

The cover features a collage of microscopic images. On the left, a large, spiky virus particle is shown in a reddish-purple hue. Below it, several green, rod-shaped bacteria are visible. On the right, a large, detailed image of a blue, rod-shaped bacterium is shown. The background is a light blue-grey color with large, geometric shapes in teal and olive green.

HEALTHCARE-ASSOCIATED INFECTIONS IN ALABAMA ANNUAL REPORT 2018

ALABAMA
PUBLIC
HEALTH

201 Monroe Street, Montgomery, AL 36104
Phone: 334-206-5971 • 1-800-338-8374 (Toll-Free)
www.alabamapublichealth.gov/hai

This report has been prepared by the Alabama Department of Public Health.

Healthcare-Associated Infections Program

Melanie Chervony, M.P.H., Healthcare-Associated Infections Coordinator and Epidemiologist

Ramandeep Kaur, Ph.D., M.P.H., B.S.N., C.H.E.S., Antimicrobial Resistance and Antibacterial Stewardship Coordinator and Epidemiologist Senior

Tammy Langlois, B.S.N., R.N., Healthcare-Associated Infections Nurse Manager

Kelly Stevens, M.S., Director, Infectious Diseases & Outbreaks Division

Sherri Davidson, Ph.D., M.P.H., Interim State Epidemiologist

Healthcare Data Advisory Council

Chairman: Scott Harris, M.D., M.P.H., State Health Officer

For a complete list of Healthcare Data Advisory Council members, please see pg. 54

TABLE OF CONTENTS

Executive Summary	4
Introduction	6
Healthcare Facilities Defined	7
Method of HAI Data Collection	7
Reporting Variables	8
Catheter-Associated Urinary Tract Infection (CAUTI)	8
Central Line-Associated Bloodstream Infection (CLABSI)	8
Surgical Site Infection (SSI)	9
Volume (Low, Medium, and High)	9
Accuracy in HAI Reporting	10
ADPH Data Validation Program	10
CLABSI Validation	11
CAUTI Validation	12
Performance Measurement	13
Risk Adjustment	13
Standardized Infection Ratio	13
Minimal Reporting Thresholds	13
Hospital Performance Compared to 2015 National Baseline Data	14
The 2015 Rebaseline and Annual Progress Comparisons	15
Pathogens Involved in Surgical Site Infections, 2018	16
HAI Data, Statewide	17
HAI Data, Hospital-Specific	21
HAI Reporting Regions	21
Definitions and Acronyms	50
Alabama Hospitals Reporting Data	51
Alabama Healthcare Data Advisory Council 2018 Members	54

EXECUTIVE SUMMARY

Healthcare-associated infections (HAIs) are infections that patients acquire while receiving care in a hospital or other healthcare facility. They can significantly delay recovery and sometimes even lead to debilitation or death. For these reasons, understanding the burden of HAIs in Alabama is important for our citizens, our healthcare facilities, and our government.

Alabama hospitals began reporting four infection measures to the Alabama Department of Public Health (ADPH) in 2011: catheter-associated urinary tract infections (CAUTIs), central line-associated bloodstream infections (CLABSIs), and surgical site infections (SSIs) associated with colon surgeries and abdominal hysterectomies. Alabama law requires that hospitals report HAI data through the National Healthcare Safety Network (NHSN), a secure internet-based surveillance system maintained by the Centers for Disease Control and Prevention (CDC). This 2018 Annual Report highlights Alabama's eighth year of reporting infection measure data. Prior reports compared Alabama's data to national baseline data from 2006-2009. This report marks the second year in which the national baseline data for comparison is from 2015. Therefore, SIRs will generally be higher than those from previous reports due to general improvement in infection control across the United States (see page 15 for more details). Because of the method of calculation used in NHSN, statewide SIRs exclude critical access hospitals.

In 2018, 91 facilities in Alabama reported CAUTI data.¹ These hospitals reported 318 CAUTIs over 408,014 catheter days [CAUTI Rate (per 1,000 catheter days): 0.78]. This demonstrates a significant decrease in CAUTIs from 2017, when 373 CAUTIs were reported by 92 hospitals, over 435,313 catheter days [CAUTI Rate (per 1,000 catheter days): 0.87]. The 2018 standardized infection ratio (SIR) was 0.66, indicating that Alabama hospitals had significantly fewer infections than predicted based on the 2015 national baseline data for the fourth year in a row. Nine hospitals performed better than expected, and none performed worse.

In 2018, 154 CLABSIs associated with 198,872 central line days [CLABSI Rate (per 1,000 central line days): 0.77] were reported by 68 Alabama hospitals that met the reporting criteria. Alabama's performance was statistically better than the 2015 national baseline with an SIR of 0.69, continuing a four-year steady improvement. Six hospitals performed better than the national baseline, and one performed worse.

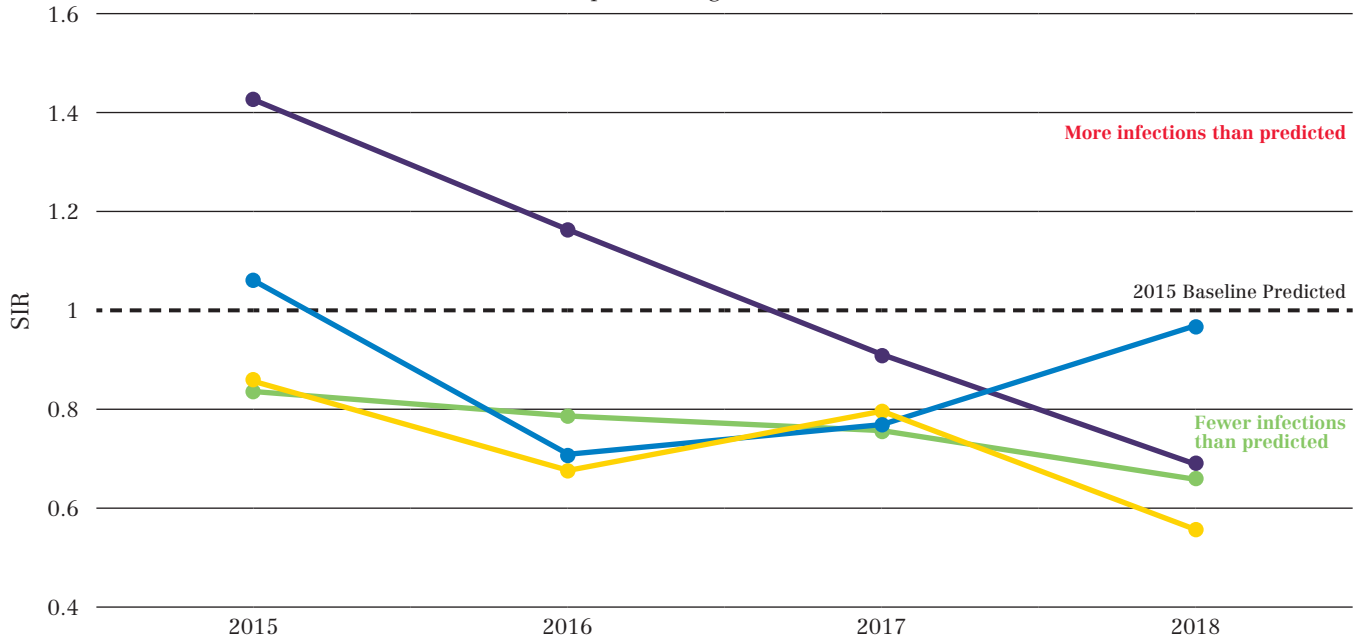
For colon SSIs, Alabama hospitals performed significantly better than the national baseline in adult procedures. For 6,004 adult colon procedures, 80 deep and organ-level SSIs were identified [SSI Rate (per 100 procedures): 1.33], resulting in an SIR of 0.56. The statewide adult SIR has been better than national performance for four years in a row, with this year's being the best of all.

For abdominal hysterectomy SSIs, Alabama hospitals' performance was similar to the national baseline in adult procedures. For 6,825 adult abdominal hysterectomies, 40 deep and organ-level SSIs were identified [SIR Rate (per 100 procedures): 0.59], resulting in an SIR of 0.97. The statewide adult SIR increased for the second year in a row.

¹Two facilities were excluded from state- and individual-level data; one because of closure and one because zero catheter days were reported

Alabama SIRs by Year

Acute Care Hospitals Using 2015 Baseline Data



	2015	2016	2017	2018
CAUTI SIRs	0.84	0.79	0.75	0.66
CLABSI SIRs	1.42	1.16	0.9	0.69
Adult Colon SSI SIRs	0.86	0.68	0.8	0.56
Adult Abdominal Hysterectomy SSI SIRs	1.06	0.71	0.77	0.97

INTRODUCTION

A healthcare-associated infection (HAI), formerly referred to as a nosocomial infection, is a type of infection patients acquire while receiving treatment in a healthcare setting. Healthcare settings may include hospitals, clinics, long-term care facilities, dialysis centers, and rehabilitation facilities. HAIs may be associated with a variety of conditions such as certain surgical procedures, overuse of antibiotics, and non-adherence to proper disinfection techniques like handwashing. Additionally, use of medical devices like urinary catheters, central lines, and ventilators increases patients' risk of HAIs.

Many criteria exist for evaluating the presence of HAIs. The infection's timing is important; HAIs must occur within a specific window of time in relation to a procedure or event. As such, not all infections that present while a patient is hospitalized meet the criteria for reporting as an HAI. Additionally, diagnostic tests and patient symptoms may be important to identify an HAI. Alabama, like most other states, uses specific criteria described by the Centers for Disease Control and Prevention (CDC) to determine whether an infection should be reported as an HAI.

The Mike Denton Infection Reporting Act (SB98) was passed on August 1, 2009, by the State of Alabama to better combat HAIs. The Act requires the collection and reporting of certain HAI data by specific Alabama healthcare facilities. It designated the Alabama Department of Public Health (ADPH) as the agency responsible for analyzing submitted data and created a Healthcare Data Advisory Council (HDAC) to assist with development of the HAI reporting and prevention program. The Infection Reporting Act also made provisions for the development of certain rules and regulations, as well as the development of public reports comparing the HAI data.

Consumer demand for information about the performance of healthcare providers has increased steadily over the past decade. Data collected through the provisions of the Infection Reporting Act is of great interest to our communities. In response, many state and national initiatives now mandate health care organizations to publicly disclose information regarding institutional performance. Public reporting of health care performance enables stakeholders, including consumers, to make more informed choices on health care issues.

