**National Center for Emerging and Zoonotic Infectious Diseases** 

# **Overview of NHSN Analysis**

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June 27, 2016

#### **Purpose**

- Understand the scope and structure of National Healthcare Safety Network (NHSN) data entry and analysis functions
- Become proficient in conducting basic analyses in the application
- Gain knowledge on how to customize analyses output available in NHSN

### **Learning Objectives**

- Discuss basic steps for analyzing Healthcare-Associated Infection (HAI) data in NHSN
- Review techniques on how to customize your output options
- Discuss methods to check accuracy of data

#### **Resources**

NHSN Analysis Resources (e.g., reference guides, trainings, etc.) are available at: <a href="http://www.cdc.gov/nhsn/PS-Analysis-resources/index.html">http://www.cdc.gov/nhsn/PS-Analysis-resources/index.html</a>

National Healthcare Safety Network (NHSN)					
NHSN	<u>CDC</u> > <u>NHSN</u>				
NHSN Login	Patient Safety Analysis Resources				
About NHSN +	f 😏 🕂				
Enroll Here +	The NHSN application provides various options that allow NHSN users to analyze you use the analysis tool, and interpret data analyzed from the Patient Safety Con				
Materials for Enrolled + Facilities					
Group Users +	Analysis Resources				
Analysis Resources -	> Guides and Training				
Analysis Quick Reference Guides	> NHSN Codes and Variables				
Annual Reports	> Statistical Tools				
CMS Requirements +					
National Quality Forum (NQF)	> NHSN Data				
Newsletters	> Demo Application				

### **Quick Reference Guides**

NHSN Login	
About NHSN	+
Enroll Here	+
Materials for Enrolled Facilities	+
Group Users	+
Analysis Resources	-
Analysis Quick Reference Guides	
Annual Reports	
Annual Reports CMS Requirements	+
Annual Reports CMS Requirements National Quality Forum (NQF)	+
Annual Reports CMS Requirements National Quality Forum (NQF) Newsletters	+
Annual Reports CMS Requirements National Quality Forum (NQF) Newsletters E-mail Updates	+
Annual Reports CMS Requirements National Quality Forum (NQF) Newsletters E-mail Updates Data Validation Guidance	+
Annual Reports CMS Requirements National Quality Forum (NQF) Newsletters E-mail Updates Data Validation Guidance HIPAA Privacy Rule	+

#### Patient Safety Analysis Quick Reference Guides

These quick reference guides were created to help you understand, modify, and interpret y (report) options for the NHSN Patient Safety Component. These guides serve as companio

#### Analysis Quick Reference Guides

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>	General Tips
>	Troubleshooting Guides
>	Frequently Requested Output/Reports
>	Targeted Assessment Prevention (TAP) Strategy Reports
>	Antimicrobial Use Option Output Types
>	Output/Report Option Types
>	Tips for Customizing Your Output/Reports
>	Detailed Guides for Specific Analysis Options

#### 6/27/2016

### **Analyzing Your Data is Important!**

- Analysis tools within NHSN help facilitate internal validation activities and help ensure accuracy
- Data entered into NHSN may be used by: the Centers for Disease Control and Prevention (CDC), the Centers for Medicare & Medicaid Services (CMS), your state health department\*, your corporation\*, special study groups\*, etc.
- Reports generated from NHSN can help inform prioritization and success of prevention activities

### Intro to Analysis

#### **Data Entry**

- Three options: Add, Find, Incomplete
  - Click 'Add' to enter data
  - 'Find' is used to look for previously entered data forms
  - 'Incomplete' lists the forms that have been started, but all the required fields have not been completed
- The 'Find' and 'Incomplete' options are very useful for investigating data quality issues

8 NHSN Home Alerts Reporting Plan Patient Event Add Find Incomplete Procedure Summary Data Import/Export Analysis Surveys Users Facility Group Tools Log Out

# **Monthly Reporting Plan**

- Identifies what is being monitored according to NHSN definitions
- Invokes business rules to ensure data is accurate
- One must be completed for each month of the year

\*Only in-plan data is shared with CMS

<b>CDC</b>	Department of Health and Human Services Centers for Disease Control and Prevention								
	NHSN - National Healthcare Safety Network								
🌹 NHSN Home	Logged into DHQP Memorial Hospital (ID	10000)	as PRA	CHI.		ant de la constant de			
Alerts	Facility DHQP Memorial Hospital (ID 10000) is following the PS component.								
Reporting Plan	View Monthly Reporting Plan								
Add Sind	them Montany Reporting Flam								
Patient									
Event	Mandatory fields marked with *								
Procedure	Facility ID*: DHOP Memorial Ho	spital	(10000	))					
Summary Data	Month*: January		(						
Import/Export	Year*: 2016								
Analysis									
Surveys	Device-Associated Module	HELP							
Users						Ped\/AP			
Facility	Locations	CLAB	SI VAE	CAU	TI CLI	(<18 years)			
Group	3 CENTRAL - 3 CENTRAL	x	X	x	X				
Log Out	5 WEST - 5 WEST	x	x	x					
	NICU 3 - LEVEL 3 NICU	x			х				
	CTICU - CARDIOTHORACIC CC	x		x					
	Procedure-Associated Modul	е 🕜 НЕ	LP						
	Procedures				SSI				
	BILI - Bile duct, liver or pance	eatic	surgen	IN:X	COUT	·: <b>X</b>			
	THOR - Thoracic surgery			IN:X	UTUO	: <b>x</b>			
	KPRO - Knee prosthesis			IN:X	TUO 1	:: <b>X</b>			
	HPRO - Hip prosthesis			IN:X	TUO 1	::X			
	HER - Herniorrhaphy			IN:X	TUO	:X			
	Antimicrobial Use and Resistance Module CHELP Locations Antimicrobial Use Antimicrobial Resistance								
	Multi-Drug Resistant Organism Module OHELP								

