Introduction to NHSN Analysis

Maggie Dudeck, MPH, CPH
Epidemiologist

October 13, 2010

National Center for Emerging and Zoonotic Infectious Diseases
Division of Healthcare Quality Promotion

Objectives

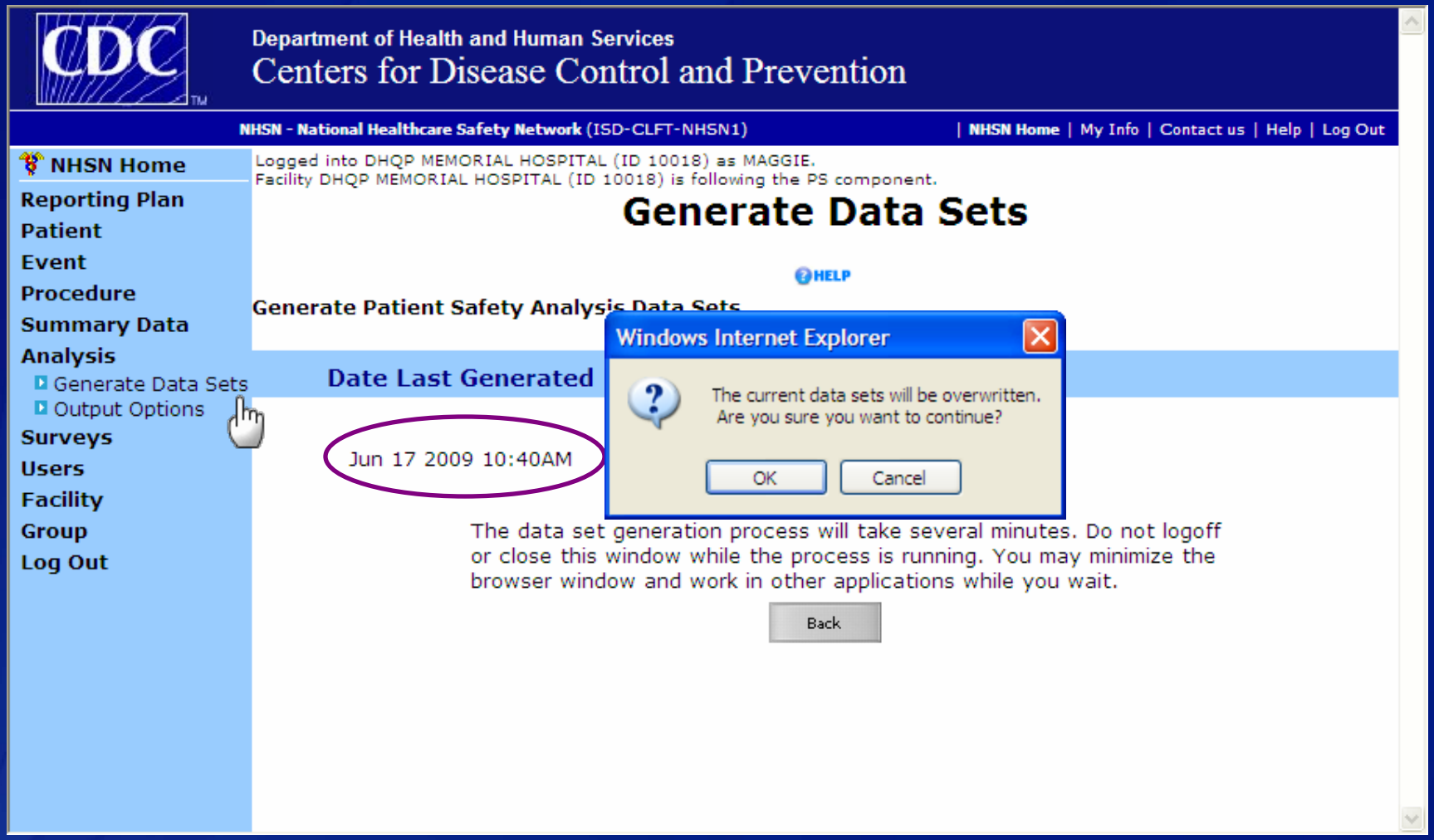
- Describe the dataset generation process
- Discuss the structure of the analysis output options treeview
- Explain standard output options
- Illustrate modifications to standard output options and how these modifications can be used for quality checking the data
- Introduce advanced functionality within the analysis output options

GENERATING DATASETS

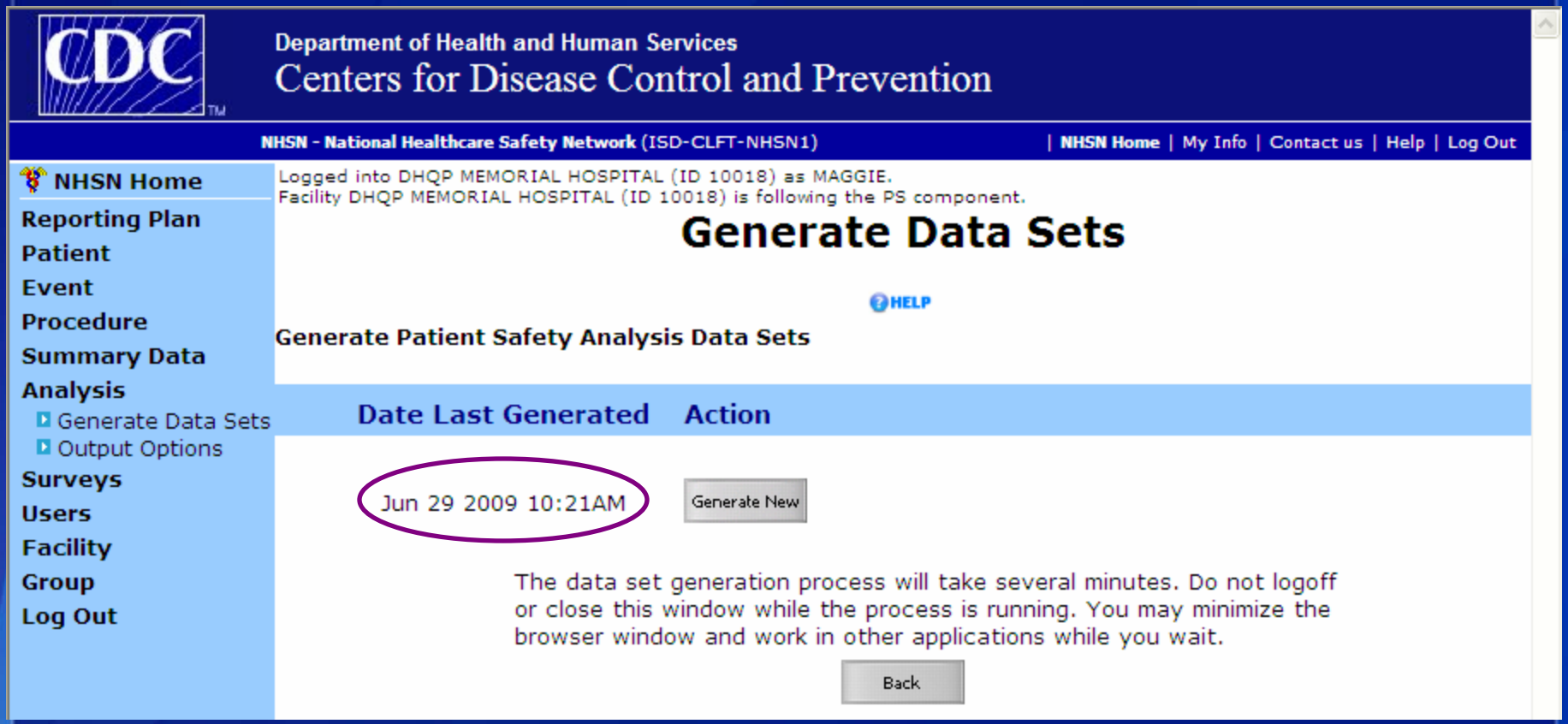
Generating Datasets

- **Generating datasets is the first step in performing analysis in NHSN**
  - Organizes data into defined sets
  - Freezes data
  - Allows for quicker generation of reports
- **Each user has his/her own analysis datasets**
  - Based on a user's rights
- **May take several minutes to complete this process**
- **Do not log off of NHSN or navigate NHSN while datasets are generating!**

Generating G dwdvhw

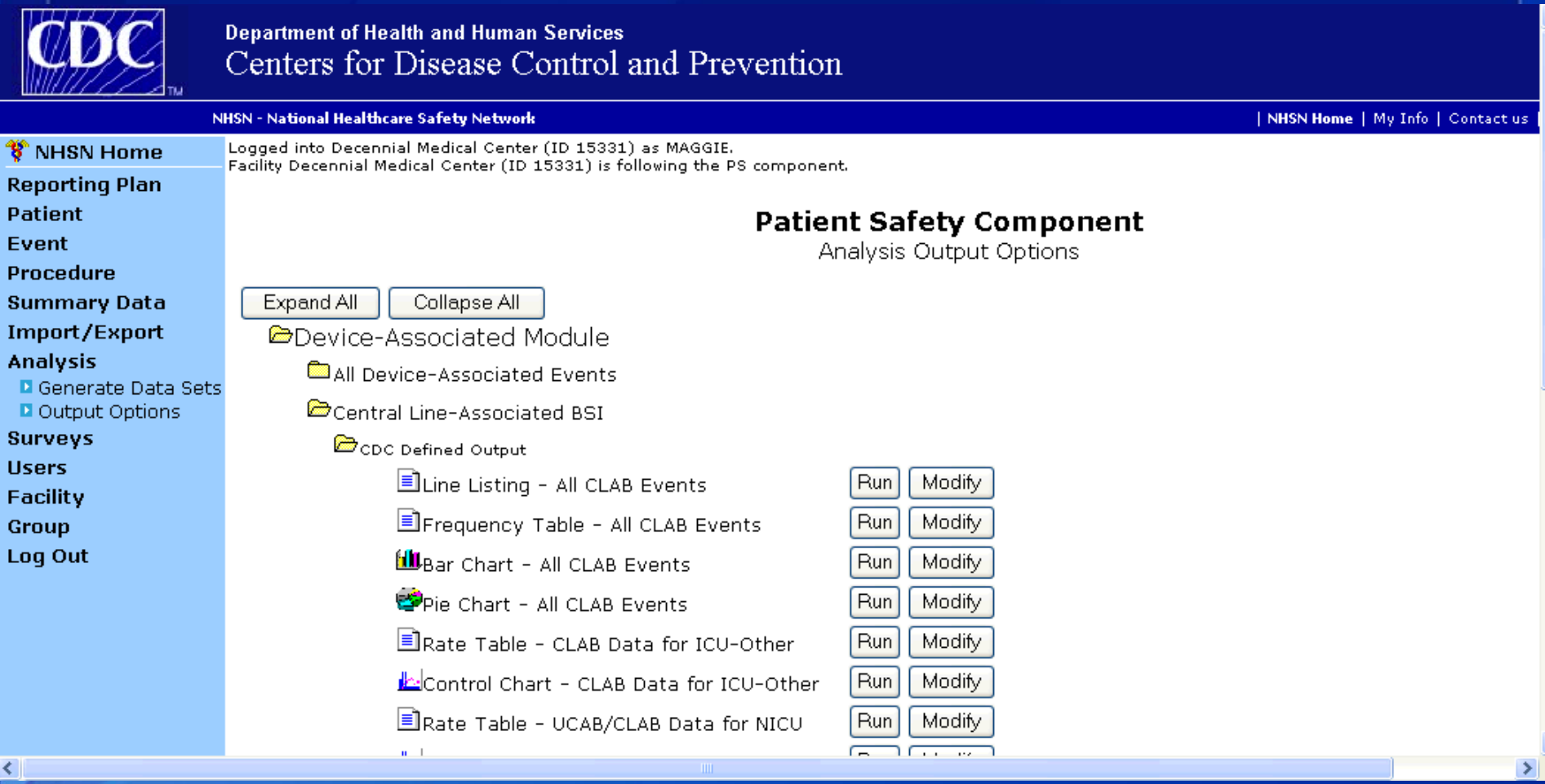


Generating Datasets



CDC-Defined Output

After generating datasets…



CDC-Defined Output

Click "Run" to view any analysis option with pre-defined settings.

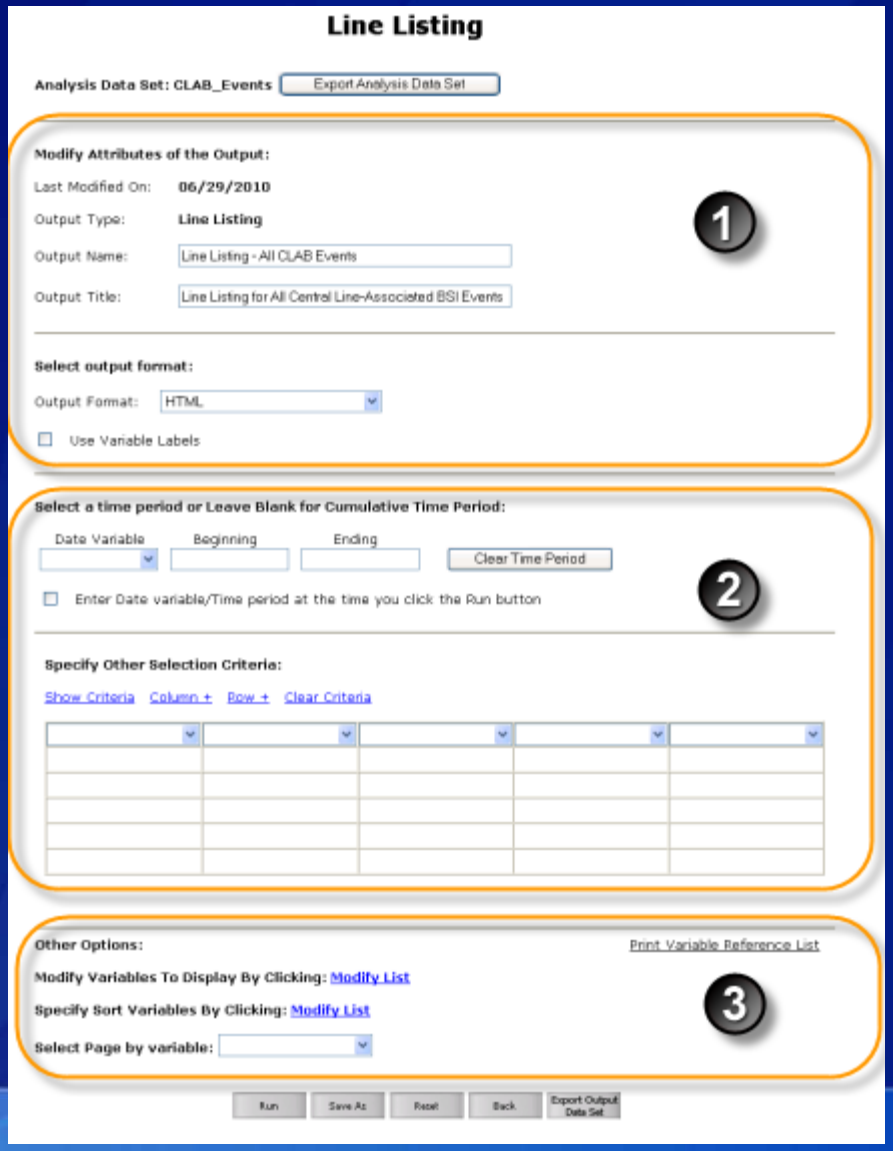
But what if I want to change the output?

