



Healthcare-Associated Infections: Annual report

July 2022



COLORADO
Department of Public
Health & Environment

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Executive summary

Key findings

This report shows rates of healthcare-associated infections reported to the National Healthcare Safety Network by Colorado health care facilities in 2019, 2020, and 2021. Standardized infection ratios (rates) account for facility and patient characteristics and are compared to a national baseline. Rates of catheter-associated urinary tract infections (CAUTIs) are presented for the first time from acute care hospitals, long-term acute care hospitals, and inpatient rehabilitation facilities. Rates of surgical site infections (SSIs) following abdominal and vaginal hysterectomies in ambulatory surgery centers were removed from the report.

In 2021, overall rates of the following conditions were lower (better) than the national baseline: catheter-associated urinary tract infections in acute care hospitals overall and in adult and pediatric critical care units and wards; central-line associated bloodstream infections in acute care hospitals overall and in adult and pediatric inpatient wards; *Clostridioides difficile* infections in acute care hospitals, inpatient rehabilitation facilities and long-term acute care hospitals; surgical site infections following inpatient colon surgeries in acute care hospitals; and surgical site infections following breast and hernia surgeries in ambulatory surgery centers. Rates of surgical site infections following inpatient breast surgeries in acute care hospitals and knee replacement surgeries in ambulatory surgery centers were higher (worse) than the national baseline (Table 1).

Overall rates for other conditions were similar to the national baseline or suppressed due to small numbers of events.

Facility-level rates are presented in detail.

Healthcare-associated infections (HAIs) are infections that patients get while being treated for other conditions in a hospital or other healthcare setting. HAIs can devastate patients and families. People who have them may need more medicines and treatments, and they may not be able to work. This can cause financial stress. HAIs can cause pain, suffering, and death. This report contains data that Colorado healthcare facilities report to the Colorado Department of Public Health and Environment via the National Healthcare Safety Network (NHSN). It includes infections associated with surgeries, central lines, urinary catheters, and dialysis treatment. It also includes *Clostridioides difficile* (*C. diff*) infections, caused by a kind of bacteria found in healthcare settings and the community.

This report does not have information on all HAIs, but people can use it as one sign of healthcare quality. Readers can compare infection rates between Colorado facilities and national baselines, and look at the number of procedures performed as a measure of how much experience a facility has performing each procedure. Healthcare facilities can use this data to target their infection prevention efforts.

The Department works to reduce HAIs in Colorado through:

- Tracking and publishing HAI data.
- Guiding and assisting facilities on best practices for infection control.
- Validating HAI data.
- Observing facility practices.
- Working with partners on patient safety.

More information about healthcare-associated infections is on the department's [HAI web page](#).

Table 1. Healthcare-associated infections summary table – Colorado, 2021

	No. of facilities reporting data	No. of facilities better than national benchmark	No. of facilities same as national benchmark	No. of facilities worse than national benchmark	No. of facilities for which data are suppressed	Comparison: Colorado to national benchmark
Catheter-associated urinary tract infections						
Acute care hospitals	51	7	26	2	16	Better
Adult and pediatric critical care ¹	44	6	21	4	13	Better
Adult and pediatric inpatient wards ¹	49	3	24	0	22	Better
Inpatient rehabilitation facilities	7	0	5	0	2	Not significant
Long-term acute care hospitals	6	1	4	1	0	Not significant
Central line-associate bloodstream infections						
Acute care hospitals	52	4	28	2	18	Better
Adult and pediatric critical care ¹	44	1	27	4	12	Not significant
Neonatal critical care ¹	19	0	4	0	15	Better
Adult and pediatric inpatient wards ¹	50	2	25	0	23	Better
Inpatient rehabilitation wards ¹	9	0	0	0	9	Not significant
Critical access hospitals	4	0	0	0	4	Suppressed ²
Pediatric hospitals	1	0	1	0	0	Not significant
Inpatient rehabilitation facilities	7	0	0	0	7	Not significant
Long-term acute care hospitals	6	1	4	0	1	... ³
<i>Clostridioides difficile</i> infections						
Acute care hospitals	52	23	22	1	6	Better
Inpatient rehabilitation facilities	7	2	5	0	0	Better
Long-term acute care hospitals	6	4	2	0	0	Better
Dialysis access-related bloodstream infections						
Outpatient dialysis facilities	75	0	0	0	75	Suppressed ³

	No. of facilities reporting data	No. of facilities better than national benchmark	No. of facilities same as national benchmark	No. of facilities worse than national benchmark	No. of facilities for which data are suppressed	Comparison: Colorado to national benchmark
Surgical site infections at acute care hospitals, inpatient procedures						
Breast surgery	47	0	14	1	32	Worse
Colon surgery	48	9	32	0	7	Better
Hip replacement	51	1	29	1	20	Not significant
Abdominal hysterectomy	47	0	19	1	27	Not significant
Knee replacement	51	0	22	3	26	Not significant
Surgical site infections at acute care hospitals, outpatient procedures						
Breast surgery	48	1	14	2	31	Not significant
Colon surgery	25	0	0	0	25	Suppressed ²
Hip replacement	42	1	2	0	39	Not significant
Abdominal hysterectomy	45	0	3	1	41	Not significant
Knee replacement	44	0	9	0	35	Not significant
Surgical site infections at critical access hospitals, inpatient procedures						
Breast surgery	8	0	0	0	8	Suppressed ²
Colon surgery	10	0	1	0	9	Not significant
Hip replacement	18	0	0	0	18	Not significant
Abdominal hysterectomy	9	0	0	0	9	Not significant
Knee replacement	19	0	1	0	18	Not significant
Surgical site infections at critical access hospitals, outpatient procedures						
Breast surgery	12	0	0	0	12	Suppressed ²
Colon surgery	1	0	0	0	1	Suppressed ²
Hip replacement	8	0	0	0	8	Suppressed ²
Abdominal hysterectomy	6	0	0	0	6	Suppressed ²

	No. of facilities reporting data	No. of facilities better than national benchmark	No. of facilities same as national benchmark	No. of facilities worse than national benchmark	No. of facilities for which data are suppressed	Comparison: Colorado to national benchmark
Knee replacement	11	0	0	0	11	Suppressed ²
Surgical site infections at ambulatory surgery centers⁴						
Breast surgery	28	0	7	0	21	Better
Hip replacement	19	0	0	0	19	--- ³
Knee replacement	25	0	0	0	25	Worse
Hernia	27	0	3	0	24	Better

¹In acute care hospitals ²Calculation of comparison is not available due to data suppression for one of the following reasons: procedure count was less than 20; fewer than 50 central line-days were reported, or the predicted number of infections was less than one; ³National comparison models were not available at the time of this report; ⁴Surgical site infections following abdominal and vaginal hysterectomies were removed from the HAI Annual Report in 2022.

Data source: National Healthcare Safety Network.

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Authorizing Statute: Section 25-3-601, C.R.S.

Date: July 15, 2022

Number of pages: 144

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This report fulfills reporting requirements set forth in the disclosure law and is the 14th annual report published by the Colorado Department of Public Health and Environment. The report presents information about HAI reporting requirements, processes and limitations, functions of implementing the disclosure law, and HAI data submitted by Colorado healthcare facilities on catheter-associated urinary tract infections (CAUTIs), central line-associated bloodstream infections (CLABSIs), *Clostridioides difficile* infections, dialysis-related infections, and surgical site infections (SSIs). HAI data presented in this report are for the period Jan. 1, 2019, through Dec. 31, 2021.

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Introduction

Healthcare-associated infections (HAIs) are infections that patients acquire during treatment for other conditions within a health care setting. HAIs included in this report include infections associated with urinary catheters (tubes placed in the bladder), central lines (catheters/tubes placed in veins for treatment infusions), *Clostridioides difficile* (a bacteria found in healthcare settings), dialysis treatment, and surgeries. HAIs can be devastating to patients and families. They can cause significant financial burden due to additional treatments, procedures, and lost wages. HAIs can cause pain, suffering and death.¹⁻³ Recognizing the seriousness of HAIs, Colorado passed the HAI Disclosure Law in 2006, which was revised and updated in 2016 (Section 25-3-601, C.R.S.).⁴

Administrative changes in 2016 included a change in reporting timeframe from fiscal to calendar year, and a change in the annual report submission date to the Colorado General Assembly from January 15 to July 15 of each year. Changes in 2016 also included a change to the definition of healthcare facility to include “all state licensed or certified facilities submitting data to the National Healthcare Safety Network (NHSN)”.⁵ This definition currently includes acute care hospitals, critical access hospitals, long-term acute care hospitals, inpatient rehabilitation facilities, ambulatory surgery centers, and dialysis facilities. It also may include additional facility types as they report to NHSN. These facility types are required to report designated HAI data as a condition of state licensure. Methicillin-resistant *Staphylococcus aureus* is reported per Board of Health requirements and not included in this report.

The disclosure law mandates certain healthcare facilities report their HAI data to the Colorado Department of Public Health and Environment (CDPHE) through the National Healthcare Safety Network (NHSN), a national web-based surveillance and reporting system managed by Centers for Disease Control and Prevention (CDC).^{4,5} The use of NHSN improves the validity of reported HAI data because facilities must use standard definitions and reporting rules. Reporting consistency allows us to compare Colorado facility HAI data to a national baseline.

The report presents information about HAI reporting requirements, processes, and limitations; the HAI disclosure law; and HAI data submitted by Colorado healthcare facilities on catheter-associated urinary tract infections (CAUTIs), central line-associated bloodstream infections (CLABSI), *Clostridioides difficile*, dialysis-related infections, and selected surgical site infections (SSI).⁶ All data presented in this report were submitted for patients receiving treatment or having procedures during the 2019, 2020, and 2021 calendar years. A glossary of terms is available in **Appendix A**.

COVID-19: Of note, the COVID-19 pandemic likely affected facilities' HAI data in a number of ways.² Facilities were not required to report to NHSN during quarters one and two of 2020, although many facilities did report. Fewer data reported in 2020 may make it difficult to determine if facility HAI rates were better or worse than the national baseline, such that rates may more likely appear to be similar to baseline rates. In addition, the COVID-19 pandemic created changes in admission and care practices. Elective procedures were canceled during the spring of 2020, patients admitted to healthcare facilities were sicker, and healthcare facility spaces were repurposed to better care for COVID-19 patients. Changes in admission and care practices may have affected the reported HAI rates, making them better or worse than usual, and making year-to-year comparisons less accurate.

Healthcare-associated infections disclosure law

Implementing Colorado’s healthcare-associated infections (HAI) Disclosure Law involves four main functions,⁴ as described below:

1. Appointment of an HAI advisory committee.
2. Selection of conditions to be reported.
3. Oversight of data entered into the National Healthcare Safety Network (NHSN).
4. Public reporting of results by facility.

Committee members

Current Members (2022)

Sara (Colvard) Diddy, MSN

Chase Currie, MPH, CIC

Michelle Graves, RN

Christine Lentz, BS, MBA

Erin Minnerath, MSPH, CIC

Kimberly Montejano, RN

David Pflueger, MBA
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Larissa Pisney, MD

Emma Stein, MPH

Carolyn Valdez, MS

William Wright, MD
Advisory Committee Co-Chair

Past Members (2021)

Melissa Broudy, RN, BSN, BA, MPH, CIC

Katie Cary, MPH, MT (ASCP), CIC

Paul Hill, BS, MT (ACSP)

Michelle Shockey, RN

Appointment and coordination of the HAI Advisory Committee

Colorado’s HAI disclosure law requires the Department’s executive director to appoint an 11-member HAI Advisory Committee with the following composition:

- One representative from an urban hospital.
- One representative from a rural hospital.
- One board-certified or board-eligible physician licensed in Colorado who is affiliated with a Colorado hospital or medical school and an active member of a national organization specializing in healthcare epidemiology or infection control.
- Four infection control practitioners (one from a stand-alone ambulatory surgery center, one certified in infection control and epidemiology, one from a long-term care setting, and one other healthcare professional).
- One medical statistician or clinical microbiologist with an advanced degree.
- One representative from a health consumer organization.
- One representative from a health insurer.
- One purchaser of health insurance.

Role of the HAI Advisory Committee: The primary role of the Advisory Committee is to provide oversight and guidance to the Department for the collection, analysis, and publication of HAI data from health facilities according to C.R.S. 25-3-601-607. The Advisory Committee may advise the HAI&AR program on other issues as needed.

Selection of clinical metrics

The current HAI reporting metrics include infections related to urinary catheters, central lines, *Clostridioides difficile* (*C. difficile*), outpatient dialysis treatment, and surgeries (Table 2). Urinary catheters are tubes placed in the bladder to facilitate urination. Central lines are tubes placed in a vein to infuse fluids or medications. These devices can cause catheter-associated urinary tract infections (CAUTIs) and central line-associated bloodstream infections (CLABSIs), respectively. *C. difficile* infection is a diarrheal disease that generally occurs in patients prescribed antibiotics and exposed within a healthcare setting. Dialysis-related infections include bloodstream infections related to the vascular access site. Because of frequent hospitalizations and weakened immune systems, dialysis patients are at high risk for infection. Surgeries for which surgical site infections (SSIs) are reported were selected based on their high volume and risk for infection.

In selecting metrics, the following factors were considered:⁷

- Impact - extent to which the infection affects the patient or family (disability, mortality, and economic costs).
- Improvability - extent to which reporting infection improves practice to prevent the infection.
- Frequency - how often the infection occurs.
- Feasibility - ability for the data to be collected with minimal burden on the facilities.
- Functionality - extent to which the data are accurate and the intended audience (patients, care providers, and hospital administrators) can understand and apply the results.

Table 2. Colorado healthcare-associated infection reporting metrics.

Facility type	Reported HAI	Reporting hospital unit(s)
Acute care hospitals ¹	<ul style="list-style-type: none"> • Breast surgical site infections (SSIs) • Colon SSIs • Hip replacement SSIs • Knee replacement SSIs • Abdominal hysterectomy SSIs 	Inpatient and attached outpatient operating rooms
	<ul style="list-style-type: none"> • Central Line-Associated Bloodstream Infections (CLABSIs) 	Adult and pediatric critical care units, medical, surgical, and medical-surgical wards
		Neonatal critical care units level II/III and III
		Inpatient rehabilitation wards
	<ul style="list-style-type: none"> • Catheter-Associated Urinary Tract Infections (CAUTIs) 	Adult and pediatric critical care units, medical, surgical, and medical-surgical wards
<ul style="list-style-type: none"> • <i>Clostridioides difficile</i> infections 	Facility-wide inpatient	
Critical access hospitals	<ul style="list-style-type: none"> • Breast SSIs • Colon SSIs • Hip and Knee replacement SSIs • Abdominal hysterectomy SSIs 	Inpatient and outpatient operating rooms
	<ul style="list-style-type: none"> • CLABSIs 	Adult critical care units
Long-term acute care hospitals	<ul style="list-style-type: none"> • CLABSIs 	All bedded inpatient locations

Facility type	Reported HAI	Reporting hospital unit(s)
	• CAUTIs	All bedded inpatient locations
	• <i>Clostridioides difficile</i> infections	Facility-wide inpatient
Inpatient rehabilitation facilities (freestanding)	• CLABSIs	All bedded inpatient locations
	• CAUTIs	All bedded inpatient locations
	• <i>Clostridioides difficile</i> infections	Facility-wide inpatient
Ambulatory surgery centers	<ul style="list-style-type: none"> • Breast SSIs • Hernia repair SSIs • Hip and knee replacement SSIs 	All outpatient operating rooms
Outpatient dialysis facilities	• Dialysis events	All outpatient facilities

¹Of these conditions, freestanding pediatric hospitals only report CLABSIs in neonatal critical care units.

Data source: National Healthcare Safety Network.

Oversight and validation of data

Colorado’s health care facilities grant The Department access to data entered into NHSN, allowing CDPHE to monitor, analyze, and produce public reports. NHSN maintains stringent policies and rules to ensure data security, integrity, confidentiality, including that of the patient and data sharing in strict accordance to federal laws.

Colorado’s HAI disclosure law requires health care facilities to report HAI data on a quarterly basis, and The Department provides guidance and technical assistance to ensure the timely and accurate reporting of data. CDPHE also performs systematic monitoring and selected validation of the HAI data submitted, which allows for the identification and correction of incomplete and incorrectly entered data. The department has completed data validation studies for abdominal hysterectomies in acute care hospitals (2016), central line-associated bloodstream infections in long-term acute care hospitals and inpatient rehabilitation facilities (2018), and dialysis-related infections (2018).

The HAI disclosure law also specifies requirements for health care facility employees who collect and report HAI data.⁴ These people must be certified in infection control and epidemiology or become certified within six months after becoming eligible to take the certification test as recommended by the Certification Board of Infection Control and Epidemiology, Inc., or its successor. These certification requirements do not apply to staff in hospitals with 50 or fewer beds, dialysis facilities, ambulatory surgery centers, or long-term care facilities.

Participating facilities

Facility types are defined in **Appendix B**. In 2021, 52 acute care hospitals, 30 critical access hospitals, one pediatric hospital, seven long-term acute care hospitals, seven inpatient rehabilitation facilities, 58 ambulatory surgery centers, and 115 dialysis facilities reported healthcare-associated infection (HAI) data into the National Healthcare Safety Network (NHSN) accessible to the department. **Table 3** shows the number of hospitals that report catheter-associated urinary tract infections (CAUTIs), central line-associated bloodstream infections (CLABSIs), and *C. difficile* infections by type of care unit. **Table 4** lists reportable surgical procedures and the numbers of hospitals and ambulatory surgery centers that report them. Seventy-five outpatient dialysis facilities reported access-related bloodstream infections.

Table 3. Healthcare facilities and units reporting catheter-associated urinary tract infections, central line-associated bloodstream infections, and *C. difficile* infections – Colorado, 2019-2021.

Unit/type of facility	Catheter-associated urinary tract infections	Central line-associated bloodstream infections	<i>C. difficile</i> infections
	No. of facilities	No. of facilities	No. of facilities
Acute care hospitals	52	52	52
Adult and pediatric critical care in acute care hospitals	44	44	--- ¹
Level II/III neonatal critical care in acute care hospitals	--- ¹	19	--- ¹
Wards in acute care hospitals	49	50	--- ¹
Inpatient rehabilitation wards in acute care hospitals	--- ¹	9	--- ¹
Inpatient rehabilitation facilities	7	7	7
Long-term acute care hospitals	6	6	6
pediatric hospitals	--- ¹	1	--- ¹

¹ Facility type does not report these conditions.

Data source: National Healthcare Safety Network.

Table 4. Healthcare facilities reporting surgical site infections by procedure type – Colorado, 2021.

Procedure type	No. of acute care hospitals	No. of critical access hospitals	No. of ambulatory surgery centers	No. of facilities (total)
Abdominal hysterectomy	50	21	--- ¹	71
Breast surgery	50	20	34	104
Colon surgery	50	20	--- ¹	70
Hernia	--- ¹	--- ¹	37	37
Hip replacement	51	21	23	95
Knee replacement	51	21	29	101

¹ Facility type does not report these conditions.

Data source: National Healthcare Safety Network.

Data format and cautions

Using these data

These data are only one of many indicators of health care quality. Keep in mind:

- Facilities that treat more severely ill patients may have higher infection rates regardless of their prevention efforts. Standardized infection ratios (SIRs) account for some, but not all, differences in patient populations and facility characteristics that may influence documented infection rates.
- Facilities find infections in different ways, and higher infection rates may be due to better surveillance practices, not poorer infection control practices.
- It can be challenging for facilities to identify all infections consistently using available reporting definitions.
- Facilities self-report their infection data. Standardized reporting definitions may reduce biases associated with self-report.

Data presented in this report include catheter-associated urinary tract infections (CAUTIs) central line-associated bloodstream infections (CLABSIs), *Clostridioides difficile* (*C. difficile*) infections, dialysis-related infections, and surgical site infections (SSIs) in patients receiving medical care between Jan. 1, 2019 and Dec. 31, 2021. Varying forms of healthcare-associated infection (HAI) data are presented: infection counts and rates from all Colorado facilities combined (aggregate data), infection counts and rates for each individual facility (facility-specific data), and for some conditions, infection counts and rates from units within a facility (unit specific data).

Facility-specific data tables include the facility name, and for each facility, the number of infections and, depending on the type of infection, catheter or central line days (for CAUTI and CLABSIs), patient-days (for *C. difficile*), patient-months (for dialysis-related infections), or number of surgeries (for SSIs). Patient-days is a measure of the number of patients multiplied by the number of days they were in the facility. Patient-months is a similar measure multiplying the number of patients by the number of months of care.

National comparisons. National comparisons are shown for conditions and facility types when available through NHSN. National comparisons using standardized infection ratios (SIRs) use the facility's observed and expected number of infections, denominator size, and a statistical test of difference. SIRs account for differences in patient populations and facility characteristics.⁸ The statistical test of difference describes the probability of observing a similar or greater difference between the

infection rate and national baseline rate even if, in truth, the rates were the same (i.e., a statistically significant difference versus a difference due to chance). This is described in greater detail in **Appendix C**.

- If the SIR is less than one and the difference is statistically significant, the facility has significantly fewer HAI than expected and is designated as “better” than the national baseline.
- If the difference is statistically significant and the SIR is greater than one, the facility has significantly more infections than predicted and is designated as “worse” than the national baseline.
- If there is no significant difference between the facility's observed and predicted number of infections, regardless of the SIR, the facility is designated as “not significant” as the national baseline.

For dialysis access-related bloodstream infection (ARB), unadjusted observed rates are presented. This is because SIRs are not available. Furthermore, in 2021, comparison of crude rates to the national rate was not possible in NHSN.

Considerations and limitations

The Department and Colorado HAI Advisory Committee recommend caution when drawing conclusions from these data for multiple reasons. For one, direct comparisons between facilities may not provide the most accurate assessment because infection rates are influenced by the types of patients treated. Facilities that treat higher volumes of severely ill patients may have higher infection rates regardless of their prevention efforts. While the NHSN system provides the best risk adjustment possible to account for this at present by using the SIR, there always will be patient risk factors that cannot be measured (e.g., patient ability to heal, smoking cessation days, severe suppression of the immune system) that contribute to infection risk. Additionally, a calculated SIR is not available for all conditions, and therefore additional caution should be applied when interpreting a comparison of rates, which are not adjusted for risk.

Second, rates may be influenced by differences in how facilities detect infections. The NHSN surveillance manuals are developed by CDC subject matter experts, and although the definitions and criteria are updated each year, they can be challenging to apply to patients with complicated medical histories. Additionally, facilities use different surveillance techniques to find infections. Some infection preventionists have more resources for surveillance, and may subsequently find and report more infections than other facilities. In those cases, higher infection rates may be based on better surveillance practices rather than poor infection control practices. Ambulatory surgery centers traditionally report lower numbers of SSIs than hospitals, which may be due, in part, to reduced opportunity to conduct post-surgical follow-up with patients and surgeons.

Third, facilities report their own data. Although data validation studies have been completed in past years for selected CLABSIs, SSIs, and dialysis-related infections, validation is not performed on every infection, nor on every condition reported each year.

Finally, the ongoing COVID-19 pandemic that began in 2020 has likely influenced the rates of HAIs. Facilities did not have to report HAI data during quarters one and two of 2020, although many facilities did report and reporting requirements remained during subsequent waves. Admission and care practices also changed during 2020. Therefore, the HAI rates reported for 2020 may not be reflective of the norm and may not be comparable to other years.

We recommend conclusions regarding health care quality be made in conjunction with other quality indicators. The public should consult with doctors, health care facilities, health insurance carriers, health care websites from reputable sources (e.g., Hospital Compare, Colorado Hospital Report Card, Leap Frog), and with loved ones before deciding where to receive care. Ideally, facilities will use the data in this report to target and improve infection prevention efforts, and the public will use the data to make better-informed health care decisions.



Colorado state-level data

Aggregated catheter-associated urinary tract infection data

Urinary catheters are tubes placed in the bladder to help with urination. Catheter-associated urinary tract infections (CAUTIs) were added to the list of reportable conditions to be included in the HAI Annual Report by the Healthcare-Associated Infections Advisory Committee in September 2021. Rates of CAUTI in acute care hospitals were lower (better) than the national baseline in 2021. The rates of CAUTI in adult and pediatric critical care units and inpatient wards in acute care hospitals were lower (better) than the national baseline. Rates of CAUTI in inpatient rehabilitation facilities and long-term acute care hospitals were similar to (not statically different from) the national baseline (**Table 5**).

Table 5. Catheter-associated urinary tract infections in healthcare facilities by facility/unit type – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility/unit type	2019				2020				2021			
	No. of catheter-days	No. of infections	SIR	National comparison	No. of catheter-days	No. of infections	SIR	National comparison	No. of catheter-days	No. of infections	SIR	National comparison
Acute care hospital	N/A			... ²	N/A			... ²	263,699	209	0.6	Better
Adult and pediatric critical care ¹	N/A			... ²	N/A			... ²	155,617	139	0.6	Better
Adult and pediatric inpatient wards ¹	N/A			... ²	N/A			... ²	107,946	70	0.7	Better
Inpatient rehabilitation facilities	N/A			... ²	N/A			... ²	5,305	9	1.2	Not significant
Long-term acute care hospitals	N/A			... ²	N/A			... ²	24,288	59	1.2	Not significant

¹In acute care hospitals, ²CAUTI reporting began in 2021

SIR, standardized infection ratio (ratio of observed to predicted infection rates). Data source: National Healthcare Safety Network.

Aggregate central line-associated bloodstream infection data

Central lines are catheters (tubes) placed into a vein to infuse fluids or medications. Rates of central line-associated bloodstream infection (CLABSI) in acute care hospitals were lower (better) than the national baseline in 2021 overall and in adult and pediatric inpatient wards and neonatal critical care units in acute care hospital wards. Comparison of rates of CLABSI in critical access hospitals and long-term acute care hospitals to the national baseline was not possible as national models are not available. The rate of CLABSI in freestanding pediatric hospitals was similar to (not significantly different from) the national baseline in 2021 (**Table 6**).

Table 6. Central line-associated bloodstream infections in healthcare facilities by facility/unit type – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility/unit type	2019				2020				2021			
	No. of central line-days	No. of infections	SIR	National comparison	No. of central line-days	No. of infections	SIR	National comparison	No. of central line-days	No. of infections	SIR	National comparison
Acute care hospitals ¹	228,868	131	0.6	Better	260,301	210	0.8	Better	286,428	242	0.9	Better
Adult and pediatric critical care ²	102,319	66	0.6	Better	131,354	139	1.0	Not significant	148,523	164	1.1	Not significant
Adult and pediatric inpatient wards ²	110,078	46	0.5	Better	114,028	54	0.5	Better	123,046	64	0.6	Better
Inpatient rehabilitation ward ³	4,445	1	0.5	Not significant	4,279	1	0.5	Not significant	4,842	1	0.4	Not significant
Neonatal critical care ²	11,094	14	0.9	Not significant	9,765	8	0.6	Not significant	8,461	5	0.4	Better
Critical access hospitals, adult and pediatric critical care	147	0	N/A	Suppressed ³	130	0	N/A	Suppressed ³	170	0	N/A	Suppressed ³
Inpatient rehabilitation facilities	4,522	0	0.0	Not significant	6,036	1	0.3	Not significant	5,632	0	0.0	Not significant
Long-term acute care hospitals	23,140	16	N/A	---	22,258	18	N/A	---	19,342	6	N/A	---
Freestanding pediatric hospitals, neonatal critical care	5,777	14	2.2	Worse	4,921	9	1.7	Not significant	6,383	9	1.3	Not significant

¹Excludes rehabilitation wards. Includes adult and pediatric critical care units, inpatient wards, and neonatal critical care units; ²In acute care hospitals; ³Calculation of comparison is not available as the predicted number of infections was less than one; ⁴ National comparisons were not available for CLABSI within long-term acute care hospitals.

SIR, standardized infection ratio (ratio of observed to predicted infection rates); N/A, not applicable.

Data source: National Healthcare Safety Network.

Aggregate *Clostridioides difficile* data

Clostridioides difficile (*C. difficile*) is a spore-forming bacterium that can cause symptoms ranging from bloating, diarrhea, fever, and abdominal pain to life-threatening colon inflammation, sepsis, and death. Rates of *C. difficile* in acute care hospitals, inpatient rehabilitation facilities, and long-term acute care hospitals were lower (better) than the national baseline in 2021 (Table 7).

Table 7. *Clostridioides difficile* infections in health care facilities by facility type – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility type	2019				2020				2021			
	No. of Patient-Days	No. of infections	SIR	National comparison	No. of Patient-Days	No. of infections	SIR	National comparison	No. of Patient-Days	No. of infections	SIR	National comparison
Acute care hospitals	1,686,394	629	0.6	Better	1,719,042	484	0.5	Better	1,917,631	608	0.5	Better
Inpatient rehabilitation facilities	61,584	13	0.7	Not significant	66,225	5	0.2	Better	73,901	11	0.4	Better
Long-term acute care hospitals	79,764	44	0.6	Better	92,268	39	0.5	Better	97,042	51	0.5	Better

SIR, standardized infection ratio (ratio of observed to predicted infection rates).

Data source: National Healthcare Safety Network.

Aggregate dialysis infection data

An access-related bloodstream infection is the presence of bacteria in the blood, identified by a positive blood culture, with the source of the bacteria identified as the vascular access site (where needles for dialysis are inserted). In 2021, the rate of access-related bloodstream infections was 0.22 per 100 person-months (**Table 8**). The national rate was 0.31 per 100 person-months. Risk adjustment using the standardized infection ratio (SIR) and statistical testing to compare these rates were unavailable.

