



Washington State

**Annual
Healthcare-Associated
Infections
Report
2018**

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INTRODUCTION

BACKGROUND

A healthcare-associated infection (HAI) is an infection that develops during, or soon after, receiving healthcare services or being in a healthcare setting. These settings can include hospitals, clinics, doctor’s offices, surgery centers, nursing homes, or home-care visits. These infections can cause serious illness and death, and many are preventable. On any given day, about one in 25 hospital patients has acquired a healthcare-associated infection.

Hospitals are required to self-report their HAI data to the Centers for Disease Control and Prevention (CDC) and the Washington State Department of Health (WA DOH) using a free, web-based software system called the National Healthcare Safety Network (NHSN). The CDC and WA DOH provide support to hospital staff on the appropriate use of the system and guidance to track infections using a standardized methodology. For more information about NHSN, please visit: <http://www.cdc.gov/nhsn/>

This report covers data for 2018. The data was downloaded from the NHSN in December of 2021. Any changes made to the data after this date are not reflected in this report. Due to the global pandemic beginning in 2020, COVID-19 quickly became the highest priority at the WA DOH. Unfortunately, this led to a delay in standard work, including producing annual reports.



REPORT AUDIENCE

The WA DOH Healthcare-Associated Infections/Antibiotic Resistance (HAI/AR) Program Epidemiology team produces this report for consumers, healthcare providers, public health officials and Washington policy makers. This data can drive consumer advocacy, healthcare choice, healthcare facility prevention strategies, awareness of the burden of HAIs within the community, and legislative support for HAI prevention and surveillance.

REPORTING REQUIREMENTS

Purpose of WAC 246-440-100

The Washington Administrative Code (WAC) established data collection and submission requirements for hospital report of healthcare-associated infections licensed under chapter 70.41 RCW.

Update to WAC 246-440-100 (January 2020)

The updates to [WAC 246-440-100](#) align Washington State HAI requirements with current CMS requirements. **This update does not increase the reporting burden of hospitals if they are already reporting according to CMS requirements.** If a facility participates in other quality programs (Partnership for Patients, Leapfrog, etc.), those programs may have additional reporting requirements not associated with WA DOH. The WAC updates go into effect January 1, 2020 (see Table 1). See Figure 1 for a timeline of reporting requirements for acute care hospitals per CMS rules (blue) and Washington state WAC updates (green).

The [Revised Code of Washington \(RCW\) 43.70.056](#) charges hospitals to collect and submit HAI data to the WA DOH via CDC's National Healthcare Safety Network (NHSN). Under the RCW, WA DOH is charged with using data to compile and publish reports, implement regional infection prevention strategies, and evaluate the quality and accuracy of HAI reporting. The RCW further directs that "The department shall, by rule, delete, add, or modify categories of reporting when the department determines that doing so is necessary to align state reporting with the reporting categories of the



Centers for Medicare and Medicaid services [CMS].” Specific reporting requirements are found in WAC 246-440-100. WA DOH aligned WA State HAI reporting requirements with those required by CMS.

- CMS Additional Member Beneficiary Quality Improvement Project (MBQIP Measures authorized by 42.U.S.C 1395i-4
- CMS Hospital Inpatient Quality Reporting (IQR) Program authorized by 42 U.S.C. 1395www (b)(3)(B)(viii))
- CMS PPS-Exempt Cancer Hospital Quality Reporting (PCHQR) Program authorized by 42 U.S.C. 1395cc(k)

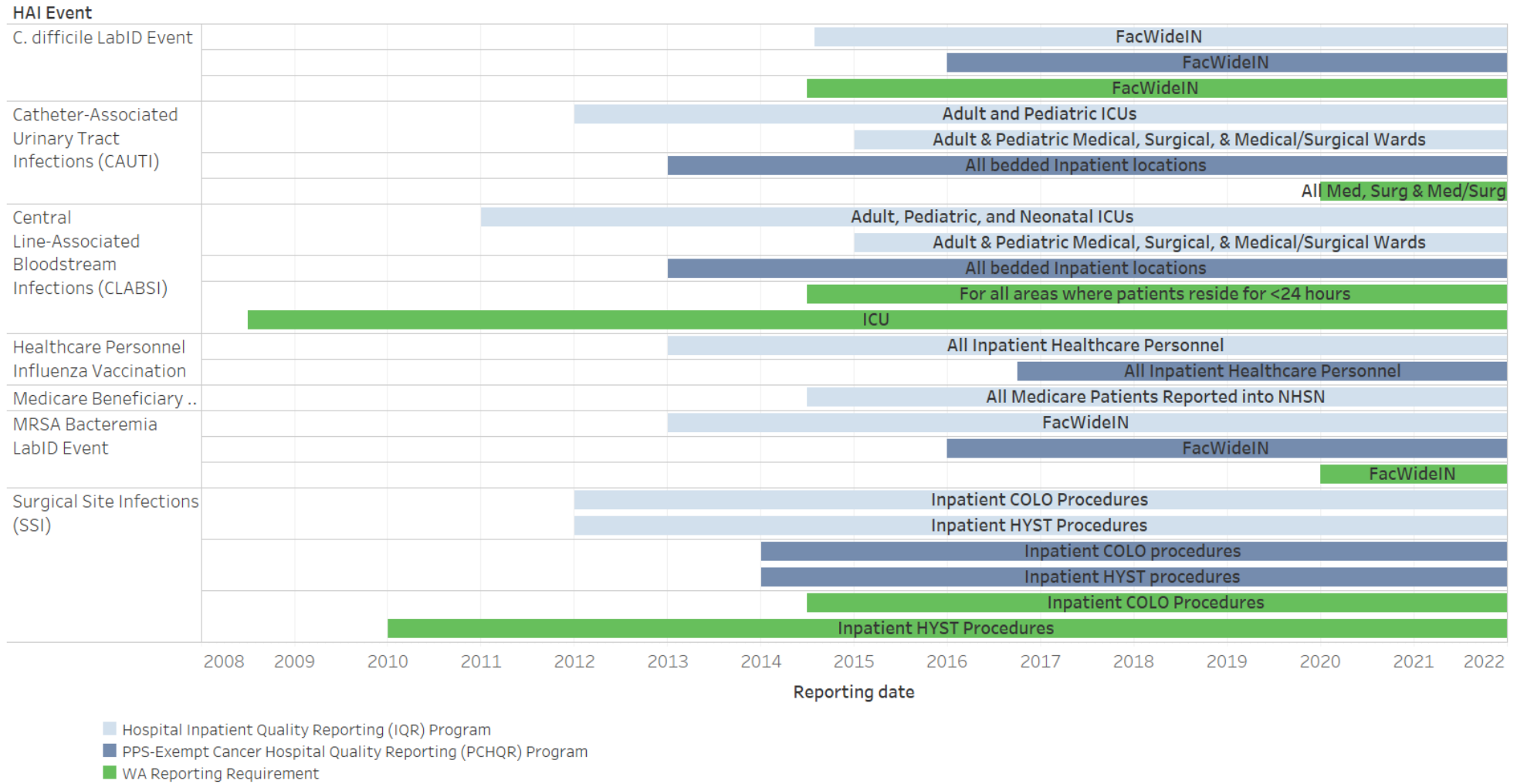


TABLE 1: Hospital Reporting Requirements for HAI under WAC 246-440-100, 2020

Hospital Type	Reporting Requirement	Reporting Specifications
Acute Care Hospital	CLABSI	Adult, pediatric and neonatal intensive care units, medical, surgical, and medical/surgical wards
	CAUTI	Adult and pediatric intensive care units, medical, surgical, and medical/surgical wards
	SSI <ul style="list-style-type: none"> • <i>Colon</i> • <i>Abdominal hysterectomy</i> 	Inpatient procedures
	MRSA bacteremia LabID Event	Facility-wide inpatient
	CDI LabID Event	Facility-wide inpatient
	Healthcare personnel Influenza vaccination	All inpatient locations
Cancer Hospital	CLABSI	Facility-wide inpatient
	CAUTI	Facility-wide inpatient
	SSI <ul style="list-style-type: none"> • <i>Colon</i> • <i>Abdominal hysterectomy</i> 	Inpatient procedures
	MRSA bacteremia LabID Event	Facility-wide inpatient
	CDI LabID Event	Facility-wide inpatient
	Healthcare personnel Influenza vaccination	All inpatient locations
Rehabilitation Hospital	CAUTI	Facility-wide inpatient
	CDI LabID Event	Facility-wide inpatient
	Healthcare personnel Influenza vaccination	All inpatient locations
Critical Access Hospital	Healthcare personnel Influenza vaccination	All inpatient locations



