

# How to Modify a Report

## Description

Any report within NHSN Analysis can be modified to meet many of your analytic needs. This quick reference guide will outline the basics of the report modification page.

To modify a report, access it by navigating to Analysis > Reports. On the Reports screen, select the report you desire to run and a pop-up box will appear to allow you to “Run Report”, “Modify Report,” or “Export Data Set.” Select Modify Report to customize your report.



## Title/Format

In the ‘Title/Format’ tab of the modification page, you can modify the name and title of the report. The Title is what will appear at the top of the generated report. You may choose the format in which the report is displayed, such as HTML or PDF. **Note:** If you wish to save your modifications as a template for future reports, you will be prompted and required to change the report name.

**Tip!** For more descriptive variable labels on your report, as well as on the modification screen, check the box “Show descriptive variable names” (recommended).

## Time Period

The “Time Period” tab allows you to select a specific time period for your report. To restrict a report to a specific time period, select a date variable from the “Date Variable” drop down menu and specify the beginning and ending date for the desired time period. If the “Ending” date is left blank, the results will include all data from the beginning time period and forward.

# How to Modify a Report

NOTE: If you do not select a time period, your results will include all data reported, for the time period included in your analysis datasets.

**Tip!** If you plan to save the report, check the option to “Enter the Date variable/Time period at the time you click the Run button”. This will allow you to specify the desired time period every time you generate the report without having to return to this modification page.

The available date variables can vary with each report option. The table below provides examples of date variables based on event date, along with the format of each variable. You can filter your report by year, half-year, quarter, or month. Date variables are based on the calendar year; if fiscal year is desired, specify time period by exact date or month range.

Specify By	Date Variable	Beginning	Ending
Date	eventdate	1/1/2015	12/31/2015
Year	evntDateYr	2015	2015
Half-year	evntDateYH	2015H1	2015H2
Quarter	evntDateYQ	2015Q1	2015Q4
Month	evntDateYM	01/2015	12/2015

**Tip:** When entering Beginning and Ending dates, the computer will automatically enter the slash marks “/” and letters (H, Q) when applicable.

## Filters

Each report allows for additional filtering of the data that will be considered for the report. While the list of variables is dependent on the dataset used for the report, the operation of this section remains the same across all report types. The drop-down menus in the “Additional Filters” section allow you to select a variable for filtering by group and/or rule.



# How to Modify a Report

- Each addition of “group” and “rule” will allow you to specify values. After selecting a variable to filter, click in the empty box with the drop down arrow to select the operator (i.e., “equal”) then specify desired values of that variable that should be included in the report. Various operators can be selected to modify the report:

The screenshot shows the 'Filters' tab of a report builder. At the top, there are tabs for 'Title/Format', 'Time Period', 'Filters', 'Display Variables', 'Sort Variables', and 'Display Options'. Below these, there are 'Additional Filters' controls with 'Show' and 'Clear' buttons. The main area contains a filter tree with 'AND' and 'OR' buttons. On the right, there are 'Add group', 'Add rule', and 'Delete' buttons. Two red arrows point to the 'Add group' and 'Add rule' buttons.

This screenshot shows the 'Operator Options' dropdown menu. The menu lists the following operators: equal, not equal, in, not in, less, less or equal, greater, greater or equal, and between. A red callout box labeled 'Operator Options' points to the dropdown menu.

- After specifying criteria, you can double check your criteria selection by clicking “Show”. This will display the parenthetical equation used to filter your data.

The screenshot shows the 'Filters' tab with the 'Show' button highlighted by a red arrow. This button is used to display the parenthetical equation used for filtering.

## What’s the difference between a “Group” and a “Rule”?

A “Group” in this section refers to a set of rules combined to make one filter. For example, if you wanted to generate a procedure line list for all COLO procedures in adult patients, OR all CRAN procedures regardless of age, you could set up two group filters, each with their own rules. An example of this is illustrated below:

# How to Modify a Report

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

Additional Filters:

**AND** | **OR**

**AND** | **OR**

procCode equal COLO - Colon surgery

ageAtProc greater or equal 18

**AND** | **OR**

procCode equal CRAN - Craniotomy

In this example, each Group is separated by "OR" and each rule within a group is connected by "AND". This example will select procedures if the procedure category is COLO and the patient is at least 18 years of age or the procedure category is CRAN.

## Display Variables

The "Display Variables" tab on the modification page is applicable to Line Lists and allows you to select which variables you would like to appear as columns in your report.

- To add a variable to the line list, select the variable in the "Available Variables" list and then click "Selected >" between the two columns. This will move the variable into the "Selected Variables" list.
- If you wish to add all of the variables to your line list, click "All >>".
- To remove variables from your line list, select the variable in the "Selected List" and click the center "< Selected" button.
- You can use the up and down arrows to arrange the order of the variables in the report.
- Click "Undo" on the far right to undo any of the changes previously made to this tab.

