

TECHNICAL REPORT FOR HEALTHCARE-ASSOCIATED INFECTIONS

A SUPPLEMENT TO THE HOSPITAL PERFORMANCE REPORT, NEW JERSEY 2014 DATA

**New Jersey Department of Health
Health Care Quality Assessment**

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Background

A. Healthcare-Associated Infections

Healthcare-Associated Infections (HAIs) are defined as infections acquired by patients while being treated in a healthcare setting. Healthcare settings include acute-care and specialty care hospitals, outpatient clinics, nursing homes, rehabilitation facilities and ambulatory surgery centers. HAIs contribute significantly to morbidity and mortality in the United States. The Centers for Disease Control and Prevention (CDC) conducted a large point-prevalence study in multiple states to provide an updated national estimate of HAIs in the United States. Survey findings indicated that approximately 1 in 25 hospital inpatients had at least one healthcare-associated infection. It is estimated that there were 722,000 HAIs in acute care hospitals in 2011¹. The estimated financial impact of HAIs is between \$28 billion and \$33 billion a year².

There are a number of causes of HAIs which include medical devices (i.e., catheters, implants, ventilators), surgical procedure complications, the overuse of antibiotics and improper hand hygiene. Approximately 75 percent of HAIs can be attributed to four infection categories:

1. [Surgical site infections](#);
2. [Central line-associated bloodstream infections](#);
3. [Ventilator-associated pneumonia](#), and;
4. [Catheter-associated urinary tract infections](#).

Two additional major contributors to HAIs are:

5. [Clostridium difficile](#), and;
6. [Methicillin-resistant Staphylococcus aureus \(MRSA\)](#)³.

The most common healthcare-associated infections are urinary tract infections (32 percent), followed by surgical site infections (22 percent), pneumonias (15 percent), and bloodstream infections (14 percent)¹.

B. HAI Surveillance in New Jersey

Reducing preventable HAIs has become a priority for New Jersey hospitals, healthcare providers, state legislators and healthcare policy professionals. Signed in 2007, the public reporting law (PL of 2007, C 196) requires hospitals to report HAI data to the New Jersey Department of Health and for the data to be published in the Hospital Performance Report.

Beginning January 1, 2009, all acute-care hospitals along with one specialty care hospital in New Jersey began submitting the following HAI data to the Department:

- Central Line-Associated Bloodstream Infections (CLABSIs) in adult, pediatric and neonatal critical care units.
- Surgical Site Infections following Abdominal Hysterectomy procedures.
- Surgical Site Infections following Coronary Artery Bypass Graft procedures.

In 2010, two additional HAIs were added to the surveillance efforts:

- Catheter-Associated Urinary Tract Infections in all adult critical care units.
- Surgical Site Infections following Knee arthroplasty.

In 2012, acute care hospitals began HAI surveillance for Surgical Site Infections following Colon surgery procedures.

C. Source of Healthcare-Associated Infection Data

The Centers for Disease Control and Prevention's (CDC) Division of Healthcare Quality Promotion (DHQP) implemented a public health surveillance system known as the National Healthcare Safety Network (NHSN) in 2005. The American Recovery and Reinvestment Act (ARRA) of 2009 provided the funding necessary to expand HAI surveillance and prevention efforts on both the national and state level. As a result, the NHSN system is used by various types of health care facilities in all 50 states, Washington, D.C. and Puerto Rico, to monitor patient safety, healthcare personnel safety and biovigilance. Currently, more than 18,000 healthcare facilities use the NHSN system and 34 states and the District of Columbia have mandates which require hospitals to report at least one HAI using NHSN⁴. The NHSN system is a secure, internet-based system. The 71 acute care hospitals as well as one specialty care hospital in New Jersey use the NHSN system to report and survey HAIs.

This year's report includes the following HAIs: Surgical Site Infections (SSIs) following Coronary Artery Bypass Graft (CABG), Abdominal Hysterectomy, Knee Arthroplasty and Colon surgery procedures, Central Line-Associated Bloodstream Infections (CLABSIs) that occurred in adult, pediatric and neonatal critical/intensive care units and Catheter-Associated Urinary Tract Infections (CAUTIs) that occurred in adult intensive care units. Hospitals were provided the opportunity to verify the accuracy of their data.

D. Standardized Infection Ratio

This report presents composite statistics summarizing SSI, CLABSI and CAUTI data at the hospital level. The data are summarized using the Standardized Infection Ratio (SIR), a statistic used to measure relative difference in HAI occurrence during a reporting period compared to a common reference period (i.e. standard population).

What is a Standardized Infection Ratio (SIR)?

The Standardized Infection Ratio (SIR) is a summary measure developed by CDC to be used to track HAIs at a national, state, local or hospital level over time. The SIR adjusts for the fact that each hospital treats different types of patients. The SIR compares the actual number of events reported by a hospital with the national baseline experience, adjusting for several risk factors that have been found to be significantly associated with differences in infection incidence^{5, 7}.

How is the SIR Calculated?

The SIR is calculated by applying the risk-adjustment method developed by CDC to the 2014 New Jersey data. Calculating the SIR is similar to the Standardized Mortality Ratio (SMR), a summary statistic frequently used in public health.

SIR is defined as the number of observed infections divided by the number of expected infections. The formula below depicts the calculation:

$$SIR = \frac{\text{Observed Number of Infections}}{\text{Expected Number of Infections}}$$

The table below provides an example of how a hospital's CLABSI data from four different locations can be summarized into a single risk-adjusted summary statistic, i.e., the SIR.