Figure 1. HAI Reporting Requirement Timeline



*Facility-wide inpatient (FacWideIN)



NATIONAL TARGETS

In 2015, CDC created new baselines of all the HAIs reported to NHSN for comparing HAI data. Updates were made to the source of aggregate data from national HAI data and the risk adjustment method used for the original baselines. Risk adjustment is the process used to account for the differences in risk that may impact the number of infections reported by a hospital, such as location (unit) type, hospital bed size, patient age, etc. Hospital performance is compared using risk-adjusted data, with a measure called the standardized infection ratio (SIR), discussed in more detail in the Methods section. For more information about the updated NHSN baseline, please visit [CDC's 2015 rebaseline page](#).

Three types of HAIs were required for Washington reporting in 2018:

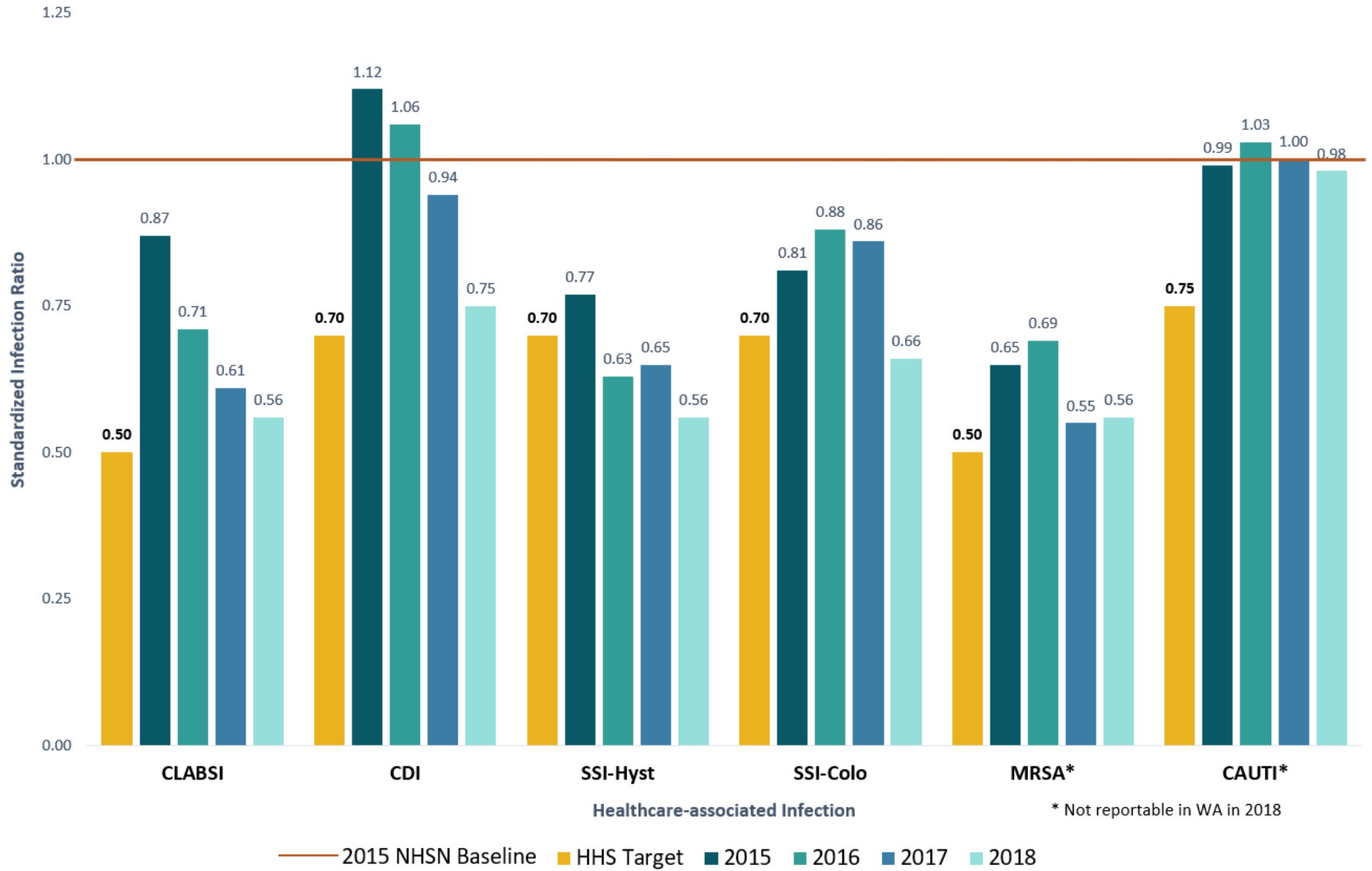
- Central-line associated bloodstream infections (CLABSI) a device-associated event
- *Clostridioides difficile* infections (CDI) a laboratory-identified (Lab-ID) event
- Surgical site infections (SSI)
 - Colons (Colo)
 - Abdominal hysterectomies (Hyst)

In 2018, Washington acute care hospitals continued to make substantial improvements in HAI prevention efforts (Figure 2). The statewide SIR for CLABSI, CDI, SSI-Hyst and SSI-Colo are significantly lower than the national baseline. MRSA and CAUTI are not reportable conditions in Washington for reporting year 2018. However, hospitals are required to report to NHSN per CMS requirements. Figure 2 shows the SIRs for MRSA and CAUTI data that were reported into NHSN. WA DOH does not have access to individual hospital data for reporting year 2018.

A second standard of improvement is the 2020 U.S. Department of Health and Human Services (HHS) SIR target for the [National Action Plan to Prevent Health Care-Associated Infections: Road Map to Elimination \(HAI Action Plan\)](#). In the HHS *National HAI Action Plan*, acute care hospitals are the first phase of four in the *Road Map to Elimination of HAIs*, a document that targets the most common infections in inpatient settings. Only SSIs in Washington have met the 2020 HHS target. Much progress has been made by hospitals to reduce the CLABSI and CDI SIRs, and Washington is on track to meet the 2020 HHS target.



Figure 2. Healthcare-Associated Infections SIRs in Washington Hospitals, 2015-2018



METHODS

Per Washington’s reporting requirements, hospitals are required to report HAIs into the CDC’s NHSN system. The WA DOH Healthcare-Associated Infections/Antibiotic Resistance (HAI/AR) Program has established a data use agreement (DUA) with the CDC which allows the WA DOH to use NHSN to retrieve and report on data submitted by hospitals. The SIR tables following each HAI section list SIRs for acute care hospitals and critical access hospitals. Critical access hospitals are not required to report HAIs to NHSN. However, WA DOH does recommend reporting if the hospital has the capacity.

For reporting year 2018, WA DOH tracks three types of HAIs: Central Line-Associated Bloodstream Infections (CLABSI), *Clostridioides difficile* infections (CDI), Surgical Site Infections (SSI) (abdominal hysterectomies and colon).

