

Washington State Plan for Healthcare- Associated Infections and Antimicrobial Resistance



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Purpose and Scope

Background

Healthcare-Associated Infections (HAIs) are infections that develop during, or soon after, receiving healthcare services or being in a healthcare setting. These infections are a serious problem, and many are preventable. Antimicrobial resistance (AR) means bacteria or other microorganisms have changed to resist the killing effects of an antimicrobial. Antimicrobial resistant infections are harder to treat, cause higher morbidity and mortality, result in higher healthcare costs and continue to spread, compounding their ill effects. HAI and AR are major public health issues and have continued to increase in significance during the COVID-19 pandemic.

The original Washington State Healthcare-Associated Infections and Antimicrobial Resistance (HAI/AR) State Plan was completed in 2009 and updated in 2015. In June 2021, Washington State Department of Health (WA DOH) staff began working with healthcare, public health, and patient advocacy partners from the Washington State HAI/AR Advisory Committee to develop an updated state plan. This five-year plan (2022-2027), was developed to meet requirements for Washington Epidemiology and Laboratory Capacity (ELC) grant from the Centers for Disease Control and Prevention (CDC) and to provide structure and vision for HAI/AR work across the state.

Progress towards the objectives listed in this plan will be evaluated and updated annually by DOH HAI/AR staff in collaboration with the WA State HAI/AR Advisory Committee. The evaluation process will be conducted by DOH HAI/AR and Advisory Committee members between January and March of each year, beginning in January 2023. For each objective, reviewers will assess if the objective is being met, what barriers exist to meet the objective, and if the objective is still relevant. The process will include at least one evaluation meeting open to members of the Advisory Committee, and a presentation of evaluation findings to the Advisory Committee.

Healthcare-Associated Infections and Antimicrobial Resistance in Washington State

History

In 2007, The Revised Code of Washington (RCW) 43.70.056 for HAI was enacted, which formalized the HAI Advisory Committee and required hospital reporting of specific HAIs. The Washington Administrative Code (WAC 246-440-100) established HAI reporting requirements for hospitals licensed by WA DOH. The Committee was convened by the WA DOH and its initial focus was to discuss and evaluate current reporting methodologies and practices related to

HAI. To support RCW 43.70.056 and WAC 246-440-100, WA DOH established the HAI Program to support hospitals with infection reporting via the Centers for Disease Control and Prevention's (CDC) National Healthcare Safety Network (NHSN). CDC support, national and state efforts, and HAI trends have contributed to the continued evolution of the HAI Program and Advisory Committee:

- 2012: The WA DOH HAI Program incorporated antimicrobial stewardship and resistance detection and prevention into their scope of work.
- 2015: Funding through CDC's ELC Ebola supplemental grant enabled the program to enhance infection prevention and HAI investigation capacity and fostered partnership building between local health jurisdictions and healthcare partners.
- 2018: Due to substantial growth and a broadened work scope, the HAI Program was renamed the Healthcare-Associated Infections and Antimicrobial Resistance (HAI/AR) Section.
- 2020:
 - WAC 246-440-100 was updated to align hospital HAI reporting with the Centers for Medicare and Medicaid Services (CMS).
 - The HAI/AR Section has been key in the COVID-19 response leading healthcare outbreak and epidemiology efforts.

The HAI/AR Advisory Committee continues to be led by the HAI/AR Section and committee activities and composition has evolved to incorporate and address changes in the HAI/AR landscape.

Challenges

- Competing priorities between COVID and other HAI/AR activities.
- Expanding scope of infection prevention and control (IPC) to non-hospital healthcare settings and non-healthcare settings.
- Insufficient IPC expertise to meet increased demand, especially in non-hospital settings like LTCFs and outpatient clinics.
- Inadequate implementation of antimicrobial stewardship activities, especially in non-hospital settings like LTCFs and outpatient clinics.

Strengths

The most notable strengths of the HAI efforts in Washington State are the strong collaborative relationships the agency has with local health jurisdictions, professional organizations and facilities. These relationships are nurtured through regular communication, dedication to sound science, evidenced-based practices and a passion for ongoing improvement efforts. Individuals within these relationships offer a wide range in expertise that allow for a comprehensive approach to preventing, assessing and controlling HAIs in our healthcare facilities. Having a

solid, comprehensive system built on science and trustworthiness supports our ability to quickly and effectively respond to and control outbreaks, making Washington State a national leader in HAI/AR work.

Infrastructure and approach

WA DOH works with others to protect and improve the health of all people in Washington state. WA DOH's HAI/AR Section works to prevent HAIs and antibiotic resistant infections. The HAI/AR Section is part of the Office of Communicable Disease Epidemiology, in the Division of Disease Control and Health Statistics. Key partners in HAI/AR work are Washington's 35 local health jurisdictions (LHJs). Staff at LHJs work closely with HAI/AR team members on HAI/AR outbreak investigations and preventative outreach programs.

The HAI/AR Section also works with members of the Washington State HAI/AR Advisory Committee. The Advisory Committee membership includes representatives from LHJs, long-term care, acute care, dental, outpatient settings and others. Members meet quarterly and many also serve on sub-committees. The three sub-committees are: One Health-Combatting Antimicrobial Resistance Sub-Committee, Long-Term Care Sub-Committee and the Hospital/National Healthcare Safety Network Sub-Committee.

DOH HAI/AR also works with national partners, including the CDC, the Association for Professionals in Infection Control and Epidemiology (APIC), the Society for Healthcare Epidemiology of America (SHEA), the Council for State and Territorial Epidemiologists (CSTE) and the Council for Outbreak Response: Healthcare-Associated Infections (HAIs) and Antimicrobial-Resistant Pathogens (COHRA).

Development of the Plan

The HAI/AR State Plan Workgroup was composed of volunteers from the HAI/AR Advisory Committee. The workgroup met nine times over five months to refine plan goals, develop objectives and make content recommendations. Members of the workgroup shared their insight into HAI/AR issues and shared vision of reducing HAI and AR in Washington State. We thank the workgroup members for their dedication and hard work that has made this plan possible.

Areas for Future Focus

One Health is an approach that recognizes that the health of people is closely connected to the health of animals and our shared environment. We acknowledge that use of antimicrobials in animals and in plant agriculture may contribute to antibiotic and antifungal resistance in humans and vice versa. In addition, climate change and environmental degradation alter the geographic distribution of infectious disease in humans. For example, the simultaneous emergence of different clades of *Candida auris* around the globe is hypothesized to be related

to rising global temperatures. We seek to engage with partners in animal health to strategize and collaborate on efforts to improve antibiotic use in animals. We support Washington state's efforts to combat climate change though that work is outside of the scope of the HAI/AR Section and this plan.

Data Tracking:

Washington State Department of Health produces an annual report with National Healthcare Safety Network (NHSN) Data, and a summary report of validation done with NHSN data. The current reports are available here:

[HAI Reports Webpage](#)

As we assess the impact of our work, we will also track outcomes through NHSN data during the yearly update of this plan.

Goals and Objectives

Goal 1: Washington State Department of Health HAI/AR Program will support and promote a comprehensive and effective infection prevention and control system with evidence-based standards, policies and practices for all healthcare settings.

Objective 1-A: Increase infection control assessment and response (ICAR) outreach and consultations to include three additional healthcare settings: dialysis centers, oncology clinics, and dental facilities.

Target Date: Year over year

Objective Type: Number of Dental, Dialysis and Oncology ICARs conducted

Data Source: REDcap

Objective 1-B: Assess ways of engaging with surveillance data and data systems (i.e. ESSENCE syndromic surveillance, SatScan cluster detection) for detecting HAI outbreaks.

- Phase One: Identify opportunities
- Phase Two: Engage with data systems identified
- Phase Three: Share data learnings and incorporate into future surveillance efforts

Target Date: 2027

Objective Type: Process Measure

Objective 1-C: Explore revision of existing DOH RCW 43.70.056 and WAC 246-440-100 for HAI reporting.

Target Date: 2027

Objective Type: Process Measure

Objective 1-D: Increase by 5% each year the number of long-term care facilities that participate with HAI/AR on educational programs.

- Phase One: Establish baseline data in 2022
- Phase Two: Track outcomes

Target Date: Year over year

Objective Type: Outcome Measure

Data Source: Excel tracking

Objective 1-E: Collaborate with partners to create templates for evidence-based HAI/AR policies and make these available for prioritized healthcare settings.

Target Date: 2027

Objective Type: Process Measure

Objective 1-F: Provide training and support to infection preventionists in skilled nursing facilities.

- Phase One: Provide 20 mentoring calls for long-term care infection preventionists in 2022 and reach 100 attendees.
- Phase Two: Increase the number of attendees reached by 20% each following year

Target Date: Year over year

Objective Type: Outcome Measure

Data Source: Excel tracking

Objective 1-G: Explore feasibility of including infection prevention training for healthcare personnel in licensing requirements.

Target Date: 2027

Objective Type: Process Measure

Objective 1-H: In partnership with other agencies, conduct a review of existing RCW/WAC with HAI and IP elements, assess their content and make recommendations for changes.

Target Date: 2027

Objective Type: Process Measure

Goal 2: Washington State Department of Health HAI/AR Program will help healthcare practitioners to improve prevention, detection, investigation and response to healthcare associated infections (HAI) and antimicrobial resistant (AR) organisms.

Objective 2-A: Increase the number of healthcare provider training programs that include infection prevention in their curriculums.

- Phase One: In coordination with the HAI/AR Advisory Committee, perform an inventory of what infection control content is currently included in licensed healthcare provider training programs, using the CDC's definition of healthcare worker (Due 12/31/22)
- Phase Two: Identify components of appropriate training, including NHSN definitions and data collection quality
- Phase Three: Identify priority healthcare provider training program types
- Phase Four: In partnership with Project Firstline, partner with prioritized healthcare provider training program types to incorporate infection prevention education into existing curriculums.
- Phase Five: Measure increase over baseline from 2022

Target Date: 2027

Objective Type: Outcome Measure

Data Source: Excel tracking

Objective 2-B: Track the percent of acute care and long-term care staff who receive seasonal influenza vaccination.

- Phase One: Conduct a baseline assessment of acute care staff receiving flu vaccine as reported in NHSN, and establish a targeted percentage increase to be reached by end of year five (Due 12/31/22)
- Phase Two: Measure increase over baseline from 2022

Target Date: 2027

Objective Type: Outcome Measure

Data Source: National Healthcare Safety Network

Objective 2-C: Create a public facing report on NHSN reported influenza vaccination in acute care staff in WA. Include NHSN data on techniques used for increasing flu vaccination participation in acute care. Address equity concerns for Critical Access Hospitals and rural areas.

- Phase One: Create initial report (Target Date: 12/31/2022)
- Phase Two: Renew report each year

Reference: Oregon Health Care Workers Influenza Vaccination Annual Report (https://sharedsystems.dhsoha.state.or.us/DHSForms/Served/le8628_20.pdf)

Target Date: Year over year

Objective Type: Process Measure

Objective 2-D: Partner with the HAI/AR Advisory Committee to conduct outreach promoting hand hygiene in healthcare settings.

- Phase One: Develop or adapt a hand hygiene campaign for healthcare settings
- Phase Two: Perform a pilot, and partner with student interns, LHJs, and others to complete targeted evaluation of its impact
- Phase Three: Implement a wider-reaching campaign based on findings from the pilot

Target Date: 2027

Objective Type: Process Measure

Goal 3: Washington State Department of Health HAI/AR Program will support and promote improved antibiotic prescribing practices in all healthcare settings.