### **Data Entry-Alerts**

- Alerts are automatic checks in NHSN that remind you of incomplete or missing data
- Based on monthly reporting plan and summary data forms
- Before using the analysis function, make sure to clear all (relevant) alerts
- Found on the [Home Page], or by clicking on the [Alerts] tab on the sidebar



#### **Data Entry-Alerts**

- Most common source for alerts-Monthly Reporting Plan
- Missing summary data forms and procedures are determined based on the locations and procedure types listed in your reporting plan
- Alerts are based off what is being monitored in the Monthly Reporting Plan

#### **Generating Data Sets**

- Generating datasets is the first step in performing analysis in NHSN
  - Copies and freezes data
  - Organizes data into defined sets for analysis
  - Allows for quicker generation of reports
  - When analyzing data in NHSN, you are using a copy of your data, not the live database
- Each user has his/her own analysis datasets
  - Based on a user's rights

### **Generating Data Sets**

#### Generate Data Sets

#### Procedure HELP Summary Data Generate Patient Safety Analysis Data Sets Import/Export Datasets generated will include data for the 3 most recent full calendar years up until Analysis today's date for the Patient Safety Component. To include all years check the box Generate Data Sets below. Output Options Statistics Calculator For all other components, datasets generated will include all years. Note that any Surveys analysis options you run will be limited to the time period shown on the date range bar. Include all data reported to NHSN for this component. 5/2016 1/2013 Log Out Generate New Last Generated: May 24 2016 11:10AM

6/27/2016

**Reporting Plan** 

Patient Event

Users Facility

Group

### **Analysis Output Options**

- Data reports are referred to as "Output Options"
- Organized according to module type

Reporting Plan								
<u>Patient</u>								
Event								
Procedure								
Summary Data								
Import/Export								
Analysis	Expand All Collapse All							
Generate Data Sets	🗖 Device-Associated (DA) Module							
Output Options	Procedure-Associated (PA) Module							
Surveys	🛱 HAI Antimicrobial Resistance (DA+PA Modules)							
Users	MDRO/CDI Module - Infection Surveillance							
Facility	MDRO/CDI Module - LABID Event Reporting							
Group	MDRO/CDI Module - Process Measures							
Log Out	MDRO/CDI Module - Outcome Measures							
	Antimicrobial Use and Resistance Module							
	CMS Reports							
	TAP Reports							
	Advanced							
	My Custom Output							
	Published Output							

**Patient Safety Component** 

Analysis Output Options

# **Types of Output Options**

- Line Lists
- Frequency Tables
- Bar/Pie Charts
- Rate Tables
- Standardized Infection Ratio (SIR) Tables

### **Reference Guides for Output Options**

Analysis Quick Reference Guides

>	General Tips
>	Troubleshooting Guides
>	Frequently Requested Output/Reports
>	Targeted Assessment Prevention (TAP) Strategy Reports
>	Antimicrobial Use Option Output Types

#### Output/Report Option Types

Each of these guides will describe and provide an example of how to create, modify, and interpret the data displayed in the output/report.

- Line List 🛃 [PDF 196 KB]
- Line List Custom Field Variable Names 🔂 [PDF 193 KB]
- Frequency Table 🔂 [PDF 338 KB]
- Bar Chart 🛃 [PDF 163 KB]
- Pie Chart 🛃 [PDF 165 KB]
- <u>Rate Table</u> 100 [PDF 307 KB]
- Run Chart 🔂 [PDF 187 KB]
- <u>SIR Table: Device-associated</u> 1905 188 KB
- SIR Table: Surgical Site Infections 🔂 [PDF 174 KB]
- SIR Table: MRSA/CDI LabID Events
   MRSA/CDI LabID Events

### **Output Options**

- Click [Run] to obtain your output
- Click [Modify] to customize your output

Collapse All						
Device-Associated (DA) Module						
Central Line-Associated BSI						
CDC Defined Output						
🖹 Line Listing -	All CLAB Events					
Frequency T	able - All CLAB Events					
🛍 Bar Chart - A	Il CLAB Events					
🧐 Pie Chart - A	ll CLAB Events					
🗐 Rate Table -	CLAB Data for ICU-Other					
🔛 Run Chart - CLAB Data for ICU-Other						
Rate Table - CLAB Data for NICU						
Run Chart - CLAB Data for NICU						
Rate Table - CLAB Data for SCA/ONC						
🖾 Run Chart - CLAB Data for SCA/ONC						
🗐 Rate Table -	CLAB Data for LTAC					
📙 Run Chart - (	CLAB Data for LTAC					
Rate Table -	CLAB Data for IRF					
Run Chart - CLAB Data for IRF						
SIR - In-Plan CLAB Data						
SIR - All CLA	B Data					
🗐 SIR - CLAB D	ata for Long Term Acute Care					
	Collapse All Associated (D ral Line-Associated C Defined Output C Defined					