Incidence

Incidence is the occurrence of new cases of disease in a population over a specified period of time (e.g., month, year). Incidence is typically calculated as a rate or proportion.

$$\text{Incidence} = \frac{\text{Number of new cases of specific disease during specified time period}}{\text{Total population at risk}}$$

Standardized Infection Ratio (SIR)

The SIR is a summary measure used to track HAIs over time and can be calculated on multiple population levels, including unit, facility, state, and nation. The data adjusts for differences between healthcare facilities such as patients and procedures with higher risk of infection, as well as other factors, such as the facility’s size and affiliation with a medical school (refer to the National Targets section). In a given time period, the SIR compares the number of infections *reported* to the number of infections that were *predicted* using data from the 2015 baseline, which varies for each infection type. Lower SIRs indicate better performance. For more information on the SIR, please visit [A Guide to the SIR](#).

The SIR compares the number of infections associated with a hospital’s number of device days, procedures, or patient (denominator) days with national baseline data. National data is provided as a metric for comparison and include all hospitals that report data into the NHSN system.



An SIR is not calculated when the number of predicted infections is less than 1.0. According to national baseline data, if the number of predicted infections is less than 1.0, the risk patients is so low that not even one type of event (or infection) is predicted to occur in that group of patients. For reporting purposes, the SIR can be assumed to be zero if it was not calculated.

Healthcare-associated Infection	Denominator
CLABSI	Total device (central line) days
CDI	Total patient days
SSI	Total procedures

When the SIR is calculated, there are three possible results:

- The SIR is less than 1.0 (**better**) – this indicates that there were fewer infections reported during the surveillance period than would have been predicted given the baseline data.
- The SIR is equal to 1.0 (**same**) – as in any ratio, the nominal value of 1 indicates that the numerator and denominator are equal. In this case, the number of infections reported during the surveillance period is the same as the number of infections predicted given the baseline data.
- The SIR is greater than 1.0 (**worse**) – this indicates that there were more infections reported during the surveillance period than would have been predicted given the baseline data.

$$\text{SIR} = \frac{\text{Number of observed infections}}{\text{Number of predicted infections}}$$

Statistical Significance

The p-value and 95% confidence intervals are statistical measures that describe the likelihood that a numerical estimate, i.e., what was observed, was due to random chance. These measures indicate whether a facility's SIR is significantly different from 1, the value expected if the facility performed exactly the same as predicted based on the national data.









- If the p-value is **less than or equal to 0.05**, the number of observed infections is significantly different than the number of predicted infections (i.e., the facility’s SIR is significantly different from 1).
- If the p-value is **greater than 0.05**, the number of observed infections in a facility is not significantly different than the number predicted (i.e., the facility’s SIR is no different than 1).

The 95% confidence interval is a range of values, indicating a high degree of confidence. In this case, the 95% confidence interval indicates that the true SIR lies within this range. The upper and lower numbers of the confidence interval are used to determine the significance and precision of the SIR.

- If the confidence interval **includes the value of 1**, then the SIR is *not significant* (i.e., the number of observed events is not significantly different than the number predicted).
- If the confidence interval **does not include the value of 1**, then the SIR is *significant* (i.e., the number of observed events is significantly different than the number predicted).
- When the **SIR is 0**, the lower bound of the 95% confidence interval cannot be calculated. However, for ease of interpretation, it can be considered 0.

Hospital Performance Legend

The following symbols visually describe how a facility’s observed number of HAIs compare to the number of HAIs predicted by NHSN based on the national baseline.

	Statistically fewer (better) infections
	Fewer infections (not statistically significant)
	More infections (not statistically significant)
	Statistically more (worse) infections
	Number of predicted infections is less than 1; SIR cannot be calculated
	Observed similar to predicted (not statistically significant)



EXECUTIVE SUMMARY

HAIs are infections patients acquire while receiving care for other reasons in a healthcare setting. These infections threaten patient safety and public health. The impact of HAIs is significant, contributing to increased length of hospitalization, financial burden, loss of trust in the healthcare system, and potential death. While most HAIs are preventable, the Centers for Disease Control and Prevention (CDC) estimates that one in every 31 hospitalized patients has had a HAI¹.

Hospital Infection Prevention teams perform robust surveillance for HAIs and continuously work to prevent HAIs in healthcare settings. The role of public health is to inform consumers and stakeholders of HAI metrics and collaborate with facilities to ensure systematic and reliable HAI surveillance.

The WA DOH Healthcare-Associated Infections/Antibiotic Resistance (HAI/AR) Program works closely with local health jurisdictions and Washington state hospitals to track HAIs. Tracking of HAIs is standardized nationwide using the CDC's NHSN surveillance system and consistent surveillance definitions.

Since 2015, there has been a downward trend in the incidence of most HAIs in Washington hospitals. Reducing surgical site infections (SSI) illustrates the continued focus on patient safety and quality of care provided by hospitals in Washington. For the reporting year 2018, abdominal hysterectomy and colon SSIs have met the Department of Health and Human Services (HHS) HAI Action Plan, 2020 reduction goals. The SIR for abdominal hysterectomy and colon SSIs was 0.66 and 0.63, respectively, exceeding the HHS HAI Action Plan 2020 reduction goal of 0.70.

Among the reportable HAIs, the largest reduction in standardized infection ratio (SIR) was for colon SSI, which decreased from 0.86 in 2017 to 0.66 in 2018, reflecting a 25% reduction. Previously, Washington hospitals have faced challenges in decreasing the incidence of colon SSI. The highest colon SSI SIR in 2016 was 0.88. Despite the challenges, Washington hospitals have successfully exceeded the HHS HAI Action Plan 2020 target goal of 0.70 for SSIs.

The largest decrease in abdominal hysterectomy SSI incidence occurred between 2015 and 2016, with a 18.2% reduction in SIR, from 0.77 to 0.63, respectively. The SIR continued to slightly decrease to 0.56



for reporting year 2018, however, the decrease was not statistically significant. Overall, with the continued reduction of abdominal hysterectomy SSI incidence, Washington hospitals have successfully exceeded the HHS HAI Action Plan 2020 SSI target goal of 0.70.

The decrease in incidence of *Clostridioides difficile* infections (CDI) was a close second to colon SSI, with a 20% reduction of SIR in 2018 compared to 2017. In 2017, the SIR was 0.94, and 0.75 in 2018. Since 2015, when the CDC updated the national baseline, there has been a 33% decrease in the CDI SIR in Washington hospitals. Although efforts in reducing CDI in Washington have resulted in significant improvement, the SIR for CDI hasn't yet reached the HHS HAI Action Plan reduction goal of 0.70.

When the CDC updated the national baselines for HAIs in 2015, the SIR for central line-associated blood stream infection (CLABSI) in Washington hospitals was 0.87. Since then, the SIR has continued to decrease to 0.56 in 2018, representing a 36% reduction. Washington hospitals are on track to meet the HHS HAI Action Plan 2020 Target SIR of 0.50. Following strict protocols and stringent infection control practices has proven to be effective in successfully reducing CLABSI incidence, thus improving patient outcomes.

2018 WA HAI	Less than or equal to NHSN Baseline SIR 1.0	Less than or equal to National Average SIR	Less than or equal to 2020 HHS Target
SSI – COLO	✓	✓	✓
SSI – HYST	✓	✓	✓
CDI	✓	✗	✗
CLABSI	✓	✓	✗
MRSA LAB-ID*	✓	✓	✗
CAUTI*	✓	✗	✗

*Not reportable by WAC in 2018, but required by CMS



Variations in occurrence of HAIs between hospitals depends on several factors, including infection prevention practices or policies, patient risk factors, and underlying conditions. Overall, HAI incidence in Washington has been decreasing. There were no consistent decreases in incidence of HAIs across the state in 2018. However, Washington is close to reaching the national 2020 targets for each HAI. Continued partnerships with Washington State Hospital Association (WSHA), Association for Professionals in Infection Control and Epidemiology (APIC), local health jurisdictions, and acute care hospitals drive concerted reductions in HAIs. Sharing state-wide data promotes patient safety and best practice in clinical settings. Continued vigilance in surveillance and education in infection control practices are essential to improve patient safety and outcomes and foster patient trust in healthcare systems.