Although significant progress has been made in preventing HAIs, there is work to be done. On any given day, about 1 in 31 hospital patients has an HAI. There were an estimated 687,000 HAIs in U.S. acute care hospitals in 2015. The same year, about 72,000 patients with HAIs died during their hospitalizations.² The high number of HAIs impose a significant, and unnecessary, burden on the population in terms of morbidity and mortality. Recent studies suggest that implementing existing prevention practices can reduce certain HAIs by as much as 70 percent. The financial benefit of using these prevention practices is estimated to be \$25 billion to \$31.5 billion in medical cost savings.³

For more details regarding the Advisory Council members, the Alabama State HAI Action Plan, Alabama Reporting Prevention Program, Rules and Regulations, and NHSN visit <http://www.alabamapublichealth.gov/HAI>

² Centers for Disease Control and Prevention, Healthcare-associated Infections (HAIs), Data and Statistics. Available at: <https://www.cdc.gov/hai/data/portal/index.html>

³ Scott, DR. The direct medical costs of healthcare-associated infections in US hospitals and the benefits of prevention. Centers for Disease Control and Prevention. March 2009. Available at: https://www.cdc.gov/HAI/pdfs/hai/Scott_CostPaper.pdf

Healthcare Facilities Defined

In accordance with the rules and regulations supporting the Mike Denton Infection Reporting Act, healthcare facilities are defined as general, critical access, and specialized hospitals (including pediatric hospitals, but excluding psychiatric, rehabilitation, long-term care, and eye hospitals) that are licensed pursuant to Code of Alabama 1975, § 22-21-20. This report only includes individual data on healthcare facilities open as of August 1, 2019, and those with 12 months of data in 2018.

For a complete list of the healthcare facilities included in this report, please see Alabama Hospitals Reporting Data, p 51.

Method of HAI Data Collection

The National Healthcare Safety Network (NHSN) is a secure, internet-based surveillance system used by trained Infection Preventionists (IPs) or other trained NHSN Users at each healthcare facility to collect and report HAI data. The IP or designated NHSN User is required to enter the HAI data into NHSN no later than the last day of the subsequent month. For example, all January events should be entered by February 28. Each Alabama healthcare facility must grant permission within NHSN for ADPH HAI program staff to view and analyze the specified HAI data so they may, in turn, compile summary data for public reporting.

In the state of Alabama, HAI data required to be reported in NHSN include catheter-associated urinary tract infections (CAUTIs), central line-associated bloodstream infections (CLABSIs), and surgical site infections (SSIs) associated with colon surgeries and abdominal hysterectomies.



REPORTING VARIABLES

Catheter-Associated Urinary Tract Infection (CAUTI)

A CAUTI is an infection associated with an indwelling urinary catheter. An indwelling urinary catheter, also referred to as a Foley catheter, is a urine drainage tube connected to a closed drainage system (bag). The catheter is inserted into the bladder through the urethra for the collection of urine over a period of time. A CAUTI must be reported if it occurs in a patient who has had an indwelling urinary catheter in place for greater than two calendar days before the onset of the UTI, according to CDC's NHSN established criteria. The patient may or may not exhibit symptoms.

During 2018, Alabama hospitals were required to report CAUTIs that were attributed to medical wards, surgical wards, medical/surgical wards, adult critical care units, and pediatric critical care units. Facilities that did not have these types of wards or critical care units (as defined by NHSN) reported CAUTIs from mixed acuity wards and mixed age/mixed acuity wards. Hospitals were required to report CAUTI data using NHSN.

Facilities were also required to report monthly the number of days each patient was admitted (patient days) and the number of days each patient had an indwelling urinary catheter (catheter days) from the above wards or units (locations) using NHSN. The patient days and catheter days were counted at the same time each day; however, the time of day for collection was based on facility preference.

Central Line-Associated Bloodstream Infection (CLABSI)

A CLABSI is an infection that results from a central line catheter or umbilical catheter (if the patient is less than one year old). A central line is a catheter that terminates into one of the great blood vessels or near the heart, and is used for the administration of fluids, medications, intravenous nutrition, hemodynamic monitoring, and drawing blood. Central lines also include catheters used for infusions into the umbilical vein or artery in neonates. A CLABSI must be reported if it occurs in a patient that has had a central line or umbilical catheter in place at least two calendar days before a laboratory-confirmed bloodstream infection event occurs, and the bloodstream infection is not caused by an infection at another site in the body.

During 2018, CLABSIs occurring within adult, pediatric, and neonatal critical care units were required to be reported using NHSN. Facilities were also required to report the total number of patients per day (patient days) and the number of patients per day with central lines (central line days) using NHSN each month from the above locations. The patient days and central line days were tallied at the same time each day; however, the time of day for collection of data was based on facility preference.

Surgical Site Infection (SSI)

An SSI is a procedure-associated HAI that results from an inpatient or outpatient surgery that involved an incision through the skin or mucous membranes. An SSI is reportable if the infection occurs in a patient within 30 days of the operative procedure if no implant was left in place or within 90 days of the surgery if an implant was left in place, and the infection was not caused by an infection at another site in the body in accordance with NHSN criteria. ADPH only collects data on inpatient procedures, i.e., those in which the date of admission and date of discharge are different. In 2014, the HDAC voted to only report on SSIs occurring in deep tissue and organ space in order to mirror the Centers for Medicare and Medicaid Services reporting requirements. In compliance with this decision, superficial SSIs are excluded from this annual report.

Only SSIs resulting from inpatient colon surgeries and abdominal hysterectomies performed by an Alabama healthcare facility are required to be reported. A colon surgery is a surgical procedure in which a portion of the colon (i.e., large intestines) undergoes an operation, including incision, resection, or anastomosis (reconnection). An abdominal hysterectomy is a surgical procedure in which the uterus is removed through an incision in the lower abdomen. It may include removal of one or both ovaries, fallopian tubes, and use of laparoscopic or robotic surgical approaches. In addition to reporting SSIs for colon surgeries and abdominal hysterectomies, facilities were also required to report the total number of each procedure that was performed each month.

Volume (Low, Medium, and High)

A hospital's volume was determined based on the number of device days or procedures performed during the calendar year for each HAI measure (CAUTIs, CLABSIs, colon SSIs, and abdominal hysterectomy SSIs). The low-volume category consisted of the 25% of hospitals with the lowest device utilization days or procedures. Medium-volume consisted of the 50% of hospitals whose device utilization days or procedure counts were in the 2nd and 3rd quartiles, meaning they were in the middle. The high-volume category consisted of the 25% of hospitals whose device utilization days or procedure counts were the highest.



ACCURACY IN HAI REPORTING

ADPH Data Validation Program

Background: The Mike Denton Infection Reporting Act gave the ADPH the responsibility and authority to evaluate the quality and accuracy of HAI reporting. The law also established the HDAC to advise the department regarding public reporting of HAIs. The Advisory Council agreed that annual validation of each healthcare facility's individual surveillance program was necessary to ensure that accurate, complete performance data is presented to the public.

Purpose: The purpose of the ADPH validation process is to:

1. Foster understanding of reporting expectations.
2. Improve reporting accuracy.
3. Provide opportunities for improving surveillance methods/resources.
4. Provide opportunities to correct errors prior to report publication.
5. Identify system issues affecting accurate reporting.
6. Engage/compel internal communication.
7. Minimize hospital reporting misconceptions.
8. Provide an educational opportunity rather than a regulatory visit (as regulatory visits are limited to willful and intentional failure to report).

Methods: A variety of methods were utilized to validate the different aspects of the reporting program. These methods included but were not limited to:

1. Verifying that all facility administrators completed the minimum required NHSN training.
2. Ensuring each facility conferred rights to ADPH to view their data.
3. Reviewing Monthly Plans for each facility.
4. Notifying NHSN facility administrators of discrepancies for correction.

Reporting Validation: This procedure was performed for each facility, for each HAI category required to be reported.

1. A 9-month report of NHSN data was provided to each facility to identify discrepancies. Each facility was asked to verify the data and provide updates if needed.
2. Submitted monthly data was reviewed for consistency and completeness.
3. Facilities were notified via e-mail or phone regarding missing, inconsistent, or duplicate data for the review period.
4. The annual data report was provided to each facility for 45 days to review and make comments to explain performance if desired.
5. ADPH used CDC's 2018 External Validation Guidance and Toolkit parameters to validate the hospitals' accuracy in reporting HAIs through NHSN. The site visits consisted of the following four components:
 - a. Validating that the reported HAIs met the case criteria using case finding, laboratory notification, and data mining
 - b. Assessing whether the IP applied the NHSN definitions correctly
 - c. Assuring detection and verification of cases, and providing feedback on whether NHSN definitions were applied correctly (ensuring sensitivity and specificity of data)

- d. Recommending ways for overall improvement, including strategies to advance infection control efforts and enhance data accuracy

The main data sources used in the validation process were hospital infection surveillance records, the NHSN line listing for the review period, and laboratory records. Following validation visits, the HAI Nurse Manager provided verbal education regarding the correct application of NHSN definition of terms and CAUTI and CLABSI criteria for proficient identification and reporting at an exit interview. Written results were prepared and provided at a later date.

CLABSI Validation

For this annual report, ADPH validated the selected hospitals’ 2018 CLABSI records. In accordance with the NHSN 2018 External Validation Guidance and Toolkit, the HAI Nurse Manager and HAI Staff Nurse conducted site visits at 25 facilities in the Alabama Hospital Association (AlaHA) regions using a targeted selection method for CLABSI validations. The selected facilities included a mixture of 7 medium-volume and 18 high-volume hospitals.

Prior to the site visit, the hospital IP provided a list of positive blood cultures along with CLABSIs reported to NHSN. A sample was taken using CDC’s Targeted Medical Record Selection Process. An average of 40 records were evaluated per facility, with a range of 16 to 60. Site visits consisted of record review using the 2018 CLABSI Medical Record Abstraction Tool from the toolkit. This method allowed for a structured medical review to assess if the NHSN criterion for a CLABSI was accurately applied.

Of the 1,007 records reviewed at the facilities, the NHSN CLABSI criterion was applied correctly over 99 percent of the time. Most of the visited hospitals did not misidentify any CLABSI events. Additionally, one of the two discrepancies was because the hospital incorrectly classified an infection as a CLABSI, while the other was from failure to identify a CLABSI.

CLABSI Validation Summary:					
Validation Year	# Records Reviewed	# CLABSIs Over-Reported	# CLABSIs Under-Reported	Total Discrepancies	Accuracy
2014	977	16	30	46	95.3%
2015	975	8	4	12	98.8%
2016	869	0	0	0	100.0%
2017	937	2	6	8	99.1%
2018	1,007	1	1	2	99.8%

CAUTI Validation

For the third consecutive year, ADPH also selected hospitals for CAUTI validation based on their 2018 records. Rather than using the NHSN 2018 External Validation Guidance and Toolkit, hospitals were selected using a random stratified sampling method in order to specifically include more low- and medium-volume facilities from diverse regions of Alabama. Smaller, more rural facilities rarely received validation site visits in the past, and many only report CAUTIs, so this method was chosen in order to allow for site visits at facilities that were unlikely to receive them under the NHSN validation selection criteria. The Healthcare Infection and Prevention Nurse Manager conducted site visits of 7 low-volume and 10 medium-volume facilities in the AlaHA region.