### **CMS Reports**

CMS Reports are available for each reporting program and are intended to mirror the summary-level data submitted to CMS on your behalf, for each quarter

	Expand All Collapse All						
	Device-Associated (DA) Module						
	Procedure-Associated (PA) Module						
	HAI Antimicrobial Resistance (DA+PA Modules)						
	MDRO/CDI Module - Infection Surveillance						
	MDRO/CDI Module - LABID Event Reporting						
	MDRO/CDI Module - Process Measures						
	MDRO/CDI Module - Outcome Measures						
	Antimicrobial Use and Resistance Module						
	CMS Reports						
	🗁 Acute Care Hospitals (Hospital IQR)						
	CDC Defined Output						
	SIR - CLAB Data for CMS IPPS	Run	Modify				
SIR - CAU Data for CMS IPPS Run							
	SIR - Complex 30-Day SSI Data for CMS IPPS	Run	Modify				
SIR - CDI FacwideIN LabID Data for CMS IPPS							
	SIR - MRSA Blood FacwideIN LabID Data for CMS IPPS	Run	Modify				
1	🛱 Inpatient Rehabilitation Facilities (IRFQR)						
	Long Term Acute Care Hospitals (LTCHQR)						
	PPS-Exempt Cancer Hospitals (PCHQR)						
	TAP Reports						
	Advanced						
	My Custom Output						
	Published Output						

### **General Tips for Analyzing Data**

- Develop a timeline to regularly enter and analyze your hospital's data
  - Consider a timeline that would allow for timely feedback and interventions, if necessary
  - Example: Monthly review of rates and event-level details
- Generate datasets regularly
- Read the footnotes on your reports!
- Review data for accuracy and completeness

#### **Modification and Customization of Data Output**

### **Modify Output**

- All the output options can be modified to meet your specific needs
- Custom Output Options
  - Saved modified output tables
  - Highly recommended
- Ways to modify your output
  - Changing the format
  - Changing the title
  - Filtering the data by various criteria

#### **Analysis SIR**

-	
@HELP	

# **Modify Output**

Three sections

- Top Section
- Middle Section
- Bottom Section

Analysis Data S	et: CLAB_Rates_CMS Export Analysis Data Set					
Modify Attribut	Nodify Attributes of the Output:					
Last Modified On	: 05/24/2016					
Output Type:	SIR					
Output Name:	SIR - CLAB Data for CMS IPPS					
Output Title:	SIR for CLAB Data for CMS IPPS					
Select output fo	ormat:					
Output Format:	HTML V					
Use Variable	e Labels					

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

Date Variable	Beginning	Ending	
summaryYr 🗸	2011		Clear Time Period

 $\hfill\square$  Enter Date variable/Time period at the time you click the Run button

#### Specify Other Selection Criteria: @HELP

. .

Show Criteria Column + Row + Clear Criteria

bsiPlan 🗸	locationType 🗸 🗸	locCDC 🗸	~	~
= Y	IN (CC, CC_N)			
= Y		IN (IN:ACUTE:WARD:M, IN:ACUTE:WARD:MS, IN:ACUTE:WARD:S, IN:ACUTE:WARD:M_PED, IN:ACUTE:WARD:MS_PED, IN:ACUTE:WARD:S_PED)		

Oth	er Option	s: @HELP	

Print Variable Reference List

Reset

Back

Save As

Run

Export Output Data Set

Group by: summaryYQ 🗸

### **Top Section**

- Place to modify the name, title, and output format of the data table
- NOTE: If you wish to save modifications as a template for future reports, you need to change the output name

Analysis Data So	et: CLAB_Rates_CMS Export Analysis Data Set
Modify Attribute	s of the Output:
Last Modified On:	05/24/2016
Output Type:	SIR
Output Name:	SIR - CLAB Data for CMS IPPS
Output Title:	SIR for CLAB Data for CMS IPPS
Select output fo	rmat:
Output Format:	HTML V

Use Variable Labels

### **Middle Section**

- Filter output by time period or other criteria (e.g. location type)
- This CMS report is limited to bsiPlan, Critical Care location type, and CDC Location

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

Date Variable	Beginning	Ending	
summaryYr 🗸	2011		Clear Time Period

 $\hfill\square$  Enter Date variable/Time period at the time you click the Run button

#### Specify Other Selection Criteria: @HELP

#### Show Criteria Column + Row + Clear Criteria

bsiPlan 🗸	locationType 🗸 🗸	locCDC 🗸	×	~
= Y	IN (CC, CC_N)			
= Y		IN (IN:ACUTE:WARD:M, IN:ACUTE:WARD:MS, IN:ACUTE:WARD:S, IN:ACUTE:WARD:M_PED, IN:ACUTE:WARD:MS_PED, IN:ACUTE:WARD:S_PED)		