ACKNOWLEDGEMENTS

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Sandy Lam Ng, MPH

Esther Jhingan, MPH

Lynae Kibiger, MPH, CIC

Audrey Brezak, MPH

Peggy Douglas, RRT, MPH, CIC

Allison Templeton, MPH

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The WA DOH Healthcare-Associated Infections & Antimicrobial Resistance Program can be contacted at HAI@doh.wa.gov.



GLOSSARY

- BSI: Bloodstream infection
- CAUTI: Catheter-associated urinary tract infection
- CC: Critical care location
- CDC: Centers for Disease Control and Prevention
- CDI: *Clostridioides difficile* infection
- CI: Confidence interval
- CLABSI: Central line-associated bloodstream infection
- CMS: Centers for Medicare and Medicaid Services
- Colo: Colon surgery
- CVC: Central venous catheter
- FacWideIN: Facility-wide Inpatient
- HAI: Healthcare-associated infection
- HHS: U.S. Department of Health and Human Services
- HICPAC: Healthcare Infection Control Practices Advisory Committee
- HO: Hospital-onset
- HO-CDI: Hospital-onset *Clostridioides* (formerly *Clostridium*) *difficile* infection
- HO-MRSA: Hospital-onset methicillin-resistant *Staphylococcus aureus*
- HPRO: Hip prosthesis surgery
- HYST: Abdominal hysterectomy surgery
- ICU: Intensive care unit
- KPRO: Knee prosthesis surgery
- LabID: Laboratory-identified
- MDRO: Multidrug-resistant organism
- MRSA: Methicillin-resistant *Staphylococcus aureus*
- NHSN: National Healthcare Safety Network
- SIR: Standardized infection ratio
- SSI: Surgical site infection
- WA DOH: Washington State Department of Health



CATHETER-ASSOCIATED URINARY TRACT INFECTIONS (CAUTI)

A urinary tract infection (UTI) is an infection involving any part of the urinary system, including urethra, bladder, ureters, and kidney. UTIs are the most common type of healthcare-associated infection reported to the NHSN. Among UTIs acquired in the hospital, approximately 75% are associated with a urinary catheter, which is a tube inserted into the bladder through the urethra to drain urine. Between 15-25% of hospitalized patients receive urinary catheters during their hospital stay.

The most important risk factor for developing a CAUTI is prolonged use of the urinary catheter. Therefore, catheters should only be used for appropriate indications and should be removed as soon as they are no longer medically needed.

Although CAUTI data are not required to be reported to WA DOH for 2018, hospitals following CMS guidelines are required to report their infections to NHSN., therefore data for individual facilities are not available. Table 2 shows the SIR for the state, with aggregated NHSN data, compared to national CAUTI SIR. The symbol in the performance column describes the state's SIR compared to the national SIRs for CAUTI in the specified acute care locations.

2018 SIR for CAUTI in all acute care locations is 0.98. Between 2017 and 2018, the state SIR for CAUTI **decreased by 1.8% However this decrease is not statistically significant** ($p>0.05$).

For more information on [CAUTI](#).



Table 2: CAUTI Standardized Infection Ratios 2018 State Summary

Acute Care Facility Location	Performance	Number of Infections	Number Predicted	SIR	Confidence Interval
All locations (State)	▲	478	488.10	0.98	0.89, 1.07
Critical Care locations (State)	▲	197	203.63	0.97	0.84, 1.11
Non-Critical Care locations (State)	▲	281	284.48	0.99	0.88, 1.11
All locations (National)	Reference	22,015	27,216.78	0.81	0.80, 0.82
Critical Care Locations (National)	Reference	9,957	13,055.90	0.76	0.75, 0.78
Non-Critical Care Locations (National)	Reference	12,058	14,160.88	0.85	0.84, 0.87

▼	Statistically fewer (better) infections
▽	Fewer infections (not statistically significant)
▲	More infections (not statistically significant)
▲	Statistically more (worse) infections
◆	Number of predicted infections less than 1; SIR cannot be calculated
▬	Observed similar to predicted (not statistically significant)

DID YOU KNOW?

12%-16% of adult inpatients will have and indwelling urinary catheter (IUC) at some time during their hospitalization².

There is a 3%-7% increased risk of acquiring a CAUTI each day the IUC is in place².



CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS (CLABSI)

A central line is a long, flexible tube (catheter) that is inserted into a large vein in the neck, chest, upper arm, or leg to access a patient's bloodstream with a tip that ends near the heart. They are used to provide medicines, nutrients, or fluids, access for laboratory testing, or to monitor pressure inside the heart. Central lines are typically kept in place longer than a regular intravenous (IV) catheter. Central lines are often used for treatments of kidney disease (dialysis) or cancer (chemotherapy) and can be left in place even after discharge from the hospital.

Serious infections can occur if bacteria enter the bloodstream through a central line, called Central Line-Associated Bloodstream Infections (CLABSI). CLABSIs typically causes prolonged hospitalization, increased costs and risk of mortality. Hospital CLABSI SIRs are compared by the [type of hospital unit](#) based on the type of patient care required.

Since 2011, Washington hospitals have been required to report all adult, pediatric and neonatal intensive care units (ICU) acquired CLABSIs. That requirement was extended to all adult and pediatric medical, surgical, and medical/surgical wards in 2015. Table 3 lists SIRs for acute care hospitals and critical access (voluntary) hospitals.

2018 SIR for CLABSI in all acute care locations is 0.55. Between 2017 and 2018, the state SIR for CLABSI **decreased by 8.2%, however this decrease is not statistically significant** ($p>0.05$).

For more information on [CLABSI](#).

KEY POINTS

- ☑ Among the hospitals with enough data to calculate an SIR, 4% had an SIR significantly higher than the national SIR (0.74).
- ☑ WA hospitals reported no significant change in CLABSIs between 2017 and 2018.

















Table 3: CLABSI Standardized Infection Ratios by Facility







Facility Name	Performance	Number of Infections	Number Predicted	Device Days	SIR	Confidence Interval
Astria Regional Medical Center	▼	0	1.34	1,516	0.00	0.00, 2.24
Astria Toppenish Hospital	◆	0	0.07	118	0.00	N/A
Auburn Regional Medical Center	▼	0	2.54	3,032	0.00	0.00, 1.18
Capital Medical Center	◆	0	0.81	1,136	0.00	N/A
Cascade Valley Hospital	◆	0	0.43	695	0.00	N/A
Central Hospital	◆	0	0.05	78	0.00	N/A
Central Washington Hospital	▼	2	4.99	7,294	0.40	0.07, 1.32
Covington Medical Center	◆	0	0.04	59	0.00	N/A
Deaconess Medical Center	▼	1	8.63	9,212	0.12	0.01, 0.57
Evergreen Healthcare	▼	0	4.65	5,475	0.00	0.00, 0.64
Evergreen Health Monroe	◆	0	0.21	343	0.00	N/A
Grays Harbor Community Hospital	▼	0	1.03	1,682	0.00	0.00, 2.92
Good Samaritan Hospital	▼	4	7.63	8,283	0.52	0.17, 1.27
Harborview Medical Center	▼	23	24.80	18,618	0.93	0.60, 1.37
Holy Family Hospital	▼	1	4.25	6,193	0.24	0.01, 1.16
Island Hospital	◆	0	0.54	908	0.00	N/A
Kadlec Med Center	▬	5	5.95	5,921	0.84	0.31, 1.86
Legacy Salmon Creek Hospital	◆	5	2.82	3,869	1.77	0.65, 3.93
Mary Bridge Children's Hospital	▬	4	3.77	4,134	1.06	0.34, 2.56