Type of ICU Location	Observed Number of CLABSI Events	Central Line-days	CLABSI Rate (per 1000 central-days)	NHSN Rate (per 1000 central-days)	Expected Number of CLABSI Events
Medical cardiac	2	380	5.26	2.0	0.76
Medical	1	257	3.89	2.6	0.67
Med/Surgical	3	627	4.78	1.5	0.94
Neurosurgical	2	712	2.81	2.5	1.78
<i>Total</i>	<i>8</i>	<i>1976</i>	<i>4.05</i>	<i>---</i>	<i>4.15</i>

$$\text{Overall CLABSI SIR} = \text{Observed/Expected} = 8/4.15 = 1.93$$

The "observed" number of CLABSI events is the number of CLABSI events that occurred in an ICU or CCU in a hospital. The greater the total number of days that patients have central lines inserted (central line-days), the more CLABSI events are likely to occur.

The “expected” number of CLABSI events for an ICU or CCU is calculated by multiplying the total count of central line-days in the ICU or CCU by the NHSN rate and dividing by 1000. The NHSN rate is based on 2006-2008 NHSN aggregate data. CLABSI rates were stratified by type of patient care locations and, in some cases, also by type of hospital or bed size of the patient-care locations^{5, 6}. The expected numbers of CLABSI events from all adult and pediatric ICUs and CCUs in a hospital are then summarized and used as the denominator for the overall SIR for the hospital.

The “expected” number of CLABSI events shows the number of CLABSI events that would have occurred if the hospital’s performance had been the same as the national experience.

Following the NHSN methodology, the SIRs are calculated only if the number of expected events is ≥ 1 . When the number of expected events is < 1 , comparisons are not precise⁷. SIRs for CAUTIs and SSIs are calculated in a similar manner.

How to interpret the SIR?

In trying to determine a hospital’s performance, it is important to account for the fact that some differences occur simply due to chance or random variation. As shown in the tables, 95% confidence intervals are used to determine whether a hospital’s SIR is statistically significantly higher or lower than 1.0.

The hospital SIRs are compared to the national experience, which is a baseline SIR of 1.0. The results are summarized under the column, National Comparison. This column classifies the hospitals’ performances by “L” as “Lower than Expected”, the letter “S” as “Similar to Expected”, or “H” as “Higher than Expected”.

A hospital’s SIR is statistically significantly lower than 1.0 if the upper limit of its 95% confidence interval falls completely below 1.0. The National Comparison column for the hospital is noted with the letter L. This means fewer events were observed than expected, adjusting for differences in the types of patients treated. The hospital performed better than the national baseline experience.

A hospital’s SIR is statistically significantly higher than 1.0 if the lower limit of its 95% confidence interval falls completely above 1.0. The National Comparison column for the hospital is noted with the letter H. This means more events were observed than expected, adjusting for differences in the types of patients treated. The hospital performed worse than the national baseline experience.

A hospital’s SIR is not statistically different from 1.0 if its 95% confidence interval includes 1.0. The National Comparison column for the hospital is noted with the letter S. This means similar number of events was observed as expected, adjusting for differences in the types of patients treated. The hospital performed similar to the national baseline experience.

In examining the table, some SIRs may appear lower than others but are considered "Similar" while other SIRs may appear higher but the National Comparison indicates "Lower." When using this report, it is important to remember that the data in the tables are designed to show whether a hospital's SIR is statistically significantly above, below or the same as the national baseline. Therefore, it is more important to view the confidence intervals in relation to the national baseline SIR of 1.0 and not make hospital-to-hospital comparisons.

E. Data Limitations

Please keep in mind some of the following issues before making conclusions about a hospital:

- Hospitals reviewed and verified the data used in this report is the data that was reported to the NHSN system.
- The risk-adjustment method may not fully capture how sick patients are in certain hospitals and locations. For example, the medical intensive care unit patients in one hospital might be intrinsically at greater risk for HAI compared to the medical intensive care unit patients from the national experience. Therefore, it is important to use caution when interpreting hospital HAI data.
- A hospital which performed lower than the National Comparison, does not necessarily mean the hospital is better but that they may need to improve their HAI surveillance protocols. Conversely, a hospital which performed higher than the National Comparison is not necessarily a poor performer. This hospital could have better infection surveillance practices and processes instituted throughout their facility.

Table 1: 2014 Central Line-Associated Bloodstream Infections (CLABSI)

HOSPITAL NAME	Observed # of CLABSI (O)	Number of Central Line Days	Expected # of CLABSI (E) ^a	CLABSI SIR ^b	p-value	95 % Confidence Interval	National Comparison [‡]
AtlantiCare Regional Medical Center-City Campus	7	2841	7.47	0.94	0.91	(0.410, 1.854)	S
AtlantiCare Regional Medical Center-Mainland Campus	11	5628	9.44	1.17	0.59	(0.613, 2.026)	S
Bayonne Medical Center	0	997	1.50	0.00	0.22	(---, 2.003)	S
Bayshore Community Hospital	4	2077	3.12	1.28	0.58	(0.408, 3.097)	S
Bergen Regional Medical Center	0	555	1.05	0.00	0.35	(---,2.841)	S
Cape Regional Medical Center	0	963	1.44	0.00	0.24	(---,2.074)	S
Capital Health Medical Center - Hopewell	1	2862	4.64	0.22	0.06	(0.011, 1.063)	S
Capital Health Regional Medical Center (RMC)	7	5600	11.07	0.63	0.21	(0.277, 1.251)	S
Centrastate Medical Center	4	1287	2.45	1.64	0.33	(0.520, 3.946)	S
Chilton Memorial Hospital	0	2304	3.46	0.00	0.03	(---,0.867)	L
Christ Hospital	4	1899	2.85	1.40	0.48	(0.446, 3.387)	S
Clara Maass Medical Center	3	5363	10.78	0.28	0.01	(0.071, 0.758)	L
Community Medical Center	2	3919	8.08	0.25	0.02	(0.041, 0.818)	L
Deborah Heart and Lung Center	6	2384	5.06	1.19	0.64	(0.481, 2.467)	S
East Orange General Hospital	1	2719	4.08	0.25	0.10	(0.012, 1.209)	S
Englewood Hospital and Medical Center	0	3208	5.81	0.00	0.00	(---,0.516)	L
Hackensack UMC Mountainside	5	1543	3.97	1.26	0.57	(0.462, 2.795)	S
Hackensack University Medical Center	15	12231	25.98	0.58	0.02	(0.336, 0.931)	L
HackensackUMC at Pascack Valley	1	757	1.14	0.88	1.00	(0.044, 4.343)	S
Hackettstown Regional Medical Center	0	746	1.12	0.00	0.33	(---,2.677)	S
Hoboken University Medical Center	0	1047	1.57	0.00	0.21	(---,1.908)	S
Holy Name Hospital	3	2883	4.32	0.69	0.57	(0.176, 1.888)	S
Hunterdon Medical Center	1	1896	3.98	0.25	0.11	(0.013, 1.239)	S
Inspira Medical Center Elmer	0	290	0.55	---	---	---	---
Inspira Medical Center Vineland	8	3067	7.59	1.05	0.84	(0.489, 2.001)	S
Inspira Woodbury Medical Center	1	2552	3.83	0.26	0.13	(0.013, 1.288)	S
J.F.K. Medical Center	6	6876	12.08	0.50	0.06	(0.201, 1.033)	S
Jersey City Medical Center	4	8584	16.89	0.24	0.00	(0.075, 0.571)	L

HOSPITAL NAME	Observed # of CLABSI (O)	Number of Central Line Days	Expected # of CLABSI (E) ^a	CLABSI SIR ^b	p-value	95 % Confidence Interval	National Comparison [‡]
Jersey Shore University Medical Center	7	10216	20.05	0.35	0.00	(0.153, 0.690)	L
Kennedy Health System	0	797	1.67	0.00	0.19	(---,1.790)	S
Kennedy Health System-Cherry Hill	2	1458	3.39	0.59	0.49	(0.099, 1.949)	S
Kennedy Health System-Washington Township Campus	3	2594	6.42	0.47	0.16	(0.119, 1.273)	S
Lourdes Medical Center Burlington County	1	1553	2.33	0.43	0.42	(0.021, 2.117)	S
Meadowlands Hospital Medical Center	0	801	1.20	0.00	0.30	(---,2.493)	S
Memorial Hospital of Salem County	1	621	0.93	---	---	---	---
Monmouth Medical Center	4	2627	6.10	0.66	0.41	(0.208, 1.582)	S
Monmouth Medical Center-- Southern Campus	1	912	1.37	0.73	0.86	(0.037, 3.605)	S
Morristown Medical Center	12	11424	24.16	0.50	0.01	(0.269, 0.845)	L
Newark Beth Israel Medical Center	12	17846	39.10	0.31	0.00	(0.166, 0.522)	L
Newton Medical Center	3	1014	2.03	1.48	0.48	(0.376, 4.026)	S
Ocean Medical Center	4	3325	4.99	0.80	0.71	(0.255, 1.935)	S
Our Lady of Lourdes Medical Center	5	6701	10.78	0.46	0.06	(0.170, 1.028)	S
Overlook Hospital	8	7446	16.48	0.49	0.02	(0.225, 0.922)	L
Palisades Medical Center	1	1884	3.26	0.31	0.20	(0.015, 1.512)	S
Raritan Bay Medical Center-Old Bridge	1	1402	2.10	0.48	0.50	(0.024, 2.345)	S
Raritan Bay Medical Center-Perth Amboy	2	2810	5.78	0.35	0.09	(0.058, 1.143)	S
Riverview Medical Center	3	1385	2.08	1.44	0.50	(0.367, 3.930)	S
Robert Wood Johnson University Hospital	23	14632	36.30	0.63	0.02	(0.411, 0.936)	L
Robert Wood Johnson University Hospital at Rahway	0	3070	6.45	0.00	0.00	(---,0.465)	L
Robert Wood Johnson University Hospital Hamilton	5	3042	4.56	1.10	0.79	(0.401, 2.429)	S
Robert Wood Johnson University Hospital Somerset	1	1978	3.86	0.26	0.12	(0.013, 1.277)	S
Saint Barnabas Medical Center	7	9772	23.75	0.30	0.00	(0.129, 0.583)	L
Saint Clare's Health System	0	805	1.20	0.00	0.30	(---,2.497)	S
Saint Clare's Hospital Dover	1	481	0.72	---	---	---	---
Saint Joseph's Regional Medical Center	15	10941	28.96	0.52	0.01	(0.301, 0.835)	L
Saint Peter's University Hospital	3	4801	11.95	0.25	0.00	(0.064, 0.683)	L
Shore Medical Center	1	1630	2.45	0.41	0.39	(0.020, 2.017)	S
Southern Ocean Medical Center	2	1081	2.05	0.97	1.00	(0.163, 3.217)	S
St. Francis Medical Center	1	2973	4.66	0.22	0.06	(0.011, 1.059)	S
St. Joseph's Wayne Hospital	2	2361	4.96	0.40	0.17	(0.068, 1.333)	S

HOSPITAL NAME	Observed # of CLABSI (O)	Number of Central Line Days	Expected # of CLABSI (E) ^a	CLABSI SIR ^b	p-value	95 % Confidence Interval	National Comparison [‡]
St. Luke's-Warren Hospital	1	897	1.35	0.74	0.87	(0.037, 3.665)	S
St. Mary's Hospital	2	2069	3.10	0.64	0.58	(0.108, 2.129)	S
St. Michael's Medical Center	10	3893	6.69	1.50	0.22	(0.759, 2.665)	S
The Cooper Health System	28	12117	31.15	0.90	0.59	(0.609, 1.282)	S
The Valley Hospital	19	5390	8.98	2.12	0.00	(1.312, 3.244)	H
Trinitas Regional Medical Center	11	4275	6.41	1.72	0.09	(0.902, 2.982)	S
UMDNJ-University Hospital	14	7260	18.64	0.75	0.28	(0.427, 1.230)	S
University Medical Center of Princeton at Plainsboro	1	1550	2.33	0.43	0.42	(0.022, 2.121)	S
Virtua - WJH - Berlin	0	256	0.38	---	---	---	---
Virtua Health West Jersey Marlton	1	2536	3.80	0.26	0.13	(0.013, 1.297)	S
Virtua Memorial Hospital	0	3264	4.90	0.00	0.01	(---,0.612)	L
Virtua Voorhees	1	3840	6.94	0.14	0.01	(0.007, 0.710)	L
Statewide ICU	272	239934	473.66	0.57	0.00	(0.509, 0.646)	L
Statewide NICU	41	28874	72.40	0.57	0.00	(0.412, 0.761)	L
Statewide	313	268808	546.06	0.57	0.00	(0.512, 0.639)	L

Source: New Jersey Healthcare-Associated Infections for 2014 submitted through the National Healthcare Safety Network (NHSN).

^a Expected (E)= # of infections predicted using risk-adjusted model fitted from the NHSN data from 2006-2008 for CLABSI data.

Important to note that if Expected is <1, the SIR is not calculated as the result is not precise.

^b Standardized Infection Ratio (SIR)= Observed (O)/ Expected (E)

[‡] Each hospital is compared to the National Ratio=1 which is derived using the CDC's NHSN data from 2006-2008 for CLABSI (AJIC, December 2009).

L indicates hospital infections are LOWER than infections seen nationally.

H indicates hospital infections are HIGHER than infections seen nationally.

S indicates hospital infections are SIMILAR to infections seen nationally.

– SIR is not calculated because the Expected is < 1.

Table 2: 2014 Catheter-Associated Bloodstream Infections (CAUTI)

HOSPITAL NAME	Observed # of CAUTI (O)	Number of Catheter Days	Expected # of CAUTI (E) ^a	CAUTI SIR ^b	p-value	95 % Confidence Interval	National Comparison [‡]
AtlantiCare Regional Medical Center-City Campus	22	4324	11.28	1.95	0.00	(1.253, 2.904)	H
AtlantiCare Regional Medical Center-Mainland Campus	16	5179	9.65	1.66	0.06	(0.982, 2.636)	S
Bayonne Medical Center	1	1601	2.08	0.48	0.51	(0.024, 2.370)	S
Bayshore Community Hospital	5	3181	3.82	1.31	0.52	(0.480, 2.903)	S
Bergen Regional Medical Center	0	721	1.44	0.00	0.24	(---,2.077)	S
Cape Regional Medical Center	1	2417	2.90	0.35	0.27	(0.017, 1.700)	S
Capital Health Medical Center - Hopewell	19	3279	4.79	3.97	0.00	(2.459, 6.081)	H
Capital Health Regional Medical Center (RMC)	37	6215	17.10	2.16	0.00	(1.546, 2.952)	H
Centrastate Medical Center	12	2874	5.75	2.09	0.02	(1.131, 3.549)	H
Chilton Memorial Hospital	9	2855	3.71	2.43	0.02	(1.183, 4.450)	H
Christ Hospital	3	2181	2.62	1.15	0.75	(0.292, 3.120)	S
Clara Maass Medical Center	3	6890	14.90	0.20	0.00	(0.051, 0.548)	L
Community Medical Center	9	7839	17.41	0.52	0.03	(0.252, 0.948)	L
Deborah Heart and Lung Center	0	3202	7.43	0.00	0.00	(---,0.403)	L
East Orange General Hospital	1	2503	3.25	0.31	0.20	(0.015, 1.516)	S
Englewood Hospital and Medical Center	4	3860	8.03	0.50	0.14	(0.158, 1.201)	S
Hackensack UMC Mountainside	10	2418	5.62	1.78	0.09	(0.903, 3.171)	S
Hackensack University Medical Center	17	11717	25.80	0.66	0.07	(0.397, 1.034)	S
HackensackUMC at Pascack Valley	4	1495	1.79	2.23	0.14	(0.708, 5.378)	S
Hackettstown Regional Medical Center	1	1042	1.35	0.74	0.87	(0.037, 3.641)	S
Hoboken University Medical Center	1	1715	2.23	0.45	0.46	(0.022, 2.212)	S
Holy Name Hospital	1	4032	4.84	0.21	0.05	(0.010, 1.019)	S
Hunterdon Medical Center	10	2564	5.90	1.70	0.12	(0.861, 3.023)	S
Inspira Medical Center Elmer	3	724	1.45	2.07	0.24	(0.527, 5.639)	S
Inspira Medical Center Vineland	7	4580	11.04	0.63	0.22	(0.277, 1.255)	S
Inspira Woodbury Medical Center	2	3417	4.44	0.45	0.24	(0.075, 1.488)	S
J.F.K. Medical Center	15	7342	11.79	1.27	0.35	(0.739, 2.052)	S
Jersey City Medical Center	4	9024	18.66	0.21	0.00	(0.068, 0.517)	L
Jersey Shore University Medical Center	33	10788	22.63	1.46	0.04	(1.020, 2.024)	H
Kennedy Health System	1	1324	3.05	0.33	0.24	(0.016, 1.620)	S

HOSPITAL NAME	Observed # of CAUTI (O)	Number of Catheter Days	Expected # of CAUTI (E) ^a	CAUTI SIR ^b	p-value	95 % Confidence Interval	National Comparison [‡]
Kennedy Health System-Cherry Hill	9	2239	5.15	1.75	0.12	(0.852, 3.207)	S
Kennedy Health System-Washington Township Campus	7	3368	8.28	0.85	0.70	(0.370, 1.672)	S
Lourdes Medical Center Burlington County	4	2459	2.95	1.36	0.52	(0.431, 3.270)	S
Meadowlands Hospital Medical Center	4	1271	1.65	2.42	0.11	(0.769, 5.839)	S
Memorial Hospital of Salem County	1	1184	1.54	0.65	0.76	(0.033, 3.204)	S
Monmouth Medical Center	8	2328	5.37	1.49	0.27	(0.692, 2.828)	S
Monmouth Medical Center-- Southern Campus	2	1558	1.87	1.07	0.85	(0.179, 3.534)	S
Morristown Medical Center	51	12361	27.62	1.85	0.00	(1.390, 2.409)	H
Newark Beth Israel Medical Center	20	8518	18.33	1.09	0.67	(0.685, 1.655)	S
Newton Medical Center	2	2204	4.41	0.45	0.25	(0.076, 1.499)	S
Ocean Medical Center	13	5295	6.35	2.05	0.02	(1.138, 3.411)	H
Our Lady of Lourdes Medical Center	11	5843	8.92	1.23	0.47	(0.649, 2.144)	S
Overlook Hospital	56	7805	22.79	2.46	0.00	(1.874, 3.167)	H
Palisades Medical Center	0	2125	2.76	0.00	0.06	(---,1.084)	S
Raritan Bay Medical Center-Old Bridge	2	1379	1.79	1.12	0.80	(0.187, 3.686)	S
Raritan Bay Medical Center-Perth Amboy	10	2370	5.14	1.95	0.05	(0.988, 3.468)	S
Riverview Medical Center	3	3198	3.84	0.78	0.73	(0.199, 2.128)	S
Robert Wood Johnson University Hospital	62	12016	29.81	2.08	0.00	(1.608, 2.649)	H
Robert Wood Johnson University Hospital at Rahway	0	2993	6.88	0.00	0.00	(---,0.435)	L
Robert Wood Johnson University Hospital Hamilton	3	3527	4.23	0.71	0.60	(0.180, 1.929)	S
Robert Wood Johnson University Hospital Somerset	21	2724	5.45	3.86	0.00	(2.450, 5.792)	H
Saint Barnabas Medical Center	10	8507	20.57	0.49	0.01	(0.247, 0.866)	L
Saint Clare's Health System	0	1390	1.67	0.00	0.19	(---,1.796)	S
Saint Clare's Hospital Dover	1	941	1.22	0.82	0.95	(0.041, 4.032)	S
Saint Joseph's Regional Medical Center	19	11537	28.27	0.67	0.07	(0.417, 1.030)	S
Saint Peter's University Hospital	11	3832	8.90	1.24	0.47	(0.650, 2.148)	S
Shore Medical Center	6	1998	2.40	2.50	0.05	(1.014, 5.205)	H
Southern Ocean Medical Center	4	1713	3.43	1.17	0.71	(0.371, 2.816)	S
St. Francis Medical Center	1	2708	4.17	0.24	0.10	(0.012, 1.182)	S
St. Joseph's Wayne Hospital	5	3003	6.91	0.72	0.49	(0.265, 1.605)	S

HOSPITAL NAME	Observed # of CAUTI (O)	Number of Catheter Days	Expected # of CAUTI (E) ^a	CAUTI SIR ^b	p-value	95 % Confidence Interval	National Comparison [‡]
St. Luke's-Warren Hospital	2	941	1.22	1.64	0.47	(0.274, 5.402)	S
St. Mary's Hospital	4	3956	4.75	0.84	0.79	(0.268, 2.032)	S
St. Michael's Medical Center	17	3994	7.54	2.25	0.00	(1.356, 3.534)	H
The Cooper Health System	46	13623	35.84	1.28	0.10	(0.951, 1.697)	S
The Valley Hospital	11	3989	6.32	1.74	0.09	(0.916, 3.027)	S
Trinitas Regional Medical Center	21	5372	6.45	3.26	0.00	(2.070, 4.895)	H
UMDNJ-University Hospital	42	9322	28.88	1.45	0.02	(1.062, 1.947)	H
University Medical Center of Princeton at Plainsboro	0	3086	3.70	0.00	0.02	(---,0.809)	L
Virtua - WJH - Berlin	0	513	0.67	---	---	---	---
Virtua Health West Jersey Marlton	1	3515	4.22	0.24	0.09	(0.012, 1.169)	S
Virtua Health West Jersey Marlton	1	3515	4.22	0.24	0.09	(0.012, 1.169)	S
Virtua Memorial Hospital	5	5123	6.15	0.81	0.69	(0.298, 1.803)	S
Virtua Voorhees	4	3499	4.19	0.95	0.99	(0.303, 2.302)	S
Statewide	750	300630	599.33	1.25	0.00	(1.164, 1.343)	H

Source: New Jersey Healthcare-Associated Infections for 2014 submitted through the National Healthcare Safety Network (NHSN).

^a Expected (E)= # of infections predicted using risk-adjusted model fitted from the NHSN data from 2009 for CAUTI data.

Important to note that if Expected is <1, the SIR is not calculated as the result is not precise.

^b Standardized Infection Ratio (SIR)= Observed (O)/ Expected (E)

[‡] Each hospital is compared to the National Ratio=1.

The National Ratio is derived using the CDCs NHSN data from 2009 for CAUTI due to a definition change (AJIC, 2010).

L indicates hospital infections are LOWER than infections seen nationally.

H indicates hospital infections are HIGHER than infections seen nationally.

S indicates hospital infections are SIMILAR to infections seen nationally.

– SIR is not calculated because the Expected is < 1.

Table 3: 2014 Abdominal Hysterectomy Surgical Site Infections

Hospital Name	Procedure Count	Observed # of Abdominal Hysterectomy Infections (O)	Expected # of Abdominal Hysterectomy Infections (E) ^a	SIR ^b	p-value	95% Confidence Interval	National Comparison [†]
AtlantiCare Regional Medical Center-City Campus	31	1	0.28	---	---	---	---
AtlantiCare Regional Medical Center-Mainland Campus	74	0	0.52	---	---	---	---
Bayonne Medical Center	4	0	0.02	---	---	---	---
Bayshore Community Hospital	4	0	0.03	---	---	---	---
Cape Regional Medical Center	41	1	0.24	---	---	---	---
Capital Health Medical Center - Hopewell	113	0	1.04	0.00	0.36	(---,2.892)	S
Capital Health Regional Medical Center (RMC)	10	1	0.10	---	---	---	---
Centrastate Medical Center	76	0	0.56	---	---	---	---
Chilton Memorial Hospital	14	0	0.17	---	---	---	---
Christ Hospital	86	0	0.69	---	---	---	---
Clara Maass Medical Center	70	2	0.50	---	---	---	---
Community Medical Center	214	4	1.19	3.35	0.04	(---)	H
East Orange General Hospital	4	0	0.03	---	---	---	---
Englewood Hospital and Medical Center	87	0	0.61	---	---	---	---
Hackensack UMC Mountainside	214	3	1.61	1.87	0.30	(---)	S
Hackensack University Medical Center	450	2	3.46	0.58	0.47	(0.443, 4.741)	S
HackensackUMC at Pascack Valley	4	0	0.03	---	---	---	---
Hackettstown Regional Medical Center	7	0	0.03	---	---	---	---
Hoboken University Medical Center	47	0	0.34	---	---	---	---
Holy Name Hospital	192	0	1.43	0.00	0.24	(---,2.096)	S
Hunterdon Medical Center	18	0	0.13	---	---	---	---
Inspira Medical Center Elmer	12	0	0.10	---	---	---	---
Inspira Medical Center Vineland	260	1	2.77	0.36	0.30	(0.097, 1.902)	S
Inspira Woodbury Medical Center	88	1	0.84	---	---	---	---
J.F.K. Medical Center	142	0	0.84	---	---	---	---
Jersey City Medical Center	45	1	0.37	---	---	---	---
Jersey Shore University Medical Center	191	2	1.50	1.34	0.63	(---)	S
Kennedy Health System	18	0	0.14	---	---	---	---
Kennedy Health System-Cherry Hill	1	0	0.01	---	---	---	---
Kennedy Health System-Washington Township Campus	144	1	1.30	0.77	0.90	(---)	S
Lourdes Medical Center Burlington County	22	0	0.14	---	---	---	---
Meadowlands Hospital Medical Center	45	0	0.27	---	---	---	---

Hospital Name	Procedure Count	Observed # of Abdominal Hysterectomy Infections (O)	Expected # of Abdominal Hysterectomy Infections (E) ^a	SIR ^b	p-value	95% Confidence Interval	National Comparison [‡]
Memorial Hospital of Salem County	28	0	0.18	---	---	---	---
Monmouth Medical Center	284	2	2.38	0.84	0.89	(---)	S
Monmouth Medical Center-- Southern Campus	9	0	0.04	---	---	---	---
Morristown Medical Center	550	3	2.63	1.14	0.76	(0.017, 1.690)	S
Newark Beth Israel Medical Center	271	1	2.92	0.34	0.27	(---)	S
Newton Medical Center	38	0	0.22	---	---	---	---
Ocean Medical Center	79	0	0.65	---	---	---	---
Our Lady of Lourdes Medical Center	56	1	0.47	---	---	---	---
Overlook Hospital	145	0	0.70	---	---	---	---
Palisades Medical Center	17	0	0.09	---	---	---	---
Raritan Bay Medical Center-Old Bridge	1	0	0.00	---	---	---	---
Raritan Bay Medical Center-Perth Amboy	60	0	0.41	---	---	---	---
Riverview Medical Center	204	1	1.47	0.68	0.80	(---)	S
Robert Wood Johnson University Hospital	344	8	3.20	2.50	0.02	(---)	H
Robert Wood Johnson University Hospital Hamilton	51	0	0.34	---	---	---	---
Robert Wood Johnson University Hospital Somerset	74	1	0.43	---	---	---	---
Saint Barnabas Medical Center	613	5	2.71	1.85	0.20	(---)	S
Saint Clare's Health System	49	0	0.31	---	---	---	---
Saint Clare's Hospital Dover	1	0	0.00	---	---	---	---
Saint Joseph's Regional Medical Center	108	0	0.67	---	---	---	---
Saint Peter's University Hospital	252	2	1.97	1.01	0.90	(---)	S
Shore Medical Center	51	0	0.36	---	---	---	---
Southern Ocean Medical Center	21	0	0.14	---	---	---	---
St. Joseph's Wayne Hospital	12	0	0.09	---	---	---	---
St. Luke's-Warren Hospital	9	0	0.08	---	---	---	---
St. Mary's Hospital	74	0	0.46	---	---	---	---
St. Michael's Medical Center	101	1	0.75	---	---	---	---
The Cooper Health System	455	7	3.28	2.14	0.07	(---)	S
The Valley Hospital	112	2	0.71	---	---	---	---
Trinitas Regional Medical Center	169	1	1.59	0.63	0.73	(---)	S
UMDNJ-University Hospital	62	0	0.89	---	---	---	---
University Medical Center of Princeton at Plainsboro	165	0	1.31	0.00	0.27	(---,2.290)	S
Virtua Memorial Hospital	192	3	1.72	1.74	0.35	(---)	S

Hospital Name	Procedure Count	Observed # of Abdominal Hysterectomy Infections (O)	Expected # of Abdominal Hysterectomy Infections (E) ^a	SIR ^b	p-value	95% Confidence Interval	National Comparison [‡]
Virtua Voorhees	413	2	3.47	0.58	0.46	(---)	S
Statewide	7798	60	57.92	1.04	0.77	(0.798, 1.324)	S

Source: New Jersey Healthcare-Associated Infections for 2014 submitted through the National Healthcare Safety Network (NHSN).

^a Expected (E)= # of infections predicted using the model fitted from the NHSN data from 2006-2008 which serves as the baseline for future reports.

Important to note that if Expected is <1, the SIR is not calculated as the result is not precise.

^b Standardized Infection Ratio (SIR)= Observed (O)/ Expected (E)

[‡] Each hospital is compared to the National Ratio=1. The National Ratio is derived using the CDC's NHSN data from 2006-2008 (AJIC, December 2009).

L indicates hospital infections are LOWER than infections seen nationally.

H indicates hospital infections are HIGHER than infections seen nationally.

S indicates hospital infections are SIMILAR to infections seen nationally.

– SIR is not calculated because the Expected is < 1.

Table 4: 2014 Knee Arthroplasty Surgical Site Infections

Hospital Name	Procedure Count	Observed # of Knee Arthroplasty Infections (O)	Expected # of Knee Arthroplasty Infections (E) ^a	SIR ^b	p-value	95% Confidence Interval	National Comparison [‡]
AtlantiCare Regional Medical Center-Mainland Campus	1321	7	9.32	0.75	0.47	(0.329, 1.486)	S
Bayonne Medical Center	12	0	0.11	---	---	---	---
Bayshore Community Hospital	52	0	0.42	---	---	---	---
Bergen Regional Medical Center	1	0	0.01	---	---	---	---
Cape Regional Medical Center	91	1	0.43	---	---	---	---
Capital Health Medical Center - Hopewell	288	1	1.74	0.58	0.66	(0.029, 2.835)	S
Capital Health Regional Medical Center (RMC)	12	0	0.10	---	---	---	---
Centrastate Medical Center	170	1	1.02	0.98	1.00	(0.049, 4.849)	S
Chilton Memorial Hospital	265	0	1.63	0.00	0.20	(---,1.840)	S
Christ Hospital	13	0	0.09	---	---	---	---
Clara Maass Medical Center	156	1	1.27	0.79	0.92	(0.039, 3.874)	S
Community Medical Center	364	1	2.50	0.40	0.37	(0.020, 1.970)	S
East Orange General Hospital	16	0	0.17	---	---	---	---
Englewood Hospital and Medical Center	233	0	1.39	0.00	0.25	(---,2.162)	S
Hackensack UMC Mountainside	82	0	0.65	---	---	---	---
Hackensack University Medical Center	1178	5	8.30	0.60	0.25	(0.221, 1.335)	S
HackensackUMC at Pascack Valley	41	0	0.21	---	---	---	---
Hackettstown Regional Medical Center	72	0	0.30	---	---	---	---
Hoboken University Medical Center	56	0	0.53	---	---	---	---
Holy Name Hospital	373	2	2.86	0.70	0.68	(0.117, 2.312)	S
Hunterdon Medical Center	177	1	1.43	0.70	0.82	(0.035, 3.439)	S
Inspira Medical Center Elmer	110	0	0.54	---	---	---	---
Inspira Medical Center Vineland	164	1	1.44	0.69	0.82	(0.035, 3.425)	S
Inspira Woodbury Medical Center	119	2	1.07	1.88	0.38	(0.314, 6.194)	S
J.F.K. Medical Center	194	0	1.44	0.00	0.24	(---,2.085)	S
Jersey City Medical Center	100	0	0.96	---	---	---	---
Jersey Shore University Medical Center	296	1	3.33	0.30	0.19	(0.015, 1.481)	S
Kennedy Health System	14	0	0.11	---	---	---	---
Kennedy Health System-Cherry Hill	37	0	0.23	---	---	---	---
Kennedy Health System-Washington Township Campus	494	2	3.06	0.66	0.60	(0.110, 2.163)	S
Lourdes Medical Center Burlington County	46	0	0.28	---	---	---	---