### **Filtering the Middle Section**

#### Specify Other Selection Criteria: @HELP

Show Criteria Column + Row + Clear Criteria

bsiPlan 🗸	locationType 🗸 🗸	locCDC 🗸	
= Y 🔶	IN (CC, CC_N)		
= Y	OR	IN (IN:ACUTE:WARD:M, IN:ACUTE:WARD:MS, IN:ACUTE:WARD:S, IN:ACUTE:WARD:M_PED, IN:ACUTE:WARD:MS_PED, IN:ACUTE:WARD:S_PED)	

Other Options: @HELP

Print Variable Reference List

Group by: summaryYQ 🗸



#### Specify Other Selection Criteria: @HELP

Show Criteria Column + Row + Clear Criteria

		locationType 🗸 🗸	locCDC 🗸
ĺ	birthWtCode birthWtCodeDesc	IN (CC, CC_N)	
	bsiPlan		IN (IN:ACUTE:WARD:M,
	CCN		IN:ACUTE:WARD:MS,
	CLABCount		IN:ACUTE:WARD:S,
	CLABRate		IN:ACUTE:WARD:MC_PED,
	LineDU		IN:ACUTE:WARD:MS_PED,
	location		IN.ACOTE.WARD.3_FED)
	locCDC		
	locLabel		
ĺ	medtype		
ļ	numcldays		
	numpatdays		
	numSampCLDays		
_			
0	oralD		Print Variable Reference List
	sampMethCLDavs		
G	summaryYH		
	summaryYM		
	summaryYQ	Rup	Save As Reset B
	summaryYr	Kan	Laveria near

locCDC V	~	
IN (IN:ACUTE:WARD:M,		
IN:ACUTE:WARD:MS,		-
IN:ACUTE:WARD:S,		
IN:ACUTE:WARD:M_PED,		_
IN:ACUTE:WARD:S_PED,		
Specify an operator and val	lue(s) for selection criteria:	
-		
		Add Column+/-
<u>Variable</u> <u>Operator</u> <u>Val</u>	<u>ue(s)</u>	
Ma	dical Ward	
	dical Ward	¥
>=	dical/Surgical Ward	¥
< <u>Sur</u>	rgical Ward	~
<= Pei	diatric Medical Ward	~
locCDC in Per	diatric Medical/Surgical Ward	<u> </u>
in Per	diatric Surgical Ward	<u> </u>
Between		
	various operators can be s	
_	<u>Operator</u>	<u>Meaning</u>
	=	Equal to
	>	Greater than
	>=	Greater than or equal to
	<	Less than
	<=	Less than or equal to
	~=	Not equal to
	In	In a set of defined values
		Not in a set of defined
	~In	values
		Within a range of defined
	Between	values
0/07/0040		

### **Filtering the Middle Section**

The operator is used to modify the values of the variables

#### locationType

This variable will limit the output according to the location type

Specify an operator and	value(s) for selection criteria:	^
<u>Variable</u> <u>Operator</u>	<u>Value(s)</u>	Add Column+/-
locationType in	CC-CC CC_N-CC_N CC-CC CC_N-CC_N CLINIC-CLINIC NONPTC-NONPTC OR-OR OTHER-OTHER SCA-SCA STEP-STEP WARD-WARD CC_LTAC-CC_LTAC WARD LTAC-WARD LTAC	
	IRF - IRF	
	CC_ONC - CC_ONC WARD_ONC - WARD_ONC	
	STEP_UNC-STEP_UNC	int.

#### locCDC

This variable will limit your output by CDC location mapping

Specify a	n operator and	l value(s) for selection criteria:		^
		Add C	olumn+/-	
Variable	Operator			
		Burn Critical Care	$\sim$	
		Medical Cardiac Critical Care		
		Medical Critical Care		
		Medical/Surgical Critical Care		
		Neurologic Critical Care	_	
		Neurosurgical Critical Care		
		Prenatal Critical Care		
		Respiratory Critical Care		
locCDC	in 🗸	Surgical Cardiothoracic Critical Care		
		Surgical Critical Care		
		Trauma Critical Care		
		Well Baby Nursery (Level I)		
		Neonatal Critical Care(Level II/III)		
		Neonatal Critical Care (Level III)		
		Step down Neonatal Nursery (Level II)		$\sim$
		Pediatric Burn Critical Care		
		Pediatric Cardiothoracic Critical Care		
		Pediatric Medical Critical Care		
		Pediatric Medical/Surgical Critical Care		
		Pediatric Neurosurgical Critical Care		
		Pediatric Respiratory Critical Care		
		Pediatric Surgical Critical Care		
		Pediatric Trauma Critical Care		
		ONC Hematopoietic Stem Cell Transplant Ward		
		ONC General Hematology/Oncology Ward	Ares A	
		Dialysis SCA	et	
		Long-Term Acute Care (LTAC)		
		ONC Pediatric Hematopoietic Stem Cell Transplant Ward	~	
		Pediatric Dialysis SCA		