Modify the Output

Click "Modify" to change various settings of the output.

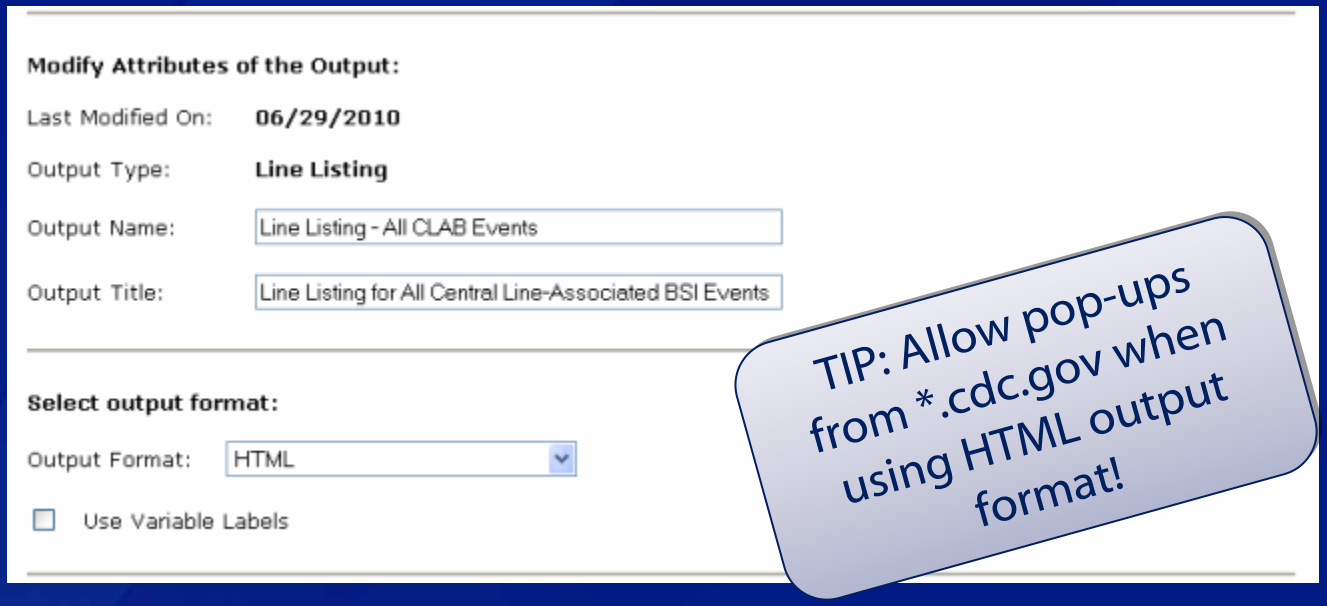
What kind of settings can I change?

Design Modification Screen



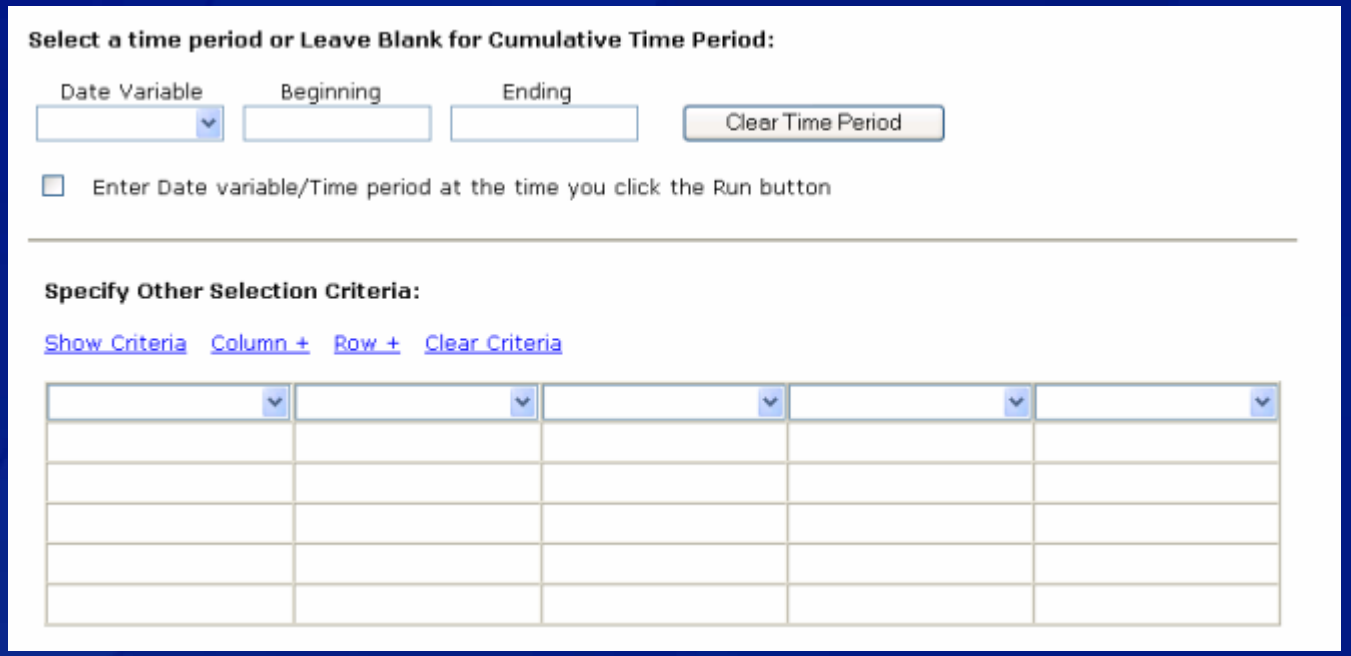
The design modification screen can be described in three main sections…

Design Modification Screen



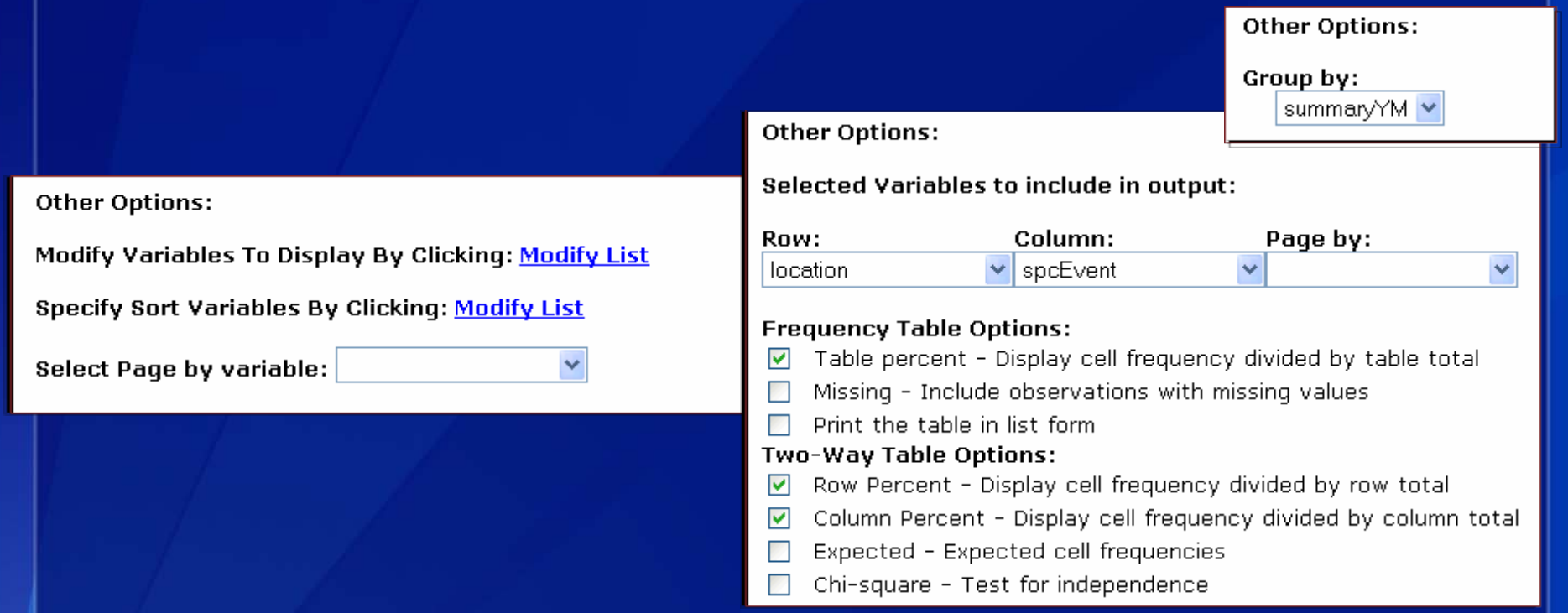
The top section allows you to modify output characteristics, such as output name, title, and format.

Design Modification Screen



The middle section allows you to specify which data will be considered for the output. You can filter by time period, as well as location, specific event type, etc.

Design Modification Screen



The bottom section allows you to specify how the data in the output will be displayed and organized. These options vary by output type.

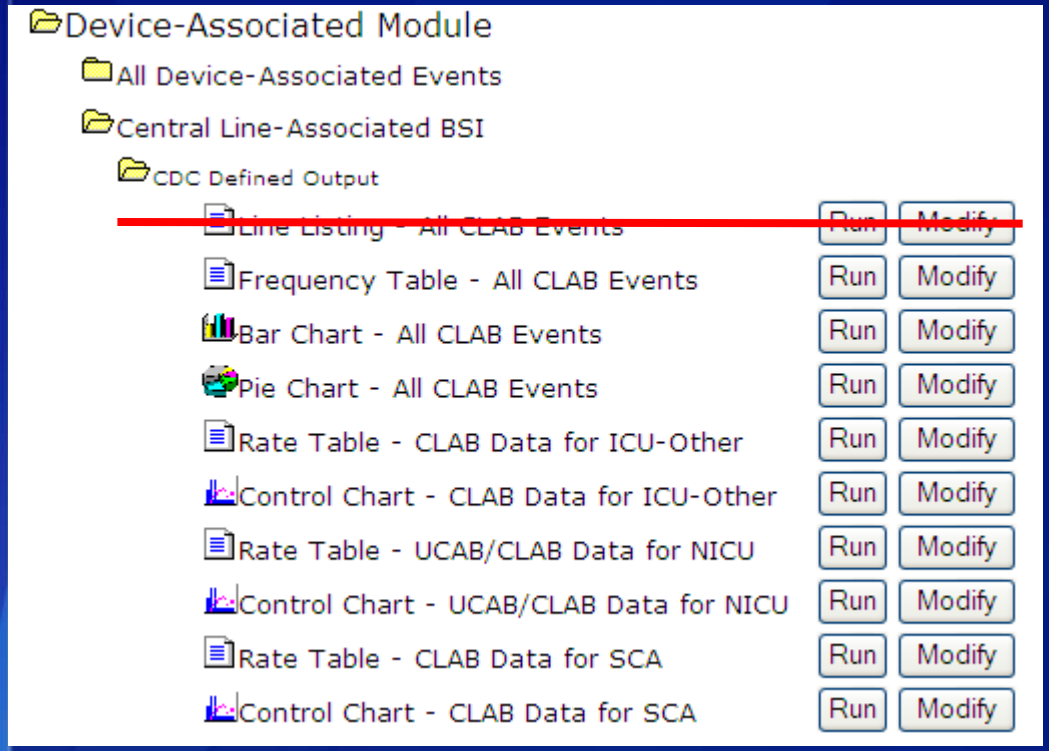
Modifying Output

REAL WORLD EXAMPLES

CLABSI Line List

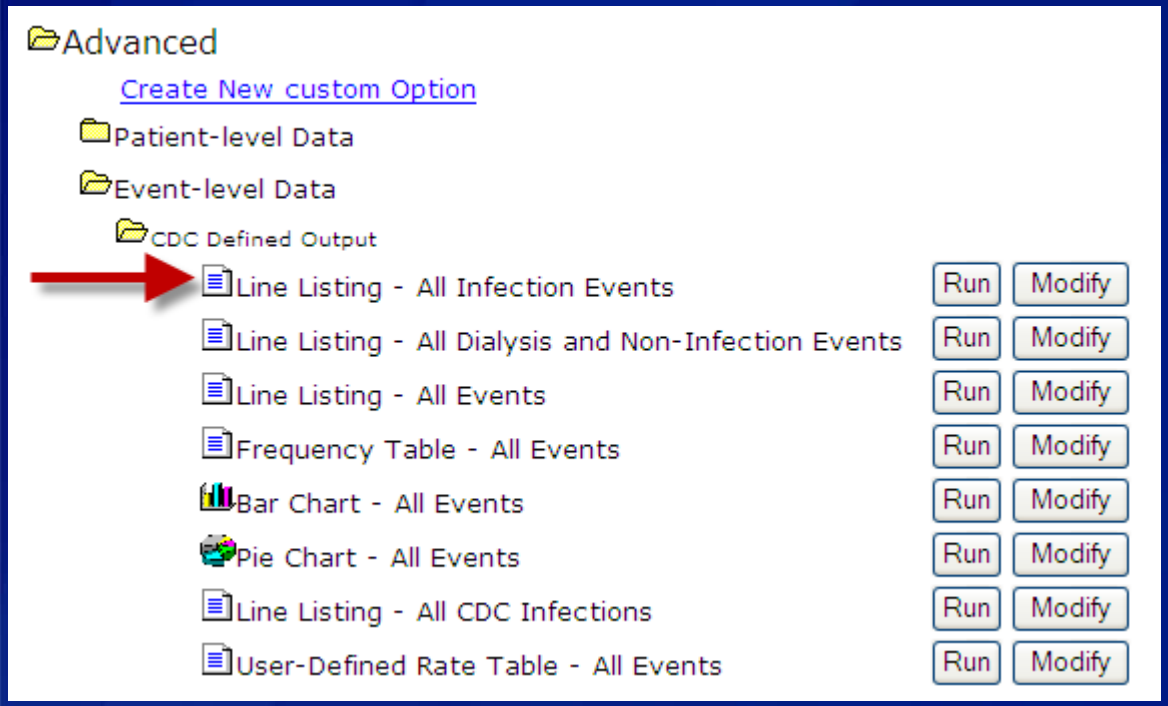
- The hospital epidemiologist has asked for a CLABSI line list for all ICUs, January – June 2009, that includes the first pathogen. He would like one table for each location, sorted by event date.

