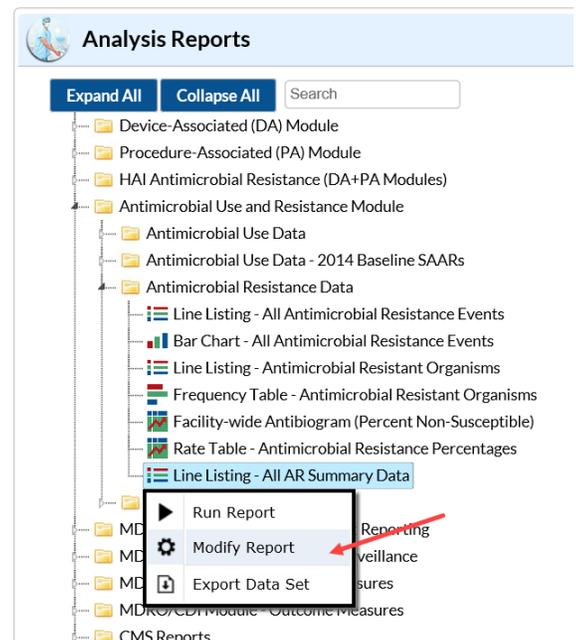# ANTIMICROBIAL RESISTANCE

Denominator Line List

The line list is an organized, detailed list of each record entered into NHSN, which both facilities and groups can use. The Line Listing for All AR Summary Data is a report of the Antimicrobial Resistance (AR) Option denominator data imported into NHSN each month. Facilities report patient days and admissions for all inpatient locations within the facility combined (FacWideIN) and beginning in 2021, encounters from three select outpatient locations (ED, pediatric ED, and 24-hour observation area). The example below demonstrates a sample modification of the Line Listing for All AR Summary Data. For a general step-by-step explanation of the NHSN report modification screen, refer to this document: https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/howtomodifyreport.pdf.

Example

Suppose you are interested in looking at the timing of each month's import of AR Summary Data into NHSN from the first quarter of 2021 to the third quarter of 2021. You want to know if your facility reimported any of the AR Summary Data files into NHSN after the original submission. You would like to produce a line list that includes the month and year, the date the record was first uploaded (create date), the date the facility last modified or re-uploaded a record (modified date), patient days, admissions, encounters, and the Report No Events variable.

After generating data sets, to run the line list report, click Analysis > Reports > Antimicrobial Use and Resistance Module > Antimicrobial Resistance Data. After selecting the report, in this case, "Line Listing for All AR Summary Data" 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 and select the format in which you want the report displayed, such as HTML or PDF.

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 line list to include only denominator data from the first quarter of 2021 through the third quarter of 2021 (Summary~Yr/Qtr Beginning 2021Q1 and Ending 2021Q3).

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 "Filters" tab allows you to further filter the data that display in the report. For our example, we do not need to filter the data, but we do want to modify the variables displayed in the report. The "Display Variables" and "Sort Variables" tabs are specific to line list reports and allow you to display and sort specific variables in your report. Both tabs will produce a similar window, shown below, which allows you to move variables from the available list in the left column to the selected list in the right column by using the directional arrows in the center. You can also re-order the selected variables using the "Up" and "Down" buttons, found to the right of the selected variables list. For our example, we add Create Date and modifiedDate to the default list of display variables by clicking on each of them in the "Available Variables" column on the left and choosing "Selected >" to move them to the "Selected Variables" column on the right.

Modify "Line Listing - All AR Summary Data"		
☑ Show descriptive variable names (Print List)	Analysis Data Set: AR_Summary	Type: Line Listing	Last Generated: November 19, 2021 7:23 AM

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

Display Variables:

Available Variables:
- CMS Certification Number
- Complete?
- County Name
- Created in NHSN Version
- Medical School Affiliated
- Modified in NHSN Version
- Modify User ID
- Number of Beds
- OID of Facility
- State
- Summary~Yr
- Summary~Yr/Half
- Summary~Yr/Qtr
- Type of Affiliation
- Type of Facility

All >>
Selected >
< Selected
<< All

Selected Variables:
- Facility Org ID
- Summary Year/Month
- Location
- Patient Days
- Admissions
- Total Facility Encounters
- Create Date
- modifiedDate
- No AR Events

Up
Down
Undo

▶ Run   Save...   Export...   Close

Tip: Not sure of the meaning of the variables in the list? Use the NHSN Data Dictionary – Patient Safety Component:
https://www.cdc.gov/nhsn/ps-analysis-resources/index.html.

Final Report

The example line list is the result of the modifications shown in this document. *This example uses fictitious data for illustrative purposes only.*

National Healthcare Safety Network
Line Listing for All AR Summary Data
As of: November 19, 2021 at 7:23 AM
Date Range: AR_SUMMARY summaryYQ 2021Q1 to 2021Q3

Facility Org ID	Summary Year/Month	Location	Patient Days	Admissions	Total Facility Encounters	Create Date	modifiedDate	No AR Events
33617	2021M01	FACWIDEIN	5241	264	.	2021-10-28	2021-10-28	N
33617	2021M03	EMER	.	.	421	2021-11-18	2021-11-18	
33617	2021M03	FACWIDEIN	583	43	.	2021-08-11	2021-08-11	N
33617	2021M04	FACWIDEIN	2435	485	.	2021-11-18	2021-11-18	Y
33617	2021M05	FACWIDEIN	2350	460	.	2021-11-18	2021-11-19	N
33617	2021M06	FACWIDEIN	2350	460	.	2021-11-18	2021-11-18	

Sorted by orgID summaryYM location
Data contained in this report were last generated on November 19, 2021 at 7:19 AM to include data beginning January 2018 through September 2021 .

1. The yellow column (#1 above) highlights the No AR Events column. If the column has a value of "Y", this indicates the facility has checked the Report No Events box for FacWideIN on the Alert screen. If the value is "N" in this indicates the facility reported AR Option events for these months. Note that for EMER in March 2021 and FacWideIN in June 2021, there is no value in the No AR Events column. This means that there are no AR Events reported for those location months, but the facility has not validated that this is a "true zero" by checking the "Report No Events" box on the alert screen. For more on reporting no AR Option Events visit: https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/aur/AR-QRG-NoEvents-508.pdf.
2. The green row (#2 above) shows the facility submitted data for an outpatient location (EMER). There were 421 outpatient encounters in the EMER location in March 2021. Additionally, the data were submitted to NHSN on 11/18/2021 (Create Date = 2021-11-18). Since the modifiedDate is the same as the Create Date, we know these data were not resubmitted.
3. The purple row (#3 above) shows the facility submitted May 2021 AR Summary Data to NHSN on 11/18/2021 (Create Date = 2021-11-18) and resubmitted on the next day on 11/19/2021 (modifiedDate = 2021-11-19). The patient days for May 2021 equals 2,350 and the Admissions equal 460.

Additional Resources

NHSN Analysis Training: https://www.cdc.gov/nhsn/training/analysis/index.html
How to Export Data from NHSN: http://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/exportdata.pdf
AUR Module Protocol: http://www.cdc.gov/nhsn/pdfs/pscmanual/11pscaurcurrent.pdf
Surveillance for Antimicrobial Resistance Options: http://www.cdc.gov/nhsn/acute-care-hospital/aur/