#### location

This variable will limit your output according to your labeled locations

Specify an operator	and value(s) for selection criteria:	
Variable Operator		
	EACWIDEIN - Eacility-wide Inpatient (EacWIDEIn)	~
location =	✓ FACWIDEOUT - Facility-wide Outpatient (FacWIDEOut)	
	[INACTIVE] 00001 - LAB2	
	0909 - 0909	
	0910 - ADULT REHAB	
	12 WEST - W	
	[INACTIVE] 1234 - INPATIENT BEDS	
	[INACTIVE] 12345 - ON_MC	
	[INACTIVE] 1236 - AMBULATORY SURGERY	
	[INACTIVE] 1237 - COLLECTION	
	INACTIVE12-2 INACTIVE12-EAST-HEM/ONC	
	INACTIVE 2 EAST2 - NICU	
	2 WEST - 24 HOUR OBS	
	20000 - THIS LABEL	
	2101 - 2101	
		-
	[INACTIVE] 240BS - OBSERVATION UNIT	
	3 CENTRAL - 3 CENTRAL	
✓	[INACTIVE] 3 MS - MEDSURG ICU	
	301 - OR	
	[INACTIVE] 3100 - 3100	
	3333 - E3WE	
	456 - LAB 1	$\sim$
	4567 - BIOVIGILANCE	

### **Bottom Section**

- The [Group by] option found at the bottom of the page allows you to view SIRs by month, quarter, half-year, or year
- Leave the option blank to see a cumulative SIR for the time period you have specified above
- In this example, this report will produce SIRs for each calendar quarter (i.e., 3-month time period) by selecting the [Group By] variable "summaryYQ"



#### **Data Accuracy Checks**

# What changes can potentially impact my rates of the SIRs?

- Entry or deletion of events
- Changes to numbers of patient days, device days, admissions
- Removal or addition to monthly reporting plans
- Change in admission date, previous discharge date on LABID events
- Changes to relevant factors in the annual survey (e.g., medical school affiliation, facility bed size)
- Resolution of "Report No Events" alerts

### Places to look for data quality issues

- Monthly reporting plans
  - "Are all my "Active" locations applicable to my NHSN surveillance listed?"
  - "Have I selected all my appropriate procedures?"
  - "Have I selected the appropriate lab specimens to collect for LABID data?"
- Annual Survey
  - "Did I update the number of beds from the previous survey year?"
  - "Has our hospitals medical school affiliation changed?"
- Using NHSN Analysis
  - "Did I generate new datasets?"
  - "Did I enter new events after I ran my analysis?"

\*Check the NHSN protocol for definitions and instructions

### **CMS Reports**

- ALWAYS run your CMS reports as close as possible to the reporting deadline
- Save and print a copy of the reports for your files
- Ensure that CCN is correct

#### CMS Reports

Acute Care Hospitals (Hospital IQR)

CDC Defined Output

SIR - CLAB Data for CMS IPPS

SIR - CAU Data for CMS IPPS

SIR - Complex 30-Day SSI Data for CMS IPPS

■SIR - CDI FacwideIN LabID Data for CMS IPPS

SIR - MRSA Blood FacwideIN LabID Data for CMS IPPS

Run	Modify
Run	Modify

# **NHSN Advanced Folder Output**

- A tool to assist users with data quality efforts
- One of the Output Options found in the Analysis tab on NHSN
- Allows users to create custom reports at various levels to check their data
  - Monthly Reporting Plans
  - Summary (denominator) Level Data
  - Event Data
  - Procedure Data



# **Monthly Reporting Plan**

Used for verifying your monthly reporting plan

Dear NHSN,

My Rehab unit closed in July, but I've received an alert that I am missing CAUTI and LabID data from that unit from August onward. What's happening?

National Healthcare Safety Network Line Listing - Plan As of: January 13, 2016 at 12:26 PM Date Range: PLAN planYM 2015M01 to 2015M12							Look at ''modifyl ''modifyl	: the Date" and UserID"		
location	IocCDC	bsiPlan	utiPlan	ssiPlan	mrsa_lablD	cdif_labID	mo	difyDate	modifyUserID	createDate
REHAB	IN:ACUTE:WARD:REHAB	Ν 🤇	$\mathbf{Y}$		(	$\searrow$	26AU	G15:09:36	124115	14NOV14:16:57

- Create a report to identify what was included on your monthly reporting plan for that unit
- The reporting plan could have been modified after July to include those measures!

### **Monthly Reporting Plan**

Croate New custom Ontion	Select output format:				
Patient-level Data	Dutput Format: HTML	<b>▼</b>			
Event-level Data	Use Variable Labels				
Summary-level Data					
Plan Data	Select a time period or Leave Blank for Cum	ulative Time Period: OHELP			
CDC Defined Output Eline Listing - Patient Safety Plans Run Modify	Date Variable Beginning Ending planYM V 01/2015 12/2015	Clear Time Period	_		
	Enter Date variable/Time period at the tim	e you click the Run button		Select Variables to include in Line Listi	ing:
	Specify Other Selection Criteria: OHELP Show Criteria Column + Row + Clear Criter			Available Variables	
		~	~	acine_labIDBId CCN	
	= IN:ACUTE:WARD:REHAB			cdif_hh cdif_infSurv cephRKleb_gg cephRKleb_hh cephRKleb_infSurv All	>

Available Variables
acine_gg acine_hh acine_infSurv acine_labID acine_labIDBld CCN cdif_infSurv cephRKleb_infSurv cephRKleb_infSurv cephRKleb_infSurv cephRKleb_labIDBld clipPlan createUserID createUserID creEcoli_nfSurv creEcoli_labID creEcoli_labID creEcoli_labIDBld creKleb_gg creKleb_hh creKleb_infSurv

Other Options: @HELP

Print Variable Reference List

Modify Variables To Display By Clicking: Modify List

Specify Sort Variables By Clicking: Modify List

#### **Event Level Data**

Provides detailed information regarding all events
 Dear NHSN,

I was wondering, how do I identify MBI-LCBIs cases for my facility?

