



# Optimizing the Group User Analysis Experience

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# Objectives

By the end of this presentation, you will:

- Describe Analysis Dataset Generation for Groups
- Know how to create and conduct analysis using Custom Lists in NHSN using the Preferences Function
- Know how to generate, analyze, and interpret reports that are helpful for NHSN Groups

All data in this presentation are fictitious and are for educational purposes only.

# Dataset Generation for Groups

- Dataset generation is user specific in NHSN. Group user datasets will include data for all facilities in the group
- Regular dataset generation is recommended, as it helps incorporate updated data and NHSN updates
- Updated data will not appear in NHSN datasets without dataset generation
- Facilities do not have to generate datasets in order for Groups to analyze data

Generate Data Sets (Patient Safety)

Reporting Data Sets Participation Alerts Data Set (Optional)

Include data for the following time period:

Beginning Ending

mm/yyyy 1 mm/yyyy 1 Clear Time Period

Generate Reporting Data Sets

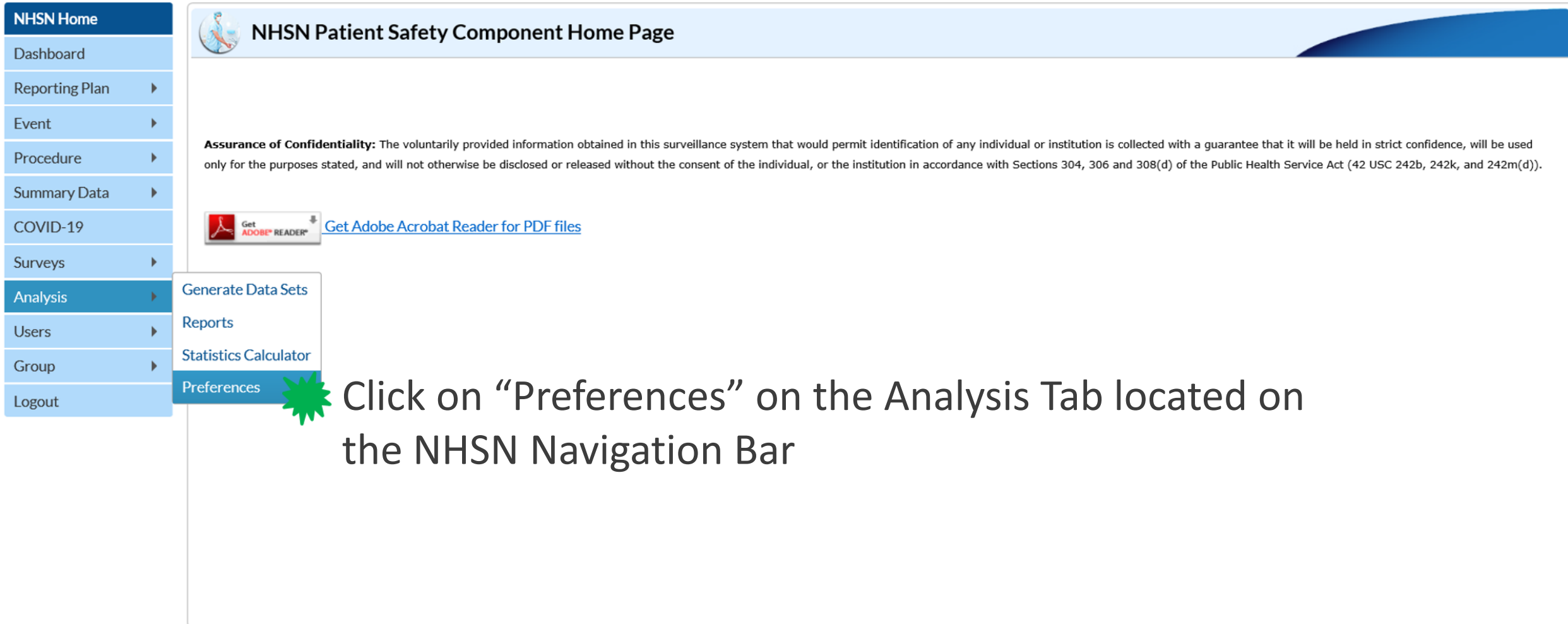
Last Generated:  
January 25, 2021 1:59 PM  
to include all data

# Creating and Conducting Analysis with Custom Lists

# Overview of Custom Lists

- A Custom List is a specific list or subgroup of facilities developed by a Group to conduct analysis
- A few of the reasons a Group might utilize Custom Lists are:
  - Group facilities based on their reporting requirements
  - Group facilities based on their participation in a quality improvement initiative

# Create a Custom List




The screenshot shows the NHSN Patient Safety Component Home Page. On the left is a vertical navigation bar with the following items: NHSN Home, Dashboard, Reporting Plan, Event, Procedure, Summary Data, COVID-19, Surveys, Analysis, Users, Group, and Logout. The 'Analysis' tab is selected, and its dropdown menu is open, showing 'Generate Data Sets', 'Reports', 'Statistics Calculator', and 'Preferences'. A green starburst icon is placed over the 'Preferences' option. The main content area has a header 'NHSN Patient Safety Component Home Page' and a confidentiality notice. Below the notice is an Adobe Reader download prompt.

