

AU Pie Chart

Description

A pie chart is a graphical representation of data. The different slices of the pie represent different values of a variable, with the relative size of the slice representing the amount of data included in the slice.

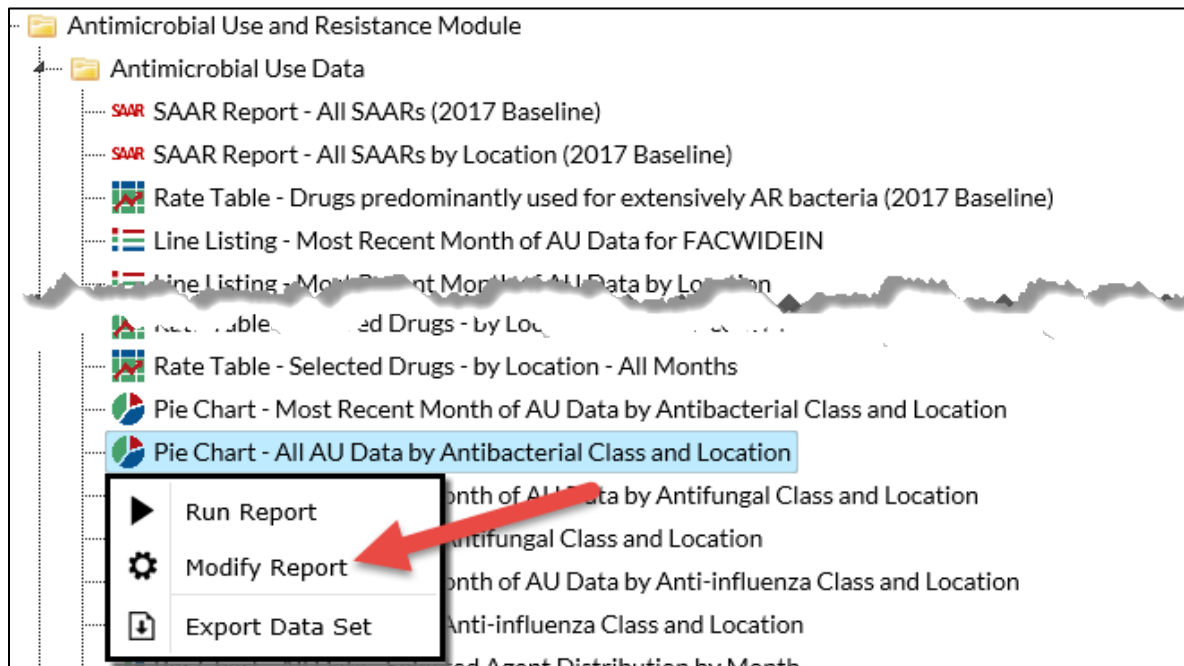
For a more basic explanation of the NHSN modification screen, refer to this document:

<https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/howtomodifyreport.pdf>.

Example (Pie Chart - All AU Data by Antibacterial Class and Location)

You would like to create a pie chart showing the proportion of antimicrobial days per antibacterial class for one ward location, “4MICU”, for the second half of 2017.

After generating data sets, to run a Pie Chart report, click Analysis > Reports > Antimicrobial Use and Resistance Module > Antimicrobial Use Data. After selecting the report, in this case, “Pie Chart – All AU Data by Antibacterial Class and Location,” a pop-up box will appear that will allow you to “Run Report,” “Modify Report,” or “Export Data Set.” Select “Modify Report” to customize your report.



Modifying the Report

When you choose to modify the report, the modification screen appears showing multiple tabs containing available modifications for the given report. The “Title/Format” tab allows you to update the report title.

To filter the data by time period, choose the “Time Period” tab at the top of the page. In this example, we have limited the pie chart to include only antimicrobial use in the second half of 2017 (Summary Yr/Half = 2017H2).

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Tip: For more descriptive variable labels on your report, check the box “Show descriptive variable names” that appears near the top of the modification window (recommended).

The screenshot shows the 'Modify Pie Chart - All AU Data by Antibacterial Class and Location' window. The 'Time Period' tab is active. It features a 'Date Variable' dropdown set to 'Summary~Yr/Half', a 'Beginning' text box with '2017H2', and an 'Ending' text box with '2017H2'. A 'Clear Time Period' button is to the right. Below these fields is a checkbox labeled 'Enter Date variable/Time period at the time you click the Run button'. At the bottom right, there are buttons for 'Run', 'Save...', 'Export...', and 'Close'. The top status bar includes 'Show descriptive variable names (Print List)', 'Analysis Data Set: SummaryAU', 'Type: Pie Chart Summary', and 'Data Set Generated On: 11/29/2018 12:10:00'. Navigation tabs for 'Title/Format', 'Time Period', 'Filters', and 'Display Options' are visible.

The “Filters” tab allows you to further filter the data that will be displayed in the report. Each addition of “group” and “rule” will allow you to specify values. After selecting a variable to filter, select the operator (i.e., “equal”) then specify desired values of that variable that should be included in the report. By selecting “Add rule,” you can filter by location. In this example, we have limited the pie chart to include antibacterial use from a single location (location=4MICU).

The screenshot shows the 'Modify Pie Chart' window with the 'Filters' tab active. It displays 'Additional Filters:' with 'Show' and 'Clear' buttons. Below this, there are 'AND' and 'OR' logic options. A filter rule is defined with 'Antimicrobial Category' set to 'equal' and 'Antibacterial'. A second rule is defined with 'Location' set to 'equal' and '4MICU - 4TH FLOOR MICU'. 'Delete' buttons are present for each rule. A red arrow points to the 'Add rule' button. At the bottom right, there are buttons for 'Run', 'Save...', 'Export...', and 'Close'. The top status bar and navigation tabs are consistent with the previous screenshot.