- Use advanced report to identify CLABSI MBI-LCBI events

#### National Healthcare Safety Network

Line Listing for All Events As of: June 3, 2016 at 8:59 AM Date Range: EVENTS evntDateYr 2016 to 2016

orgID	patID	dob	gender	admitDate	eventID	eventDate	eventType	location	mbi_lcbi
10000	123	07/07/1986	F	01/10/2016	21094696	01/13/2016	BSI	5 WEST	N
10000	123	07/07/1986	F	01/01/2016	21094672	01/03/2016	BSI	5 WEST	N
10000	12345	09/21/1947	F	01/03/2016	21320957	01/05/2016	BSI	3 CENTRAL	N
10000	KB4638	08/02/1946	М	03/15/2016	22394616	03/25/2016	BSI	3 CENTRAL	Y
10000	KB4782	09/30/1952	F	03/02/2016	22394615	03/29/2016	BSI	3 CENTRAL	Y

#### **Event Level Data**

Advanced			:
Create New custom Option			(
Patient-level Data			
🛱 Event-level Data			
CDC Defined Output			
Line Listing - All Infection Events	Run	Modify	
Line Listing - All Non-Infection Events	Run	Modify	
Line Listing - All Events	Run	Modify	
Frequency Table - All Events	Run	Modify	
🛍 Bar Chart - All Events	Run	Modify	
Pie Chart - All Events	Run	Modify	
Line Listing - All CDC Infections	Run	Modify	
User-Defined Rate Table - All Events	Run	Modify	

Output Format: HTML

Use Variable Labels

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

Date Variable		Beginning	Ending	
evntDateYr	~	2016	2016	Clear Time Period

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

#### Specify Other Selection Criteria: @HELP

#### Show Criteria Column + Row + Clear Criteria

~	~	~
·	·	

 $\mathbf{v}$ 

Other Options: @HELP	Print Variable Reference List
Modify Variables To Display By Clicking: Modify List	
Specify Sort Variables By Clicking: Modify List	
Select Page by variable:	

#### Select Variables to include in Line Listing:

Available Variables		Selected Variables	
locStatus locToSpecDays mdro mdroIncompleteFlag mdroInfPlan mechVentDate mechVentDate modifyDate modifyDate modifyUserID mrsa mssa multiProc numLumens occCDC occCDCDesc OID ointmentApp onset onsetDesc othReasonInsert othSkinPrep othSkinPrepSfy outpatient patDischarge	▲  >>  All>>  <<  All<<	orgID patID dob gender admitDate eventD eventDate eventType location mbi_Icbi	Up Down
	Save R	eset Close	

### **Procedure Level Data**

Used for the Procedure-Associated Module

Procedure-level Data

Dear NHSN,

I am missing one of my COLO procedures from my SIR report in quarter 2 of 2015. Why isn't it included?

- Create a report to include exclusion criteria for SSI in SIR reports:

#### CDC Defined Output Line Listing - All Procedures Run Modify Frequency Table - All Procedures Run Modify Bar Chart - All Procedures Run Modify Pie Chart - All Procedures Run Modify SIR - Complex 30-Day SSI Data by Surgeon Run Modify Rate Table - SSI Data by Procedure and Risk Index Run Modify Run Chart - SSI Data by Procedure and Risk Index Run Modify Rate Table - Specific Event SSI Rates by Procedure Run Modify Run Chart - Specific Event SSI Data by Procedure Run Modify Rate Table - SSI Data by Surgeon, Procedure, and...more Modify Run Modify Run Chart - SSI Data by Surgeon, Procedure, and ...more Run

### **Summary Level Data**

 Used for producing a line list for all summary data of a certain type Dear NHSN,

I ran a report for 2015 quarter 4 to calculate my CAUTI for Medical Wards and it's different from what I remembered. I haven't made any changes since, why is this number different?

Compare the "createDate" and "modifyDate" to see if there is a discrepancy. The data may have been changed.

#### National Healthcare Safety Network Line Listing for All Summary Data

As of: June 3, 2016 at 10:09 AM Date Range: PSSUMMARY summaryYM 2015M10 to 2015M12

orgid	summaryYM	location	loccdc	noEvents	numpatdays	numddays	createDate	modifyDate	modifyUserID
10000	2015M10	4F	IN:ACUTE:WARD:M	Y	11	11	05NOV15:13:58	05NOV15:13:58	21614
10000	2015M10	3 CENTRAL	IN:ACUTE:WARD:M	N	11	11	05NOV15:14:15	14APR16:11:01	93841

### **Summary Level Data**

Run Modify

Run

Run Run Run

#### 🗁 Summary-level Data

#### CDC Defined Output

Line Listing - All Summary Data
User-Defined Rate Table - ICU-Other
User-Defined Rate Table - NICU
User-Defined Rate Table - SCA

Line Listin	g - CL	AB Rates	for NICU
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Select a time period or Leave Blank for Cumulative Time Period: @HELP