**NHSN Home**

- Dashboard
- Reporting Plan ▶
- Event ▶
- Procedure ▶
- Summary Data ▶
- COVID-19
- Surveys ▶
- Analysis** ▶
- Users ▶
- Group ▶
- Logout

**NHSN Patient Safety Component Home Page**

**Assurance of Confidentiality:** The voluntarily provided information obtained in this surveillance system that would permit identification of any individual or institution is collected with a guarantee that it will be held in strict confidence, will be used only for the purposes stated, and will not otherwise be disclosed or released without the consent of the individual, or the institution in accordance with Sections 304, 306 and 308(d) of the Public Health Service Act (42 USC 242b, 242k, and 242m(d)).

 [Get Adobe Acrobat Reader for PDF files](#)

Generate Data Sets  
Reports  
Statistics Calculator  
**Preferences**

Click on “Preferences” on the Analysis Tab located on the NHSN Navigation Bar

# Creating a Custom List

Preferences

Custom Lists

Custom List Name
Custom List 1
Custom List 2
Custom List 3

Page 1 of 1 View 1-3 c

Add Back

Select “Add” on the Custom Lists tab.

# Preferences – Custom List Function

Use these buttons to add or remove facilities from Custom Lists.

Enter a name and click "Save" to add the Custom Lists to your group for analysis

To "Save as", modify the auto-filled custom list name

The screenshot shows the 'Preferences - Custom List' interface. It features two tables: 'Available Facilities' and 'Selected Facilities'. The 'Available Facilities' table has columns for Facility ID, CCN, Name, and State, with three rows of data. The 'Selected Facilities' table has the same columns and two rows of data. A central panel contains four buttons: 'Select all current >>>', '<<< Select all current', 'Select all >>>', and '<<< Select all'. Below the tables is a 'Custom List name' field containing 'Custom List 4', with 'Save', 'Delete', and 'Back' buttons. A callout box points to the 'Save' button with the text 'Enter a name and click "Save" to add the Custom Lists to your group for analysis'. Another callout box at the top right points to the selection buttons with the text 'Use these buttons to add or remove facilities from Custom Lists.'. A note at the bottom states 'To "Save as", modify the auto-filled custom list name'.

Facility ID	CCN	Name	State
15331	999999	Decennial Medical Center	GA
17776	999999	Malpiedi Memorial LTACH	GA
19836	999999	DHQP Workshop Hospital	GA

Facility ID	CCN	Name	State
10000	31C0001043	DHQP Memorial Hospital	GA
10012	999999	DHQP Beta General	GA

Custom List name:

Remember to generate datasets after creating Custom Lists to ensure that the lists of facilities or subgroups are available for analysis in NHSN reports.



# Preferences Custom List Function

- To analyze data by a Custom List, select the variable “OrgID\_CL” on the Filters tab in the analysis reports modification screen and then select the Custom List’s name.

Select the Custom List’s Name to filter by on the modification screen of the report.

The screenshot shows the 'Modify "SIR - Adult All SSI Data by Procedure"' interface. At the top, there is a header bar with the title and a 'Show descriptive variable names (Print List)' checkbox. Below the header, there are tabs for 'Title/Format', 'Time Period', 'Filters', and 'Display Options'. The 'Filters' tab is active. Underneath, there are 'Additional Filters:' buttons for 'Show' and 'Clear'. A filter rule is defined with 'AND OR' logic. The variable 'OrgID\_CL' is selected in a dropdown menu, followed by the operator 'in'. A dropdown menu is open, showing a list of custom lists: 'Custom List 1', 'Custom List 2', 'Custom List 3', and 'Custom List 4'. A green starburst icon is positioned below the dropdown menu. At the bottom of the interface, there are buttons for 'Run', 'Save...', 'Export...', and 'Close'.

# Including a Custom List in an Analysis Report

- The report below was run with the “Custom List 4”. Only the data for facilities in “Custom List 4” are described in the report.