Objective 3-A: Track and increase acute care facility engagement with the NHSN Hospital Antibiotic Use (AU) Module.

- Phase One: Track baseline proportion/number of acute care facilities reporting in the AU Module in NHSN
- Phase Two: Develop and engage hospitals in a DOH-led NHSN AU user's group, with a focus on using NHSN AU to improve AU within their own facility

- Phase Three: Measure increase over baseline from 2022

Target Date: 2027

Objective Type: Outcome Measure

Data Source: National Healthcare Safety Network

Objective 3-B: Increase the proportion of acute care facilities with antibiotic stewardship programs that meet all 7 core elements of stewardship.

- Phase One: Conduct baseline assessment in 2022
- Phase Two: Measure increase over baseline from 2022

Target Date: 2027

Objective Type: Outcome Measure

Data Source: National Healthcare Safety Network, Excel Tracking

Objective 3-D: Promote implementation of evidence-based interventions for antibiotic prescribing with focus on outpatient settings and identify facilities that take up the implementation of evidence-based practices as a response to promotion by DOH.

- Phase One: In coordination with the Advisory Committee, develop and implement a pilot outreach program
- Phase Two: Measure outcomes from pilot and adjust program to improve efficacy
- Phase Three: Implement regionwide or statewide outreach intervention
- Phase Four: Measure efficacy with participating clinics

Target Date: 2027

Objective Type: Process Measure

Objective 3-E: In collaboration with the HAI/AR Advisory Committee, explore data sources for measuring appropriateness of antibiotics use and report back to prescribers in outpatient practices. Potential data sources include: All Payer Claims Database, MITIGATE antibiotic stewardship toolkit or EPIC SmartRX.

Target Date: 2027

Objective Type: Process Measure

Objective 3-F: Increase the availability and usage of penicillin allergy tests for individuals.

- Phase One: Identify data sources (Public Employees Benefit Board, All-Payor Claims Database, others) and establish baseline measure of number of penicillin allergy tests for individuals conducted
- Phase Two: Establish a percentage increase goal and implement measures to increase uptake
- Phase Three: Measure increase over baseline from 2022

Target Date: 2027

Objective Type: Process Measure

Goal 4: Washington State Department of Health HAI/AR Program will promote increased public awareness about infection prevention in healthcare settings and safe antibiotic use.

Objective 4-A: In partnership with the HAI/AR Advisory Committee, develop and implement public education regarding hand hygiene, safe antibiotic use and other relevant topics.

Target Date: 2027

Objective Type: Process Measure

Objective 4-B: Provide antibiotic safety for parents insert into yearly Watch Me Grow WA mailing.

Target Date: 2027

Objective Type: Process Measure

Objective 4-C: Develop and distribute educational materials for patients on disease transmission for specific organisms

- Phase One: In collaboration with the Advisory Committee, define priority organisms or categories and conduct a search of available materials include CDC materials
- Phase Two: Create, adapt and translate materials for highest priority organisms or categories.
- Phase Three: Develop and implement at dissemination plan

Target Date: 2027

Objective Type: Process Measure

Goal 5: Washington State Department of Health HAI/AR Program will engage with healthcare and other partners to assess and address health equity needs related to HAI/AR in Washington.

Objective 5-A: Explore available data such as NHSN and healthcare associated COVID and present analysis on health disparities related to HAI/AR in WA.

Target Date: 2027

Objective Type: Process Measure

Objective 5-B: Develop new partnerships with organizations representing population groups disproportionately impacted by HAI/AR issues.

Target Date: 2027

Objective Type: Process Measure

5-C: Provide resources and convene partners to improve language access to information about HAI/AR for patients

Target Date: 2027

Objective Type: Process Measure

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