



Chicago Department
of Public Health

2023 NHSN Antimicrobial Use and Resistance (AUR) Fact Sheet

What's this all about?¹

The NHSN Antimicrobial Use (AU) and Antimicrobial Resistance (AR) (AUR) Module reporting was identified as one option to meet the Public Health Registry reporting element within the Centers for Medicare and Medicaid Services (CMS) Medicare Promoting Interoperability (PI) Program for eligible hospitals and critical access hospitals (CAHs) in 2017.

Beginning in CY 2024, CMS finalized changes to the Medicare Promoting Interoperability Program for eligible hospitals and critical access hospitals (CAHs) that include a new AUR Surveillance measure under the Public Health and Clinical Data Exchange Objective. To obtain credit for calendar year 2024, eligible hospitals and CAHs must attest to being in active engagement with CDC's NHSN to submit AUR data for the electronic health record (EHR) reporting period, or else claim an applicable exclusion. Further, to meet the CMS PI Program requirement, facilities must use CEHRT updated to meet 2015 Edition Cures Update criteria, including criteria at 45 CFR 170.315 (f)(6).

So, what do we need to do?¹

In short, hospitals and critical access hospitals need to submit an attestation to CMS, through the NHSN system, that they will be in active engagement* with NSHN to submit AUR data for 2024. This doesn't necessarily mean that you must submit AUR data for 2024, but that you will attest to *beginning* the process.

*see FAQs at the end for definition of active engagement

What do I need to begin?¹

- Required data systems or electronic access to required data elements for NHSN AUR Module:
 - Electronic Medication Administration Record (eMAR) or Bar Coding Medication Administration (BCMA) system for capturing antimicrobial administrations, which are used in calculating AU module numerators

- Electronic Laboratory Information System (LIS) for capturing antimicrobial susceptibility results, which are numerators in the AR module
- Electronic Admission, Discharge, Transfer (ADT) system for capturing patient movement within the facility. Used in denominators in both AU and AR modules
- Use vendor or homegrown technology that has been [NHSN-validated](#) and Office of the National Coordinator for Health Information Technology (ONC) certified
 - See the lists of [AU](#) and [AR](#) NHSN validated vendor software.
 - To check if your vendor software is ONC certified:
 - Visit <https://chpl.healthit.gov/#/search>
 - Click “Go”
 - Remove any filters applied
 - Under Advanced Search, filter by Certification Criteria: 170.315(f)(6): Transmission to Public Health Agencies – Antimicrobial Use and Resistance Reporting
 - Then filter by Certification Edition: 2015 Cures Update
 - Find your product and version on the list that remains
- Fulfill the basic requirements for submission of data into NHSN:
 - Hospital is enrolled in NHSN
 - Hospital has mapped NHSN locations
 - Hospital has requested and entered an NHSN Facility Object Identifier (OID)
- Hospital has completed AUR Module training and entered monthly reporting plans within NHSN

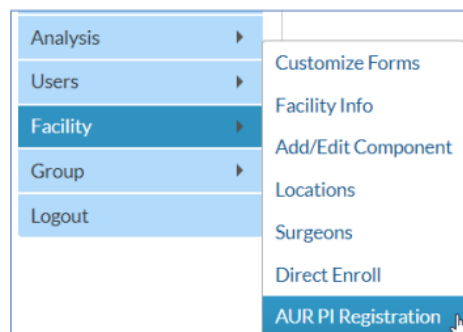
Ok, I’ve got all that. How do I start satisfying this requirement?¹

Step 1 – Registration of Intent to Submit Data


The eligible hospital must first register the facility’s intent to submit AU and AR data into NHSN. Facilities should NOT register intent to submit data until they have verified that the vendor being used has been certified.

Important notes:

- 1) *Only the NHSN Facility Administrator* can view and complete this task.
 - 2) All facilities must complete this step regardless of whether they are already sending production AU and AR data to NHSN.
- After logging into the NHSN facility, click “Facility” then “AUR PI Registration” on the left-hand navigation bar:



- On the AUR Promoting Interoperability (PI) Program Registration page, read the text and check the box to automatically add your name and the facility name to the form:

By checking this box  _____ registers facility _____ intent to satisfy a PI Program objective by submitting NHSN Antimicrobial Use and Antimicrobial Resistance (AUR) monthly data via an electronic interface.