Table 8. Access-related bloodstream infections in outpatient dialysis facilities – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility type	2019				2020				2021			
	No. patient months	No. of infections	Infection Rate	National comparison	No. patient months	No. of infections	Infection Rate	National comparison	No. patient months	No. of infections	Infection Rate	National comparison
Outpatient dialysis facilities	46,046	154	0.33	--- ¹	45,307	82	0.18	--- ¹	45,048	101	0.22	--- ¹

¹Statistical comparison to the national rate of infection was not available

Rates are per 100 patient-months. Note: these rates are not adjusted for risk.

Data source: National Healthcare Safety Network.

Aggregate surgical site infection data

Surgical site infections (SSIs) are infections related to a surgical procedure. In acute care hospitals, rates of SSI following inpatient colon surgery in 2021 were lower (better) than the national baseline, and rates of SSI following inpatient breast surgery were higher (worse) than the national baseline. Rates of SSI following inpatient abdominal hysterectomy, knee and hip replacement surgeries, and all outpatient surgeries were similar to (not significantly different from) the national baseline, apart from SSI following outpatient colon surgery, for which a national comparison was not available (**Table 9**).

In critical access hospitals, rates of SSI in 2021 were similar to the national baseline for inpatient abdominal hysterectomy, colon surgery, hip replacement surgery, and knee replacement surgery. It was not possible to calculate rates of SSI for inpatient breast surgery and all outpatient surgeries (**Table 10**).

In ambulatory surgery centers, rates of SSI following breast and hernia surgeries in 2021 were lower (better) than the national baseline, while rates of SSI following knee replacement surgery were higher (worse) than the national baseline. National comparison was not available for SSI following hip replacement surgery, though the number of reported infections has increased since 2019. In May 2021, SSI following abdominal and vaginal hysterectomies in ambulatory surgery centers were removed from the conditions included in the HAI Annual Report because risk adjustment was not available and because the majority of data were suppressed due to low numbers of procedures (**Table 11**).

SSI in pediatric patients were removed from the HAI Annual report in 2019.

Table 9. Surgical Site Infections in Acute Care Hospitals – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Procedure type	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Inpatient surgeries												
Abdominal hysterectomy	5,894	70	0.9	Not significant	4,844	64	0.9	Not significant	4,737	67	1.0	Not significant
Breast surgery	4,098	68	1.0	Not significant	3,111	41	0.8	Not significant	2,885	64	1.3	Worse
Colon surgery	5,187	243	0.9	Not significant	4,919	177	0.7	Better	5,292	196	0.7	Better
Hip replacement	11,777	130	1.2	Not significant	10,251	93	0.9	Not significant	9,469	87	0.9	Not significant
Knee replacement	16,939	113	1.1	Not significant	13,660	83	1.0	Not significant	12,526	74	0.9	Not significant
Outpatient surgeries												
Abdominal hysterectomy	2,236	8	0.8	Not significant	2,717	20	1.4	Not significant ¹	3,600	21	1.2	Not significant
Breast surgery	7,804	40	0.8	Not significant	7,893	37	0.7	Better	9,185	52	0.8	Not significant
Colon surgery	59	0	N/A	Suppressed ¹	26	0	N/A	Suppressed ¹	53	1	N/A	Suppressed ¹
Hip replacement	316	0	N/A	Suppressed ¹	1,069	6	1.5	Not significant	1,985	8	0.6	Not significant
Knee replacement	1,158	4	0.7	Not significant	1,805	9	0.8	Not significant	3,529	14	0.6	Not significant
¹ Calculation of comparison is not available due to data suppression for one of the following reasons: no. of procedures fewer than 20 or the predicted number of infections was less than one.												

SIR, standardized infection ratio (ratio of observed to predicted infection rates).

Data source: National Healthcare Safety Network.

Table 10. Surgical site infections in critical access hospitals – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Procedure type	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Inpatient surgeries												
Abdominal hysterectomy	97	2	1.2	Not significant	69	1	0.8	Not significant	73	2	1.5	Not significant
Breast surgery	18	---	N/A	Suppressed ¹	26	0	N/A	Suppressed ¹	23	0	N/A	Suppressed ¹
Colon surgery	110	6	1.3	Not significant	94	3	0.8	Not significant	86	5	1.5	Not significant
Hip replacement	265	6	2.4	Not significant	365	7	1.9	Not significant	401	3	0.9	Not significant
Knee replacement	559	6	1.7	Not significant ²	669	3	0.7	Not significant	691	7	1.6	Not significant
Outpatient surgeries												
Abdominal hysterectomy	10	---	N/A	Suppressed ¹	15	---	N/A	Suppressed ¹	14	---	N/A	Suppressed ¹
Breast surgery	77	0	N/A	Suppressed ¹	88	0	N/A	Suppressed ¹	84	0	N/A	Suppressed ¹
Colon surgery	4	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Hip replacement	3	---	N/A	Suppressed ¹	21	0	N/A	Suppressed ¹	71	0	N/A	Suppressed ¹
Knee replacement	7	---	N/A	Suppressed ¹	37	1	N/A	Suppressed ¹	86	1	N/A	Suppressed ¹
¹ Calculation of comparison is not available due to data suppression for one of the following reasons: no. of procedures fewer than 20 or the predicted number of infections was less than one.												

SIR, standardized infection ratio (ratio of observed to predicted infection rates); N/A, not applicable.

Analysis includes adult patients >=18 years of age.

Data source: National Healthcare Safety Network.

Table 11. Surgical site infections in ambulatory surgery centers – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Procedure type	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Outpatient surgeries												
Breast surgery	5,976	13	0.8	Not significant	5,621	10	0.7	Not significant	6,185	4	0.2	Better
Hernia	5,587	12	1.1	Not significant	4,798	2	0.2	Better	4,708	2	0.2	Better
Hip replacement	1,434	3	N/A	--- ¹	1,482	10	N/A	--- ¹	1,861	8	N/A	--- ¹
Knee replacement	2,055	7	5.9	Worse	2,779	2	1.2	Not significant	3,246	9	4.8	Worse
¹ National comparison unavailable.												

SIR, standardized infection ratio (ratio of observed to predicted infection rates); N/A, not applicable.

Analysis includes adult patients >=18 years of age.

Data source: National Healthcare Safety Network.

Colorado facility-specific data

Catheter-associated urinary tract infections

Background

Catheter-associated urinary tract infections (CAUTIs) are infections of the urinary tract associated with the use of catheters (tubes) placed in the bladder to help with urination. All patients with urinary catheters are at risk for CAUTI. Older persons and those with diabetes or weakened immune systems are at increased risk.⁹⁻¹⁰ In September 2021, the HAI Advisory Committee voted to include CAUTIs on adult and pediatric critical care units and selected wards (medical, surgical, and medical/surgical) within acute care hospitals, long-term acute care hospitals, and inpatient rehabilitation facilities in the HAI Annual Report.⁶

Tables included in this section are divided by facility type. **Table 12** shows rates of CAUTI in acute care hospitals with units combined. **Table 13** shows rates of CAUTI in acute care hospitals by location types (CCU and wards) separated. **Table 14** shows rates of CAUTI in inpatient rehabilitation facilities. **Table 15** shows rates of CAUTI in long-term acute care hospitals. All tables list reporting facilities, number of catheter-days per year, number of CAUTI infections, standardized infection ratios (SIRs), and comparisons to the national baseline. The number of catheter-days is the total number of days a catheter was in place for patients in the unit during the reporting period (for example, if three patients each had a catheter for 10 days, the number of catheter-days is 30). Additional details are listed in **Appendix C**.

The three categories summarizing how a Colorado facility compares to the national infection baseline for that unit are:

- Statistically lower rate of infection than the national baseline (better).
- Statistically similar rate of infection to the national baseline (not significant).
- Statistically higher rate of infection than the national baseline (worse).⁸

Data were suppressed if the predicted number of infections was less than one or fewer than 50 catheter-days were reported in the calendar year.

Catheter-associated urinary tract infections in acute care hospitals

Fifty-one acute care hospitals reported CAUTI data in 2021 (**Table 12**). Seven acute care hospitals reported a rate of CAUTI that was better (lower) than the national baseline, and two reported a rate of CAUTI that was higher (worse) than the national baseline. Twenty-six acute care hospitals reported a rate of CAUTI that was similar to (not statistically different from) the national baseline. Rates of CAUTI were suppressed for 17 acute care hospitals in 2021.

Forty-four acute care hospitals reported CAUTI data from adult and pediatric critical care units, and 49 reported CAUTI data from adult and pediatric inpatient wards (**Table 13**). Six acute care hospitals reported a rate of CAUTI on critical care units that was lower (better) than the national baseline, and four reported a rate of CAUTI on critical care units that was higher (worse) than the national baseline. Three acute care hospitals reported a rate of CAUTI on wards that was lower (better) than the national baseline.

Table 12. Catheter-associated urinary tract infections in acute care hospitals – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	2019				2020				2021			
	No. catheter-days	No. of infections	SIR	National comparison	No. catheter-days	No. of infections	SIR	National comparison	No. catheter-days	No. of infections	SIR	National comparison
Animas Surgical Hospital	N/A			--- ¹	N/A			--- ¹	58	0	N/A	Suppressed ²
Avista Adventist Hospital	N/A			--- ¹	N/A			--- ¹	1,702	1	0.6	Not significant
Banner Fort Collins Medical Center	N/A			--- ¹	N/A			--- ¹	471	0	N/A	Suppressed ²
Boulder Community Foothills Hospital	N/A			--- ¹	N/A			--- ¹	5,289	3	0.8	Not significant
Castle Rock Adventist Hospital	N/A			--- ¹	N/A			--- ¹	2,369	2	1.6	Not significant
Colorado Plains Medical Center	N/A			--- ¹	N/A			--- ¹	544	0	N/A	Suppressed ²
Community Hospital	N/A			--- ¹	N/A			--- ¹	1,363	2	N/A	Suppressed ²
Delta County Memorial Hospital	N/A			--- ¹	N/A			--- ¹	1,273	1	N/A	Suppressed ²
Denver Health And Hospital Authority	N/A			--- ¹	N/A			--- ¹	12,508	18	0.9	Not significant
Exempla Lutheran Medical Center	N/A			--- ¹	N/A			--- ¹	5,456	3	0.6	Not significant
Exempla Saint Joseph Hospital	N/A			--- ¹	N/A			--- ¹	6,851	4	0.5	Not significant
Grandview Hospital	N/A			--- ¹	N/A			--- ¹	65	1	N/A	Suppressed ²
Littleton Adventist Hospital	N/A			--- ¹	N/A			--- ¹	4,746	2	0.5	Not significant
Longmont United Hospital	N/A			--- ¹	N/A			--- ¹	1,555	2	1.2	Not significant
Longs Peak Hospital	N/A			--- ¹	N/A			--- ¹	3,223	3	1.8	Not significant
Mckee Medical Center	N/A			--- ¹	N/A			--- ¹	1,312	0	N/A	Suppressed ²
Medical Center Of The Rockies	N/A			--- ¹	N/A			--- ¹	9,521	7	1.0	Not significant
Memorial Health System	N/A			--- ¹	N/A			--- ¹	14,999	7	0.3	Better
Memorial Hospital North	N/A			--- ¹	N/A			--- ¹	3,953	1	0.3	Not significant

Facility name	2019				2020				2021			
	No. catheter-days	No. of infections	SIR	National comparison	No. catheter-days	No. of infections	SIR	National comparison	No. catheter-days	No. of infections	SIR	National comparison
Mercy Regional Medical Center	N/A			--- ¹	N/A			--- ¹	3,201	5	2.9	Worse
Montrose Memorial Hospital	N/A			--- ¹	N/A			--- ¹	1,939	2	2.0	Not significant
National Jewish Health	N/A			--- ¹	N/A			--- ¹	0	---	N/A	Suppressed ²
North Colorado Medical Center	N/A			--- ¹	N/A			--- ¹	8,070	15	1.5	Not significant
North Suburban Medical Center	N/A			--- ¹	N/A			--- ¹	2,769	2	0.7	Not significant
Ortho Colorado	N/A			--- ¹	N/A			--- ¹	1,426	0	N/A	Suppressed ²
Parker Adventist Hospital	N/A			--- ¹	N/A			--- ¹	5,876	0	0.0	Better
Parkview Medical Center	N/A			--- ¹	N/A			--- ¹	13,883	3	0.2	Better
Penrose St. Francis Health Services	N/A			--- ¹	N/A			--- ¹	10,271	4	0.3	Better
Platte Valley Medical Center	N/A			--- ¹	N/A			--- ¹	3,881	5	1.8	Not significant
Porter Adventist Hospital	N/A			--- ¹	N/A			--- ¹	6,352	2	0.4	Not significant
Poudre Valley Health System	N/A			--- ¹	N/A			--- ¹	5,712	11	1.5	Not significant
Presbyterian/St Luke's Medical Center	N/A			--- ¹	N/A			--- ¹	3,543	7	1.6	Not significant
Rose Medical Center	N/A			--- ¹	N/A			--- ¹	3,484	3	0.7	Not significant
Saint Anthony North Health Campus	N/A			--- ¹	N/A			--- ¹	5,972	2	0.3	Not significant
SCL Health Good Samaritan Medical Center	N/A			--- ¹	N/A			--- ¹	6,450	5	0.9	Not significant
Sky Ridge Medical Center	N/A			--- ¹	N/A			--- ¹	6,201	10	1.3	Not significant
SLV Regional Medical Center	N/A			--- ¹	N/A			--- ¹	1,334	1	N/A	Suppressed ²
St. Anthony Hospital	N/A			--- ¹	N/A			--- ¹	16,070	10	0.3	Better
St. Anthony Summit Medical Center	N/A			--- ¹	N/A			--- ¹	184	0	N/A	Suppressed ²

Facility name	2019				2020				2021			
	No. catheter-days	No. of infections	SIR	National comparison	No. catheter-days	No. of infections	SIR	National comparison	No. catheter-days	No. of infections	SIR	National comparison
St. Francis Medical Center	N/A			--- ¹	N/A			--- ¹	3,694	2	0.4	Not significant
St. Mary's Hospital	N/A			--- ¹	N/A			--- ¹	9,099	6	0.5	Not significant
St. Mary Corwin Medical Center	N/A			--- ¹	N/A			--- ¹	970	0	N/A	Suppressed ²
Sterling Regional Medcenter	N/A			--- ¹	N/A			--- ¹	562	0	N/A	Suppressed ²
Swedish Medical Center	N/A			--- ¹	N/A			--- ¹	10,195	3	0.2	Better
The Medical Center of Aurora	N/A			--- ¹	N/A			--- ¹	7,596	4	0.4	Not significant
UCHealth Broomfield Hospital	N/A			--- ¹	N/A			--- ¹	140	0	N/A	Suppressed ²
UCHealth Greeley Hospital	N/A			--- ¹	N/A			--- ¹	3,208	4	2.4	Not significant
UCHealth Highlands Ranch Hospital	N/A			--- ¹	N/A			--- ¹	4,234	13	4.4	Worse
UCHealth Yampa Valley Medical Center	N/A			--- ¹	N/A			--- ¹	199	1	N/A	Suppressed ²
University Of Colorado Hospital	N/A			--- ¹	N/A			--- ¹	36,931	31	0.5	Better
Vail Health Hospital	N/A			--- ¹	N/A			--- ¹	1,202	1	N/A	Suppressed ²
Valley View Hospital	N/A			--- ¹	N/A			--- ¹	1,793	0	N/A	Suppressed ²

¹CAUTI reporting began in 2021; ²Calculation of comparison is not available due to data suppression for one of the following reasons: no. catheter-days fewer than 50 or the predicted number of infections was less than one.

SIR, standardized infection ratio (ratio of observed to predicted infection rates); N/A, not applicable.

Data source: National Healthcare Safety Network.

Table 13. Catheter-associated urinary tract infections in acute care hospitals by location type – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	Unit type	2019				2020				2021			
		No. catheter-days	No. of infections	SIR	National comparison	No. catheter-days	No. of infections	SIR	National comparison	No. Catheter-Days	No. of infections	SIR	National comparison
Animas Surgical Hospital	Adult and pediatric inpatient wards	N/A		---	N/A		---	58	0	N/A	Suppressed ²		
Avista Adventist Hospital	Adult and pediatric critical care	N/A		---	N/A		---	813	0	N/A	Suppressed ²		
	Adult and pediatric inpatient wards	N/A		---	N/A		---	889	1	N/A	Suppressed ²		
Banner Fort Collins Medical Center	Adult and pediatric inpatient wards	N/A		---	N/A		---	471	0	N/A	Suppressed ²		
Boulder Community Foothills Hospital	Adult and pediatric critical care	N/A		---	N/A		---	2,283	0	0.0	Not significant		
	Adult and pediatric inpatient wards	N/A		---	N/A		---	3,006	3	1.5	Not significant		
Castle Rock Adventist Hospital	Adult and pediatric critical care	N/A		---	N/A		---	1,378	2	N/A	Suppressed ²		
	Adult and pediatric inpatient wards	N/A		---	N/A		---	991	0	N/A	Suppressed ²		
Colorado Plains Medical Center	Adult and pediatric critical care	N/A		---	N/A		---	64	0	N/A	Suppressed ²		
	Adult and pediatric inpatient wards	N/A		---	N/A		---	480	0	N/A	Suppressed ²		
Community Hospital	Adult and pediatric critical care	N/A		---	N/A		---	646	0	N/A	Suppressed ²		
	Adult and pediatric inpatient wards	N/A		---	N/A		---	717	2	N/A	Suppressed ²		
Delta County Memorial Hospital	Adult and pediatric critical care	N/A		---	N/A		---	579	0	N/A	Suppressed ²		
	Adult and pediatric inpatient wards	N/A		---	N/A		---	694	1	N/A	Suppressed ²		

Facility name	Unit type	2019				2020				2021			
		No. catheter-days	No. of infections	SIR	National comparison	No. catheter-days	No. of infections	SIR	National comparison	No. Catheter-Days	No. of infections	SIR	National comparison
Denver Health And Hospital Authority	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	6,666	14	1.1	Not significant
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	5,842	4	0.6	Not significant
Exempla Lutheran Medical Center	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	2,957	2	0.8	Not significant
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	2,499	1	0.5	Not significant
Exempla Saint Joseph Hospital	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	4,651	2	0.3	Not significant
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	2,200	2	0.7	Not significant
Grandview Hospital	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	23	---	N/A	Suppressed ²
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	42	---	N/A	Suppressed ²
Littleton Adventist Hospital	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	3,209	0	0.0	Not significant
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	1,537	2	1.6	Not significant
Longmont United Hospital	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	1,555	2	1.2	Not significant
Longs Peak Hospital	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	1,843	3	3.0	Not significant
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	1,380	0	N/A	Suppressed ²
Mckee Medical Center	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	1,312	0	N/A	Suppressed ²
Medical Center Of The Rockies	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	5,574	6	1.5	Not significant

Facility name	Unit type	2019				2020				2021			
		No. catheter-days	No. of infections	SIR	National comparison	No. catheter-days	No. of infections	SIR	National comparison	No. Catheter-Days	No. of infections	SIR	National comparison
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	3,947	1	0.4	Not significant
Memorial Health System	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	10,274	4	0.3	Better
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	4,725	3	0.5	Not significant
Memorial Hospital North	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	1,642	0	0.0	Not significant
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	2,311	1	0.5	Not significant
Mercy Regional Medical Center	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	2,479	5	3.7	Worse
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	722	0	N/A	Suppressed ²
Montrose Memorial Hospital	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	950	2	N/A	Suppressed ²
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	989	0	N/A	Suppressed ²
National Jewish Health	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	0	---	N/A	Suppressed ²
North Colorado Medical Center	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	4,350	12	2.1	Worse
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	3,584	3	0.7	Not significant
North Suburban Medical Center	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	1,063	1	0.9	Not significant
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	1,706	1	0.6	Not significant
Ortho Colorado	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	1,426	0	N/A	Suppressed ²

Facility name	Unit type	2019				2020				2021			
		No. catheter-days	No. of infections	SIR	National comparison	No. catheter-days	No. of infections	SIR	National comparison	No. Catheter-Days	No. of infections	SIR	National comparison
Parker Adventist Hospital	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	3,524	0	0.0	Better
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	2,352	0	0.0	Not significant
Parkview Medical Center	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	8,385	2	0.2	Better
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	5,498	1	0.2	Better
Penrose St. Francis Health Services	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	5,843	3	0.4	Not significant
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	4,428	1	0.2	Better
Platte Valley Medical Center	Adult and pediatric critical care	N/A				N/A				1,825	2	1.4	Not significant
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	2,056	3	2.2	Not significant
Porter Adventist Hospital	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	4,592	1	0.2	Not significant
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	1,760	1	0.7	Not significant
Poudre Valley Health System	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	2,957	9	2.3	Worse
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	2,755	2	0.6	Not significant
Presbyterian/St Luke's Medical Center	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	2,608	6	1.7	Not significant
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	935	1	N/A	Suppressed ²
Rose Medical Center	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	1,853	0	0.0	Not significant

Facility name	Unit type	2019				2020				2021			
		No. catheter-days	No. of infections	SIR	National comparison	No. catheter-days	No. of infections	SIR	National comparison	No. Catheter-Days	No. of infections	SIR	National comparison
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	1,631	3	1.6	Not significant
Saint Anthony North Health Campus	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	3,104	1	0.3	Not significant
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	2,868	1	0.4	Not significant
SCL Health Good Samaritan Medical Center	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	3,385	3	1.0	Not significant
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	3,065	2	0.8	Not significant
Sky Ridge Medical Center	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	3,519	6	1.3	Not significant
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	2,682	4	1.3	Not significant
SLV Regional Medical Center	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	471	0	N/A	Suppressed ²
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	863	1	N/A	Suppressed ²
St. Anthony Hospital	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	10,133	6	0.2	Better
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	5,937	4	0.6	Not significant
St. Anthony Summit Medical Center	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	184	0	N/A	Suppressed ²
St. Francis Medical Center	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	1,795	0	0.0	Not significant
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	1,899	2	0.9	Not significant
St. Mary's Hospital	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	5,935	5	0.6	Not significant

Facility name	Unit type	2019				2020				2021			
		No. catheter-days	No. of infections	SIR	National comparison	No. catheter-days	No. of infections	SIR	National comparison	No. Catheter-Days	No. of infections	SIR	National comparison
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	3,164	1	0.3	Not significant
St. Mary Corwin Medical Center	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	970	0	N/A	Suppressed ²
Sterling Regional Medcenter	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	129	0	N/A	Suppressed ²
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	433	0	N/A	Suppressed ²
Swedish Medical Center	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	7,763	3	0.2	Better
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	2,432	0	0.0	Not significant
The Medical Center of Aurora	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	4,917	4	0.6	Not significant
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	2,679	0	0.0	Better
UCHealth Broomfield Hospital	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	140	0	N/A	Suppressed ²
UCHealth Greeley Hospital	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	1,771	4	N/A	Suppressed ²
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	1,437	0	N/A	Suppressed ²
UCHealth Highlands Ranch Hospital	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	2,606	10	5.2	Worse
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	1,628	3	2.8	Not significant
UCHealth Yampa Valley Medical Center	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	N/A			
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	199	1	N/A	Suppressed ²

Facility name	Unit type	2019				2020				2021			
		No. catheter-days	No. of infections	SIR	National comparison	No. catheter-days	No. of infections	SIR	National comparison	No. Catheter-Days	No. of infections	SIR	National comparison
University Of Colorado Hospital	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	23,212	19	0.4	Better
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	13,719	12	0.7	Not significant
Vail Health Hospital	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	516	0	N/A	Suppressed ²
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	686	1	N/A	Suppressed ²
Valley View Hospital	Adult and pediatric critical care	N/A			--- ¹	N/A			--- ¹	805	0	N/A	Suppressed ²
	Adult and pediatric inpatient wards	N/A			--- ¹	N/A			--- ¹	988	0	N/A	Suppressed ²

¹CAUTI reporting began in 2021; ²Calculation of comparison is not available due to data suppression for one of the following reasons: no. catheter-days fewer than 50, the predicted number of infections was less than one.

SIR, standardized infection ratio (ratio of observed to predicted infection rates); N/A, not applicable.

Data source: National Healthcare Safety Network.

Critical care are all adult and pediatric intensive care units.

Wards include all adult and pediatric medical, surgical, and medical-surgical wards, excluding inpatient rehabilitation wards.

Catheter-associated urinary tract infections in inpatient rehabilitation facilities

Seven inpatient rehabilitation facilities reported CAUTI data in 2021 (Table 14). Five of these reported a rate of CAUTI that was similar to (not significantly different from) the national baseline. National comparison was not possible for two facilities because the predicted number of CAUTIs was less than one.

Table 14. Catheter-associated urinary tract infections in inpatient rehabilitation facilities – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	2019				2020				2021			
	No. catheter-days	No. of infections	SIR	National comparison	No. catheter-days	No. of infections	SIR	National comparison	No. catheter-days	No. of infections	SIR	National comparison
Encompass Health Rehabilitation Hospital Of Colorado Springs	N/A			--- ¹	N/A			--- ¹	1,254	1	0.5	Not significant
Encompass Health Rehabilitation Hospital Of Littleton	N/A			--- ¹	N/A			--- ¹	1,004	1	0.9	Not significant
Northern Colorado Rehabilitation Hospital	N/A			--- ¹	N/A			--- ¹	990	3	2.8	Not significant
Reunion Rehabilitation Hospital	N/A			--- ¹	N/A			--- ¹	450	0	N/A	Suppressed ²
Spalding Rehabilitation Hospital	N/A			--- ¹	N/A			--- ¹	567	2	1.7	Not significant
Spalding Rehabilitation Hospital At PSL Medical Center	N/A			--- ¹	N/A			--- ¹	360	1	N/A	Suppressed ¹
Vibra Rehabilitation Hospital Of Denver	N/A			--- ¹	N/A			--- ¹	680	1	0.9	Not significant

¹CAUTI reporting began in 2021; ²Calculation of comparison is not available due to data suppression for one of the following reasons: no. catheter-days fewer than 50 or the predicted number of infections was less than one.

SIR, standardized infection ratio (ratio of observed to predicted infection rates); N/A, not applicable.

Data source: National Healthcare Safety Network.

Catheter-associated urinary tract infections in long-term acute care hospitals

Six long-term acute care hospitals reported CAUTI data in 2021 (**Table 15**). One long-term acute care hospital reported a rate of CAUTI that was lower (better) than the national baseline, and one reported a rate of CAUTI that was higher (worse) than the national baseline. Rates of CAUTI were similar to (not significantly different from) the national baseline in four long-term acute care hospitals.

Table 15. Catheter-associated urinary tract infections in long-term acute care hospitals – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	2019				2020				2021			
	No. catheter-days	No. of infections	SIR	National comparison	No. catheter-days	No. of infections	SIR	National comparison	No. catheter-days	No. of infections	SIR	National comparison
Advanced Care Hospital Of Northern Colorado	N/A			--- ¹	N/A			--- ¹	2,718	3	0.8	Not significant
Craig Hospital	N/A			--- ¹	N/A			--- ¹	7,743	40	2.4	Worse
Kindred Hospital Aurora	N/A			--- ¹	N/A			--- ¹	2,537	1	0.2	Not significant
Kindred Hospital Denver	N/A			--- ¹	N/A			--- ¹	4,620	10	1.0	Not significant
Post Acute Medical Specialty Hospital Of Denver	N/A			--- ¹	N/A			--- ¹	5,316	3	0.3	Better
Vibra Hospital	N/A			--- ¹	N/A			--- ¹	1,354	2	0.6	Not significant

¹CAUTI reporting began in 2021.

Central line-associated bloodstream infections

Background

Central line-associated bloodstream infections (CLABSIs) are infections in the blood associated with specific intravascular catheters or central lines. A central line is an intravascular catheter (tube in a vein or artery) that ends at, or close to, the heart or in one of the great vessels (e.g., aorta, superior vena cava). A peripheral line is a similar tube in a vein or artery that does not enter a great vessel, a smaller diameter tube, and is typically used for shorter periods of intravenous access. Both central lines and peripheral lines can be used to infuse fluids or medications, withdraw blood, or monitor fluid volume in patients. Central lines are typically placed when intravenous access is needed for a longer time, larger volumes of fluids, or access for dialysis is needed. Central lines can be either permanent or temporary. Permanent lines are those that are tunneled under the skin before entering a great vessel. These can include certain dialysis lines and implanted catheters such as a port. Temporary lines are those that are not tunneled.

All patients with central lines are at risk for CLABSIs. However, certain groups are at higher risk for infection: the elderly, neonates, dialysis patients, patients with weak immune systems (e.g., cancer patients, transplant patients), patients with diabetes, and patients with burn injuries.¹⁰⁻¹¹

Based on the high incidence and potential severity of CLABSIs, in 2017 Colorado's HAI Advisory Committee recommended the addition of acute care hospital wards to Colorado reporting requirements for acute care hospitals (critical access hospitals and stand-alone children's hospitals exempt) for data collected since 2015. In 2018 the committee recommended inclusion of this data in the annual report.

Colorado requires that all adult and pediatric critical care units (CCUs) and selected wards (medical, surgical, medical/surgical, and rehabilitation) within acute care hospitals; neonatal critical care units (levels II/III, III, and IV); long-term acute care hospitals; and inpatient rehabilitation facilities report CLABSI data into the National Healthcare Safety Network (NHSN). Critical access hospitals report critical care unit data only. Stand-alone children's hospitals report neonatal critical care unit data only.⁶

Tables included in this section are divided by facility type. **Table 16** shows acute care hospital CLABSI data with units combined. **Table 17** shows acute care hospital CLABSI data with location types (CCUs, wards, and neonatal critical care units) separated. **Table 18** shows CLABSI data from critical access hospital CCUs. **Table 19** shows CLABSI data from inpatient rehabilitation facilities. **Table 20** shows CLABSI data from long-term acute care hospitals. All tables list reporting facilities' number of central line-days per year, number of CLABSI infections, standardized infection ratios (SIRs), and comparisons to the national baseline. The number of central line-days is the total number of days a central line was in place for patients in the unit during the reporting period (for example, if three patients each had a central line for 10 days, the number of central line-days is 30). Additional details are listed in **Appendix C**.