## National Healthcare Safety Network

### SIR for Adult All SSI Data by Procedure (2015 Baseline) - Overall

As of: January 25, 2021 at 2:32 PM

Date Range: All BS2\_SIR\_ADULTALLSSIPROC

if (((OrgID IN ("10000","10012" )) ))

OrgIDs included in the Custom List will appear in the Filters description of the report title.

summaryYH	procCount	infCountAdultAll	numPredAdultAll	SIRAll	SIRAll_pval	SIRAll95CI
2016H1	310	5	11.969	0.418	0.0285	0.153, 0.926
2016H2	218	7	8.376	0.836	0.6715	0.366, 1.653
2017H1	34	0	0.876	.	.	
2017H2	3	0	0.263	.	.	
2018H1	11	2	0.694	.	.	
2019H1	35	1	1.315	0.761	0.8903	0.038, 3.752
2019H2	0	0	0.000	.	.	
2020H1	4	4	0.144	.	.	

# Conducting Analysis with the Membership Rights Report

# Membership Rights Report

- The Line Listing Membership Rights report is a line listing report that describes the rights that each facility has conferred to a group. This report can be filtered and sorted based on variables in the confer rights template.

Advanced

- Folder Patient-level Data
- Folder Event-level Data
- Folder Procedure-level Data
- Folder Summary-level Data
- Folder Plan Data
- Folder Pathogen-level Data
- Folder Facility-level Data
- Folder Group-level Data
- Line Listing - Membership Rights
- Create Export File for CUSP - CLAB Rates for ICU/Other
- Export File for CUSP - SUTI Rates for ICU/Other-SCA

The Membership Rights report can be accessed by opening the Advanced folder and then opening the Group-level Data folder.

Modify "Line Listing - Membership Rights"

Show descriptive variable names ([Print List](#)) Analysis Data Set: GroupRights Type: Line Listing Last Generated: January 25, 2021 1:56 PM

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

Title:  
Line Listing - Group Rights

Format:  
html pdf xls rtf

Run Save... Export... Close

# Membership Rights Report

- A few of the data elements that are described in the report are facility information, facility survey, plan, and HAI data.

## National Healthcare Safety Network Line Listing - Group Rights

As of: January 25, 2021 at 2:47 PM  
Date Range: All GROUPTRIGHTS

The "Data Right" column describes the type of access the group has to the data.

Group Org ID	Facility Org ID	Facility Name	Data Name	Data Right	Plan	From Month	From Year	To Month	To Year	N/A Checked?
21928	10000	DHQP Memorial Hospital		Analyze		.	.	.	.	N
21928	10000	DHQP Memorial Hospital	Patient without identifying data	View		.	.	.	.	N
21928	10000	DHQP Memorial Hospital	Plan	View		.	.	.	.	N
21928	10000	DHQP Memorial Hospital	FacInfo	View		.	.	.	.	N
21928	10000	DHQP Memorial Hospital	Facility Survey Data	View	(ALL)	.	2015	.	.	N
21928	10000	DHQP Memorial Hospital	CL assoc BSI Events	View	IN	1	2016	.	.	N

The "Data Name" column describes the datasets that the group has access to in NHSN.

The "N/A Checked" column describes the datasets where facilities have indicated data that is not being shared with the group.

# Membership Rights Report Interpretation

## National Healthcare Safety Network Line Listing - Group Rights

As of: January 25, 2021 at 2:47 PM  
Date Range: All GROUPRIGHTS

The term "Analyze" in the "Data Right" column means that the group has the right to analyze all data that they have the right to view.

Group Org ID	Facility Org ID	Facility Name	Data Name	Data Right	Plan	From Month	From Year	To Month	To Year	N/A Checked?
21928	10000	DHQP Memorial Hospital		Analyze		.	.	.	.	N
21928	10000	DHQP Memorial Hospital	Patient without identifying data	View		.	.	.	.	N
21928	10000	DHQP Memorial Hospital	Plan	View		.	.	.	.	N
21928	10000	DHQP Memorial Hospital	FacInfo	View		.	.	.	.	N
21928	10000	DHQP Memorial Hospital	Facility Survey Data	View	(ALL)	.	2015	.	.	N
21928	10000	DHQP Memorial Hospital	CL assoc BSI Events	View	IN	1	2016	.	.	N

In this row the facility has conferred rights to view in plan CLABSI data from January 2016 to present.