The “Display Options” tab allows you to view your report organized by specific criteria. The “chart variable” is the variable that will make up the slices of the pie. Different pies will be created for each value of the “stratification variable”. In this case, we wish to look at the distribution of each antibacterial class within each location. Separate pages of output will be created based on values of the “page by” variable. You can also choose the number and orientation of pies on a page and where to place various descriptive statistics.



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Modify "Pie Chart - All AU Data by Antibacterial Class and Location"

Show descriptive variable names (Print List) Analysis Data Set: SummaryAU Type: Pie Chart Summary Data Set Generated On: 11/29/2018 12:10:00

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

Pie Chart Options:

| | | | |
|-------------------------------|--------------------------------|----------------|---|
| Chart Variable | Stratification Variable | Page by | Select Numeric Variable to Chart |
| Antimicrobial Class | Location | | antimicrobialDays |
| Number of pies across a page: | 2 | | |
| Number of pies down a page: | 1 | | |
| Placement of the Percent: | Outside | | |
| Placement of the Slice Label: | None | | |
| Placement of the Value: | Inside | | |
| Placement of Legend: | Top | | |

Run Save... Export... Close

Final Report

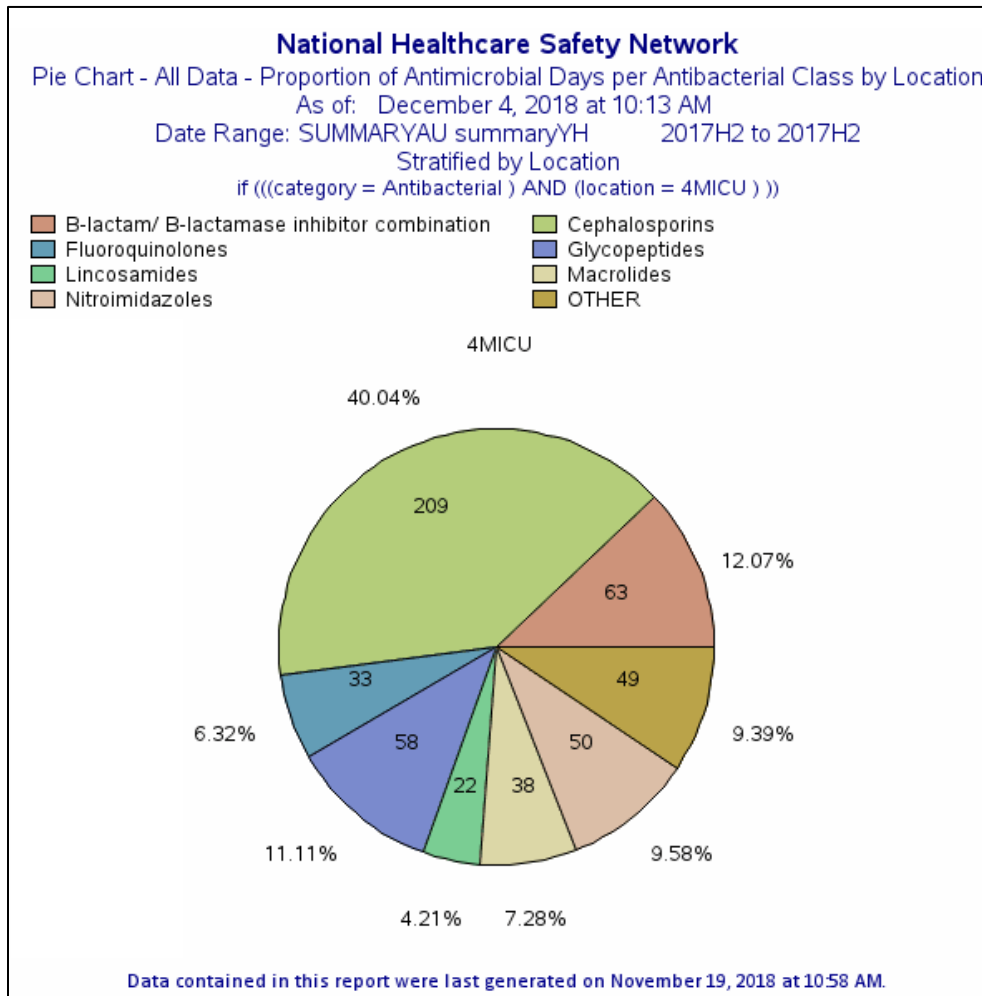
In this example, due to the specific modification made to show only 4MICU, only one pie chart is displayed. The percentage on the outside of each pie slice corresponds to the percentage that particular class contributes to total antibacterial use. For example, 11.11% of antibacterial days in the second half of 2017 were Glycopeptides. The value on each slice itself is the number of antimicrobial days for that class during the second half of 2017, for the 4MICU location. In this example, there were 209 Cephalosporin days of therapy during the second half of 2017 for the 4MICU location.

Tip: Reference Appendix B in the [NHSN AUR Module Protocol](#) for a list of antimicrobials and their associated class and subclass.



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Note: This example uses fictitious data for illustrative purposes only.



Additional Resources

AUR Module Protocol: <http://www.cdc.gov/nhsn/pdfs/pscmanual/11pscaurcurrent.pdf>

Introduction to NHSN Analysis: <https://www.cdc.gov/nhsn/pdfs/training/2018/intro-to-analysis-508.pdf>

How to Export Data from NHSN: <http://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/exportdata.pdf>

Surveillance for Antimicrobial Use Option: <http://www.cdc.gov/nhsn/acute-care-hospital/aur/>