

# Report No Antimicrobial Resistant (AR) Events

## Description

This document reviews the process of reporting No Antimicrobial Resistance (AR) events and reviewing the AR Option Summary line list to confirm reporting.

When a facility's reporting plan includes AR for FacWideIN or any eligible outpatient location (Emergency Department, Pediatric Emergency Department, 24-Hour Observation Unit) for a given month and the facility uploads AR summary data for that month (patient days and admissions or encounters), but does not upload AR events, the application will generate a Missing AR Event alert. When reviewing the alert, the facility can click the "Report No Events" box to indicate they have zero AR events to report for that specific month and location. Clicking the "Report No Events" box verifies that this is in fact a "true zero" for the month and the facility had no events that met the AR Option reporting criteria. The AR event criteria are very broad, so we expect most hospitals to have AR events to report each month. An AR event contains isolate level antimicrobial susceptibility results for a specific organism. An isolate is defined as a population of a single organism observed in a culture obtained from a patient specimen. The isolate must meet the four criteria below:

1. Must be collected while the patient was in an eligible location (any inpatient location or ED, pediatric ED, or 24-hour observation area).
2. Must be collected from an eligible specimen type: blood, cerebrospinal fluid, urine or lower respiratory.
3. Must be an eligible organism (see question #10 in the [AR FAQ](#)).
4. Must have had antimicrobial susceptibility testing performed for at least one drug.

Please note, your facility should report all eligible isolates that meet the reporting guidelines outlined in the [NHSN AUR Module Protocol](#) to NHSN regardless of the antimicrobial resistance of the isolated organism. This means that even isolates susceptible to all required antimicrobials are eligible to be reported to the AR Option. If the facility identified AR events for that month, the facility should upload those events to clear the Missing AR Event alert.

Data accuracy and completeness are essential for AR surveillance. In addition to the Missing AR Event alert on the alerts screen, the facility can also view the AR Summary data line list for ongoing data quality assurance. This report includes the "No AR events" variable. For detailed information on additional AR data validation, review our guide here: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/aur/ar-validation-508.pdf>.

## Example

Suppose you're reviewing AR Summary Data from a six-month period from the fourth quarter of 2022 to the first quarter of 2023. You want to know if there are any months where you did not upload AR events into NHSN.



## Review the Monthly Reporting Plan

First review the monthly reporting plan for the six-month time period to verify you had a reporting plan in place for each month.

1. Click Reporting Plan > Find

2. Select the month and year for the AR data submission.

3. Scroll down to the “Antimicrobial Use and Resistance Module” section of the plan.

Antimicrobial Use and Resistance Module

	Locations	Antimicrobial Use	Antimicrobial Resistance
	FACWIDEIN - Facility-wide Inpatient (FacWIDEIn)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	EMER - EMER	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	PED_ED - PED_ED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	ICU-A - ICU-A	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Ensure you have the Antimicrobial Resistance box checked for FacWideIN and any eligible outpatient locations for all months you're reviewing

## View Missing Event Alerts for AR

Once you've confirmed you've listed FacWideIN and any applicable outpatient locations AR Option reporting in each reporting plan, you'll review your alerts (see screenshot on the right).

1. Navigate to the Alerts screen

2. Choose the “Missing Events” alerts button to view all missing event alerts.

Months will show up here with the event type/Pathogen “AR Event” when the month is part of your reporting plan, you've entered AR summary data for the month, but have not entered any AR events. If you've reported AR events for a specific month, the month will not appear on this report.

When viewing the missing event alerts, you note that NHSN lists both December 2022 and January 2023 as having FacWideIN summary data but no AR events (see below screenshot). Review these months in your vendor software to confirm whether these are “true zeros” or whether you need to upload reportable AR events.