The three categories summarizing how a Colorado facility compares to the national infection baseline for that unit are:

- Statistically lower rate of infection than the national baseline (better).
- Statistically similar rate of infection to the national baseline (not significant).

- Statistically higher rate of infection than the national baseline (worse).⁸

Data were suppressed if the predicted number of infections was less than one or fewer than 50 central-line days were reported in the calendar year.

Central line-associated bloodstream infections in acute care hospitals

Fifty-two acute care hospitals reported CLABSI data in 2021 (**Table 16**). Four acute care hospitals reported a rate of CLABSI that was lower (better) than national baseline, and two reported a rate of CLABSI that was higher (worse) than the national baseline. Twenty-nine acute care hospitals, including a freestanding children's hospital, reported a rate of CLABSI that were similar to (not significantly different from) the national baseline. Rates of CLABSI for 17 acute care hospitals were suppressed. In 2021, 44 acute care hospitals reported CLABSI on adult and pediatric critical care units, 19 reported CLABSI on neonatal critical care units, and 50 reported CLABSI on adult and pediatric inpatient wards (**Table 17**). One acute care hospital reported a rate of CLABSI on critical care units that was lower (better) than the national baseline, and four reported a rate of CLABSI on critical care units that was higher (worse) than the national baseline. Two acute care hospitals reported a rate of CLABSI on inpatient wards that was lower (better) than the national baseline (**Table 17**). No acute care hospitals, including a freestanding children's hospital, reported rates of CLABSI on neonatal critical care units that were lower (better) or higher (worse) than the national baseline, although the data were suppressed for most.

Table 16. Central line-associated bloodstream infections in acute care hospitals excluding inpatient rehabilitation wards – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	2019				2020				2021			
	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison
Animas Surgical Hospital	19	---	N/A	Suppressed ¹	16	---	N/A	Suppressed ¹	31	---	N/A	Suppressed ¹
Avista Adventist Hospital	876	0	N/A	Suppressed ¹	985	0	N/A	Suppressed ¹	1,202	0	0.0	Not significant
Banner Fort Collins Medical Center	297	0	N/A	Suppressed ¹	358	0	N/A	Suppressed ¹	497	0	N/A	Suppressed ¹
Boulder Community Foothills Hospital	4,677	1	0.3	Not significant	4,470	4	1.3	Not significant	4,795	3	0.9	Not significant
Castle Rock Adventist Hospital	1,043	0	N/A	Suppressed ¹	1,255	1	N/A	Suppressed ¹	2,043	1	0.8	Not significant
Children's Hospital Colorado ²	5,777	14	2.2	Worse	4,921	9	1.7	Not significant	6,383	9	1.3	Not significant
Colorado Plains Medical Center	121	0	N/A	Suppressed ¹	129	0	N/A	Suppressed ¹	148	0	N/A	Suppressed ¹
Community Hospital	1,132	1	N/A	Suppressed ¹	1,012	0	N/A	Suppressed ¹	1,588	2	N/A	Suppressed ¹
Delta County Memorial Hospital	584	0	N/A	Suppressed ¹	655	0	N/A	Suppressed ¹	884	0	N/A	Suppressed ¹
Denver Health And Hospital Authority	9,850	5	0.5	Not significant	13,219	10	0.7	Not significant	11,998	8	0.6	Not significant
Exempla Lutheran Medical Center	5,828	6	1.3	Not significant	5,456	4	0.9	Not significant	7,138	4	0.7	Not significant
Exempla Saint Joseph Hospital	7,543	5	0.6	Not significant	6,907	17	2.2	Worse	7,811	8	0.9	Not significant
Grandview Hospital	45	---	N/A	Suppressed ¹	25	---	N/A	Suppressed ¹	61	0	N/A	Suppressed ¹
Littleton Adventist Hospital	3,478	2	0.7	Not significant	4,626	1	0.3	Not significant	4,465	4	1.1	Not significant
Longmont United Hospital	2,444	2	0.8	Not significant	2,236	2	0.9	Not significant	1,463	1	0.7	Not significant

Facility name	2019				2020				2021			
	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison
Longs Peak Hospital	1,876	2	1.7	Not significant	1,883	1	0.9	Not significant	3,563	4	1.8	Not significant
Mckee Medical Center	502	1	N/A	Suppressed ¹	806	0	N/A	Suppressed ¹	994	0	N/A	Suppressed ¹
Medical Center Of The Rockies	10,315	3	0.4	Not significant	11,402	5	0.6	Not significant	14,281	3	0.3	Better
Memorial Health System	14,784	7	0.4	Better	16,511	10	0.6	Not significant	17,699	15	0.8	Not significant
Memorial Hospital North	1,900	0	0.0	Not significant	3,238	1	0.3	Not significant	4,547	0	0.0	Better
Mercy Regional Medical Center	2,207	0	0.0	Not significant	2,840	1	0.5	Not significant	3,795	3	1.2	Not significant
Montrose Memorial Hospital	568	0	N/A	Suppressed ¹	1,036	0	N/A	Suppressed ¹	1,246	0	N/A	Suppressed ¹
National Jewish Health	98	0	N/A	Suppressed ¹	240	0	N/A	Suppressed ¹	189	0	N/A	Suppressed ¹
North Colorado Medical Center	5,650	1	0.2	Better	8,026	4	0.5	Not significant	8,043	4	0.5	Not significant
North Suburban Medical Center	3,488	2	0.8	Not significant	3,864	2	0.6	Not significant	3,556	3	0.9	Not significant
Ortho Colorado	55	0	N/A	Suppressed ¹	50	0	N/A	Suppressed ¹	53	0	N/A	Suppressed ¹
Parker Adventist Hospital	3,277	5	1.7	Not significant	4,677	3	0.7	Not significant	6,326	2	0.3	Not significant
Parkview Medical Center	6,895	5	0.8	Not significant	5,904	3	0.5	Not significant	6,387	5	0.8	Not significant
Penrose St. Francis Health Services	6,511	4	0.6	Not significant	7,518	3	0.4	Not significant	9,935	5	0.5	Not significant
Platte Valley Medical Center	426	0	N/A	Suppressed ¹	629	4	N/A	Suppressed ¹	3,310	5	2.1	Not significant
Porter Adventist Hospital	5,618	7	1.5	Not significant	5,591	3	0.7	Not significant	8,389	5	0.7	Not significant
Poudre Valley Health System	8,710	1	0.1	Better	8,376	5	0.6	Not significant	9,867	4	0.4	Better
Presbyterian/St Luke's Medical Center	18,199	12	0.5	Better	17,290	18	0.9	Not significant	15,543	17	0.9	Not significant

Facility name	2019				2020				2021			
	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison
Rose Medical Center	4,217	4	0.9	Not significant	4,314	6	1.3	Not significant	4,540	4	0.8	Not significant
Saint Anthony North Health Campus	4,530	4	1.0	Not significant	5,532	5	1.0	Not significant	6,555	11	1.8	Not significant
SCL Health Good Samaritan Medical Center	3,980	1	0.4	Not significant	4,599	8	2.5	Worse	4,804	9	2.6	Worse
Sky Ridge Medical Center	5,615	3	0.5	Not significant	7,210	3	0.4	Not significant	7,651	3	0.4	Not significant
SLV Regional Medical Center	666	1	N/A	Suppressed ¹	421	0	N/A	Suppressed ¹	394	0	N/A	Suppressed ¹
St. Anthony Hospital	12,162	8	0.6	Not significant	14,527	6	0.4	Better	16,519	19	1.1	Not significant
St. Anthony Summit Medical Center	98	0	N/A	Suppressed ¹	75	0	N/A	Suppressed ¹	95	0	N/A	Suppressed ¹
St. Francis Medical Center	3,706	4	1.0	Not significant	3,003	1	0.3	Not significant	3,369	0	0.0	Better
St. Mary's Hospital	6,013	5	0.8	Not significant	6,439	8	1.1	Not significant	5,715	9	1.4	Not significant
St. Mary Corwin Medical Center	273	0	N/A	Suppressed ¹	411	1	N/A	Suppressed ¹	474	0	N/A	Suppressed ¹
Sterling Regional Medcenter	235	0	N/A	Suppressed ¹	327	0	N/A	Suppressed ¹	348	2	N/A	Suppressed ¹
Swedish Medical Center	8,382	2	0.2	Better	10,480	4	0.3	Better	9,526	6	0.5	Not significant
The Medical Center of Aurora	10,264	4	0.4	Better	10,962	9	0.8	Not significant	8,552	13	1.4	Not significant
UCHealth Broomfield Hospital	1,655	0	N/A	Suppressed ¹	1,388	1	N/A	Suppressed ¹	1,503	1	N/A	Suppressed ¹
UCHealth Greeley Hospital	937	0	N/A	Suppressed ¹	2,927	2	1.1	Not significant	3,803	0	0.0	Not significant
UCHealth Highlands Ranch Hospital	997	1	N/A	Suppressed ¹	3,644	4	1.8	Not significant	5,953	10	2.4	Worse
UCHealth Yampa Valley Medical Center	319	1	N/A	Suppressed ¹	234	0	N/A	Suppressed ¹	163	0	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison
University Of Colorado Hospital	34,584	21	0.6	Better	41,522	49	1.1	Not significant	43,083	49	1.1	Not significant
Vail Health Hospital	182	0	N/A	Suppressed ¹	127	0	N/A	Suppressed ¹	389	0	N/A	Suppressed ¹
Valley View Hospital	1,037	0	N/A	Suppressed ¹	929	1	N/A	Suppressed ¹	1,145	0	N/A	Suppressed ¹

¹Calculation of comparison is not available due to data suppression for one of the following reasons: no. central line-days fewer than 50 or the predicted number of infections was less than one; ²Data from neonatal critical care units only.

SIR, standardized infection ratio (ratio of observed to predicted infection rates); N/A, not applicable.

Data source: National Healthcare Safety Network.

Table 17. Central line-associated bloodstream infections in acute care hospitals by location type – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	Unit type	2019				2020				2021			
		No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison
Animas Surgical Hospital	Adult and pediatric inpatient wards	19	---	N/A	Suppressed ¹	16	---	N/A	Suppressed ¹	31	---	N/A	Suppressed ¹
Avista Adventist Hospital	Adult and pediatric critical care	465	0	N/A	Suppressed ¹	639	0	N/A	Suppressed ¹	699	0	N/A	Suppressed ¹
	Adult and pediatric inpatient wards	372	0	N/A	Suppressed ¹	306	0	N/A	Suppressed ¹	429	0	N/A	Suppressed ¹
	Neonatal critical care	39	---	N/A	Suppressed ¹	40	---	N/A	Suppressed ¹	74	0	N/A	Suppressed ¹
Banner Fort Collins Medical Center	Adult and pediatric inpatient wards	297	0	N/A	Suppressed ¹	358	0	N/A	Suppressed ¹	497	0	N/A	Suppressed ¹
Boulder Community Foothills Hospital	Adult and pediatric critical care	1,895	0	0.0	Not significant	1,981	4	2.7	Not significant	2,321	2	1.1	Not significant
	Adult and pediatric inpatient wards	2,782	1	0.6	Not significant	2,489	0	0.0	Not significant	2,474	1	0.6	Not significant
Castle Rock Adventist Hospital	Adult and pediatric critical care	518	0	N/A	Suppressed ¹	730	1	N/A	Suppressed ¹	1,322	1	N/A	Suppressed ¹
	Adult and pediatric inpatient wards	524	0	N/A	Suppressed ¹	519	0	N/A	Suppressed ¹	703	0	N/A	Suppressed ¹
	Neonatal critical care	1	---	N/A	Suppressed ¹	6	---	N/A	Suppressed ¹	18	---	N/A	Suppressed ¹
Children's Hospital Colorado	Neonatal critical care	5,777	14	2.2	Worse	4,921	9	1.7	Not significant	6,383	9	1.3	Not significant
Colorado Plains Medical Center	Adult and pediatric critical care	50	0	N/A	Suppressed ¹	20	---	N/A	Suppressed ¹	34	---	N/A	Suppressed ¹
	Adult and pediatric inpatient wards	71	0	N/A	Suppressed ¹	109	0	N/A	Suppressed ¹	114	0	N/A	Suppressed ¹
Community Hospital	Adult and pediatric critical care	523	0	N/A	Suppressed ¹	540	0	N/A	Suppressed ¹	684	1	N/A	Suppressed ¹

Facility name	Unit type	2019				2020				2021			
		No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison
	Adult and pediatric inpatient wards	609	1	N/A	Suppressed ¹	472	0	N/A	Suppressed ¹	904	1	N/A	Suppressed ¹
Delta County Memorial Hospital	Adult and pediatric critical care	259	0	N/A	Suppressed ¹	343	0	N/A	Suppressed ¹	555	0	N/A	Suppressed ¹
	Adult and pediatric inpatient wards	325	0	N/A	Suppressed ¹	312	0	N/A	Suppressed ¹	329	0	N/A	Suppressed ¹
Denver Health And Hospital Authority	Adult and pediatric critical care	3,435	3	0.7	Not significant	5,911	6	0.8	Not significant	4,992	5	0.8	Not significant
	Adult and pediatric inpatient wards	5,560	1	0.2	Better	6,482	3	0.5	Not significant	6,112	3	0.5	Not significant
	Inpatient rehabilitation ward	41	---	N/A	Suppressed ¹	84	0	N/A	Suppressed ¹	N/A			
	Neonatal critical care	855	1	1.0	Not significant	826	1	1.0	Not significant	894	0	0.0	Not significant
Exempla Lutheran Medical Center	Adult and pediatric critical care	3,291	5	1.8	Not significant	3,010	4	1.5	Not significant	3,848	4	1.2	Not significant
	Adult and pediatric inpatient wards	2,471	1	0.5	Not significant	2,363	0	0.0	Not significant	3,247	0	0.0	Not significant
	Neonatal critical care	66	0	N/A	Suppressed ¹	83	0	N/A	Suppressed ¹	43	---	N/A	Suppressed ¹
Exempla Saint Joseph Hospital	Adult and pediatric critical care	3,687	2	0.5	Not significant	4,114	12	2.6	Worse	4,662	7	1.3	Not significant
	Adult and pediatric inpatient wards	2,845	1	0.4	Not significant	1,791	4	2.3	Not significant	2,166	1	0.5	Not significant
	Neonatal critical care	1,011	2	1.6	Not significant	1,002	1	0.7	Not significant	983	0	0.0	Not significant
Grandview Hospital	Adult and pediatric critical care	2	---	N/A	Suppressed ¹	14	---	N/A	Suppressed ¹	15	---	N/A	Suppressed ¹
	Adult and pediatric inpatient wards	43	---	N/A	Suppressed ¹	11	---	N/A	Suppressed ¹	46	---	N/A	Suppressed ¹
Littleton Adventist Hospital	Adult and pediatric critical care	2,190	2	1.1	Not significant	2,992	1	0.4	Not significant	3,108	4	1.5	Not significant

Facility name	Unit type	2019				2020				2021			
		No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison
	Adult and pediatric inpatient wards	1,178	0	N/A	Suppressed ¹	1,529	0	0.0	Not significant	1,242	0	N/A	Suppressed ¹
	Neonatal critical care	110	0	N/A	Suppressed ¹	105	0	N/A	Suppressed ¹	115	0	N/A	Suppressed ¹
Longmont United Hospital	Adult and pediatric critical care	2,442	2	0.8	Not significant	2,233	2	0.9	Not significant	1,463	1	0.7	Not significant
	Neonatal critical care	2	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Longs Peak Hospital	Adult and pediatric critical care	652	1	N/A	Suppressed ¹	809	1	N/A	Suppressed ¹	2,004	2	1.5	Not significant
	Adult and pediatric inpatient wards	1,224	1	N/A	Suppressed ¹	1,074	0	N/A	Suppressed ¹	1,559	2	N/A	Suppressed ¹
Mckee Medical Center	Adult and pediatric inpatient wards	502	1	N/A	Suppressed ¹	806	0	N/A	Suppressed ¹	994	0	N/A	Suppressed ¹
Medical Center Of The Rockies	Adult and pediatric critical care	4,458	1	0.3	Not significant	5,103	3	0.8	Not significant	6,890	2	0.4	Not significant
	Adult and pediatric inpatient wards	5,857	2	0.5	Not significant	6,299	2	0.5	Not significant	7,391	1	0.2	Not significant
Memorial Health System	Adult and pediatric critical care	7,225	3	0.4	Better	9,651	9	0.8	Not significant	10,594	11	0.9	Not significant
	Adult and pediatric inpatient wards	6,663	2	0.3	Not significant	6,779	1	0.2	Better	7,061	4	0.6	Not significant
	Inpatient rehabilitation ward	324	0	N/A	Suppressed ¹	467	0	N/A	Suppressed ¹	532	0	N/A	Suppressed ¹
	Neonatal critical care	896	2	1.7	Not significant	81	0	N/A	Suppressed ¹	44	---	N/A	Suppressed ¹
Memorial Hospital North	Adult and pediatric critical care	118	0	N/A	Suppressed ¹	1,266	1	0.8	Not significant	1,969	0	0.0	Not significant
	Adult and pediatric inpatient wards	1,782	0	0.0	Not significant	1,972	0	0.0	Not significant	2,578	0	0.0	Not significant
Mercy Regional Medical Center	Adult and pediatric critical care	1,424	0	N/A	Suppressed ¹	2,119	1	0.7	Not significant	2,586	3	1.7	Not significant

Facility name	Unit type	2019				2020				2021			
		No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison
	Adult and pediatric inpatient wards	783	0	N/A	Suppressed ¹	721	0	N/A	Suppressed ¹	1,209	0	N/A	Suppressed ¹
Montrose Memorial Hospital	Adult and pediatric critical care	261	0	N/A	Suppressed ¹	481	0	N/A	Suppressed ¹	667	0	N/A	Suppressed ¹
	Adult and pediatric inpatient wards	307	0	N/A	Suppressed ¹	555	0	N/A	Suppressed ¹	579	0	N/A	Suppressed ¹
	Inpatient rehabilitation ward	127	0	N/A	Suppressed ¹	69	0	N/A	Suppressed ¹	93	0	N/A	Suppressed ¹
National Jewish Health	Adult and pediatric inpatient wards	98	0	N/A	Suppressed ¹	240	0	N/A	Suppressed ¹	189	0	N/A	Suppressed ¹
North Colorado Medical Center	Adult and pediatric critical care	2,360	0	0.0	Not significant	4,327	4	0.8	Not significant	4,611	4	0.8	Not significant
	Adult and pediatric inpatient wards	3,290	1	0.3	Not significant	3,699	0	0.0	Better	3,432	0	0.0	Better
North Suburban Medical Center	Adult and pediatric critical care	1,494	1	0.9	Not significant	1,505	1	0.7	Not significant	1,581	2	1.3	Not significant
	Adult and pediatric inpatient wards	1,994	1	0.8	Not significant	2,359	1	0.5	Not significant	1,975	1	0.6	Not significant
Ortho Colorado	Adult and pediatric inpatient wards	55	0	N/A	Suppressed ¹	50	0	N/A	Suppressed ¹	53	0	N/A	Suppressed ¹
Parker Adventist Hospital	Adult and pediatric critical care	1,355	4	3.0	Not significant	2,454	2	0.8	Not significant	3,309	2	0.6	Not significant
	Adult and pediatric inpatient wards	1,852	0	0.0	Not significant	2,142	1	0.6	Not significant	2,980	0	0.0	Not significant
	Neonatal critical care	70	1	N/A	Suppressed ¹	81	0	N/A	Suppressed ¹	37	---	N/A	Suppressed ¹
Parkview Medical Center	Adult and pediatric critical care	3,561	2	0.6	Not significant	3,429	3	0.9	Not significant	3,547	3	0.8	Not significant
	Adult and pediatric inpatient wards	3,334	3	1.0	Not significant	2,475	0	0.0	Not significant	2,840	2	0.8	Not significant
	Inpatient rehabilitation ward	336	0	N/A	Suppressed ¹	172	0	N/A	Suppressed ¹	421	0	N/A	Suppressed ¹

Facility name	Unit type	2019				2020				2021			
		No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison
Penrose St. Francis Health Services	Adult and pediatric critical care	3,232	2	0.5	Not significant	3,464	2	0.5	Not significant	5,034	3	0.5	Not significant
	Adult and pediatric inpatient wards	3,279	2	0.6	Not significant	4,054	1	0.3	Not significant	4,901	2	0.4	Not significant
Platte Valley Medical Center	Adult and pediatric critical care	N/A								2,539	3	1.6	Not significant
	Adult and pediatric inpatient wards	426	0	N/A	Suppressed ¹	629	4	N/A	Suppressed ¹	771	2	N/A	Suppressed ¹
Porter Adventist Hospital	Adult and pediatric critical care	3,760	3	0.9	Not significant	3,527	0	0.0	Better	5,429	3	0.6	Not significant
	Adult and pediatric inpatient wards	1,858	4	2.9	Not significant	2,064	3	1.9	Not significant	2,960	2	0.9	Not significant
	Inpatient rehabilitation ward	313	0	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	N/A			
Poudre Valley Health System	Adult and pediatric critical care	1,523	0	0.0	Not significant	2,366	4	1.5	Not significant	3,284	2	0.5	Not significant
	Adult and pediatric inpatient wards	6,574	1	0.2	Better	5,601	1	0.2	Better	6,130	2	0.3	Not significant
	Inpatient rehabilitation ward	413	0	N/A	Suppressed ¹	304	0	N/A	Suppressed ¹	503	0	N/A	Suppressed ¹
	Neonatal critical care	613	0	N/A	Suppressed ¹	409	0	N/A	Suppressed ¹	453	0	N/A	Suppressed ¹
Presbyterian/St Luke's Medical Center	Adult and pediatric critical care	4,845	2	0.3	Not significant	5,040	3	0.5	Not significant	4,268	5	0.9	Not significant
	Adult and pediatric inpatient wards	3,598	2	0.6	Not significant	2,819	2	0.8	Not significant	1,730	0	0.0	Not significant
	Neonatal critical care	4,379	3	0.5	Not significant	4,277	4	0.7	Not significant	3,147	3	0.6	Not significant
Rose Medical Center	Adult and pediatric critical care	1,614	4	2.2	Not significant	1,813	4	2.0	Not significant	1,569	4	2.3	Not significant
	Adult and pediatric inpatient wards	2,341	0	0.0	Not significant	2,323	2	0.9	Not significant	2,754	0	0.0	Not significant

Facility name	Unit type	2019				2020				2021			
		No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison
	Neonatal critical care	262	0	N/A	Suppressed ¹	178	0	N/A	Suppressed ¹	217	0	N/A	Suppressed ¹
Saint Anthony North Health Campus	Adult and pediatric critical care	1,658	2	1.2	Not significant	2,698	5	1.9	Not significant	3,061	9	3.0	Worse
	Adult and pediatric inpatient wards	2,872	2	0.8	Not significant	2,830	0	0.0	Not significant	3,476	2	0.7	Not significant
	Neonatal critical care	N/A				4	---	N/A	Suppressed ¹	18	---	N/A	Suppressed ¹
SCL Health Good Samaritan Medical Center	Adult and pediatric critical care	1,176	1	N/A	Suppressed ¹	2,345	6	3.4	Worse	2,631	6	3.0	Worse
	Adult and pediatric inpatient wards	2,804	0	0.0	Not significant	2,254	2	1.4	Not significant	2,173	3	2.1	Not significant
Sky Ridge Medical Center	Adult and pediatric critical care	2,308	1	0.4	Not significant	3,421	3	0.8	Not significant	3,916	3	0.7	Not significant
	Adult and pediatric inpatient wards	3,235	2	0.6	Not significant	3,735	0	0.0	Better	3,660	0	0.0	Better
	Neonatal critical care	72	0	N/A	Suppressed ¹	54	0	N/A	Suppressed ¹	75	0	N/A	Suppressed ¹
SLV Regional Medical Center	Adult and pediatric critical care	292	1	N/A	Suppressed ¹	95	0	N/A	Suppressed ¹	173	0	N/A	Suppressed ¹
	Adult and pediatric inpatient wards	374	0	N/A	Suppressed ¹	326	0	N/A	Suppressed ¹	221	0	N/A	Suppressed ¹
St. Anthony Hospital	Adult and pediatric critical care	5,309	5	0.8	Not significant	7,655	5	0.6	Not significant	8,703	16	1.6	Not significant
	Adult and pediatric inpatient wards	6,853	3	0.4	Not significant	6,872	1	0.1	Better	7,816	3	0.4	Not significant
	Inpatient rehabilitation ward	548	0	N/A	Suppressed ¹	628	0	N/A	Suppressed ¹	840	0	N/A	Suppressed ¹
St. Anthony Summit Medical Center	Adult and pediatric inpatient wards	98	0	N/A	Suppressed ¹	75	0	N/A	Suppressed ¹	95	0	N/A	Suppressed ¹
St. Francis Medical Center	Adult and pediatric critical care	1,044	0	0.0	Not significant	840	0	N/A	Suppressed ¹	1,129	0	0.0	Not significant

Facility name	Unit type	2019				2020				2021			
		No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison
	Adult and pediatric inpatient wards	1,577	1	0.7	Not significant	1,430	0	0.0	Not significant	1,658	0	0.0	Not significant
	Inpatient rehabilitation ward	637	0	N/A	Suppressed ¹	584	0	N/A	Suppressed ¹	436	0	N/A	Suppressed ¹
	Neonatal critical care	1,085	3	2.0	Not significant	733	1	0.9	Not significant	582	0	N/A	Suppressed ¹
St. Mary's Hospital	Adult and pediatric critical care	3,351	2	0.5	Not significant	3,720	5	1.2	Not significant	3,903	5	1.1	Not significant
	Adult and pediatric inpatient wards	2,325	2	0.9	Not significant	2,388	2	0.9	Not significant	1,612	4	2.5	Not significant
	Inpatient rehabilitation ward	350	0	N/A	Suppressed ¹	542	0	N/A	Suppressed ¹	582	0	N/A	Suppressed ¹
	Neonatal critical care	337	1	N/A	Suppressed ¹	331	1	N/A	Suppressed ¹	200	0	N/A	Suppressed ¹
St. Mary Corwin Medical Center	Adult and pediatric critical care	273	0	N/A	Suppressed ¹	411	1	N/A	Suppressed ¹	474	0	N/A	Suppressed ¹
Sterling Regional Medcenter	Adult and pediatric critical care	80	0	N/A	Suppressed ¹	108	0	N/A	Suppressed ¹	95	0	N/A	Suppressed ¹
	Adult and pediatric inpatient wards	155	0	N/A	Suppressed ¹	219	0	N/A	Suppressed ¹	253	2	N/A	Suppressed ¹
Swedish Medical Center	Adult and pediatric critical care	5,270	1	0.1	Better	6,975	3	0.3	Better	6,422	3	0.4	Better
	Adult and pediatric inpatient wards	3,057	1	0.3	Not significant	3,429	1	0.3	Not significant	3,031	3	1.0	Not significant
	Inpatient rehabilitation ward	391	0	N/A	Suppressed ¹	518	1	N/A	Suppressed ¹	366	0	N/A	Suppressed ¹
	Neonatal critical care	55	0	N/A	Suppressed ¹	76	0	N/A	Suppressed ¹	73	0	N/A	Suppressed ¹
The Medical Center of Aurora	Adult and pediatric critical care	4,925	3	0.5	Not significant	6,714	7	0.9	Not significant	5,511	13	2.1	Worse
	Adult and pediatric inpatient wards	5,283	1	0.2	Better	4,221	2	0.5	Not significant	2,998	0	0.0	Not significant
	Neonatal critical care	56	0	N/A	Suppressed ¹	27	---	N/A	Suppressed ¹	43	---	N/A	Suppressed ¹

Facility name	Unit type	2019				2020				2021			
		No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison
UCHealth Broomfield Hospital	Adult and pediatric inpatient wards	1,655	0	N/A	Suppressed ¹	1,388	1	N/A	Suppressed ¹	1,503	1	N/A	Suppressed ¹
UCHealth Greeley Hospital	Adult and pediatric critical care	307	0	N/A	Suppressed ¹	1,232	2	N/A	Suppressed ¹	1,887	0	0.0	Not significant
	Adult and pediatric inpatient wards	630	0	N/A	Suppressed ¹	1,695	0	N/A	Suppressed ¹	1,916	0	0.0	Not significant
UCHealth Highlands Ranch Hospital	Adult and pediatric critical care	297	0	N/A	Suppressed ¹	1,531	4	3.9	Worse	2,708	6	2.9	Worse
	Adult and pediatric inpatient wards	697	1	N/A	Suppressed ¹	2,077	0	0.0	Not significant	3,207	4	1.9	Not significant
	Neonatal critical care	3	---	N/A	Suppressed ¹	36	---	N/A	Suppressed ¹	38	---	N/A	Suppressed ¹
UCHealth Yampa Valley Medical Center	Adult and pediatric critical care	41	---	N/A	Suppressed ¹	33	---	N/A	Suppressed ¹	N/A			
	Adult and pediatric inpatient wards	272	1	N/A	Suppressed ¹	190	0	N/A	Suppressed ¹	163	0	N/A	Suppressed ¹
	Neonatal critical care	6	---	N/A	Suppressed ¹	11	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
University Of Colorado Hospital	Adult and pediatric critical care	18,962	13	0.6	Not significant	23,399	29	1.1	Not significant	23,656	29	1.1	Not significant
	Adult and pediatric inpatient wards	14,446	7	0.5	Better	16,721	20	1.2	Not significant	18,020	18	1.0	Not significant
	Inpatient rehabilitation ward	965	1	N/A	Suppressed ¹	910	0	N/A	Suppressed ¹	1,069	1	N/A	Suppressed ¹
	Neonatal critical care	1,176	1	0.6	Not significant	1,402	0	0.0	Not significant	1,407	2	0.9	Not significant
Vail Health Hospital	Adult and pediatric critical care	32	---	N/A	Suppressed ¹	22	---	N/A	Suppressed ¹	92	0	N/A	Suppressed ¹
	Adult and pediatric inpatient wards	150	0	N/A	Suppressed ¹	105	0	N/A	Suppressed ¹	297	0	N/A	Suppressed ¹
Valley View Hospital	Adult and pediatric critical care	355	0	N/A	Suppressed ¹	274	1	N/A	Suppressed ¹	578	0	N/A	Suppressed ¹

Facility name	Unit type	2019				2020				2021			
		No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison
	Adult and pediatric inpatient wards	682	0	N/A	Suppressed ¹	655	0	N/A	Suppressed ¹	567	0	N/A	Suppressed ¹

¹Calculation of comparison is not available due to data suppression for one of the following reasons: no. central line-days fewer than 50 or the predicted number of infections was less than one.