Modify	Date Variable	Beginning	Ending	1	
Modify	summaryYM 🗸	10/2015	12/2015		Clear Time Period
Modify	Enter Date	variable/Time peri	od at the time you	clic	k the Run button
Modify					

#### Specify Other Selection Criteria: @HELP

#### Show Criteria Column + Row + Clear Criteria

eventType	~	locCDC	~	
= CAU		= IN:ACUTE:WARD:M		
Other Options: @HELP				Print Variable Refer
Modify Variables To Disp	lay By (	Clicking: <u>Modify List</u>		
Specify Sort Variables By	/ Clickir	ng: <u>Modify List</u>		
Select Page by variable:		~		

#### Select Variables to include in Line Listing:

Available Variables		Selected Variables	
admASTEligible admASTPerformed birthWtCode CCN cdiTestMeth cdiTestMethOth createUserID custom1 custom10 custom12 custom12 custom13 custom14 custom15 custom16 custom17 custom18 custom19 custom2 custom2 custom21 custom22 custom23 custom24 custom25	~	orgID       summaryYM       location       locCDC       noEvents       numpatdays       numddays       createDate       modifyDate       modifyUserID	Up Down
	Sav	e Reset Close	

#### **NHSN Website: CMS Reporting Resources**

## **Operational Guidelines**

#### http://www.cdc.gov/nhsn/cms/index.html

#### **CMS Requirements**



#### CMS Resources for NHSN Users

- > Operational Guidance for Acute Care Hospitals
- > Operational Guidance for Ambulatory Surgery Centers
- > Operational Guidance for PPS-Exempt Cancer Hospitals
- > Operational Guidance for Long-term Acute Care Facilities
- > Operational Guidance for Inpatient Psychiatric Facilities
- > Operational Guidance for Inpatient Rehabilitation Facilities
- > Outpatient Dialysis Facilities

#### Resources

- Healthcare Facility HAI Reporting Requirements to CMS via NHSN Current and Proposed Requirements September 2015
   [PDF - 105 KB]
- Reporting Requirements and Deadlines in NHSN per CMS Current Rules September 2015 1 (PDF - 161 KB)
- Hospital Inpatient Quality Reporting Program. ☑
- CMS' Hospital Compare tool ☑
- CMS Inpatient Prospective
   Payment System (IPPS)
   Rule ☑
- Changing a CCN within NHSN (updated July 2015)
   [PDF - 297 KB]

### **Operational Guidelines**

CMS Resources for NHSN Users

×	Operational	Guidance	for Acute	e Care H	lospitals
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- Operational Guidance for Acute Care Hospitals to Report Central Line-Associated Bloodstream Infection (CLABSI) Data to CDC's NHSN for the Purpose of Fulfilling CMS's Hospital Inpatient Quality Reporting (IQR) Requirements November 2014 To [PDF - 101 KB]
- Operational Guidance for Acute Care Hospitals to Report Catheter-Associated Urinary Tract Infection (CAUTI) Data to CDC's NHSN for the Purpose of Fulfilling CMS's Hospital Inpatient Quality Reporting (IQR) Requirements November 2014 [2014] [PDF - 116 KB]
- Operational Guidance for Reporting Surgical Site Infection Data to CDC's NHSN for the Purpose of Fulfilling CMS's Hospital Inpatient Quality Reporting (IQR) Program Requirements November 2014 2014 [PDF - 106 KB]
- Operational Guidance for Acute Care Hospitals to Report Healthcare Personnel (HCP) Influenza Vaccination Data to CDC's National Healthcare Safety Network (NHSN) for the Purpose of Fulfilling CMS's Hospital Inpatient Quality Reporting (IQR) Program Requirements and CMS's Hospital Outpatient Quality Reporting (OQR) Program Requirements. September 2015
   [PDF - 88 KB]
- Operational Guidance for Acute Care Hospitals to Report Facility-Wide Inpatient (FacWideIN) Methicillin-Resistant Staphylococcus aureus (MRSA) Blood Specimen (Bacteremia) Laboratory-Identified (LabID) Event Data to CDC's NHSN for the Purpose of Fulfilling CMS's Hospital Inpatient Quality Reporting (IQR) Requirements Nov. 2014 S [PDF - 364 KB]
- Operational Guidance for Acute Care Hospitals to Report Facility-Wide Inpatient (FacWideIN) Clostridium difficile Infection (CDI) Laboratory-Identified (LabID) Event Data to CDC's NHSN for the Purpose of Fulfilling CMS's Hospital Inpatient Quality Reporting (IQR) Requirements Nov. 2014 [PDF - 363 KB]