# NHSN Group Website

- The NHSN Group Webpage contains Group educational resources
- Quick Reference Guides are for available for the Preferences function and the Membership Rights Reports

The screenshot displays the NHSN Group Website interface. At the top, the CDC logo and name are visible, along with a search bar and a navigation menu. The main header reads 'National Healthcare Safety Network (NHSN)'. Below this, a breadcrumb trail shows 'CDC > NHSN'. A left-hand navigation menu lists various options, with 'Group Users' highlighted in green. The main content area is titled 'NHSN Group Users' and includes a sub-header 'View resources for group users here.' followed by a paragraph explaining the role of the NHSN Facility Administrator. Below this, there is a section for 'NHSN User Resources' with expandable categories: 'Guides for Group Functions', 'Group Administrator', and 'NHSN Group Analysis'. The 'NHSN Group Analysis' category is expanded, showing a list of PDF guides. Two guides are highlighted with a blue border: 'How to Generate Participation Alerts Data Set (Group Users)' and 'How to develop and conduct analysis on subgroups of facilities using the Preferences function'.

CDC Centers for Disease Control and Prevention  
CDC 24/7: Saving Lives, Protecting People™

A-Z Index  
Search Search NHSN Advanced Search

## National Healthcare Safety Network (NHSN)

CDC > NHSN

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

### NHSN Group Users

View resources for group users here.

The person designated as the NHSN Facility Administrator is the only person who can enroll a facility in NHSN or reassign the role of Facility Administrator. This person will also have the ability to confer rights to groups, that is, entities with which your hospital wants to share some/all of its data (e.g., state or county health department, corporate headquarters). For facilities participating in more than one NHSN Component, the NHSN Facility Administrator should be a person with authority across the involved departments.

### NHSN User Resources

- Guides for Group Functions +
- Group Administrator +
- NHSN Group Analysis** -
  - [How to Generate Participation Alerts Data Set \(Group Users\)](#) [PDF - 400 KB]
  - [How to develop and conduct analysis on subgroups of facilities using the Preferences function](#) [PDF - 300 KB]
  - [How to access and use the Line Listing - Membership Rights report to determine the rights that each facility has conferred to a Group](#) [PDF - 250 KB]
  - [NHSN Group Analysis: Focus on Participation Alerts Report and Defining Group Rights Template - November 2019](#) [PDF - 3 MB]
  - [NHSN Analysis: The Group's Experience - September 2017](#) [PDF - 9 MB]
  - [Using Plan Line List for QIO Group Users](#) [PDF - 543K]
  - [Group User's Guide to the "Line Listing - Participation Alerts" Output Option](#) [PDF - 372K]

# NHSN Participation Alerts



# Dataset Generation for Groups

- Group users have the option to include the Participation Alerts dataset in Dataset Generation
- By default, the Participation Alerts Dataset is not generated
- Let's include the Participation Alerts

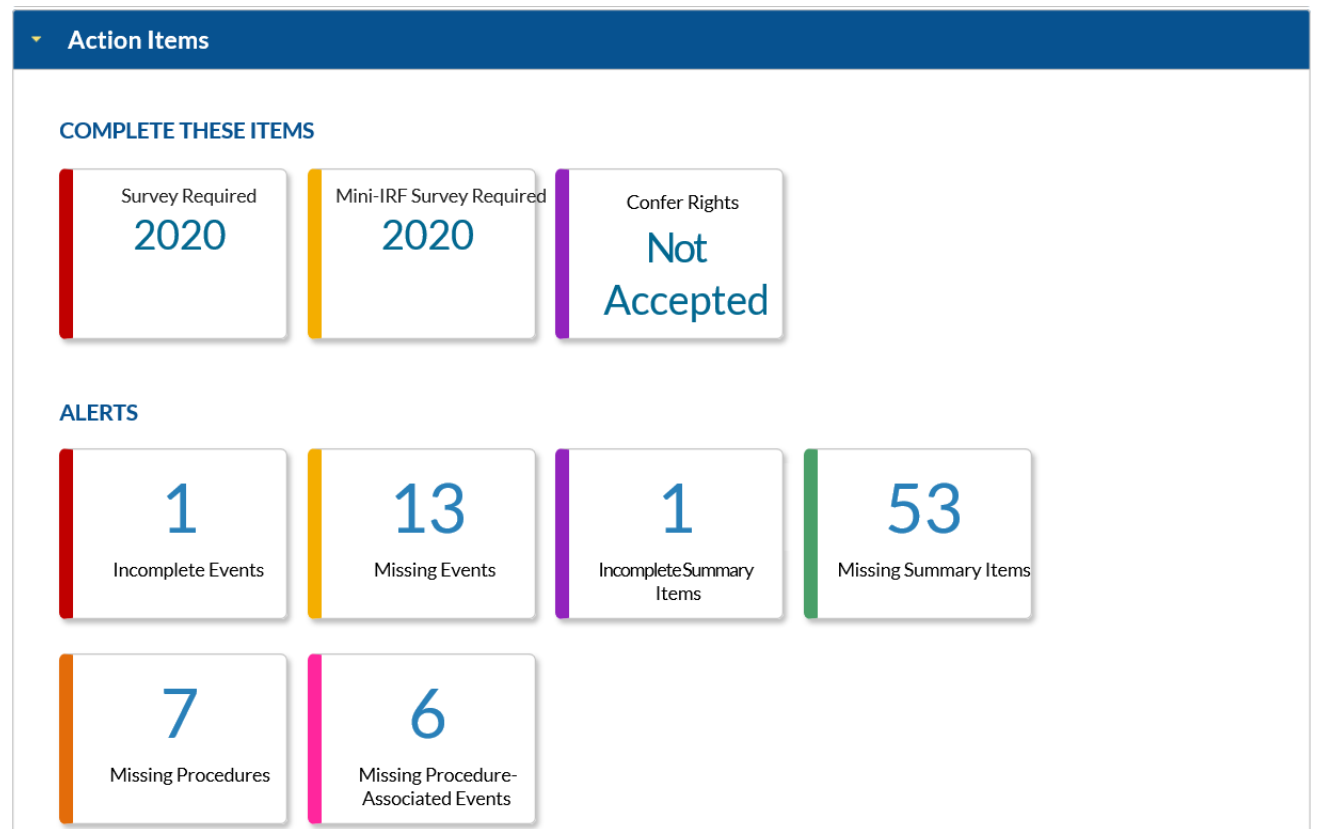
Dataset in Dataset Generation:

- Select the “Participation Alerts Data Set (Optional)” tab
- Select “All Alerts” to include all alerts or select a specific alert
- Enter a time period
- Select “Generate Participation Alerts Data Set”

The screenshot shows the 'Generate Data Sets (Patient Safety)' interface. The 'Reporting Data Sets' section has the 'Participation Alerts Data Set (Optional)' tab selected. Below this, there is a section titled 'Include the following Alerts:' with a list of checkboxes, all of which are checked. The list includes: All Alerts, Missing Survey, Incomplete Survey, Incomplete Events, Missing Events, Incomplete Procedures, Missing Procedures, Incomplete Summary Items, Missing Summary Items, and Conferred Rights Not Accepted. Below the list is a section titled 'Include alerts for the following time period:' with a 'Time Period' dropdown set to 'Month', 'Beginning' and 'Ending' date pickers both set to '1', and a 'Clear Time Period' button. At the bottom, there is a 'Generate Participation Alerts Data Set' button and a 'Last Generated:' box showing 'January 25, 2021 2:09 PM to include all data'.

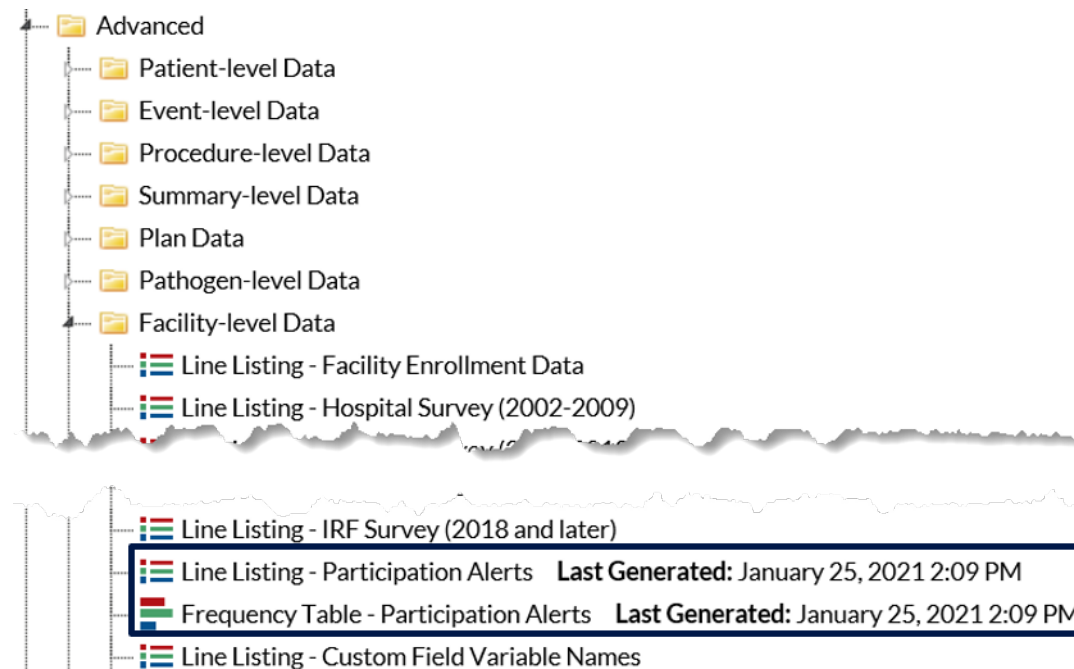
# NHSN Participation Alerts

- Alerts appear in NHSN as a reminder to submit data or when some data quality issues are identified.
  - These alerts appear on the Action Items Tab each time a facility logs in to NHSN
- Group Users cannot resolve alerts for a facility. Groups can identify unresolved alerts through utilizing the Line Listing Participation Alerts and Frequency Table - Participation Alerts Reports