SIR, standardized infection ratio (ratio of observed to predicted infection rates); N/A, not applicable.

Data source: National Healthcare Safety Network.

Critical care are all adult and pediatric intensive care units.

Neonatal critical care units include all levels II/III combined, III, and IV intensive care units for neonates.

Wards include all adult and pediatric medical, surgical, and medical-surgical wards.

Inpatient rehabilitation wards are located within an acute care hospital.

Central line-associated bloodstream infections in critical access hospitals

Four critical access hospitals reported CLABSI data from critical care units (**Table 18**). Most reported few central line-days, and national comparisons were suppressed for all.

Table 18. Central line-associated bloodstream infections on critical care units in critical access hospitals – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	2019				2020				2021			
	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison
Arkansas Valley Regional Medical Center	53	0	N/A	Suppressed ¹	30	---	N/A	Suppressed ¹	54	0	N/A	Suppressed ¹
Aspen Valley Hospital	4	---	N/A	Suppressed ¹	13	---	N/A	Suppressed ¹	18	---	N/A	Suppressed ¹
Heart Of The Rockies Regional Medical Center	39	---	N/A	Suppressed ¹	46	---	N/A	Suppressed ¹	49	---	N/A	Suppressed ¹
Southwest Memorial Hospital	51	0	N/A	Suppressed ¹	41	---	N/A	Suppressed ¹	49	---	N/A	Suppressed ¹

¹Calculation of comparison is not available due to data suppression for one of the following reasons: no. central line-days fewer than 50 or the predicted number of infections was less than one.

SIR, standardized infection ratio (ratio of observed to predicted infection rates); N/A, not applicable.

Data source: National Healthcare Safety Network.

Central line-associated bloodstream infections in inpatient rehabilitation facilities

Seven inpatient rehabilitation facilities reported CLABSI data in 2021 (Table 19). There were no CLABSIs reported and national comparisons were not possible.

Table 19. Central line-associated bloodstream infections in standalone inpatient rehabilitation facilities – Colorado, Jan. 1, 2019-Dec. 31, 2021.

Facility name	2019				2020				2021			
	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison
Encompass Health Rehabilitation Hospital Of Colorado Springs	726	0	N/A	Suppressed ¹	722	0	N/A	Suppressed ¹	772	0	N/A	Suppressed ¹
Encompass Health Rehabilitation Hospital Of Littleton	877	0	N/A	Suppressed ¹	1,493	0	N/A	Suppressed ¹	1,186	0	N/A	Suppressed ¹
Northern Colorado Rehabilitation Hospital	976	0	N/A	Suppressed ¹	1,127	0	N/A	Suppressed ¹	937	0	N/A	Suppressed ¹
Reunion Rehabilitation Hospital	N/A								271	0	N/A	Suppressed ¹
Spalding Rehabilitation Hospital	459	0	N/A	Suppressed ¹	617	0	N/A	Suppressed ¹	760	0	N/A	Suppressed ¹
Spalding Rehabilitation Hospital At PSL Medical Center	939	0	N/A	Suppressed ¹	1,323	0	N/A	Suppressed ¹	730	0	N/A	Suppressed ¹
Vibra Rehabilitation Hospital Of Denver	545	0	N/A	Suppressed ¹	754	1	N/A	Suppressed ¹	976	0	N/A	Suppressed ¹

¹Calculation of comparison is not available due to data suppression for one of the following reasons: no. central line-days fewer than 50 or the predicted number of infections was less than one.

SIR, standardized infection ratio (ratio of observed to predicted infection rates);

N/A, not applicable.

Data source: National Healthcare Safety Network.

Central line-associated bloodstream infections in long-term acute care hospitals

Six long-term acute care hospitals reported CLABSI data in 2021 (Table 20). One reported a rate of CLABSI that was lower (better) than the national baseline. Four reported a rate of CLABSI that was similar to (not statistically different from) the national baseline. One rate was suppressed.

Table 20. Central line-associated bloodstream infections in long-term acute care hospitals – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	2019				2020				2021			
	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison	No. central line-days	No. of infections	SIR	National comparison
Advanced Care Hospital Of Northern Colorado	2,499	3	1.5	Not significant	2,716	2	0.9	Not significant	3,692	0	0.0	Better
Craig Hospital	1,500	1	N/A	Suppressed ¹	1,326	0	N/A	Suppressed ¹	866	0	N/A	Suppressed ¹
Kindred Hospital-Denver South	539	0	N/A	Suppressed ¹	N/A							
Kindred Hospital Aurora	3,100	2	0.6	Not significant	2,708	2	0.8	Not significant	2,492	0	0.0	Not significant
Kindred Hospital Denver	4,170	3	0.5	Not significant	4,741	1	0.1	Better	3,421	2	0.4	Not significant
Post Acute Medical Specialty Hospital Of Denver	7,549	4	0.4	Not significant	6,843	8	0.9	Not significant	5,828	3	0.4	Not significant
Vibra Hospital	3,783	3	0.5	Not significant	3,924	5	0.8	Not significant	3,043	1	0.2	Not significant

¹Calculation of comparison is not available due to data suppression for one of the following reasons: no. central line-days fewer than 50, or the predicted number of infections was less than one

SIR, standardized infection ratio (ratio of observed to predicted infection rates); N/A, not applicable.

Data source: National Healthcare Safety Network.

Clostridioides difficile infections

Background

Clostridioides difficile (*C. difficile*) is found in both health care and community settings. Prevention is a priority for public health. *C. difficile* is a spore-forming bacterium that can cause symptoms ranging from bloating, diarrhea, fever, and abdominal pain to life-threatening colon inflammation, sepsis and death. Risk factors for *C. difficile* infections include antibiotic exposure, proton pump inhibitors, gastrointestinal surgery/manipulation, advanced age, long length of stay in health care settings, immunocompromising conditions, and serious underlying diseases. *C. difficile* also may be acquired outside of hospitals in the community. Exposures to other types of health care are also risk factors. Although 94% of *C. difficile* infections are related to health care exposures, 75% of health care-associated *C. difficile* infections first show signs outside of hospitals.^{1-2, 10, 12-13}

Based on the high incidence and potential severity of *C. difficile* infections, in 2015, Colorado's HAI Advisory Committee recommended the addition of *C. difficile* to Colorado reporting requirements for acute care hospitals (critical access hospitals and stand-alone children's hospitals are exempt) for data collected since 2013, and long-term acute care hospitals and inpatient rehabilitation facilities for data collected since 2015.⁶ Hospital-reported *C. difficile* data are classified as hospital-onset, community-onset, and community-onset health care facility-associated. Hospital-onset cases are characterized by laboratory-positive specimens collected more than three days after admission to the facility (i.e., on or after day four). Community-onset cases are characterized by laboratory-identified specimens collected in an outpatient location or an inpatient location on days one, two, or three after admission to the hospital. Community-onset health care facility-associated cases are characterized by specimens collected from patients discharged from the facility four or fewer weeks prior to the current date of stool specimen collection. Data from outpatient locations are not included in this definition. Only laboratory-identified hospital-onset cases are presented in this report. Each table below lists the facility's name, number of patient-days, number of *Clostridium difficile* infections, and the standardized infection ratio (SIR) per year. A detailed explanation of how the SIR is calculated is in **Appendix C**. The three categories summarizing how a Colorado facility compares to the national infection baseline are:

- Statistically lower rate of infection than the national baseline (better).
- Statistically similar rate of infection to the national baseline (not significant).
- Statistically higher rate of infection than the national baseline (worse).⁸

Data were suppressed if the predicted number of infections was less than one or the facility had fewer than 50 patient-days in the calendar year.

Clostridioides difficile infections in acute care hospitals

Fifty-two acute care hospitals reported *C. difficile* data in 2021 (Table 21). Of these, 23 reported a rate of *C. difficile* infection that was lower (better) than the national baseline. One facility reported a rate that was higher (worse) than the national baseline. Twenty-two acute care hospitals reported a rate of infection that was similar to (not significantly different from) the national baseline. Rates of *C. difficile* infection for six acute care hospitals were suppressed.

Table 21. *Clostridioides difficile* infections in acute care hospitals – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	2019				2020				2021			
	No. patient-days	No. of infections	SIR	National comparison	No. patient-days	No. of infections	SIR	National comparison	No. patient-days	No. of infections	SIR	National comparison
Animas Surgical Hospital	1,111	0	N/A	Suppressed ¹	897	0	N/A	Suppressed ¹	1,093	0	N/A	Suppressed ¹
Avista Adventist Hospital	13,578	5	0.7	Not significant	11,887	2	0.3	Better	12,546	2	0.3	Better
Banner Fort Collins Medical Center	4,643	2	N/A	Suppressed ¹	3,909	1	0.6	Not significant	4,857	2	1.6	Not significant
Boulder Community Foothills Hospital	27,813	15	0.8	Not significant	31,650	11	0.6	Better	35,807	18	0.8	Not significant
Castle Rock Adventist Hospital	11,255	2	0.3	Not significant	11,770	2	0.4	Not significant	13,356	3	0.5	Not significant
Colorado Plains Medical Center	2,328	0	0.0	Not significant	2,492	0	0.0	Not significant	2,304	3	N/A	Suppressed ¹
Community Hospital	8,876	5	0.8	Not significant	8,159	2	0.3	Not significant	10,429	3	0.7	Not significant
Delta County Memorial Hospital	4,779	2	0.9	Not significant	5,124	4	0.9	Not significant	5,794	4	1.4	Not significant
Denver Health And Hospital Authority	97,439	47	0.6	Better	101,724	52	0.6	Better	107,493	43	0.5	Better
Exempla Lutheran Medical Center	47,103	8	0.4	Better	52,672	9	0.4	Better	62,764	12	0.4	Better
Exempla Saint Joseph Hospital	85,601	11	0.3	Better	76,859	15	0.4	Better	83,792	16	0.4	Better
Grandview Hospital	2,255	0	N/A	Suppressed ¹	1,982	0	N/A	Suppressed ¹	3,121	1	N/A	Suppressed ¹
Littleton Adventist Hospital	39,396	32	1.2	Not significant	36,394	16	0.7	Not significant	38,158	19	0.8	Not significant
Longmont United Hospital	17,253	10	0.9	Not significant	17,287	7	0.6	Not significant	14,328	3	0.3	Better
Longs Peak Hospital	12,776	4	0.7	Not significant	13,598	5	1.0	Not significant	17,385	10	0.7	Not significant
Mckee Medical Center	11,512	0	0.0	Better	13,484	0	0.0	Better	14,878	3	0.5	Not significant
Medical Center Of The Rockies	47,379	15	0.5	Better	47,091	15	0.5	Better	50,627	21	0.7	Better
Memorial Health System	79,690	18	0.4	Better	78,499	21	0.5	Better	102,858	28	0.5	Better
Memorial Hospital North	24,273	5	0.5	Not significant	29,156	4	0.3	Better	37,154	8	0.5	Better
Mercy Regional Medical Center	15,582	8	0.9	Not significant	16,282	9	1.0	Not significant	18,792	22	2.1	Worse

Facility name	2019				2020				2021			
	No. patient-days	No. of infections	SIR	National comparison	No. patient-days	No. of infections	SIR	National comparison	No. patient-days	No. of infections	SIR	National comparison
Montrose Memorial Hospital	6,614	7	1.3	Not significant	6,723	5	0.9	Not significant	7,722	8	1.2	Not significant
National Jewish Health	319	0	N/A	Suppressed ¹	472	0	N/A	Suppressed ¹	509	0	N/A	Suppressed ¹
North Colorado Medical Center	53,383	15	0.6	Better	47,853	13	0.6	Better	52,354	12	0.4	Better
North Suburban Medical Center	29,068	1	0.1	Better	33,839	9	0.5	Better	34,207	5	0.3	Better
Ortho Colorado	6,128	0	N/A	Suppressed ¹	5,738	0	N/A	Suppressed ¹	5,712	0	N/A	Suppressed ¹
Parker Adventist Hospital	29,070	19	1.0	Not significant	29,935	13	0.7	Not significant	34,066	15	0.7	Not significant
Parkview Medical Center	73,016	44	0.9	Not significant	72,034	32	0.7	Better	72,572	44	0.8	Not significant
Penrose St. Francis Health Services	55,750	27	0.8	Not significant	56,335	11	0.3	Better	64,815	8	0.2	Better
Platte Valley Medical Center	11,888	1	0.3	Not significant	12,589	1	0.2	Not significant	14,988	1	0.2	Better
Porter Adventist Hospital	36,025	14	0.6	Not significant	42,438	9	0.3	Better	48,477	15	0.5	Better
Poudre Valley Health System	50,515	19	0.6	Better	47,425	11	0.3	Better	53,865	17	0.4	Better
Presbyterian/St Luke's Medical Center	60,440	19	0.7	Not significant	59,250	13	0.3	Better	61,171	23	0.6	Better
Rose Medical Center	36,719	5	0.3	Better	38,633	5	0.2	Better	39,531	2	0.1	Better
Saint Anthony North Health Campus	23,875	5	0.4	Better	26,641	7	0.6	Not significant	30,833	14	1.0	Not significant
SCL Health Good Samaritan Medical Center	45,907	4	0.2	Better	45,158	7	0.3	Better	48,243	13	0.6	Not significant
Sky Ridge Medical Center	53,659	7	0.3	Better	52,822	8	0.3	Better	60,094	9	0.3	Better
SLV Regional Medical Center	6,894	6	1.7	Not significant	6,455	0	0.0	Better	7,676	3	0.8	Not significant
St. Anthony Hospital	61,583	38	0.9	Not significant	64,644	37	0.9	Not significant	71,575	46	1.0	Not significant
St. Anthony Summit Medical Center	3,812	0	0.0	Not significant	3,714	0	0.0	Not significant	4,168	0	0.0	Not significant
St. Francis Medical Center	29,928	16	0.8	Not significant	34,673	3	0.1	Better	37,571	6	0.3	Better
St. Mary's Hospital	67,037	7	0.2	Better	61,780	3	0.1	Better	65,049	10	0.3	Better
St. Mary Corwin Medical Center	8,999	1	0.2	Not significant	8,952	1	0.3	Not significant	9,608	2	0.5	Not significant

Facility name	2019				2020				2021			
	No. patient-days	No. of infections	SIR	National comparison	No. patient-days	No. of infections	SIR	National comparison	No. patient-days	No. of infections	SIR	National comparison
Sterling Regional Medcenter	3,808	0	N/A	Suppressed ¹	3,613	0	N/A	Suppressed ¹	4,110	2	N/A	Suppressed ¹
Swedish Medical Center	98,525	17	0.4	Better	100,172	30	0.5	Better	114,780	12	0.2	Better
The Medical Center of Aurora	55,706	15	0.5	Better	59,144	16	0.4	Better	64,325	11	0.3	Better
UCHealth Broomfield Hospital	4,622	1	0.5	Not significant	4,977	0	0.0	Not significant	4,714	1	0.5	Not significant
UCHealth Greeley Hospital	5,033	3	0.9	Not significant	13,062	2	0.3	Better	14,868	6	0.7	Not significant
UCHealth Highlands Ranch Hospital	6,264	1	0.2	Not significant	18,609	3	0.2	Better	26,868	8	0.4	Better
UCHealth Yampa Valley Medical Center	3,962	0	0.0	Not significant	3,556	0	0.0	Not significant	3,427	1	0.8	Not significant
University Of Colorado Hospital	184,614	139	0.8	Better	184,426	65	0.5	Better	204,873	88	0.6	Better
Vail Health Hospital	7,193	2	0.4	Not significant	3,184	0	0.0	Not significant	7,301	1	0.2	Not significant
Valley View Hospital	11,396	7	0.9	Not significant	9,280	5	0.7	Not significant	10,023	4	0.5	Not significant

¹Calculation of comparison is not available due to data suppression for one of the following reasons: no. patient-days fewer than 50 or the predicted number of infections was less than one.

SIR, standardized infection ratio (ratio of observed to predicted infection rates).

Data source: National Healthcare Safety Network.

***Clostridioides difficile* infections in inpatient rehabilitation facilities**

Seven inpatient rehabilitation facilities reported *C. difficile* data in 2021 (**Table 22**). Two facilities reported a rate of *C. difficile* infection that was lower (better) than the national baseline. The remaining facilities reported rates that were similar to (not significantly different from) the national baseline.

Table 22. *Clostridioides difficile* infections in inpatient rehabilitation facilities – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	2019				2020				2021			
	No. patient-days	No. of infections	SIR	National comparison	No. patient-days	No. of infections	SIR	National comparison	No. patient-days	No. of infections	SIR	National comparison
Encompass Health Rehabilitation Hospital Of Colorado Springs	13,732	4	0.9	Not significant	13,698	0	0.0	Better	13,839	6	0.9	Not significant
Encompass Health Rehabilitation Hospital Of Littleton	13,064	1	0.2	Not significant	15,181	1	0.2	Better	15,630	1	0.2	Not significant
Northern Colorado Rehabilitation Hospital	13,164	2	0.5	Not significant	13,201	1	0.2	Not significant	13,070	0	0.0	Better
Reunion Rehabilitation Hospital	N/A			Suppressed ²	N/A			Suppressed ²	5,951	1	0.4	Not significant
Spalding Rehabilitation Hospital	9,160	3	1.3	Not significant	9,145	0	0.0	Better	10,343	0	0.0	Better
Spalding Rehabilitation Hospital At PSL Medical Center	4,638	2	1.4	Not significant	4,762	1	0.5	Not significant	4,502	1	0.4	Not significant
Vibra Rehabilitation Hospital Of Denver	7,826	1	0.5	Not significant	10,238	2	0.7	Not significant	10,493	2	0.6	Not significant

¹Calculation of comparison is not available due to data suppression for one of the following reasons: no. of patient-days fewer than 50 or the predicted number of infections was less than one; ²This is a new facility in 2021.

SIR, standardized infection ratio (ratio of observed to predicted infection rates); N/A, not applicable.

Data source: National Healthcare Safety Network.

***Clostridioides difficile* infections in long-term acute care hospitals**

Six long-term acute care hospitals reported *C. difficile* data in 2021 (**Table 23**). Of these, four reported a rate of *C. difficile* infection that was lower (better) than the national baseline. Two reported a rate that was similar to (not significantly different from) the national baseline.

Table 23. *Clostridioides difficile* infections in long-term acute care hospitals – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	2019				2020				2021			
	No. patient-days	No. of infections	SIR	National comparison	No. patient-days	No. of infections	SIR	National comparison	No. patient-days	No. of infections	SIR	National comparison
Advanced Care Hospital Of Northern Colorado	5,971	3	0.7	Not significant	5,978	4	0.9	Not significant	6,168	2	0.3	Better
Craig Hospital	28,430	9	0.4	Better	28,987	4	0.2	Better	29,632	9	0.4	Better
Kindred Hospital-Denver South	1,074	3	2.7	Not significant	N/A			Suppressed ¹	N/A			Suppressed ¹
Kindred Hospital Aurora	11,003	6	0.5	Better	12,546	9	0.7	Not significant	13,070	3	0.2	Better
Kindred Hospital Denver	11,198	13	1.0	Not significant	14,538	4	0.3	Better	15,760	25	1.1	Not significant
Post Acute Medical Specialty Hospital Of Denver	11,155	8	1.0	Not significant	16,569	9	0.7	Not significant	17,767	4	0.2	Better
Vibra Hospital	10,933	2	0.2	Better	13,650	9	0.7	Not significant	14,645	8	0.6	Not significant

¹Calculation of comparison is not available due to data suppression for one of the following reasons: no. of patient days fewer than 50 or the predicted number of infections was less than one.

SIR, standardized infection ratio (ratio of observed to predicted infection rates).

Data source: National Healthcare Safety Network.

Dialysis-related infections

Background

According to the National Institute of Diabetes and Digestive and Kidney Diseases, since 2004, approximately 14% of the general population in the United States has chronic kidney disease. According to a 2015 report, 468,000 patients in the United States receive chronic dialysis treatment.¹⁴⁻¹⁵

Surveillance for dialysis-related infections in Colorado occurs within outpatient dialysis facilities only and excludes peritoneal and home dialysis. The outpatient dialysis facilities monitored may be dedicated stand-alone facilities, hospital-based, or affiliated units. The reporting of dialysis-related infections began in March 2010.

Dialysis facilities in Colorado monitor patients for three specific events that must be reported: 1) an outpatient start of an intravenous antibiotic, 2) a positive blood culture, or 3) pus, redness, or increased swelling at the vascular access site. Data from these events are used to classify two types of dialysis-related infections: access-related bloodstream infections (ARBs) and local access infections (LAIs). An ARB, which poses more serious health implications and requires higher levels of care, is defined by the presence of a microorganism identified in a blood culture and identification of the source of infection as the vascular access site or is uncertain. LAIs are not included in the Colorado HAI Annual Report as of 2019.⁶

The table below lists the dialysis facility's name, number of dialysis patients who were dialyzed on the first two working days of a month (patient-months), numbers and rates of ARBs, and comparison to the national rate (NHSN did not allow for this comparison for the current report). The infection rate used is the number of infections per 100 patient-months. It is important to note that this rate is not risk-adjusted (i.e., the rate does not account for differences in facility or patient characteristics).

Access-related bloodstream infections in outpatient dialysis facilities

Seventy-five dialysis facilities reported rates of access-related bloodstream infection in 2021 (**Table 24**). For reference, the national rate was 0.31 per 100 person-months. Statistical comparison of facility rates to the national rate was not available in NHSN.

Table 24. Access-related bloodstream infections in outpatient dialysis facilities – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	2019				2020				2021			
	No. patient months	No. of infections	Infection Rate	National comparison	No. patient months	No. of infections	Infection Rate	National comparison	No. patient months	No. of infections	Infection Rate	National comparison
FMC Fort Collins Dialysis	927	1	0.11	--- ¹	936	0	0.00	--- ¹	949	0	0.00	--- ¹
FMC Greeley	1,007	1	0.10	--- ¹	993	1	0.10	--- ¹	880	0	0.00	--- ¹
FMC Loveland Dialysis	622	1	0.16	--- ¹	577	1	0.17	--- ¹	624	1	0.16	--- ¹
FMC Canon City	439	2	0.46	--- ¹	436	1	0.23	--- ¹	431	0	0.00	--- ¹
Qualicenters Pueblo	765	1	0.13	--- ¹	750	1	0.13	--- ¹	643	0	0.00	--- ¹
Qualicenters La Junta	389	2	0.51	--- ¹	456	0	0.00	--- ¹	423	1	0.24	--- ¹
Qualicenters-Walsenburg	280	0	0.00	--- ¹	257	1	0.39	--- ¹	240	0	0.00	--- ¹
FMC, Lamar	248	0	0.00	--- ¹	243	0	0.00	--- ¹	306	0	0.00	--- ¹
FMC Pueblo South	1,055	3	0.28	--- ¹	998	0	0.00	--- ¹	793	0	0.00	--- ¹
FMC Stapleton Dialysis	698	1	0.14	--- ¹	718	1	0.14	--- ¹	781	0	0.00	--- ¹
Fresenius Rocky Mountain Dialysis	1,065	8	0.75	--- ¹	1,079	2	0.19	--- ¹	1,010	3	0.30	--- ¹
Northeast Denver Dialysis	274	1	0.36	--- ¹	347	1	0.29	--- ¹	529	0	0.00	--- ¹
FMC East Denver	1,106	6	0.54	--- ¹	1,104	8	0.72	--- ¹	1,117	4	0.36	--- ¹
MFC Pueblo West Dialysis	325	0	0.00	--- ¹	358	0	0.00	--- ¹	298	0	0.00	--- ¹
FMC Pavilion Dialysis	1,217	0	0.00	--- ¹	1,243	0	0.00	--- ¹	1,189	2	0.17	--- ¹
Liberty Dialysis Colorado Springs North	978	2	0.20	--- ¹	959	5	0.52	--- ¹	838	1	0.12	--- ¹
Liberty Dialysis Colorado Springs South	1,007	5	0.50	--- ¹	1,000	6	0.60	--- ¹	992	2	0.20	--- ¹
Liberty Dialysis Colorado Springs Central	1,171	3	0.26	--- ¹	1,189	2	0.17	--- ¹	1,141	0	0.00	--- ¹
FMC South Denver Dialysis	416	1	0.24	--- ¹	434	1	0.23	--- ¹	503	1	0.20	--- ¹

Facility name	2019				2020				2021			
	No. patient months	No. of infections	Infection Rate	National comparison	No. patient months	No. of infections	Infection Rate	National comparison	No. patient months	No. of infections	Infection Rate	National comparison
West Hampden	580	0	0.00	--- ¹	626	1	0.16	--- ¹	622	0	0.00	--- ¹
FMC North Greeley	571	0	0.00	--- ¹	648	0	0.00	--- ¹	620	0	0.00	--- ¹
Alamosa Dialysis	631	2	0.32	--- ¹	576	0	0.00	--- ¹	598	0	0.00	--- ¹
Arvada Dialysis Center	376	1	0.27	--- ¹	321	0	0.00	--- ¹	273	0	0.00	--- ¹
Aurora Dialysis Center	1,275	3	0.24	--- ¹	1,297	2	0.15	--- ¹	1,404	6	0.43	--- ¹
Belcaro Dialysis Center	537	4	0.74	--- ¹	441	0	0.00	--- ¹	375	0	0.00	--- ¹
Black Canyon Dialysis	311	1	0.32	--- ¹	332	1	0.30	--- ¹	297	0	0.00	--- ¹
Boulder Dialysis Center	269	2	0.74	--- ¹	177	0	0.00	--- ¹	210	0	0.00	--- ¹
Brighton Dialysis	486	0	0.00	--- ¹	470	0	0.00	--- ¹	506	3	0.59	--- ¹
Children's Hospital Colorado Kidney Center	76	2	2.63	--- ¹	73	1	1.37	--- ¹	106	1	0.94	--- ¹
Commerce City Dialysis	607	2	0.33	--- ¹	533	1	0.19	--- ¹	527	1	0.19	--- ¹
Cortez Dialysis Center	666	1	0.15	--- ¹	634	0	0.00	--- ¹	662	0	0.00	--- ¹
DCI, Grand Junction	440	4	0.91	--- ¹	458	0	0.00	--- ¹	489	1	0.20	--- ¹
DCI, Montrose	325	0	0.00	--- ¹	294	3	1.02	--- ¹	252	6	2.38	--- ¹
Denver Dialysis Center	680	2	0.29	--- ¹	635	0	0.00	--- ¹	616	2	0.32	--- ¹
Denver Reception And Reception Center	157	0	0.00	--- ¹	178	0	0.00	--- ¹	140	0	0.00	--- ¹
Durango Dialysis Center	304	1	0.33	--- ¹	267	0	0.00	--- ¹	256	1	0.39	--- ¹
East Aurora Dialysis	1,070	3	0.28	--- ¹	977	1	0.10	--- ¹	994	7	0.70	--- ¹
Englewood Dialysis Center	563	5	0.89	--- ¹	719	1	0.14	--- ¹	776	2	0.26	--- ¹
Fort Collins Dialysis	168	0	0.00	--- ¹	228	1	0.44	--- ¹	219	0	0.00	--- ¹
Grand Junction Dialysis Center	797	2	0.25	--- ¹	824	0	0.00	--- ¹	749	2	0.27	--- ¹
Greeley Dialysis	452	0	0.00	--- ¹	406	0	0.00	--- ¹	429	0	0.00	--- ¹

Facility name	2019				2020				2021			
	No. patient months	No. of infections	Infection Rate	National comparison	No. patient months	No. of infections	Infection Rate	National comparison	No. patient months	No. of infections	Infection Rate	National comparison
Heart Of The Rockies Regional Dialysis Center	178	0	0.00	--- ¹	155	2	1.29	--- ¹	127	1	0.79	--- ¹
Kidney Center Of Arvada	973	4	0.41	--- ¹	980	1	0.10	--- ¹	1,043	1	0.10	--- ¹
Kidney Center Of Frederick	182	2	1.10	--- ¹	227	2	0.88	--- ¹	255	0	0.00	--- ¹
Kidney Center Of Lafayette	642	1	0.16	--- ¹	632	2	0.32	--- ¹	632	4	0.63	--- ¹
Kidney Center Of Lakewood	853	1	0.12	--- ¹	757	0	0.00	--- ¹	668	0	0.00	--- ¹
Kidney Center Of Longmont	814	2	0.25	--- ¹	835	4	0.48	--- ¹	818	5	0.61	--- ¹
Kidney Center Of Northridge	352	2	0.57	--- ¹	408	1	0.25	--- ¹	357	2	0.56	--- ¹
Kidney Center Of The Rockies	128	2	1.56	--- ¹	118	0	0.00	--- ¹	95	0	0.00	--- ¹
Kidney Center Of Westminster	1,309	1	0.08	--- ¹	1,298	1	0.08	--- ¹	1,234	0	0.00	--- ¹
Kidney Center Of Wheat Ridge	347	1	0.29	--- ¹	362	1	0.28	--- ¹	448	1	0.22	--- ¹
Lakewood Crossing Dialysis	680	5	0.74	--- ¹	629	1	0.16	--- ¹	625	2	0.32	--- ¹
Lakewood Dialysis Center	939	2	0.21	--- ¹	893	1	0.11	--- ¹	779	2	0.26	--- ¹
Littleton Dialysis Center	688	3	0.44	--- ¹	634	0	0.00	--- ¹	649	2	0.31	--- ¹
Lonetree Dialysis Center	362	6	1.66	--- ¹	304	1	0.33	--- ¹	352	0	0.00	--- ¹
Longmont Dialysis Center	185	0	0.00	--- ¹	238	0	0.00	--- ¹	218	0	0.00	--- ¹
Loveland Central Dialysis	258	0	0.00	--- ¹	227	0	0.00	--- ¹	230	0	0.00	--- ¹
Lowry Dialysis Center	998	0	0.00	--- ¹	814	0	0.00	--- ¹	797	1	0.13	--- ¹
Mesa County Dialysis	386	2	0.52	--- ¹	418	0	0.00	--- ¹	426	3	0.70	--- ¹
Montbello Dialysis	258	3	1.16	--- ¹	429	5	1.17	--- ¹	580	4	0.69	--- ¹
North Colorado Springs Dialysis	427	2	0.47	--- ¹	437	0	0.00	--- ¹	438	1	0.23	--- ¹
North Metro Dialysis Center	563	1	0.18	--- ¹	525	1	0.19	--- ¹	585	0	0.00	--- ¹
Northeastern Colorado Dialysis	553	1	0.18	--- ¹	554	1	0.18	--- ¹	561	5	0.89	--- ¹

Facility name	2019				2020				2021			
	No. patient months	No. of infections	Infection Rate	National comparison	No. patient months	No. of infections	Infection Rate	National comparison	No. patient months	No. of infections	Infection Rate	National comparison
Parker Dialysis Center	662	3	0.45	--- ¹	655	0	0.00	--- ¹	642	1	0.16	--- ¹
Parker Kidney Center LLC	547	3	0.55	--- ¹	625	0	0.00	--- ¹	644	0	0.00	--- ¹
Pikes Peak Dialysis Center	948	4	0.42	--- ¹	945	1	0.11	--- ¹	968	4	0.41	--- ¹
Platte Valley Dialysis	263	0	0.00	--- ¹	303	0	0.00	--- ¹	499	2	0.40	--- ¹
Printers Place Dialysis Center	490	4	0.82	--- ¹	367	1	0.27	--- ¹	327	2	0.61	--- ¹
Red Hawk Dialysis	190	0	0.00	--- ¹	266	1	0.38	--- ¹	269	0	0.00	--- ¹
Sable Dialysis	1,209	5	0.41	--- ¹	1,192	2	0.17	--- ¹	1,206	6	0.50	--- ¹
South West Denver Dialysis	416	2	0.48	--- ¹	402	0	0.00	--- ¹	348	0	0.00	--- ¹
The Kidney Center Of Bear Creek	464	0	0.00	--- ¹	484	2	0.41	--- ¹	560	2	0.36	--- ¹
Thornton Dialysis Center	874	5	0.57	--- ¹	900	1	0.11	--- ¹	926	1	0.11	--- ¹
USRC Pueblo	655	0	0.00	--- ¹	674	4	0.59	--- ¹	647	2	0.31	--- ¹
West Lakewood Dialysis	537	8	1.49	--- ¹	506	0	0.00	--- ¹	421	0	0.00	--- ¹

¹Statistical comparison to the national rate was not available

Rates are per 100 patient-months. NOTE: These rates are not adjusted for risk.