Facility Name	Performance	Number of Infections	Number Predicted	Device Days	SIR	Confidence Interval
MultiCare Valley Hospital	▼	0	2.02	2,970	0.00	0.00, 1.48
Northwest Hospital	▼	0	6.34	7,139	0.00	0.0, 0.47
Olympic Medical Center	▼	0	1.53	1,892	0.00	0.00, 1.96
Overlake Hospital Medical Center	▬	6	6.56	8,133	0.92	0.37, 1.90
PeaceHealth Southwest Medical Center	▼	2	8.52	9,065	0.24	0.04, 0.78
PeaceHealth St. Joseph Medical Center	▼	4	8.38	10,679	0.48	0.15, 1.15
Providence Centralia Hospital	▼	0	1.14	1,683	0.00	0.00, 2.62
Providence Everett Medical Center	▼	1	18.64	17,921	0.05	0.00, 0.27
Providence Sacred Heart Medical Center	▼	9	21.43	18,281	0.42	0.21, 0.77
Providence St. Mary Medical Center	▬	1	1.89	3,094	0.53	0.03, 2.61
Providence St. Peter Hospital	▬	15	15.81	16,965	0.95	0.55, 1.53
Saint Anthony Hospital	▬	4	4.51	5,666	0.89	0.28, 2.14
Samaritan Healthcare	◆	0	0.11	188	0.00	N/A
Seattle Children's Hospital	▼	33	37.32	27,062	0.88	0.62, 1.23
Skagit Valley Hospital	▬	4	4.04	5,162	0.99	0.32, 2.39
St. Anne Hospital	▬	4	4.17	4,608	0.96	0.31, 2.31
St. Clare Hospital	▬	2	2.86	3,076	0.70	0.12, 2.31
St Francis Hospital	▬	5	5.66	6,236	0.88	0.32, 1.96
St. John Medical Center	▼	1	2.15	3,130	0.46	0.02, 2.29



Facility Name	Performance	Number of Infections	Number Predicted	Device Days	SIR	Confidence Interval
St. Joseph Medical Center		4	18.42	15,974	0.22	0.07, 0.52
St. Michael Medical Center - Bremerton		6	6.35	7,056	0.95	0.38, 1.97
Swedish Medical Center - Ballard Campus		0	0.62	819	0.00	N/A
Swedish Medical Center - Cherry Hill		0	10.29	12,511	0.00	0.00, 0.29
Swedish Medical Center - First Hill Campus		14	22.21	23,197	0.63	0.36, 1.03
Swedish Hospital Issaquah		3	1.80	2,686	1.67	0.43, 4.54
Tacoma General Hospital		10	18.33	17,760	0.55	0.28, 0.97
Trios Southridge Hospital		1	1.38	2,247	0.73	0.04, 3.58
Tri-State Memorial Hospital		2	2.58	3,767	0.78	0.13, 2.56
University of Washington Medical Center		15	27.64	25,398	0.54	0.32, 0.88
Valley Medical Center		5	8.97	10,989	0.56	0.20, 1.23
Virginia Mason Medical Center		4	9.73	10,971	0.41	0.13, 0.99
Wenatchee Valley Medical Center		0	0.12	205	0.00	N/A
Yakima Valley Memorial		0	3.18	2,966	0.00	0.00, 0.94

	Statistically fewer (better) infections
	Fewer infections (not statistically significant)
	More infections (not statistically significant)
	Statistically more (worse) infections
	Number of predicted infections less than 1; SIR cannot be calculated
	Observed similar to predicted (not statistically significant)



State and National CLABSI Standardized Infection Ratios

The symbol in the performance column describes the state’s SIR compared to the national SIRs for CLABSI. Overall, the state-wide SIR for CLABSI is statistically significantly lower than the national SIR.

Table 4: CLABSI Standardized Infection Ratios 2018 State Summary

	Performance	Number of Infections	Number Predicted	Device Days	SIR	Confidence Interval
All Locations (State)	▼	200	359.22	368,062	0.56	0.48, 0.64
Critical Care Locations (State)	▼	92	166.21	151,537	0.55	0.45, 0.68
Non-Critical Care Locations (State)	▼	90	165.31	195,867	0.54	0.44, 0.67
Neonatal Critical Care Locations (State)	▾	18	27.71	20,658	0.65	0.40, 1.01
All Locations (National)	Reference	19,188	25,955.01	25,969,931	0.74	0.73, 0.75
Critical Care Locations (National)	Reference	7,194	9,347.11	8,651,829	0.77	0.75, 0.79
Non-Critical Care Locations (National)	Reference	10,707	1,4769.02	15,991,301	0.73	0.71, 0.74
Neonatal Critical Care Locations (National)	Reference	1,287	1,838.87	1,326,801	0.70	0.66, 0.74

▼	Statistically fewer (better) infections
▾	Fewer infections (not statistically significant)
▴	More infections (not statistically significant)
▲	Statistically more (worse) infections
◆	Number of predicted infections less than 1; SIR cannot be calculated
■	Observed similar to predicted (not statistically significant)



CLOSTRIDIoidES DIFFICILE (C. diff or CDI) LAB-ID INFECTIONS

Clostridioides difficile (formerly *Clostridium difficile*), also known as “CDI, *C. difficile* or *C. diff*”, is a bacterium (germ) that can cause severe diarrhea, colitis, sepsis, and death. Most cases of CDI occur in people who are/have been taking antibiotics, clearing the way for *C. difficile* to colonize in the gastrointestinal tract. Other risk factors include a recent stay in a hospital or nursing home, weakened immune system, being at least 65 years old, and having previous infection.

C. difficile infection can spread from person to person on contaminated equipment, the hands of healthcare providers and visitors. Since the spore-forming bacteria can persist in the environment and resist some methods of cleaning and disinfection, *C. difficile* poses an infection prevention challenge in healthcare settings.

Since 2014, Washington acute care hospitals have been required to report hospital onset of *C. difficile* infections identified by a laboratory test. Table 5 lists SIRs for acute care hospitals and critical access hospitals.

The 2018 SIR for CDI events is 0.75. Between 2017 and 2018, the state SIR for CDI events **decreased significantly by 20.4 %** ($p < 0.05$).

For more information on [C. difficile](#)

KEY POINTS

- ✓ Among the hospitals with enough data to calculate an SIR, 15% had an SIR significantly higher than the national SIR (0.71).
- ✓ WA hospitals reported a significant decrease in CDIs between 2017 and 2018.



Table 5: CDI Standardized Infection Ratios by Facility

Facility Name	Performance	Number of Events	Number Predicted	Patient Days	SIR	Confidence Interval
Astria Regional Medical Center	▼	5	8.70	14,372	0.58	0.21, 1.27
Astria Toppenish Hospital	▼	0	1.02	3,444	0.00	0.00, 2.95
Auburn Regional Medical Center	▼	8	15.65	27,212	0.51	0.24, 0.97
Capital Medical Center	▼	7	8.91	15,130	0.79	0.34, 1.55
Cascade Valley Hospital	▬	2	2.07	6,469	0.97	0.16, 3.19
Central Hospital	◆	0	0.49	1,879	0.00	N/A
Central Washington Hospital	▼	19	31.54	47,745	0.60	0.37, 0.92
Covington Medical Center	◆	0	0.48	1,900	0.00	N/A
Deaconess Medical Center	▼	31	35.76	49,358	0.87	0.60, 1.21
Evergreen Healthcare	▼	39	49.52	65,084	0.79	0.57, 1.07
Evergreen Health Monroe	▼	0	2.40	4,603	0.00	0.00, 1.25
Good Samaritan Hospital	▼	26	51.33	82,064	0.51	0.34, 0.73
Grays Harbor Community Hospital	▬	3	4.13	7,036	0.73	0.19, 1.98
Harborview Medical Center	▼	71	80.76	115,077	0.88	0.69, 1.10
Holy Family Hospital	▼	15	19.47	35,394	0.77	0.45, 1.24
Island Hospital	▬	4	4.47	9,295	0.90	0.28, 2.16
Kadlec Med Center	▼	9	29.31	64,213	0.31	0.15, 0.56
Legacy Salmon Creek Hospital	▼	21	28.56	48,453	0.74	0.47, 1.11
Mary Bridge Children's Hospital	▼	2	6.02	15,406	0.33	0.06, 1.10