Prior to the site visit, the hospital IP provided a list of positive urine cultures along with CAUTIs reported to NHSN. From these records, a sample was taken using the Targeted Medical Record Selection Process. An average of 30 records were evaluated per facility, with a range of 11 to 50. Site visits consisted of record review using the 2018 CAUTI Medical Record Abstraction Tool from the toolkit. This method allowed for a structured medical review to assess if the NHSN criterion for a CAUTI was accurately applied.

Of the 508 records reviewed at the facilities, the NHSN CAUTI criterion was applied correctly 100 percent of the time, compared with 99 percent in 2017.

CAUTI Validation Summary:					
Validation Year	# Records Reviewed	# CAUTIs Over-Reported	# CAUTIs Under-Reported	Total Discrepancies	Accuracy
2016	458	1	1	2	99.6%
2017	463	1	1	2	99.6%
2018	508	0	0	0	100.0%



PERFORMANCE MEASUREMENT

Risk Adjustment

Comparing data between different facilities with diverse patient populations can be difficult. Some patients will be at higher risk for an HAI because of factors beyond the control of healthcare facilities. For this reason, risk stratification is important when making comparisons in order to avoid penalizing facilities for performing surgeries or using medical devices in patients that may carry higher risk of infection or complications. For CAUTI and CLABSI surveillance, facility-specific unit locations (e.g., surgical intensive care unit, general medical ward) are used in risk adjustment. SSIs take into account the patient's pre-surgical medical status, length of surgery compared to similar surgeries, and the extent of the contamination of the surgical wound, after which logistic regression models are used to calculate the risk adjustment.

Standardized Infection Ratio

To determine how a hospital compares to other facilities nationally, the standardized infection ratio (SIR) is used. The SIR is the number of infections the facility reported for a given HAI category (CAUTI, CLABSI, colon SSI, and abdominal hysterectomy SSI), divided by the number of infections that were predicted using national baseline data. The predicted number of infections is adjusted for various risk factors within the facility, and is also influenced by the number of procedures performed (for SSIs) or the total device-days (for CLABSIs and CAUTIs).

$$SIR = \frac{\textit{observed}}{\textit{predicted}}$$

- When an SIR is equal to 1, the observed number of events is the same as the predicted number.
- When the SIR is greater than 1, the observed number of events is greater than the predicted number.
- When the SIR is less than 1, the observed number of events is less than the predicted number.

Minimal Reporting Thresholds

When healthcare facilities perform a low volume of procedures or device placements at risk for HAIs, a relatively small number of infections may have a dramatic and sometimes misleading effect on their SIRs. For example, if a healthcare facility only performs a few colon surgeries in a year, the predicted number of SSIs related to colon surgeries could be calculated at 0.5 for that facility. Then, if one colon-related SSI is observed, their SIR would be 2 (1 divided by 0.5), indicating that they had considerably more infections than the national baseline. In contrast, 0 colon SSIs would make their SIR 0 (0 divided by 0.5), and they would compare very favorably to the national baseline. Neither of these SIRs would be very helpful in understanding the facility's true performance given the small amount of data that was available.

To minimize the risk of unfairly comparing healthcare facility SIRs due to low volume of procedures, the HDAC adopted CDC's NHSN minimum thresholds used in their Annual National HAI Report. Thus, in order to report an SIR for a facility, the minimum number of predicted events must be greater than or equal to 1.

Hospital Performance Compared to 2015 National Baseline Data

A facility's performance is compared to the 2015 national baseline data by calculating the 95 percent confidence interval of the SIR in order to distinguish between small differences based on chance and larger differences based on true disparity in performance. The upper and lower limits of the confidence interval represent the range within which the "true" SIR for a facility is likely to occur, with 95 percent confidence. If this range includes 1, then the difference between the facility's performance and the national baseline is not statistically significant. These facilities are classified as "Similar" to the national baseline.

If the confidence interval for a facility's SIR does not include 1, the facility's performance was significantly different than the national baseline, meaning they either performed significantly better or worse. If the high end of the confidence interval is less than one, the facility had significantly fewer infections than expected, and they are classified as "Better" than the national baseline. In contrast, if the lower end of a facility's confidence interval is greater than 1, the facility had significantly more infections than expected and is classified as "Worse."

When a facility's SIR is classified as "Worse" for a given procedure or device, patients with this procedure or device are at greater risk of HAIs here than at other hospitals across the nation. Facilities with "Better" SIRs present a lower risk of infection compared to the hospitals across the nation.

It is possible for two hospitals with similar SIR values to be classified differently ("Similar," "Better," or "Worse") compared to the national baseline. This is because of differences in their confidence intervals, which are influenced by the number of procedures or device-days that a particular hospital has for a particular HAI measure. For example, a hospital that does more colon surgeries will have a narrower confidence interval, which will make it easier to distinguish that hospital's performance from the national baseline (i.e., "Better" or "Worse"). A hospital that only performs a few colon surgeries will have a wider confidence interval, increasing the likelihood that the interval will contain 1 and the hospital will not be statistically different from the national baseline (i.e., "Similar").



THE 2015 REBASELINE AND ANNUAL PROGRESS COMPARISONS

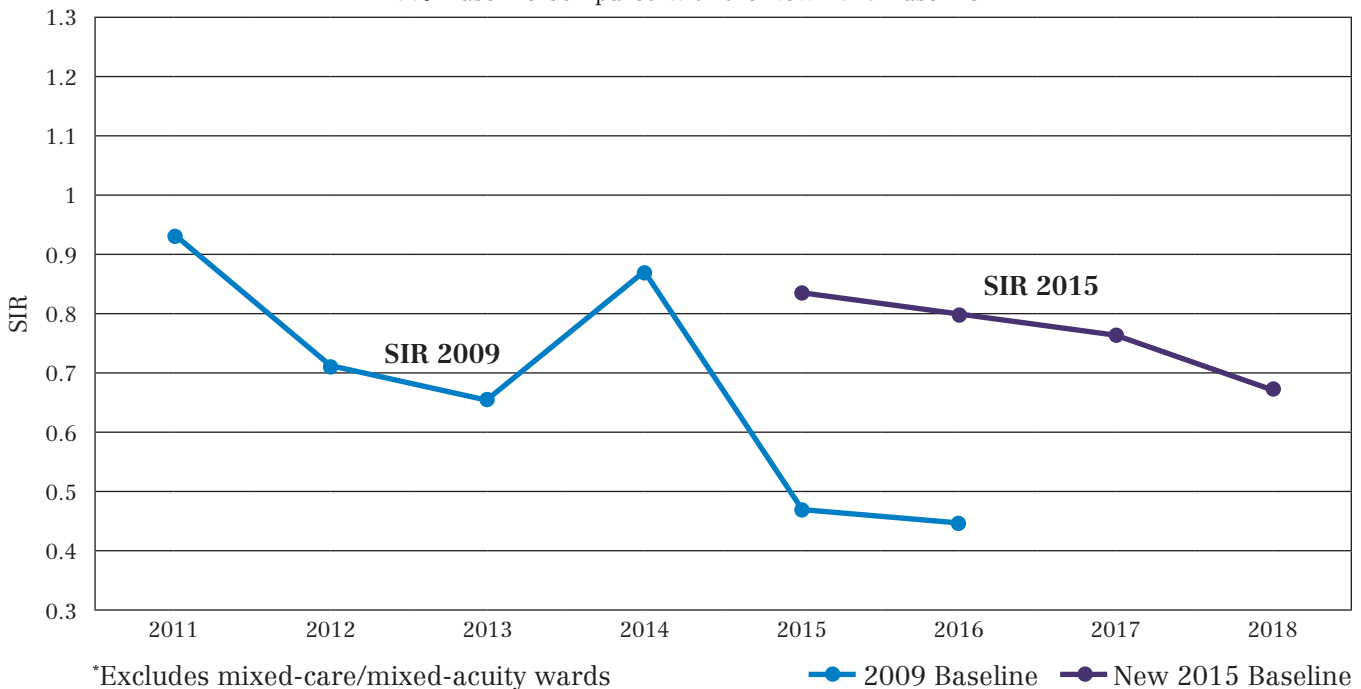
When healthcare facilities in Alabama enter HAI data into NHSN, CDC uses that data to calculate the SIR for each reporting state and facility. The SIR compares the number of infections that occurred in a facility or state to the number of infections that were “predicted” based on previous years of data reported nationally (i.e., baseline data). In Alabama’s annual reports before 2017, the national baseline data for CAUTIs was based on estimates from 2009, while the national baseline data for CLABSIs, abdominal hysterectomy SSIs, and colon surgery SSIs was based on estimates from 2006-2008.

Beginning in 2017, CDC updated NHSN to use a new 2015 baseline for all infection measures, a process known as the “rebaseline.” Since national rates of HAIs have declined over the past several years, most hospitals will compare less favorably to the national performance under the 2015 baseline than they did under the previous baseline, meaning that SIRs will increase. Risk adjustment methodology, including inclusion and exclusion criteria, was also updated with the rebaseline. NHSN allows data analysis using the old baseline for years 2011-2016, while the new baseline can be used for 2015 and later. This year is the second year that Alabama’s annual report is using the new baseline.

SIRs calculated with different baselines are not directly comparable. For example, non-mixed units from acute care hospitals in Alabama reported 417 CAUTIs and 445,224 catheter days in 2015. Based on the 2009 baseline, NHSN predicted 892 CAUTIs for that time period, making the SIR 0.47. In contrast, using the new 2015 baseline, NHSN predicted considerably fewer CAUTIs (500) for an SIR of 0.83.

Alabama CAUTI SIRs by Year, Acute Care Hospitals*

2009 Baseline Compared with the New 2015 Baseline



To summarize, SIRs in this report may be higher than those in previous reports, but this change is an artificial result of the new comparison baseline.

PATHOGENS INVOLVED IN SURGICAL SITE INFECTIONS, 2018

Despite the burden of HAIs in the state of Alabama and the growth of antibiotic drug resistant pathogens, most HAIs are preventable. In addition to monitoring the number of HAIs in a facility, data is also collected on the types of pathogens associated with these infections. Below, data are presented for pathogens identified from deep- and organ-level (SSIs in 2018. These data do not represent all SSIs because cultures are not always performed and submitted to identify causative organisms. Additionally, multiple pathogens may be isolated from a single infection.

In 2018, Alabama hospitals reported 159 positive cultures from deep- and organ level SSIs associated with colon surgeries. *Escherichia* species were the most common pathogens identified in 2018 as well as 2017. *Escherichia* accounted for 37 (23 percent) of identified pathogens among non-superficial SSIs, compared to 51 of 198 (26 percent) in 2017. *Enterococcus* species were the second most commonly identified in 2018 and 2017, accounting for 32 (20 percent) in 2018 and 43 (22 percent) in 2017. While *Klebsiella* was the third most common pathogen in 2017, *Staphylococcus* was third in 2018 with 16 infections (10 percent). Interestingly, the ten most common pathogens were the same in 2018 and 2017, except for one newly identified pathogen, *Proteus*.