# NHSN Participation Alerts Reports

- NHSN Groups should use the Line Listing- Participation Alerts and Frequency Table – Participation Alerts reports to identify unresolved alerts among facilities in their group
- These reports can be accessed by opening the Advanced Folder then opening the Facility – level Data Folder
- Some of the alert types described in these reports are:
  - Conferred Rights Not Accepted
  - Missing Survey Data
  - Incomplete Events
  - Missing Procedures
  - Missing Events
  - Missing Procedures
  - Incomplete Summary Data
  - Missing Procedure-associated Events
  - Missing Summary Data
  - Incomplete Procedures



# Line Listing Participation Alerts Report

- Line Listing - Participation Alerts Report is a detailed line listing of the unresolved alerts for facilities in a group
- This report can be modified to display a table for each alert type

The screenshot displays the 'Modify "Line Listing - Participation Alerts"' interface. At the top, there is a blue header bar with the title. Below the header, a status bar shows 'Analysis Data Set: ParticipationAlert', 'Type: Line Listing', and 'Last Generated: January 25, 2021 2:09 PM'. A checkbox labeled 'Show descriptive variable names (Print List)' is checked. Below this, there are five tabs: 'Title/Format' (selected), 'Time Period', 'Filters', 'Display Variables', and 'Display Options'. The 'Title/Format' tab contains a 'Title:' field with the text 'Line Listing - Participation Alerts' and a 'Format:' section with four radio buttons and icons for 'html', 'pdf', 'xls', and 'rtf'. The 'html' format is selected. At the bottom right, there are four buttons: 'Run', 'Save...', 'Export...', and 'Close'.

# A Table from the Line Listing Participation Alerts Report

National Healthcare Safety Network

Line Listing - Participation Alerts

As of: February 1, 2021 at 3:58 AM

Date Range: PARTICIPATIONALERT planYM 2021M01 to 2021M01

Alert Type=Missing Procedures

Facility Org ID	Module	Plan YM	eventTypePath	Procedure Code	alertMessage	Alert Type
10000	PA	2021M01	PROC	CARD	Missing Procedures	Missing Procedures
10000	PA	2021M01	PROC	COLO	Missing Procedures	Missing Procedures
10000	PA	2021M01	PROC	HTP	Missing Procedures	Missing Procedures
10000	PA	2021M01	PROC	HYST	Missing Procedures	Missing Procedures

- This table is from the Line Listing - Participation Alerts Report and it describes missing procedure alerts for procedures in January 2021.
- If these data are missing, then they should be uploaded or entered into NHSN. However, if no procedures were performed then this must be recorded in NHSN and can be through the alerts action tab. The facility must resolve these alerts in NHSN.

# Frequency Table – Participation Alerts Report

- The Frequency Table – Participation Alerts Report provides a count or frequency by alert type of the unresolved alerts for each facility in a Group
- This report is helpful when reviewing frequency by alert types





Modify "Frequency Table - Participation Alerts"

Show descriptive variable names ([Print List](#)) Analysis Data Set: ParticipationAlert   Type: Frequency Table   Last Generated: [January 25, 2021 2:09 PM](#)

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

Title:

Format:

# Frequency Table – Participation Alerts Report

- Below is the Frequency Table – Participation Alerts Report. In this test group there were 30 unresolved alerts among the facilities that are members of the Group
- Reviewing this table is helpful when identifying a potential cause for data not appearing in reports

**National Healthcare Safety Network  
 Frequency Table for Participation Alerts  
 As of: February 4, 2021 at 3:06 PM  
 Date Range: All PARTICIPATIONALERT**

Frequency						
Table of orgID by alertType						
orgID	alertType				Total	
	Conferred Rights Not Accepted	Missing Procedure-associated Events	Missing Procedures	Missing Summary Data		
10000	0	1	7	15	23	
10012	1	0	0	0	1	
15331	0	0	0	5	5	
17776	1	0	0	0	1	
<b>Total</b>	2	1	7	20	<b>30</b>	

# **Patient Safety Plans and Monthly Reports**



# Monthly Reporting Plans

- Monthly Reporting Plans are very important as these are the plans that facilities use to submit data.