Facility Name	Performance	Number of Events	Number Predicted	Patient Days	SIR	Confidence Interval
MultiCare Valley Hospital	▬	10	11.72	21,812	0.85	0.43, 1.52
Northwest Hospital	▲	38	33.08	40,354	1.15	0.83, 1.56
Olympic Medical Center	▼	6	10.99	14,536	0.55	0.22, 1.14
Overlake Hospital Medical Center	▼	12	39.23	69,455	0.31	0.16, 0.52
PeaceHealth Southwest Medical Center	▼	22	52.53	78,739	0.42	0.27, 0.62
PeaceHealth St. Joseph Medical Center	▼	23	36.38	58,496	0.63	0.41, 0.93
Providence Centralia Hospital	▬	11	12.04	22,818	0.91	0.48, 1.59
Providence Everett Medical Center	▼	87	120.63	150,809	0.72	0.58, 0.89
Providence Sacred Heart Medical Center	▼	59	84.09	143,380	0.70	0.54, 0.90
Providence St. Mary Medical Center	▼	8	13.64	22,522	0.59	0.27, 1.11
Providence St. Peter Hospital	▼	68	77.86	101,959	0.87	0.68, 1.10
Saint Anthony Hospital	▼	26	23.54	28,799	1.11	0.74, 1.60
Samaritan Healthcare	▼	0	1.93	9,391	0.00	0.00, 1.55
Seattle Cancer Care Alliance	▲	19	3.61	4,738	5.27	3.27, 8.08
Seattle Children's Hospital	▲	43	32.04	96,307	1.34	0.98, 1.79
Shriners Hospital for Children Spokane	◆	0	0.23	1,514	0.00	N/A
Skagit Valley Hospital	▼	29	24.54	31,734	1.18	0.81, 1.68
St. Francis Hospital	▼	21	24.12	35,582	0.87	0.55, 1.31
St. John Medical Center	▲	16	14.03	24,928	1.14	0.68, 1.81
St. Joseph Medical Center	▲	99	87.76	111,595	1.13	0.92, 1.37



Facility Name	Performance	Number of Events	Number Predicted	Patient Days	SIR	Confidence Interval
St. Anne Hospital	▼	13	18.27	29,200	0.71	0.40, 1.19
St. Clare Hospital	▬	26	25.53	35,749	1.02	0.68, 1.47
St. Michael Medical Center - Bremerton	▼	32	45.28	58,802	0.71	0.49, 0.99
Swedish Edmonds	▼	5	22.95	46,918	0.22	0.08, 0.48
Swedish Hospital Issaquah	▼	3	8.01	19,384	0.37	0.10, 1.02
Swedish Medical Center - First Hill Campus	▼	23	71.42	127,382	0.32	0.21, 0.48
Swedish Medical Center - Cherry Hill	▼	5	21.94	48,333	0.23	0.08, 0.51
Swedish Medical Center - Ballard Campus	▼	2	6.08	16,672	0.33	0.06, 1.09
Tacoma General Hospital	▼	32	49.34	76,962	0.65	0.45, 0.91
Trios Health	◆	0	0.47	3,031	0.00	N/A
Trios Southridge Hospital	▬	13	12.01	17,242	1.08	0.60, 1.80
University of Washington Medical Center	▬	81	81.85	117,511	0.99	0.791 1.22
Valley Medical Center	▼	30	45.54	73,201	0.66	0.45, 0.93
Virginia Mason Medical Center	▼	32	52.91	65,744	0.61	0.42, 0.84
Wenatchee Valley Medical Center	◆	0	0.28	1,270	0.00	N/A
Yakima Valley Memorial	▼	17	28.50	38,996	0.60	0.36, 0.94



State and National CDI Standardized Infection Ratios

The symbol in the performance column describes the state's SIR compared to the national SIRs for CDI in all acute care locations.

Table 6: CDI Standardized Infection Ratios 2018 State Summary

	Performance	Number of Events	Number Predicted	Patient Days	SIR	Confidence Interval
All Locations (State)	▲	1,173	1,574.94	2,459,999	0.75	0.70, 0.79
All Locations (National)	Reference	69,648	97,962.24	144,370,561	0.71	0.71, 0.72

▼	Statistically fewer (better) infections
▽	Fewer infections (not statistically significant)
▲	More infections (not statistically significant)
▲	Statistically more (worse) infections
◆	Number of predicted infections less than 1; SIR cannot be calculated
▬	Observed similar to predicted (not statistically significant)

METHICILLIN-RESISTANT *STAPHYLOCOCCUS AUREUS* (MRSA)

Staphylococcus aureus (SA) are bacteria commonly found on the skin. Although these bacteria are generally harmless, they can cause infections ranging from pimples or boils to serious infections of internal organs. Most SA infections are minor and do not require treatment with antibiotics. However, more severe SA infections are often treated with antibiotics. Methicillin-resistant *Staphylococcus aureus* (MRSA) is a strain of Staph that has become resistant to certain antibiotics, such as methicillin.

MRSA can spread within the community or in a healthcare setting, such as a hospital or long-term care facility. When MRSA is contracted in the healthcare setting, severe problems can manifest, such as bacteremia (bloodstream infections), pneumonia, and surgical site infections. If not properly treated, MRSA infections can result in sepsis or death.



MRSA bacteremia (MRSA infections in blood) data are not required to be reported to WA DOH for 2018. However, hospitals following CMS guidelines are required to report their infections to NHSN, therefore data for individual facilities are not available.

Table 7 shows the SIR for the state, with aggregated NHSN data, compared to national MRSA SIR. The symbol in the performance column describes the state’s SIR compared to the national SIRs for MRSA for facility-wide inpatient.

2018 SIR for MRSA bacteremia events is 0.56. Between 2017 and 2018, the state SIR for MRSA events stayed relatively the same, **with a slight (0.50%) increase that is not statistically significant.** ($p > 0.05$).

For more information on [MRSA](#).

Table 7: MRSA Bacteremia Standardized Infection Ratios 2018 State Summary

	Performance	Number of Events	Number Predicted	SIR	Confidence Interval
Facility-wide (State)	▼	101	181.23	0.56	0.46, 0.67
Facility-wide (National)	Reference	8,222	9,783.47	0.84	0.82, 0.86

DID YOU KNOW?

About 2 in every 100 people carry (are colonized with) MRSA, although most do not develop serious infections.



SURGICAL SITE INFECTIONS (SSI)

A surgical site infection (SSI) is an infection that occurs after a surgery was performed. Most surgeries do not result in an infection. However, there is a risk of SSI following any surgery. SSI reporting focuses on certain types of surgeries because they are performed frequently or may have higher risk of infection. Hospital SSI rates are compared by the [type of surgical procedure](#).

SSIs occur in 2% - 5% of patients undergoing inpatient surgery. These infections can spread in superficial skin layers, deep incisional layers (fascial and muscle), and into the organ/space areas.

Nationally, two SSI types are reported by all or most acute care hospitals in most states: abdominal hysterectomy and colon surgery infections. SSI reporting of following inpatient colon and abdominal hysterectomy surgeries has been mandated in Washington State since 2012.

Colon Surgeries

Colon (large intestine or bowel) surgeries involve a surgical incision to access the intestinal cavity to make a repair on or remove part of the large intestine. Some colon repairs include removal of diseased or damaged colon (resection), attaching healthy parts of the colon together (anastomosis), or making an opening in the colon to remove waste (ostomy).

Surgical site infections from colon surgeries can affect the tissue around the incision and cause a superficial infection (skin and subcutaneous tissue), or a deep infection in the muscles, connective tissues, or organs such as the gastrointestinal tract or in the intra-abdominal area.

Rectal operations, small bowel surgeries, gallbladder, or appendix removal, and non-surgical routine tests like colonoscopies are considered different types of procedures and are not included in this NHSN colon surgery category and are not tracked by the WA DOH.

2018 SIR for SSIs from colon surgeries is 0.66. Between 2017 and 2018, the state SIR for SSIs related to colon surgeries **decreased significantly by 31%** ($p < 0.05$).