Data source: National Healthcare Safety Network.

Surgical-site infections

Background

Surgical site infections (SSIs) are infections directly related to a surgical procedure. In a recent point prevalence survey of healthcare-associated infections (HAIs) in U.S. hospitals, SSIs were the third most common HAI (approximately 16%). SSIs can lead to longer facility stays, additional treatment, and higher costs. Overall in the United States, SSIs can cost patients and third-party payers from three to 10 billion dollars each year.^{1-3, 10, 16}

A surgical procedure involves at least one incision to a patient within an operating room (see **Appendix A** for the definition used by the National Healthcare Safety Network (NHSN)). Surgical procedures required for SSI reporting are selected based on several factors: (1) the volume of surgeries performed, (2) the variety of facilities at which the surgeries are performed, and (3) the association with increased SSIs. The surgeries monitored for SSI in Colorado include: breast (acute care hospitals, critical access hospitals, and ambulatory surgery centers), colon (acute care hospitals and critical access hospitals), hernia repairs (ambulatory surgery centers), hip replacement (acute care hospitals, critical access hospitals, and ambulatory surgery centers), abdominal hysterectomies (acute care hospitals and critical access hospitals), and knee replacements (acute care hospitals, critical access hospitals, and ambulatory surgery centers).⁶ The HAI Advisory Committee voted to remove SSIs following abdominal and vaginal hysterectomies in ambulatory surgery centers from the list of reportable conditions included in the HAI Annual Report in 2022, beginning with 2021 data. This was due to the lack of an ability to risk-adjust rates through NHSN and because the low number of procedures led to suppression of most of the data from the HAI Annual Report.

Surgeries are performed as either inpatient or outpatient procedures. Surgical procedures and SSIs reported in Colorado include only adult patients (at least 18 years of age) for acute care hospitals and critical access hospitals. Surgical procedures reported by ambulatory surgery centers include patients of all ages. However, only adult data are presented in this report for ambulatory surgery centers as current NHSN analysis only includes adult patients. Three types of SSI are reportable (superficial, deep, and organ space) for each type of surgery. See **Appendix A** for brief definitions.

Each table presenting SSI data lists each facility in Colorado that performed the designated procedure, the number of procedures performed, and number of infections. Tables that list individual facilities (**Tables 25-31**) are divided by type of procedure, facility type, and inpatient or outpatient setting. All tables include the standardized infection ratio (SIR) and a comparison to national infection data, except for hip replacement surgeries in ambulatory surgery centers, for which SIR values and national comparisons are not available.

Breast surgeries. Breast surgeries involve at least one incision to the breast skin patients. Acute care hospitals, critical access hospitals, and ambulatory surgery centers report SSIs following breast procedures.⁶ There are 36 types of breast procedures that are reportable into the National Healthcare Safety Network (NHSN) and can include an open biopsy of the breast, local excision of a lesion of the breast, insertion and removal of breast implants, and radical mastectomies, among others. Breast surgeries are monitored for 30 days for a superficial SSI and 90 days for all other SSIs. Further explanation of the three types of SSIs is available in **Appendix A**.

Rates of SSI following breast surgery are presented by facility type and inpatient versus outpatient status. NHSN defines an inpatient operative procedure as a procedure on a patient whose date of admission to the health care facility and the date of

discharge are different calendar days. An outpatient operative procedure occurs when a patient is admitted and discharged on the same calendar day.

Colon surgeries. Colon procedures involve surgery of the large intestine. The intestines, which are muscular tubes that extend from the end of the stomach to the rectum, carry food, products of digestion, and bacteria that help break down food in the digestive process. Because the intestines have bacteria, colon surgeries have a high risk for contamination and infection. Colon surgeries are monitored for 30 days for all SSIs.

Colorado facilities that are required to report colon surgeries include acute care hospitals and critical access hospitals.⁶ All colon surgeries at acute care hospitals and critical access hospitals are reportable through the National Healthcare Safety Network (NHSN) to the state of Colorado. Data are presented by facility type and inpatient versus outpatient status. NHSN defines an inpatient operative procedure as a procedure on a patient whose date of admission to the health care facility and the date of discharge are different calendar days. An outpatient operative procedure occurs when a patient is admitted and discharged on the same calendar day.

Hernia surgeries. A hernia surgery involves the repair of a hernia, which is a bulging of internal organs or tissues that protrude through an abnormal opening in the muscle wall. Hernia procedures reportable to the National Healthcare Safety Network (NHSN) include inguinal, femoral, umbilical, or anterior abdominal wall repairs. Hernia repairs are monitored for 30 days for superficial SSIs and 90 days for all other SSIs.

SSIs following hernia repairs are reportable by ambulatory surgery centers.⁶ An outpatient operative procedure occurs when a patient is admitted and discharged on the same calendar day.

Hip replacement surgeries. A total or partial hip replacement is a surgery for people with severe hip damage or pain related to chronic osteoarthritis, rheumatoid arthritis, or other degenerative processes involving the hip joint. The surgical procedure for a hip replacement involves removing the damaged cartilage and bone from the hip joint and replacing them with an artificial device. The procedure consists of placing a cup, which is typically plastic, ceramic, or metal, to replace the hip socket, a metal or ceramic ball to replace the head of the femur (thigh bone), and a metal stem to attach to the bone. Hip replacements are monitored for 30 days for a superficial SSI and 90 days for all other SSIs.

SSIs following hip replacement surgeries are reportable by acute care hospitals, critical access hospitals, and ambulatory surgery centers.⁶ Data are presented by facility type and inpatient versus outpatient status. NHSN defines an inpatient operative procedure as a procedure on a patient whose date of admission to the health care facility and the date of discharge are different calendar days. An outpatient operative procedure occurs when a patient is admitted and discharged on the same calendar day.

Hysterectomies. In the past, hysterectomies were performed by making a large abdominal incision to access the uterus and surrounding anatomy. This traditional, open abdominal surgery often causes significant pain, threat to surrounding organs and nerves, long recovery periods, and a higher risk of bleeding and infection. Surgeons now typically use less invasive techniques, such as vaginal hysterectomies, and abdominal hysterectomies using smaller incisions and scopes. In vaginal hysterectomies, the procedure is completed through the vagina with no abdominal incisions. Compared to traditional, open abdominal hysterectomies, vaginal hysterectomies have been shown to result in fewer surgical complications and infections. SSIs following abdominal hysterectomies are reportable by acute care and critical access hospitals. The HAI Advisory Committee removed SSIs following abdominal and vaginal hysterectomies from the reporting requirements of ambulatory surgical centers in 2022, beginning with removing 2021 data from the HAI Annual Report.⁶ Abdominal and vaginal hysterectomies are monitored for 30 days for all SSIs.

Knee replacement surgeries. A total or partial knee replacement is a surgery for people with severe knee damage and pain related to osteoarthritis, rheumatoid arthritis, or traumatic arthritis. A total knee replacement involves removing the damaged cartilage and bone from the surface of the knee joint and replacing them with an artificial device. In this procedure, the patella (kneecap) is removed, the femur (thighbone) and tibia (shinbone) are cut down, and a metal, ceramic, or plastic prosthesis is put in place. Knee replacements are monitored for 30 days for a superficial SSI and 90 days for all other SSIs.

SSIs following knee replacement surgeries are reportable by acute care hospitals, critical access hospitals, and ambulatory surgery centers.⁶ Data are presented by facility type and inpatient versus outpatient status. The National Healthcare Safety Network (NHSN) defines an inpatient operative procedure as a procedure on a patient whose date of admission to the health care facility and the date of discharge are different calendar days. An outpatient operative procedure occurs when a patient is admitted and discharged on the same calendar day.

All surgery types. The three categories summarizing how a Colorado facility compares to the national infection baseline are:

- Statistically lower rates of infection than the national baseline (better).
- Statistically similar rates of infection to the national baseline (not significant).
- Statistically higher rates of infection than the national baseline (worse).⁸

Data were suppressed if the predicted number of infections was less than one or the facility had fewer than 20 procedures in the calendar year.

Surgical-site infections following breast surgeries

Forty-seven care hospitals reported performing inpatient breast surgeries in 2021 (**Table 25**). Of these, one reported a rate of SSI following breast surgery that was higher (worse) than the national baseline. Fourteen acute care hospitals reported rates that were similar to (not significantly different from) the national baseline. Rates of SSI for 32 were suppressed. Forty-eight acute care hospitals reported outpatient breast surgeries in 2021. Of these, one reported a rate of SSI following breast surgery that was lower (better) than the national baseline. Two reported a rate that was higher (worse) than the national baseline. Fourteen reported a rate that was similar to (not statistically different from) the national baseline. Rates of SSI for 31 were suppressed.

Twenty-eight ambulatory surgical centers reported performing breast surgeries in 2021. Of these, seven reported a rate of SSI following breast surgery that was similar to (not significantly different from) the national baseline. Rates of SSI for 20 were suppressed.

Eight critical access hospitals reported performing inpatient breast surgeries in 2021. SSI data were suppressed for all and national comparisons were not available. Twelve critical access hospitals reported outpatient breast surgeries in 2021. SSI data were suppressed for all and national comparisons were not available.

Table 25. Surgical site infections following breast surgeries – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Acute care hospitals, inpatient procedures												
Animas Surgical Hospital	20	0	N/A	Suppressed ¹	6	---	N/A	Suppressed ¹	5	---	N/A	Suppressed ¹
Avista Adventist Hospital	111	0	0.0	Not significant	125	0	0.0	Not significant	62	0	N/A	Suppressed ¹
Banner Fort Collins Medical Center	7	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹
Boulder Community Foothills Hospital	81	3	2.9	Not significant	88	2	1.5	Not significant	101	2	1.7	Not significant
Castle Rock Adventist Hospital	63	1	N/A	Suppressed ¹	90	1	0.8	Not significant	50	0	N/A	Suppressed ¹
Colorado Plains Medical Center	1	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹
Community Hospital	68	2	1.9	Not significant	42	1	N/A	Suppressed ¹	29	2	N/A	Suppressed ¹
Delta County Memorial Hospital	26	1	N/A	Suppressed ¹	15	---	N/A	Suppressed ¹	19	---	N/A	Suppressed ¹
Denver Health And Hospital Authority	54	1	0.7	Not significant	48	0	0.0	Not significant	53	2	1.4	Not significant
Exempla Lutheran Medical Center	118	0	0.0	Not significant	61	2	N/A	Suppressed ¹	31	0	N/A	Suppressed ¹
Exempla Saint Joseph Hospital	359	7	1.0	Not significant	188	1	0.3	Not significant	229	3	0.7	Not significant
Grandview Hospital	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Littleton Adventist Hospital	97	1	0.6	Not significant	44	0	N/A	Suppressed ¹	24	0	N/A	Suppressed ¹
Longmont United Hospital	35	0	N/A	Suppressed ¹	71	0	0.0	Not significant	87	0	0.0	Not significant
Longs Peak Hospital	11	---	N/A	Suppressed ¹	10	---	N/A	Suppressed ¹	22	2	N/A	Suppressed ¹
Mckee Medical Center	69	2	N/A	Suppressed ¹	50	0	N/A	Suppressed ¹	37	0	N/A	Suppressed ¹
Medical Center Of The Rockies	93	2	0.9	Not significant	75	2	1.6	Not significant	75	3	2.1	Not significant
Memorial Health System	49	1	0.6	Not significant	57	3	1.9	Not significant	68	3	1.7	Not significant
Memorial Hospital North	324	8	1.6	Not significant	270	6	1.5	Not significant	268	5	1.2	Not significant
Mercy Regional Medical Center	48	1	N/A	Suppressed ¹	52	0	N/A	Suppressed ¹	47	2	N/A	Suppressed ¹
Montrose Memorial Hospital	9	---	N/A	Suppressed ¹	7	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹
North Colorado Medical Center	88	0	0.0	Not significant	51	0	N/A	Suppressed ¹	9	---	N/A	Suppressed ¹
North Suburban Medical Center	43	0	N/A	Suppressed ¹	27	0	N/A	Suppressed ¹	7	---	N/A	Suppressed ¹
Parker Adventist Hospital	40	0	N/A	Suppressed ¹	32	0	N/A	Suppressed ¹	41	0	N/A	Suppressed ¹
Parkview Medical Center	7	---	N/A	Suppressed ¹	25	0	N/A	Suppressed ¹	14	---	N/A	Suppressed ¹
Penrose St. Francis Health Services	116	1	0.6	Not significant ¹	88	0	0.0	Not significant	19	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Platte Valley Medical Center	2	---	N/A	Suppressed ¹	11	---	N/A	Suppressed ¹	26	0	N/A	Suppressed ¹
Porter Adventist Hospital	16	---	N/A	Suppressed ¹	5	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹
Poudre Valley Health System	175	8	2.8	Worse	112	3	1.7	Not significant	117	4	2.0	Not significant
Presbyterian/St Luke's Medical Center	124	2	1.0	Not significant	59	1	0.9	Not significant	24	0	N/A	Suppressed ¹
Rose Medical Center	387	1	0.2	Better	225	2	0.6	Not significant	197	5	1.7	Not significant
Saint Anthony North Health Campus	43	0	0.0	Not significant	28	1	N/A	Suppressed ¹	21	1	N/A	Suppressed ¹
SCL Health Good Samaritan Medical Center	70	0	0.0	Not significant	92	0	0.0	Not significant	89	2	1.4	Not significant
Sky Ridge Medical Center	344	2	0.4	Not significant	225	2	0.6	Not significant	198	0	0.0	Not significant
SLV Regional Medical Center	9	---	N/A	Suppressed ¹	11	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
St. Anthony Hospital	141	0	0.0	Not significant	111	1	0.6	Not significant	75	0	0.0	Not significant
St. Anthony Summit Medical Center	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹
St. Francis Medical Center	28	0	N/A	Suppressed ¹	31	1	N/A	Suppressed ¹	97	3	1.5	Not significant
St. Mary's Hospital	82	1	0.8	Not significant	57	0	N/A	Suppressed ¹	58	1	N/A	Suppressed ¹
St. Mary Corwin Medical Center	39	1	N/A	Suppressed ¹	34	1	N/A	Suppressed ¹	47	0	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Sterling Regional Medcenter	5	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Swedish Medical Center	85	3	2.1	Not significant	46	0	N/A	Suppressed ¹	47	1	N/A	Suppressed ¹
The Medical Center of Aurora	108	2	1.3	Not significant	37	2	N/A	Suppressed ¹	40	0	N/A	Suppressed ¹
UCHealth Broomfield Hospital	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
UCHealth Greeley Hospital	0	---	N/A	Suppressed ¹	24	0	N/A	Suppressed ¹	22	0	N/A	Suppressed ¹
UCHealth Highlands Ranch Hospital	17	---	N/A	Suppressed ¹	59	1	N/A	Suppressed ¹	58	3	2.8	Not significant
UCHealth Yampa Valley Medical Center	3	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	13	---	N/A	Suppressed ¹
University Of Colorado Hospital	411	14	1.7	Not significant	368	7	1.0	Not significant	394	17	2.1	Worse
Vail Health Hospital	25	0	N/A	Suppressed ¹	9	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹
Valley View Hospital	47	1	N/A	Suppressed ¹	35	0	N/A	Suppressed ¹	48	0	N/A	Suppressed ¹
Acute care hospitals, outpatient procedures												
Animas Surgical Hospital	63	1	N/A	Suppressed ¹	86	2	N/A	Suppressed ¹	89	0	N/A	Suppressed ¹
Avista Adventist Hospital	209	0	0.0	Not significant ¹	229	0	0.0	Not significant	165	0	0.0	Not significant
Banner Fort Collins Medical Center	5	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹	8	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Boulder Community Foothills Hospital	100	0	N/A	Suppressed ¹	73	1	N/A	Suppressed ¹	113	0	N/A	Suppressed ¹
Castle Rock Adventist Hospital	395	1	0.5	Not significant ¹	345	1	0.5	Not significant	348	1	0.5	Not significant
Colorado Plains Medical Center	2	---	N/A	Suppressed ¹	N/A				3	---	N/A	Suppressed ¹
Community Hospital	99	0	N/A	Suppressed ¹	57	0	N/A	Suppressed ¹	57	1	N/A	Suppressed ¹
Delta County Memorial Hospital	59	0	N/A	Suppressed ¹	60	0	N/A	Suppressed ¹	46	0	N/A	Suppressed ¹
Denver Health And Hospital Authority	101	0	0.0	Not significant	162	0	0.0	Not significant	256	1	0.3	Not significant
Exempla Lutheran Medical Center	316	4	2.3	Not significant	312	0	0.0	Not significant	310	1	0.5	Not significant
Exempla Saint Joseph Hospital	338	4	1.7	Not significant	286	4	1.6	Not significant	250	2	1.0	Not significant
Littleton Adventist Hospital	265	1	0.4	Not significant	362	0	0.0	Better ¹	394	0	0.0	Better ¹
Longmont United Hospital	248	0	0.0	Not significant	168	0	0.0	Not significant	124	0	N/A	Suppressed ¹
Longs Peak Hospital	19	---	N/A	Suppressed ¹	40	0	N/A	Suppressed ¹	61	1	N/A	Suppressed ¹
Mckee Medical Center	127	2	N/A	Suppressed ¹	181	0	N/A	Suppressed ¹	206	0	0.0	Not significant
Medical Center Of The Rockies	142	4	N/A	Suppressed ¹	93	1	N/A	Suppressed ¹	84	1	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Memorial Health System	35	2	N/A	Suppressed ¹	69	0	N/A	Suppressed ¹	71	2	N/A	Suppressed ¹
Memorial Hospital North	658	4	1.2	Not significant	712	2	0.7	Not significant	888	9	2.2	Worse
Mercy Regional Medical Center	120	1	N/A	Suppressed ¹	85	0	N/A	Suppressed ¹	104	1	N/A	Suppressed ¹
Montrose Memorial Hospital	35	0	N/A	Suppressed ¹	32	0	N/A	Suppressed ¹	16	---	N/A	Suppressed ¹
North Colorado Medical Center	148	0	N/A	Suppressed ¹	145	0	N/A	Suppressed ¹	216	0	0.0	Not significant
North Suburban Medical Center	50	0	N/A	Suppressed ¹	50	0	N/A	Suppressed ¹	50	0	N/A	Suppressed ¹
Parker Adventist Hospital	122	2	N/A	Suppressed ¹	101	0	N/A	Suppressed ¹	134	0	0.0	Not significant
Parkview Medical Center	14	---	N/A	Suppressed ¹	61	1	N/A	Suppressed ¹	83	0	N/A	Suppressed ¹
Penrose St. Francis Health Services	336	0	0.0	Not significant	274	1	0.5	Not significant	132	1	0.9	Not significant
Platte Valley Medical Center	17	---	N/A	Suppressed ¹	26	0	N/A	Suppressed ¹	56	1	N/A	Suppressed ¹
Porter Adventist Hospital	14	---	N/A	Suppressed ¹	8	---	N/A	Suppressed ¹	9	---	N/A	Suppressed ¹
Poudre Valley Health System	110	1	N/A	Suppressed ¹	87	4	N/A	Suppressed ¹	125	2	N/A	Suppressed ¹
Presbyterian/St Luke's Medical Center	275	1	0.6	Not significant	207	0	0.0	Not significant	114	0	N/A	Suppressed ¹
Rose Medical Center	1,182	0	0.0	Better	1,118	3	0.4	Not significant	1,645	9	0.8	Not significant

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Saint Anthony North Health Campus	56	0	N/A	Suppressed ¹	94	0	N/A	Suppressed ¹	132	0	0.0	Not significant
SCL Health Good Samaritan Medical Center	155	0	N/A	Suppressed ¹	90	1	N/A	Suppressed ¹	124	0	N/A	Suppressed ¹
Sky Ridge Medical Center	361	5	2.0	Not significant	529	1	0.3	Not significant	465	1	0.3	Not significant
SLV Regional Medical Center	16	---	N/A	Suppressed ¹	21	0	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹
St. Anthony Hospital	179	0	N/A	Suppressed ¹	145	0	N/A	Suppressed ¹	152	1	N/A	Suppressed ¹
St. Anthony Summit Medical Center	13	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	12	---	N/A	Suppressed ¹
St. Francis Medical Center	100	0	N/A	Suppressed ¹	94	0	N/A	Suppressed ¹	220	0	0.0	Not significant
St. Mary's Hospital	66	2	N/A	Suppressed ¹	55	1	N/A	Suppressed ¹	36	0	N/A	Suppressed ¹
St. Mary Corwin Medical Center	80	0	N/A	Suppressed ¹	73	0	N/A	Suppressed ¹	101	0	N/A	Suppressed ¹
Sterling Regional Medcenter	5	---	N/A	Suppressed ¹	26	0	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹
Swedish Medical Center	97	1	N/A	Suppressed ¹	56	0	N/A	Suppressed ¹	48	0	N/A	Suppressed ¹
The Medical Center of Aurora	70	0	N/A	Suppressed ¹	44	1	N/A	Suppressed ¹	88	0	N/A	Suppressed ¹
UCHealth Broomfield Hospital	N/A				1	---	N/A	Suppressed ¹	N/A			
UCHealth Greeley Hospital	8	---	N/A	Suppressed ¹	45	0	N/A	Suppressed ¹	59	1	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
UCHealth Highlands Ranch Hospital	109	1	N/A	Suppressed ¹	378	4	1.6	Not significant	475	2	0.6	Not significant
UCHealth Yampa Valley Medical Center	26	0	N/A	Suppressed ¹	27	0	N/A	Suppressed ¹	55	1	N/A	Suppressed ¹
University Of Colorado Hospital	645	3	0.7	Not significant ¹	573	8	1.9	Not significant	894	12	1.9	Worse
Vail Health Hospital	123	0	N/A	Suppressed ¹	94	1	N/A	Suppressed ¹	26	0	N/A	Suppressed ¹
Valley View Hospital	91	0	N/A	Suppressed ¹	112	0	N/A	Suppressed ¹	136	1	N/A	Suppressed ¹
Ambulatory surgery centers												
718denver Midtown Surgical Center	47	0	N/A	Suppressed ¹	50	0	N/A	Suppressed ¹	68	0	N/A	Suppressed ¹
Aberdeen Ambulatory Surgical Center	448	0	0.0	Not significant ¹	375	0	0.0	Not significant	310	0	N/A	Suppressed ¹
Arete Surgical Center	47	0	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	N/A			
Arkansas Valley Surgery Center	1	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹
Ascent Surgery Center	408	0	N/A	Suppressed ¹	430	0	N/A	Suppressed ¹	524	0	0.0	Not significant
Audubon ASC @ St. Francis	3	---	N/A	Suppressed ¹	7	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹
Audubon Surgery Center	12	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹	N/A			
Black Canyon Surgical Center	6	---	N/A	Suppressed ¹	9	---	N/A	Suppressed ¹	9	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Canyon View ASC, LLC	12	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	N/A			
Centrum Surgical Center	318	0	N/A	Suppressed ¹	671	2	1.7	Not significant	536	0	0.0	Not significant
Coal Creek Ambulatory Surgery Center	16	---	N/A	Suppressed ¹	24	0	N/A	Suppressed ¹	27	0	N/A	Suppressed ¹
Crown Point Surgery Center	159	0	N/A	Suppressed ¹	113	0	N/A	Suppressed ¹	208	0	N/A	Suppressed ¹
Denver Surgery Center	2	---	N/A	Suppressed ¹	6	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹
Foothills Surgery Center	87	0	N/A	Suppressed ¹	72	2	N/A	Suppressed ¹	118	0	N/A	Suppressed ¹
Grand Valley Surgical Center	415	0	0.0	Not significant	375	1	N/A	Suppressed ¹	536	1	0.7	Not significant
Harmony Surgery Center	474	0	0.0	Not significant	532	1	0.5	Not significant	639	1	0.4	Not significant
Insight Surgery Center	262	0	N/A	Suppressed ¹	210	0	N/A	Suppressed ¹	305	0	N/A	Suppressed ¹
Kaiser Permanente Ambulatory Surgery Center	566	3	1.6	Not significant ¹	410	2	1.6	Not significant	472	0	0.0	Not significant
Kaiser Permanente Lone Tree Ambulatory Surgery	717	7	2.9	Worse	529	1	0.6	Not significant	542	0	0.0	Not significant
Mountain Vista Surgery Center	7	---	N/A	Suppressed ¹	19	---	N/A	Suppressed ¹	55	0	N/A	Suppressed ¹
Musculoskeletal Surgery Center	68	0	N/A	Suppressed ¹	49	0	N/A	Suppressed ¹	85	0	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Park Meadows Outpatient Surgery LLC	556	1	0.6	Not significant	600	0	0.0	Not significant	651	2	1.1	Not significant
Peak One Surgery Center	N/A				1	---	N/A	Suppressed ¹	N/A			
Red Rocks Surgery Center, LLC	36	0	N/A	Suppressed ¹	44	0	N/A	Suppressed ¹	23	0	N/A	Suppressed ¹
Rose Surgical Center	12	---	0.6	Suppressed ¹	9	---	0.5	Suppressed ¹	12	---	0.6	Suppressed ¹
Sky Ridge Surgical Center	200	0	N/A	Suppressed ¹	150	0	N/A	Suppressed ¹	203	0	N/A	Suppressed ¹
Skyline Surgery Center	247	0	N/A	Suppressed ¹	288	0	N/A	Suppressed ¹	243	0	N/A	Suppressed ¹
Summit View Surgery Center	43	0	N/A	Suppressed ¹	34	0	N/A	Suppressed ¹	51	0	N/A	Suppressed ¹
Surgery Center At Kissing Camels, LLC	87	0	N/A	Suppressed ¹	110	1	N/A	Suppressed ¹	138	0	N/A	Suppressed ¹
Surgery Center Of Colorado , LLC	4	---	N/A	Suppressed ¹	187	0	N/A	Suppressed ¹	179	0	N/A	Suppressed ¹
Surgery Center Of The Rockies	203	1	N/A	Suppressed ¹	96	0	N/A	Suppressed ¹	73	0	N/A	Suppressed ¹
Surgical Center Of The Rockies	12	---	N/A	Suppressed ¹	N/A							
The Surgery Center At Lutheran	65	0	N/A	Suppressed ¹	12	---	N/A	Suppressed ¹	N/A			
Vail Valley Surgery Center Edwards	N/A				2	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹

Critical access hospitals, inpatient procedures

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Arkansas Valley Regional Medical Center	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Aspen Valley Hospital	4	---	N/A	Suppressed ¹	8	---	N/A	Suppressed ¹	6	---	N/A	Suppressed ¹
Colorado Canyons Hospital & Medical Center	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
East Morgan County Hospital	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	5	---	N/A	Suppressed ¹
Grand River Medical Center	0	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Gunnison Valley Hospital	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Heart Of The Rockies Regional Medical Center	5	---	N/A	Suppressed ¹	6	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹
Melissa Memorial Hospital	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Mt. San Rafael Hospital	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Pagosa Springs Medical Center	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Pikes Peak Regional Hospital	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Pioneers Medical Center	N/A								0	---	N/A	Suppressed
Prowers Medical Center	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Rio Grande Hospital	N/A				0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Southwest Memorial Hospital	2	---	N/A	Suppressed ¹	5	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹
Spanish Peaks Regional Health Center	0	---	N/A	Suppressed ¹	N/A							
St. Thomas More Hospital	5	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹
The Memorial Hospital	0	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Wray Community District Hospital	1	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Yuma District Hospital	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Critical access hospitals, outpatient procedures												
Aspen Valley Hospital	32	0	N/A	Suppressed ¹	25	0	N/A	Suppressed ¹	30	0	N/A	Suppressed ¹
Colorado Canyons Hospital & Medical Center	N/A				10	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹
East Morgan County Hospital	8	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	9	---	N/A	Suppressed ¹
Grand River Medical Center	8	---	N/A	Suppressed ¹	12	---	N/A	Suppressed ¹	5	---	N/A	Suppressed ¹
Gunnison Valley Hospital	N/A								2	---	N/A	Suppressed ¹
Heart Of The Rockies Regional Medical Center	8	---	N/A	Suppressed ¹	15	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Pagosa Springs Medical Center	2	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹
Pikes Peak Regional Hospital	2	---	N/A	Suppressed ¹	N/A				2	---	N/A	Suppressed ¹
Southwest Memorial Hospital	5	---	N/A	Suppressed ¹	10	---	N/A	Suppressed ¹	13	---	N/A	Suppressed
Spanish Peaks Regional Health Center	1	---	N/A	Suppressed ¹	N/A							
St. Thomas More Hospital	10	---	N/A	Suppressed ¹	10	---	N/A	Suppressed ¹	9	---	N/A	Suppressed ¹
The Memorial Hospital	N/A								1	---	N/A	Suppressed ¹
Wray Community District Hospital	N/A				1	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹
Yuma District Hospital	1	---	N/A	Suppressed ¹	N/A							

¹Calculation of comparison is not available due to data suppression for one of the following reasons: no. of procedures fewer than 20 or the predicted number of infections was less than one.

SIR, standardized infection ratio; N/A, not applicable.

Data source: National Healthcare Safety Network.

Surgical-site infections following colon surgeries

Forty-eight acute care hospitals reported performing inpatient colon surgeries in 2021 (**Table 26**). Of these, nine reported a rate of SSI following colon surgery that was lower (better) than the national baseline. Thirty-two reported a rate that was similar to (not significantly different from) the national baseline. Rates of SSI for seven were suppressed. Twenty-five acute care hospitals reported outpatient colon procedures in 2021. Rates of SSI were suppressed for all.

Ten critical access hospitals reported performing inpatient colon surgeries in 2021. One reported a rate of SSI following colon surgery that was similar to (not significantly different from) the national baseline. Rates of SSI for 10 were suppressed. One critical access hospital reported outpatient colon surgery in 2021 for which the rate of SSI was suppressed.

Table 26. Surgical site infections following colon surgeries – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Acute care hospitals, inpatient procedures												
Animas Surgical Hospital	1	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Avista Adventist Hospital	68	3	0.9	Not significant	40	0	0.0	Not significant	33	1	0.7	Not significant
Banner Fort Collins Medical Center	22	0	0.0	Not significant	23	1	0.8	Not significant	25	3	2.1	Not significant
Boulder Community Foothills Hospital	112	4	1.1	Not significant	119	3	1.0	Not significant	135	7	2.1	Not significant
Castle Rock Adventist Hospital	38	1	0.6	Not significant ¹	40	1	0.6	Not significant	43	1	0.6	Not significant
Colorado Plains Medical Center	1	---	N/A	Suppressed ¹	6	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹
Community Hospital	69	7	2.4	Worse	46	4	1.9	Not significant	28	0	0.0	Not significant
Delta County Memorial Hospital	33	1	0.8	Not significant	43	0	0.0	Not significant	33	0	0.0	Not significant
Denver Health And Hospital Authority	126	4	0.5	Not significant	118	3	0.4	Not significant	105	5	0.6	Not significant

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Exempla Lutheran Medical Center	135	5	0.9	Not significant	100	4	0.8	Not significant	128	6	1.1	Not significant
Exempla Saint Joseph Hospital	246	17	1.3	Not significant	206	5	0.4	Better	228	9	0.7	Not significant
Grandview Hospital	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Littleton Adventist Hospital	91	1	0.2	Not significant	109	1	0.2	Better	113	1	0.2	Better
Longmont United Hospital	69	2	0.6	Not significant	63	0	0.0	Not significant	39	0	0.0	Not significant
Longs Peak Hospital	71	6	1.8	Not significant	62	5	2.0	Not significant	76	5	1.5	Not significant
Mckee Medical Center	62	2	0.7	Not significant	46	0	0.0	Not significant	69	0	0.0	Better
Medical Center Of The Rockies	182	8	0.9	Not significant	191	6	0.6	Not significant	194	7	0.7	Not significant
Memorial Health System	323	21	1.1	Not significant	320	13	0.7	Not significant	330	26	1.3	Not significant
Memorial Hospital North	88	5	1.1	Not significant	87	4	0.8	Not significant	100	8	1.3	Not significant
Mercy Regional Medical Center	40	0	0.0	Not significant	42	1	0.6	Not significant	54	5	2.0	Not significant
Montrose Memorial Hospital	34	3	2.3	Not significant	31	1	0.8	Not significant	37	0	0.0	Not significant

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
North Colorado Medical Center	128	7	1.0	Not significant	116	2	0.3	Better	125	11	1.7	Not significant
North Suburban Medical Center	63	1	0.4	Not significant	62	4	1.2	Not significant	73	3	0.7	Not significant
Parker Adventist Hospital	120	1	0.2	Better	127	1	0.2	Better	133	1	0.1	Better
Parkview Medical Center	203	6	0.6	Not significant	172	3	0.4	Not significant	191	6	0.7	Not significant
Penrose St. Francis Health Services	220	10	1.0	Not significant	244	7	0.6	Not significant	279	2	0.1	Better
Platte Valley Medical Center	97	1	0.3	Not significant	58	2	0.9	Not significant	59	1	0.5	Not significant
Porter Adventist Hospital	57	4	1.6	Not significant	95	6	1.3	Not significant	81	0	0.0	Better
Poudre Valley Health System	143	15	2.4	Worse	144	6	1.0	Not significant	167	5	0.7	Not significant
Presbyterian/St Luke's Medical Center	95	2	0.4	Not significant	98	12	2.3	Worse	116	7	1.2	Not significant
Rose Medical Center	177	4	0.6	Not significant	155	10	1.9	Not significant	153	3	0.6	Not significant
Saint Anthony North Health Campus	66	3	0.8	Not significant	60	2	0.6	Not significant	79	5	1.3	Not significant
SCL Health Good Samaritan Medical Center	261	11	1.0	Not significant	202	5	0.6	Not significant	206	8	0.9	Not significant

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Sky Ridge Medical Center	235	1	0.1	Better	261	12	0.9	Not significant	302	12	0.8	Not significant
SLV Regional Medical Center	27	3	2.2	Not significant	9	---	N/A	Suppressed ¹	19	---	N/A	Suppressed ¹
St. Anthony Hospital	179	4	0.5	Not significant	171	3	0.3	Better	187	7	0.8	Not significant ¹
St. Anthony Summit Medical Center	9	---	N/A	Suppressed	5	---	N/A	Suppressed ¹	12	---	N/A	Suppressed ¹
St. Francis Medical Center	76	3	0.9	Not significant	83	3	0.7	Not significant	95	0	0.0	Better
St. Mary's Hospital	180	8	0.9	Not significant	166	0	0.0	Better	157	3	0.3	Better
St. Mary Corwin Medical Center	42	2	1.1	Not significant	36	1	0.5	Not significant	27	0	0.0	Not significant
Sterling Regional Medcenter	11	---	N/A	Suppressed ¹	9	---	N/A	Suppressed ¹	8	---	N/A	Suppressed ¹
Swedish Medical Center	287	15	1.2	Not significant	258	8	0.7	Not significant	265	3	0.3	Better
The Medical Center of Aurora	105	4	0.8	Not significant	109	8	1.6	Not significant	107	4	0.8	Not significant
UCHealth Broomfield Hospital	1	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
UCHealth Greeley Hospital	18	---	N/A	Suppressed ¹	53	1	0.4	Not significant	76	2	0.6	Not significant

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
UCHealth Highlands Ranch Hospital	10	---	N/A	Suppressed ¹	44	4	1.8	Not significant	68	6	1.6	Not significant
UCHealth Yampa Valley Medical Center	16	---	N/A	Suppressed ¹	15	---	N/A	Suppressed ¹	17	---	N/A	Suppressed ¹
University Of Colorado Hospital	503	43	1.1	Not significant ¹	416	20	0.7	Not significant	481	20	0.6	Better
Vail Health Hospital	12	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	7	---	N/A	Suppressed ¹
Valley View Hospital	35	2	1.4	Not significant	53	2	0.8	Not significant	27	2	2.0	Not significant
Acute care hospitals, outpatient procedures												
Banner Fort Collins Medical Center	N/A								1	---	N/A	Suppressed ¹
Boulder Community Foothills Hospital	10	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	5	---	N/A	Suppressed ¹
Castle Rock Adventist Hospital	1	---	N/A	Suppressed ¹	N/A							
Colorado Plains Medical Center	N/A								1	---	N/A	Suppressed ¹
Community Hospital	N/A				1	---	N/A	Suppressed ¹	N/A			

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Denver Health And Hospital Authority	N/A								1	---	N/A	Suppressed ¹
Exempla Saint Joseph Hospital	3	---	N/A	Suppressed ¹	N/A				1	---	N/A	Suppressed ¹
Littleton Adventist Hospital	N/A								1	---	N/A	Suppressed ¹
Mckee Medical Center	N/A								1	---	N/A	Suppressed ¹
Medical Center Of The Rockies	1	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Memorial Health System	3	---	N/A	Suppressed ¹	5	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹
Memorial Hospital North	2	---	N/A	Suppressed ¹	N/A				1	---	N/A	Suppressed ¹
Montrose Memorial Hospital	1	---	N/A	Suppressed ¹	N/A				1	---	N/A	Suppressed ¹
North Colorado Medical Center	3	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Parker Adventist Hospital	1	---	N/A	Suppressed ¹	N/A							
Parkview Medical Center	N/A								3	---	N/A	Suppressed ¹
Penrose St. Francis Health Services	N/A								2	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Platte Valley Medical Center	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹
Porter Adventist Hospital	1	---	N/A	Suppressed ¹	N/A							
Poudre Valley Health System	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	N/A			
Presbyterian/St Luke's Medical Center	1	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Rose Medical Center	5	---	N/A	Suppressed ¹	N/A				1	---	N/A	Suppressed ¹
Saint Anthony North Health Campus	N/A								1	---	N/A	Suppressed ¹
SCL Health Good Samaritan Medical Center	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	N/A			
Sky Ridge Medical Center	3	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	6	---	N/A	Suppressed ¹
SLV Regional Medical Center	1	---	N/A	Suppressed ¹	N/A				3	---	N/A	Suppressed ¹
St. Mary Corwin Medical Center	1	---	N/A	Suppressed ¹	N/A							
Swedish Medical Center	12	---	N/A	Suppressed ¹	5	---	N/A	Suppressed ¹	9	---	N/A	Suppressed ¹
The Medical Center of Aurora	1	---	N/A	Suppressed ¹	N/A							

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
UCHealth Greeley Hospital	N/A				1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
UCHealth Highlands Ranch Hospital	N/A								2	---	N/A	Suppressed ¹
UCHealth Yampa Valley Medical Center	N/A				2	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹
University Of Colorado Hospital	3	---	N/A	Suppressed ¹	N/A							
Valley View Hospital	3	---	N/A	Suppressed ¹	N/A				1	---	N/A	Suppressed ¹
Critical access hospitals, inpatient procedures												
Arkansas Valley Regional Medical Center	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Aspen Valley Hospital	4	---	N/A	Suppressed ¹	9	---	N/A	Suppressed ¹	12	---	N/A	Suppressed ¹
East Morgan County Hospital	0	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹
Estes Park Health	1	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Grand River Medical Center	8	---	N/A	Suppressed ¹	5	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Gunnison Valley Hospital	5	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	6	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Heart Of The Rockies Regional Medical Center	17	---	N/A	Suppressed ¹	12	---	N/A	Suppressed ¹	14	---	N/A	Suppressed ¹
Melissa Memorial Hospital	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Middle Park Medical Center	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Mt. San Rafael Hospital	0	---	N/A	Suppressed	5	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Pagosa Springs Medical Center	0	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Pikes Peak Regional Hospital	11	---	N/A	Suppressed ¹	10	---	N/A	Suppressed ¹	6	---	N/A	Suppressed ¹
Pioneers Medical Center	N/A				N/A				0	---	N/A	Suppressed ¹
Prowers Medical Center	4	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹
Rio Grande Hospital	N/A				N/A				0	---	N/A	Suppressed ¹
Southwest Memorial Hospital	5	---	N/A	Suppressed ¹	8	---	N/A	Suppressed ¹	15	---	N/A	Suppressed ¹
St. Thomas More Hospital	52	2	0.9	Not significant ¹	36	1	0.6	Not significant	26	1	0.9	Not significant
The Memorial Hospital	2	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Wray Community District Hospital	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Yuma District Hospital	0	---	N/A	Suppressed ¹	N/A							
Critical access hospitals, outpatient procedures												
East Morgan County Hospital	1	---	N/A	Suppressed ¹	N/A							
Grand River Medical Center	2	---	N/A	Suppressed ¹	N/A							
Gunnison Valley Hospital	N/A								1	---	N/A	Suppressed ¹
Mt. San Rafael Hospital	N/A				1	---	N/A	Suppressed ¹	N/A			
Pikes Peak Regional Hospital	N/A				1	---	N/A	Suppressed ¹	N/A			
Prowers Medical Center	1	---	N/A	Suppressed ¹	N/A							
¹ Calculation of comparison is not available due to data suppression for one of the following reasons: no. of procedures fewer than 20 or the predicted number of infections was less than one.												

SIR, standardized infection ratio; N/A, not applicable.

Data source: National Healthcare Safety Network.

Surgical-site infections following hernia repairs

Twenty-seven ambulatory surgery centers reported performing hernia repair surgeries in 2021 (**Table 27**). Three reported a rate of SSI following hernia repair surgery that was similar to (not significantly different from) the national baseline. Rates of SSI were suppressed for 24 ambulatory surgery centers.

Table 27. Surgical site infections following hernia repair surgeries – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Ambulatory surgery centers												
Denver Midtown Surgical Center	69	0	N/A	Suppressed ¹	64	0	N/A	Suppressed ¹	65	0	N/A	Suppressed ¹
Aberdeen Ambulatory Surgical Center	2	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	N/A			
Arkansas Valley Surgery Center	73	0	N/A	Suppressed ¹	86	0	N/A	Suppressed ¹	87	0	N/A	Suppressed ¹
Audubon ASC at St. Francis	494	1	N/A	Suppressed ¹	341	0	N/A	Suppressed ¹	292	0	N/A	Suppressed ¹
Black Canyon Surgical Center	37	1	N/A	Suppressed ¹	90	0	N/A	Suppressed ¹	31	0	N/A	Suppressed ¹
Canyon View ASC, LLC	112	1	N/A	Suppressed ¹	42	0	N/A	Suppressed ¹	N/A			
Castle Rock Surgicenter	6	---	N/A	Suppressed ¹	N/A							
Centrum Surgical Center	20	0	N/A	Suppressed ¹	31	0	N/A	Suppressed ¹	12	---	N/A	Suppressed ¹
Children's North Surgery Center	95	0	N/A	Suppressed ¹	N/A							
Clear Creek Surgery Center	422	1	1.0	Not significant	390	0	N/A	Suppressed ¹	454	0	0.0	Not significant ¹
Crown Point Surgery Center	146	0	N/A	Suppressed ¹	74	0	N/A	Suppressed ¹	74	0	N/A	Suppressed ¹
Denver Surgery Center	50	0	N/A	Suppressed ¹	208	0	N/A	Suppressed ¹	175	0	N/A	Suppressed ¹
Foothills Surgery Center	300	0	N/A	Suppressed ¹	279	0	N/A	Suppressed ¹	328	2	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Grand Valley Surgical Center	122	0	N/A	Suppressed ¹	126	0	N/A	Suppressed ¹	135	0	N/A	Suppressed ¹
Harmony Surgery Center	514	0	N/A	Suppressed ¹	547	0	N/A	Suppressed ¹	528	0	N/A	Suppressed ¹
Harvard Park Surgery Center	39	0	N/A	Suppressed ¹	53	0	N/A	Suppressed ¹	51	0	N/A	Suppressed ¹
Insight Surgery Center	5	---	N/A	Suppressed ¹	6	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹
Kaiser Permanente Ambulatory Surgery Center	740	1	0.6	Not significant	583	0	0.0	Not significant	669	0	0.0	Not significant
Kaiser Permanente Lone Tree Ambulatory Surgery	672	6	3.9	Worse	544	2	1.4	Not significant	465	0	0.0	Not significant
Midvalley Ambulatory Surgery Center	4	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	N/A			
Mile High Surgicenter, LLC	108	0	N/A	Suppressed ¹	78	0	N/A	Suppressed ¹	81	0	N/A	Suppressed ¹
Mountain Vista Surgery Center	24	0	N/A	Suppressed ¹	24	0	N/A	Suppressed ¹	21	0	N/A	Suppressed ¹
Musculoskeletal Surgery Center	20	0	N/A	Suppressed ¹	33	0	N/A	Suppressed ¹	13	---	N/A	Suppressed ¹
North Suburban Surgery Center	19	---	N/A	Suppressed ¹	N/A							
Park Ridge Surgery Center	N/A				3	---	N/A	Suppressed ¹	N/A			
Parkwest Surgery Center	1	---	N/A	Suppressed ¹	N/A							

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Peak One Surgery Center	58	0	N/A	Suppressed ¹	43	0	N/A	Suppressed ¹	8	---	N/A	Suppressed ¹
Pueblo Surgery Center	14	---	N/A	Suppressed ¹	14	---	N/A	Suppressed ¹	20	0	N/A	Suppressed ¹
Red Rocks Surgery Center, LLC	115	0	N/A	Suppressed ¹	47	0	N/A	Suppressed ¹	28	0	N/A	Suppressed ¹
Rocky Mountain Surgery Center	291	0	N/A	Suppressed ¹	231	0	N/A	Suppressed ¹	248	0	N/A	Suppressed ¹
Rose Surgical Center	12	---	0.4	Suppressed ¹	10	---	0.3	Suppressed ¹	12	---	0.4	Suppressed ¹
Sky Ridge Surgical Center	174	0	N/A	Suppressed ¹	193	0	N/A	Suppressed ¹	165	0	N/A	Suppressed ¹
Skyline Surgery Center	256	0	N/A	Suppressed ¹	172	0	N/A	Suppressed ¹	123	0	N/A	Suppressed ¹
Summit View Surgery Center	242	1	N/A	Suppressed ¹	235	0	N/A	Suppressed ¹	298	0	N/A	Suppressed ¹
Surgery Center Of The Rockies	59	0	N/A	Suppressed ¹	28	0	N/A	Suppressed ¹	21	0	N/A	Suppressed ¹
The Surgery Center At Lutheran	1	---	N/A	Suppressed ¹	N/A							
Vail Valley Surgery Center	N/A				1	---	N/A	Suppressed ¹	N/A			

¹Calculation of comparison is not available due to data suppression for one of the following reasons: no. of procedures fewer than 20 or the predicted number of infections was less than one.

SIR, standardized infection ratio; N/A, not applicable.

Data source: National Healthcare Safety Network.

Surgical-site infections following hip replacements

Fifty-one acute care hospitals reported performing inpatient hip replacement surgeries in 2021 (**Table 28**). Of these, one acute care hospital reported a rate of SSI following hip replacement surgery that was lower (better) than the national baseline. One reported a rate of SSI that was higher (worse) than the national baseline. Twenty-nine reported a rate of SSI that was similar to (not significantly different from) the national baseline. Rates of SSI for 20 were suppressed. Forty-two acute care hospitals reported outpatient hip replacement surgeries in 2021. Of these, one reported a rate of SSI following hip replacement surgery that was lower (better) than the national baseline. Two reported a rate that was similar to (not significantly different from) the national baseline. Rates of SSI for 39 were suppressed.

Nineteen ambulatory surgery centers reported performing hip replacement surgeries in 2021. Comparison of rates of SSI following hip replacement surgery to the national baseline was not possible because risk-adjustment models were not available at the time of this report.

Eighteen critical access hospitals reported performing inpatient hip replacement surgeries in 2021. Rates of SSI following hip replacement surgery were suppressed for all. Eight critical access hospitals reported outpatient hip replacement surgeries in 2021. Rates of SSI following hip replacement surgery were suppressed for all.

Table 28. Surgical site infections following hip replacement surgeries (total or partial) – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Acute care hospitals, inpatient procedures												
Animas Surgical Hospital	167	1	0.8	Not significant	171	0	0.0	Not significant ¹	173	1	0.9	Not significant
Avista Adventist Hospital	101	1	N/A	Suppressed ¹	72	0	N/A	Suppressed ¹	39	0	N/A	Suppressed ¹
Banner Fort Collins Medical Center	85	0	N/A	Suppressed ¹	86	1	N/A	Suppressed ¹	68	2	N/A	Suppressed ¹
Boulder Community Foothills Hospital	407	5	2.1	Not significant	330	4	2.0	Not significant	374	2	0.9	Not significant ¹
Castle Rock Adventist Hospital	32	1	N/A	Suppressed ¹	85	2	N/A	Suppressed ¹	69	1	N/A	Suppressed ¹
Colorado Plains Medical Center	20	0	N/A	Suppressed ¹	12	---	N/A	Suppressed ¹	15	---	N/A	Suppressed ¹
Community Hospital	180	2	1.4	Not significant	114	0	N/A	Suppressed ¹	66	0	N/A	Suppressed ¹
Delta County Memorial Hospital	57	1	N/A	Suppressed ¹	67	0	N/A	Suppressed ¹	60	0	N/A	Suppressed ¹
Denver Health And Hospital Authority	180	4	1.6	Not significant	156	3	1.5	Not significant	119	0	0.0	Not significant
Exempla Lutheran Medical Center	137	0	0.0	Not significant	141	3	1.9	Not significant	189	3	1.4	Not significant
Exempla Saint Joseph Hospital	549	2	0.4	Not significant	467	2	0.4	Not significant	375	5	1.2	Not significant
Grandview Hospital	232	3	1.7	Not significant	276	1	0.5	Not significant	355	5	1.8	Not significant
Littleton Adventist Hospital	369	3	1.0	Not significant	305	1	0.4	Not significant	290	0	0.0	Not significant
Longmont United Hospital	184	2	1.2	Not significant	98	1	0.9	Not significant	101	4	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Longs Peak Hospital	21	0	N/A	Suppressed ¹	34	1	N/A	Suppressed ¹	79	0	N/A	Suppressed ¹
Mckee Medical Center	96	0	0.0	Not significant	73	2	1.9	Not significant	75	1	N/A	Suppressed ¹
Medical Center Of The Rockies	349	5	1.7	Not significant	281	2	0.9	Not significant	230	3	1.6	Not significant
Memorial Health System	106	0	0.0	Not significant	122	2	1.2	Not significant	118	2	1.3	Not significant
Memorial Hospital North	73	1	N/A	Suppressed ¹	75	1	N/A	Suppressed ¹	99	3	2.6	Not significant
Mercy Regional Medical Center	145	3	2.2	Not significant	96	0	N/A	Suppressed ¹	92	0	N/A	Suppressed ¹
Montrose Memorial Hospital	57	0	N/A	Suppressed ¹	86	1	N/A	Suppressed ¹	70	0	N/A	Suppressed ¹
North Colorado Medical Center	154	3	1.3	Not significant	128	2	1.0	Not significant ¹	131	2	1.1	Not significant
North Suburban Medical Center	81	2	N/A	Suppressed ¹	55	1	N/A	Suppressed ¹	53	1	N/A	Suppressed ¹
Ortho Colorado	708	2	0.4	Not significant	676	2	0.4	Not significant	571	0	0.0	Better
Parker Adventist Hospital	170	0	0.0	Not significant	130	2	1.3	Not significant	123	0	0.0	Not significant
Parkview Medical Center	246	0	0.0	Better	157	2	1.0	Not significant	145	1	0.5	Not significant
Penrose St. Francis Health Services	567	1	0.2	Not significant	528	3	0.6	Not significant	468	1	0.2	Not significant
Platte Valley Medical Center	67	0	N/A	Suppressed ¹	75	0	N/A	Suppressed ¹	84	0	0.0	Not significant
Porter Adventist Hospital	592	7	1.1	Not significant	527	4	0.7	Not significant	481	2	0.3	Not significant
Poudre Valley Health System	713	11	2.1	Worse	664	5	1.0	Not significant	537	9	2.1	Worse

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Presbyterian/St Luke's Medical Center	210	4	1.7	Not significant	183	8	3.2	Worse	180	5	1.9	Not significant
Rose Medical Center	370	4	1.3	Not significant	287	1	0.4	Not significant	314	1	0.4	Not significant
Saint Anthony North Health Campus	174	2	0.9	Not significant	180	4	1.7	Not significant	132	1	0.5	Not significant
SCL Health Good Samaritan Medical Center	547	5	1.2	Not significant	492	4	1.1	Not significant	378	7	2.1	Not significant
Sky Ridge Medical Center	885	12	1.6	Not significant	670	5	0.7	Not significant	511	3	0.6	Not significant
SLV Regional Medical Center	47	1	N/A	Suppressed ¹	27	0	N/A	Suppressed ¹	51	1	N/A	Suppressed ¹
St. Anthony Hospital	138	2	1.2	Not significant	159	2	0.7	Not significant	119	1	0.6	Not significant
St. Anthony Summit Medical Center	13	---	N/A	Suppressed ¹	10	---	N/A	Suppressed ¹	27	0	N/A	Suppressed ¹
St. Francis Medical Center	492	6	1.2	Not significant	525	1	0.2	Better	611	5	0.8	Not significant
St. Mary's Hospital	264	1	0.5	Not significant	179	2	1.0	Not significant	184	0	0.0	Not significant
St. Mary Corwin Medical Center	186	2	1.0	Not significant	159	1	0.5	Not significant	147	3	1.7	Not significant
Sterling Regional Medcenter	37	1	N/A	Suppressed ¹	18	---	N/A	Suppressed ¹	20	0	N/A	Suppressed ¹
Swedish Medical Center	289	5	1.5	Not significant	237	1	0.3	Not significant	208	4	1.5	Not significant
The Medical Center of Aurora	223	4	1.9	Not significant	178	2	1.2	Not significant	163	0	0.0	Not significant
UCHealth Broomfield Hospital	33	0	N/A	Suppressed ¹	216	5	2.5	Not significant	163	1	0.8	Not significant
UCHealth Greeley Hospital	8	---	N/A	Suppressed ¹	28	1	N/A	Suppressed ¹	36	0	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
UCHealth Highlands Ranch Hospital	52	1	N/A	Suppressed ¹	109	1	N/A	Suppressed ¹	99	0	N/A	Suppressed ¹
UCHealth Yampa Valley Medical Center	84	1	N/A	Suppressed ¹	84	0	N/A	Suppressed ¹	90	1	N/A	Suppressed ¹
University Of Colorado Hospital	535	15	2.1	Worse	271	6	1.3	Not significant	258	5	1.3	Not significant
Vail Health Hospital	200	2	N/A	Suppressed ¹	21	1	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹
Valley View Hospital	145	2	N/A	Suppressed ¹	131	0	N/A	Suppressed ¹	125	1	N/A	Suppressed ¹
Acute care hospitals, outpatient procedures												
Avista Adventist Hospital	1	---	N/A	Suppressed ¹	5	---	N/A	Suppressed ¹	22	0	N/A	Suppressed ¹
Banner Fort Collins Medical Center	N/A				4	---	N/A	Suppressed ¹	13	---	N/A	Suppressed ¹
Boulder Community Foothills Hospital	15	---	N/A	Suppressed ¹	50	1	N/A	Suppressed ¹	102	1	N/A	Suppressed ¹
Castle Rock Adventist Hospital	1	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	20	0	N/A	Suppressed ¹
Community Hospital	2	---	N/A	Suppressed ¹	34	0	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Delta County Memorial Hospital	N/A				2	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Denver Health And Hospital Authority	N/A				4	---	N/A	Suppressed ¹	76	0	0.0	Not significant
Exempla Lutheran Medical Center	1	---	N/A	Suppressed ¹	25	0	N/A	Suppressed ¹	41	1	N/A	Suppressed ¹
Exempla Saint Joseph Hospital	5	---	N/A	Suppressed ¹	15	---	N/A	Suppressed ¹	21	0	N/A	Suppressed ¹
Grandview Hospital	N/A				1	---	N/A	Suppressed ¹	11	---	N/A	Suppressed ¹
Littleton Adventist Hospital	N/A				13	---	N/A	Suppressed ¹	35	0	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Longmont United Hospital	4	---	N/A	Suppressed ¹	20	0	N/A	Suppressed ¹	12	---	N/A	Suppressed ¹
Longs Peak Hospital	N/A				1	---	N/A	Suppressed ¹	N/A			
Mckee Medical Center	N/A				1	---	N/A	Suppressed ¹	13	---	N/A	Suppressed ¹
Medical Center Of The Rockies	N/A								4	---	N/A	Suppressed ¹
Memorial Health System	N/A								1	---	N/A	Suppressed ¹
Mercy Regional Medical Center	N/A								5	---	N/A	Suppressed ¹
Montrose Memorial Hospital	N/A								1	---	N/A	Suppressed ¹
North Suburban Medical Center	12	---	N/A	Suppressed ¹	19	---	N/A	Suppressed ¹	32	0	N/A	Suppressed ¹
Ortho Colorado	2	---	N/A	Suppressed ¹	64	0	N/A	Suppressed ¹	196	0	N/A	Suppressed ¹
Parker Adventist Hospital	50	0	N/A	Suppressed ¹	41	0	N/A	Suppressed ¹	47	0	N/A	Suppressed ¹
Parkview Medical Center	N/A				5	---	N/A	Suppressed ¹	52	0	N/A	Suppressed ¹
Penrose St. Francis Health Services	N/A				7	---	N/A	Suppressed ¹	17	---	N/A	Suppressed ¹
Platte Valley Medical Center	N/A								3	---	N/A	Suppressed ¹
Porter Adventist Hospital	25	0	N/A	Suppressed ¹	130	0	N/A	Suppressed ¹	236	0	0.0	Not significant
Poudre Valley Health System	N/A				11	---	N/A	Suppressed ¹	52	0	N/A	Suppressed ¹
Presbyterian/St Luke's Medical Center	4	---	N/A	Suppressed ¹	31	0	N/A	Suppressed ¹	10	---	N/A	Suppressed ¹
Rose Medical Center	6	---	N/A	Suppressed ¹	16	---	N/A	Suppressed ¹	18	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Saint Anthony North Health Campus	31	0	N/A	Suppressed ¹	83	0	N/A	Suppressed ¹	122	0	N/A	Suppressed ¹
SCL Health Good Samaritan Medical Center	1	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	56	0	N/A	Suppressed ¹
Sky Ridge Medical Center	89	0	N/A	Suppressed ¹	164	2	N/A	Suppressed ¹	286	0	N/A	Suppressed ¹
SLV Regional Medical Center	N/A								3	---	N/A	Suppressed ¹
St. Anthony Hospital	N/A								2	---	N/A	Suppressed ¹
St. Francis Medical Center	N/A				2	---	N/A	Suppressed ¹	22	0	N/A	Suppressed ¹
St. Mary's Hospital	2	---	N/A	Suppressed ¹	49	0	N/A	Suppressed ¹	122	1	N/A	Suppressed ¹
Swedish Medical Center	30	0	N/A	Suppressed ¹	70	0	N/A	Suppressed ¹	87	1	N/A	Suppressed ¹
The Medical Center of Aurora	16	---	N/A	Suppressed ¹	31	0	N/A	Suppressed ¹	56	1	N/A	Suppressed ¹
UCHealth Broomfield Hospital	N/A								2	---	N/A	Suppressed ¹
UCHealth Highlands Ranch Hospital	N/A				38	1	N/A	Suppressed ¹	75	1	N/A	Suppressed ¹
UCHealth Yampa Valley Medical Center	N/A				1	---	N/A	Suppressed ¹	22	0	N/A	Suppressed ¹
University Of Colorado Hospital	5	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	53	1	0.2	Better
Vail Health Hospital	13	---	N/A	Suppressed ¹	123	0	N/A	Suppressed ¹	26	0	N/A	Suppressed ¹
Valley View Hospital	1	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	9	---	N/A	Suppressed ¹
Ambulatory surgery centers, outpatient procedures												
718denver Midtown Surgical Center	27	0	N/A	--- ²	26	0	N/A	--- ²	38	0	N/A	--- ²

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Arete Surgical Center	N/A								1	---	N/A	--- ²
Audubon ASC at St. Francis	28	0	N/A	--- ²	19	---	N/A	--- ²	42	0	N/A	--- ²
Boulder Community Musculoskeletal Surgery Center Dba Boulder Surgery Center	64	0	N/A	--- ²	93	0	N/A	--- ²	121	1	N/A	--- ²
Crown Point Surgery Center	33	0	N/A	--- ²	20	0	N/A	--- ²	40	0	N/A	--- ²
Denver Surgery Center	N/A				1	---	N/A	--- ²	112	0	N/A	--- ²
DTC Surgery Center	8	---	N/A	--- ²	N/A							
Flatirons Surgery Center	13	---	N/A	--- ²	15	---	N/A	--- ²	16	---	N/A	--- ²
Front Range Orthopedic Surgery Center	27	0	N/A	--- ²	29	0	N/A	--- ²	21	1	N/A	--- ²
Kaiser Permanente Ambulatory Surgery Center	32	0	N/A	--- ²	N/A							
Kaiser Permanente Lone Tree Ambulatory Surgery	153	0	N/A	--- ²	163	2	N/A	--- ²	234	0	N/A	--- ²
Lincoln Surgery Center	141	0	N/A	--- ²	125	1	N/A	--- ²	124	0	N/A	--- ²
Mile High Surgicenter, LLC	41	0	N/A	--- ²	99	0	N/A	--- ²	105	0	N/A	--- ²
Musculoskeletal Surgery Center	1	---	N/A	--- ²	1	---	N/A	--- ²	N/A			
OCR Loveland Surgery Center	157	1	N/A	--- ²	432	7	N/A	--- ²	547	3	N/A	--- ²
Orthopaedic Center Of The Rockies	293	1	N/A	--- ²	18	---	N/A	--- ²	49	0	N/A	--- ²

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Rocky Mountain Surgery Center	17	---	N/A	--- ²	25	0	N/A	--- ²	42	0	N/A	--- ²
Skyline Surgery Center	N/A				15	---	N/A	--- ²	18	---	N/A	--- ²
Surgery Center At Cherry Creek	75	0	N/A	--- ²	37	0	N/A	--- ²	99	0	N/A	--- ²
The Orthopaedic And Spine Center Of Southern Colorado, LLC	93	0	N/A	--- ²	148	0	N/A	--- ²	124	2	N/A	--- ²
The Surgery Center At Lutheran	37	1	N/A	--- ²	32	0	N/A	--- ²	20	0	N/A	--- ²
Vail Valley Surgery Center	1	---	N/A	--- ²	4	---	N/A	--- ²	N/A			
Vail Valley Surgery Center Edwards	193	0	N/A	--- ²	180	0	N/A	--- ²	108	1	N/A	--- ²
Critical access hospitals, inpatient procedures												
Arkansas Valley Regional Medical Center	18	---	N/A	Suppressed ¹	18	---	N/A	Suppressed ¹	8	---	N/A	Suppressed ¹
Aspen Valley Hospital	11	---	N/A	Suppressed ¹	27	0	N/A	Suppressed ¹	52	0	N/A	Suppressed ¹
Colorado Canyons Hospital & Medical Center	0	---	N/A	Suppressed ¹	17	---	N/A	Suppressed ¹	32	0	N/A	Suppressed ¹
East Morgan County Hospital	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Estes Park Health	13	---	N/A	Suppressed ¹	14	---	N/A	Suppressed ¹	9	---	N/A	Suppressed ¹
Grand River Medical Center	26	0	N/A	Suppressed ¹	32	0	N/A	Suppressed ¹	23	1	N/A	Suppressed ¹
Gunnison Valley Hospital	37	0	N/A	Suppressed ¹	16	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Heart Of The Rockies Regional Medical Center	22	0	N/A	Suppressed ¹	33	2	N/A	Suppressed ¹	43	0	N/A	Suppressed ¹
Melissa Memorial Hospital	1	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹
Middle Park Medical Center	9	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Mt. San Rafael Hospital	2	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹
Pagosa Springs Medical Center	14	---	N/A	Suppressed ¹	10	---	N/A	Suppressed ¹	13	---	N/A	Suppressed ¹
Pikes Peak Regional Hospital	12	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹	7	---	N/A	Suppressed ¹
Pioneers Medical Center	22	0	N/A	Suppressed ¹	57	0	N/A	Suppressed ¹	73	0	N/A	Suppressed ¹
Prowers Medical Center	6	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Rio Grande Hospital	N/A								0	---	N/A	Suppressed ¹
Southwest Memorial Hospital	6	---	N/A	Suppressed ¹	24	1	N/A	Suppressed ¹	26	0	N/A	Suppressed ¹
St. Thomas More Hospital	16	---	N/A	Suppressed ¹	63	2	N/A	Suppressed ¹	66	1	N/A	Suppressed ¹
The Memorial Hospital	24	0	N/A	Suppressed ¹	21	0	N/A	Suppressed ¹	25	0	N/A	Suppressed ¹
Wray Community District Hospital	26	4	N/A	Suppressed ¹	13	---	N/A	Suppressed ¹	12	---	N/A	Suppressed ¹
Yuma District Hospital	0	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Critical access hospitals, outpatient procedures												
Aspen Valley Hospital	N/A								15	---	N/A	Suppressed ¹
Grand River Medical Center	N/A								1	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Gunnison Valley Hospital	N/A				16	---	N/A	Suppressed ¹	26	0	N/A	Suppressed ¹
Heart Of The Rockies Regional Medical Center	1	---	N/A	Suppressed ¹	N/A							
Prowers Medical Center	N/A								2	---	N/A	Suppressed ¹
Southwest Memorial Hospital	N/A				2	---	N/A	Suppressed ¹	11	---	N/A	Suppressed ¹
St. Thomas More Hospital	1	---	N/A	Suppressed ¹	N/A							
The Memorial Hospital	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Wray Community District Hospital	N/A								8	---	N/A	Suppressed ¹
Yuma District Hospital	N/A				2	---	N/A	Suppressed ¹	7	---	N/A	Suppressed ¹

¹Calculation of comparison is not available due to data suppression for one of the following reasons: no. of procedures fewer than 20 or the predicted number of infections was less than one; ²National comparison models were not available at the time of this report.

SIR, standardized infection ratio; N/A, not applicable.

Data source: National Healthcare Safety Network.

Surgical-site infections following abdominal hysterectomies

Forty-seven acute care hospitals reported performing inpatient abdominal hysterectomies in 2021 (**Table 29**). Of these, one acute care hospital reported a rate of SSI following abdominal hysterectomy that was higher (worse) than the national baseline. Nineteen reported a rate of SSI that was similar to (not significantly different from) the national baseline. Rates of SSI for 27 were suppressed. Forty-five acute care hospitals reported outpatient abdominal hysterectomies in 2021. Of these, one acute care hospital reported a rate of SSI that was higher (worse) than the national baseline. Three reported a rate of SSI that was similar to (not significantly different from) the national baseline. Rates of SSI for 23 were suppressed.

Nine critical access hospitals reported performing inpatient abdominal hysterectomies in 2021. Rates of SSI following abdominal hysterectomy were suppressed for all. Six critical access hospitals reported outpatient abdominal hysterectomies in 2021. Rates of SSI following abdominal hysterectomy were suppressed for all.

Table 29. Surgical site infections following abdominal hysterectomies – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Acute care hospitals, inpatient procedures												
Animas Surgical Hospital	9	---	N/A	Suppressed ¹	18	---	N/A	Suppressed ¹	37	1	N/A	Suppressed ¹
Avista Adventist Hospital	155	1	0.6	Not significant	91	0	0.0	Not significant	42	0	N/A	Suppressed ¹
Banner Fort Collins Medical Center	29	0	N/A	Suppressed ¹	9	---	N/A	Suppressed ¹	8	---	N/A	Suppressed ¹
Boulder Community Foothills Hospital	99	1	N/A	Suppressed ¹	104	1	0.8	Not significant	97	2	1.6	Not significant
Castle Rock Adventist Hospital	48	0	N/A	Suppressed ¹	36	1	N/A	Suppressed ¹	51	1	N/A	Suppressed ¹
Colorado Plains Medical Center	24	1	N/A	Suppressed ¹	12	---	N/A	Suppressed ¹	16	---	N/A	Suppressed ¹
Community Hospital	104	1	0.7	Not significant	120	2	1.1	Not significant	86	0	0.0	Not significant
Delta County Memorial Hospital	10	---	N/A	Suppressed ¹	7	---	N/A	Suppressed ¹	7	---	N/A	Suppressed ¹
Denver Health And Hospital Authority	95	2	0.8	Not significant	71	0	0.0	Not significant	88	1	0.4	Not significant
Exempla Lutheran Medical Center	147	0	0.0	Not significant	116	1	0.5	Not significant	105	1	0.6	Not significant
Exempla Saint Joseph Hospital	229	3	0.7	Not significant	149	3	0.9	Not significant	177	3	0.9	Not significant
Grandview Hospital	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Littleton Adventist Hospital	243	1	0.5	Not significant	141	0	0.0	Not significant	106	0	0.0	Not significant
Longmont United Hospital	12	---	N/A	Suppressed ¹	22	0	N/A	Suppressed ¹	11	---	N/A	Suppressed ¹
Longs Peak Hospital	76	3	2.1	Not significant	54	3	N/A	Suppressed ¹	30	2	N/A	Suppressed ¹
Mckee Medical Center	256	0	0.0	Not significant	170	0	0.0	Not significant	107	0	0.0	Not significant
Medical Center Of The Rockies	70	2	1.9	Not significant	38	1	N/A	Suppressed ¹	30	0	N/A	Suppressed ¹
Memorial Health System	414	7	1.1	Not significant	293	6	1.3	Not significant	354	10	2.5	Worse
Memorial Hospital North	379	5	0.8	Not significant	299	2	0.4	Not significant	306	3	0.8	Not significant
Mercy Regional Medical Center	57	0	N/A	Suppressed ¹	62	0	N/A	Suppressed ¹	70	0	N/A	Suppressed ¹
Montrose Memorial Hospital	23	1	N/A	Suppressed ¹	20	1	N/A	Suppressed ¹	17	---	N/A	Suppressed ¹
North Colorado Medical Center	100	0	0.0	Not significant	55	1	N/A	Suppressed ¹	49	0	N/A	Suppressed ¹
North Suburban Medical Center	160	1	0.7	Not significant	131	0	0.0	Not significant	143	2	1.6	Not significant
Parker Adventist Hospital	174	0	0.0	Not significant	162	1	0.6	Not significant	188	1	0.6	Not significant
Parkview Medical Center	217	3	1.1	Not significant	107	1	0.8	Not significant	31	0	N/A	Suppressed ¹
Penrose St. Francis Health Services	71	1	N/A	Suppressed ¹	50	2	N/A	Suppressed ¹	38	0	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Platte Valley Medical Center	59	1	1.0	Not significant	44	0	N/A	Suppressed ¹	45	0	N/A	Suppressed ¹
Porter Adventist Hospital	19	---	N/A	Suppressed ¹	23	0	N/A	Suppressed ¹	7	---	N/A	Suppressed ¹
Poudre Valley Health System	182	2	0.6	Not significant	139	0	0.0	Not significant	97	1	0.8	Not significant
Presbyterian/St Luke's Medical Center	84	1	0.9	Not significant	95	0	0.0	Not significant	98	3	2.4	Not significant
Rose Medical Center	213	0	0.0	Not significant	183	4	1.6	Not significant	163	1	0.4	Not significant
Saint Anthony North Health Campus	108	2	1.4	Not significant	127	3	1.7	Not significant	117	2	1.3	Not significant
SCL Health Good Samaritan Medical Center	29	0	N/A	Suppressed ¹	19	---	N/A	Suppressed ¹	31	0	N/A	Suppressed ¹
Sky Ridge Medical Center	521	4	0.8	Not significant	512	5	1.0	Not significant	449	7	1.6	Not significant
SLV Regional Medical Center	20	1	N/A	Suppressed ¹	20	0	N/A	Suppressed ¹	21	0	N/A	Suppressed ¹
St. Anthony Hospital	13	---	N/A	Suppressed ¹	14	---	N/A	Suppressed ¹	12	---	N/A	Suppressed ¹
St. Anthony Summit Medical Center	45	0	N/A	Suppressed ¹	14	---	N/A	Suppressed ¹	23	0	N/A	Suppressed ¹
St. Francis Medical Center	318	7	2.4	Worse	375	8	2.0	Not significant	466	5	1.0	Not significant
St. Mary's Hospital	227	0	0.0	Not significant	128	0	0.0	Not significant	130	2	1.3	Not significant
St. Mary Corwin Medical Center	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Sterling Regional Medcenter	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹
Swedish Medical Center	334	3	0.9	Not significant	304	2	0.6	Not significant	302	3	1.0	Not significant
The Medical Center of Aurora	70	0	0.0	Not significant	50	0	N/A	Suppressed ¹	46	0	N/A	Suppressed ¹
UCHealth Broomfield Hospital	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
UCHealth Greeley Hospital	0	---	N/A	Suppressed ¹	8	---	N/A	Suppressed ¹	17	---	N/A	Suppressed ¹
UCHealth Highlands Ranch Hospital	37	0	N/A	Suppressed ¹	64	0	0.0	Not significant	64	1	N/A	Suppressed ¹
UCHealth Yampa Valley Medical Center	11	---	N/A	Suppressed ¹	17	---	N/A	Suppressed ¹	18	---	N/A	Suppressed ¹
University Of Colorado Hospital	358	14	1.5	Not significant	314	16	1.8	Worse	380	15	1.4	Not significant
Vail Health Hospital	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Valley View Hospital	43	0	N/A	Suppressed ¹	55	0	N/A	Suppressed ¹	53	0	N/A	Suppressed ¹
Acute care hospitals, outpatient procedures												
Avista Adventist Hospital	7	---	N/A	Suppressed ¹	21	0	N/A	Suppressed ¹	65	0	N/A	Suppressed ¹
Banner Fort Collins Medical Center	1	---	N/A	Suppressed ¹	10	---	N/A	Suppressed ¹	7	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Boulder Community Foothills Hospital	9	---	N/A	Suppressed ¹	12	---	N/A	Suppressed ¹	19	---	N/A	Suppressed ¹
Castle Rock Adventist Hospital	N/A				3	---	N/A	Suppressed ¹	12	---	N/A	Suppressed ¹
Colorado Plains Medical Center	N/A				N/A				1	---	N/A	Suppressed ¹
Community Hospital	17	---	N/A	Suppressed ¹	30	0	N/A	Suppressed ¹	33	0	N/A	Suppressed ¹
Delta County Memorial Hospital	N/A				1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Denver Health And Hospital Authority	11	---	N/A	Suppressed ¹	26	0	N/A	Suppressed ¹	38	0	N/A	Suppressed ¹
Exempla Lutheran Medical Center	156	0	N/A	Suppressed ¹	167	2	N/A	Suppressed ¹	200	1	N/A	Suppressed ¹
Exempla Saint Joseph Hospital	208	2	N/A	Suppressed ¹	209	3	2.0	Not significant ¹	258	2	1.7	Not significant ¹
Littleton Adventist Hospital	37	0	N/A	Suppressed ¹	73	0	N/A	Suppressed ¹	122	0	N/A	Suppressed ¹
Longmont United Hospital	34	0	N/A	Suppressed ¹	28	0	N/A	Suppressed ¹	37	0	N/A	Suppressed ¹
Longs Peak Hospital	75	2	N/A	Suppressed ¹	107	2	N/A	Suppressed ¹	158	0	N/A	Suppressed ¹
Mckee Medical Center	4	---	N/A	Suppressed ¹	56	0	N/A	Suppressed ¹	71	0	N/A	Suppressed ¹
Medical Center Of The Rockies	139	1	N/A	Suppressed ¹	135	2	N/A	Suppressed ¹	158	0	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Memorial Health System	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	5	---	N/A	Suppressed ¹
Memorial Hospital North	175	0	N/A	Suppressed ¹	198	0	0.0	Not significant ¹	215	2	N/A	Suppressed ¹
Mercy Regional Medical Center	N/A				4	---	N/A	Suppressed ¹	29	1	N/A	Suppressed ¹
Montrose Memorial Hospital	88	0	N/A	Suppressed ¹	106	0	N/A	Suppressed ¹	85	1	N/A	Suppressed ¹
North Colorado Medical Center	85	2	N/A	Suppressed ¹	84	0	N/A	Suppressed ¹	117	0	N/A	Suppressed ¹
North Suburban Medical Center	25	0	N/A	Suppressed ¹	30	0	N/A	Suppressed ¹	39	0	N/A	Suppressed ¹
Parker Adventist Hospital	15	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹
Parkview Medical Center	114	0	N/A	Suppressed ¹	101	0	N/A	Suppressed ¹	204	0	0.0	Not significant
Penrose St. Francis Health Services	36	0	N/A	Suppressed ¹	21	0	N/A	Suppressed ¹	7	---	N/A	Suppressed ¹
Platte Valley Medical Center	14	---	N/A	Suppressed ¹	24	0	N/A	Suppressed ¹	22	0	N/A	Suppressed ¹
Porter Adventist Hospital	68	0	N/A	Suppressed ¹	35	0	N/A	Suppressed ¹	8	---	N/A	Suppressed ¹
Poudre Valley Health System	28	0	N/A	Suppressed ¹	28	2	N/A	Suppressed ¹	88	1	N/A	Suppressed ¹
Presbyterian/St Luke's Medical Center	N/A				7	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹
Rose Medical Center	183	0	N/A	Suppressed ¹	226	2	N/A	Suppressed ¹	242	0	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Saint Anthony North Health Campus	1	---	N/A	Suppressed ¹	N/A							
SCL Health Good Samaritan Medical Center	84	0	N/A	Suppressed ¹	54	1	N/A	Suppressed ¹	58	0	N/A	Suppressed ¹
Sky Ridge Medical Center	204	0	N/A	Suppressed ¹	202	2	2.0	Not significant	232	0	0.0	Not significant
SLV Regional Medical Center	3	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	6	---	N/A	Suppressed ¹
St. Anthony Hospital	5	---	N/A	Suppressed ¹	5	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹
St. Anthony Summit Medical Center	1	---	N/A	Suppressed ¹	N/A				1	---	N/A	Suppressed ¹
St. Francis Medical Center	29	0	N/A	Suppressed ¹	35	0	N/A	Suppressed ¹	73	0	N/A	Suppressed ¹
St. Mary's Hospital	53	0	N/A	Suppressed ¹	128	0	N/A	Suppressed ¹	163	2	N/A	Suppressed ¹
Sterling Regional Medcenter	N/A				1	---	N/A	Suppressed ¹	6	---	N/A	Suppressed ¹
Swedish Medical Center	48	0	N/A	Suppressed ¹	113	0	N/A	Suppressed ¹	106	0	N/A	Suppressed ¹
The Medical Center of Aurora	36	0	N/A	Suppressed ¹	42	0	N/A	Suppressed ¹	50	1	N/A	Suppressed ¹
UCHealth Greeley Hospital	N/A				70	0	N/A	Suppressed ¹	147	1	N/A	Suppressed ¹
UCHealth Highlands Ranch Hospital	14	---	N/A	Suppressed ¹	60	1	N/A	Suppressed ¹	103	1	N/A	Suppressed ¹
UCHealth Yampa Valley Medical Center	45	0	N/A	Suppressed ¹	46	0	N/A	Suppressed ¹	68	1	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
University Of Colorado Hospital	165	1	N/A	Suppressed ¹	191	2	1.0	Not significant	322	6	2.7	Worse
Vail Health Hospital	10	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹
Valley View Hospital	8	---	N/A	Suppressed ¹	19	---	N/A	Suppressed ¹	12	---	N/A	Suppressed ¹
Critical access hospitals, inpatient procedures												
Arkansas Valley Regional Medical Center	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Aspen Valley Hospital	8	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹
Colorado Canyons Hospital & Medical Center	1	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
East Morgan County Hospital	0	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Estes Park Health	4	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹
Grand River Medical Center	1	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Gunnison Valley Hospital	3	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹
Heart Of The Rockies Regional Medical Center	16	---	N/A	Suppressed ¹	8	---	N/A	Suppressed ¹	18	---	N/A	Suppressed ¹
Melissa Memorial Hospital	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Mt. San Rafael Hospital	4	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Pagosa Springs Medical Center	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Pikes Peak Regional Hospital	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Pioneers Medical Center	N/A				N/A				0	---	N/A	Suppressed ¹
Prowers Medical Center	2	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Rio Grande Hospital	N/A				N/A				0	---	N/A	Suppressed ¹
Southwest Memorial Hospital	8	---	N/A	Suppressed ¹	9	---	N/A	Suppressed ¹	9	---	N/A	Suppressed ¹
Spanish Peaks Regional Health Center	0	---	N/A	Suppressed ¹	N/A				N/A			
St. Thomas More Hospital	43	0	N/A	Suppressed ¹	36	1	N/A	Suppressed ¹	34	1	N/A	Suppressed ¹
The Memorial Hospital	6	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Wray Community District Hospital	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Yuma District Hospital	0	---	N/A	Suppressed ¹	N/A				N/A			
Critical access hospitals, outpatient procedures												
Colorado Canyons Hospital & Medical Center	3	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Gunnison Valley Hospital	N/A				N/A				6	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Heart Of The Rockies Regional Medical Center	1	---	N/A	Suppressed ¹	N/A							
Mt. San Rafael Hospital	N/A				2	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Pikes Peak Regional Hospital	N/A				6	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹
Southwest Memorial Hospital	N/A								1	---	N/A	Suppressed ¹
Wray Community District Hospital	6	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹

¹Calculation of comparison is not available due to data suppression for one of the following reasons: no. of procedures fewer than 20 or the predicted number of infections was less than one.

SIR, standardized infection ratio; N/A, not applicable.

Data source: National Healthcare Safety Network.

Surgical-site infections following knee replacement surgery

Fifty-one acute care hospitals inpatient reported performing knee replacement surgeries in 2021 (**Table 30**). Of these, three acute care hospitals reported a rate of SSI following knee replacement surgery that was higher (worse) than the national baseline. Twenty-two reported a rate of SSI that was similar to (not significantly different from) the national baseline. Rates of SSI for 26 were suppressed. Forty-four acute care hospitals reported outpatient knee replacement surgeries in 2021. Of these, nine reported a rate of SSI following knee replacement surgery that was similar to (not significantly different from) the national baseline. Rates of SSI for 35 were suppressed.

Twenty-five ambulatory surgery centers reported performing knee replacement surgeries in 2021. Rates of SSI following knee replacement surgery were suppressed for all.

Nineteen critical access hospitals reported performing inpatient knee replacement surgeries in 2021. Of these, one reported a rate of SSI following knee replacement surgery that was similar to (not significantly different from) the national baseline. Rates of SSI for 18 were suppressed. Eleven critical access hospitals reported outpatient knee replacement surgeries in 2021. Rates of SSI following knee replacement surgery were suppressed for all.

Table 30. Surgical site infections following knee replacement surgeries (total or partial) – Colorado, Jan. 1, 2019 - Dec. 31, 2021.