- Add up to two optional email addresses for individuals, aside from the NHSN Facility Administrator, who will be involved in the PI Program process and who will receive copies of submission documentation:
- Verify all information is correct and click the “Save” button.
- Click “Yes” on the pop-up alert to confirm your facility’s registration of intent to submit AU and AR data.
- The NHSN Facility Administrator and the Optional Facility PI Program Contacts will receive an automated confirmation email from NHSN that should be saved for your records.
 - This email also contains the instructions to proceed to Step 2: Testing and Validation of the AUR CDA Files.

Ok, that wasn’t bad. What’s next?¹

Step 2 – Testing and Validation of the AUR Clinical Data Architecture (CDA) Files

Eligible hospitals and CAHs participating in the PI Program should then proceed through the NHSN testing and validation steps. Upon receipt of the NHSN invitation to begin testing and validation, facilities will complete the steps below. Facilities should *not* complete the steps below until Step 1 is complete and the facility has received an email invitation to proceed.

Important Note: *If your facility is already sending production AU and AR data to NHSN, you do not need to complete this step.*

- Email the three test CDA files to the NHSN CDA Helpdesk (NHSNCDA@cdc.gov) according to the specifications outlined in the invitation letter.
 - Antimicrobial Use Summary CDA
 - Antimicrobial Resistance - Numerator CDA
 - Antimicrobial Resistance - Denominator CDA
- As the NHSN CDA Helpdesk receives and validates the test files, details will be returned to the facility via email describing any errors that were identified during the validation process. The facility will work with their vendor to correct the errors and resend the updated test CDA file(s).
- When all three test CDA files pass validation, the facility will receive an email indicating that all test files have passed and that AU and AR data can now be uploaded into the NHSN production environment. This email should be saved for your records.

Completing Steps 1 and 2 as outlined in this document meets the CMS criteria for attesting to Option 1 – Pre-production and validation.

That seems doable, though I've got some questions. (See FAQs below).

Also, once I've completed step 2, can I keep going?¹

Yes, you can (but are not required to) move on to:

Step 3 – Submission of Production AUR Data into NHSN

Once the testing and validation steps are complete, the facility will be invited to submit AU and AR data into the NHSN production environment. Prior to uploading AU and AR CDA files, the facility must add the appropriate information to their monthly reporting plans. Please see [this video](#) on how to upload CDA files into NHSN.

Facilities that reach Step 3 can attest to meeting the CMS PI Program's Option 2 – Submitting production data.

On the first day of every month, the NHSN Facility Administrator and Optional Facility PI Program Contacts will receive an automated email with a monthly summary of AU and AR data submission:

Further, on February 1 of each year, the NHSN Facility Administrator and Optional Facility PI Program Contacts will receive an automated email with an annual report summarizing the submission of AU and AR data to NHSN for the previous calendar year. Facilities should be sure to save these emails for their records.

In addition to the automated reports, the NHSN Facility Administrator has the ability to generate an ad-hoc report summarizing submission of AU and AR data to NHSN by following these steps:

- After logging into the NHSN facility, click "Facility" then "AUR PI Registration" on the left-hand navigation bar.
- On the AUR Promoting Interoperability (PI) Program Registration page, click "Reports":
- On the Request for AUR PI Program Status Report page, select the year of report desired then click "View Report":
- Once generated, the report can be emailed, printed, or downloaded.

FAQs

What are the exclusions for the AUR measure?²

There are three exclusions currently:

1. Your facility does not have any **patients** in any patient care location for which data are collected by NHSN during the EHR reporting period
OR
 2. Your facility does not have **electronic medication administration records (eMAR)/barcoded medication administration (BCMA)** records or an **electronic admission discharge transfer (ADT)** system during the EHR reporting period
OR
 3. Your facility does not have an **electronic laboratory information system (LIS)** or **electronic ADT** system during the EHR reporting period.
- Hospitals enter exclusion in the CMS Hospital Quality Reporting (HQR) system & CMS reviews
 - Email NHSN with further questions about exclusions.