Mandatory fields marked with \*

Facility ID \*: DHQP Memorial Hospital (ID 10000)

Month \*: January

Year \*: 2021

No NHSN Patient Safety Modules Followed this Month

This is the Device-Associated module table of the January 2021 reporting plan for a test facility.

## Device-Associated Module

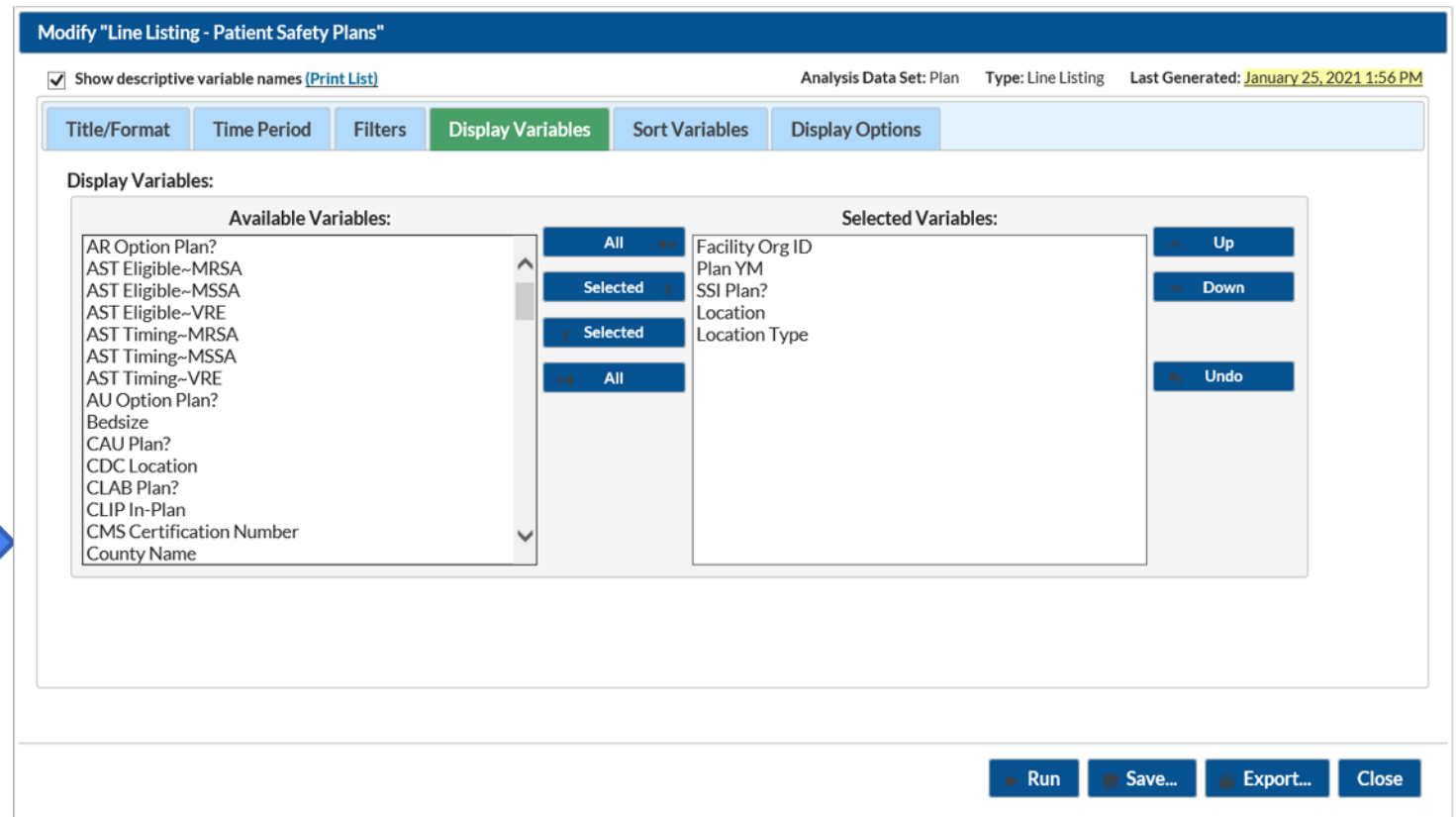
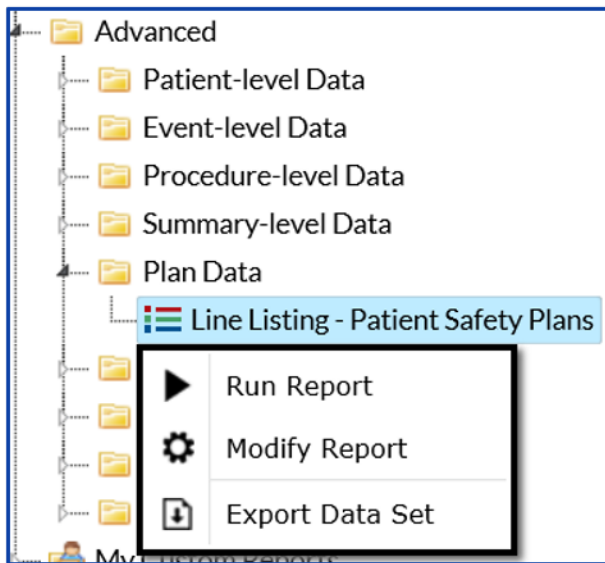
Locations	CLABSI	VAE	CAUTI	CLIP	PedVAP	PedVAE
CARDCRIT - CARDIO CRIT CARE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This is the Line Listing Patient Safety Plans Report that the Group ran to determine the Device-Associated data reported by location in January 2021 for the test facility.