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Acute care hospitals, inpatient procedures												
Animas Surgical Hospital	266	1	0.8	Not significant	234	0	0.0	Not significant	256	1	0.8	Not significant
Avista Adventist Hospital	164	1	N/A	Suppressed ¹	116	1	N/A	Suppressed ¹	71	0	N/A	Suppressed ¹
Banner Fort Collins Medical Center	85	1	N/A	Suppressed ¹	93	1	N/A	Suppressed ¹	88	0	N/A	Suppressed ¹
Boulder Community Foothills Hospital	554	2	0.9	Not significant	367	2	1.5	Not significant ¹	350	0	0.0	Not significant
Castle Rock Adventist Hospital	88	1	N/A	Suppressed ¹	129	1	N/A	Suppressed ¹	128	2	N/A	Suppressed ¹
Colorado Plains Medical Center	30	0	N/A	Suppressed ¹	23	0	N/A	Suppressed ¹	23	0	N/A	Suppressed ¹
Community Hospital	290	3	1.9	Not significant	237	0	0.0	Not significant ¹	135	2	N/A	Suppressed ¹
Delta County Memorial Hospital	103	1	N/A	Suppressed ¹	71	1	N/A	Suppressed ¹	130	0	N/A	Suppressed
Denver Health And Hospital Authority	192	4	3.0	Not significant	135	2	2.0	Not significant ¹	142	0	0.0	Not significant ¹
Exempla Lutheran Medical Center	153	1	N/A	Suppressed ¹	74	0	N/A	Suppressed ¹	139	0	N/A	Suppressed ¹
Exempla Saint Joseph Hospital	839	8	1.6	Not significant	613	3	0.8	Not significant	506	2	0.5	Not significant
Grandview Hospital	513	3	1.3	Not significant	549	3	1.2	Not significant	710	8	2.4	Worse
Littleton Adventist Hospital	468	1	0.4	Not significant	456	3	1.1	Not significant	405	0	0.0	Not significant
Longmont United Hospital	93	0	N/A	Suppressed ¹	170	2	N/A	Suppressed ¹	158	0	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Longs Peak Hospital	23	0	N/A	Suppressed ¹	28	1	N/A	Suppressed ¹	87	0	N/A	Suppressed ¹
Mckee Medical Center	103	0	N/A	Suppressed ¹	70	0	N/A	Suppressed ¹	79	0	N/A	Suppressed ¹
Medical Center Of The Rockies	432	8	3.6	Worse	282	2	1.4	Not significant	201	2	1.9	Not significant
Memorial Health System	42	0	N/A	Suppressed ¹	36	0	N/A	Suppressed ¹	25	1	N/A	Suppressed ¹
Memorial Hospital North	192	3	2.1	Not significant	128	2	N/A	Suppressed ¹	130	1	N/A	Suppressed ¹
Mercy Regional Medical Center	139	1	N/A	Suppressed ¹	102	0	N/A	Suppressed ¹	92	0	N/A	Suppressed ¹
Montrose Memorial Hospital	127	1	N/A	Suppressed ¹	188	0	N/A	Suppressed ¹	129	0	N/A	Suppressed ¹
North Colorado Medical Center	300	3	1.2	Not significant	191	1	0.7	Not significant	255	0	0.0	Not significant ¹
North Suburban Medical Center	117	0	N/A	Suppressed ¹	81	0	N/A	Suppressed ¹	35	0	N/A	Suppressed ¹
Ortho Colorado	1,397	2	0.3	Not significant	1,165	4	0.8	Not significant	1,012	6	1.4	Not significant
Parker Adventist Hospital	192	2	1.6	Not significant	155	1	0.9	Not significant	154	1	N/A	Suppressed ¹
Parkview Medical Center	366	4	1.5	Not significant	302	1	0.4	Not significant	125	1	0.9	Not significant
Penrose St. Francis Health Services	626	1	0.3	Not significant	557	1	0.3	Not significant	476	1	0.3	Not significant
Platte Valley Medical Center	194	0	0.0	Not significant	133	0	N/A	Suppressed ¹	175	2	1.8	Not significant
Porter Adventist Hospital	785	4	0.8	Not significant	539	2	0.5	Not significant	626	2	0.4	Not significant
Poudre Valley Health System	1,305	10	1.5	Not significant	996	4	0.8	Not significant	808	1	0.2	Not significant

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Presbyterian/St Luke's Medical Center	314	6	2.1	Not significant	260	6	2.8	Worse	267	8	3.6	Worse
Rose Medical Center	648	4	1.1	Not significant	487	1	0.4	Not significant	531	0	0.0	Not significant
Saint Anthony North Health Campus	256	1	0.4	Not significant	216	3	1.6	Not significant	184	3	1.7	Not significant
SCL Health Good Samaritan Medical Center	722	3	1.0	Not significant	613	4	1.6	Not significant	498	4	1.8	Not significant
Sky Ridge Medical Center	1,433	7	0.8	Not significant	1,029	1	0.1	Better	689	2	0.4	Not significant
SLV Regional Medical Center	100	2	N/A	Suppressed ¹	80	1	N/A	Suppressed ¹	102	0	N/A	Suppressed ¹
St. Anthony Hospital	45	0	N/A	Suppressed ¹	32	0	N/A	Suppressed ¹	32	0	N/A	Suppressed ¹
St. Anthony Summit Medical Center	9	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	11	---	N/A	Suppressed ¹
St. Francis Medical Center	915	3	0.5	Not significant	805	9	1.5	Not significant	890	7	1.1	Not significant
St. Mary's Hospital	281	1	0.6	Not significant	168	0	0.0	Not significant	82	0	N/A	Suppressed ¹
St. Mary Corwin Medical Center	362	0	0.0	Not significant	329	1	0.4	Not significant	266	2	1.1	Not significant
Sterling Regional Medcenter	40	0	N/A	Suppressed ¹	25	0	N/A	Suppressed ¹	30	0	N/A	Suppressed ¹
Swedish Medical Center	411	0	0.0	Not significant	290	0	0.0	Not significant	221	2	1.1	Not significant
The Medical Center of Aurora	296	11	5.3	Worse	221	3	1.8	Not significant	196	1	0.7	Not significant
UCHealth Broomfield Hospital	47	1	N/A	Suppressed ¹	260	7	4.7	Worse	210	3	2.7	Not significant
UCHealth Greeley Hospital	5	---	N/A	Suppressed	14	---	N/A	Suppressed ¹	22	1	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
UCHealth Highlands Ranch Hospital	90	0	N/A	Suppressed ¹	154	1	N/A	Suppressed ¹	120	1	N/A	Suppressed ¹
UCHealth Yampa Valley Medical Center	118	1	N/A	Suppressed ¹	107	4	N/A	Suppressed ¹	100	1	N/A	Suppressed ¹
University Of Colorado Hospital	490	6	1.5	Not significant	172	2	1.3	Not significant	236	6	2.7	Worse
Vail Health Hospital	32	0	N/A	Suppressed ¹	35	2	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Valley View Hospital	147	1	N/A	Suppressed ¹	139	0	N/A	Suppressed ¹	188	0	N/A	Suppressed ¹
Acute care hospitals, outpatient procedures												
Avista Adventist Hospital	4	---	N/A	Suppressed ¹	33	0	N/A	Suppressed ¹	30	0	N/A	Suppressed ¹
Banner Fort Collins Medical Center	N/A				7	---	N/A	Suppressed ¹	15	---	N/A	Suppressed ¹
Boulder Community Foothills Hospital	38	0	N/A	Suppressed ¹	73	0	N/A	Suppressed ¹	125	0	N/A	Suppressed ¹
Castle Rock Adventist Hospital	1	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹	34	0	N/A	Suppressed ¹
Colorado Plains Medical Center	N/A				1	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹
Community Hospital	1	---	N/A	Suppressed ¹	34	0	N/A	Suppressed ¹	9	---	N/A	Suppressed ¹
Delta County Memorial Hospital	2	---	N/A	Suppressed ¹	8	---	N/A	Suppressed ¹	8	---	N/A	Suppressed ¹
Denver Health And Hospital Authority	N/A				11	---	N/A	Suppressed ¹	83	0	0.0	Not significant
Exempla Lutheran Medical Center	6	---	N/A	Suppressed ¹	23	0	N/A	Suppressed ¹	76	0	N/A	Suppressed ¹
Exempla Saint Joseph Hospital	11	---	N/A	Suppressed ¹	5	---	N/A	Suppressed ¹	31	0	N/A	Suppressed ¹
Grandview Hospital	N/A				1	---	N/A	Suppressed ¹	8	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Littleton Adventist Hospital	N/A				35	0	N/A	Suppressed ¹	119	0	N/A	Suppressed ¹
Longmont United Hospital	67	1	N/A	Suppressed ¹	50	0	N/A	Suppressed ¹	38	0	N/A	Suppressed ¹
Longs Peak Hospital	N/A				1	---	N/A	Suppressed ¹	N/A			
Mckee Medical Center	N/A				3	---	N/A	Suppressed ¹	9	---	N/A	Suppressed ¹
Medical Center Of The Rockies	N/A								2	---	N/A	Suppressed ¹
Memorial Hospital North	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹
Mercy Regional Medical Center	1	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹	20	0	N/A	Suppressed ¹
Montrose Memorial Hospital	1	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹	N/A			
North Colorado Medical Center	5	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	14	---	N/A	Suppressed ¹
North Suburban Medical Center	18	---	N/A	Suppressed ¹	27	0	N/A	Suppressed ¹	61	0	N/A	Suppressed ¹
Ortho Colorado	13	---	N/A	Suppressed ¹	214	2	N/A	Suppressed ¹	412	1	N/A	Suppressed ¹
Parker Adventist Hospital	151	0	0.0	Not significant	91	0	N/A	Suppressed ¹	127	1	0.9	Not significant
Parkview Medical Center	3	---	N/A	Suppressed ¹	12	---	N/A	Suppressed ¹	130	0	0.0	Not significant ¹
Penrose St. Francis Health Services	N/A				19	---	N/A	Suppressed ¹	16	---	N/A	Suppressed ¹
Platte Valley Medical Center	N/A								16	---	N/A	Suppressed ¹
Porter Adventist Hospital	50	0	N/A	Suppressed ¹	158	0	N/A	Suppressed ¹	320	1	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Poudre Valley Health System	1	---	N/A	Suppressed ¹	N/A				7	---	N/A	Suppressed ¹
Presbyterian/St Luke's Medical Center	5	---	N/A	Suppressed ¹	27	1	N/A	Suppressed ¹	20	0	N/A	Suppressed ¹
Rose Medical Center	17	---	N/A	Suppressed ¹	30	0	N/A	Suppressed ¹	33	0	N/A	Suppressed ¹
Saint Anthony North Health Campus	58	0	N/A	Suppressed ¹	143	2	1.3	Not significant	288	1	0.3	Not significant
SCL Health Good Samaritan Medical Center	1	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	93	0	N/A	Suppressed ¹
Sky Ridge Medical Center	126	0	0.0	Not significant	174	1	0.6	Not significant	442	4	1.1	Not significant ¹
SLV Regional Medical Center	4	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	6	---	N/A	Suppressed ¹
St. Anthony Hospital	N/A				1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
St. Francis Medical Center	N/A				12	---	N/A	Suppressed ¹	63	2	N/A	Suppressed ¹
St. Mary's Hospital	5	---	N/A	Suppressed ¹	62	0	N/A	Suppressed ¹	147	1	0.8	Not significant
St. Mary Corwin Medical Center	N/A				22	0	N/A	Suppressed ¹	103	0	0.0	Not significant
Swedish Medical Center	71	0	N/A	Suppressed ¹	143	0	0.0	Not significant	207	1	0.5	Not significant
The Medical Center of Aurora	19	---	N/A	Suppressed ¹	54	0	N/A	Suppressed ¹	142	0	0.0	Not significant
UCHealth Broomfield Hospital	N/A				4	---	N/A	Suppressed ¹	N/A			
UCHealth Greeley Hospital	N/A				N/A				1	---	N/A	Suppressed ¹
UCHealth Highlands Ranch Hospital	2	---	N/A	Suppressed ¹	61	1	N/A	Suppressed ¹	99	0	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
UCHealth Yampa Valley Medical Center	3	---	N/A	Suppressed ¹	11	---	N/A	Suppressed ¹	13	---	N/A	Suppressed ¹
University Of Colorado Hospital	1	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹	47	1	N/A	Suppressed ¹
Vail Health Hospital	472	2	N/A	Suppressed ¹	228	0	0.0	Not significant	55	0	N/A	Suppressed ¹
Valley View Hospital	N/A				4	---	N/A	Suppressed ¹	53	0	N/A	Suppressed ¹
Ambulatory surgery centers												
718denver Midtown Surgical Center	44	0	N/A	Suppressed ¹	54	0	N/A	Suppressed ¹	71	0	N/A	Suppressed ¹
Arete Surgical Center	N/A								1	---	N/A	Suppressed ¹
Audubon ASC @ St. Francis	68	0	N/A	Suppressed ¹	88	1	N/A	Suppressed ¹	138	0	N/A	Suppressed ¹
Audubon Surgery Center	N/A				10	---	N/A	Suppressed ¹	42	0	N/A	Suppressed ¹
Boulder Community Musculoskeletal Surgery Center Dba Boulder Surgery Center	8	---	N/A	Suppressed ¹	80	0	N/A	Suppressed ¹	107	1	N/A	Suppressed ¹
Crown Point Surgery Center	100	0	N/A	Suppressed ¹	95	0	N/A	Suppressed ¹	167	0	N/A	Suppressed ¹
Denver Surgery Center	N/A								168	0	N/A	Suppressed ¹
DTC Surgery Center	51	0	N/A	Suppressed ¹	48	0	N/A	Suppressed ¹	53	0	N/A	Suppressed ¹
Flatirons Surgery Center	29	0	N/A	Suppressed ¹	35	0	N/A	Suppressed ¹	23	1	N/A	Suppressed
Front Range Orthopedic Surgery Center	46	1	N/A	Suppressed ¹	51	0	N/A	Suppressed ¹	50	1	N/A	Suppressed ¹
Grand Valley Surgical Center	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Kaiser Permanente Ambulatory Surgery Center	30	0	N/A	Suppressed ¹	N/A							
Kaiser Permanente Lone Tree Ambulatory Surgery	218	1	N/A	Suppressed ¹	331	0	N/A	Suppressed ¹	297	0	N/A	Suppressed ¹
Lincoln Surgery Center	168	2	N/A	Suppressed ¹	177	0	N/A	Suppressed ¹	171	0	N/A	Suppressed ¹
Loveland Surgery Center	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	N/A			
Mile High Surgicenter, LLC	76	0	N/A	Suppressed ¹	163	0	N/A	Suppressed ¹	176	2	N/A	Suppressed ¹
Mountain Vista Surgery Center	N/A				9	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹
Musculoskeletal Surgery Center	4	---	N/A	Suppressed ¹	N/A							
OCR Loveland Surgery Center	206	1	N/A	Suppressed ¹	671	0	N/A	Suppressed ¹	917	3	N/A	Suppressed ¹
Orthopaedic Center Of The Rockies	431	1	N/A	Suppressed ¹	234	0	N/A	Suppressed ¹	216	0	N/A	Suppressed ¹
Rocky Mountain Surgery Center	88	1	N/A	Suppressed ¹	49	0	N/A	Suppressed ¹	76	0	N/A	Suppressed ¹
Rose Surgical Center	3	---	0.0	Suppressed ¹	N/A				3	---	0.0	Suppressed ¹
Skyline Surgery Center	1	---	N/A	Suppressed ¹	36	0	N/A	Suppressed ¹	12	---	N/A	Suppressed ¹
Surgery Center At Cherry Creek	42	0	N/A	Suppressed ¹	113	0	N/A	Suppressed ¹	123	0	N/A	Suppressed ¹
Surgical Center Of The Rockies	N/A				2	---	N/A	Suppressed ¹	23	0	N/A	Suppressed ¹
The Orthopaedic And Spine Center Of Southern Colorado, LLC	144	0	N/A	Suppressed ¹	142	0	N/A	Suppressed ¹	143	1	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
The Surgery Center At Lutheran	47	0	N/A	Suppressed ¹	69	1	N/A	Suppressed ¹	60	0	N/A	Suppressed ¹
Vail Valley Surgery Center	N/A				10	---	N/A	Suppressed ¹	N/A			
Vail Valley Surgery Center Edwards	249	0	N/A	Suppressed ¹	310	0	N/A	Suppressed ¹	204	0	N/A	Suppressed ¹
Critical access hospitals, inpatient procedures												
Arkansas Valley Regional Medical Center	15	---	N/A	Suppressed ¹	16	---	N/A	Suppressed ¹	29	0	N/A	Suppressed ¹
Aspen Valley Hospital	82	0	N/A	Suppressed ¹	56	1	N/A	Suppressed ¹	30	0	N/A	Suppressed ¹
Colorado Canyons Hospital & Medical Center	1	---	N/A	Suppressed ¹	15	---	N/A	Suppressed ¹	33	0	N/A	Suppressed ¹
East Morgan County Hospital	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Estes Park Health	8	---	N/A	Suppressed ¹	10	---	N/A	Suppressed ¹	11	---	N/A	Suppressed ¹
Grand River Medical Center	37	0	N/A	Suppressed ¹	43	0	N/A	Suppressed ¹	24	0	N/A	Suppressed ¹
Gunnison Valley Hospital	52	1	N/A	Suppressed ¹	18	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Heart Of The Rockies Regional Medical Center	37	1	N/A	Suppressed ¹	39	0	N/A	Suppressed ¹	88	1	N/A	Suppressed ¹
Melissa Memorial Hospital	9	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹	8	---	N/A	Suppressed ¹
Middle Park Medical Center	13	---	N/A	Suppressed ¹	8	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹
Mt. San Rafael Hospital	17	---	N/A	Suppressed ¹	17	---	N/A	Suppressed ¹	17	---	N/A	Suppressed ¹
Pagosa Springs Medical Center	30	0	N/A	Suppressed ¹	22	0	N/A	Suppressed ¹	22	1	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Pikes Peak Regional Hospital	29	0	N/A	Suppressed ¹	18	---	N/A	Suppressed ¹	20	0	N/A	Suppressed ¹
Pioneers Medical Center	99	0	N/A	Suppressed ¹	183	0	0.0	Not significant	192	0	0.0	Not significant
Prowers Medical Center	7	---	N/A	Suppressed ¹	10	---	N/A	Suppressed ¹	7	---	N/A	Suppressed ¹
Rio Grande Hospital	9	---	N/A	Suppressed ¹	11	---	N/A	Suppressed ¹	13	---	N/A	Suppressed ¹
Southwest Memorial Hospital	18	---	N/A	Suppressed ¹	45	0	N/A	Suppressed ¹	57	0	N/A	Suppressed ¹
St. Thomas More Hospital	15	---	N/A	Suppressed ¹	90	2	N/A	Suppressed ¹	77	3	N/A	Suppressed ¹
The Memorial Hospital	38	0	N/A	Suppressed ¹	23	0	N/A	Suppressed ¹	34	0	N/A	Suppressed ¹
Wray Community District Hospital	42	2	N/A	Suppressed ¹	39	0	N/A	Suppressed ¹	26	0	N/A	Suppressed ¹
Yuma District Hospital	1	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹	0	---	N/A	Suppressed ¹
Critical access hospitals, outpatient procedures												
Aspen Valley Hospital	N/A				2	---	N/A	Suppressed ¹	4	---	N/A	Suppressed ¹
Grand River Medical Center	1	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	7	---	N/A	Suppressed ¹
Gunnison Valley Hospital	1	---	N/A	Suppressed ¹	24	0	N/A	Suppressed ¹	28	0	N/A	Suppressed ¹
Heart Of The Rockies Regional Medical Center	1	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	N/A			
Mt. San Rafael Hospital	N/A				1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹
Pagosa Springs Medical Center	1	---	N/A	Suppressed ¹	N/A				1	---	N/A	Suppressed ¹
Pioneers Medical Center	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	3	---	N/A	Suppressed ¹

Facility name	2019				2020				2021			
	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison	No. of procedures	No. of infections	SIR	National comparison
Prowers Medical Center	N/A								2	---	N/A	Suppressed ¹
Rio Grande Hospital	N/A				1	---	N/A	Suppressed ¹	N/A			
Southwest Memorial Hospital	N/A				2	---	N/A	Suppressed ¹	27	0	N/A	Suppressed ¹
The Memorial Hospital	1	---	N/A	Suppressed ¹	2	---	N/A	Suppressed ¹	5	---	N/A	Suppressed ¹
Wray Community District Hospital	N/A								3	---	N/A	Suppressed ¹
Yuma District Hospital	1	---	N/A	Suppressed ¹	1	---	N/A	Suppressed ¹	5	---	N/A	Suppressed ¹

¹Calculation of comparison is not available due to data suppression for one of the following reasons: no. of procedures fewer than 20, or the predicted number of infections was less than one.

SIR, standardized infection ratio; N/A, not applicable.

Data source: National Healthcare Safety Network.

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Appendix A

Glossary of terms and abbreviations

Access-related bloodstream infection (ARB): The presence of bacteria in the blood and verified by culture with the source identified as the vascular access site or is unknown.

Bloodstream infection (BSI): An infection of the blood.

Catheter-associated urinary tract infection (CAUTI): A urinary tract infection associated with the use of a urinary catheter, symptoms and signs of infection, and a positive urine culture.

Catheter-days: A count of days a urinary catheter is in patients over time.

Central line (CL): A flexible tube (intravascular catheter) that ends at or close to the heart or in one of the great vessels.

Central line-associated bloodstream infection (CLABSI): A primary bloodstream infection (BSI) in a patient that had a central line within the 48-hour period before the development of the BSI.

Central line-days (device days): A daily count of patients with a central line in place is performed at the same time each day.

Critical care unit: A nursing care area that provides intensive observation, diagnosis, and therapeutic procedures for adults and/or children who are critically ill.

Dialysis event: An event for a dialysis patient involving any one of three possible scenarios: 1) hospitalization; 2) intravenous (IV) antimicrobial start; or 3) a positive blood culture. Dialysis event reporting involves *outpatient* facilities only.

Fascia: A thin layer of connective tissue covering, supporting, or connecting the muscles or inner organs of the body.

Great vessel: Based on NHSN criteria for reporting central line BSI, the following are considered great vessels: aorta, pulmonary artery, superior vena cava, inferior vena cava, brachiocephalic veins, internal jugular veins, subclavian veins, external iliac veins, common iliac veins, common femoral veins, and in neonates, the umbilical artery and vein.

Healthcare-associated infection (HAI): An infection of a patient that occurs in a health care setting which was not present or incubating at the time of admission.

Hip replacement surgery: An elective procedure for people with severe hip damage or pain related to chronic osteoarthritis, rheumatoid arthritis, or other degenerative processes involving the hip joint.

Implant: A nonhuman-derived object, material, or tissue that is permanently placed in a patient during an operation. Examples include heart valves, metal rods, mesh, wires, screws, cements, hip replacements, and other devices.

Infection: An invasion of the body tissues by an infectious agent.

Infection preventionist (IP): A health professional that has special training in infection prevention.

Inpatient: A patient whose date of admission to a health care facility and the date of discharge are different calendar days.

Intravenous (IV) antimicrobial start: The first dose of a medication given intravenously to kill microscopic infectious organisms such as bacteria and viruses in the body.

Knee replacement surgery: An elective procedure for people with severe knee damage and pain related to osteoarthritis, rheumatoid arthritis, and traumatic arthritis.

Local access infection (LAI): Pus, redness, or swelling of the vascular access site without the presence of access-associated bacteremia, patient hospitalization, or initiation of IV antimicrobials.

Location of attribution: The inpatient location where the patient was assigned on the date of the bloodstream infection (BSI) event, which is further defined as the date when the first clinical evidence appeared or the date the specimen used to meet the BSI criteria was collected, whichever came first.

Metric: A measurement of health outcomes.

National baseline: The number of predicted infections calculated using a model developed in 2015 from national data in order to account for differences in facility characteristics and patient populations. The national baseline allows facilities to compare observed counts of infection to counts of infections from facilities with similar characteristics in the form of a risk-adjusted rate known as the standardized infection ratio (SIR).

National Healthcare Safety Network (NHSN): NHSN is a secure, internet-based surveillance (monitoring and reporting) system managed by Centers for Disease Control and Prevention's (CDC) Division of Healthcare Quality Promotion.

NHSN operative procedure: A procedure that meets the following criteria: 1) performed on a patient who is a NHSN inpatient or outpatient; 2) takes place during an operation; and 3) included in the NHSN operative procedure categories.

NHSN reportable surgical procedure: An operation that takes place in an operating room, where at least one incision (including laparoscopic approach and cranial Burr holes) is made through the skin or mucous membrane, or reoperation via an incision that was left open during a prior operative procedure that is included in the ICD-10-PCS or CPT NHSN operative procedure code mapping.

Neonate: An infant less than or up to 30 days of age.

Neonatal critical care unit (NCCU): Patient care area providing care to most critically ill infants.

Outpatient: Patient whose date of admission to the facility and date of discharge are the same day (definition for the National Healthcare Safety Network reporting purposes).

Patient-days: The total number of inpatients for a particular unit determined at the same time each day for every day of the month recorded as a total sum for the month.

Permanent central line: A catheter that is tunneled under the skin on the chest wall and includes certain dialysis catheters (e.g., Hickman, Groshong, and Broviac) and implantable venous access ports (e.g., Port-a-Cath). Some dialysis patients may still have a port used for dialysis. However, most do not use this type of access due to the increased risk of infection.

Population: The total number of inhabitants of a geographic area or the total number of persons in a particular group (e.g., the number of persons engaged in a certain occupation).

Prevalence: The number or proportion of cases, events, or attributes among a given population.

Rate: An expression of the relative frequency with which an event occurs among a defined population and specific time-period.

Risk: The probability that an adverse event will occur (e.g., that a person will be affected by, or die from, an illness, injury, or other health condition within a specified time or age span).

Risk adjustment: Accounts for differences in facility characteristics and/or patient populations, enabling hospital comparisons.

Risk-adjusted rate: A risk-adjusted rate is a rate of infection that accounts for differences in patient populations and/or hospital characteristics between hospitals. Risk adjustment is accomplished by comparing an actual (observed) rate to the rate that is expected based on national data from similar patient populations and/or hospital characteristics.

Risk factor: An aspect of personal behavior/lifestyle, environmental exposure, or hereditary characteristic associated with an increased occurrence of a disease, injury, or other health condition.

Standardized infection ratio (SIR): A risk-adjusted summary measure that accounts for the type of procedure and risk category. The SIR compares the actual number of HAIs reported to the number that would be predicted for a facility with similar characteristics and/or patient population (i.e., the national baseline). A SIR greater than 1.0 indicates that more HAIs were observed than predicted. Conversely, an SIR less than 1.0 indicates that fewer HAIs were observed than predicted.

Surgical site infection (SSI): Infections that are directly related to an operative procedure. Some SSIs are minor and only involve the skin or subcutaneous tissue. Other SSIs may be deeper and more serious.

Superficial incision infection: involves only the top layers of the skin.

Deep incision infection: involves deeper soft tissues (e.g., fascia and muscle layers).

Organ space infection: involves any part of the body that is opened or manipulated during the surgical procedure, excluding the top layers of skin, fascia, or muscle layers.

Symptom: Any indication of disease noticed or felt by a patient.

Temporary central line: A central line that is not tunneled.

Urinary catheter: A tube placed in the bladder to help with urination.

Validation: A method of assessing the completeness and accuracy of reported HAI data.

Vascular access infection: An infection that is either a local access infection or access-related bloodstream infection.

Appendix B

Facility types

Certain health care facility types in Colorado must report healthcare-associated infections by Colorado law (CRS 25-3-601). A detailed list of the current reportable conditions can be found on the CDPHE website

(<https://www.colorado.gov/pacific/cdphe/hai-professionals>) under “HAI Reportable Conditions.”

Acute care hospitals: Facilities that primarily provide inpatient services, including diagnostic, therapeutic, or rehabilitation services. Details on acute care hospital reporting can be found on the acute care hospital NHSN webpage

(<https://www.cdc.gov/nhsn/acute-care-hospital/index.html>).

Ambulatory surgery center: A facility which operates exclusively for providing surgical services to patients not requiring hospitalization. Details on ambulatory surgery center reporting can be found on the ambulatory surgery center NHSN webpage

(<https://www.cdc.gov/nhsn/ambulatory-surgery/index.html>).

Critical access hospital: A designation given to certain rural hospitals by the Centers for Medicare and Medicaid Services (CMS) to reduce financial vulnerability and improve access to health care by keeping essential services in rural communities. A critical access hospital must have 25 or fewer acute care inpatient beds, be more than 35 miles from another hospital, maintain an average length of stay of 96 hours or less for acute care patients, and provide 24/7 emergency care services. Details on critical access hospitals can be found on the critical access hospitals CMS webpage (<https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/CertificationandCompliance/CAHs.html>).

Dialysis facility: A facility which operates exclusively to provide dialysis services to patients not requiring hospitalization. Details on dialysis facility reporting can be found on the outpatient dialysis NHSN webpage

(<https://www.cdc.gov/nhsn/dialysis/index.html>).

Inpatient rehabilitation facility: Inpatient rehabilitation facilities and inpatient rehabilitation wards in hospitals care for patients who have lost function due to an injury or medical condition. Details on inpatient rehabilitation facility reporting can be found on the inpatient rehabilitation facility NHSN webpage (<https://www.cdc.gov/nhsn/inpatient-rehab/index.html>).

Long-term acute care hospital: A specialty care hospital that cares for patients with serious medical conditions that require intense, special treatment for long periods of time (an average length of stay is 25 days). Details on long-term acute care hospital reporting can be found on the long-term acute care hospital NHSN webpage (<https://www.cdc.gov/nhsn/ltach/index.html>).

Appendix C

Standardized infection ratio

The standardized infection ratio (SIR) is a risk-adjusted summary measure used throughout this report. The SIR compares the actual number of healthcare-associated infections (HAIs) reported to the number that would be predicted, given the standard population (i.e., National Healthcare Safety Network (NHSN), or national, baseline). The SIR accounts for several risk factors that have been found to influence infection rates. The number of predicted infections is calculated based on a statistical model developed from 2015 national HAI aggregate data.

The SIR is a ratio of the number of observed infections divided by the number of predicted infections. A SIR greater than 1.0 indicates that more infections were observed than predicted (i.e., the rate is higher (worse) than the national baseline). Conversely, an SIR less than 1.0 indicates that fewer infections were observed than predicted (i.e., the rate is lower (better) than the national baseline). A statistical test is used to determine the probability that the observed value of the SIR, or one more extreme, is a “chance finding” when in truth there is no difference between the number of observed and predicted infections. When the statistical test indicates a probability >5% that the true value of the SIR is actually 1.0 regardless of the calculated value, the SIR is reported to be similar to (not significantly different from) the national baseline or “not significant.”

For some conditions, SIRs are not available. This report presents crude rates that are not adjusted for characteristics of the facility and/or patient population that may influence differences in rates between facilities. For this reason, crude rates of infection should be interpreted with caution. For a more detailed explanation of how the SIR is calculated, see NHSN’s SIR guide (<https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf>).

Crude Rates

Crude rates are reported when risk-adjusted rates (i.e., SIR) are not available through NHSN. Crude rates are reported with a national comparison for dialysis events (not available in 2022). Rates without a national comparison are reported for selected surgical site infections (following hip replacements) among ambulatory surgery centers.

Dialysis

Rates of access-related bloodstream infections related to hemodialysis are compared to national aggregate rates (this comparison was not available in 2022):

- If the rate is lower than the national aggregate rate and the p-value is less than or equal to 0.05, the facility’s infection rate is designated as “better.”
- If the rate is higher than the national aggregate rate and the p-value is less than or equal to 0.05, the facility’s infection rate is designated as “worse.”
- If the p-value is greater than 0.05, the difference between the facility’s rate and the national aggregate rate is not statistically significant, and the facility’s infection rate is designated as “same.”