CLABSI Line List



The dataset for the CLABSI line list does not include pathogen information.

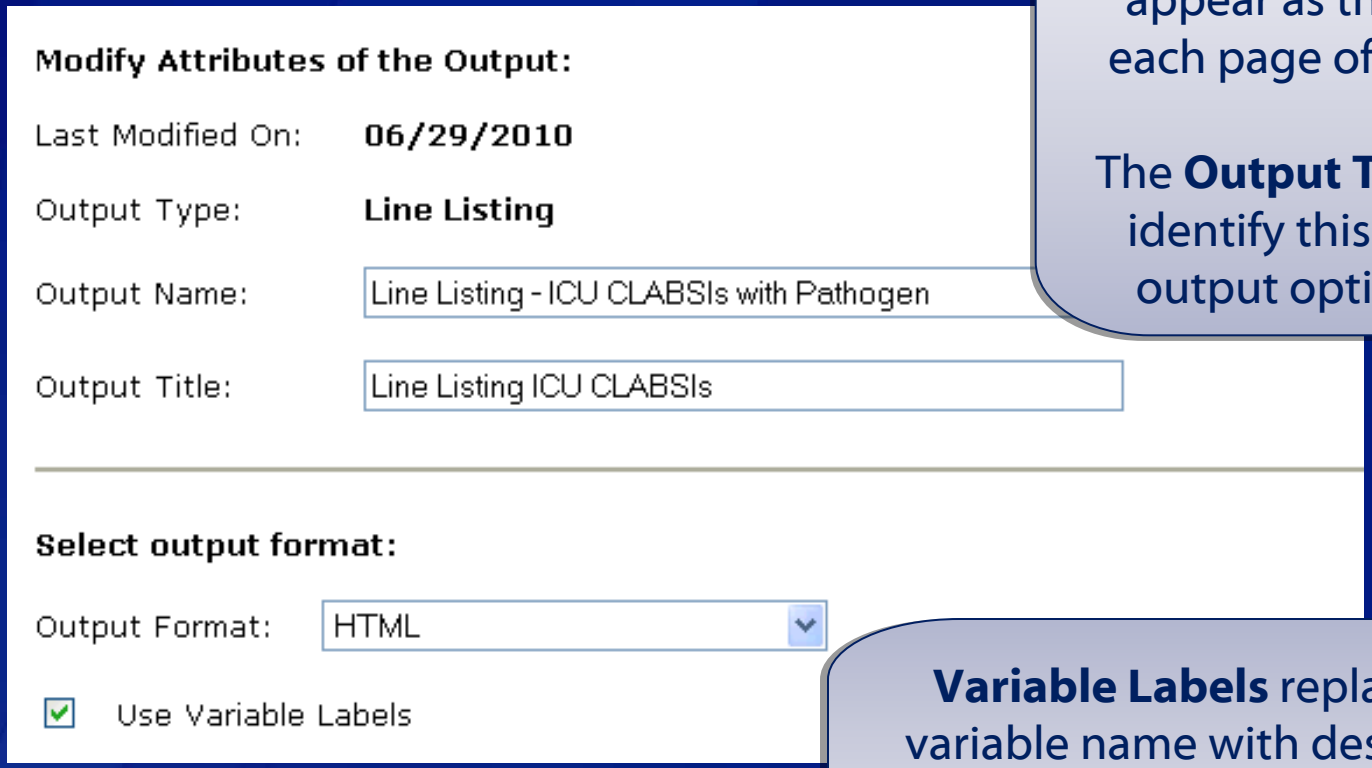
CLABSI Line List



Advanced output options allow for more flexibility when analyzing your data.

Note that in addition to including pathogen information, you can also include comments and custom fields.

CLABSI Line List

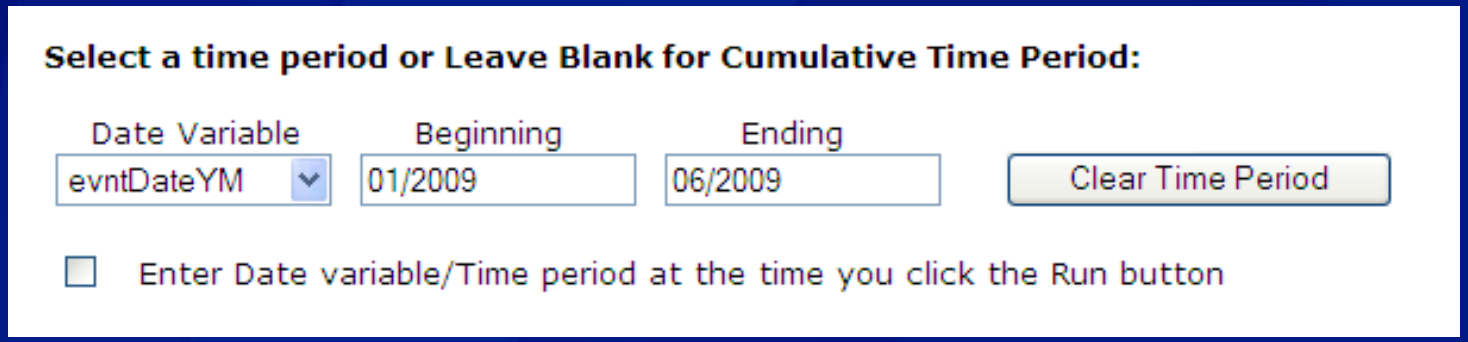


The **Output Name** will appear as the header on each page of your output.

The **Output Title** is used to identify this as a custom output option, if saved.

Variable Labels replace the variable name with descriptive text. For example, evntDateYR is given the variable label of Event Year.

CLABSI Line List

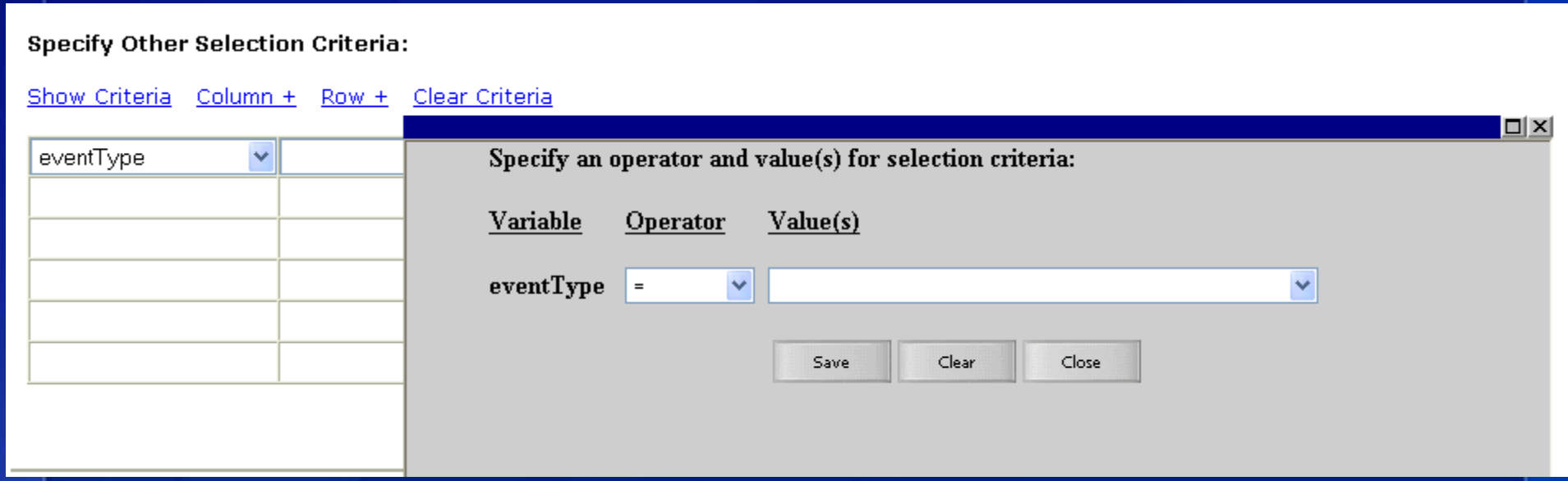


You can filter any output by a date parameter. There are various date variables, depending on the output.

Alternative Date Variables

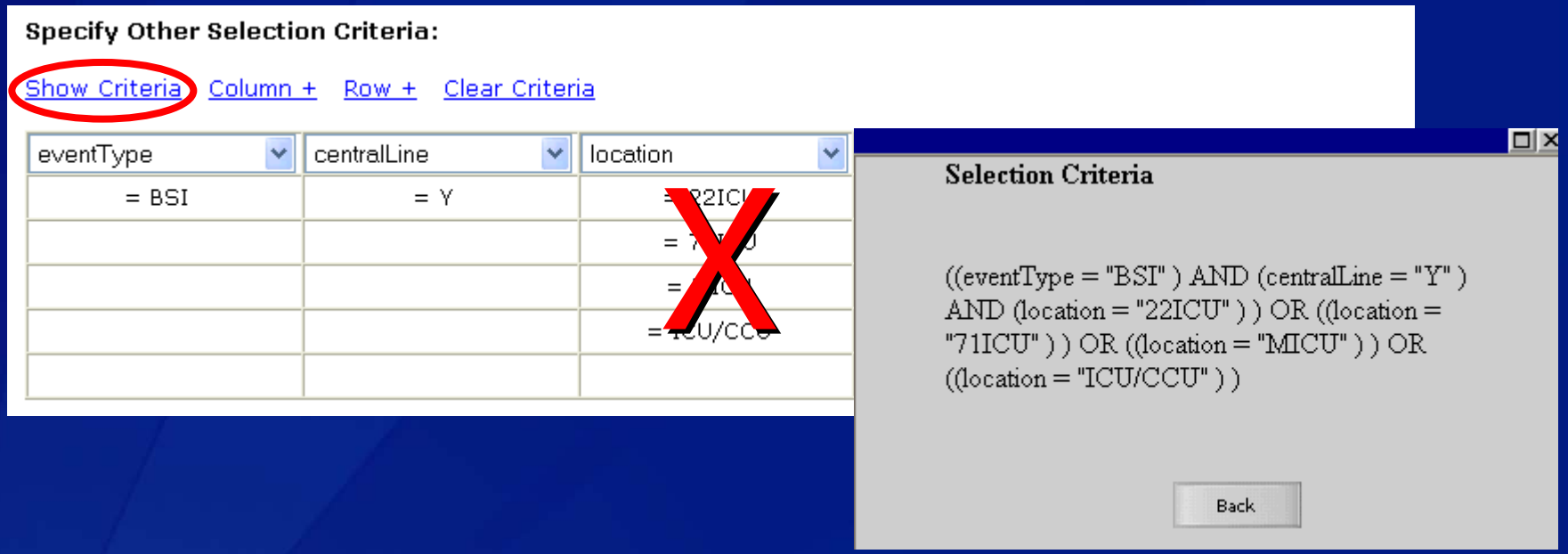
Date Variable	Beginning	Ending
eventDate	01/01/2009	06/30/2009
evntDateYH	2009H1	2009H1
evntDateYQ	2009Q1	2009Q2

CLABSI Line List



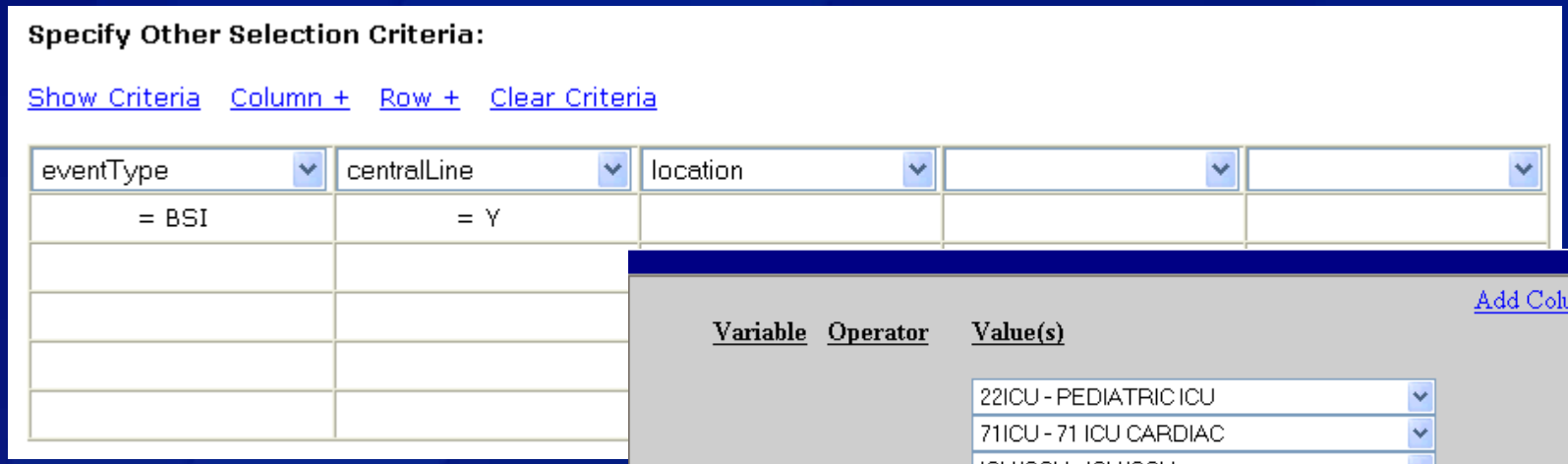
Operator	Description	Operator	Description
=	Equal to	~=	Not equal to
>	Greater than	>=	Greater than or equal to
<	Less than	<=	Less than or equal to
In	In a set of defined values	~in	Not in a set of defined values
Between	Within a range of a values		

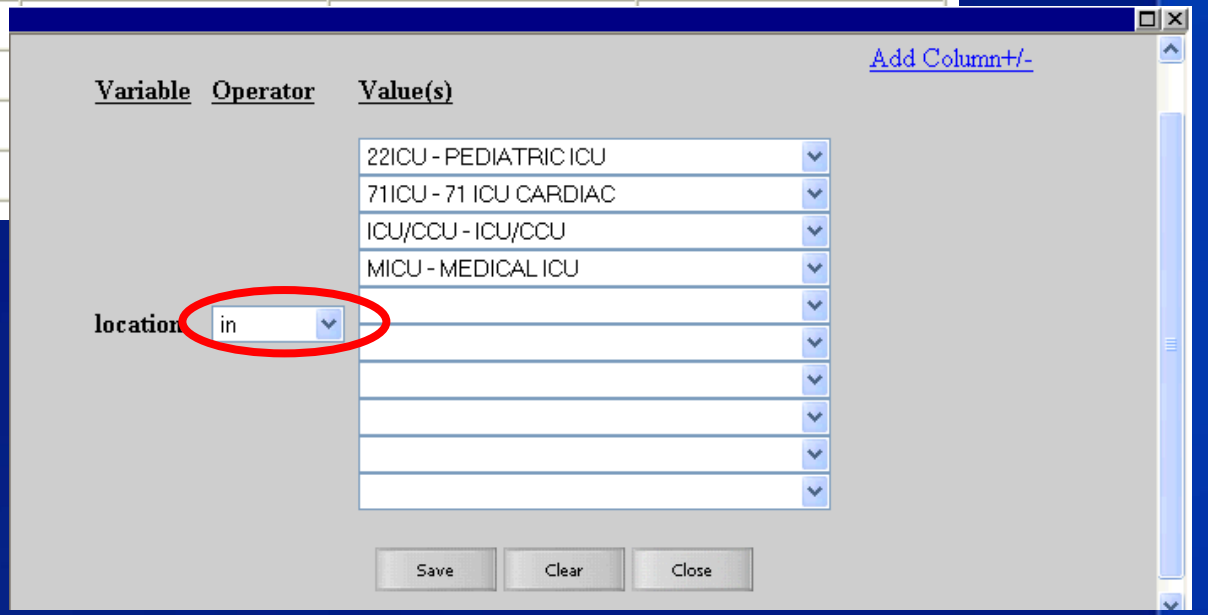
CLABSI Line List



This criteria will give us:
*a.CLABSIs in 22ICU **AND**…*
b.ALL events in 71ICU, MICU, and ICU/CCU

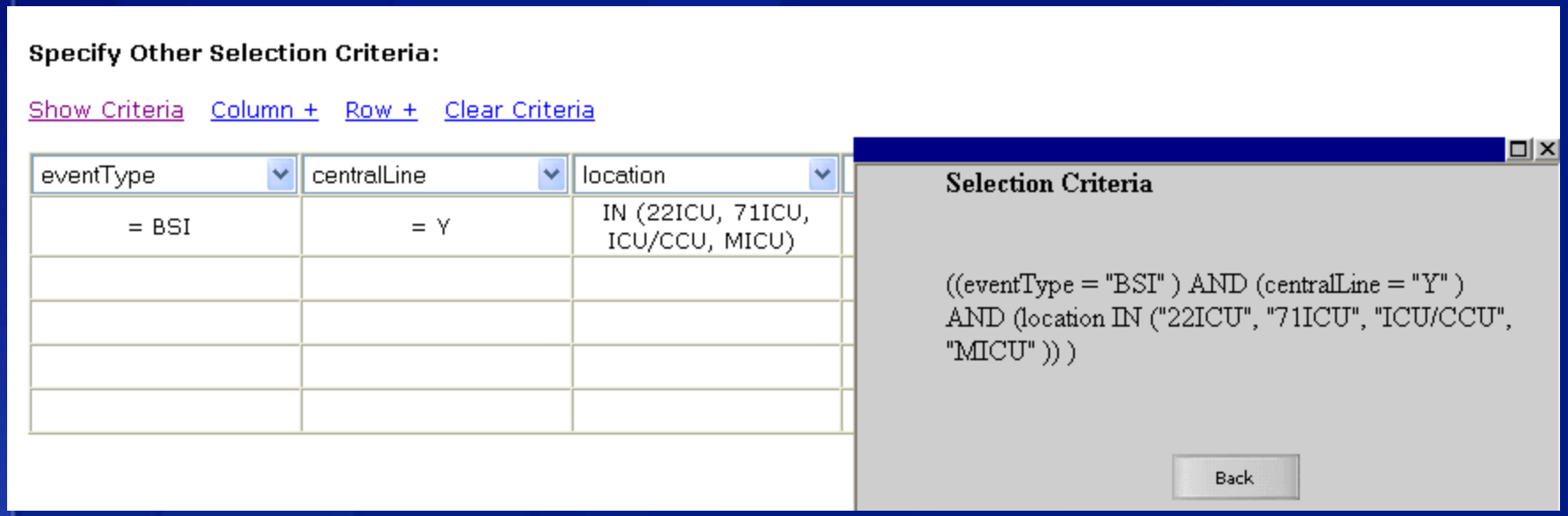
CLABSI Line List





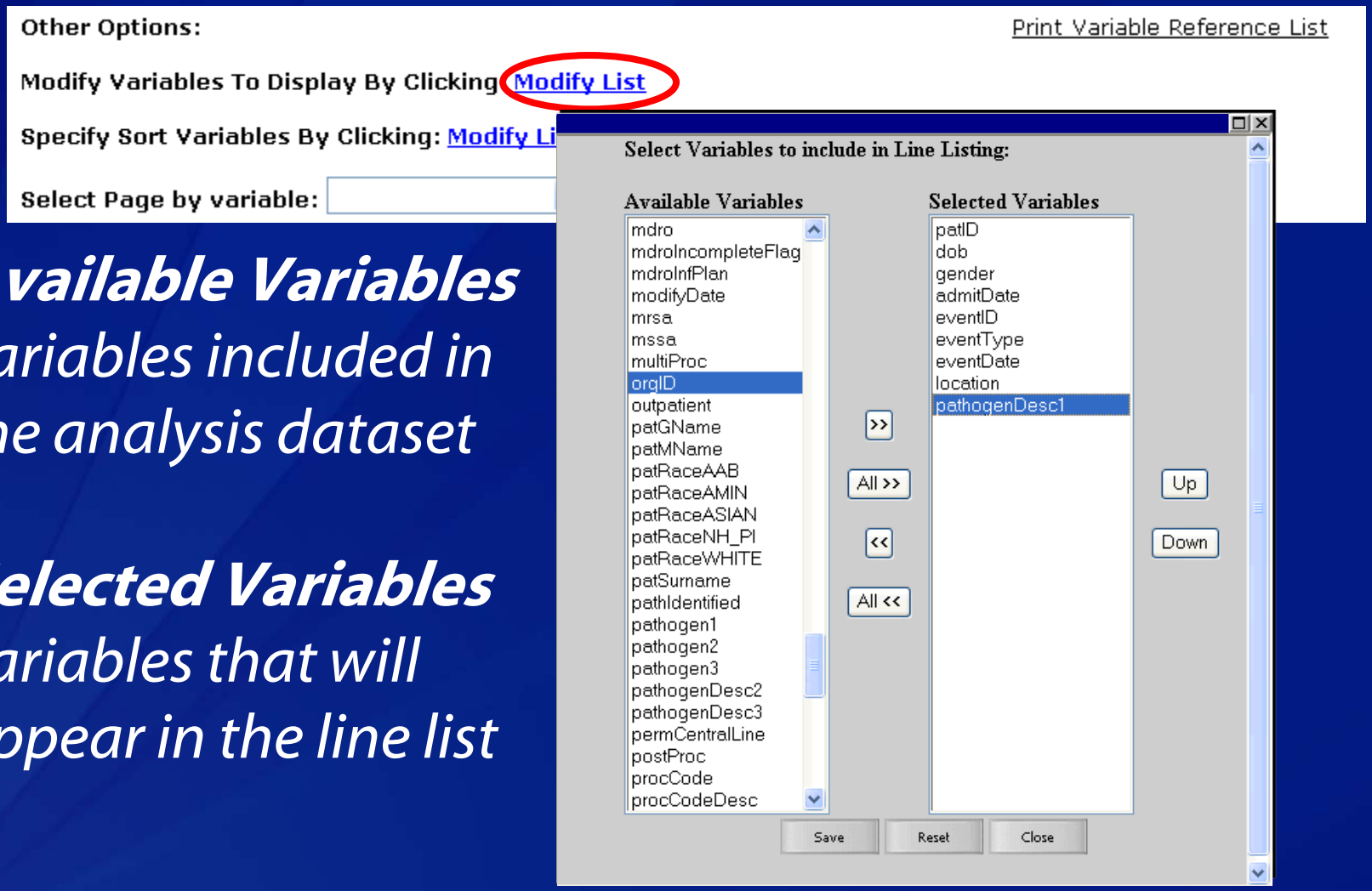
Using the "in" operator allows you to select multiple values in one step.

CLABSI Line List



This criteria will give us only CLABSIs in 22ICU, 71ICU, MICU, and ICU/CCU.

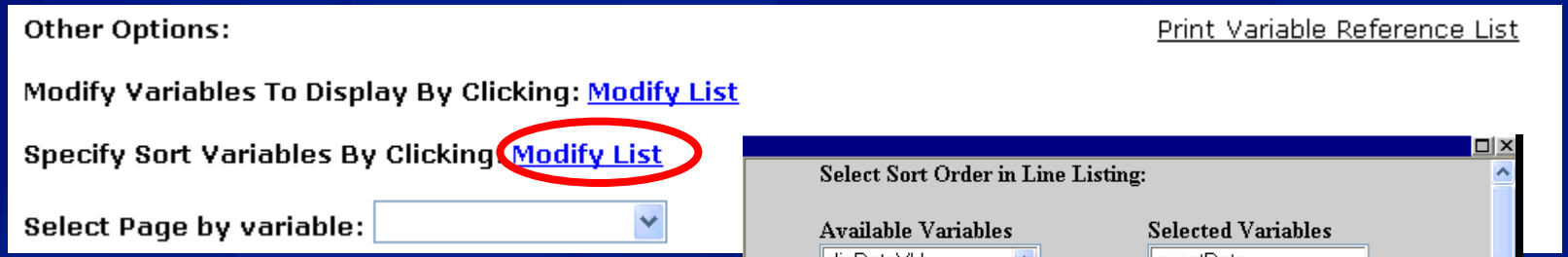
CLABSI Line List



Available Variables
variables included in the analysis dataset

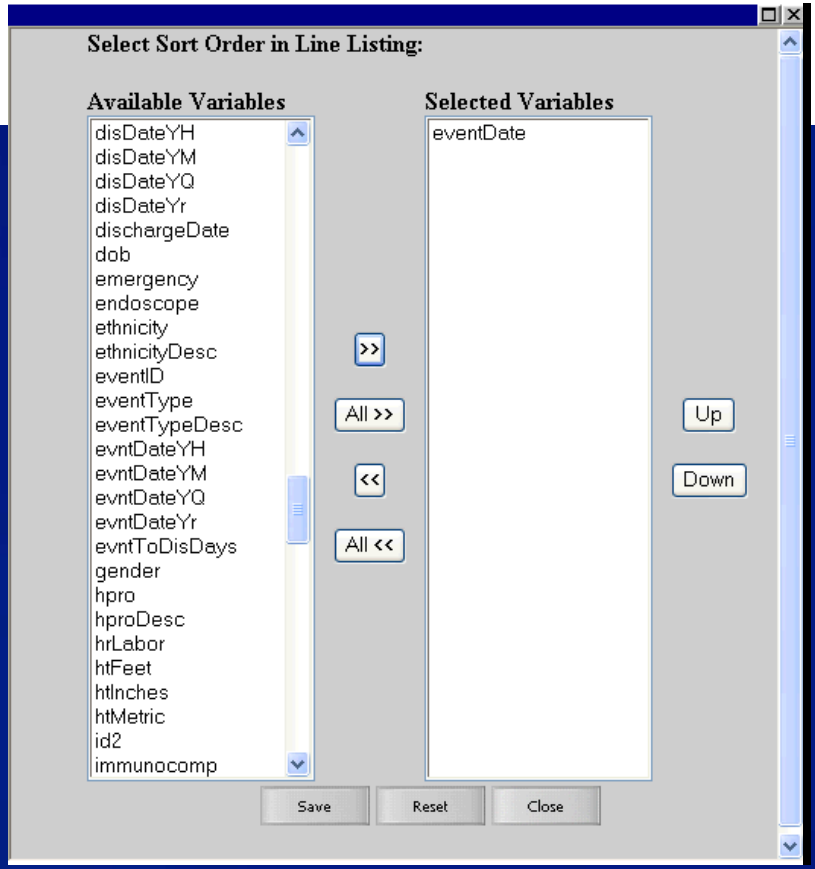
Selected Variables
variables that will appear in the line list

CLABSI Line List



TIP! If sorting, remember to include the sort variable(s) in the line list (previous step)

Can sort by >1 variable. BE CAREFUL!



CLABSI Line List

Using a Page By variable will provide one table/line list per value.

In this example, there will be one table per location.

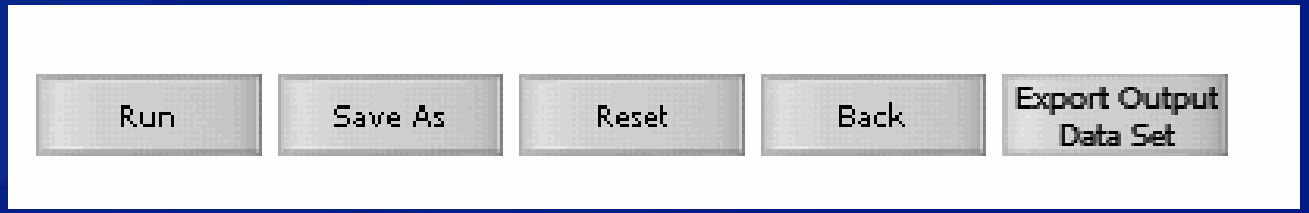
CLABSI Line List

The Variable Reference List includes all variables in NHSN, alphabetical by variable name.

CLABSI Line List

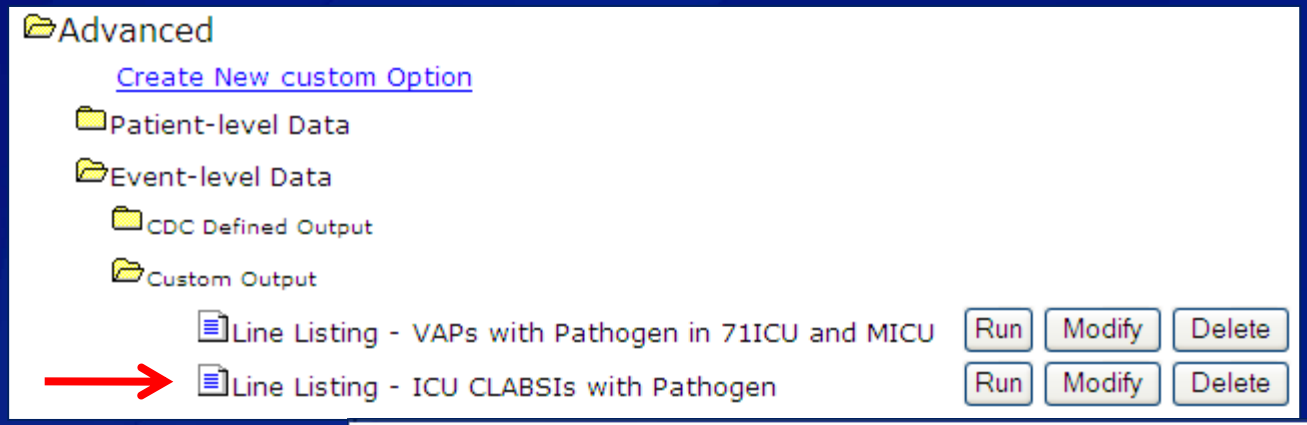
Did you know you can save these modifications for future use??

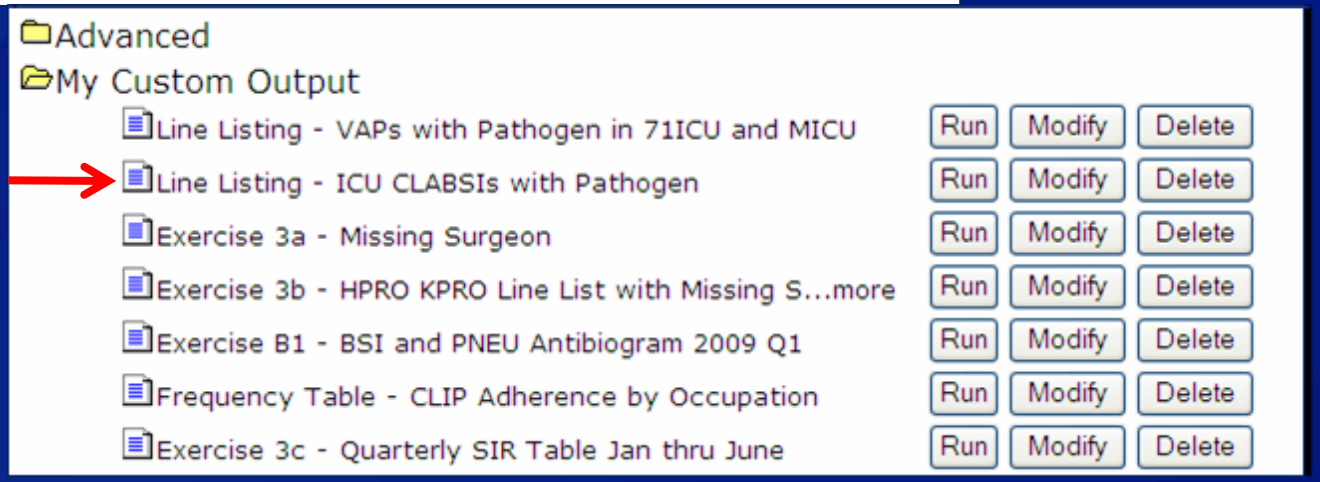
Click the "Save As" button at the bottom of any design modification screen:



CLABSI Line List

Once saved, the output is considered "Custom Output" and will appear in 2 places:





CLABSI Line List - RESULTS

National Healthcare Safety Network

Line Listing ICU CLABSIs

As of: July 2, 2010 at 12:37 PM

Date Range: INFECTIONS evntDateYM 2009M01 to 2009M06

Location=71ICU

Patient ID	Date of Birth	Gender	Fac Admission Date	Event ID	Event Type	Event Date	Location	Pathogen 1 Description
KB4850	04/06/1978	F	12/28/2008	2813892	BSI	01/05/2009	71ICU	SA - Staphylococcus aureus
KB9459	03/19/2004	M	01/01/2009	2813893	BSI	01/19/2009	71ICU	SE - Staphylococcus epidermidis
KB3459	01/29/2003	F	01/02/2009	2813894	BSI	01/23/2009	71ICU	CA - Candida albicans
KB3489	05/22/1969	F	01/02/2009	2813896	BSI	01/23/2009	71ICU	DIPTH - Diphtheroids
KB8395	06/30/1934	F	01/24/2009	2813898	BSI	02/05/2009	71ICU	SE - Staphylococcus epidermidis
KB4589	02/19/1943	M	01/21/2009	2813900	BSI	02/14/2009	71ICU	PA - Pseudomonas aeruginosa
KB6893	06/30/1938	M	03/01/2009	2813901	BSI	03/12/2009	71ICU	SE - Staphylococcus epidermidis

Sorted by eventDate

Data contained in this report were last generated on June 29, 2010 at 11:09 AM.

National Healthcare Safety Network

Line Listing ICU CLABSIs

As of: July 2, 2010 at 12:37 PM

Date Range: INFECTIONS evntDateYM 2009M01 to 2009M06

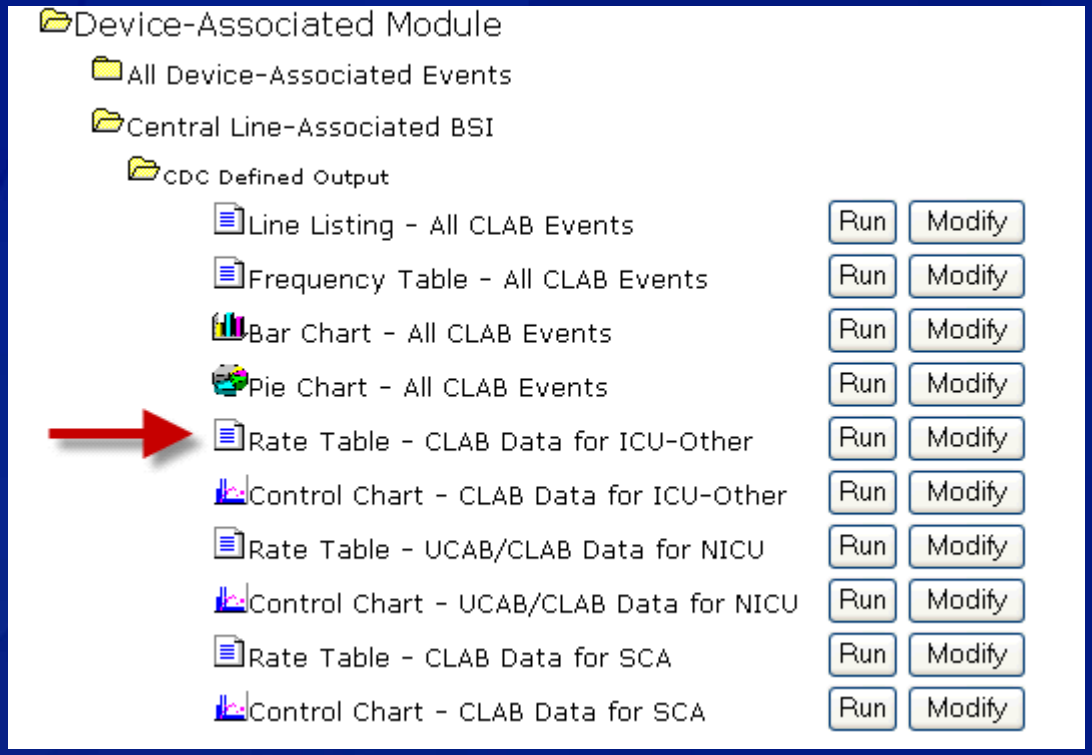
Location=MICU

Patient ID	Date of Birth	Gender	Fac Admission Date	Event ID	Event Type	Event Date	Location	Pathogen 1 Description
KB4392	08/30/1939	F	01/01/2009	2813910	BSI	01/13/2009	MICU	CA - Candida albicans
198736	06/24/1940	F	01/02/2009	2803188	BSI	01/19/2009	MICU	SA - Staphylococcus aureus
KB4593	04/23/1975	F	01/01/2009	2813909	BSI	01/22/2009	MICU	CA - Candida albicans

MICU CLABSI Rates

- As part of your preparations for the Infection Control Committee meeting, you need to prepare a quarterly rate table for the MICU's CLABSI rates for Q1 and Q2, 2009.

MICU CLABSI Rates

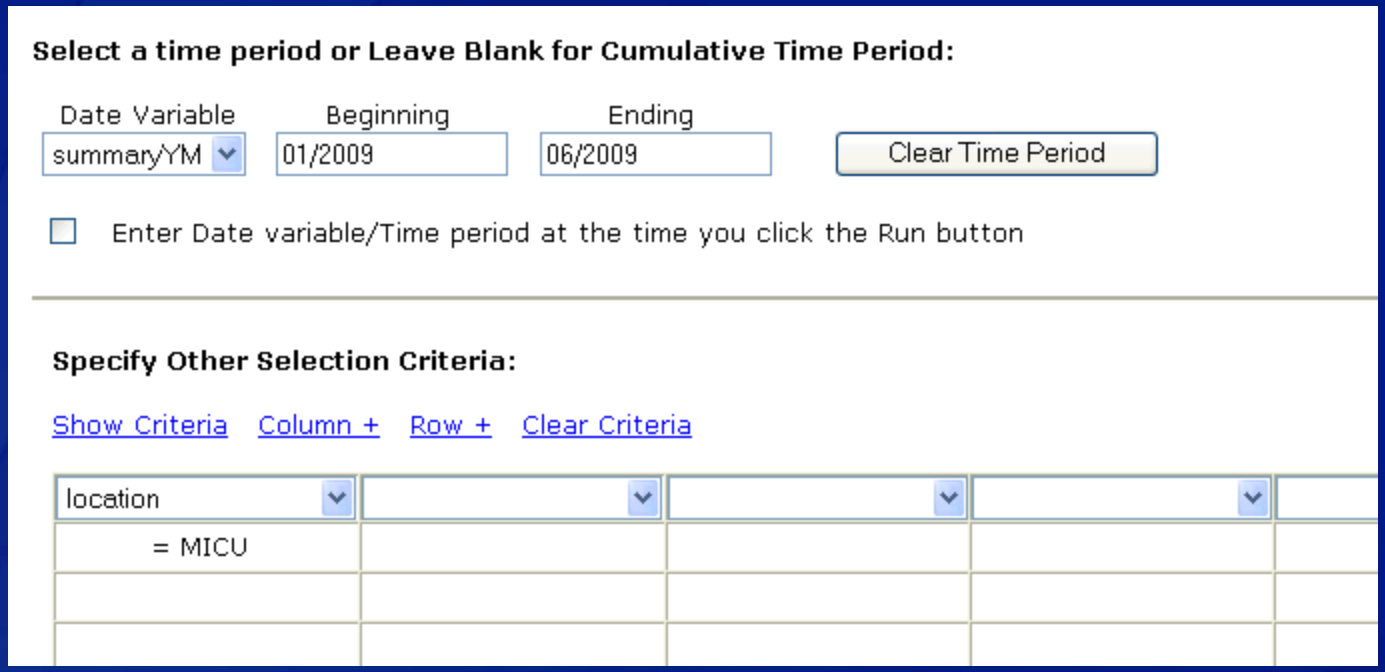


Notice that there are 3 different CLABSI rate tables, depending on the location type.

MICU CLABSI Rates

In addition to modifying:

- *Output Name & Title*
- *Use of variable labels*
- *Time period limited to 01/2009 – 06/2009*
- *Location = MICU*



MICU CLABSI Rates

The Group By variable has been changed to summaryYQ to yield quarterly rates.

Other options will yield:

- *Monthly rates (summaryYM)*
- *Annual rates (summaryYr)*
- *Cumulative rates (leave the Group By option blank)*

Elements of the Rate Table

National Healthcare Safety Network

MICU CLABSI Rates

As of: July 2, 2010 at 1:21 PM

Date Range: CLAB_RATESICU summaryYM 2009M01 to 2009M06

Org ID=15331 CDC Location=IN:ACUTE:CC:M

Location	Summary Yr/Qtr	months	CLA BSI Count	Central Line Days	CLA BSIRate	NHSN CLAB Pooled Mean	Incidence Density p-value	Incidence Density Percentile	Patient Days	CL Util Ratio	NHSN Line DU Pooled Mean	Proportion p-value	Proportion Percentile
MICU	2009Q1	3	9	640	14.1	2.6	0.0001	100	1194	0.54	0.61	0.0000	21
MICU	2009Q2	2	4	450	8.9	2.6	0.0300	99	716	0.63	0.61	0.1847	44

Source of aggregate data: NHSN Report, Am J Infect Control 2009;37:783-805

Data contained in this report were last generated on July 2, 2010 at 1:10 PM.

The columns in yellow represent the NHSN aggregate data and comparison statistics.

Elements of the Rate Table

National Healthcare Safety Network

MICU CLABSI Rates

As of: July 2, 2010 at 1:21 PM

Date Range: CLAB_RATESICU summaryYM 2009M01 to 2009M06

Org ID=15331 CDC Location=IN:ACUTE:CC:M

Location	Summary Yr/Qtr	months	CLA BSI Count	Central Line Days	CLA BSIRate	NHSN CLAB Pooled Mean	Incidence Density p-value	Incidence Density Percentile	Patient Days	CL Util Ratio	NHSN Line DU Pooled Mean	Proportion p-value	Proportion Percentile
MICU	2009Q1	3	9	640	14.1	2.6	0.0001	100	1194	0.54	0.61	0.0000	21
MICU	2009Q2	2	4	450	8.9	2.6	0.0300	99	716	0.63	0.61	0.1847	44

Source of aggregate data: NHSN Report, Am J Infect Control 2009;37:783-805

Data contained in this report were last generated on July 2, 2010 at 1:10 PM.