Facility Org ID	Plan YM	Location	Location Type	CDC Location	CLAB Plan?	CAU Plan?
10000	2021M01	CARDCRIT	CC	IN:ACUTE:CC:C	Y	Y

# Patient Safety Plans Report

- The Line Listing Patient Safety Plans Report can be accessed by opening the Advanced Folder and then opening the Plan Data folder
- The report can be modified to include variables collected in the reporting plan form



# Patient Safety Plans Report

- The Line Listing Patient Safety Plans Report can be used to:
  - Check the HAIs that are included in plan for all conferred facilities
  - Check if facilities reported events, procedures, or summary data for a reporting month

## National Healthcare Safety Network

### Line Listing - Plan

As of: January 25, 2021 at 3:52 PM

Date Range: PLAN planYM 2020M12 to 2020M12

Facility Org ID	Plan YM	SSI Plan?	Location	Location Type
10000	2020M12	Y		
10000	2020M12	Y		
10000	2020M12	Y		
10000	2020M12	Y		
10000	2020M12	Y		
10000	2020M12	Y		
10000	2020M12	Y		
10000	2020M12	Y		
10000	2020M12		0909	OTHER
10000	2020M12		2 WEST	WARD
10000	2020M12		24 OBS1	WARD
10000	2020M12		3 CENTRAL	WARD
10000	2020M12		CARDCRIT	CC
10000	2020M12		EDEPT	OTHER
10000	2020M12		EDI	OTHER
10000	2020M12		FACWIDEIN	
10000	2020M12		NICU	CC_N
10000	2020M12		ONCGEN	WARD_ONC
10000	2020M12		TESTED	OTHER
15331	2020M12		5 EAST	WARD

# Reminder about requesting In Plan Data Only

- If a group requests only in plan data they will need to review the Patient Safety Plans Line Listing Report for changes that a facility may make to their plans.
- A Reporting plan must be completed for every month that data are entered into NHSN
- Facilities may choose “No NHSN Patient Safety Modules Followed this Month” as an option in the Reporting Plan

# Educational Resources

- NHSN Group Website:  
<https://www.cdc.gov/nhsn/group-users/index.html>
- Patient Safety Analysis:  
<https://www.cdc.gov/nhsn/ps-analysis-resources/index.html>
- NHSN Alerts-Patient Safety Component:  
<https://www.cdc.gov/nhsn/pdfs/gen-support/NHSN-Alerts.pdf>
- Group User's Guide to the "Line Listing – Participation Alerts" Report Option:  
<https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/group-alerts.pdf>

# Educational Resources

- Patient Safety Monthly Reporting Plan and Annual Surveys:  
[https://www.cdc.gov/nhsn/pdfs/pscmanual/3psc\\_monthlyreportingplancurrent.pdf](https://www.cdc.gov/nhsn/pdfs/pscmanual/3psc_monthlyreportingplancurrent.pdf)
- Generating Participation Alerts: Guidance for the Patient Safety Component Group Users:  
<https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/participationalerts-dataset-508.pdf>
- General Tips and Tools for NHSN Analysis:  
<https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/General-Tips-NHSN-Analysis.pdf>
- For help with NHSN Group Analysis please email [nhsn@cdc.gov](mailto:nhsn@cdc.gov)

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**<https://www.cdc.gov/nhsn/training/>**

**Training Questions: [NHSNTrain@cdc.gov](mailto:NHSNTrain@cdc.gov)**

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