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

Display Variables:

Available Variables:		Selected Variables:
acine	<input type="button" value="All &gt;&gt;"/>	orgID
admDateYH	<input type="button" value="Selected &gt;"/>	patID
admDateYM	<input type="button" value="Selected &gt;"/>	dob
admDateYQ	<input type="button" value="Selected &gt;"/>	gender
admDateYr	<input type="button" value="Selected &gt;"/>	admitDate
admToDisDays	<input type="button" value="Selected &gt;"/>	eventID
admToEvtDays	<input type="button" value="Selected &gt;"/>	eventDate
ageAtEvent	<input type="button" value="Selected &gt;"/>	eventType
birthWt	<input type="button" value="Selected &gt;"/>	spcEvent
birthWtCode	<input type="button" value="Selected &gt;"/>	location
birthWtCodeDesc	<input type="button" value="Selected &gt;"/>	
CCN	<input type="button" value="Selected &gt;"/>	
cdad	<input type="button" value="Selected &gt;"/>	
centralLine	<input type="button" value="Selected &gt;"/>	
cephRKleb	<input type="button" value="Selected &gt;"/>	
	<input type="button" value="Selected &gt;"/>	

## Sort Variables

Similar to the "Display Variables" tab, the "Sort Variables" tab is available only for Line Lists and allows you to sort whichever variable is ascending or descending order. You can sort by more than one variable. NOTE: the variable must be in your line list in order to sort on that variable.



# How to Modify a Report

The screenshot shows the 'Sort Variables' tab selected in a report configuration interface. The interface has a top navigation bar with tabs: 'Title/Format', 'Time Period', 'Filters', 'Display Variables', 'Sort Variables' (highlighted in green), and 'Display Options'. Below the tabs, the 'Sort Variables' section is titled 'Sort Variables:'. It contains two main areas: 'Available Variables:' on the left and 'Selected Variables:' on the right. The 'Available Variables:' list includes: acine, admDateYH, admDateYM, admDateYQ, admDateYr, admitDate, admToDisDays, admToEvtDays, ageAtEvent, birthWt, birthWtCode, birthWtCodeDesc, CCN, cdad, and centralLine. Between the two lists are four buttons: 'All >>', 'Selected >', '< Selected', and '<< All'. To the right of the 'Selected Variables:' list are three buttons: '^ Up', 'v Down', and '↶ Undo'.

## Display Options

The “Display Options” tab allows you to view your report organized by a specific criteria. The options for each report type are described below.

- **Line Lists:** There is one display option that allows you to obtain one table per value of the selected variable, in a single report. This is known as the “Page By” variable. In the example below, the line list report will include one table for each value of procCode included in the report.

The screenshot shows the 'Display Options' tab selected in a report configuration interface. The top navigation bar has tabs: 'Title/Format', 'Time Period', 'Filters', 'Display Variables', 'Sort Variables', and 'Display Options' (highlighted in green). Below the tabs, the 'Line Listing Options:' section is visible. It contains a label 'Page by variable:' followed by a dropdown menu with 'procCode' selected and a downward arrow.

- **Frequency Tables:** This report type will allow you to select the row, column, and page-by variables used to count the records that meet each criteria. The options will also allow you to include key percentages, as well as some basic statistics. In the example below, the Frequency Table will provide counts of records meeting each combination of procedure date month (procDateYM) and procedure code (procCode).

# How to Modify a Report

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

**Frequency Table Options:**

**Selected Variables to include in report:**

**Row**  **Column**  **Page by**

**Frequency Table Options:**

- Table percent - Display cell frequency divided by table total
- Missing - Include observations with missing values
- Print the table in list form

**Two-Way Table Options:**

- Row Percent - Display cell frequency divided by row total
- Column Percent - Display cell frequency divided by column total
- Expected - Expected cell frequencies
- Chi-square - Test for independence

- **Rate Tables, SIRs and SAARs:** The Rate table, SIR and SAAR reports allow for the option to calculate and display results by time period – e.g., by month, year, etc.

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

**SIR Options:**

**Group by:**

## Additional Resources

Patient Safety Analysis Quick Reference Guides Page: <https://www.cdc.gov/nhsn/ps-analysis-resources/reference-guides.html>

SIR Table: Device-Associated: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/sirtablesda.pdf>

SIR Table: Surgical Site Infections: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/sirtablesssi.pdf>

SIR Table: MRSA/CDI LabID Events: [https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/sirtables\\_labidevents.pdf](https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/sirtables_labidevents.pdf)