A total of 25 positive cultures were reported from deep- and organ-level abdominal hysterectomy SSIs in 2018. *Bacteroides* was the most common pathogen isolated in 2018 with 4 infections identified (16 percent), while *Enterococcus* was the second most common with 3 (12 percent). In contrast, *Escherichia* was the most common for deep- and organ-level abdominal hysterectomy SSIs in 2017 with 7 (26 percent), and *Enterococcus* was second with 5 (19 percent). Reports from prior years that included superficial SSI pathogens typically found *Staphylococcus* most commonly, but with superficial SSIs excluded, this pathogen drops to the sixth most common in 2018 (8 percent).

Pathogens identified in the “other” group in 2018 consisted of several different genera including *Citrobacter*, *Clostridium*, *Morganella*, as well as unspecified yeasts.

Pathogens Identified in Deep and Organ-Level Surgical Site Infections following Colon Surgeries (COLO) and Abdominal Hysterectomies (HYST) in NHSN: Alabama, 2018

Escherichia	37	1
Enterococcus	32	3
Staphylococcus	16	2
Klebsiella	12	3
Pseudomonas	11	
Enterobacter	10	
Candida	8	
Bacteroides	6	4
Proteus	4	3
Streptococcus	4	3
Other	19	6

■ COLO ■ HYST

Data acquired from NHSN August 14, 2019, based on surgeries performed in 2018

HAI DATA, STATEWIDE

Ninety-one Alabama hospitals reported 318 CAUTIs in 2018, associated with 408,014 catheter days [CAUTI Rate (per 1,000 catheter days): 0.78]. The SIR, which does not include critical access facilities, was 0.66. The SIR, number of CAUTIs, and catheter days reported were lower than those reported in 2017. Alabama performed better than the national performance. Medium- and high-volume hospitals performed better compared to the national performance with SIRs of 0.73 and 0.65, respectively, while low-volume hospitals performed similarly with an SIR of 1.21.

2018 Catheter-Associated Urinary Tract Infections (CAUTIs)				
	Number of CAUTIs	Total Number of Catheter Days	Ratio of Observed to Predicted Infections (SIR)*	2018 Hospital Performance compared to National Performance (2015)*
Alabama Hospitals Reporting: 91	319	409,485	0.66	Better
Low-Volume Hospitals (Fewer than 395 catheter days)	2	4,207	1.21	Similar
Medium-Volume Hospitals (395 to 6,249 catheter days)	58	102,874	0.73	Better
High-Volume Hospitals (More than 6,249 catheter days)	258	300,952	0.65	Better

Data acquired from NHSN: August 14, 2019

*Does not include Critical Access Hospitals

Catheter days: the sum of patients per day with an indwelling urinary catheter in medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

CAUTI: urinary tract infection associated with an indwelling catheter

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using urinary catheter patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to the national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)

In 2018, 68 Alabama hospitals reported 154 CLABSIs over 198,872 central line days [CLABSI Rate (per 1,000 central line days): 0.77]. Alabama performed better than the national performance level, with an SIR of 0.69. Six hospitals performed better than the national baseline, and one hospital performed worse. Medium-volume hospitals performed similar to the national performance with an SIR of 1, while high-volume hospitals performed better than the national performance with an SIR of 0.64. Low-volume hospitals did not have enough central line days to compare to the national baseline, but they reported 0 infections.

2018 Central Line-Associated Bloodstream Infections (CLABSIs)				
	Number of CLABSIs	Number of Central Line Days	Ratio of Observed to Predicted Infections (SIR)*	2018 Hospital Performance compared to National Performance (2015)*
Alabama Hospitals Reporting: 68	154	198,833	0.69	Better
Low-Volume Hospitals (Fewer than 117 central line days)	0	828	N/A	-
Medium-Volume Hospitals (117 to 3,580 central line days)	32	37,369	1	Similar
High-Volume Hospitals (More than 3,580 central line days)	122	160,675	0.64	Better

Data acquired from NHSN: August 14, 2019

*Does not include Critical Access Hospitals

Central line days: the sum of patients per day with a central line in adult, pediatric, and neonatal critical care units

CLABSI: a bloodstream infection associated with a central line

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using central line patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)

In 2018, 66 Alabama hospitals reported 6,135 colon procedures, with 82 deep- or organ-level SSIs associated with these procedures [SSI Rate (per 100 colon procedures): 1.34]. Overall, Alabama had an SIR of 0.56 for procedures in adults, indicating performance was better compared to the national baseline data. The SIR for pediatric procedures (i.e., those in patients less than 18 years of age) was 0.68, indicating performance was similar to baseline. Of the hospitals that performed colon surgeries, 3 had significantly fewer infections in adults compared to the national baseline. One facility performed worse than the national baseline. Medium-, and high-volume hospitals performed better in adult procedures compared to national baseline data. Additionally, low-volume hospitals reported no SSIs in adult or pediatric procedures.

2018 Surgical Site Infections (SSIs) Associated with Colon Surgeries*					
	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)*
Alabama Hospitals Reporting: 66	Adult	80	6,004	0.56	Better
	Pediatric	2	131	0.68	Similar
Low-Volume Hospitals (Fewer than 12 total procedures)	Adult	0	85	0	Similar
	Pediatric	0	1	N/A	-
Medium-Volume Hospitals (12 to 137 total procedures)	Adult	14	1,625	0.42	Better
	Pediatric	1	108	0.52	Similar
High-Volume Hospitals (More than 137 total procedures)	Adult	66	4,269	0.61	Better
	Pediatric	1	22	N/A	-

Data acquired from NHSN: August 14, 2019

*Does not include superficial SSIs

Procedures: the number of inpatient colon surgeries performed in 2018

SSI: a deep- or organ-level infection associated with an inpatient colon surgery; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using colon surgical procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)

Fifty-three Alabama hospitals performed 6,825 adult abdominal hysterectomies in 2018. Forty deep- and organ-level SSIs were associated with these procedures in adults [SSI Rate (per 100 adult abdominal hysterectomy procedures): 0.59]. No pediatric abdominal hysterectomies were performed. The adult SIR of 0.97 was similar to national baseline data and no facilities had statistically fewer or more infections than expected.

2018 Surgical Site Infections (SSIs) Associated with Abdominal Hysterectomies*					
	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)*
Alabama Hospitals Reporting: 53	Adult	40	6,825	0.97	Similar
Low-Volume Hospitals (Fewer than 14 procedures)	Adult	0	51	N/A	-
Medium-Volume Hospitals (14 to 132 procedures)	Adult	8	1,454	0.84	Similar
High-Volume Hospitals (More than 132 procedures)	Adult	32	5,320	1.02	Similar

Data acquired from NHSN: August 14, 2019

*Does not include superficial SSIs

Procedures: the number of inpatient abdominal hysterectomy surgeries performed in 2018

SSI: a deep- or organ-level infection associated with an inpatient abdominal hysterectomy; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using abdominal hysterectomy procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

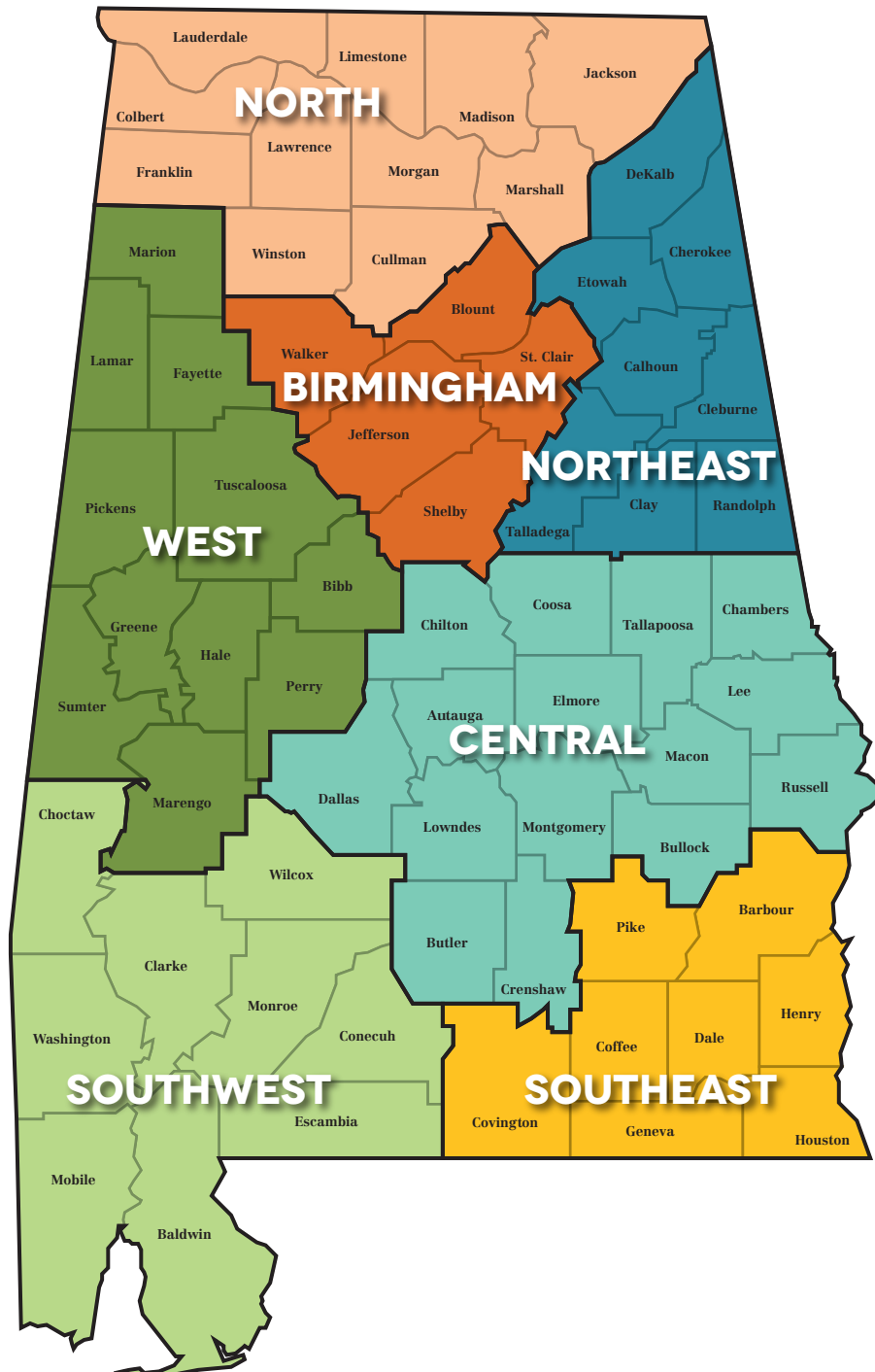
Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)

HAI DATA, HOSPITAL-SPECIFIC

The tables on the following pages list individual hospital performance in each of the four infection measures: CAUTIs, CLABSIs, colon SSIs, and abdominal hysterectomy SSIs. The hospitals are grouped by the geographical regions in which they are located. The region boundary is designated by the AlaHA regions. Hospitals are then grouped by volume of device days or procedures performed.