Abdominal Hysterectomies

Abdominal hysterectomy is a common surgical procedure in which the uterus is removed through an incision in the lower abdomen. Surgical site infections from hysterectomies can affect the area around the incision. This is a superficial infection, as the area affected is limited to the skin and subcutaneous tissue. Other more serious SSIs can result in a deep infection in the muscles or an infection affecting the reproductive tract in the area around the abdomen. A lower risk alternative to an abdominal hysterectomy is a vaginal hysterectomy.

2018 SIR for SSIs from abdominal hysterectomies is 0.56. Between 2017 and 2018, the state SIR for SSIs related to abdominal hysterectomies **decreased by 13.8%. However, this decrease is not statistically significant** ($p>0.05$).

Tables 8 - 11 show SIRs for acute care hospitals and critical access (voluntary) hospitals.




















For more information on [SSI](#).

DID YOU KNOW?

SSI is the most expensive HAI type, with an estimated annual cost of \$3.3 billion³.


















Table 8: SSI Colon Standardized Infection Ratios by Facility

Facility Name	Performance	Number of Infections	Number Predicted	Number of Procedures	SIR	Confidence Interval
Astria Regional Medical Center		0	0.23	8	0.00	N/A
Astria Sunnyside Hospital		0	0.47	19	0.00	N/A
Astria Toppenish Hospital		0	0.02	1	0.00	N/A
Auburn Regional Medical Center		0	1.62	58	0.00	0.00, 1.85
Capital Medical Center		0	2.14	81	0.00	0.00, 1.40
Cascade Valley Hospital		1	0.74	29	0.00	N/A
Central Washington Hospital		1	3.41	134	0.29	0.02, 1.45
Coulee Medical Center		0	0.07	3	0.00	N/A
Deaconess Medical Center		1	4.28	167	0.23	0.01, 1.15
Evergreen Healthcare		0	4.34	176	0.00	0.00, 0.69
Evergreen Health Monroe		0	0.79	28	0.00	N/A
Ferry County Public Hospital District		0	0	0	0.00	N/A
Forks Community Hospital		0	0	0	0.00	N/A
Good Samaritan Hospital		2	4.10	157	0.48	0.08, 1.61
Grays Harbor Community Hospital		1	0.53	19	N/A	N/A
Harborview Medical Center		9	4.43	121	2.03	0.99, 3.73
Holy Family Hospital		1	3.29	115	N/A	0.02, 1.50
Island Hospital		0	0.58	24	0.00	N/A
Jefferson General Hospital		0	0.52	25	0.00	N/A



Facility Name	Performance	Number of Infections	Number Predicted	Number of Procedures	SIR	Confidence Interval
Kadlec Med Center	▼	2	5.30	203	0.38	0.06, 1.25
Kittitas Valley Healthcare Hospital	◆	0	0.02	1	0.00	N/A
Lake Chelan Community Hospital	◆	0	0	0	0.00	N/A
Legacy Salmon Creek Hospital	▬	3	2.82	108	1.06	0.27, 2.90
Lincoln Hospital	◆	0	0.04	1	0.00	N/A
Lourdes Health Network		1	0.11	4	N/A	N/A
Mary Bridge Children's Hospital	◆	0	0	0	0.00	N/A
Mason General Hospital	◆	0	0.1	5	0.00	N/A
Mid-Valley Hospital	◆	0	0.27	12	0.00	N/A
Morton General Hospital	◆	0	0	0	0.00	N/A
Mount Carmel Hospital	◆	0	0.10	4	0.00	N/A
MultiCare Valley Hospital	▲	3	1.62	67	1.85	0.47, 5.04
Newport Hospital	◆	0	0	0	0.00	N/A
Northwest Hospital	▼	2	3.41	136	0.59	0.10, 1.94
Ocean Beach Hospital	◆	0	0.22	9	0.00	N/A
Okanogan Douglas hospital	◆	0	0.02	1	0.00	N/A
Olympic Medical Center	▬	2	1.57	62	1.28	0.21, 4.22
Overlake Hospital Medical Center	▼	5	6.24	259	0.80	0.29, 1.78
PeaceHealth Southwest Medical Center	▼	2	4.71	171	0.43	0.07, 1.40
PeaceHealth St. Joseph Medical Center	▼	1	5.52	217	0.18	0.01, 0.89



Facility Name	Performance	Number of Infections	Number Predicted	Number of Procedures	SIR	Confidence Interval
Prosser Memorial Hospital		0	0.03	1	0.00	N/A
Providence Centralia Hospital		0	1.07	43	0.00	0.00, 2.80
Providence Everett Medical Center		9	8.34	317	1.08	0.53, 1.98
Providence Sacred Heart Medical Center		5	10.92	392	0.46	0.17, 1.02
Providence St. Joseph's Hospital		0	0	0	0.00	N/A
Providence St. Mary Medical Center		0	1.16	46	0.00	0.00, 2.58
Providence St. Peter Hospital		4	6.41	244	0.62	0.20, 1.50
Pullman Regional Hospital		0	0.19	7	0.00	N/A
Saint Anthony Hospital		2	2.01	81	1.00	0.17, 3.29
Samaritan Healthcare		0	0.88	33	0.00	N/A
Seattle Children's Hospital		0	0.48	11	0.00	N/A
Skagit Valley Hospital		5	1.84	75	2.72	1.00, 6.03
Skyline Hospital		0	0	0	0.00	N/A
St. Francis Hospital		0	1.98	75	0.00	0.00, 1.51
St. John Medical Center		0	1.53	54	0.00	0.00, 1.96
St. Joseph Medical Center		4	8.99	324	0.45	0.14, 1.07
St. Anne Hospital		1	2.16	83	0.46	0.02, 2.28
St. Clare Hospital		0	0.64	21	0.00	N/A
St. Elizabeth Hospital		1	0.48	18	0.00	N/A
St. Michael Medical Center - Bremerton		4	4.84	180	0.83	0.26, 1.99



Facility Name	Performance	Number of Infections	Number Predicted	Number of Procedures	SIR	Confidence Interval
Swedish Edmonds	▼	1	3.32	134	0.30	0.02, 1.49
Swedish Hospital Issaquah	▬	1	1.89	74	0.53	0.03, 2.61
Swedish Medical Center - First Hill Campus	▬	14	14.34	552	0.98	0.56, 1.56
Swedish Medical Center - Cherry Hill	◆	0	0	0	0.00	N/A
Swedish Medical Center - Ballard Campus	◆	0	0	0	0.00	N/A
Tacoma General Hospital	▼	1	4.62	172	0.22	0.01, 1.07
Trios Southridge Hospital	▬	1	1.16	44	0.86	0.04, 4.24
Tri-State Memorial Hospital	◆	1	0.25	11	0.00	N/A
United General Hospital	◆	1	0.32	12	0.00	N/A
University of Washington Medical Center	▼	3	9.81	341	0.31	0.08, 0.83
Valley Medical Center	▼	2	4.41	177	0.45	0.08, 1.50
Virginia Mason Medical Center	▲	10	5.57	216	1.80	0.91, 3.20
Wenatchee Valley Medical Center	◆	0	0	0	0.00	N/A
Whidbey Health Medical Center	◆	0	0.33	13	0.00	N/A
Whitman Hospital and Medical Center	◆	0	0.04	2	0.00	N/A
Willapa Harbor Hospital	◆	0	0	0	0.00	N/A
Yakima Valley Memorial	▬	3	2.47	92	1.21	0.31, 3.30



State and National SSI Colon Standardized Infection Ratios

The symbol in the performance column describes the state's SIR compared to the national SIR for SSI Colon.