### **CMS Reporting Resources**

Includes module specific instruction guides for all facility types

#### CMS Reporting

> Importance of NHSN Reporting
CLABSI (Acute Care Hospitals)
CLABSI (PPS-Exempt Cancer Hospitals)
CLABSI (Long-term Acute Care Facilities)
CAUTI (Acute Care Hospitals)
CAUTI (PPS-Exempt Cancer Hospitals)
CAUTI (Long-term Acute Care Facilities)
CAUTI (Inpatient Rehabilitation Facilities)
VAE (Long-term Acute Care Facilities)
> SSI (Acute Care Hospitals)
> MRSA Bacteremia and C.difficile LabID Events (Acute Care Hospitals)
<ul> <li>MRSA Bacteremia and C.difficile LabID Events (Acute Care Hospitals)</li> <li>MRSA Bacteremia and C.difficile LabID Events (Inpatient Rehabilitation Facilities)</li> </ul>
<ul> <li>MRSA Bacteremia and C.difficile LabID Events (Acute Care Hospitals)</li> <li>MRSA Bacteremia and C.difficile LabID Events (Inpatient Rehabilitation Facilities)</li> <li>MRSA Bacteremia and C. difficile LabID Events (Long Term Acute Care Facilities)</li> </ul>
<ul> <li>MRSA Bacteremia and C.difficile LabID Events (Acute Care Hospitals)</li> <li>MRSA Bacteremia and C.difficile LabID Events (Inpatient Rehabilitation Facilities)</li> <li>MRSA Bacteremia and C. difficile LabID Events (Long Term Acute Care Facilities)</li> <li>Healthcare Personnel Influenza Vaccination (Acute Care Hospitals)</li> </ul>
<ul> <li>MRSA Bacteremia and C.difficile LabID Events (Acute Care Hospitals)</li> <li>MRSA Bacteremia and C.difficile LabID Events (Inpatient Rehabilitation Facilities)</li> <li>MRSA Bacteremia and C. difficile LabID Events (Long Term Acute Care Facilities)</li> <li>Healthcare Personnel Influenza Vaccination (Acute Care Hospitals)</li> <li>Healthcare Personnel Influenza Vaccination (Ambulatory Surgery Center)</li> </ul>
<ul> <li>MRSA Bacteremia and C.difficile LabID Events (Acute Care Hospitals)</li> <li>MRSA Bacteremia and C.difficile LabID Events (Inpatient Rehabilitation Facilities)</li> <li>MRSA Bacteremia and C. difficile LabID Events (Long Term Acute Care Facilities)</li> <li>Healthcare Personnel Influenza Vaccination (Acute Care Hospitals)</li> <li>Healthcare Personnel Influenza Vaccination (Ambulatory Surgery Center)</li> <li>Healthcare Personnel Influenza Vaccination (Outpatient Dialysis Facilities)</li> </ul>
<ul> <li>MRSA Bacteremia and C.difficile LabID Events (Acute Care Hospitals)</li> <li>MRSA Bacteremia and C.difficile LabID Events (Inpatient Rehabilitation Facilities)</li> <li>MRSA Bacteremia and C. difficile LabID Events (Long Term Acute Care Facilities)</li> <li>Healthcare Personnel Influenza Vaccination (Acute Care Hospitals)</li> <li>Healthcare Personnel Influenza Vaccination (Ambulatory Surgery Center)</li> <li>Healthcare Personnel Influenza Vaccination (Outpatient Dialysis Facilities)</li> <li>Healthcare Personnel Influenza Vaccination (Inpatient Rehabilitation Facility)</li> </ul>

## **CMS Reporting**

> Importance of NHSN Reporting

CLABSI (Acute Care Hospitals)

- How to Report No CLABSI Events for the CMS Inpatient Quality Reporting Program May 2015
   [PDF 639 KB]
- NHSN Monthly Checklist for Reporting to CMS Hospital IQR for Acute Care Hospitals (July 2015)
   [PDF 474 KB]
- Using the "SIR CLABSI Data for CMS IPPS" Output Option. August 2015.

### **CMS Reporting Resources**

- CMS current requirements posted on NHSN <u>http://www.cdc.gov/nhsn/pdfs/cms/cms-reporting-requirements.pdf</u>
- Federal Register

<u>https://www.federalregister.gov/articles/search?conditions%5Bagency\_ids%5D=45&conditions%5Bterm%5D=healthcare+associate+infections&conditions%5Btype%5D%5B%5D=PRORULE</u>

- Search Antimicrobial use @ <u>https://www.gpo.gov/fdsys/pkg/FR-2016-04-</u> 27/pdf/2016-09120.pdf
- Mountain Pacific Quality Health (QIN/QIO) <a href="http://mpqhf.com/QIO/quality-improvement-tools-resources/healthcare-associated-infections-tools-resources/">http://mpqhf.com/QIO/quality-improvement-tools-resources/healthcare-associated-infections-tools-resources/</a>
- Quality Net

https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage %2FQnetTier2&cid=1228760487021

### **Other Resources**

- How to Filter Output by Additional Criteria <u>http://www.cdc.gov/nhsn/PS-Analysis-resources/PDF/SelectionCriteria.pdf</u>
- Data Entry and Analysis Training http://www.cdc.gov/nhsn/training/analysis/index.html
- NHSN Data Dictionary (Under NHSN Codes and Variables) <u>http://www.cdc.gov/nhsn/ps-analysis-resources/index.html</u>
- NHSN September 2015 Newsletter–Data Quality Corner <u>http://www.cdc.gov/nhsn/pdfs/newsletters/newsletter-sept-2015.pdf</u>
- How to View Create & Modify Dates within NHSN <u>http://www.cdc.gov/nhsn/pdfs/analysis/how2view-create-modify-dates-in-nhsn.pdf</u>

# **Additional Questions?**

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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.