NHSN Home
Alerts <b>1</b>
Dashboard ▶
Reporting Plan ▶
Patient ▶
Event ▶
Procedure ▶
Summary Data ▶
COVID-19 ▶
Import/Export
Surveys ▶
Analysis ▶
Users ▶
Facility ▶
Group ▶
Logout

The screenshot shows the NHSN Patient Safety Component Home Page. On the left is a navigation menu with 'Alerts' highlighted and a red '1' next to it. The main content area has a header 'NHSN Patient Safety Component Home Page' and a list of dashboards: 'TAP Strategy Dashboard' and 'TAS Dashboard'. Below that is an 'Action Items' section with a sub-section 'COMPLETE THESE ITEMS' containing two cards: 'Mini-IRF Survey Required 2022' and 'Confer Rights Not Accepted'. At the bottom is an 'ALERTS' section with two cards: 'Missing Events 353' (with a red '2' next to it) and 'Incomplete Summary Items 20'.

After reviewing your AR data, you confirm with your stewardship team that the facility had no AR events for FacWideIN in December 2022. However, your facility did have eligible isolates to report as AR events for FacWideIN in January 2023.

Location	CDC Location	Month/Year	Alert Type	Event Type/Pathogen	Summary Data Form Type	Report No Events
FACWIDEIN	FACWIDEIN	12/2022	Summary but no events	AR Event	AR Summary	<input checked="" type="checkbox"/>
FACWIDEIN	FACWIDEIN	01/2023	Summary but no events	AR Event	AR Summary	<input type="checkbox"/>
ICU-C	IN:ACUTE:CC:S	01/2023	Missing in-plan events	CLIP	N/A	<input type="checkbox"/>
NICU	IN:ACUTE:CC_STEP:NURS	01/2023	Missing in-plan events	CLIP	N/A	<input type="checkbox"/>

As shown in the above screenshot, first scroll to December 2022 select the “Report No Events” box next to this alert. Then click Save. Notice that when you save this change, this alert no longer appears for December 2022. Since you have eligible AR events to report for January 2023, do not check the “Report No Events” box and instead, work with your team to upload AR events from this time period.

### Run the Line Listing for all AR Summary Data

For detailed information on how to modify the AR Summary line list, view the quick reference guide available here: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/aur/ar-qrg-denom-linelist-508.pdf>.

**National Healthcare Safety Network**  
**Line Listing for All AR Summary Data**  
 As of: August 4, 2023 at 2:35 PM  
 Date Range: AR\_SUMMARY summaryYQ 2022Q4 to 2023Q1

orgID	CCN	summaryYM	location	numPatDays	numAdmissions	numTotEncounters	noEventAR
33617	N/A	2022M10	FACWIDEIN	2525	541	.	N
33617	N/A	2022M11	EMER	.	.	375	Y
33617	N/A	2022M11	FACWIDEIN	5000	900	.	N
33617	N/A	2022M12	FACWIDEIN	5000	900	.	Y
33617	N/A	2023M01	FACWIDEIN	2350	460	.	.
33617	N/A	2023M02	FACWIDEIN	2350	460	.	N
33617	N/A	2023M03	FACWIDEIN	5000	900	.	N

First generate new datasets. Review the AR Summary Line List to view the report no event variable value for all months of interest. Note that the noEventAR variable will equal “Y” to indicate the facility has checked the Report No Events box for that location on the Alert screen. The noEventAR variable will equal “N” to indicate the facility has reported AR Events. The noEventAR variable will be blank if there are no AR events reported and the facility has not yet confirmed that this is a true zero by checking the Report No Events box on the alert screen.

### Additional Resources

AUR Module homepage: <https://www.cdc.gov/nhsn/psc/aur/index.html>

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

Introduction to NHSN Analysis: <https://www.cdc.gov/nhsn/pdfs/training/2022/Introduction-Analysis-508.pdf>

AR Event Line List quick reference guide: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/aur/AR-QRG-LineList.pdf>

AR Summary Line List quick reference guide: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/aur/ar-arg-denom-linelist-508.pdf>

AR Option Data Validation: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/aur/ar-validation-508.pdf>