The footer on each rate table will indicate the source of the aggregate data.

MICU CLABSI Rates - RESULTS

National Healthcare Safety Network

MICU CLABSI Rates

As of: July 2, 2010 at 1:21 PM

Date Range: CLAB_RATESICU summaryYM 2009M01 to 2009M06

Org ID=15331 CDC Location=IN:ACUTE:CC:M

Location	Summary Yr/Qtr	months	CLA BSI Count	Central Line Days	CLA BSIRate	NHSN CLAB Pooled Mean	Incidence Density p-value	Incidence Density Percentile	Patient Days	CL Util Ratio	NHSN Line DU Pooled Mean	Proportion p-value	Proportion Percentile
MICU	2009Q1	3	9	640	14.1	2.6	0.0001	100	1194	0.54	0.61	0.0000	21
MICU	2009Q2	2	4	450	8.9	2.6	0.0300	99	716	0.63	0.61	0.1847	44

Source of aggregate data: NHSN Report, Am J Infect Control 2009;37:783-805

Data contained in this report were last generated on July 2, 2010 at 1:10 PM.

Pay attention to the "Months" column when running quarterly or annual rates!

MICU CLABSI Rates

Because data are missing:

1.Click "Save" to save the modifications to this output option.

2.Enter summary data for the missing month.

3.Generate datasets.

4.Run this output option again.

Interpretation of MICU CLABSI Rates

Location	Summary Yr/Qtr	months	CLA BSI Count	Central Line Days	CLA BSIRate	NHSN CLAB Pooled Mean	Incidence Density p-value	Incidence Density Percentile	Patient Days	CL Util Ratio	NHSN Line DU Pooled Mean	Proportion p-value	Proportion Percentile
MICU	2009Q1	3	9	640	14.1	2.6	0.0001	100	1194	0.54	0.61	0.0000	21
MICU	2009Q2	2	4	450	8.9	2.6	0.0300	99	716	0.63	0.61	0.1847	44

- *During the 1st Quarter, 2009, the MICU reported 9 central line-associated BSIs and a total of 640 days in which patients had central lines (central line days).*

- *Dividing 9 (numerator) by 640 (denominator) and multiplying by 1000 gives the MICU a CLABSI rate of 14.1 per 1000 central line days.*

Interpretation of MICU CLABSI Rates

Location	Summary Yr/Qtr	months	CLA BSI Count	Central Line Days	CLA BSIRate	NHSN CLAB Pooled Mean	Incidence Density p-value	Incidence Density Percentile	Patient Days	CL Util Ratio	NHSN Line DU Pooled Mean	Proportion p-value	Proportion Percentile
MICU	2009Q1	3	9	640	14.1	2.6	0.0001	100	1194	0.54	0.61	0.0000	21
MICU	2009Q2	2	4	450	8.9	2.6	0.0300	99	716	0.63	0.61	0.1847	44

- *When compared to the NHSN mean rate of 2.6, this MICU's rate is at the 100th percentile, which means that 100% of all reporting MICUs had a rate at or below this one.*

- *The p-value indicates that the difference in these two incidence density rates is statistically significant (p = 0.0001).*

Interpretation of MICU CLABSI Rates

Location	Summary Yr/Qtr	months	CLA BSI Count	Central Line Days	CLA BSIRate	NHSN CLAB Pooled Mean	Incidence Density p-value	Incidence Density Percentile	Patient Days	CL Util Ratio	NHSN Line DU Pooled Mean	Proportion p-value	Proportion Percentile
MICU	2009Q1	3	9	640	14.1	2.6	0.0001	100	1194	0.54	0.61	0.0000	21
MICU	2009Q2	2	4	450	8.9	2.6	0.0300	99	716	0.63	0.61	0.1847	44

- *There were 1194 patient days reported in the MICU during this time period.*
- *Dividing 640 (central line days) by 1194 yields a device utilization ratio of 0.54.*
- *When compared to the NHSN mean device utilization ratio of 0.61, this MICU's device utilization ratio is at the 21st percentile, which means that 21% of all reporting MICUs had a ratio at or below this one.*
- *The p-value indicates that the difference in these two ratios is statistically significant ($p < 0.0001$).*

SSI Standardized Infection Ratio (SIR)

- You have been asked to provide a summary measure for all 2009 surgical site infections that can be presented to the administrators at your organization.

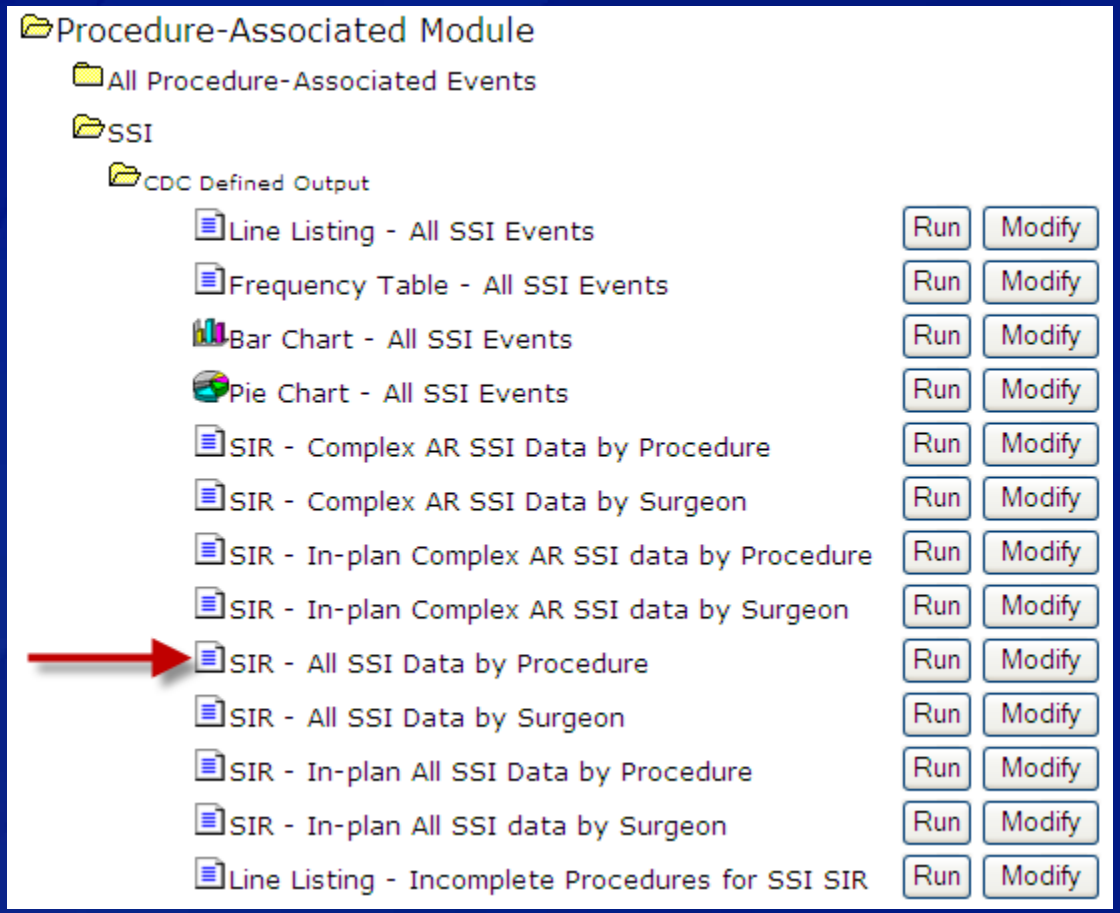
Good news! The SSI SIR is an appropriate, risk-adjusted measure to use!

SSI SIR

- **The NEW SIRs allow for improved risk adjustment**
- **Can obtain SIRs at most granular level to overall, "big picture" level**
- **Can obtain Surgeon-specific SIRs**
- **Can obtain "Complex A/R" SIRs, which include:**
  - *Inpatient procedures only*
  - *Deep incisional and organ/space SSIs only, identified on admission or readmission to your facility (as defined in the NHSN manual)*

NEW

SSI SIR


Procedure-Associated Module
All Procedure-Associated Events
SSI
CDC Defined Output
Line Listing - All SSI Events
Run
Modify
Frequency Table - All SSI Events
Run
Modify
Bar Chart - All SSI Events
Run
Modify
Pie Chart - All SSI Events
Run
Modify
SIR - Complex AR SSI Data by Procedure
Run
Modify
SIR - Complex AR SSI Data by Surgeon
Run
Modify
SIR - In-plan Complex AR SSI data by Procedure
Run
Modify
SIR - In-plan Complex AR SSI data by Surgeon
Run
Modify
SIR - All SSI Data by Procedure
Run
Modify
SIR - All SSI Data by Surgeon
Run
Modify
SIR - In-plan All SSI Data by Procedure
Run
Modify
SIR - In-plan All SSI data by Surgeon
Run
Modify
Line Listing - Incomplete Procedures for SSI SIR
Run
Modify

SSI SIR
Table 1

National Healthcare Safety Network

All SSIs SIR 2009 - By OrgID

As of: October 7, 2010 at 7:55 AM

Date Range: SIR_ALLSSIPROC summaryYr 2009 to 2009

if (((procCode IN ("CBGB", "CBGC", "HPRO", "KPRO"))))

Org ID=10018

Org ID	Summary Yr	Procedure Count	All SSI Model Infection Count	All SSI Model Number Expected	All SSI Model SIR	All SSI Model SIR p-value	All SSI Model 95% Confidence Interval
10018	2009	425	6	4.653	1.29	0.3233	0.562, 2.545

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: 2006-2008 NHSN SSI Data

Data contained in this report were last generated on October 7, 2010 at 7:20 AM.

Overall SIR for those operative procedures for which SSI were monitored in your facility during the specified time period.

NEW

SSI SIR
Table 2

National Healthcare Safety Network

All SSIs SIR 2009 - By OrgID/ProcCode

As of: October 7, 2010 at 7:55 AM

Date Range: SIR_ALLSSIPROC summaryYr 2009 to 2009

if (((procCode IN ("CBGB", "CBGC", "HPRO", "KPRO"))))

Org ID=10018

Org ID	Procedure Code	Summary Yr	Procedure Count	All SSI Model Infection Count	All SSI Model Number Expected	All SSI Model SIR	All SSI Model SIR p-value	All SSI Model 95% Confidence Interval
10018	CBGB	2009	59	5	1.462	3.42	0.0169	1.347, 7.189
10018	CBGC	2009	1	0	0.023	.	.	
10018	HPRO	2009	127	1	1.227	0.81	0.6529	0.042, 3.866
10018	KPRO	2009	238	0	1.940	0.00	.	

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: 2006-2008 NHSN SSI Data

Data contained in this report were last generated on October 7, 2010 at 7:20 AM.

SIR by operative procedure category and time period specified.
In this "All SSI SIR" table 2, inpatient and outpatient procedures are grouped together.

SSI SIR
Table 3

National Healthcare Safety Network

All SSIs SIR 2009 - By OrgID/ProcCode/Outpatient

As of: October 7, 2010 at 7:55 AM

Date Range: SIR_ALLSSIPROC summaryYr 2009 to 2009

if (((procCode IN ("CBGB", "CBGC", "HPRO", "KPRO"))))

Org ID=10018

Org ID	Procedure Code	Performed in Outpatient Setting?	Summary Yr	Months	Procedure Count	All SSI Model Infection Count	All SSI Model Number Expected	All SSI Model SIR	All SSI Model SIR p-value	All SSI Model 95% Confidence Interval
10018	CBGB	N	2009	7	59	5	1.462	3.42	0.0169	1.347, 7.189
10018	CBGC	N	2009	1	1	0	0.023	.	.	
10018	HPRO	N	2009	4	127	1	1.227	0.81	0.6529	0.042, 3.866
10018	KPRO	N	2009	4	238	0	1.940	0.00	.	

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: 2006-2008 NHSN SSI Data

Data contained in this report were last generated on October 7, 2010 at 7:20 AM.

SIR by NHSN operative procedure category and outpatient status, as well as time period.

This table will only be available in the "All SSI SIR" output options.

SSI SIR
Table 4

National Healthcare Safety Network

SSI Data Not Included in SIR

As of: October 7, 2010 at 7:55 AM

Date Range: SIR_ALLSSIPROC summaryYr 2009 to 2009

if (((procCode IN ("CBGB", "CBGC", "HPRO", "KPRO"))))

Org ID=10018

Summary Yr	Org ID	Procedure Code	Performed in Outpatient Setting?	Procedure Count	All SSI Model Infection Count
2009	10018	CBGB	N	1	0

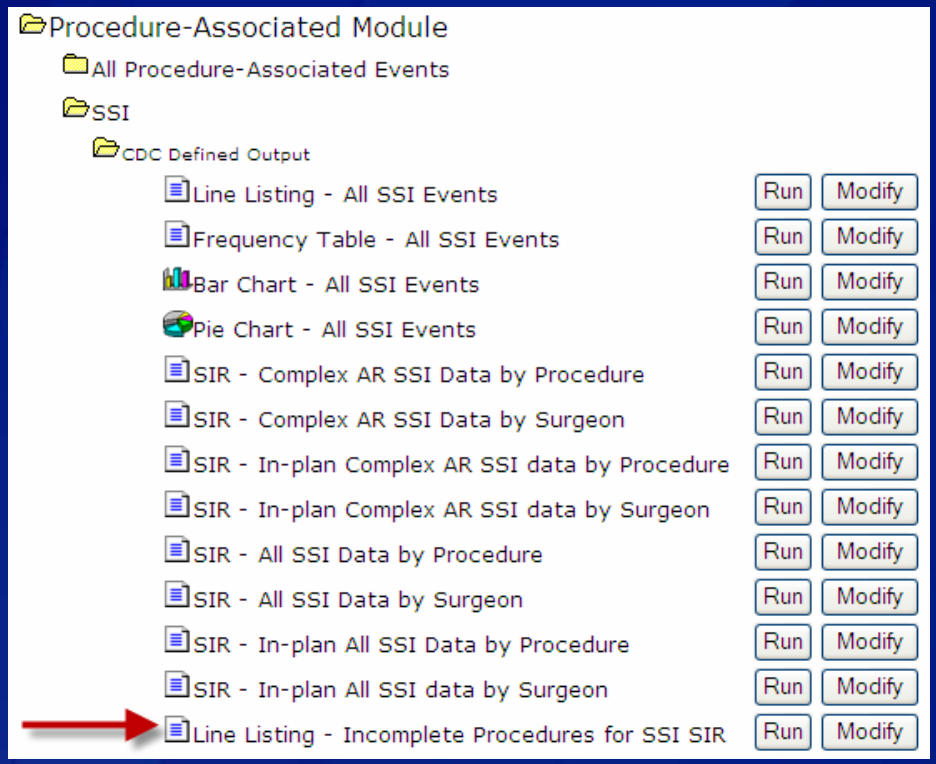
Provides a count of the procedures and SSIs that were excluded from the SIRs.

Will only list those procedures that were excluded due to missing risk factors, as well as custom procedures.

Next step: Review the "Line Listing – Incomplete Procedures for SSI SIR"

SSI SIR

Line List – Incomplete Procedures



Recommend modifying this line list to limit to the procedure, time period, and risk factors in question.

SSI SIR

Line List – Incomplete Procedures

National Healthcare Safety Network

Line Listing for Incomplete Procedures for SSI SIR

As of: September 28, 2010 at 9:10 AM

Date Range: PROCEDURES procDateYM 2010M05 to 2010M05

Org ID	Patient ID	Procedure ID	all_incomplete	cmpx_incomplete	Procedure Date	Procedure Code	Date of Birth	Gender	ASA Class	Duration of Procedure - hr	Duration of Procedure - min	Number of Beds
10018	MD-123456	22472	Y	N	05/01/2010	CBGB	09/10/1954	F		3	15	467

After reviewing this line list, the following steps are recommended:

1.Obtain missing information (in this example, obtain ASA).

2.Edit the procedure record in NHSN to include this information.

3.Re-generate datasets.

4.Run the desired SSI SIR output option.

SSI SIR
Interpretation

Org ID	Summary Yr	Procedure Count	All SSI Model Infection Count	All SSI Model Number Expected	All SSI Model SIR	All SSI Model SIR p-value	All SSI Model 95% Confidence Interval
10018	2009	425	6	4.653	1.29	0.3233	0.562, 2.545

- During 2009, there were 425 procedures performed and 6 SSIs identified.
- Based on the NHSN 2006-2008 baseline data, 4.653 SSIs were expected.
- This results in an SIR of 1.29 (6/4.653), signifying that during this time period our facility identified 29% more SSIs than expected.
- The p-value and 95% Confidence Interval indicate that the number of observed SSIs is not significantly higher than the number of expected SSIs.

Where can I find more information about the SIR?

- Coming VERY soon!
- NHSN Newsletter Special Edition: Your Guide to the Standardized Infection Ratio (SIR)
- Will include CLABSI and SIR information and interpretations
- Examples of output
- Predictive Risk Factors for SSI SIR models

NHSN e-News: SIRs Special Edition
October 15, 2010

Special Edition!
October 2010

NHSN National Healthcare Safety Network

The Centers for Disease Control and Prevention (CDC)

NHSN e-News

Your Guide to the Standardized Infection Ratio (SIR)

With the next version of NHSN (version 6.3, expected October 2010), new output options will be available that will permit the calculation of standardized infection ratios (SIRs) for central line-associated bloodstream infection (CLABSI) and surgical site infection (SSI) data. Each of these measures fall in line with the State-Specific Healthcare-associated Infections Summary Data Report, published by CDC. For SSIs, we will make the transition from SSI rates to the SSI SIR with this new version. The SSI SIR is the result of logistic regression modeling that considered all procedure-level data collected by NHSN facilities in order to provide better risk adjustment than afforded by the risk index. In addition, the SSI SIR provided to facilities within NHSN will be more precise and be calculated only if appropriate for comparisons. As we make this transition, we understand that you will have numerous questions, including how to operationalize this new statistic in your facility to drive prevention practices. This guide is intended to answer some of these questions.

STANDARDIZED INFECTION RATIO (SIR)

What is a standardized infection ratio (SIR)?

The standardized infection ratio (SIR) is a summary measure used to track HAIs at a national, state, or local level over time. The SIR adjusts for the fact that each healthcare facility treats different types of patients. The method of calculating an SIR is similar to the method used to calculate the Standardized Mortality Ratio (SMR), a summary statistic widely used in public health to analyze mortality data. In HAI data analysis, the SIR compares the actual number of HAIs reported with the baseline U.S. experience (i.e., NHSN aggregate data are used as the standard population), adjusting for several risk factors that have been found to be most associated with differences in infection rates. In other words, an SIR greater than 1.0 indicates that more HAIs were observed than predicted, accounting for differences in the types of patients followed; conversely, an SIR less than 1.0 indicates that fewer HAIs were observed than predicted.

*****Important Take Away Points*****

- The new SSI SIRs provide improved risk adjustment and replace risk-stratified SSI rates.
- The SIRS use 2006-2008 as the baseline period, and therefore, SIRs are calculated for 2009 and forward.
- To allow for more precise comparisons, SIRs are calculated only if the number of expected HAIs (numExp) is ≥1.

Inside this issue:

Central Line-associated Bloodstream Infection (CLABSI) SIRs 2
Surgical Site Infection (SSI) SIRs 5
Samples of SIR Output and List of SIR Risk Factors 10

Exporting Data

At times, you may wish to export your data for further manipulation or formatting external from NHSN.

There are 3 methods for exporting your data…

Exporting Data

Export Analysis Data Set

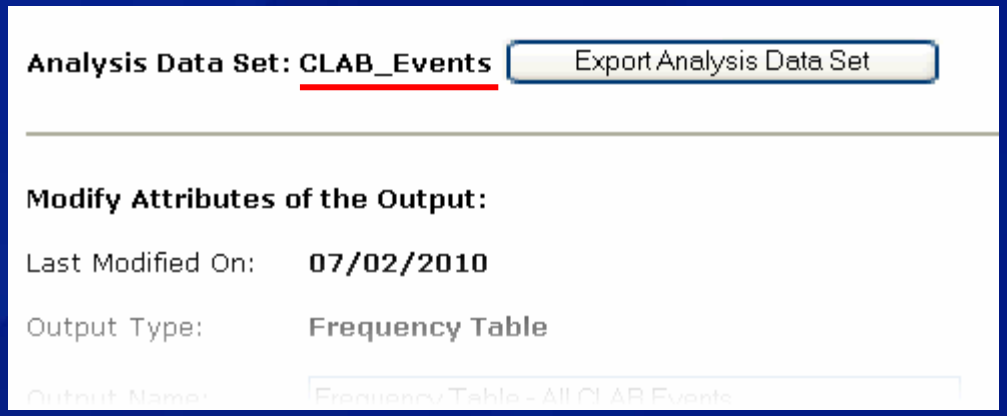
An analysis data set consists of data of a particular type created for a user to produce output.

Exporting the analysis data set will include all data within the output option chosen, without any modifications.

Exporting Data

Export Analysis Data Set (continued)

This option appears at the top of the design modification screen.



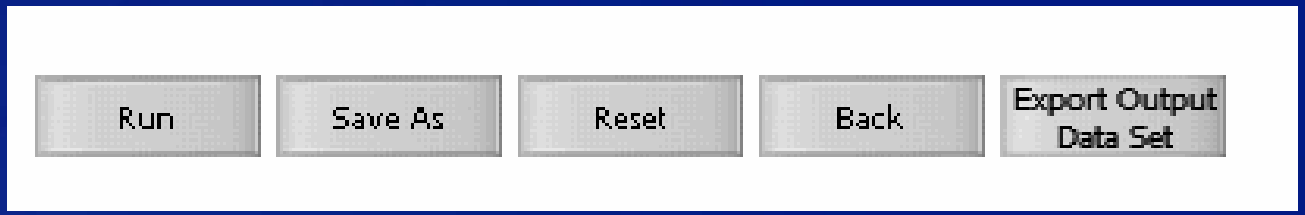
NOTE: When exporting analysis data sets for rates or SIRs, the NHSN aggregate data and comparative statistics will not be included. To export this information, you should export the output data set.

Exporting Data

Export Output Data Set

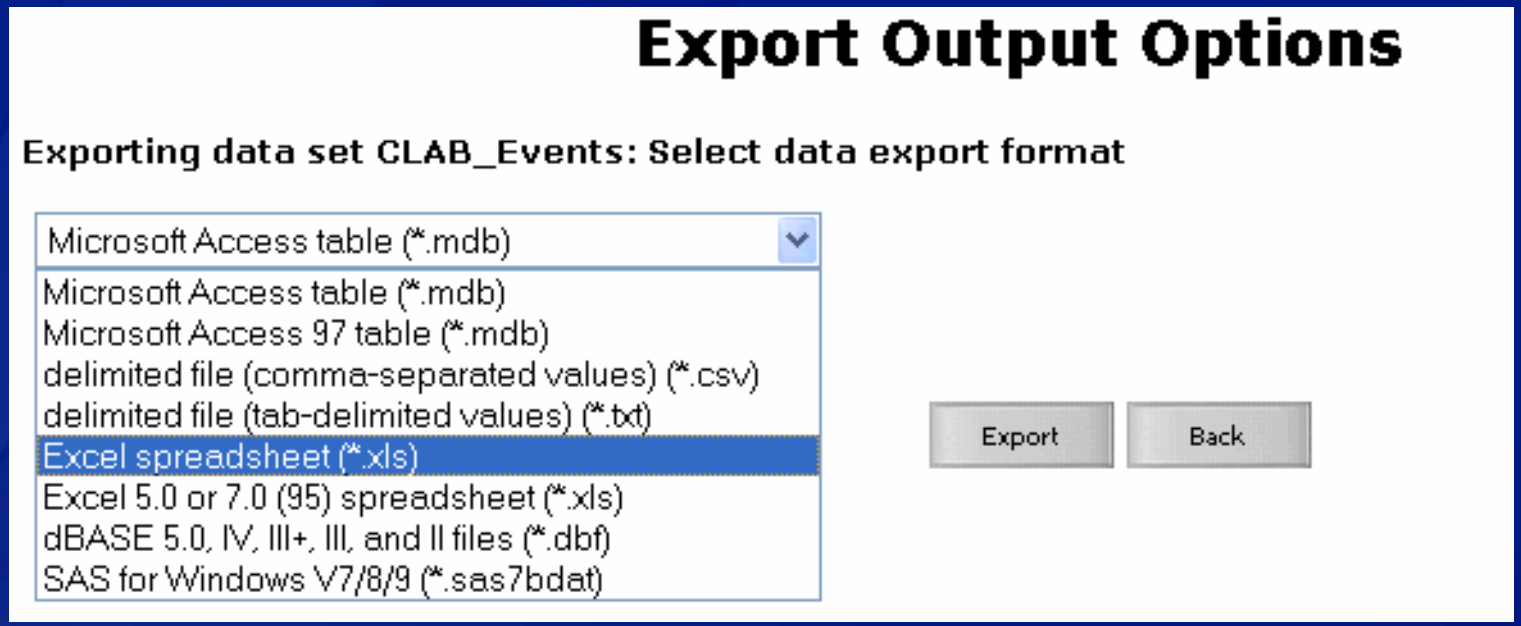
Exporting the output data set will include all data within the output option chosen, including any modifications.

This option appears at the bottom of the design modification screen.



Exporting Data

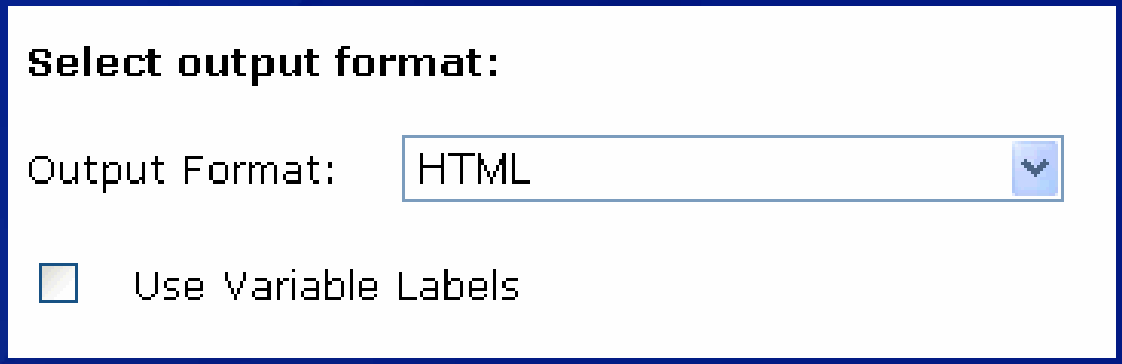
Exporting the analysis or output data set allows you to select the file type for your export via the Export Output Options screen.



Exporting Data

Change the Output Format

The default output format for all output options is HTML.

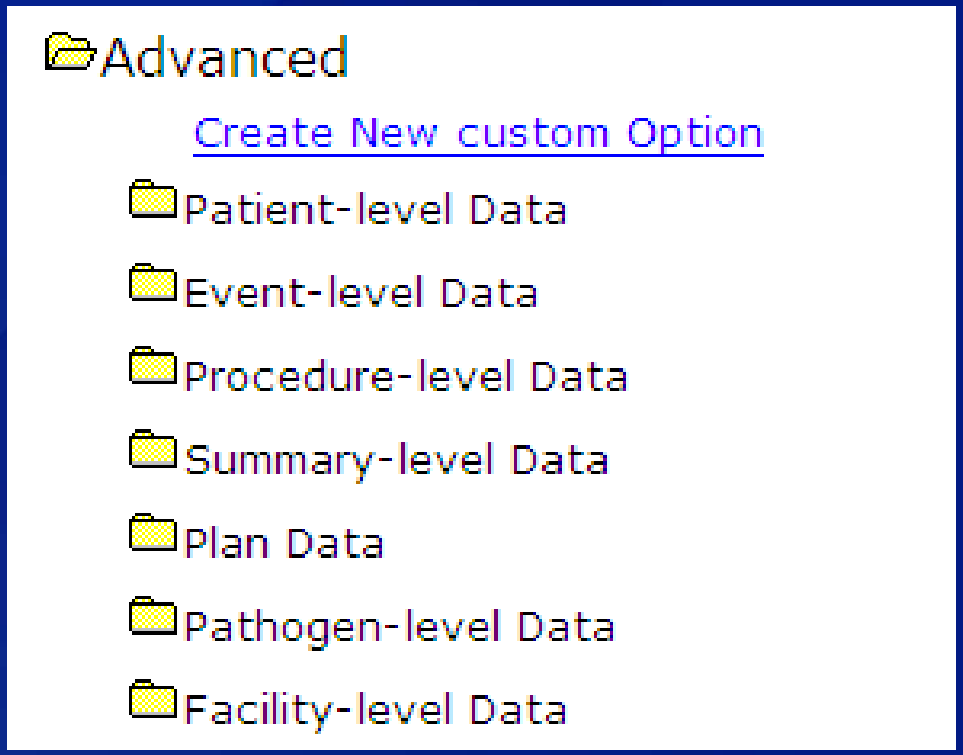


For all non-graphical output, the output format can be changed to:

- *PDF*
- *CSV (will export to Excel)*
- *RTF (will export to Word)*

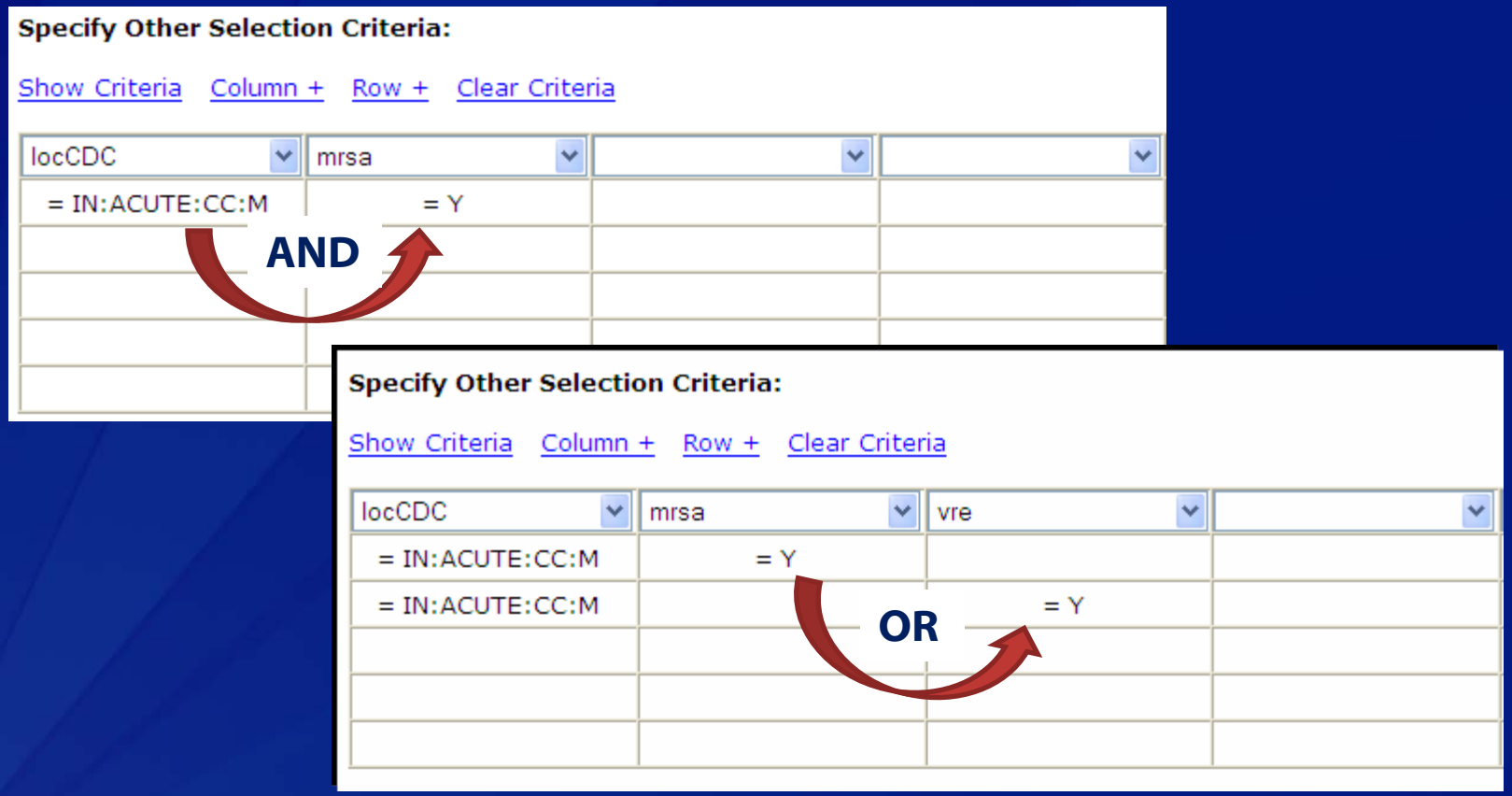
Additional Tips

1. *Become familiar with the "Advanced" output options folder!*



Additional Tips

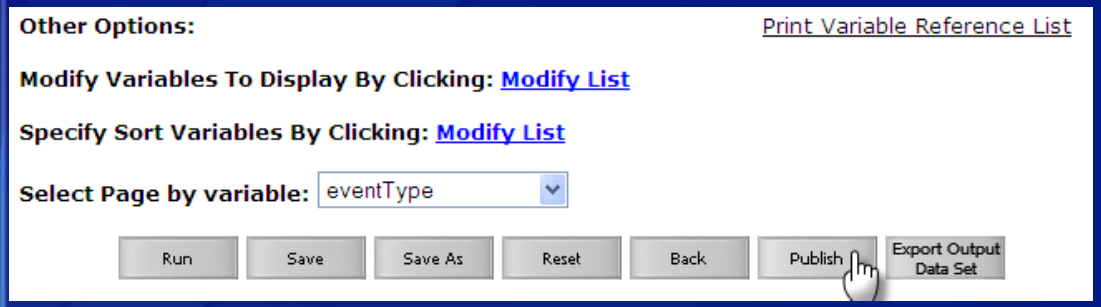
2. Practice using the "Specify Other Selection Criteria" section!

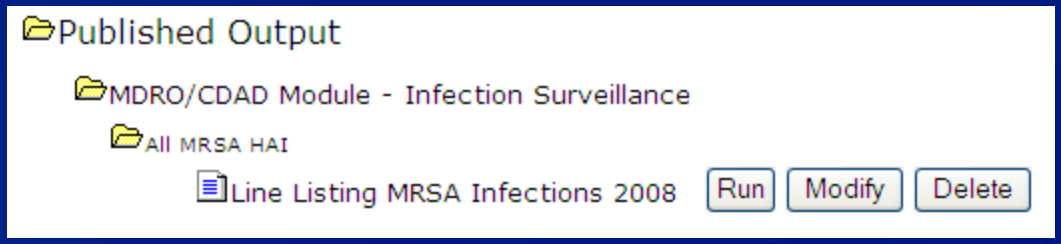


Additional Tips

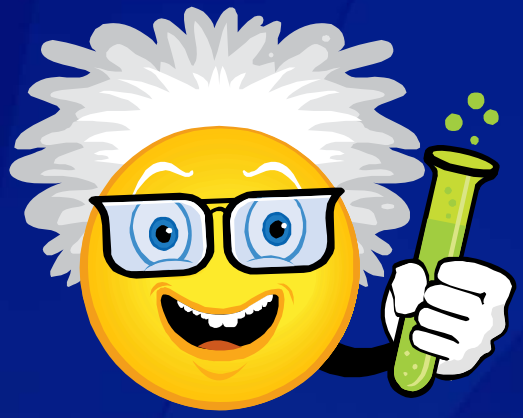
3. Share your custom output options with your co-workers!

By publishing your custom options, the other users in your facility can run the same option with their generated datasets.





Additional Tips



4. Experiment!!

ÈG rq*w eh wrr wlp lg dqg vtxhdp lvk derxw |rxu dfwlrqv1D œodih lv dq h{shulp hqw1Š

Ralph Waldo Emerson

In Summary…

- *CDC-Defined output options can be modified to meet your needs*
- *Modifications can be saved for later use*
- *Such modifications allow you to dig deeper into the data and allow you to perform "quality checks"*
- *All data sets can be exported for further manipulation outside of NHSN*

Additional Resources

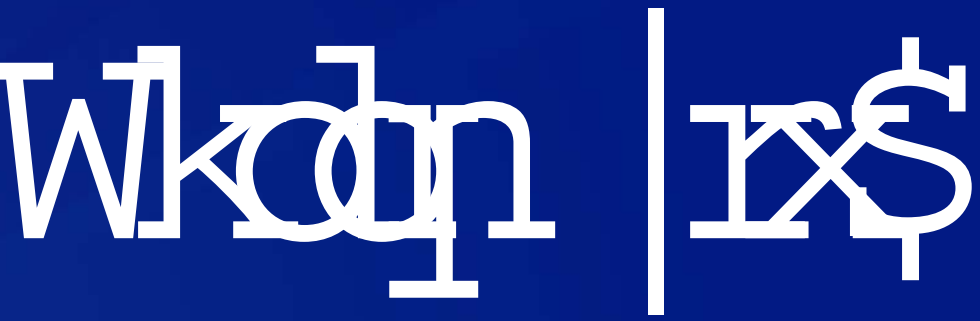
Analysis Training

Available from:

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

Contact Us

nhsn@cdc.gov



More Examples…

Inquiry

You need to know the distribution of each event type for MRSA MDRO Infection Surveillance.

More Examples…

Solution

Modify the MRSA HAI frequency table and change the row variable to eventType.

National Healthcare Safety Network

Frequency Table - All MRSA HAI

As of: July 6, 2010 at 9:10 AM

Date Range: All MDRO_EVENTS

Event Type				
eventType	Frequency	Percent	Cumulative Frequency	Cumulative Percent
BJ	1	2.00	1	2.00
BSI	20	40.00	21	42.00
CNS	1	2.00	22	44.00
EENT	2	4.00	24	48.00
LRI	1	2.00	25	50.00
PNEU	4	8.00	29	58.00
REPR	2	4.00	31	62.00
SSI	4	8.00	35	70.00
SST	14	28.00	49	98.00
UTI	1	2.00	50	100.00

More Examples…

Inquiry

When presenting your LabID MRSA rates, you are also interested in having a line list of the identified events, split out by community onset (CO) vs. hospital onset (HO).

More Examples…

Solution

Modify the MRSA LabID event line list and page by "onset". You may also wish to sort the line list – for example, sort by specDate (specimen date).

National Healthcare Safety Network

Line Listing - MRSA LabID Events MICU

As of: July 13, 2010 at 2:01 PM

Date Range: All LABID_EVENTS

Onset=CO

Patient ID	Event ID	Date Specimen Collected	Specific Organism	Location	Performed in Outpatient Setting?	Previous Organism Infection	Onset	Fac Admission Date	Location Admission Date	Specimen Body Site	Specimen Source
MD-4050	2525166	10/02/2009	MRSA	MICU	N	N	CO	10/01/2009	10/01/2009	UNSPECIFD	UNSPECIFD
MD-4051	2525178	10/03/2009	MRSA	MICU	N	N	CO	10/01/2009	10/01/2009	UNSPECIFD	UNSPECIFD

Sorted by specimenDate

Data contained in this report were last generated on July 6, 2010 at 8:18 AM.

Any C. diff LabID Event with a blank cdiAssay field indicates that it is related to a previous defining Event in a different location.

National Healthcare Safety Network

Line Listing - MRSA LabID Events MICU

As of: July 13, 2010 at 2:01 PM

Date Range: All LABID_EVENTS

Onset=HO

Patient ID	Event ID	Date Specimen Collected	Specific Organism	Location	Performed in Outpatient Setting?	Previous Organism Infection	Onset	Fac Admission Date	Location Admission Date	Specimen Body Site	Specimen Source
MD-4052	2525179	10/10/2009	MRSA	MICU	N	N	HO	10/05/2009	10/06/2009	UNSPECIFD	UNSPECIFD
MD-4053	2525186	10/15/2009	MRSA	MICU	N	N	HO	10/01/2009	10/10/2009	UNSPECIFD	UNSPECIFD
MD-4055	2525194	10/20/2009	MRSA	MICU	N	N	HO	10/15/2009	10/17/2009	UNSPECIFD	UNSPECIFD
MD-4054	2525189	10/24/2009	MRSA	MICU	N	N	HO	10/12/2009	10/20/2009	UNSPECIFD	UNSPECIFD

More Examples

Inquiry

Based on CLIP Bundle adherence rates by occupation, you want to know which elements of the CLIP bundle were "N" for each non-adherent record.

National Healthcare Safety Network

All Practice Adherence Rates by Location

Adherence Rate - CLIP Bundle

As of: July 6, 2010 at 8:35 AM

Date Range: All CLIP_RATES

orgID=15331 locCDC=IN:ACUTE:CC:M

summaryYM	location	occCDC	bundleCount	CLIPCount	bundle_adhRate
2009M04	MICU	FEL	3	3	100
2009M04	MICU	IVT	13	14	92.9
2009M04	MICU	PAS	5	5	100
2009M04	MICU	PHY	7	9	77.8
2009M04	MICU	RES	10	11	90.9

More Examples

Solution

Modify the CLIP Line List and include the following variables:

-clipBundle (where clipBundle = N)

-handHygiene
-skinPrepCHG
-skinPrepPI
-skinPrepAlc
-prepDry

-barrierMask
-barrierGown
-barrierDrape
-barrierGloves
-barrierCap

More Examples

National Healthcare Safety Network

Line Listing for All Central Line Insertion Practices Events

As of: July 6, 2010 at 8:42 AM

Date Range: All CLIP_EVENTS

Patient ID	Date of Birth	Location	Event ID	Insertion Date	clipBundle	Hand Hygiene Performed?	Skin Prep: Chlorohexidine gluconate?	Skin Prep: Povidone iodine?	Skin Prep: Alcohol?	Skin Prep Agent Dry?	Barrier Used: Mask?	Barrier Used: Gown?	Barrier Used: Drape?	Barrier Used: Gloves?	Barrier Used: Cap?
C1001	08/01/1950	MICU	2794913	04/10/2009	N	Y	Y	Y	N	Y	Y	Y	Y	Y	N
C1004	02/16/1980	MICU	2794949	04/23/2009	N	Y	Y	N	N	Y	Y	Y	Y	Y	N
C1006	08/29/1963	MICU	2796491	04/18/2009	N	Y	Y	N	N	N	Y	Y	Y	Y	Y
C1008	05/10/1972	MICU	2818406	04/13/2009	N	Y	Y	N	N	Y	N	Y	Y	Y	N