What is the reporting period for the CMS PI Program? Do I need to be reporting AUR data into NHSN by January 1, 2024?²

It depends...

- On the calendar year
 - CY 2023 – 90 continuous days (bonus points only)
 - CY 2024 – 180 continuous days
- On the facility's designated EHR reporting period
 - CY 2024
 - Facility must use the same 180-day period for **ALL** CMS PI Program measures
 - AU and AR data must be reported for the same 180 days

How do facilities find out if their hospital participates in the CMS Promoting Interoperability (PI) Program?³

- Most acute care hospitals* participate in the CMS PI Program
- Reach out to person(s) in charge of quality reporting within the facility and/or C-suite
- Critical access hospitals are eligible to participate

*Long term care facilities (skilled nursing/nursing home), outpatient dialysis clinics & ambulatory surgery centers cannot submit data into the AUR module

Other types of hospitals that provide inpatient care are not included in the CMS PI Program.

This includes, but is not limited to:

- Inpatient rehab hospitals (IRF)
- Inpatient psych hospitals (IPF)
- Long term acute care hospitals (LTCH/LTAC/LTACH)

What does “active engagement” mean?²

Two ways to be in active engagement with NHSN

- Option 1 – Pre-production and validation

- Registration within NHSN
- Testing & validation of the CDA files

- Option 2 – Validated data production
 - Registration within NHSN
 - Submitting production AU & AR files to NHSN
 - CY 2023- 90 continuous days of AUR data submission
 - CY 2024- 180 continuous days of AUR data submission

- Note: Beginning in CY 2024, facilities can only spend one calendar year in option 1 (pre-production and validation)

Who in my hospital needs access to NHSN?³

We recommend at least two people be educated users for AUR Module reporting. It's most common for either the pharmacist or the infection preventionist to update the monthly reporting plans within NHSN and submit the AUR data, though any NHSN user with appropriate rights can fulfill these responsibilities. It's also important for hospitals to designate who will review and validate submitted data and who will run reports and analyze the data. You can divide these tasks the way that works best for your hospital.

Assuming you will need to add new user(s) to your NHSN hospital, please follow the steps to ensure the new user(s) has the necessary rights to perform relevant tasks: [User Rights in NHSN AUR Module \(cdc.gov\) \[PDF – 491 KB\]](#).

Additional Resources:

- AUR Module website: <https://www.cdc.gov/nhsn/psc/aur/index.html>
- AUR Trainings: <https://www.cdc.gov/nhsn/training/patient-safety-component/aur.html>
- NHSN/CMS Requirements: <https://www.cdc.gov/nhsn/cms/ach.html>

Contact Information

- SAMS Questions: samshelp@cdc.gov
- NHSN Questions with SAMS access: <http://servicedesk.cdc.gov/nhsncsp>
 - SAMS log-in is required to use the link
- NHSN Questions without SAMS access: NHSN@cdc.gov
- CMS-related questions:
 - QualityNet help desk: Qnetsupport@cms.hhs.gov or 1-866-288-8912

References:

1. CDC. (n.d.). *Using NHSN AUR Module for the CMS Promoting Interoperability Program*. Retrieved November 18, 2023 from <https://www.cdc.gov/nhsn/pdfs/cda/PHDI-Facility-Guidance-508.pdf>
2. *NHSN Antimicrobial Use and Resistance (AUR) Module Reporting for the CMS Promoting Interoperability (PI) Program Office Hours* (2023, October 30). [Powerpoint Presentation] Centers for Disease Control and Prevention. <https://www.cdc.gov/nhsn/pdfs/training/2023/AUR-PIP-Office-Hours.pdf>
3. CDC (2023, October 26). *FAQs: AUR Reporting for the CMS Promoting Interoperability Program*. Retrieved November 18, 2023 from <https://www.cdc.gov/nhsn/cms/cms-faq-aur.html>