0.530, 4.983
15165	SCA	0	0.094	25	.	.	.

If infCount in this table is less than you reported, aggregate data are not available to calculate numExp.  
Lower bound of 95% Confidence Interval only calculated if infCount > 0. SIR values only calculated if numExp >= 1.  
Source of aggregate data: NHSN Report, Am J Infect Control 2009;37:783-805  
Data contained in this report were last generated on September 27, 2011 at 11:54 AM.

# SIR

- Results display (CLABSI):
  - **infCount**: number of infections at your facility
  - **numExp**: number expected infections at a facility like yours
  - **numCLDays**: number of central line days
  - **SIR** = number of observed infections / number of expected infections
    - SIR p-value: displays significance of how similar or different your observed infections are to the expected
    - SIR 95% CI: if this interval encompasses 1, then your results are not significantly different than expected. If it is greater than or less than one (without including it), then your results are significantly greater than or less than expected.
  - Generally will provide your overall SIR as well as by location/unit within your facility

# SIR

- Results Display (SIR for SSI):
  - Same as CLABSI with one additional result:
    - **procCount**: Procedure count is also included in your result screen (number of procedures at your facility)

# Conclusions

- There are many ways you can analyze your data – experiment with the different options!
- Please feel free to contact me with any questions
  - Allison Gibson
    - [gibsona4@michigan.gov](mailto:gibsona4@michigan.gov)
    - 517-335-8199