Table 9: SSI Colon Standardized Infection Ratios 2018 State Summary

	Performance	Number of Infections	Number Predicted	Number of Procedures	SIR	Confidence Interval
State	▼	110	166.12	6270	0.66	0.55, 0.80
National	Reference	7,323	8,255.39	322,125	0.89	0.88, 0.91











▼	Statistically fewer (better) infections
▽	Fewer infections (not statistically significant)
▲	More infections (not statistically significant)
▲	Statistically more (worse) infections
◆	Number of predicted infections less than 1; SIR cannot be calculated
▬	Observed similar to predicted (not statistically significant)

KEY POINTS

- ☑ Among the hospitals with enough data to calculate a SIR, 3% had an SIR significantly higher than the national SIR (0.89).
- ☑ WA hospitals reported a significant decrease in SSIs related to colon surgeries between 2017 and 2018.



Table 10: SSI Hysterectomy Standardized Infection Ratios by Facility

Facility Name	Performance	Number of Infections	Number Predicted	Number of Procedures	SIR	Confidence Interval
Astria Regional Medical Center		0	0.01	1	0.00	N/A
Astria Sunnyside Hospital		0	0.10	10	0.00	N/A
Astria Toppenish Hospital		0	0.10	13	0.00	N/A
Auburn Regional Medical Center		0	0.09	11	0.00	N/A
Capital Medical Center		1	0.30	39	0.00	N/A
Cascade Valley Hospital		0	0.02	2	0.00	N/A
Central Hospital		0	0	0	0.00	N/A
Central Washington Hospital		1	0.83	100	0.00	N/A
Coulee Medical Center		0	0	0	0.00	N/A
Covington Medical Center		0	0	0	0.00	N/A
Deaconess Medical Center		0	0.44	60	0.00	N/A
Evergreen Healthcare		2	1.50	196	1.34	0.22, 4.42
Evergreen Health Monroe		0	0.01	1	0.00	N/A
Ferry County Public Hospital District		0	0	0	0.00	N/A
Forks Community Hospital		0	0	0	0.00	N/A
Good Samaritan Hospital		0	0.31	37	0.00	N/A
Grays Harbor Community Hospital		0	0.02	2	0.00	N/A
Harborview Medical Center		0	0.20	23	0.00	N/A
Holy Family Hospital		0	0.22	27	0.00	N/A



Facility Name	Performance	Number of Infections	Number Predicted	Number of Procedures	SIR	Confidence Interval
Island Hospital	◆	0	0.21	27	0.00	N/A
Jefferson General Hospital	◆	0	0	0	0.00	N/A
Kadlec Med Center	◆	0	0.36	45	0.00	N/A
Kittitas Valley Healthcare Hospital	◆	0	0.00	1	0.00	N/A
Lake Chelan Community Hospital	◆	0	0	0	0.00	N/A
Legacy Salmon Creek Hospital	▼	0	1.43	174	0.00	0.00, 2.09
Lincoln Hospital	◆	1	0.03	3	0.00	N/A
Lourdes Health Network	◆	1	0.18	27	0.00	N/A
Mason General Hospital	◆	0	0.08	9	0.00	N/A
Mid-Valley Hospital	◆	0	0.07	8	0.00	N/A
Morton General Hospital	◆	0	0	0	0.00	N/A
Mount Carmel Hospital	◆	0	0	0	0.00	N/A
MultiCare Valley Hospital	◆	1	0.56	69	0.00	N/A
North Valley Hospital	◆	0	0	0	0.00	N/A
Northwest Hospital	◆	1	0.28	37	0.00	N/A
Ocean Beach Hospital	◆	0	0	0	0.00	N/A
Okanogan Douglas hospital	◆	0	0	0	0.00	N/A
Olympic Medical Center	◆	0	0.20	24	0.00	N/A
Othello Community Hospital	◆	0	0	0	0.00	N/A
Overlake Hospital Medical Center	▼	1	3.01	448	0.33	0.02, 1.64



Facility Name	Performance	Number of Infections	Number Predicted	Number of Procedures	SIR	Confidence Interval
PeaceHealth Southwest Medical Center	▬▬	1	1.14	143	0.88	0.04, 4.31
PeaceHealth St. Joseph Medical Center	◆	0	0.70	94	0.00	N/A
Prosser Memorial Hospital	◆	0	0.03	4	0.00	N/A
Providence Centralia Hospital	◆	0	0.07	8	0.00	N/A
Providence Everett Medical Center	▬▬	5	4.22	511	1.19	0.43, 2.63
Providence Sacred Heart Medical Center	▼	0	2.04	256	0.00	0.00, 1.47
Providence St. Joseph's Hospital	◆	0	0	0	0.00	N/A
Providence St. Mary Medical Center	◆	0	0.36	42	0.00	N/A
Providence St. Peter Hospital	▬▬	1	1.12	144	0.90	0.05, 4.41
Pullman Regional Hospital	◆	0	0.07	11	0.00	N/A
Saint Anthony Hospital	▼	0	1.99	251	0.00	0.00, 1.50
Samaritan Healthcare	◆	0	0.40	52	0.00	N/A
Seattle Children's Hospital	◆	0	0	0	0.00	N/A
Skagit Valley Hospital	◆	0	0.11	15	0.00	N/A
Skyline Hospital	◆	0	0	0	0.00	N/A
St Francis Hospital	◆	0	0.49	67	0.00	N/A
St. John Medical Center	▼	0	1.02	107	0.00	0.00, 2.95
St. Joseph Medical Center	▼	2	3.40	388	0.59	0.10, 1.95
St. Anne Hospital	◆	0	0.32	40	0.00	N/A
St. Clare Hospital	◆	0	0.36	46	0.00	N/A



Facility Name	Performance	Number of Infections	Number Predicted	Number of Procedures	SIR	Confidence Interval
St. Elizabeth Hospital		0	0.14	16	0.00	N/A
St. Michael Medical Center - Bremerton		0	0.18	24	0.00	N/A
Swedish Edmonds		0	0.33	45	0.00	N/A
Swedish Hospital Issaquah		1	0.78	110	0.00	N/A
Swedish Medical Center - First Hill Campus		3	5.72	784	0.52	0.13, 1.43
Swedish Medical Center - Cherry Hill		0	0	0	0.00	N/A
Swedish Medical Center - Ballard Campus		0	0.06	9	0.00	N/A
Tacoma General Hospital		0	0.79	93	0.00	N/A
Trios Southridge Hospital		0	0.21	24	0.00	N/A
Tri-State Memorial Hospital		0	0	0	0.00	N/A
University of Washington Medical Center		1	1.86	206	0.54	0.03, 2.66
Valley Medical Center		0	1.39	178	0.00	0.00, 2.15
Virginia Mason Medical Center		0	0.90	131	0.00	N/A
Wenatchee Valley Medical Center		0	0.03	4	0.00	N/A
Whidbey Health Medical Center		0	0.02	3	0.00	N/A
Whitman Hospital and Medical Center		0	0	0	0.00	N/A
Yakima Valley Memorial		0	0.28	37	0.00	N/A



State and National SSI Hysterectomy Standardized Infection Ratios

The symbol in the performance column describes the state's SIR compared to the national SIR for SSI abdominal hysterectomy.

Table 11: SSI Hysterectomy Standardized Infection Ratios 2018 State Summary

	Performance	Number of Infections	Number Predicted	Number of Procedures	SIR	Confidence Interval
State	▼	23	41.07	5,237	0.56	0.36, 0.83
National	Reference	120	131.06	23,710	0.92	0.76, 1.09

▼	Statistically fewer (better) infections
▽	Fewer infections (not statistically significant)
▲	More infections (not statistically significant)
▲	Statistically more (worse) infections
◆	Number of predicted infections less than 1; SIR cannot be calculated
▬	Observed similar to predicted (not statistically significant)

KEY POINTS

- ☑ Among the hospitals with enough data to calculate an SIR, 0% had an SIR significantly higher than the national SIR (0.94).
- ☑ WA hospitals reported no significant changes in SSIs related to abdominal hysterectomy between 2017 and 2018.



REFERENCES

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3. National Healthcare Safety Network. Patient Safety Component Manual, Surgical Site Infection Event (SSI). January 2022. Available from: <https://www.cdc.gov/nhsn/pdfs/pscmanual/9pscscsicurrent.pdf>

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