

Antimicrobial Resistant Organisms Line Listing

Description

The line listing is an organized, detailed list of each record entered into NHSN which can be used by both facilities and groups. The Antimicrobial Resistant Organisms Line Listing report allows you to analyze Antimicrobial Resistance (AR) Option Events from your facility (or group) in which a specific antimicrobial resistant organism (or “phenotype”) is identified by NHSN based on the susceptibility results included in the uploaded AR Event Clinical Document Architecture file. CDC has defined many AR Option phenotypes of epidemiologic importance; the analysis report displays data from these phenotypes by default. Criteria and definitions for the pre-defined phenotypes can be found in Appendix I of the [AUR Module Protocol](#).

The default settings for the AR line listings may produce a report that is too lengthy to be useful. Therefore, modifying the line listing report is recommended. The example below demonstrates a sample modification of the line listing report using data reported to the AR Option.

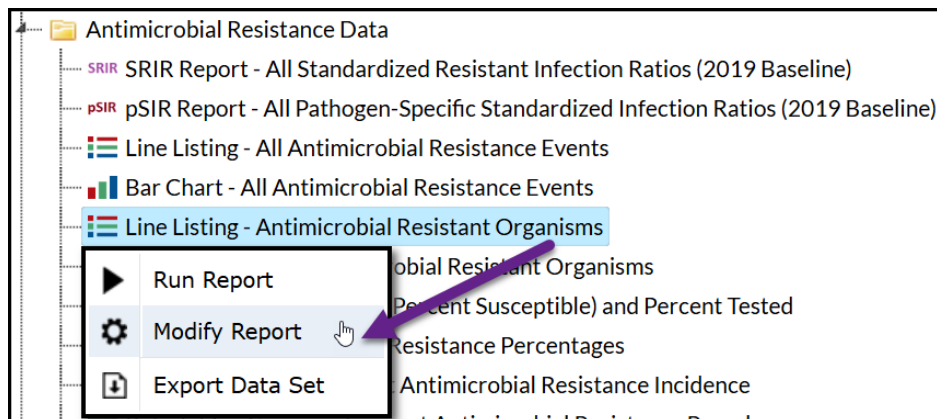
For a general, step-by-step explanation of the NHSN modification screen, please refer to this [How to Modify a Report document](#).

Example

Suppose you are concerned about fluoroquinolone-resistant Enterobacterales (FQE) at your facility. Luckily, one of the AR Option phenotypes is Enterobacterales (*Escherichia coli*, *Klebsiella aerogenes*, *Klebsiella oxytoca*, *Klebsiella pneumoniae*, or *Enterobacter spp.*) that have tested resistant (R) to at least one of the following: ciprofloxacin, levofloxacin, or moxifloxacin. You would like to produce a line listing of all events at your facility with this phenotype that were collected in August 2025 that includes patient ID, facility admission date, event ID, specimen collection date, location, pathogen description, and susceptibility testing results for ciprofloxacin, levofloxacin, and moxifloxacin.

There are two AR Option reports that generate line listings. To view AR Events that meet the AR Option phenotype definitions, use the Antimicrobial Resistant Organisms line listing. After generating data sets, to run the AR Organisms Line Listing report, click Analysis > Reports > Antimicrobial Use and Resistance Module >

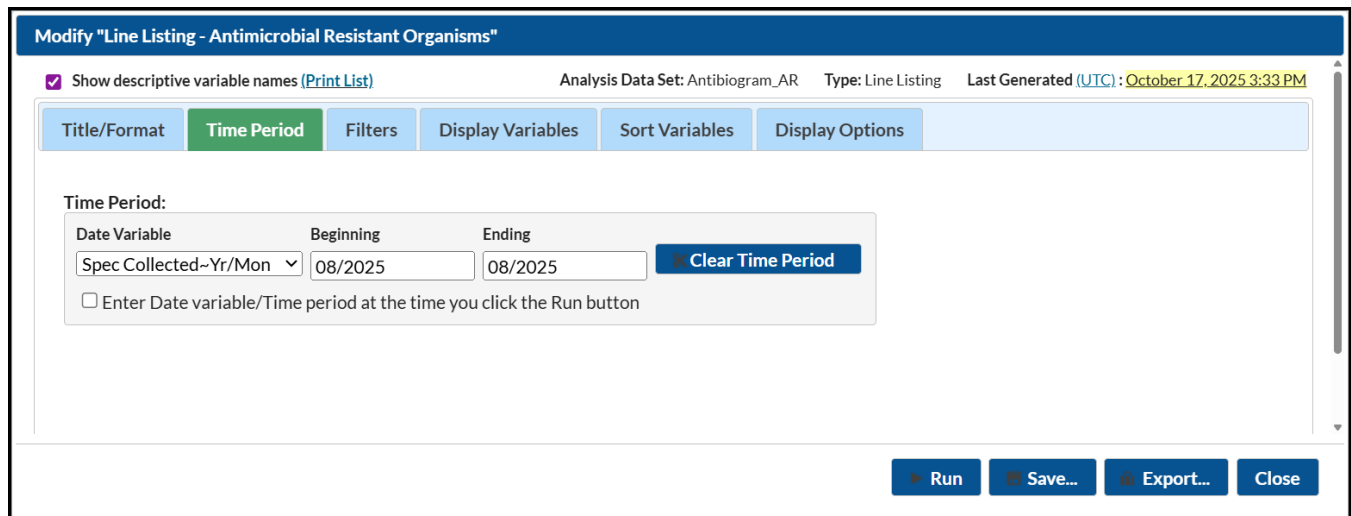
Antimicrobial Resistance Data. After selecting the report, in this case, “Line Listing – Antimicrobial Resistant Organisms,” a pop-up box will appear that will allow you to **Run Report**, **Modify Report**, or **Export Data Set**. Select **Modify Report** to customize your report.