HAI REPORTING REGIONS



Birmingham Region

Catheter-Associated Urinary Tract Infections (CAUTIs)

January 1, 2018 - December 31, 2018

CAUTI locations: medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

Hospital Name	Number of CAUTIs	Number of Catheter Days	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 395 catheter days)				
St. Vincent's Blount	0	109	N/A	-
Medium-Volume Hospitals (395 – 6,249 catheter days)				
Children's Health System	3	2,476	0.72	Similar
St. Vincent's St. Clair	1	1,390	N/A	-
University of Alabama at Birmingham Highlands	3	4,393	0.67	Similar
Walker Baptist Medical Center	0	4,368	0	Better
High-Volume Hospitals (more than 6,249 catheter days)				
Brookwood Medical Center	6	6,518	0.86	Similar
Grandview Medical Center	19	15,171	0.7	Similar
Medical West	12	9,117	1.32	Similar
Princeton Baptist Medical Center	12	14,054	0.69	Similar
Shelby Baptist Medical Center	6	9,556	0.68	Similar
St. Vincent's Birmingham	12	14,860	0.77	Similar
St. Vincent's East	20	12,290	1.26	Similar
University of Alabama at Birmingham Hospital	13	36,740	0.16	Better

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Catheter days: the sum of patients per day with an indwelling urinary catheter in medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

CAUTI: urinary tract infections associated with indwelling urinary catheters

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using urinary catheter patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Central Region

Catheter-Associated Urinary Tract Infections (CAUTIs)

January 1, 2018 - December 31, 2018

CAUTI locations: medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

Hospital Name	Number of CAUTIs	Number of Catheter Days	Ratio of Observed to Predicted Infections (SIR)*	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 395 catheter days)				
Bullock County Hospital	0	34	N/A	-
Crenshaw Community Hospital	0	313	N/A	-
Elmore Community Hospital	0	222	N/A	-
Lake Martin Community Hospital	0	389	N/A	-
St. Vincent's Chilton	0	321	N/A	-
Medium-Volume Hospitals (395 – 6,249 catheter days)				
Baptist Medical Center East	5	6,249	0.98	Similar
Community Hospital	0	482	N/A	-
East Alabama Medical Center - Lanier	0	829	N/A	-
Jack Hughston Memorial Hospital	0	677	N/A	-
Prattville Baptist Hospital	0	2,633	0	Similar
Regional Medical Center of Central Alabama	0	582	N/A	-
Russell Medical Center	0	2,836	0	Similar
Vaughan Regional Medical Center	0	2,967	0	Similar
High-Volume Hospitals (more than 6,249 catheter days)				
Baptist Medical Center South	27	15,048	1	Similar
East Alabama Medical Center	8	8,241	1.14	Similar
Jackson Hospital & Clinic	12	11,693	1.18	Similar

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Catheter days: the sum of patients per day with an indwelling urinary catheter in medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

CAUTI: urinary tract infections associated with indwelling urinary catheters

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using urinary catheter patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



North Region

Catheter-Associated Urinary Tract Infections (CAUTIs)

January 1, 2018 - December 31, 2018

CAUTI locations: medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

Hospital Name	Number of CAUTIs	Number of Catheter Days	Ratio of Observed to Predicted Infections (SIR)*	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 395 catheter days)				
Lakeland Community Hospital	0	299	N/A	-
North Mississippi Medical Center-Hamilton	0	211	N/A	-
Red Bay Hospital	0	378	N/A	-
Medium-Volume Hospitals (395 – 6,249 catheter days)				
Athens Limestone Hospital	3	3,416	1.65	Similar
Crestwood Medical Center	5	5,043	1.42	Similar
Decatur Morgan Hospital - Parkway Campus	1	1,560	0.88	Similar
Helen Keller Hospital	0	5,311	0	Better
Highlands Medical Center	5	1,519	N/A	-
Lawrence Medical Center	1	430	N/A	-
Marshall Medical Center North	2	2,910	1.49	Similar
Marshall Medical Center South	3	4,250	1.01	Similar
Russellville Hospital	1	1,698	N/A	-
Shoals Hospital	2	642	N/A	-
High-Volume Hospitals (more than 6,249 catheter days)				
Cullman Regional Medical Center	3	7,831	0.54	Similar
Decatur Morgan Hospital - Decatur Campus	5	10,090	0.57	Similar
Huntsville Hospital	23	23,911	0.6	Better
Eliza Coffee Memorial Hospital	9	8,538	1.14	Similar

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Catheter days: the sum of patients per day with an indwelling urinary catheter in medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

CAUTI: urinary tract infections associated with indwelling urinary catheters

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using urinary catheter patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Northeast Region

Catheter-Associated Urinary Tract Infections (CAUTIs)

January 1, 2018 - December 31, 2018

CAUTI locations: medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

Hospital Name	Number of CAUTIs	Number of Catheter Days	Ratio of Observed to Predicted Infections (SIR)*	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 395 catheter days)				
Clay County Hospital	1	354	N/A	-
Floyd Cherokee Medical Center	0	118	N/A	-
Tanner Medical Center - East Alabama	0	186	N/A	-
Medium-Volume Hospitals (395 – 6,249 catheter days)				
Citizens Baptist Medical Center	0	1,221	N/A	-
Coosa Valley Medical Center	0	2,451	0	Similar
DeKalb Regional Medical Center	1	2,882	0.5	Similar
Riverview Regional Medical Center	0	4,334	0	Better
Stringfellow Memorial Hospital	1	1,903	N/A	-
High-Volume Hospitals (more than 6,249 catheter days)				
Gadsden Regional Medical Center	7	14,936	0.48	Better
Northeast Alabama Regional Medical Center	1	6,408	0.22	Similar

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Catheter days: the sum of patients per day with an indwelling urinary catheter in medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

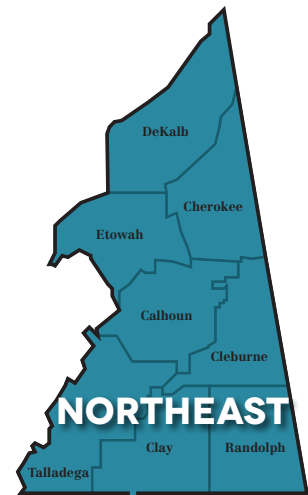
CAUTI: urinary tract infections associated with indwelling urinary catheters

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using urinary catheter patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Southeast Region

Catheter-Associated Urinary Tract Infections (CAUTIs)

January 1, 2018 - December 31, 2018

CAUTI locations: medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

Hospital Name	Number of CAUTIs	Number of Catheter Days	Ratio of Observed to Predicted Infections (SIR)*	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 395 catheter days)				
-	-	-	-	-
Medium-Volume Hospitals (395 – 6,249 catheter days)				
Andalusia Regional Hospital	0	1,954	0	Similar
Dale Medical Center	0	511	N/A	-
Medical Center Barbour	0	920	N/A	-
Medical Center Enterprise	1	1,241	N/A	-
Mizell Memorial Hospital	0	1,344	N/A	-
Troy Regional Medical Center	0	1,029	N/A	-
Wiregrass Medical Center	0	830	N/A	-
High-Volume Hospitals (more than 6,249 catheter days)				
Flowers Hospital	6	12,053	0.54	Similar
Southeast Health	6	6,944	0.5	Similar

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Catheter days: the sum of patients per day with an indwelling urinary catheter in medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

CAUTI: urinary tract infections associated with indwelling urinary catheters

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using urinary catheter patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Southwest Region

Catheter-Associated Urinary Tract Infections (CAUTIs)

January 1, 2018 - December 31, 2018

CAUTI locations: medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

Hospital Name	Number of CAUTIs	Number of Catheter Days	Ratio of Observed to Predicted Infections (SIR)*	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 395 catheter days)				
Choctaw General Hospital	0	163	N/A	-
Evergreen Medical Center	0	170	N/A	-
Grove Hill Memorial Hospital	1	296	N/A	-
Jackson Medical Center	0	252	N/A	-
John Paul Jones Hospital	0	58	N/A	-
Washington County Hospital	0	137	N/A	-
Medium-Volume Hospitals (395 – 6,249 catheter days)				
Atmore Community Hospital	1	547	N/A	-
D.W. McMillan Memorial Hospital	0	1,191	N/A	-
Monroe County Hospital	0	615	N/A	-
North Baldwin Infirmary	0	838	N/A	-
South Baldwin Regional Medical Center	0	4,194	0	Better
Springhill Medical Center	2	6,203	0.61	Similar
University of South Alabama Children's & Women's Hospital	1	451	N/A	-
University of South Alabama Medical Center	13	6,100	1.23	Similar
High-Volume Hospitals (more than 6,249 catheter days)				
Mobile Infirmary Medical Center	23	19,211	1.03	Similar
Providence Hospital	0	8,069	0	Better
Thomas Hospital	8	7,118	1.48	Similar

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Catheter days: the sum of patients per day with an indwelling urinary catheter in medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

CAUTI: urinary tract infections associated with indwelling urinary catheters

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using urinary catheter patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



West Region

Catheter-Associated Urinary Tract Infections (CAUTIs)

January 1, 2018 - December 31, 2018

CAUTI locations: medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

Hospital Name	Number of CAUTIs	Number of Catheter Days	Ratio of Observed to Predicted Infections (SIR)*	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 395 catheter days)				
Greene County Hospital	0	54	N/A	-
Hale County Hospital	0	48	N/A	-
Pickens County Medical Center	0	95	N/A	-
Medium-Volume Hospitals (395 – 6,249 catheter days)				
Bibb Medical Center	1	395	N/A	-
Fayette Medical Center	0	642	N/A	-
Northport Medical Center	2	3,180	0.62	Similar
Northwest Medical Center	0	592	N/A	-
Whitfield Regional Hospital	0	645	N/A	-
High-Volume Hospitals (more than 6,249 catheter days)				
DCH Regional Medical Center	21	24,007	0.63	Better

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Catheter days: the sum of patients per day with an indwelling urinary catheter in medical wards, surgical wards, medical/surgical wards, and adult and pediatric critical care units; facilities without these wards and units reported mixed acuity wards

CAUTI: urinary tract infections associated with indwelling urinary catheters

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using urinary catheter patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Birmingham Region

Central Line-Associated Bloodstream Infections (CLABSIs)
January 1, 2018 - December 31, 2018

CLABSI Locations: Adult, Pediatric, and Neonatal Critical Care Units

Hospital Name	Number of CLABSIs	Number of Central Line Days	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 117 central line days)				
St. Vincent's Blount	0	39	N/A	-
Medium-Volume Hospitals (117 – 3,580 central line days)				
Shelby Baptist Medical Center	1	3,554	0.32	Similar
St. Vincent's St. Clair	0	303	N/A	-
University of Alabama at Birmingham Highlands	0	638	N/A	-
Walker Baptist Medical Center	0	632	N/A	-
High-Volume Hospitals (more than 3,580 central line days)				
Brookwood Medical Center	7	4,786	1.3	Similar
Children's Health System	22	17,896	0.79	Similar
Grandview Medical Center	1	10,216	0.09	Better
Medical West	5	3,660	1.36	Similar
Princeton Baptist Medical Center	1	7,061	0.14	Better
St. Vincent's Birmingham	6	7,487	0.77	Similar
St. Vincent's East	3	7,634	0.35	Better
University of Alabama at Birmingham Hospital	20	28,440	0.55	Better

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Central line days: the sum of patients per day with a central line in adult, pediatric, and neonatal critical care units

CLABSI: a bloodstream infection associated with a central line

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using central line patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Central Region

Central Line-Associated Bloodstream Infections (CLABSIs)
January 1, 2018 - December 31, 2018

CLABSI Locations: Adult, Pediatric, and Neonatal Critical Care Units

Hospital Name	Number of CLABSIs	Number of Central Line Days	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 117 central line days)				
East Alabama Medical Center - Lanier	0	92	N/A	-
Regional Medical Center of Central Alabama	0	44	N/A	-
St. Vincent's Chilton	0	53	N/A	-
Medium-Volume Hospitals (117 – 3,580 central line days)				
Baptist Medical Center East	4	2,149	1.81	Similar
East Alabama Medical Center	3	2,756	1.26	Similar
Prattville Baptist Hospital	0	178	N/A	-
Russell Medical Center	0	120	N/A	-
Vaughan Regional Medical Center	0	491	N/A	-
High-Volume Hospitals (more than 3,580 central line days)				
Baptist Medical Center South	8	7,912	0.78	Similar
Jackson Hospital & Clinic	6	6,195	1.12	Similar

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Central line days: the sum of patients per day with a central line in adult, pediatric, and neonatal critical care units

CLABSI: a bloodstream infection associated with a central line

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using central line patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



North Region

Central Line-Associated Bloodstream Infections (CLABSIs)

January 1, 2018 - December 31, 2018

CLABSI Locations: Adult, Pediatric, and Neonatal Critical Care Units

Hospital Name	Number of CLABSIs	Number of Central Line Days	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 117 central line days)				
Decatur Morgan Hospital - Parkway Campus	0	46	N/A	-
Medium-Volume Hospitals (117 – 3,580 central line days)				
Athens Limestone Hospital	0	470	N/A	-
Crestwood Medical Center	3	973	N/A	-
Cullman Regional Medical Center	0	1,095	N/A	-
Decatur Morgan Hospital - Decatur Campus	1	2,204	0.52	Similar
Helen Keller Hospital	0	700	N/A	-
Highlands Medical Center	0	339	N/A	-
Marshall Medical Center North	2	302	N/A	-
Marshall Medical Center South	1	400	N/A	-
North Alabama Medical Center	2	3,222	0.72	Similar
Russellville Hospital	0	180	N/A	-
Shoals Hospital	0	119	N/A	-
High-Volume Hospitals (more than 3,580 central line days)				
Huntsville Hospital	5	13,319	0.3	Better

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Central line days: the sum of patients per day with a central line in adult, pediatric, and neonatal critical care units

CLABSI: a bloodstream infection associated with a central line

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using central line patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Northeast Region

Central Line-Associated Bloodstream Infections (CLABSIs)

January 1, 2018 - December 31, 2018

CLABSI Locations: Adult, Pediatric, and Neonatal Critical Care Units

Hospital Name	Number of CLABSIs	Number of Central Line Days	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 117 central line days)				
Clay County Hospital	0	11	N/A	-
Medium-Volume Hospitals (117 – 3,580 central line days)				
Citizens Baptist Medical Center	0	309	N/A	-
Coosa Valley Medical Center	0	333	N/A	-
DeKalb Regional Medical Center	0	442	N/A	-
Northeast Alabama Regional Medical Center	6	1,506	5.29	Worse
Riverview Regional Medical Center	0	1,415	0	Similar
Stringfellow Memorial Hospital	0	431	N/A	-
High-Volume Hospitals (more than 3,580 central line days)				
Gadsden Regional Medical Center	3	4,224	0.82	Similar

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Central line days: the sum of patients per day with a central line in adult, pediatric, and neonatal critical care units

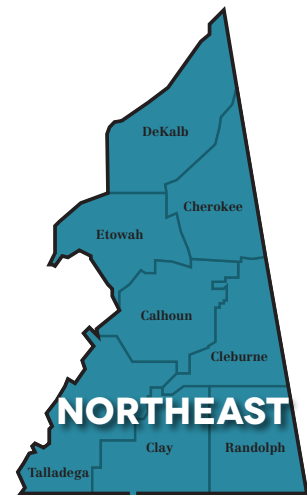
CLABSI: a bloodstream infection associated with a central line

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using central line patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Southeast Region

Central Line-Associated Bloodstream Infections (CLABSIs)

January 1, 2018 - December 31, 2018

CLABSI Locations: Adult, Pediatric, and Neonatal Critical Care Units

Hospital Name	Number of CLABSIs	Number of Central Line Days	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 117 central line days)				
Andalusia Regional Hospital	0	46	N/A	-
Medical Center Enterprise	0	92	N/A	-
Mizell Memorial Hospital	0	111	N/A	-
Wiregrass Medical Center	0	71	N/A	-
Medium-Volume Hospitals (117 – 3,580 central line days)				
Dale Medical Center	0	175	N/A	-
Flowers Hospital	0	2,266	0	Similar
Medical Center Barbour	0	164	N/A	-
Southeast Alabama Medical Center	5	2,913	1.52	Similar
Troy Regional Medical Center	1	379	N/A	-
High-Volume Hospitals (more than 3,580 central line days)				
-	-	-	-	-

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Central line days: the sum of patients per day with a central line in adult, pediatric, and neonatal critical care units

CLABSI: a bloodstream infection associated with a central line

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using central line patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Southwest Region

Central Line-Associated Bloodstream Infections (CLABSIs)

January 1, 2018 - December 31, 2018

CLABSI Locations: Adult, Pediatric, and Neonatal Critical Care Units

Hospital Name	Number of CLABSIs	Number of Central Line Days	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 117 central line days)				
Atmore Community Hospital	0	49	N/A	-
Monroe County Hospital	0	92	N/A	-
Medium-Volume Hospitals (117 – 3,580 central line days)				
D.W. McMillan Memorial Hospital	0	200	N/A	-
North Baldwin Infirmary	0	207	N/A	-
South Baldwin Regional Medical Center	0	1,925	0	Similar
Thomas Hospital	1	2,323	0.57	Similar
High-Volume Hospitals (more than 3,580 central line days)				
Mobile Infirmary Medical Center	6	11,521	0.6	Similar
Providence Hospital	4	4,466	1.03	Similar
Springhill Medical Center	3	6,129	0.65	Similar
University of South Alabama Children's & Women's Hospital	17	6,115	1.52	Similar
University of South Alabama Medical Center	3	3,987	0.47	Similar

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Central line days: the sum of patients per day with a central line in adult, pediatric, and neonatal critical care units

CLABSI: a bloodstream infection associated with a central line

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using central line patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



West Region

Central Line-Associated Bloodstream Infections (CLABSIs)

January 1, 2018 - December 31, 2018

CLABSI Locations: Adult, Pediatric, and Neonatal Critical Care Units

Hospital Name	Number of CLABSIs	Number of Central Line Days	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 117 central line days)				
Fayette Medical Center	0	5	N/A	-
Whitfield Regional Hospital	0	77	N/A	-
Medium-Volume Hospitals (117 – 3,580 central line days)				
Northport Medical Center	2	1,556	1.36	Similar
High-Volume Hospitals (more than 3,580 central line days)				
DCH Regional Medical Center	2	9,627	0.18	Better

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Central line days: the sum of patients per day with a central line in adult, pediatric, and neonatal critical care units

CLABSI: a bloodstream infection associated with a central line

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using central line patients with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Birmingham Region

Surgical Site Infections (SSIs) - Colon Surgeries
January 1, 2018 - December 31, 2018

Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 12 procedures)					
-	-	-	-	-	-
Medium-Volume Hospitals (12 – 137 procedures)					
Children’s Health System	Adult	0	2	N/A	-
	Pediatric	1	93	0.6	Similar
Medical West	Adult	1	89	0.52	Similar
St. Vincent’s St. Clair	Adult	0	14	N/A	-
University of Alabama at Birmingham Highlands	Adult	1	12	N/A	-
Walker Baptist Medical Center	Adult	0	33	N/A	-
High-Volume Hospitals (more than 137 procedures)					
Brookwood Medical Center	Adult	1	192	0.25	Similar
Grandview Medical Center	Adult	3	207	0.73	Similar
Princeton Baptist Medical Center	Adult	0	173	0	Better
Shelby Baptist Medical Center	Adult	1	160	0.23	Similar
St. Vincent’s Birmingham	Adult	4	322	0.56	Similar
	Pediatric	0	1	N/A	-
St. Vincent’s East	Adult	1	158	0.29	Similar
University of Alabama at Birmingham Hospital	Adult	15	729	0.7	Similar
	Pediatric	0	6	N/A	-

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient colon surgeries performed in 2018

SSI: a deep- or organ-level infection associated with an inpatient colon surgery; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using colon surgical procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Central Region Surgical Site Infections (SSIs) - Colon Surgeries January 1, 2018 - December 31, 2018					
Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 12 procedures)					
Community Hospital	Adult	0	1	N/A	-
Jack Hughston Memorial Hospital	Adult	0	7	N/A	-
Regional Medical Center of Central Alabama	Adult	0	8	N/A	-
St. Vincent's Chilton	Adult	0	8	N/A	-
Medium-Volume Hospitals (12 – 137 procedures)					
East Alabama Medical Center - Lanier	Adult	0	18	N/A	-
Russell Medical Center	Adult	1	14	N/A	-
Vaughan Regional Medical Center	Adult	0	39	N/A	-
	Pediatric	0	1	N/A	-
High-Volume Hospitals (more than 137 procedures)					
Baptist Medical Center East	Adult	1	168	0.29	Similar
Baptist Medical Center South	Adult	2	144	0.5	Similar
East Alabama Medical Center	Adult	2	141	0.67	Similar
Jackson Hospital & Clinic	Adult	1	167	0.26	Similar

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient colon surgeries performed in 2018

SSI: a deep- or organ-level infection associated with an inpatient colon surgery; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using colon surgical procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



North Region Surgical Site Infections (SSIs) - Colon Surgeries January 1, 2018 - December 31, 2018					
Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 12 procedures)					
Highlands Medical Center	Adult	0	2	N/A	-
Shoals Hospital	Adult	0	5	N/A	-
Medium-Volume Hospitals (12 – 137 procedures)					
Athens Limestone Hospital	Adult	0	47	N/A	-
Crestwood Medical Center	Adult	2	97	0.81	Similar
	Pediatric	0	1	N/A	-
Cullman Regional Medical Center	Adult	1	75	0.59	Similar
Helen Keller Hospital	Adult	1	52	0.9	Similar
Marshall Medical Center North	Adult	0	37	N/A	-
Marshall Medical Center South	Adult	0	35	N/A	-
North Alabama Medical Center	Adult	2	106	0.87	Similar
	Pediatric	0	1	N/A	-
Russellville Hospital	Adult	0	13	N/A	-
High-Volume Hospitals (more than 137 procedures)					
Decatur Morgan Hospital - Decatur Campus	Adult	0	153	0	Better
Huntsville Hospital	Adult	12	641	0.67	Similar
	Pediatric	0	12	N/A	-

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient colon surgeries performed in 2018

SSI: a deep- or organ-level infection associated with an inpatient colon surgery; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using colon surgical procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Northeast Region Surgical Site Infections (SSIs) - Colon Surgeries January 1, 2018 - December 31, 2018					
Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 12 procedures)					
Citizens Baptist Medical Center	Adult	0	2	N/A	-
Stringfellow Memorial Hospital	Adult	0	4	N/A	-
Medium-Volume Hospitals (12 – 137 procedures)					
Coosa Valley Medical Center	Adult	0	34	N/A	-
DeKalb Regional Medical Center	Adult	0	23	N/A	-
Gadsden Regional Medical Center	Adult	0	101	0	Similar
Northeast Alabama Regional Medical Center	Adult	0	106	0	Similar
	Pediatric	0	1	N/A	-
Riverview Regional Medical Center	Adult	0	47	N/A	-
High-Volume Hospitals (more than 137 procedures)					
-	-	-	-	-	-

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient colon surgeries performed in 2018

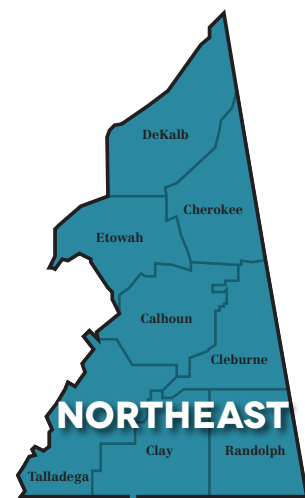
SSI: a deep- or organ-level infection associated with an inpatient colon surgery; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using colon surgical procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Southeast Region Surgical Site Infections (SSIs) - Colon Surgeries January 1, 2018 - December 31, 2018					
Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 12 procedures)					
Andalusia Regional Hospital	Adult	0	10	N/A	-
Dale Medical Center	Adult	0	10	N/A	-
Medical Center Barbour	Adult	0	7	N/A	-
	Pediatric	0	1	N/A	-
Mizell Memorial Hospital	Adult	0	9	N/A	-
Wiregrass Medical Center	Adult	0	5	N/A	-
Medium-Volume Hospitals (12 – 137 procedures)					
Flowers Hospital	Adult	0	103	0	Similar
Medical Center Enterprise	Adult	1	22	N/A	-
Troy Regional Medical Center	Adult	0	19	N/A	-
High-Volume Hospitals (more than 137 procedures)					
Southeast Health	Adult	0	185	0	Better
	Pediatric	0	1	N/A	-

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient colon surgeries performed in 2018

SSI: a deep- or organ-level infection associated with an inpatient colon surgery; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using colon surgical procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Southwest Region Surgical Site Infections (SSIs) - Colon Surgeries January 1, 2018 - December 31, 2018					
Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 12 procedures)					
Atmore Community Hospital	Adult	0	1	N/A	-
Monroe County Hospital	Adult	0	3	N/A	-
Medium-Volume Hospitals (12 – 137 procedures)					
D.W. McMillan Memorial Hospital	Adult	0	27	N/A	-
North Baldwin Infirmiry	Adult	0	16	N/A	-
Providence Hospital	Adult	2	118	0.83	Similar
South Baldwin Regional Medical Center	Adult	0	55	0	Similar
Springhill Medical Center	Adult	1	125	0.42	Similar
Thomas Hospital	Adult	1	123	0.45	Similar
University of South Alabama Children's & Women's Hospital	Adult	0	8	N/A	-
	Pediatric	0	11	N/A	-
High-Volume Hospitals (more than 137 procedures)					
Mobile Infirmiry Medical Center	Adult	4	309	0.52	Similar
University of South Alabama Medical Center	Adult	5	166	0.81	Similar
	Pediatric	1	2	N/A	-

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient colon surgeries performed in 2018

SSI: a deep- or organ-level infection associated with an inpatient colon surgery; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using colon surgical procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



West Region					
Surgical Site Infections (SSIs) - Colon Surgeries					
January 1, 2018 - December 31, 2018					
Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 12 procedures)					
Northwest Medical Center	Adult	0	3	N/A	-
Medium-Volume Hospitals (12 – 137 procedures)					
Fayette Medical Center	Adult	0	13	N/A	-
Northport Medical Center	Adult	0	17	N/A	-
High-Volume Hospitals (more than 137 procedures)					
DCH Regional Medical Center	Adult	14	279	1.81	Worse

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient colon surgeries performed in 2018

SSI: a deep- or organ-level infection associated with an inpatient colon surgery; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using colon surgical procedures with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Birmingham Region Surgical Site Infections (SSIs) - Abdominal Hysterectomies January 1, 2018 - December 31, 2018					
Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 14 procedures)					
Medical West	Adult	0	10	N/A	-
University of Alabama at Birmingham Highlands	Adult	0	1	N/A	-
Medium-Volume Hospitals (14 – 132 procedures)					
Grandview Medical Center	Adult	0	122	N/A	-
Princeton Baptist Medical Center	Adult	1	37	N/A	-
Shelby Baptist Medical Center	Adult	0	64	N/A	-
St. Vincent's East	Adult	1	68	N/A	-
St. Vincent's St. Clair	Adult	0	15	N/A	-
Walker Baptist Medical Center	Adult	1	73	N/A	-
High-Volume Hospitals (more than 132 procedures)					
Brookwood Medical Center	Adult	2	882	0.48	Similar
St. Vincent's Birmingham	Adult	2	418	0.83	Similar
University of Alabama at Birmingham Hospital	Adult	10	764	1.62	Similar

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient hysterectomies performed in 2018

SSI: a deep- or organ-level infection associated with an inpatient hysterectomy; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using hysterectomies with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Central Region

Surgical Site Infections (SSIs) - Abdominal Hysterectomies
January 1, 2018 - December 31, 2018

Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 14 procedures)					
-	-	-	-	-	-
Medium-Volume Hospitals (14 – 132 procedures)					
Baptist Medical Center South	Adult	1	57	N/A	-
Vaughan Regional Medical Center	Adult	0	27	N/A	-
High-Volume Hospitals (more than 132 procedures)					
Baptist Medical Center East	Adult	4	551	1.56	Similar
East Alabama Medical Center	Adult	3	415	1.55	Similar
Jackson Hospital & Clinic	Adult	2	158	1.91	Similar

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient hysterectomies performed in 2018

SSI: a deep- or organ-level infection associated with an inpatient hysterectomy; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using hysterectomies with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



North Region
Surgical Site Infections (SSIs) - Abdominal Hysterectomies
January 1, 2018 - December 31, 2018

Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 14 procedures)					
Marshall Medical Center North	Adult	0	2	N/A	-
Russellville Hospital	Adult	0	2	N/A	-
Medium-Volume Hospitals (14 – 132 procedures)					
Athens Limestone Hospital	Adult	0	36	N/A	-
Cullman Regional Medical Center	Adult	0	31	N/A	-
Decatur Morgan Hospital - Decatur Campus	Adult	1	35	N/A	-
Decatur Morgan Hospital - Parkway Campus	Adult	0	32	N/A	-
Helen Keller Hospital	Adult	0	14	N/A	-
Highlands Medical Center	Adult	0	18	N/A	-
Marshall Medical Center South	Adult	0	29	N/A	-
North Alabama Medical Center	Adult	0	68	N/A	-
High-Volume Hospitals (more than 132 procedures)					
Crestwood Medical Center	Adult	0	205	N/A	-
Huntsville Hospital	Adult	6	786	0.98	Similar

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient hysterectomies performed in 2018

SSI: a deep- or organ-level infection associated with an inpatient hysterectomy; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using hysterectomies with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Northeast Region Surgical Site Infections (SSIs) - Abdominal Hysterectomies January 1, 2018 - December 31, 2018					
Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 14 procedures)					
Citizens Baptist Medical Center	Adult	0	8	N/A	-
Riverview Regional Medical Center	Adult	0	2	N/A	-
Stringfellow Memorial Hospital	Adult	0	3	N/A	-
Medium-Volume Hospitals (14 – 132 procedures)					
Coosa Valley Medical Center	Adult	0	19	N/A	-
Gadsden Regional Medical Center	Adult	0	66	N/A	-
Northeast Alabama Regional Medical Center	Adult	0	95	N/A	-
High-Volume Hospitals (more than 132 procedures)					
-	-	-	-	-	-

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient hysterectomies performed in 2018

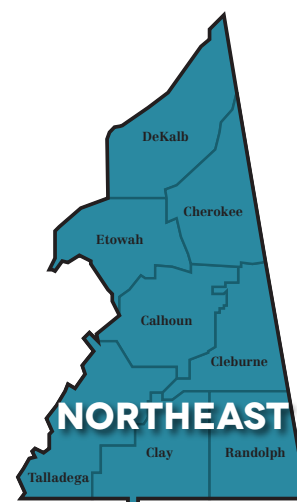
SSI: a deep- or organ-level infection associated with an inpatient hysterectomy; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using hysterectomies with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Southeast Region Surgical Site Infections (SSIs) - Abdominal Hysterectomies January 1, 2018 - December 31, 2018					
Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 14 procedures)					
Andalusia Regional Hospital	Adult	0	4	N/A	-
Wiregrass Medical Center	Adult	0	4	N/A	-
Medium-Volume Hospitals (14 – 132 procedures)					
Medical Center Enterprise	Adult	0	75	N/A	-
Troy Regional Medical Center	Adult	0	14	N/A	-
High-Volume Hospitals (more than 132 procedures)					
Flowers Hospital	Adult	0	265	0	Similar
Southeast Health	Adult	0	214	0	Similar

