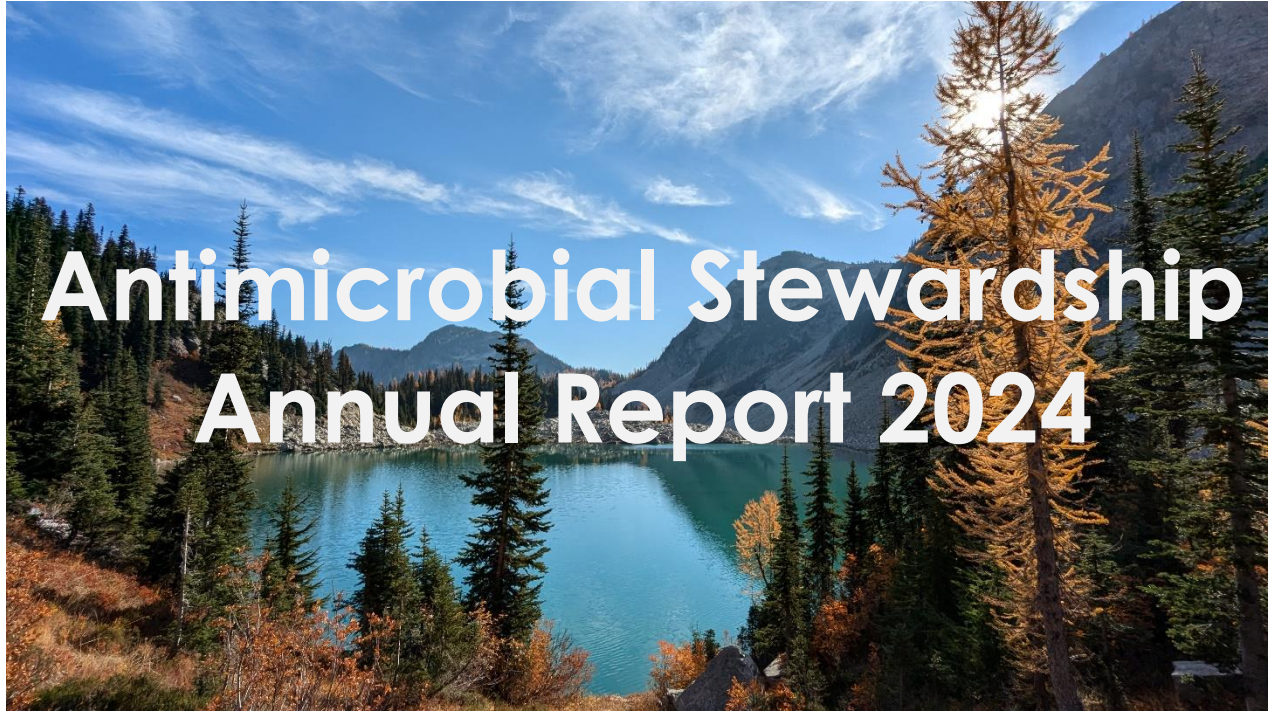


WASHINGTON STATE DEPARTMENT OF HEALTH



DOH 420-650 February 2025

To request this document in another format, call 1-800-525-0127. Deaf or hard of hearing customers, please call 711 (Washington Relay) or email doh.information@doh.wa.gov.

Table of Contents

- Acronym List3
- Executive Summary4
- Acute Care Facilities & Critical Access Hospitals5
 - Accomplishments.....5
 - NHSN Annual Hospital Survey Data5
 - Core Elements for Acute Care Facilities6
 - Priorities for Hospital Core Element Implementation6
 - NHSN AUR Implementation..... 10
 - NHSN Antibiotic Use (AU) User’s Group and Dashboard 11
 - Opportunities..... 13
- Nursing Homes 13
 - Accomplishments..... 13
 - Core Elements for Nursing Homes 14
 - NHSN Long-term Care Facility Annual Survey 14
 - Skilled Nursing Facility Collaborative..... 16
 - Diagnostic Stewardship in UTI..... 17
 - Opportunities..... 17
- Outpatient Settings..... 17
 - Accomplishments..... 17
 - Prescribing Appropriate Antibiotics for Acute Respiratory Conditions Collaboration 18
 - Penicillin Allergy Delabeling Efforts 18
 - Clinical Decision Support 19
 - Antibiotic Prescribing to Older Adults 19
 - High Prescriber Letters..... 21
 - Opportunities..... 21
- One Health Efforts.....21
 - Accomplishments..... 21
- Antibiotic Awareness Week 202422
 - Accomplishments..... 22



To connect with our team, please reach out to ams@doh.wa.gov

Acronym List

Acronym

Definition

AAW	Antibiotic Awareness Week
AMR	Antimicrobial resistance
AMS	Antimicrobial stewardship
ASCP	American Society of Consultant Pharmacists
APIC	Association for Professionals in Infection Control and Epidemiology
AR	Antibiotic Resistance
AU	Antibiotic Use
AUR	Antibiotic Use and Resistance
CAH	Critical access hospital
CDC	Centers for Disease Control and Prevention
CMS	Centers for Medicare & Medicaid Services
ELC	Epidemiology and Laboratory Capacity
HAI/AR	Healthcare Associated Infections/Antibiotic Resistance
LTC	Long term care
NHSN	National Healthcare Safety Network
PAAARC	Prescribing Appropriate Antibiotics for Acute Respiratory Conditions
PALTMed	The Society for Post Acute and Long-Term Care Medical Association
PCR	Polymerase chain reaction
QR	Quick response
UTI	Urinary tract infection
UW CSiM	University of Washington's Centers for Stewardship in Medicine
WA DOH	Washington State Department of Health
WA-PALTC	Washington State Society for Post-Acute and Long-Term Care Medicine

Executive Summary

State and local health departments play a key role in antimicrobial stewardship (AMS). The Washington State Department of Health (WA DOH) AMS Team – comprising an epidemiologist, pharmacist, and physician – supports equitable, optimal health by guiding AMS efforts in medicine. Their work aligns with WA DOH’s Transformational Plan and the CDC’s Core Elements of Antibiotic Stewardship for Health Departments.

This report summarizes the AMS Team’s 2024 initiatives and outcomes, with icons indicating alignment with WA DOH’s Transformational Plan. More details are available on the main antibiotic stewardship page.



In 2024, WA DOH advanced AMS across healthcare settings:

- **Acute Care Hospitals:** Awarded grants to 25 rural and critical access hospitals to increase NHSN Antimicrobial Use and Resistance (AUR) reporting and supported the 74 hospitals reporting NHSN AU data through a user’s group.
- **Nursing Homes:** Expanded the Skilled Nursing Facility AMS collaborative, providing monthly training to 112 people from 84 organizations. Developed guidance on molecular diagnostic testing for urinary tract infections.
- **Outpatient Care:** Created the Prescribing Appropriate Antibiotics for Acute Respiratory Conditions (PAAARC) Toolkit and funded implementation in 2 healthcare organizations. Supported implementation of the SmartRx clinical decision support tool in partnership with Optum Health. Public outreach included penicillin allergy de-labeling campaigns and parent education through the “Watch Me Grow” program.
- **One Health Initiatives:** Efforts addressed antimicrobial resistance (AMR) at the human-animal-environment interface, including funding a diagnostic panel at the Washington Animal Disease Diagnostic Laboratory, surveying veterinarians about prescribing practices, advancing development of a multi-species AMR surveillance system, and providing guidance on judicious antimicrobial use in pets.
- **Antibiotic Awareness Week 2024:** Provided education through a video on asymptomatic bacteriuria, social media campaigns, and recognition of rural hospitals excelling in stewardship.

Acute Care Facilities & Critical Access Hospitals



Accomplishments



Accountability, Commitment and Action

- Excellent hospital compliance with core elements of antimicrobial stewardship with 94% of acute care facilities achieving all seven. For the six CDC-designated [Priorities](#) for hospital core element implementation, 11% implemented all 6 priorities..



Education and Expertise

- Hosted quarterly National Healthcare Safety Network (NHSN) Antibiotic Use (AU) User's Group to help hospitals reporting AU how to access and utilize their data.
- Created [Antimicrobial Stewardship Projects for Critical Access Hospitals](#) in partnership with the University of Washington Centers for Stewardship in Medicine.
- Created [a guidance document for blood culture vial conservation](#) in response to the national shortage. Other stewardship guidance for acute care facilities can be found [here](#).



Tracking and Reporting

- Increased reporting to the NHSN AUR module by 22% from 2023, with 74 Washington hospitals contributing.
- Provided 25 critical access and rural hospitals with financial grants to help offset the costs of reporting to the NHSN AUR module.
- Improved the NHSN AU dashboard with expanded visualizations to include antimicrobial use rates for all reported antimicrobials and hospital units.

NHSN Annual Hospital Survey Data

Each year, hospitals must complete the NHSN Patient Safety Annual Survey and report on their stewardship program activities in the previous year. The survey's stewardship questions align with [CDC's Core Elements of Hospital Antibiotic Stewardship Programs](#). To provide benchmarks, the latest available data (2023) are shown below, stratified by critical access hospital (CAH) status. Federal, behavioral health, rehabilitation, oncology, and long-term acute care hospitals are not included in the figures below.

State-level data and national NHSN Annual Hospital Survey data are available in this open access CDC publication: [Update From the National Healthcare Safety Network on Hospital Antibiotic Stewardship Programs in the United States, 2014-2021](#).

In the 2023 AMS annual report, we stratified selected NHSN stewardship questions by CAH and acute care hospitals. We advocated for this approach in a letter to the editor of *Open Forum Infectious Diseases* titled [A Critical Contrast: Washington State's Case for Critical Access Hospital](#)

[Benchmarks](#) and at a CDC Infection Prevention and Control Rural and Patient Safety Community of Practice call in September 2024.

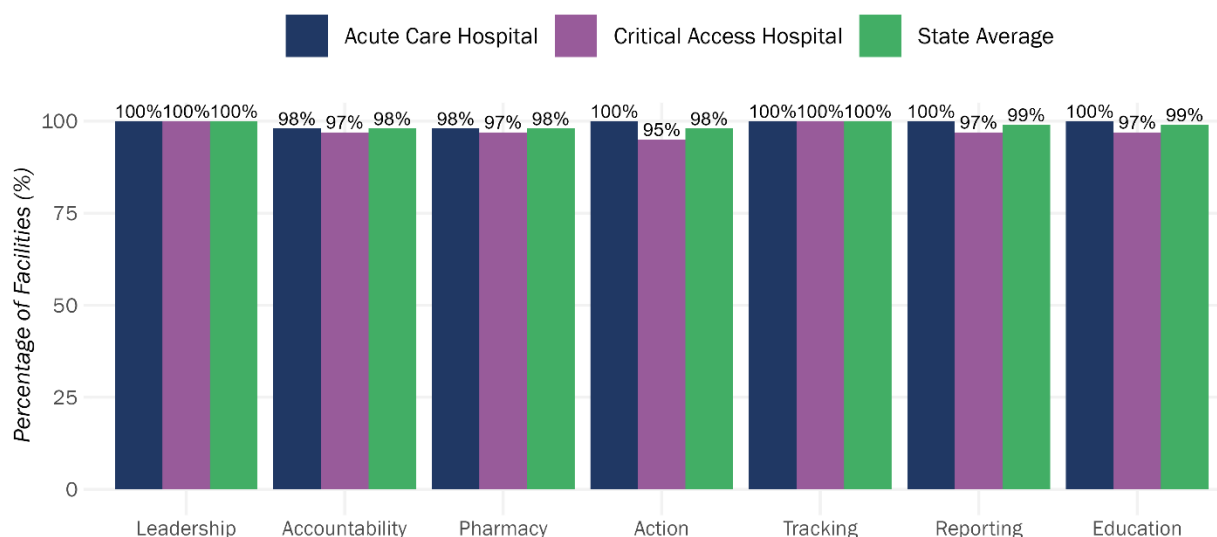
Core Elements for Acute Care Facilities

In 2014, CDC launched the [Core Elements of Antibiotic Stewardship for Hospitals](#) to guide healthcare facilities in implementing effective antibiotic stewardship programs. In the ten years since their release, the core elements have been widely implemented, with 94% of Washington Acute Care Hospitals meeting all seven core elements in 2023.

In the analyses below, critical access hospitals (CAH) refer to federally designated acute care hospitals with fewer than 25 beds in rural areas. Acute care hospitals (ACH) provide short-term medical and surgical care for patients with acute illnesses or injuries but do not meet CAH designation. Generally, larger hospitals are located in urban or suburban areas. For 2023, 37 CAHs and 53 ACHs completed the survey.

Core Elements of Antibiotic Stewardship

NHSN Annual Hospital Survey, 2023



To provide hospitals with benchmarks on core element uptake, the data was broken down into CAHs and ACH's. Across both groups, implementation of the core elements is robust, with CAHs trailing their larger peers by only a few percentage points. This data illustrates the hard work Washington hospitals have done to improve the quality of their stewardship programs.

Priorities for Hospital Core Element Implementation

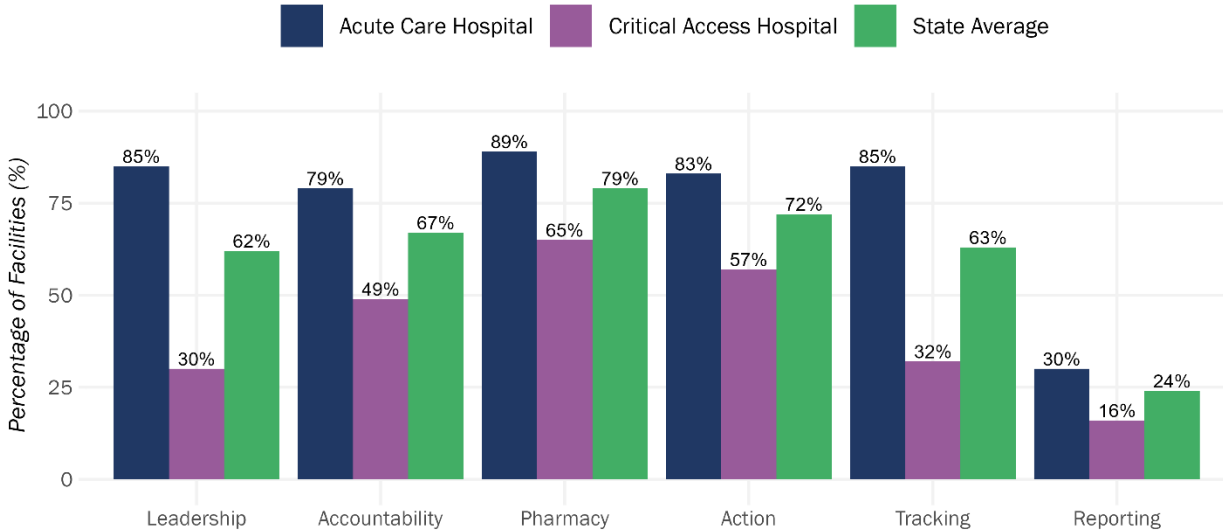
In 2022, the CDC introduced the [Priorities for Hospital Core Elements Implementation](#). The Priorities were designed to emphasize key strategies shown to improve the success of hospital antibiotic stewardship programs. Six Priorities are summarized below:

Hospital Leadership Commitment	Antibiotic stewardship physician and/or pharmacist leader(s) have antibiotic stewardship responsibilities in their contract, job
---------------------------------------	--

	description, or performance review.
Accountability	The antibiotic stewardship program is co-led by a physician and pharmacist. For critical access hospitals, the CDC’s Priorities document states that this criterion can be met if the hospital has a physician leader with a pharmacist involved in stewardship.
Pharmacy/Stewardship Expertise	The antibiotic stewardship physician and/or pharmacist leader(s) have completed infectious diseases specialty training, a certificate program, or other training on antibiotic stewardship.
Action	The program has facility-specific treatment recommendations for common clinical conditions and performs prospective audit and feedback or preauthorization for specific antibiotic agents.
Tracking	Hospital submits antibiotic use data to the NHSN Antimicrobial Use (AU) Option.
Reporting	Prescriber, unit, or service-level antibiotic use reports are provided at least annually to target feedback to prescribers and the program monitors adherence to facility-specific treatment recommendations for at least one common clinical condition.

Priorities for Hospital Core Element Implementation

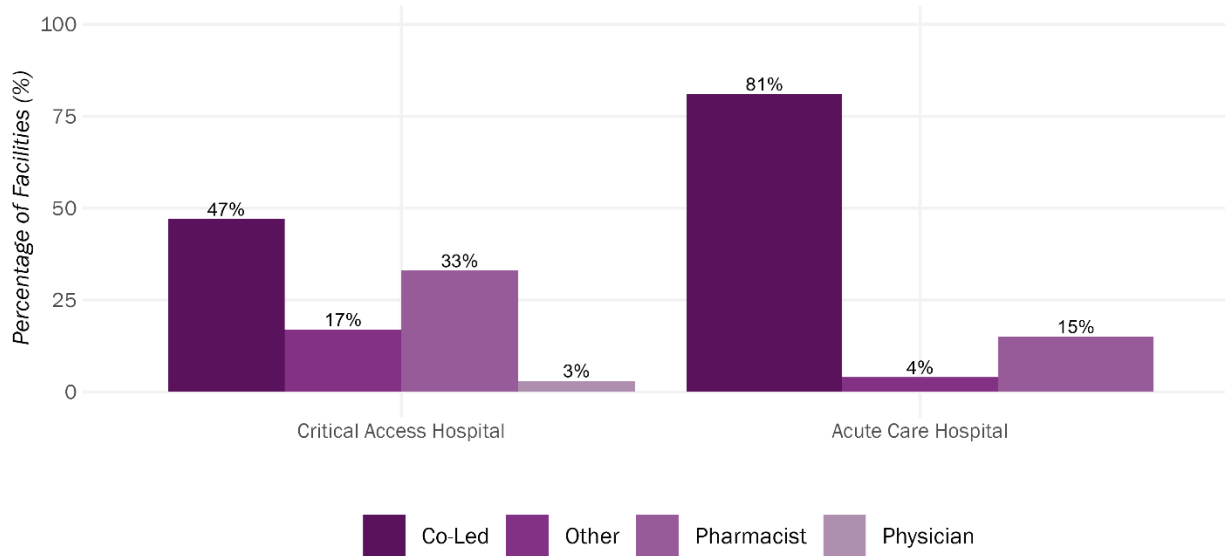
NHSN Annual Hospital Survey, 2023



Approximately 11% of all WA ACHs and CAHs reported implementing all six priority elements in 2023, compared to approximately 14% of acute care hospitals in the US (Source: CDC ARPSP). Across all priorities, ACHs met the priority elements more frequently than CAHs. In both hospital groups, “Reporting” showed the greatest opportunity for improvement. A summary of recommendations for facilities and public health based upon these data are in the “Opportunities” section of this report.

Antimicrobial Stewardship Team Led By

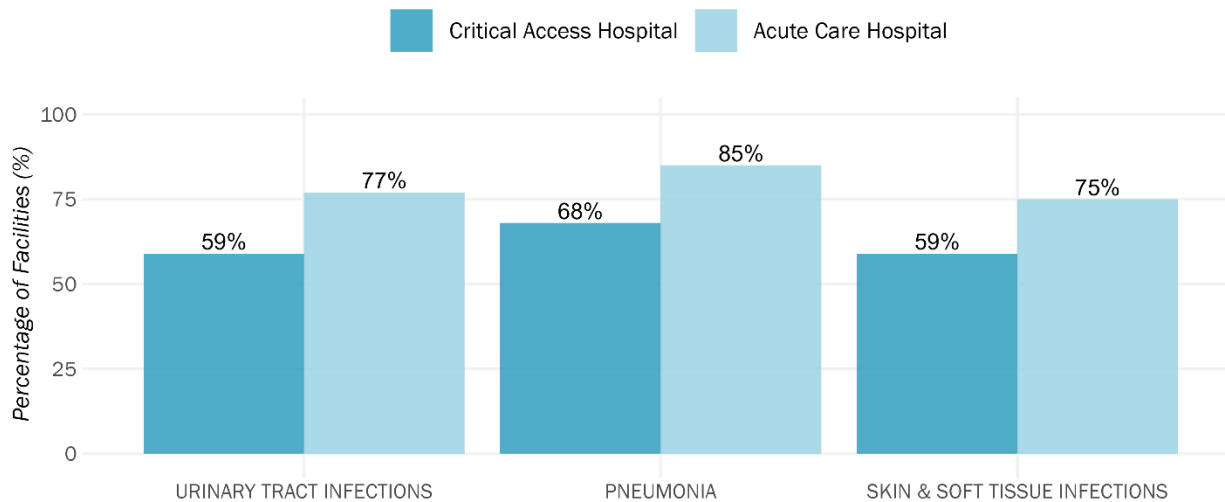
NHSN Annual Hospital Survey, 2023



At larger hospitals, 81% of stewardship programs are co-led by pharmacists and physicians, an increase from 68% in 2022. In contrast, at CAHs only 47% of teams were co-led, a 21% increase from 2022. At CAHs, pharmacists alone more often led stewardship programs than at larger hospitals (33% vs. 15%).

Percentage of Hospitals with Treatment Recommendations for Common Clinical Conditions

NHSN Annual Hospital Survey, 2023

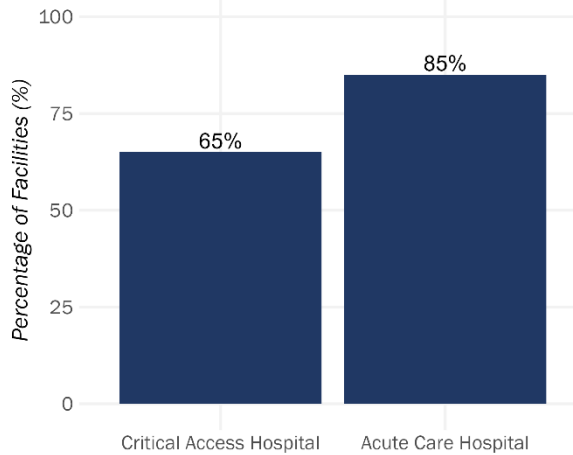


In 2023, nearly all Washington hospitals had treatment recommendations for at least one common condition based on national guidelines and pathogen susceptibilities. ACHs were more likely to have these guidelines, with increases from 2022 of 13% for UTIs, 3% for pneumonia, and 11% for skin and soft tissue infections. In critical access hospitals, increases were 15% for UTIs, 18% for pneumonia, and 27% for skin infections. Despite progress, opportunities remain to improve access

to specific treatment recommendations in both settings.

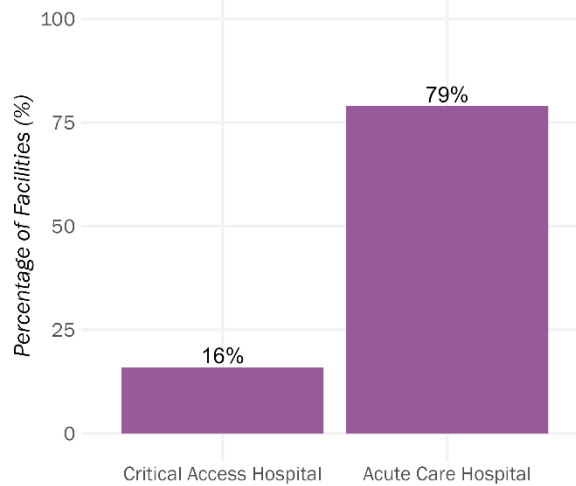
Percentage of Hospitals Conducting Prospective Auditing and Feedback for Specific Antibiotics

NHSN Annual Hospital Survey, 2023



Percentage of Hospitals with Preauthorization of Specific Antibiotics

NHSN Annual Hospital Survey, 2023

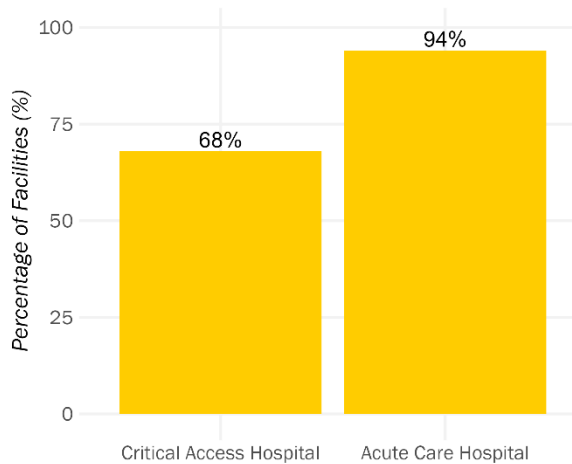


ACHs more frequently reported conducting prospective audit and feedback for any antibiotic agents than CAHs (85% vs. 65%). However, the percentage of CAHs conducting audit and feedback for select antibiotic agents increased by 17% from 2022 to 2023. Across both hospital groups, audit and feedback was most frequently conducted for carbapenems (82% ACHs; 50% CAHs) and cephalosporins (73% ACHs; 50% CAHs).

In 2023, 17% of CAHs required preauthorization for specific antibiotics, vs. 78% of larger hospitals, an 7% increase from 2022. Carbapenems (42% ACHs; 14% CAHs) and polymyxin B/E (49% ACHs; 8% CAHs) were the most frequently restricted. Pre-authorization requires specialized expertise often unavailable at CAHs. Given their smaller size, CAH stewards may know their prescribers well, making prospective audit and feedback a more useful approach.

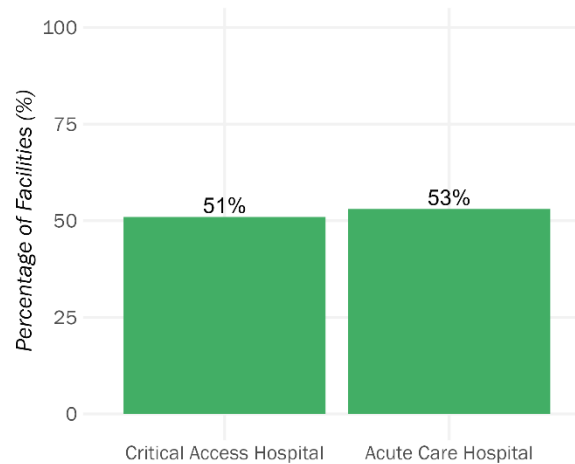
Percentage of Hospitals Annually Reporting AU, AR and AMS Efforts to Hospital Staff

NHSN Annual Hospital Survey, 2023



Percentage of Hospitals Providing Antibiotic Use Reports to Prescribers Annually

NHSN Annual Hospital Survey, 2023



Information on antibiotic use, resistance and stewardship efforts was reported to hospital staff at least annually in 95% of ACHs and 68% of CAHs. There were no significant changes in the proportion of facilities providing information between 2022 and 2023.

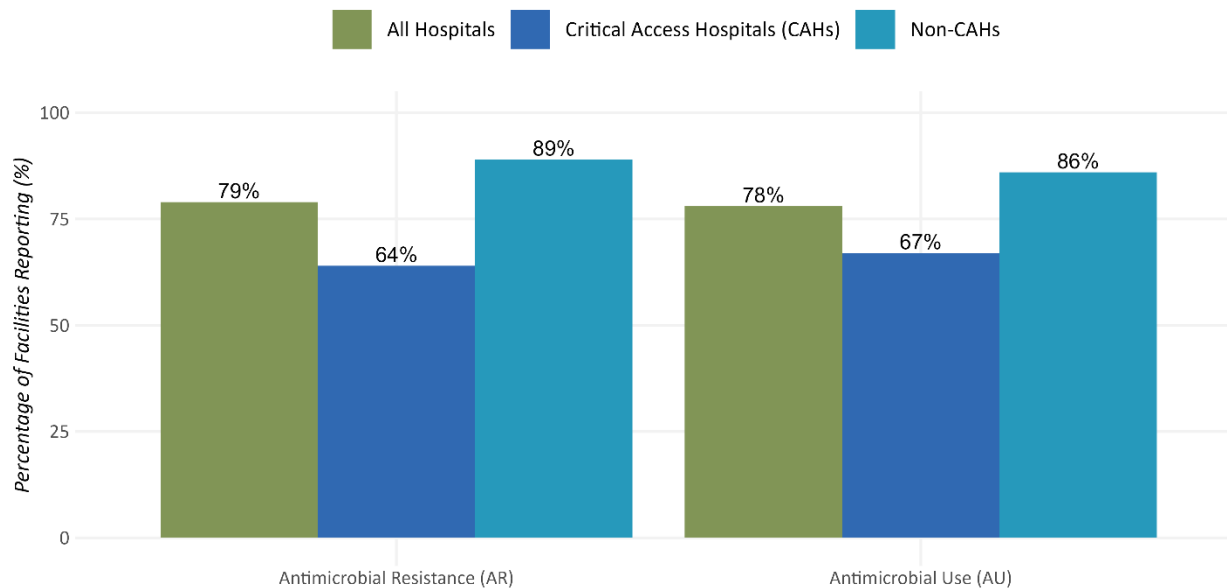
Antibiotic use reports were provided to prescribers in only 51% of CAHs and 53% of ACHs. The proportion of facilities providing reports increased by 13% in CAHs and 17% in ACHs from 2022 to 2023. In facilities that provided antibiotic use reports, 85% provided reports at the unit or service level whereas only 45% provided individualized prescriber reports.

NHSN AUR Implementation

In 2024, the NHSN Antimicrobial Use and Resistance (AUR) Module reporting became a required measure under the Public Health and Clinical Data Exchange objective of the CMS Promoting Interoperability Program. To help support critical access and rural hospitals with this new requirement, WA DOH awarded 25 hospitals with \$5,000 grants with an additional 5 more hospitals expected to receive funds in 2025.

Hospitals Reporting to the NHSN AUR Module

Washington State, December 2024



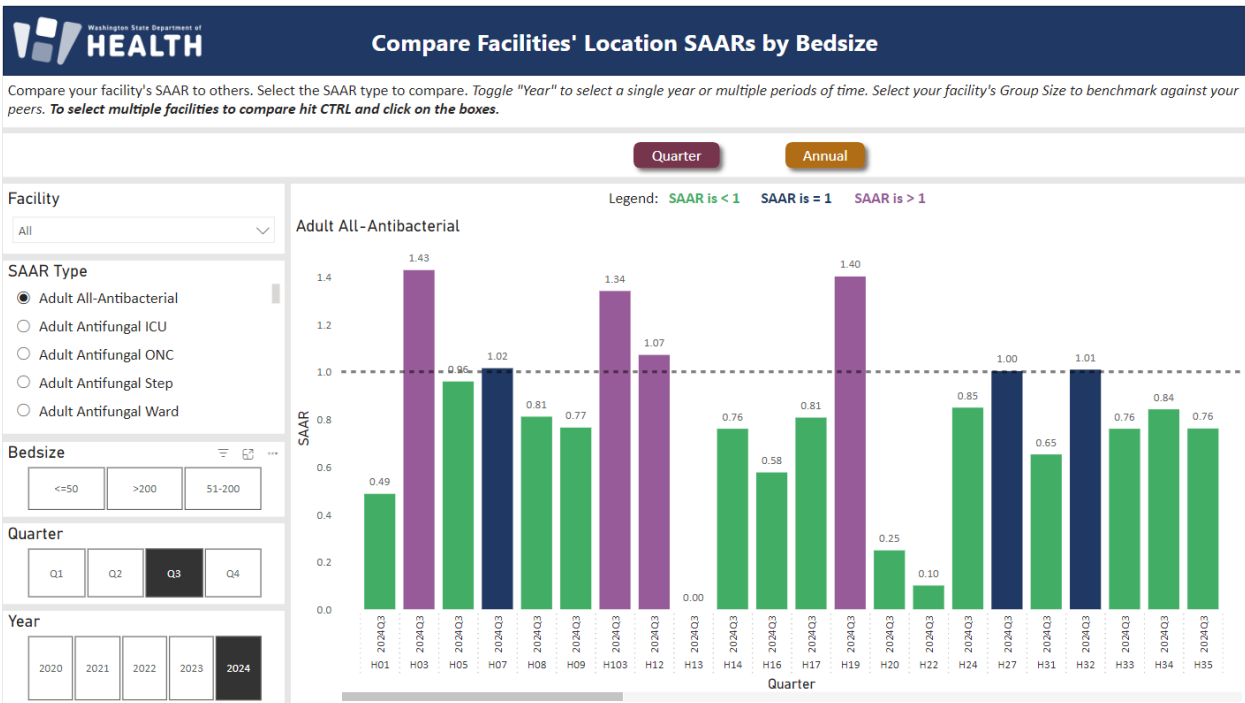
In the graph above, we show AU and AR reporting for all by hospital type as of December 2024. Federal, behavioral health, and long-term acute care hospitals are excluded from the figure above. Between December 2023 and December 2024, overall hospital reporting to the AU Option increased from 56% to 78% (74/95) and reporting to the AR Option increased from 19% to 79% (75/95). Most hospitals in Washington are reporting to the NHSN AU and AR Option, which provides a representative picture of antibiotic use and resistance in hospitals across the state. CAHs are reporting to the modules at a lower frequency than their larger counterparts and many will be eligible for reporting exemptions.

NHSN Antibiotic Use (AU) User’s Group and Dashboard

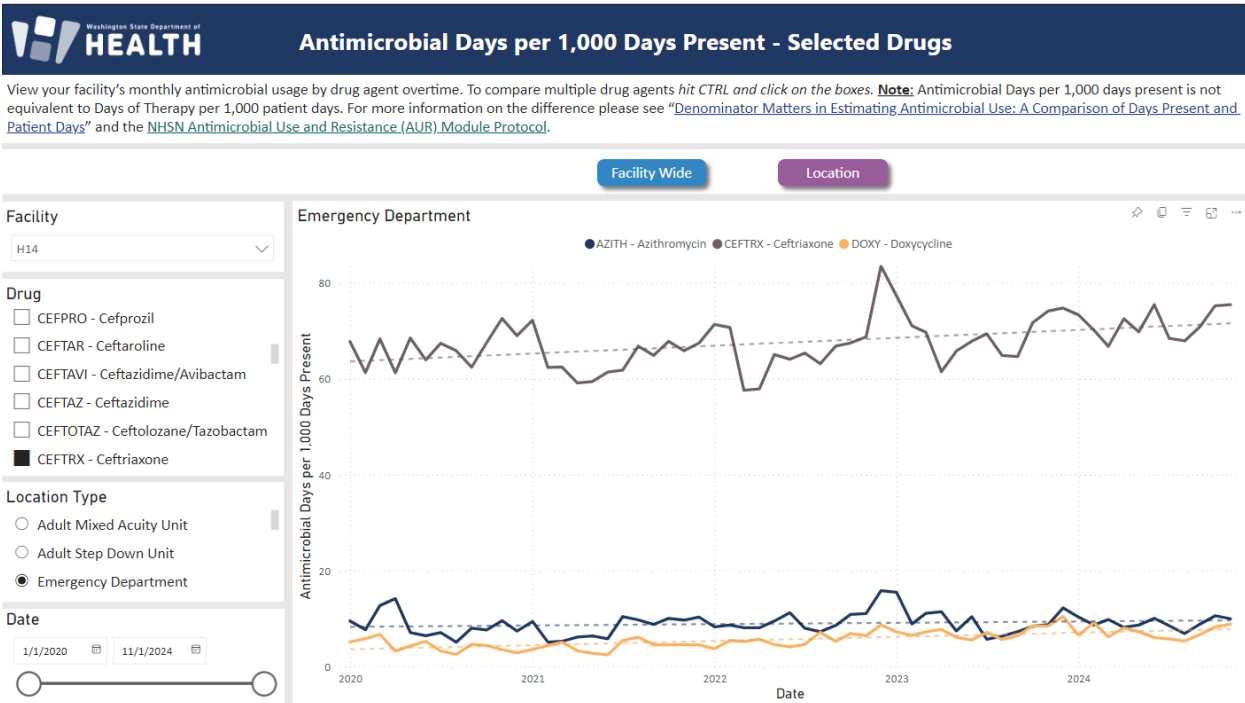
In 2021, the AMS team convened a user’s group for hospital antimicrobial stewards to support them in using NHSN AU data for action and in meeting the Tracking and Reporting Core Elements. The NHSN AU User’s Group meets quarterly. Hospitals interested in joining should [complete this form](#).

Alongside the User’s Group, our AMS team maintains a dashboard of anonymized NHSN antibiotic use data for all acute care hospitals in Washington State. This tool allows hospitals to compare antibiotic use with peers, generate custom reports, and access localized benchmarks by hospital bed size, providing state-specific insights in addition to NHSN’s national comparisons.

The images below highlight two key features: comparing quarterly SAAR types and antimicrobial usage rates by hospital units. Users can select antimicrobial combinations, adjust time periods, and analyze rates by unit or facility-wide. The dashboard can be used to evaluate the impact of hospital stewardship programs efforts overtime. Access requires active NHSN AU reporting.



This dashboard screenshot shows how facilities can compare quarterly SAARs with similarly sized hospitals.



This dashboard screenshot shows how facilities can track antimicrobial usage over time by hospital unit.

Opportunities

Public Health:

Raise awareness of the new priority elements, share relevant data with stewardship stakeholders, provide direct technical assistance, and determine support needed by facilities.

Acute Care Facilities:

Acute care hospitals reported increased implementation of 4 out of 6 priority core elements. Facilities should focus on implementing the “Reporting” priority element by annually reporting antibiotic use to prescribers. Remaining priority core elements should be reviewed and implemented where feasible. To ensure accurate reporting, stewards should collaborate with their NHSN facility administrator to complete the stewardship-related questions on the NHSN Annual Patient Safety Survey.

Critical Access Hospitals:

Similarly, critical access hospitals (CAHs) reported progress in all but two priority core elements. They should prioritize “Hospital Leadership Commitment” and “Reporting” priorities by incorporating stewardship responsibilities into contracts, job descriptions, or performance reviews and reporting antibiotic use annually to prescribers. Other priority core elements should be reviewed and implemented when feasible. Stewards are encouraged to partner with their NHSN facility administrator to ensure accurate reporting on the NHSN Annual Patient Safety Survey.

CAHs face unique barriers that must be considered in public health stewardship efforts, including resource limitations, lack of on-site physician and pharmacist with stewardship expertise, high turnover, competing priorities, and financial constraints. We continue to develop innovative strategies and support tele-stewardship models, such as the University of Washington’s Centers for Stewardship in Medicine (UW-CSiM, formerly UW-TASP), to expand access to stewardship expertise.

Nursing Homes

Accomplishments



Action, Education and Expertise

- Revised and relaunched a 9-month nursing home antibiotic stewardship collaborative homes (ongoing until May 2025). This collaborative meets monthly and eligible participants are awarded a certificate demonstrating competency in antimicrobial stewardship.
- [Offered stewardship toolkit](#) created by the American Society for Consultant Pharmacists (ASCP) for free to pharmacists.
- Developed a guidance document: [Urine Polymerase Chain Reaction \(PCR\) Based Testing Guidance Document](#) in collaboration with Washington State Society for Post-Acute and Long-term Care Medicine in response to inquiries about molecular diagnostic testing for urinary tract infection in skilled nursing facilities, and published a related [commentary](#) in an academic journal.



Tracking and Reporting

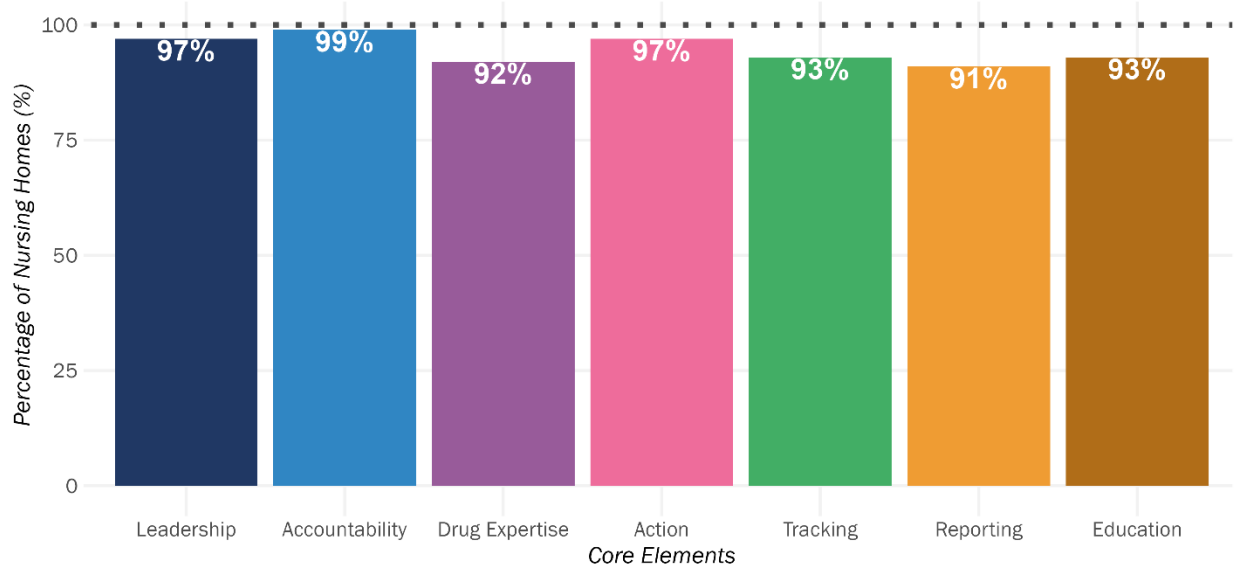
- Analyzed and reported NHSN nursing homes annual survey data to AMS stakeholders.
- Increased the number of nursing homes completing the NHSN Annual Survey from 66 facilities for survey year 2022 to 101 facilities in survey year 2023.

Core Elements for Nursing Homes

The CDC launched the CDC’s Core Elements of Antibiotic Stewardship for Nursing Homes in 2015 to provide nursing homes with a practical framework to establish and enhance antibiotic stewardship programs tailored to their specific resources and needs, Long-term care facilities that report data into the NHSN Long-term Care Facility Component are encouraged to complete the optional Annual Facility Survey and report their progress towards meeting the seven core elements.

Percentage of Nursing Homes Meeting Core Elements

NHSN Long Term Care Facility Component Annual Facility Survey, 2023



Among the 101 of Washington skilled nursing facilities that completed the Annual Facility Survey this year, 84% reported meeting all seven of Core Elements, as compared to 82% nationally (Source: CDC’s ARPSP Portal). Due to a low response rate for previous years, it is difficult to infer true changes in progress over the previous year.

NHSN Long-term Care Facility Annual Survey

In addition to providing data on the uptake of the core elements, the [NHSN Long-term Care Facility Annual Facility Survey](#) provides data on stewardship program qualities and activities. Our team uses the survey results to identify resource and support needs and track the impact of efforts over time.

Antimicrobial Stewardship Practices in Long-Term Care Facilities

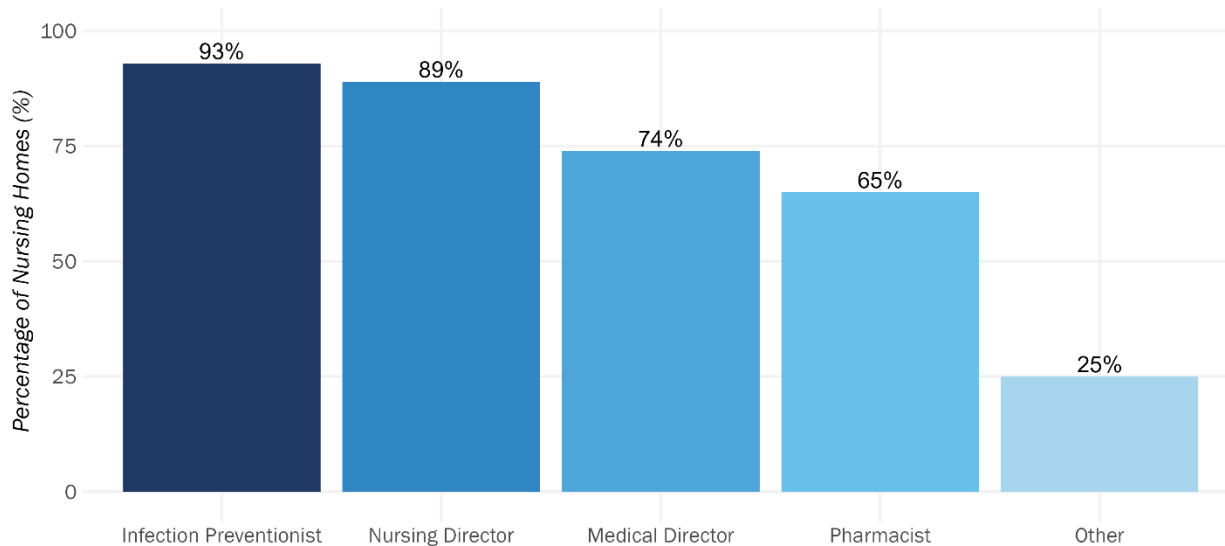
NHSN LTC Annual Survey, Washington State, 2023

Antimicrobial Stewardship Practice	Proportion of Facilities (%)
Access to individual(s) with antimicrobial stewardship expertise (e.g., consultant pharmacist trained in antimicrobial stewardship, stewardship team at referral hospital, external infectious disease/stewardship consultant)	92
Formal procedure for performing a follow-up assessment 2-3 days after a new antimicrobial start to determine whether the antimicrobial is still indicated and appropriate (e.g. antibiotic time out)	91
Provides treatment recommendations for common infections based on national guidelines to assist with antimicrobial decision making	86
Antimicrobial use and resistance data is reviewed by leadership in quality assurance/performance improvement committee meetings	96
Policy that requires prescribers to document an indication for all antimicrobials in the medical record or during order entry	88
Provided education to clinicians and other facility staff on improving antimicrobial use in the past 12 months	93
Written statement of support from leadership that supports efforts to improve antimicrobial use	90

Highlighted above are a subset of stewardship practices that are tracked by the NHSN LTCF Annual survey. Because of the low survey response rate in previous years, we are unable to accurately determine changes in the frequency of practices from year to year. We developed this [sample policy](#) template for nursing homes to improve their stewardship programs. Additional resources to support AMS practices are available at WADOH's [Antimicrobial Stewardship Toolkit for Nursing Homes](#) and [Nursing Home Resources webpage](#).

Leadership & Co-Leadership of Antimicrobial Stewardship Team

NHSN Long Term Care Facility Component Annual Facility Survey, 2023

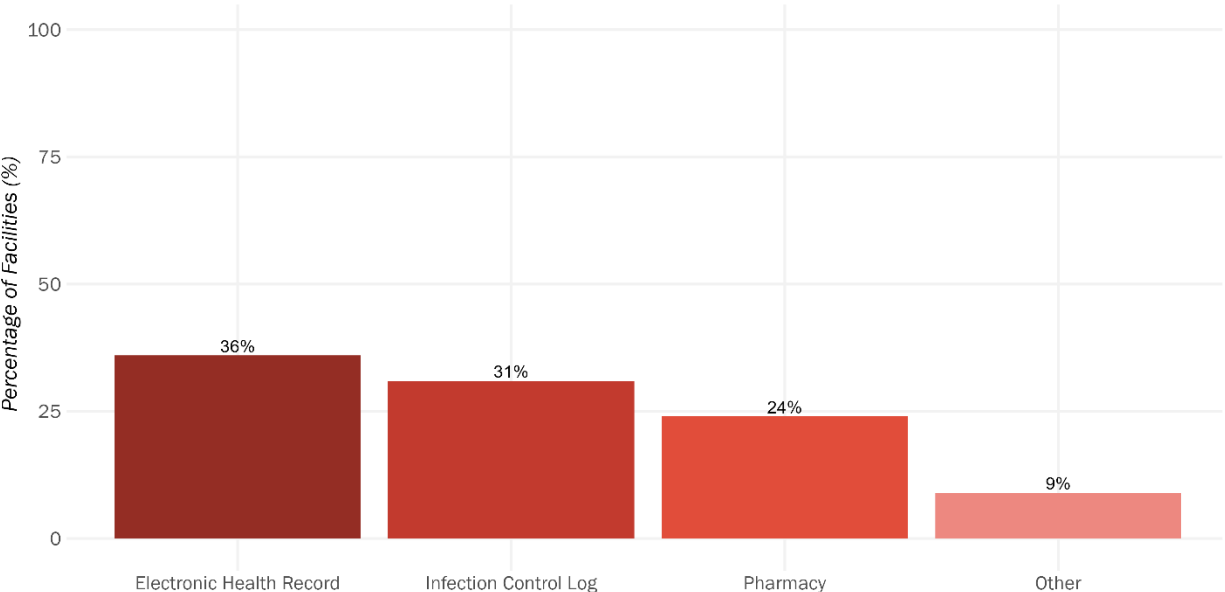


In 93% of nursing homes, infection preventionists (IPs) led or co-led antimicrobial stewardship programs, followed by directors of nursing (89%), medical directors (74%), and consultant pharmacists (65%). Engagement by medical directors and pharmacists is crucial in providing clinical guidance to the stewardship program and feedback to prescribers. IPs have expertise in infection

surveillance that can inform standards for diagnostic and prescribing practices established by ASP leads and should therefore support ASP leads. Regulators can promote pharmacy leadership of NH ASPs, increase access to expertise, and assist with staffing shortages by requiring greater clinical expertise and involvement of pharmacists beyond once-monthly medication regimen reviews.

Methods to Track Antibiotic Use

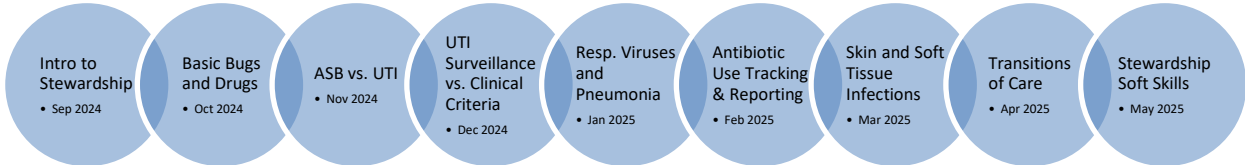
NHSN Annual Hospital Survey, 2023



To meet the “Tracking” core element, facilities must monitor at least one process measure and one outcome from antibiotic use. Nursing homes can track antimicrobial use through both automated (e.g., electronic health record reports) and manual processes (e.g., infection control logs). Antimicrobial use reports should be reviewed each month by the stewardship team including the medical director and pharmacist.

Skilled Nursing Facility Collaborative

To support antimicrobial stewardship programs in skilled nursing facilities, our team began an educational collaborative in 2023. In September 2024, we launched a revised curriculum which is now 9 months long shown in the figure below, and offers a certificate of specialized training in AMS for attendees. In December 2024, 112 people were registered from 84 facilities and organizations.



To further support SNF stewardship efforts, we began offering stewardship toolkits created by the American Society for Consultant Pharmacists (ASCP) at no cost to pharmacists. For more information on the collaborative including how to participate, please refer to our [webpage](#).

Diagnostic Stewardship in UTI

Urine polymerase chain reaction is a laboratory test promoted to healthcare professionals working in long-term care facilities as a rapid diagnostic platform for urinary tract infection. Little is known about the usefulness of this testing and its impact on antimicrobial prescribing. In 2023, we partnered with the Washington State Society for Post-Acute and Long-Term Care (WA-PALTC) to create a guidance document for urine polymerase chain reaction (PCR) testing. The complementary commentary called [“Urine polymerase chain reaction tests: stewardship helper or hinderance”](#) was published in Antimicrobial Stewardship & Healthcare Epidemiology in May 2024.

Opportunities

Public Health:

Nursing homes face unique challenges in implementing AMS, including limited resources, lack of specialized physician and pharmacy expertise, high turnover, competing priorities, absence of dedicated stewardship personnel, and financial barriers. To address these, we continue to provide intensive support to nursing homes for sustained stewardship success. We continue to engage with nursing home personnel to ensure their needs are heard and addressed.

Nursing Homes:

Nursing homes experience significant gaps in adopting best AMS practices. To support these efforts, we offer strategies and tools through [our toolkit](#) and [website](#). Facilities are also encouraged to implement treatment guidelines and policies requiring documentation of antibiotic indications. To ensure accurate reporting, nursing home stewards should collaborate with their facility’s NHSN administrator to complete the stewardship section of the NHSN Annual Survey.

Outpatient Settings

The term “outpatient settings” is defined as all outpatient healthcare settings where antibiotics are prescribed and dispensed including urgent care, primary care, specialty care, and dental clinics, outpatient pharmacies, and dialysis centers.

Accomplishments



Action, Accountability and Commitment

- Recruited two outpatient healthcare facilities to implement the *Prescribing Appropriate Antibiotics for Acute Respiratory Conditions Toolkit*, which includes providing individual prescriber feedback and peer comparison.
- Partnered with Optum Health to implement SmartRx, a clinical decision support tool to optimize antibiotic prescribing for common conditions treated by outpatient providers.



Education and Expertise

- Created the “[Prescribing Appropriate Antibiotics for Acute Respiratory Conditions \(PAAARC\) Toolkit](#),” a guide for implementing antimicrobial stewardship interventions for acute respiratory conditions in outpatient clinic settings.
- Promoted Penicillin Allergy De-labeling by creating patient-friendly pamphlets and posters.
- Developed and mailed an “Antibiotic Awareness” insert in English and Spanish to parents of young children as part of “Watch Me Grow” mailings.
- Contributed to [WA DOH’s new Infection Prevention Outpatient Playbook](#) on the IP’s role in stewardship.



Tracking and Reporting

- Sent letters and educational resources to 392 providers who were identified as high prescribers of antibiotics in older adults based on analysis of Medicare Part D outpatient antibiotic prescribing data.
- Investigated the association between high prescribing of opioids and antibiotic, and published the findings, “[Prescribing patterns of high opioid and antibiotic prescribers, Washington State, 2021: Do some prescribers have trouble saying no,](#)” in *Open Forum Infectious Diseases*.

Prescribing Appropriate Antibiotics for Acute Respiratory Conditions Collaboration

Outpatient antibiotic use makes up more than half of all human antibiotic use in the U.S., and unnecessary antibiotics are frequently prescribed for viral infections. To promote judicious antibiotic use in the outpatient setting, we created the “Prescribing Appropriate Antibiotics for Acute Respiratory Conditions (PAAARC) Toolkit, adapted from [CDC MITIGATE antimicrobial stewardship toolkit](#). In addition to AMS education for prescribers and patients, the toolkit encourages improved prescribing through peer comparison across a Healthcare Effectiveness Data and Information Set (HEDIS) measure called Antibiotic Utilization for Respiratory Condition (AXR). This measure tracks antibiotic prescriptions for designated respiratory conditions for people 3 months and older in outpatient settings.

To support its adoption, our team provided funding to two healthcare organizations in Washington with primary care or urgent care clinics equipped with electronic medical record systems and report extraction capabilities: Whidbey Health and Seattle Children’s Urgent Care Network. Activities are led by an organizational project champion and include provider and patient education on appropriate antibiotic prescribing, as well as audit and feedback reports for the HEDIS AXR metric. This project is currently underway and is expected to conclude in mid-2025.

Penicillin Allergy Delabeling Efforts

Approximately 10% of US patients report a penicillin allergy, but fewer than 1% are truly allergic. Correcting inaccurate allergy labels ensures patients receive the best treatment for their infections.

In the 2023 NHSN Patient Safety Hospital Survey, 40% (36/91 respondents) of hospitals reported having a process to assess and clarify penicillin allergies, an increase from 29% in 2022, but still below the 2021 national average of 49%. To promote awareness, we developed a new educational handout in partnership with Seattle Children's Hospital. Additionally, we created a penicillin allergy poster linking to educational resources and mailed them to 292 outpatient clinics and pharmacies for display in patient-care areas.

Penicillin allergy delabeling education and resources for providers and patient are available on the AMS website [here](#).

Clinical Decision Support

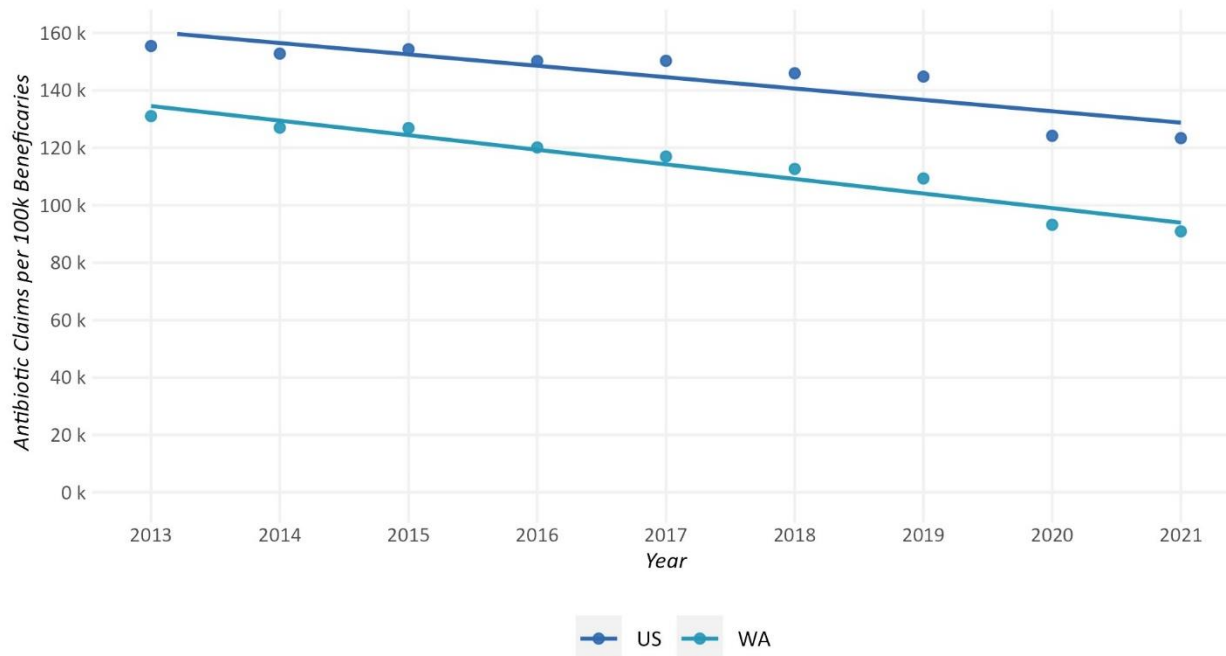
Clinical decision support tools, often referred to as order sets, improve adherence to evidence-based guidelines, reduce diagnostic errors, optimize antibiotic prescribing, enhance efficiency and reduce costs. We partnered with Optum Health to implement a clinical decision support tool called SmartRx to facilitate appropriate antibiotic prescribing and duration for various diagnoses evaluated in the outpatient setting. This SmartRx tool is live in two Washington primary care organizations, The Polyclinic and The Everett Clinic. Data collection is underway.

Antibiotic Prescribing to Older Adults

In outpatient settings, older adults receive more antibiotic prescriptions than other age groups. To examine antibiotic use in older Washingtonians and look for opportunities to optimize their use we analyzed the most recent publicly available [Medicare Part D \(MPD\) data from the Centers for Medicare and Medicaid Services](#). Medicare Part D is optional insurance coverage that helps pay for prescription drugs for adults aged 65 and older and those with qualifying diagnoses or disabilities. About 1 in 7 Washingtonians are covered by MPD.

Antibiotic Claims per 100,000 Medicare Part D Beneficiaries

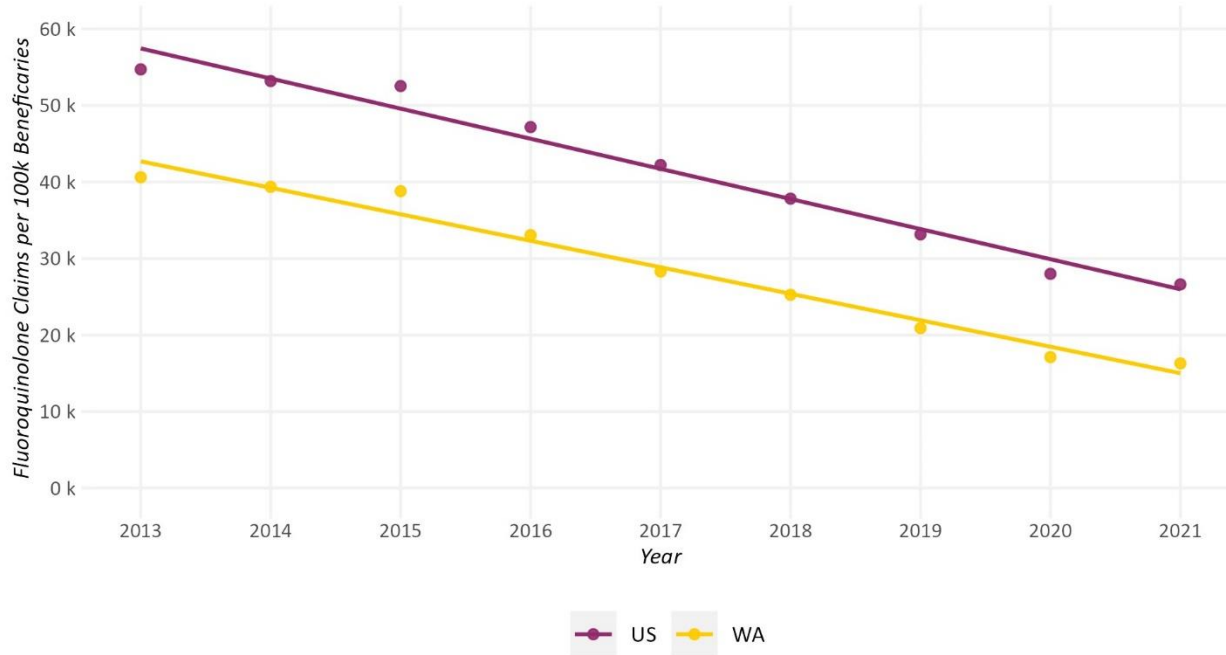
Washington State and the United States, 2013-2021



Between 2013 and 2021, the rate of all antibiotic use declined by about 32,000 claims per 100,000 beneficiaries nationally and 40,000 antibiotic claims per 100,000 beneficiaries in Washington State. Washington consistently has a lower rate of antibiotic use than the national average.

Fluoroquinolone Claims per 100,000 Medicare Part D Beneficiaries

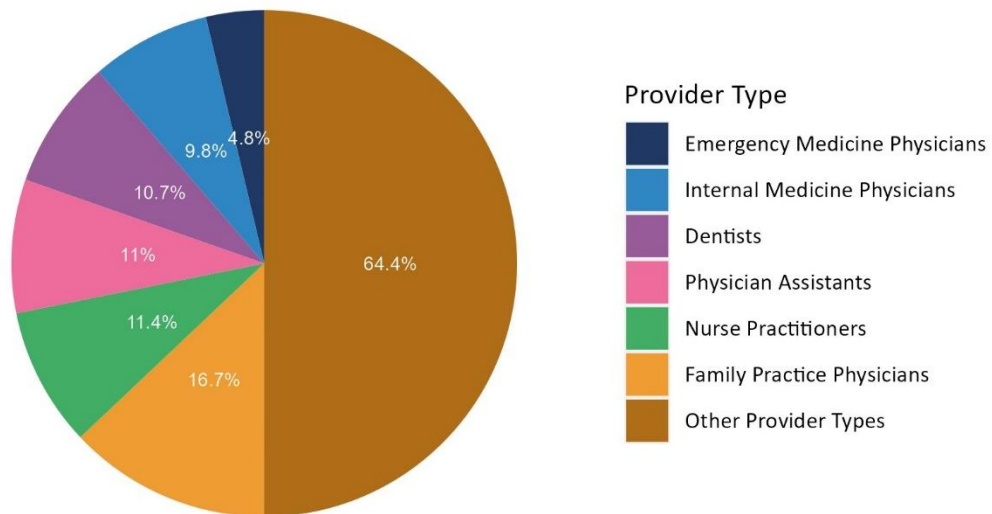
Washington State and the United States, 2013-2021



Fluoroquinolones have been a focus of stewardship due to resistance and severe side effects. From 2013 to 2021, use declined nationwide and in Washington, aligning with FDA black box warnings.

Percentage of Antibiotic Claims Written by Provider Type

Medicare Part D Beneficiaries, WA 2021



This figure shows the proportion of MPD antibiotic claims written by different healthcare provider types.

High Prescriber Letters

Our team identified high prescribers (top 10th percentile by specialty) and, when detailed data were unavailable, used high prescribing rates as a proxy for inappropriate use. In 2024, we sent letters to 392 Washington providers, linking them to [educational resources](#) on appropriate prescribing practices for common conditions.

Opportunities

Public Health:

Identify opportunities to engage outpatient prescribers and understand factors influencing antibiotic use. Support strategies must address barriers such as limited prescriber data (practice site and specialty), resource constraints, lack of on-site specialized physician and pharmacy expertise, absence of standardized core elements compliance tracking, and financial barriers.

Outpatient Clinics:

Conduct a gap analysis using the [CDC's Core Elements of Outpatient Antibiotic Stewardship](#) to identify areas for improvement.

One Health Efforts

“One Health” recognizes the connection between human, animal, and environmental health. Antibiotic use in any setting—humans, animals, or agricultural—contributes to the global burden of antimicrobial resistance (AMR), which can spread across species and environments. In January 2024, the Washington State Department of Health launched the One Health Combating Antimicrobial Resistance (OH CAR) Collaborative, bringing together experts from various agencies. The collaborative’s 5 workgroups develop and implement projects to prevent or mitigate AMR. The first OH CAR Collaborative strategic plan is available on our [One Health webpage](#).

Accomplishments



Action, Accountability and Commitment

- Established and convened the Washington One Health Combating Antimicrobial Resistance Collaborative.
- Provided funding to Washington Animal Disease Diagnostic Laboratory to increase carbapenem susceptibility testing with the goal to improve identification of carbapenem resistant organisms, a targeted multidrug resistant organism in Washington.
- Surveyed veterinarians about antibiotic resistance and prescribing practices through funding from the WA DOH Epidemiology and Laboratory Capacity (ELC) Foodborne Center of Excellence and in partnership with the University of Washington’s Center for One Health Research.



Tracking and Reporting

- Collaborated with the University of Washington Center for One Health Research on the Washington Integrated Surveillance for Antimicrobial Resistance, a multi-species antibiotic

resistance database.

Antibiotic Awareness Week 2024



Accomplishments



Education and Expertise

- Promoted the CDC Antibiotic Awareness Week 2024 theme “Fighting Antimicrobial Resistance Takes All of Us” through a social media campaign educating the public on antimicrobial resistance and stewardship
- Created a patient and resident education video on urinary tract infection symptoms and the risks of unnecessary antibiotics for asymptomatic bacteriuria to address inappropriate prescribing.
- Highlighted four rural and critical access hospitals (Coulee Medical Center, North Valley Hospital, Trios Health and Skyline Hospital) for their stewardship work through participation in the University of Washington Centers for Stewardship in Medicine’s Intensive Quality Improvement Cohort. These success stories were shared on Washington Department of Health social media platforms and [website](#).



DOH 420-650 February 2025

To request this document in another format, call 1-800-525-0127. Deaf or hard of hearing customers, please call 711 (Washington Relay) or email doh.information@doh.wa.gov.