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 screen. You will modify the line listing to include only AR Events collected during August 2025 (Spec Collected~Yr/Mon = 08/2025 – 08/2025).

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 a web interface titled "Modify 'Line Listing - Antimicrobial Resistant Organisms'". At the top, there is a header bar with the title and a checked box for "Show descriptive variable names (Print List)". To the right of the header, it displays "Analysis Data Set: Antibiogram_AR", "Type: Line Listing", and "Last Generated (UTC): October 17, 2025 3:33 PM". Below the header is a tabbed interface with five tabs: "Title/Format", "Time Period" (which is highlighted in green), "Filters", "Display Variables", and "Display Options". Under the "Time Period" tab, there is a section labeled "Time Period:" containing a form with three input fields: "Date Variable" (a dropdown menu showing "Spec Collected~Yr/Mon"), "Beginning" (a text box with "08/2025"), and "Ending" (a text box with "08/2025"). To the right of these fields is a blue button labeled "Clear Time Period". Below the input fields is a checkbox labeled "Enter Date variable/Time period at the time you click the Run button". At the bottom right of the interface, there are four buttons: "Run", "Save...", "Export...", and "Close".

The “Filters” tab allows you to further filter the data that will be displayed in the report. For our example, we want to filter the report to only show data for the fluoroquinolone-resistant Enterobacteriales phenotype. After clicking “Add rule”, select “Resistant Organism” from the dropdown menu, then select “Fluoroquinolone-resistant Enterobacteriales”. Ensure the “equal” operator appears in the dropdown between “Resistant Organism” and “Fluoroquinolone-resistant Enterobacteriales”.

Tip: For including more than one item in a filter such as phenotypes, the “in” operator can be used instead of the “equal” operator.



U.S. CENTERS FOR DISEASE
CONTROL AND PREVENTION

Modify "Line Listing - Antimicrobial Resistant Organisms"

Show descriptive variable names ([Print List](#)) Analysis Data Set: Antibiogram_AR Type: Line Listing Last Generated (UTC): [October 17, 2025 3:33 PM](#)

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

Additional Filters:

AND OR

AND OR

Resistant Organism equal

Fluoroquinolone-resistant Enterobacterales

The “Display Variables” and “Sort Variables” tabs 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, located to the right of the selected variables list.

Tip: Not sure of the meaning of the variables in the list? Click “Print List” in the upper left corner of the modification window.

Modify "Line Listing - Antimicrobial Resistant Organisms"

Show descriptive variable names ([Print List](#)) Analysis Data Set: Antibiogram_AR Type: Line Listing Last Generated (UTC): [October 17, 2025 3:33 PM](#)

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

Display Variables:

Available Variables:

- Admissions
- Amikacin
- Amoxicillin
- Amoxicillin with Clavulanate
- Ampicillin
- Ampicillin with Sulbactam
- Anidulafungin
- AR Option Plan?
- arID
- Azithromycin
- Aztreonam
- Bed Size
- Caspofungin
- CDC Location
- Cefazolin

Selected Variables:

- Facility Org ID
- Patient ID
- Fac Admission Date
- Event ID
- Date Specimen Collected
- Event Type
- Location
- Pathogen Description
- Ciprofloxacin
- Levofloxacin
- Moxifloxacin



U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION

Final Report

The example line listing shown below is the result of the modifications described in this document.

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

National Healthcare Safety Network
Line Listing - Antimicrobial Resistant Organisms
FQEall_AR - Fluoroquinolone-resistant Enterobacterales
As of: October 21, 2025 at 5:54 PM UTC
Date Range: ANTILOGRAM_AR specDateYM 2025M08 to 2025M08
if (((phenotype_AR = "FQEall_AR")))

Facility Org ID	Patient ID	Fac Admission Date	Event ID	Date Specimen Collected	Event Type	Location	Pathogen Description	Ciprofloxacin	Levofloxacin	Moxifloxacin
1 13860	ECOLI_202508	08/01/2025	145106	08/08/2025	AR	ED	Escherichia coli - EC	R	R	
2 13860	ESBKO_202508	08/01/2025	145107	08/08/2025	AR	EMER	Klebsiella oxytoca - KO	R	R	

1. Please find the document containing Phenotype_AR definitions at <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/aur/ar-phenotype-definitions-508.pdf>
Sorted by orgID specimenDate
Data contained in this report were last generated on October 17, 2025 at 3:30 PM UTC to include all data .

There were only two events at your hospital during August 2025 that met the criteria for the fluoroquinolone-resistant Enterobacterales phenotype. The first isolate was identified as *E. coli* (orange #1 above), and the second isolate was identified as *Klebsiella oxytoca* (purple #2 above). Both isolates were resistant to both ciprofloxacin and levofloxacin. Moxifloxacin is blank because this susceptibility test was not required for the organism's panel.

Additional Resources

- [How to Export Data from NHSN](#)
- [AUR Module Protocol](#)
- [Surveillance for AU and AR Options](#)
- [AUR Training](#)
- [NHSN Analysis Quick Reference Guides](#)



U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION