2016

Healthcare-Associated Infections in Alabama

Annual Report

Alabama Department of Public Health

201 Monroe Street

Montgomery, AL 36104

Phone: 334-206-5971

Toll Free: 1-800-338-8374

Web: www.alabamapublichealth.gov/hai

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

Healthcare-Associated Infections Program

Travis Redford, M.P.H., Healthcare-Associated Infections Co-Coordinator and Epidemiologist

Allison Roebling, D.V.M., M.P.H., Healthcare-Associated Infections Co-Coordinator and Epidemiologist

Tammy Langlois, B.S.N., R.N., Healthcare Infection Control & Prevention Readiness Nurse Manager

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

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

Chapelle Ayers, Healthcare-Associated Infections Intern

Healthcare Data Advisory Council

Chairman: Scott Harris, M.D., Acting State Health Officer

For a complete list of HAI Advisory Council members, please see Alabama Healthcare Data Advisory Council Members, pg. 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 2016 Annual Report highlights Alabama's sixth year of reporting infection measure data.

In 2016, 92 facilities in Alabama reported CAUTI data. These hospitals reported 403 CAUTIs associated with 452,404 catheter days. This is a decrease from 2015, when 425 CAUTIs were reported by 91 hospitals, over 450,041 catheter days. The 2016 standardized infection ratio (SIR) was 0.442, indicating that Alabama hospitals had fewer infections than predicted based on the national performance measures. This SIR also compares favorably with 2015, where the SIR was 0.469. In 2016, 26 facilities performed better than the national baseline, comparable to 25 in 2015. As in 2015, one facility performed worse than the national baseline in 2016.

In 2016, 288 CLABSIs associated with 217,972 central line days were reported by 69 Alabama hospitals that met the reporting criteria. Alabama performed better than the national baseline with an SIR of 0.608. Twelve hospitals performed better than the national baseline, and no hospital performed worse. The 2015 CLABSI data indicated a similar SIR of 0.743 for the 352 CLABSIs and 217,434 central line days reported by 70 hospitals.

In the category of SSIs, Alabama hospitals performed better than the national baseline in both abdominal hysterectomies and colon surgeries. For 6,102 colon procedures, 133 SSIs were identified (excluding superficial SSIs), resulting in an SIR of 0.719. Among Alabama hospitals required to report SSIs, 66 facilities performed colon surgeries. Of these facilities, 7 had significantly fewer infections compared to the national performance. One facility performed worse than the national baseline. For abdominal hysterectomies, 59 Alabama hospitals performed 7,139 abdominal hysterectomy surgeries in 2016. Thirty-three SSIs associated with these procedures were reported (excluding superficial SSIs), resulting in an SIR of 0.590. No facilities performed better or worse than the national baseline.

Introduction

A healthcare-associated infection (HAI), also referred to as a nosocomial infection, is a type of infection that 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 present while a patient is hospitalized qualify for reporting as HAIs. Additionally, diagnostic tests and/or patient symptoms may be important to identify HAIs. Alabama, like most other states, uses specific criteria described by the Centers for Disease Control and Prevention (CDC) in order to determine when 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 in an effort to combat HAIs. The Act requires the collection and reporting of certain HAI data by specific Alabama healthcare facilities. It designates the Alabama Department of Public Health (ADPH) as the agency responsible for the analysis of submitted data and creates a Healthcare Data Advisory Council to assist with development of the HAI reporting and prevention program. The Infection Reporting Act also makes provisions for the development of certain rules and regulations, as well as the development of public reports comparing the HAI data.

Data collected through the provisions of the Infection Reporting Act is of great interest to our communities. Consumer demand for information about the performance of healthcare providers has increased steadily over the past decade. In response, many state and national initiatives now mandate or induce 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.

Despite collective efforts to control healthcare-associated infections, **1 in 25** hospital patients has had at least one HAI. In 2011, there were an estimated 722,000 HAIs in U.S. acute care hospitals. The same year, about 75,000 hospital patients with HAIs died during their hospitalizations[1]. The high number of healthcare-associated infections imposes a significant burden on the population in terms of morbidity and mortality. Financial impact is similarly substantial; a 2009 CDC report estimated the annual medical costs attributable to HAIs in U.S. hospitals to be between $35.7 billion and $45 billion[2].

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

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[1] Centers for Disease Control and Prevention, Healthcare-associated Infections (HAIs), Data and Statistics. Available at: http://www.cdc.gov/HAI/surveillance/

[2] 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 healthcare facilities open as of December 31, 2016.

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 which is used for the collection and reporting of HAI data by trained Infection Preventionists (IPs) or other trained NHSN Users at each healthcare facility. 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 March 1. Each Alabama healthcare facility must grant permission within NHSN for ADPH HAI program staff to view and analyze the specified HAI data so that 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 catheter-associated urinary tract infection (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 National Healthcare Safety Network (NHSN) established criteria. The patient may be with or without symptoms.

During 2016, 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 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 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 monthly. 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 central line-associated bloodstream infection (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 2016, CLABSIs 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 was based on facility preference.

Surgical Site Infection (SSI)

A surgical site infection (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 Healthcare Data Advisory Council 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 (aka large intestine) 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 hospitals whose device utilization days or procedure counts were within the lowest quartile in the state (under 25%). Medium-volume consisted of hospitals whose device utilization days or procedure counts were in the 2nd and 3rd quartiles (between 25% and 75%). The high-volume category consisted of hospitals whose device utilization days or procedure counts were in the highest volume quartile (above 75%).

Accuracy in HAI Reporting

ADPH Data Validation Program

Background: The Mike Denton Infection Reporting Act gave the Alabama Department of Public Health (ADPH) the responsibility and authority to evaluate the quality and accuracy of HAI reporting. The law also established the Healthcare Data Advisory Council 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 National Healthcare Safety Network (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 that was 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 through 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 data and make comments to explain performance if desired.

5. ADPH used CDC's 2016 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 Infection Preventionist (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 information 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 Healthcare Infection Control & Prevention Readiness Nurse Manager provided verbal and additional 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' 2016 CLABSI records. In accordance with the NHSN 2016 External Validation Guidance and Toolkit, the Healthcare Infection and Prevention Nurse Manager conducted site visits at 22 facilities in the Alabama Hospital Association (AlaHA) regions using a targeted selection method for CLABSI validations.   The selected facilities included a mixture of 2 low-volume, 4 medium-volume, and 16 high-volume hospitals.

Prior to the site visit, the hospital Infection Preventionist (IP) provided a list of positive blood cultures along with CLABSIs reported to NHSN. From these records a sample was taken using the Targeted Medical Record Selection Process. An average of 39.5 records were evaluated per facility, with a range of 4 to 59. Site visits consisted of record review using the 2016 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 records reviewed at the facilities, the NHSN CLABSI criterion was applied correctly 100% of the time, compared with 99% in 2015. All (100%) of the hospitals visited did not misidentify any CLABSI events.

CLABSI Validation Summary:

Year	# Records Reviewed	# CLABSIs Over-Reported	# CLABSIs Under-Reported	Total Discrepancies	Accuracy
2014	977	16	30	46	95%
2015	975	8	4	12	99%
2016	869	0	0	0	100%

CAUTI Validation

For the first time, ADPH also selected hospitals for CAUTI validation based on their 2016 records. Rather than using the NHSN 2016 External Validation Guidance and Toolkit, hospitals were selected using a random stratified sampling method in order to specifically target 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 of facilities that were unlikely to receive them under the NHSN validation selection criteria. The Healthcare Infection and Prevention Nurse Manager conducted site visits of 6 low-volume and 7 medium volume facilities in the Alabama Hospital Association (AlaHA) region.

Prior to the site visit, the hospital Infection Preventionist (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 35.2 records were evaluated per facility, with a range of 21 to 44. Site visits consisted of record review using the 2016 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 records reviewed at the facilities, the NHSN CAUTI criterion was applied correctly 99% of the time. Most (92%) of the hospitals visited did not misidentify any CAUTI events. Additionally, 50% of discrepancies were due to hospitals incorrectly classifying an infection as a CAUTII, while 50% were due to failure to identify a CAUTI.

CAUTI Validation Summary:

Year	# Records Reviewed	# CAUTIs Over-Reported	# CAUTIs Under-Reported	Total Discrepancies	Accuracy
2016	458	1	1	2	99%

Performance Measurement

Risk Adjustment

Comparing data between different facilities with diverse patient populations can be difficult. Some patients will be at higher risk for a healthcare-associated infection 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 catheter-associated urinary tract infection (CAUTI) and central line-associated bloodstream infection (CLABSI) surveillance, facility locations (e.g., surgical intensive care unit, general medical ward) are used in risk adjustment. Surgical site infections (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 it is also influenced by the number of procedures performed (for SSIs) or the total device-days (for CLABSIs and CAUTIs).

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

- 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 (0/0.5), 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 how little data they were based on.

To minimize the risk of unfairly comparing healthcare facility SIRs due to low volume of procedures, the Healthcare Data Advisory Council adopted CDC's National Healthcare Safety Network (NHSN) minimum thresholds used in their Annual National Healthcare Associate-Illness (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 National Baseline Data

A facility's performance is compared to the national baseline data by calculating the 95% 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% 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 healthcare-associated infections 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 due to 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 broader confidence interval, increasing the likelihood that the interval will contain one and the hospital will not be statistically different from the national baseline (i.e., "Similar").

Trends in CAUTI SIRs, 2011-2016

In order to see the overall progress that Alabama healthcare facilities have made during the years in which CAUTIs have been reportable to ADPH, CAUTI SIRs and confidence intervals for the state and regions of Alabama were compared from 2011 to 2016 among facilities and ward types that consistently reported across this entire time period.

Overall, CAUTI SIRs declined in Alabama from 2011 to 2016. The state SIR started at 0.936 (95% CI= 0.837, 1.043) in 2011, and by 2016 it had dropped significantly to 0.448 (95% CI= 0.379, 0.525). When comparing sequential years, SIRs for the state dropped significantly from 2011 to 2012 and from 2014 to 2015. No significant increases occurred between consecutive years.
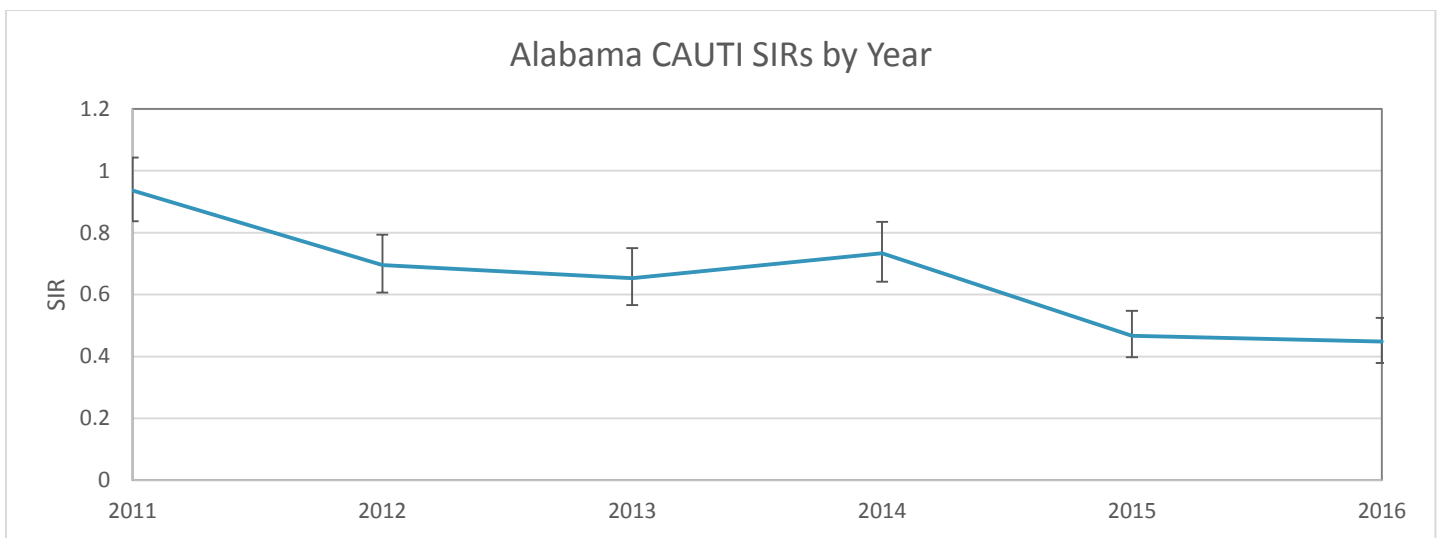
Total urinary catheter days for the state of Alabama saw a marked decline from 2011 to 2012, followed by a slight increase from 2014 to 2015. Unfortunately, confidence intervals were not available to confirm whether these changes were statistically significant.
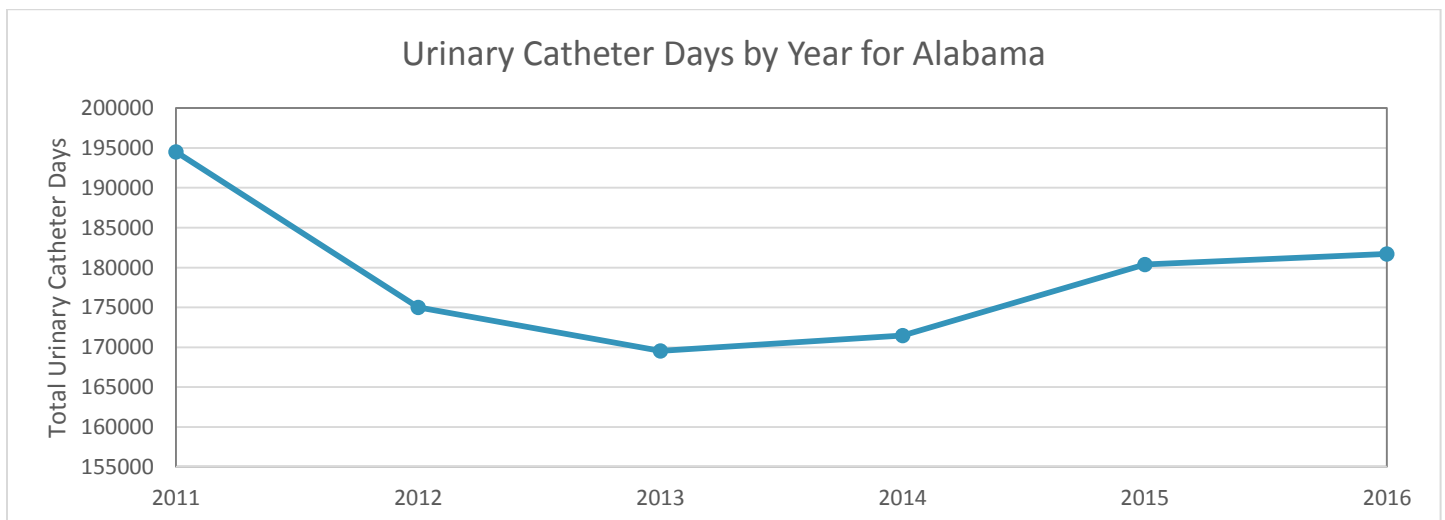
Lastly, changes in SIR from 2011 to 2016 were analyzed by region. Over these six years, the Central, North, Southwest, and West regions all had statistically significant decreases in their SIRs. In contrast, the Birmingham, Northeast, and Southeast regions did not have significant changes in SIRs when comparing 2016 to 2011.

Regional CAUTI SIRs by Year, Alabama
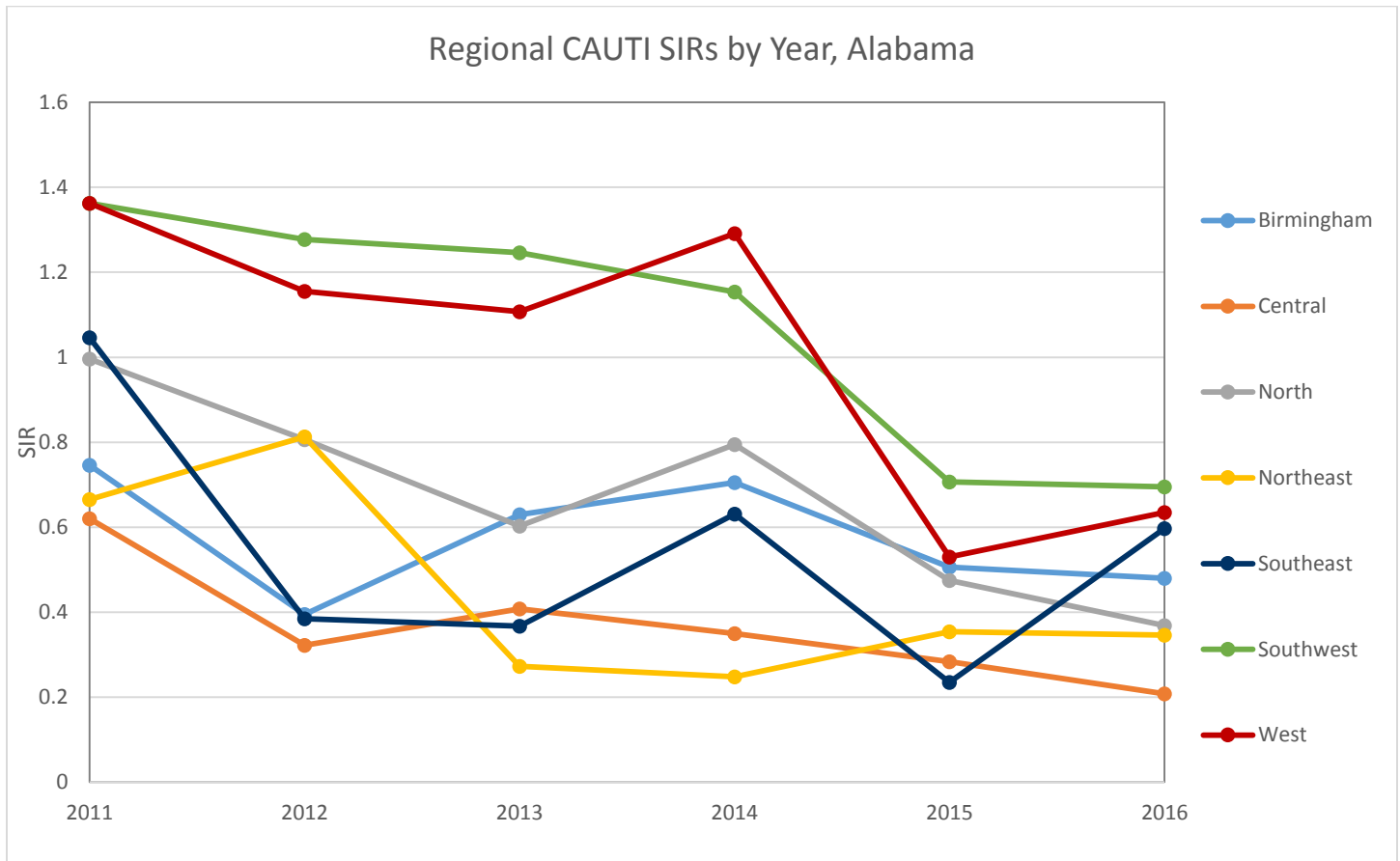
Pathogens Involved in Surgical Site Infections, 2016

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 surgical site infections (SSIs) in 2016. These data do not represent all SSIs because cultures are not always performed and submitted to identify causative organisms. Also, due to the available data, SSI events could not be separated by the depth of the infection, so counts below may include superficial, deep, and organ level SSIs.

In Alabama hospitals in 2016, 332 pathogens were identified in 206 colon SSIs. *Escherichia* species were the most common pathogens identified in colon surgery SSIs; they were the second-most common for colon SSIs last year. *Escherichia* accounted for 81 (24%) of identified pathogens among SSIs, compared to 68 of 348 (20%) in 2015. *Enterococcus* species were identified in 66 (20%) colon SSI cultures in 2016, and *Staphylococcus* species were identified in 31 (9%). Interestingly, the ten most common pathogens were the same as in 2014 and 2015.

A total of 70 pathogens were identified in 50 abdominal hysterectomy SSIs in 2016. As in previous years, Alabama hospitals reported *Staphylococcus* as the most common pathogen genus associated with abdominal hysterectomy SSIs, accounting for 24% of pathogens identified compared to 20% in 2015, 34% in 2014, and 23% in 2013. This year, *Enterococcus* species were the second most commonly reported group of pathogens identified at 21%, compared to 14% in 2015.

Pathogens identified in the "other" group consisted of several different genera including *Clostridium*, *Prevotella*, *Corynebacterium,* and many other bacteria, as well as unspecified yeasts.
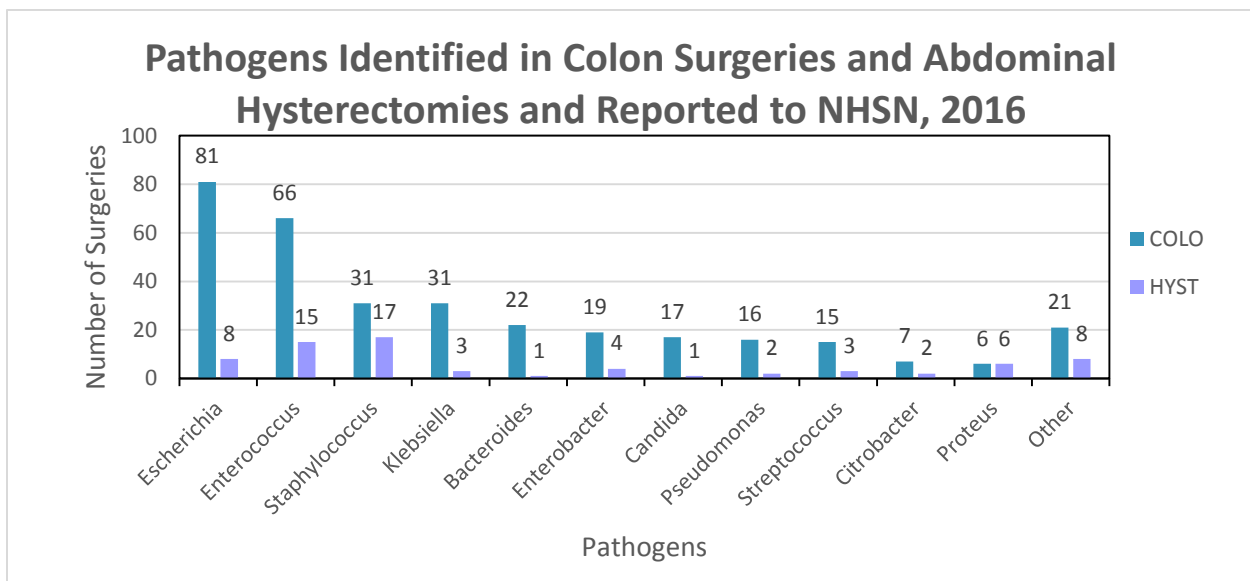
Data acquired from NHSN August 28, 2017

HAI Data, Statewide

Ninety-two Alabama hospitals reported 403 catheter-associated urinary tract infections (CAUTIs) in 2016, associated with 452,404 catheter days. The SIR, which doesn't include mixed acuity facilities, was 0.442. Both the SIR and number of CAUTIs reported were lower than in 2015. Alabama performed better than the national performance. Low-, medium-, and high-volume hospitals performed better compared to the national performance with SIRs of 0.403, 0.403, and 0.452 respectively.

2016 Catheter-Associated Urinary Tract Infections (CAUTIs)				
	Number of CAUTIs	Total Number of Catheter Days	Ratio of Observed to Predicted Infections (SIR)*	Hospital Performance 2016 compared to National Performance (2009)
Alabama Hospitals Reporting: 92	403	452,404	0.442*	Better
Low-Volume Hospitals (Fewer than 570 catheter days)	5	6,710	0.403*	Better
Medium-Volume Hospitals (570 – 6,826 catheter days)	70	102,416	0.403*	Better
High-Volume Hospitals (More than 6,826 catheter days)	328	343,278	0.452	Better

Data acquired from NHSN: August 25, 2017
*Does not include Mixed Acuity facilities

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 2016, 69 Alabama hospitals reported 288 central line-associated bloodstream infections (CLABSIs) over 217,972 central line days. Alabama performed better than the national performance level, with an SIR of 0.608. Twelve hospitals performed better than the national baseline, compared to 10 hospitals last year. No hospitals performed worse than the national baseline, compared to two hospitals last year. Medium- and high-volume hospitals, again, performed better than the national performance with SIRs of 0.618 and 0.606 respectively. Low-volume hospitals performed similar when compared to the national performance, as in 2012-2015. Although the performance was similar, only one CLABSI was reported for this group in 2016.

2016 Central Line-Associated Bloodstream Infections (CLABSIs)				
	Number of CLABSIs	Number of Central Line Days	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Alabama Hospitals Reporting: 69	288	217,972	0.608	Better
Low-Volume Hospitals (Fewer than 122 central line days)	1	770	0.845	Similar
Medium-Volume Hospitals (122 to 4,355 central line days)	50	44,254	0.618	Better
High-Volume Hospitals (More than 4,355 central line days)	237	172,948	0.606	Better

Data acquired from NHSN: August 25, 2017

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 2016, 66 Alabama hospitals reported 6,102 colon procedures, with 133 surgical site infections (SSIs) associated with these procedures (excluding superficial SSIs). Overall, Alabama had an SIR of 0.719, indicating performance was better compared to the national baseline data. Of the hospitals that performed colon surgeries, 7 had significantly fewer infections compared to the national baseline. Only one facility performed worse than the national baseline. Low-volume hospitals performed similarly when compared to national baseline with an SIR of 0.652. Medium- and high-volume facilities performed better compared to the national baseline with SIRs of 0.660 and 0.745, respectively.

2016 Surgical Site Infections (SSIs) Associated with Colon Surgeries*				
	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Alabama Hospitals Reporting: 66	133	6,102	0.719	Better
Low-Volume Hospitals (Fewer than 12 procedures)	2	107	0.652	Similar
Medium-Volume Hospitals (12 to 132 procedures)	36	1,893	0.660	Better
High-Volume Hospitals (More than 132 procedures)	95	4,102	0.745	Better

Data acquired from NHSN: August 25, 2017
*Does not include superficial SSIs

Procedures: the number of in-patient colon surgeries performed in 2016

SSI: a deep- or organ-level infection associated with an in-patient 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-nine Alabama hospitals performed 7,139 abdominal hysterectomies in 2016. Thirty-three surgical site infections (SSIs) were associated with these procedures (excluding superficial SSIs), resulting in an SIR of 0.590, a performance comparison that was better than the national baseline data. No facilities had statistically fewer or more infections than predicted by national data in 2016.

2016 Surgical Site Infections (SSIs) Associated with Abdominal Hysterectomies*				
	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Alabama Hospitals Reporting: 59	33	7,139	0.590	Better
Low-Volume Hospitals (Fewer than 13 procedures)	0	64	-	-
Medium-Volume Hospitals (13 to 138 procedures)	11	1,636	0.756	Similar
High-Volume Hospitals (More than 138 procedures)	22	5,439	0.541	Better

Data acquired from NHSN: August 25, 2017
*Does not include superficial SSIs

Procedures: the number of in-patient abdominal hysterectomy surgeries performed in 2016

SSI: a deep- or organ-level infection associated with an in-patient 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: catheter-associated urinary tract infections (CAUTIs), central line-associated bloodstream infections (CLABSIs), colon surgical site infections (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 Alabama Hospital Association (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, 2016 - December 31, 2016

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)	Hospital Performance 2016 compared to National Performance (2009)
Low-Volume Hospitals (fewer than 570 catheter days)				
St. Vincent's Blount	0	168	N/A	-
Medium-Volume Hospitals (570 to 6,826 catheter days)				
Children's Health System of Alabama	4	2,217	0.650	Similar
St. Vincent's St. Clair	1	1,391	0.371	Similar
Walker Baptist Medical Center	0	4,647	0	Better
High-Volume Hospitals (more than 6,826 catheter days)				
Brookwood Medical Center	6	8,498	0.359	Better
Grandview Medical Center	9	10,882	0.325	Better
Medical West	9	9,703	0.488	Better
Princeton Baptist Medical Center	29	17,358	0.771	Similar
Shelby Baptist Medical Center	9	11,403	0.401	Better
St. Vincent's Birmingham	18	17,950	0.550	Better
St. Vincent's East	16	13,496	0.560	Better
UAB Hospital	29	44,022	0.230	Better

Data acquired from NHSN: August 25, 2017

*SIRs are not available for facilities reporting mixed acuity wards because National Comparison Data is not available.

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, 2016 - December 31, 2016				
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)	Hospital Performance 2016 compared to National Performance (2009)
Low-Volume Hospitals (fewer than 570 catheter days)				
Bullock County Hospital	0	102	N/A	-
Crenshaw Community Hospital	0	239	N/A	-
Elmore Community Hospital*	0	247	N/A	-
Georgiana Hospital	0	289	N/A	-
Lake Martin Community Hospital	0	255	N/A	-
Medium-Volume Hospitals (570 – 6,826 catheter days)				
Baptist Medical Center East	3	6,826	0.229	Better
Community Hospital	0	993	0	Similar
EAMC - Lanier	1	1,324	0.389	Similar
Jack Hughston Memorial Hospital*	0	699	N/A	-
L. V. Stabler Memorial Hospital	0	620	N/A	-
Prattville Baptist Hospital	0	3,053	0	Better
Vaughan Regional Medical Center	1	3,668	0.184	Better
High-Volume Hospitals (more than 6,826 catheter days)				
Baptist Medical Center South	28	17,087	0.649	Better
East Alabama Medical Center	10	8,901	0.749	Similar
Jackson Hospital & Clinic	10	11,308	0.619	Similar
Russell Medical Center	1	6,456	0.073	Better

Data acquired from NHSN: August 25, 2017

*SIRs are not available for facilities reporting mixed acuity wards because National Comparison Data is not available.

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, 2016 - December 31, 2016

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)	Hospital Performance 2016 compared to National Performance (2009)
Low-Volume Hospitals (fewer than 570 catheter days)				
Lakeland Community Hospital	0	243	N/A	-
Lawrence Medical Center	0	543	N/A	-
North Mississippi Medical Center - Hamilton	2	346	N/A	-
Red Bay Hospital	1	517	N/A	-
Medium-Volume Hospitals (570 – 6,826 catheter days)				
Athens Limestone Hospital	0	3,634	0	Better
Crestwood Medical Center	6	6,348	0.619	Similar
Decatur Morgan Hospital - Parkway Campus	0	1,054	0	Similar
Helen Keller Hospital	3	5,622	0.313	Better
Highlands Medical Center	2	1,960	0.619	Similar
Marshall Medical Center North	3	3,487	0.580	Similar
Marshall Medical Center South	2	3,597	0.367	Similar
Russellville Hospital	0	1,158	0	Similar
Shoals Hospital	2	1,192	0.866	Similar
High-Volume Hospitals (more than 6,826 catheter days)				
Cullman Regional Medical Center	2	7,791	0.135	Better
Decatur Morgan Hospital - Decatur Campus	3	10,147	0.190	Better
Eliza Coffee Memorial Hospital	11	10,082	0.627	Similar
Huntsville Hospital	40	27,469	0.637	Better

Data acquired from NHSN: August 25, 2017

*SIRs are not available for facilities reporting mixed acuity wards because National Comparison Data is not available.

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, 2016 - December 31, 2016

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)	Hospital Performance 2016 compared to National Performance (2009)
Low-Volume Hospitals (fewer than 570 catheter days)				
Cherokee Medical Center	0	267	N/A	-
RMC - Jacksonville	0	234	N/A	-
Wedowee Hospital	0	263	N/A	-
Medium-Volume Hospitals (570 – 6,826 catheter days)				
Citizens Baptist Medical Center	1	1,229	0.562	Similar
Clay County Hospital	4	570	3.591	Worse
Coosa Valley Medical Center	0	2,345	0	Better
DeKalb Regional Medical Center	0	3,169	0	Better
Riverview Regional Medical Center	5	5,813	0.578	Similar
Stringfellow Memorial Hospital	1	2,940	0.229	Similar
High-Volume Hospitals (more than 6,826 catheter days)				
Gadsden Regional Medical Center	6	14,430	0.231	Better
Northeast Alabama Regional Medical Center	7	7,713	0.576	Similar

Data acquired from NHSN: August 25, 2017

*SIRs are not available for facilities reporting mixed acuity wards because National Comparison Data is not available.

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, 2016 - December 31, 2016				
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)	Hospital Performance 2016 compared to National Performance (2009)
Low-Volume Hospitals (fewer than 570 catheter days)				
-	-	-	-	-
Medium-Volume Hospitals (570 – 6,826 catheter days)				
Andalusia Regional Hospital	0	1,502	0	Similar
Dale Medical Center	1	617	N/A	-
Medical Center Barbour	1	1,010	0.661	Similar
Medical Center Enterprise	2	1,621	0.830	Similar
Mizell Memorial Hospital	0	1,097	0	Similar
Southeast Alabama Medical Center	3	6,230	0.361	Better
Troy Regional Medical Center	0	1,268	0	Similar
Wiregrass Medical Center	0	670	N/A	-
High-Volume Hospitals (more than 6,826 catheter days)				
Flowers Hospital	13	9,722	0.666	Similar

Data acquired from NHSN: August 25, 2017

*SIRs are not available for facilities reporting mixed acuity wards because National Comparison Data is not available.

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, 2016 - December 31, 2016

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)	Hospital Performance 2016 compared to National Performance (2009)
Low-Volume Hospitals (fewer than 570 catheter days)				
Choctaw General Hospital	0	150	N/A	-
Evergreen Medical Center	0	205	N/A	-
Grove Hill Memorial Hospital	0	281	N/A	-
Jackson Medical Center	0	262	N/A	-
John Paul Jones Hospital	0	35	N/A	-
USA Children's & Women's Hospital	1	458	0.78	Similar
Washington County Hospital*	0	331	N/A	-
Medium-Volume Hospitals (570 – 6,826 catheter days)				
Atmore Community Hospital	1	776	0.864	Similar
D.W. McMillan Memorial Hospital	1	1,259	0.407	Similar
Monroe County Hospital	0	679	N/A	-
North Baldwin Infirmary	0	1,014	0	Similar
South Baldwin Regional Medical Center	2	3,806	0.365	Similar
USA Medical Center	16	6,472	0.876	Similar
High-Volume Hospitals (more than 6,826 catheter days)				
Mobile Infirmary Medical Center	27	23,059	0.515	Better
Providence Hospital	10	13,616	0.313	Better
Springhill Medical Center	7	8,788	0.567	Similar
Thomas Hospital	4	7,419	0.272	Better

Data acquired from NHSN: August 25, 2017

*SIRs are not available for facilities reporting mixed acuity wards because National Comparison Data is not available.

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, 2016 - December 31, 2016

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)	Hospital Performance 2016 compared to National Performance (2009)
Low-Volume Hospitals (fewer than 570 catheter days)				
Bibb Medical Center	0	250	N/A	-
Greene County Hospital	0	30	N/A	-
Hale County Hospital	0	105	N/A	-
Hill Hospital of Sumter County*	1	8	N/A	-
Pickens County Medical Center	0	183	N/A	-
Medium-Volume Hospitals (570 – 6,826 catheter days)				
Bryan W. Whitfield Memorial Hospital	0	606	N/A	-
Fayette Medical Center	1	997	0.639	Similar
Northport Medical Center	2	2,525	0.422	Similar
Northwest Medical Center	1	1,410	0.459	Similar
High-Volume Hospitals (more than 6,826 catheter days)				
DCH Regional Medical Center	24	22,978	0.498	Better

Data acquired from NHSN: August 25, 2017

*SIRs are not available for facilities reporting mixed acuity wards because National Comparison Data is not available.

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, 2016 - December 31, 2016				
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)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 122 central line days)				
St. Vincent's Blount	0	24	N/A	-
Medium-Volume Hospitals (122 – 4,355 central line days)				
Medical West	10	3,321	1.585	Similar
Shelby Baptist Medical Center	3	4,355	0.361	Better
St. Vincent's St. Clair	0	202	N/A	-
Walker Baptist Medical Center	1	523	N/A	-
High-Volume Hospitals (more than 4,355 central line days)				
Brookwood Medical Center	19	6,897	1.350	Similar
Children's Health System of Alabama	32	17,954	0.665	Better
Grandview Medical Center	3	6,152	0.202	Better
Princeton Baptist Medical Center	9	9,229	0.531	Better
St. Vincent's Birmingham	13	8,933	0.771	Similar
St. Vincent's East	15	7,587	0.921	Similar
UAB Hospital	30	32,920	0.359	Better

Data acquired from NHSN: August 25, 2017

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, 2016 - December 31, 2016
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)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 122 central line days)				
Community Hospital	0	31	N/A	-
L. V. Stabler Memorial Hospital	0	31	N/A	-
Medium-Volume Hospitals (122 – 4,355 central line days)				
Baptist Medical Center East	2	2,786	0.375	Similar
EAMC - Lanier	0	197	N/A	-
East Alabama Medical Center	2	3,317	0.406	Similar
Prattville Baptist Hospital	0	360	N/A	-
Russell Medical Center	0	576	N/A	-
Vaughan Regional Medical Center	1	563	N/A	-
High-Volume Hospitals (more than 4,355 central line days)				
Baptist Medical Center South	10	10,692	0.347	Better
Jackson Hospital & Clinic	9	5,629	1.086	Similar

Data acquired from NHSN: August 25, 2017

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, 2016 - December 31, 2016 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)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 122 central line days)				
Decatur Morgan Hospital - Parkway Campus	0	48	N/A	-
Lakeland Community Hospital	0	14	N/A	-
Russellville Hospital	0	80	N/A	-
Medium-Volume Hospitals (122 – 4,355 central line days)				
Athens Limestone Hospital	2	520	N/A	-
Crestwood Medical Center	2	1,802	0.740	Similar
Cullman Regional Medical Center	0	1,235	0	Similar
Decatur Morgan Hospital - Decatur Campus	0	1,617	0	Similar
Helen Keller Hospital	0	816	0	Similar
Highlands Medical Center	0	283	N/A	-
Marshall Medical Center North	0	375	N/A	-
Marshall Medical Center South	0	457	N/A	-
Shoals Hospital	0	163	N/A	-
High-Volume Hospitals (more than 4,355 central line days)				
Eliza Coffee Memorial Hospital	7	4,397	0.950	Similar
Huntsville Hospital	19	13,959	0.648	Better

Data acquired from NHSN: August 25, 2017

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)

Hospital Name	Number of CLABSIs	Number of Central Line Days	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Northeast Region				
Central Line-Associated Bloodstream Infections (CLABSIs)				
January 1, 2016 - December 31, 2016				
CLABSI Locations: Adult, Pediatric, and Neonatal Critical Care Units				
Low-Volume Hospitals (fewer than 122 central line days)				
Clay County Hospital	0	9	N/A	-
Medium-Volume Hospitals (122 – 4,355 central line days)				
Citizens Baptist Medical Center	0	314	N/A	-
Coosa Valley Medical Center	0	501	N/A	-
DeKalb Regional Medical Center	0	576	N/A	-
Northeast Alabama Regional Medical Center	3	1,935	1.051	Similar
Riverview Regional Medical Center	3	1,692	1.182	Similar
Stringfellow Memorial Hospital	0	271	N/A	-
High-Volume Hospitals (more than 4,355 central line days)				
Gadsden Regional Medical Center	1	4,996	0.102	Better

Data acquired from NHSN: August 25, 2017

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, 2016 - December 31, 2016				
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)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 122 central line days)				
Andalusia Regional Hospital	0	102	N/A	-
Medical Center Enterprise	0	100	N/A	-
Mizell Memorial Hospital	0	67	N/A	-
Wiregrass Medical Center	0	58	N/A	-
Medium-Volume Hospitals (122 – 4,355 central line days)				
Dale Medical Center	0	127	N/A	-
Flowers Hospital	0	2,574	0	Better
Medical Center Barbour	1	122	N/A	-
Southeast Alabama Medical Center	4	3,044	0.884	Similar
Troy Regional Medical Center	0	433	N/A	-
High-Volume Hospitals (more than 4,355 central line days)				
-	-	-	-	-

Data acquired from NHSN: August 25, 2017

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, 2016 - December 31, 2016				
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)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 122 central line days)				
Atmore Community Hospital	1	74	N/A	-
Monroe County Hospital	0	46	N/A	-
Medium-Volume Hospitals (122 – 4,355 central line days)				
D.W. McMillan Memorial Hospital	0	147	N/A	-
North Baldwin Infirmary	0	209	N/A	-
South Baldwin Regional Medical Center	0	1,496	0	Similar
Thomas Hospital	1	2,613	0.182	Better
USA Medical Center	9	2,854	0.966	Similar
High-Volume Hospitals (more than 4,355 central line days)				
Mobile Infirmary Medical Center	16	10,910	0.670	Similar
Providence Hospital	5	7,724	0.327	Better
Springhill Medical Center	4	6,905	0.394	Better
USA Children's & Women's Hospital	29	8,143	1.206	Similar

Data acquired from NHSN: August 25, 2017

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, 2016 - December 31, 2016

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)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 122 central line days)				
Bryan W. Whitfield Memorial Hospital	0	12	N/A	-
Fayette Medical Center	0	36	N/A	-
Northwest Medical Center	0	38	N/A	-
Medium-Volume Hospitals (122 – 4,355 central line days)				
Northport Medical Center	6	1,878	1.394	Similar
High-Volume Hospitals (more than 4,355 central line days)				
DCH Regional Medical Center	16	9,921	0.675	Similar

Data acquired from NHSN: August 25, 2017

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, 2016 - December 31, 2016				
Hospital Name	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 12 procedures)				
St. Vincent's St. Clair	0	11	N/A	-
Medium-Volume Hospitals (12 – 132 procedures)				
Children's Health System of Alabama	0	87	0	Better
Medical West	1	126	0.271	Similar
Walker Baptist Medical Center	0	34	N/A	-
High-Volume Hospitals (more than 132 procedures)				
Brookwood Medical Center	4	173	0.787	Similar
Grandview Medical Center	0	167	0	Better
Princeton Baptist Medical Center	1	168	0.204	Similar
Shelby Baptist Medical Center	0	218	0	Better
St. Vincent's Birmingham	5	329	0.587	Similar
St. Vincent's East	4	238	0.527	Similar
UAB Hospital	18	633	0.782	Similar

Data acquired from NHSN: August 25, 2017

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

Procedures: the number of in-patient colon surgeries performed in 2016

SSI: a deep- or organ-level infection associated with an in-patient 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, 2016 - December 31, 2016				
Hospital Name	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 12 procedures)				
Community Hospital	0	2	N/A	-
Jack Hughston Memorial Hospital	0	7	N/A	-
L. V. Stabler Memorial Hospital	0	7	N/A	-
Medium-Volume Hospitals (12 – 132 procedures)				
Baptist Medical Center East	0	129	0	Better
Baptist Medical Center South	0	92	0	Similar
EAMC - Lanier	0	12	N/A	-
Prattville Baptist Hospital	2	33	N/A	-
Russell Medical Center	0	13	N/A	-
Vaughan Regional Medical Center	0	43	0	Similar
High-Volume Hospitals (more than 132 procedures)				
East Alabama Medical Center	0	177	0	Better
Jackson Hospital & Clinic	8	150	1.572	Similar

Data acquired from NHSN: August 25, 2017

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

Procedures: the number of in-patient colon surgeries performed in 2016

SSI: a deep- or organ-level infection associated with an in-patient 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, 2016 - December 31, 2016				
Hospital Name	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 12 procedures)				
Highlands Medical Center	0	10	N/A	-
Russellville Hospital	0	8	N/A	-
Medium-Volume Hospitals (12 – 132 procedures)				
Athens Limestone Hospital	1	39	0.804	Similar
Crestwood Medical Center	4	114	1.412	Similar
Cullman Regional Medical Center	1	61	0.585	Similar
Decatur Morgan Hospital - Decatur Campus	0	132	0	Better
Eliza Coffee Memorial Hospital	1	75	0.433	Similar
Helen Keller Hospital	1	59	0.594	Similar
Marshall Medical Center North	0	25	N/A	-
Marshall Medical Center South	0	36	N/A	-
Shoals Hospital	1	32	0.995	Similar
High-Volume Hospitals (more than 132 procedures)				
Huntsville Hospital	21	606	1.131	Similar

Data acquired from NHSN: August 25, 2017

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

Procedures: the number of in-patient colon surgeries performed in 2016

SSI: a deep- or organ-level infection associated with an in-patient 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, 2016 - December 31, 2016				
Hospital Name	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 12 procedures)				
Citizens Baptist Medical Center	0	5	N/A	-
Medium-Volume Hospitals (12 – 132 procedures)				
Coosa Valley Medical Center	0	31	0	Similar
DeKalb Regional Medical Center	1	14	N/A	-
Gadsden Regional Medical Center	0	97	0	Similar
Northeast Alabama Regional Medical Center	0	118	0	Similar
Riverview Regional Medical Center	0	43	0	Similar
Stringfellow Memorial Hospital	1	22	N/A	-
High-Volume Hospitals (more than 132 procedures)				
-	-	-	-	-

Data acquired from NHSN: August 25, 2017

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

Procedures: the number of in-patient colon surgeries performed in 2016

SSI: a deep- or organ-level infection associated with an in-patient 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, 2016 - December 31, 2016				
Hospital Name	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 12 procedures)				
Medical Center Barbour	0	3	N/A	-
Mizell Memorial Hospital	0	10	N/A	-
Troy Regional Medical Center	0	10	N/A	-
Wiregrass Medical Center	0	8	N/A	-
Medium-Volume Hospitals (12 – 132 procedures)				
Andalusia Regional Hospital	0	17	N/A	-
Dale Medical Center	0	19	N/A	-
Flowers Hospital	4	120	1.102	Similar
Medical Center Enterprise	1	22	N/A	-
High-Volume Hospitals (more than 132 procedures)				
Southeast Alabama Medical Center	1	164	0.171	Better

Data acquired from NHSN: August 25, 2017

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

Procedures: the number of in-patient colon surgeries performed in 2016

SSI: a deep- or organ-level infection associated with an in-patient 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, 2016 - December 31, 2016				
Hospital Name	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 12 procedures)				
Atmore Community Hospital	2	2	N/A	-
Monroe County Hospital	0	6	N/A	-
Medium-Volume Hospitals (12 – 132 procedures)				
D.W. McMillan Memorial Hospital	1	22	N/A	-
North Baldwin Infirmary	1	18	N/A	-
South Baldwin Regional Medical Center	2	42	1.809	Similar
USA Children's & Women's Hospital	0	18	N/A	-
USA Medical Center	13	132	2.448	Worse
High-Volume Hospitals (more than 132 procedures)				
Mobile Infirmary Medical Center	7	337	0.566	Similar
Providence Hospital	6	152	1.188	Similar
Springhill Medical Center	6	135	1.479	Similar
Thomas Hospital	5	137	1.606	Similar

Data acquired from NHSN: August 25, 2017

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

Procedures: the number of in-patient colon surgeries performed in 2016

SSI: a deep- or organ-level infection associated with an in-patient 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, 2016 - December 31, 2016				
Hospital Name	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 12 procedures)				
Bryan W. Whitfield Memorial Hospital	0	4	N/A	-
Fayette Medical Center	0	9	N/A	-
Northwest Medical Center	0	5	N/A	-
Medium-Volume Hospitals (12 – 132 procedures)				
Northport Medical Center	0	16	N/A	-
High-Volume Hospitals (more than 132 procedures)				
DCH Regional Medical Center	9	318	0.904	Similar

Data acquired from NHSN: August 25, 2017

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

Procedures: the number of in-patient colon surgeries performed in 2016

SSI: a deep- or organ-level infection associated with an in-patient 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, 2016 - December 31, 2016				
Hospital Name	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 13 procedures)				
St. Vincent's Blount	0	3	N/A	-
Medium-Volume Hospitals (13 – 138 procedures)				
Grandview Medical Center	0	136	0	Similar
Medical West	1	30	N/A	-
Princeton Baptist Medical Center	0	38	N/A	-
Shelby Baptist Medical Center	0	85	N/A	-
St. Vincent's East	3	102	N/A	-
St. Vincent's St. Clair	0	36	N/A	-
Walker Baptist Medical Center	0	20	N/A	-
High-Volume Hospitals (more than 138 procedures)				
Brookwood Medical Center	2	887	0.361	Similar
St. Vincent's Birmingham	2	469	0.625	Similar
UAB Hospital	6	780	0.897	Similar

Data acquired from NHSN: August 25, 2017

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

Procedures: the number of in-patient hysterectomies performed in 2016

SSI: a deep- or organ-level infection associated with an in-patient 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, 2016 - December 31, 2016				
Hospital Name	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 13 procedures)				
EAMC - Lanier	0	2	N/A	-
Russell Medical Center	0	1	N/A	-
Medium-Volume Hospitals (13 – 138 procedures)				
Baptist Medical Center South	0	89	N/A	-
Jackson Hospital & Clinic	2	138	1.832	Similar
Vaughan Regional Medical Center	0	59	N/A	-
High-Volume Hospitals (more than 138 procedures)				
Baptist Medical Center East	2	523	0.437	Similar
East Alabama Medical Center	2	414	0.799	Similar

Data acquired from NHSN: August 25, 2017

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

Procedures: the number of in-patient hysterectomies performed in 2016

SSI: a deep- or organ-level infection associated with an in-patient 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, 2016 - December 31, 2016				
Hospital Name	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 13 procedures)				
Marshall Medical Center North	0	2	N/A	-
Russellville Hospital	0	3	N/A	-
Medium-Volume Hospitals (13 – 138 procedures)				
Athens Limestone Hospital	0	27	N/A	-
Cullman Regional Medical Center	0	42	N/A	-
Decatur Morgan Hospital - Decatur Campus	1	64	N/A	-
Decatur Morgan Hospital - Parkway Campus	1	40	N/A	-
Eliza Coffee Memorial Hospital	0	55	N/A	-
Helen Keller Hospital	0	19	N/A	-
Highlands Medical Center	0	28	N/A	-
Marshall Medical Center South	0	44	N/A	-
High-Volume Hospitals (more than 138 procedures)				
Crestwood Medical Center	3	153	2.119	Similar
Huntsville Hospital	4	765	0.705	Similar

Data acquired from NHSN: August 25, 2017

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

Procedures: the number of in-patient hysterectomies performed in 2016

SSI: a deep- or organ-level infection associated with an in-patient 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, 2016 - December 31, 2016				
Hospital Name	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 13 procedures)				
Citizens Baptist Medical Center	0	8	N/A	-
DeKalb Regional Medical Center	0	1	N/A	-
Riverview Regional Medical Center	0	8	N/A	-
Medium-Volume Hospitals (13 – 138 procedures)				
Coosa Valley Medical Center	0	22	N/A	-
Gadsden Regional Medical Center	0	89	N/A	-
Northeast Alabama Regional Medical Center	0	93	N/A	-
High-Volume Hospitals (more than 138 procedures)				
-	-	-	-	-

Data acquired from NHSN: August 25, 2017

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

Procedures: the number of in-patient hysterectomies performed in 2016

SSI: a deep- or organ-level infection associated with an in-patient 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, 2016 - December 31, 2016				
Hospital Name	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 13 procedures)				
Medical Center Barbour	0	2	N/A	-
Mizell Memorial Hospital	0	2	N/A	-
Wiregrass Medical Center	0	8	N/A	-
Medium-Volume Hospitals (13 – 138 procedures)				
Andalusia Regional Hospital	0	14	N/A	-
Medical Center Enterprise	0	92	N/A	-
Troy Regional Medical Center	0	43	N/A	-
High-Volume Hospitals (more than 138 procedures)				
Flowers Hospital	0	290	0	Similar
Southeast Alabama Medical Center	0	227	0	Similar

Data acquired from NHSN: August 25, 2017

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

Procedures: the number of in-patient hysterectomies performed in 2016

SSI: a deep- or organ-level infection associated with an in-patient 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)

				Hospital Performance
Southwest Region Surgical Site Infections (SSIs) - Abdominal Hysterectomies January 1, 2016 - December 31, 2016				
Hospital Name	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 13 procedures)				
North Baldwin Infirmary	0	11	N/A	-
USA Medical Center	0	2	N/A	-
Medium-Volume Hospitals (13 – 138 procedures)				
D.W. McMillan Memorial Hospital	0	13	N/A	-
Grove Hill Memorial Hospital	2	27	N/A	-
South Baldwin Regional Medical Center	0	15	N/A	-
High-Volume Hospitals (more than 138 procedures)				
Mobile Infirmary Medical Center	0	186	0	Similar
Providence Hospital	0	202	0	Similar
Springhill Medical Center	0	179	0	Similar
Thomas Hospital	0	177	0	Similar
USA Children's & Women's Hospital	1	187	0.577	Similar

Data acquired from NHSN: August 25, 2017

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

Procedures: the number of in-patient hysterectomies performed in 2016

SSI: a deep- or organ-level infection associated with an in-patient 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, 2016 - December 31, 2016				
Hospital Name	Number of SSIs	Number of Procedures	Ratio of Observed to Predicted Infections (SIR)	Hospital Performance 2016 compared to National Performance (2006-2008)
Low-Volume Hospitals (fewer than 13 procedures)				
Bryan W. Whitfield Memorial Hospital	0	10	N/A	-
Pickens County Medical Center	0	1	N/A	-
Medium-Volume Hospitals (13 – 138 procedures)				
DCH Regional Medical Center	0	104	0	Similar
Northport Medical Center	1	44	N/A	-
Northwest Medical Center	0	28	N/A	-
High-Volume Hospitals (more than 138 procedures)				
-	-	-	-	-

Data acquired from NHSN: August 25, 2017

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

Procedures: the number of in-patient hysterectomies performed in 2016

SSI: a deep- or organ-level infection associated with an in-patient 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

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
BRYAN W. WHITFIELD MEMORIAL HOSPITAL	West Region	28, 35, 42, 49
BULLOCK COUNTY HOSPITAL	Central Region	23
CHEROKEE MEDICAL CENTER	Northeast Region	25
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, 30, 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, 46
EAST ALABAMA MEDICAL CENTER	Central Region	23, 30, 37, 44
EAST ALABAMA MEDICAL CENTER (EAMC) - LANIER	Central Region	23, 30, 37, 44
ELIZA COFFEE MEMORIAL HOSPITAL	North Region	24, 31, 38, 45
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
GADSDEN REGIONAL MEDICAL CENTER	Northeast Region	25, 32, 39, 46
GEORGIANA HOSPITAL	Central Region	23
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
HILL HOSPITAL OF SUMTER COUNTY	West Region	28
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, 31
LAWRENCE MEDICAL CENTER	North Region	24
L. V. STABLER MEMORIAL HOSPITAL	Central Region	23, 30, 37
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, 47
MEDICAL CENTER ENTERPRISE	Southeast Region	26, 33, 40, 47
MEDICAL WEST	Birmingham	22, 29, 36, 43
MIZELL MEMORIAL HOSPITAL	Southeast Region	26, 33, 40, 47
MOBILE INFIRMARY MEDICAL CENTER	Southwest Region	27, 34, 41, 48
MONROE COUNTY HOSPITAL	Southwest Region	27, 34, 41
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
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PICKENS COUNTY MEDICAL CENTER	West Region	28, 49
PRATTVILLE BAPTIST HOSPITAL	Central Region	23, 30, 37
PRINCETON BAPTIST MEDICAL CENTER	Birmingham	22, 29, 36, 43
PROVIDENCE HOSPITAL	Southwest Region	27, 34, 41, 48
RED BAY HOSPITAL	North Region	24
RIVERVIEW REGIONAL MEDICAL CENTER	Northeast Region	25, 32, 39, 46
REGIONAL MEDICAL CENTER (RMC) - JACKSONVILLE	Northeast Region	25
RUSSELL MEDICAL CENTER	Central Region	23, 30, 37, 44
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 ALABAMA MEDICAL CENTER	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, 43
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
THOMAS HOSPITAL	Southwest Region	27, 34, 41, 48
TRINITY MEDICAL CENTER	Birmingham	See Grandview Medical Center
TROY REGIONAL MEDICAL CENTER	Southeast Region	26, 33, 40, 47
UNIVERSITY OF ALABAMA AT BIRMINGHAM (UAB) HOSPITAL	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
WEDOWEE HOSPITAL	Northeast Region	25
WIREGRASS MEDICAL CENTER	Southeast Region	26, 33, 40, 47

Alabama Healthcare Data Advisory Council Members 2016

Scott Harris, M.D., Acting State Health Officer – Chair (term began 9/1/2017)

Thomas M. Miller, M.D., State Health Officer – Chair (term ended upon retirement 9/1/2017)

Alabama Hospital Association Appointees

Beth Anderson, Administrator, USA Medical Center (term ended 9/1/2017)

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

Keith Granger, President/CEO, Grandview Medical Center (term ended 9/1/2017)

Beth Goodall, Epidemiology Director, DCH Regional Medical Center

Roslyn Jett, Infection Preventionist, Huntsville Hospital

Donald Jones, Administrator, Fayette Medical Center

Patty Miller, Manager of Infection Control and Prevention, Baptist Medical Center South (term ended 9/1/2017)

Business Council of Alabama Appointees

Paul Graham, Grandview Medical Center

Donna Lawson, Brookwood Baptist Health

Mineral District Medical Society

William McCollum, M.D. (term ended 9/1/2017)

Governor Appointed Consumer Member

Elliot Lipinksy

Blue Cross and Blue Shield of Alabama Appointee

Susan Warren, Health Information Technology (term ended 9/1/2017)

Alabama Association of Health Plans Appointee

Michael O'Malley, Executive Director (term ended 9/1/2017)

State Health Officer Appointed Member from the Association for Professionals in Infection Control and Epidemiology

Alan M. Stamm, M.D.

Public Education Employees Health Insurance Plan Appointee

Diane Scott, Chief Financial Officer

State Employees Insurance Board Appointee

Keith Cox, CPA

Medical Association of the State of Alabama

Claude L. Kinzer, M.D. (term ended 7/25/2016)

Julia Boothe, M.D. (term ended 7/25/2016)

Randall Weaver, M.D. (term ended 7/25/2016)