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient hysterectomies performed in 2018

SSI: a deep- or organ-level infection associated with an inpatient hysterectomy; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using hysterectomies with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



Southwest Region					
Surgical Site Infections (SSIs) - Abdominal Hysterectomies					
January 1, 2018 - December 31, 2018					
Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 14 procedures)					
D.W. McMillan Memorial Hospital	Adult	0	5	N/A	-
South Baldwin Regional Medical Center	Adult	0	4	N/A	-
Medium-Volume Hospitals (14 – 132 procedures)					
Grove Hill Memorial Hospital	Adult	0	19	N/A	-
North Baldwin Infirmary	Adult	1	41	N/A	-
Providence Hospital	Adult	0	132	N/A	-
University of South Alabama Children's & Women's Hospital	Adult	2	125	1.74	Similar
University of South Alabama Medical Center	Adult	0	17	N/A	-
High-Volume Hospitals (more than 132 procedures)					
Mobile Infirmary Medical Center	Adult	2	175	1.62	Similar
Springhill Medical Center	Adult	1	333	0.6	Similar
Thomas Hospital	Adult	0	154	N/A	-

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient hysterectomies performed in 2018

SSI: a deep- or organ-level infection associated with an inpatient hysterectomy; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using hysterectomies with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



West Region					
Surgical Site Infections (SSIs) - Abdominal Hysterectomies					
January 1, 2018 - December 31, 2018					
Hospital Name	Age Group	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	2018 Hospital Performance compared to National Performance (2015)
Low-Volume Hospitals (fewer than 14 procedures)					
Northwest Medical Center	Adult	0	6	N/A	-
Medium-Volume Hospitals (14 – 132 procedures)					
DCH Regional Medical Center	Adult	0	94	N/A	-
Northport Medical Center	Adult	0	31	N/A	-
High-Volume Hospitals (more than 132 procedures)					
-	-	-	-	-	-

Data acquired from NHSN: July 30, 2019

N/A: number of predicted events did not meet minimum threshold for calculating SIR

Procedures: the number of inpatient hysterectomies performed in 2018

SSI: a deep- or organ-level infection associated with an inpatient hysterectomy; superficial SSIs excluded from analysis

SIR: the standardized infection ratio, i.e., the ratio of observed infections to predicted infections (calculated from national data using hysterectomies with similar risks)

Better: indicates a facility has significantly fewer infections compared to national baseline data (based on a 95% confidence interval)

Similar: indicates a facility does not have significantly more or less infections compared to national baseline data (based on a 95% confidence interval)

Worse: indicates a facility has significantly more infections compared to national baseline data (based on a 95% confidence interval)



DEFINITIONS AND ACRONYMS

ADPH: Alabama Department of Public Health

AlaHA: Alabama Hospital Association

CAUTI: Catheter-Associated Urinary Tract Infection

CDC: Centers for Disease Control and Prevention

CLABSI: Central Line-Associated Bloodstream Infection

COLO: Colon Surgery

HAI: Healthcare-Associated Infection

HDAC: Healthcare Data Advisory Council

HYST: Abdominal Hysterectomy

IP: Infection Preventionist

N/A: Not Applicable

NHSN: National Healthcare Safety Network

SIR: Standardized Infection Ratio

SSI: Surgical Site Infection

ALABAMA HOSPITALS REPORTING DATA

Facility	Region	Pages
Andalusia Regional Hospital	Southeast Region	26, 33, 40, 47
Athens Limestone Hospital	North Region	24, 31, 38, 45
Atmore Community Hospital	Southwest Region	27, 34, 41
Baptist Medical Center East	Central Region	23, 30, 37, 44
Baptist Medical Center South	Central Region	23, 30, 37, 44
Bibb Medical Center	West Region	28
Brookwood Medical Center	Birmingham	22, 29, 36, 43
Bullock County Hospital	Central Region	23
Children's Health System of Alabama	Birmingham	22, 29, 36
Choctaw General Hospital	Southwest	27
Citizens Baptist Medical Center	Northeast Region	25, 32, 39, 46
Clay County Hospital	Northeast Region	25, 32
Community Hospital	Central Region	23, 37
Coosa Valley Medical Center	Northeast Region	25, 32, 39, 46
Crenshaw Community Hospital	Central Region	23
Crestwood Medical Center	North Region	24, 31, 38, 45
Cullman Regional Medical Center	North Region	24, 31, 38, 45
D.W. Mcmillan Memorial Hospital	Southwest Region	27, 34, 41, 48
Dale Medical Center	Southeast Region	26, 33, 40
DCH Regional Medical Center	West Region	28, 35, 42, 49
Decatur Morgan Hospital - Decatur Campus	North Region	24, 31, 38, 45
Decatur Morgan Hospital - Parkway Campus	North Region	24, 31, 45
Dekalb Regional Medical Center	Northeast Region	25, 32, 39
East Alabama Medical Center	Central Region	23, 30, 37, 44
East Alabama Medical Center (EAMC) - Lanier	Central Region	23, 30, 37
Elmore Community Hospital	Central Region	23
Evergreen Medical Center	Southwest Region	27
Fayette Medical Center	West Region	28, 35, 42
Flowers Hospital	Southeast Region	26, 33, 40, 47
Floyd Cherokee Medical Center	Northeast Region	25

Gadsden Regional Medical Center	Northeast Region	25, 32, 39, 46
Greene County Hospital	West Region	28
Grandview Medical Center	Birmingham	22, 29, 36, 43
Grove Hill Memorial Hospital	Southwest Region	27, 48
Hale County Hospital	West Region	28
Helen Keller Hospital	North Region	24, 31, 38, 45
Highlands Medical Center	North Region	24, 31, 38, 45
Huntsville Hospital	North Region	24, 31, 38, 45
John Paul Jones Hospital	Southwest Region	27
Jack Hughston Memorial Hospital	Central Region	23, 37
Jackson Hospital & Clinic	Central Region	23, 30, 37, 44
Jackson Medical Center	Southwest Region	27
Lake Martin Community Hospital	Central Region	23
Lakeland Community Hospital	North Region	24
Lawrence Medical Center	North Region	24
Marshall Medical Center North	North Region	24, 31, 38, 45
Marshall Medical Center South	North Region	24, 31, 38, 45
Medical Center Barbour	Southeast Region	26, 33, 40
Medical Center Enterprise	Southeast Region	26, 33, 40, 47
Medical West	Birmingham	22, 29, 36, 43
Mizell Memorial Hospital	Southeast Region	26, 33, 40
Mobile Infirmary Medical Center	Southwest Region	27, 34, 41, 48
Monroe County Hospital	Southwest Region	27, 34, 41
North Alabama Medical Center	North Region	24, 31, 38, 45
North Baldwin Infirmary	Southwest Region	27, 34, 41, 48
North Mississippi Medical Center - Hamilton	North Region	24
Northeast Alabama Regional Medical Center	Northeast Region	25, 32, 39, 46
Northport Medical Center	West Region	28, 35, 42, 49
Northwest Medical Center	West Region	28, 42, 49
Pickens County Medical Center	West Region	28
Prattville Baptist Hospital	Central Region	23, 30
Princeton Baptist Medical Center	Birmingham	22, 29, 36, 43

Providence Hospital	Southwest Region	27, 34, 41, 48
Red Bay Hospital	North Region	24
Regional Medical Center of Central Alabama	Central Region	23, 30, 37
Riverview Regional Medical Center	Northeast Region	25, 32, 39, 46
Russell Medical Center	Central Region	23, 30, 37
Russellville Hospital	North Region	24, 31, 38, 45
Shelby Baptist Medical Center	Birmingham	22, 29, 36, 43
Shoals Hospital	North Region	24, 31, 38
South Baldwin Regional Medical Center	Southwest Region	27, 34, 41, 48
Southeast Health	Southeast Region	26, 33, 40, 47
Springhill Medical Center	Southwest Region	27, 34, 41, 48
St. Vincent's Birmingham	Birmingham	22, 29, 36, 43
St. Vincent's Blount	Birmingham	22, 29
St. Vincent's Chilton	Birmingham	23, 30, 37
St. Vincent's East	Birmingham	22, 29, 36, 43
St. Vincent's St. Clair	Birmingham	22, 29, 36, 43
Stringfellow Memorial Hospital	Northeast Region	25, 32, 39, 46
Tanner Medical Center/East Alabama	Northeast Region	25
Thomas Hospital	Southwest Region	27, 34, 41, 48
Troy Regional Medical Center	Southeast Region	26, 33, 40, 47
University of Alabama at Birmingham (UAB) Hospital	Birmingham	22, 29, 36, 43
University of Alabama at Birmingham (UAB) Highlands	Birmingham	22, 29, 36, 43
University of South Alabama (USA) Children's & Women's Hospital	Southwest Region	27, 34, 41, 48
University Of South Alabama (USA) Medical Center	Southwest Region	27, 34, 41, 48
Vaughan Regional Medical Center	Central Region	23, 30, 37, 44
Walker Baptist Medical Center	Birmingham	22, 29, 36, 43
Washington County Hospital	Southwest Region	27
Whitfield Memorial Hospital	West Region	28, 35
Wiregrass Medical Center	Southeast Region	26, 33, 40, 47

ALABAMA HEALTHCARE DATA ADVISORY COUNCIL 2018 MEMBERS

Scott Harris, M.D., M.P.H., State Health Officer – Chair
Alabama Hospital Association Appointees
Bernard Camins, M.D., Healthcare Epidemiologist, University of Alabama Birmingham Hospital
Sam Dean, Administrator, USA Medical Hospital
Brenda Duncan, Director of Quality Services, Russell Medical Center
Beth Goodall, Epidemiology Director, DCH Regional Medical Center
Roslyn Jett-Mitchell, Infection Preventionist, Huntsville Hospital
Donald Jones, Administrator, Fayette Medical Center
Business Council of Alabama Appointees
Paul Graham, Grandview Medical Center
Donna Lawson, Brookwood Baptist Health
Mineral District Medical Society
Serita Newton, M.D., 1981MD, LLC
Governor Appointed Consumer Member
TBD
Blue Cross and Blue Shield of Alabama Appointee
TBD
Alabama Association of Health Plans Appointee
Jeannie O’Malley, Vice President
State Health Officer Appointed Member from the Association for Professionals in Infection Control and Epidemiology
Teresa Fox, BSMT (ASCP), CIC, M.Ed., Performance Improvement Advisor, Alabama Quality Assurance Foundation
Public Education Employees Health Insurance Plan Appointee
Diane Scott, CPA, Chief Financial Officer
State Employees Insurance Board Appointee
Keith Cox, CPA
Medical Association of the State of Alabama
TBD