Hospital Name	Procedure Count	Observed # of Knee Arthroplasty Infections (O)	Expected # of Knee Arthroplasty Infections (E) ^a	SIR ^b	p-value	95% Confidence Interval	National Comparison [‡]
Meadowlands Hospital Medical Center	21	0	0.15	---	---	---	---
Memorial Hospital of Salem County	3	0	0.02	---	---	---	---
Monmouth Medical Center	348	1	3.08	0.33	0.23	(0.016, 1.601)	S
Monmouth Medical Center-- Southern Campus	13	0	0.08	---	---	---	---
Morristown Medical Center	1205	0	7.22	0.00	0.00	(---,0.415)	S
Newark Beth Israel Medical Center	81	0	0.58	---	---	---	---
Newton Medical Center	113	0	0.52	---	---	---	---
Ocean Medical Center	514	0	2.79	0.00	0.06	(---,1.075)	S
Our Lady of Lourdes Medical Center	38	0	0.41	---	---	---	---
Overlook Hospital	443	0	2.50	0.00	0.08	(---,1.199)	S
Palisades Medical Center	13	0	0.09	---	---	---	---
Raritan Bay Medical Center-Old Bridge	18	0	0.10	---	---	---	---
Raritan Bay Medical Center-Perth Amboy	29	0	0.17	---	---	---	---
Riverview Medical Center	323	2	3.53	0.57	0.45	(0.095, 1.871)	S
Robert Wood Johnson University Hospital	312	2	2.32	0.86	0.92	(0.145, 2.852)	S
Robert Wood Johnson University Hospital at Rahway	44	0	0.30	---	---	---	---
Robert Wood Johnson University Hospital Hamilton	317	3	1.83	1.64	0.39	(0.418, 4.469)	S
Robert Wood Johnson University Hospital Somerset	218	4	1.53	2.62	0.09	(0.831, 6.312)	S
Saint Barnabas Medical Center	264	0	1.64	0.00	0.20	(---,1.832)	S
Saint Clare's Health System	150	5	0.92	---	---	---	---
Saint Clare's Hospital Dover	14	0	0.06	---	---	---	---
Saint Joseph's Regional Medical Center	119	0	1.15	0.00	0.32	(---,2.600)	S
Saint Peter's University Hospital	182	0	1.40	0.00	0.25	(---,2.138)	S
Shore Medical Center	385	1	2.10	0.48	0.50	(0.024, 2.344)	S
Southern Ocean Medical Center	64	0	0.38	---	---	---	---
St. Francis Medical Center	15	0	0.16	---	---	---	---
St. Joseph's Wayne Hospital	85	0	0.57	---	---	---	---
St. Luke's-Warren Hospital	94	0	0.56	---	---	---	---
St. Mary's Hospital	22	0	0.16	---	---	---	---
St. Michael's Medical Center	75	0	0.68	---	---	---	---
The Cooper Health System	183	2	1.50	1.33	0.63	(0.223, 4.404)	S
The Valley Hospital	419	2	2.47	0.81	0.84	(0.136, 2.673)	S
Trinitas Regional Medical Center	55	0	0.64	---	---	---	---

Hospital Name	Procedure Count	Observed # of Knee Arthroplasty Infections (O)	Expected # of Knee Arthroplasty Infections (E) ^a	SIR ^b	p-value	95% Confidence Interval	National Comparison [‡]
UMDNJ-University Hospital	24	0	0.30	---	---	---	---
University Medical Center of Princeton at Plainsboro	555	3	3.68	0.82	0.79	(0.207, 2.217)	S
Virtua Health West Jersey Marlton	518	3	2.71	1.11	0.80	(0.282, 3.013)	S
Virtua Memorial Hospital	74	1	0.46	---	---	---	---
Virtua Voorhees	1429	3	6.67	0.45	0.14	(0.114, 1.224)	S
Statewide	15326	58	102.31	0.57	0.00	(0.434, 0.728)	L

Source: New Jersey Healthcare-Associated Infections for 2014 submitted through the National Healthcare Safety Network (NHSN).

^a Expected (E)= # of infections predicted using the model fitted from the NHSN data from 2006-2008 which serves as the baseline for future reports.

Important to note that if Expected is <1, the SIR is not calculated as the result is not precise.

^b Standardized Infection Ratio (SIR)= Observed (O)/ Expected (E)

[‡] Each hospital is compared to the National Ratio=1. The National Ratio is derived using the CDC's NHSN data from 2006-2008 (AJIC, December 2009).

L indicates hospital infections are LOWER than infections seen nationally.

H indicates hospital infections are HIGHER than infections seen nationally.

S indicates hospital infections are SIMILAR to infections seen nationally.

– SIR is not calculated because the Expected is < 1.

Table 5: 2014 Colon Surgical Site Infections

Hospital Name	Procedure Count	Observed # of Colon Surgical Site Infections (O)	Expected # of Colon Surgical Site Infections (E) ^a	SIR ^b	p-value	95% Confidence Interval	National Comparison [‡]
AtlantiCare Regional Medical Center-City Campus	80	0	2.28	0.00	0.10	(---, 1.311)	S
AtlantiCare Regional Medical Center-Mainland Campus	74	0	1.99	0.00	0.14	(---,1.504)	S
Bayonne Medical Center	64	1	2.04	0.49	0.53	(0.025, 2.417)	S
Bayshore Community Hospital	54	0	1.61	0.00	0.20	(---,1.860)	S
Bergen Regional Medical Center	6	0	0.13	---	---	---	---
Cape Regional Medical Center	70	1	1.70	0.59	0.68	(0.029, 2.908)	S
Capital Health Medical Center - Hopewell	107	9	2.58	3.49	0.00	(1.702, 6.404)	H
Capital Health Regional Medical Center (RMC)	38	3	1.11	2.70	0.13	(0.686, 7.337)	S
Centrastate Medical Center	150	7	4.72	1.48	0.30	(0.648, 2.933)	S
Chilton Memorial Hospital	126	2	3.79	0.53	0.38	(0.089, 1.745)	S
Christ Hospital	41	0	1.00	0.00	0.37	(---,2.987)	S
Clara Maass Medical Center	96	2	2.37	0.85	0.89	(0.142, 2.792)	S
Community Medical Center	219	14	5.93	2.36	0.01	(1.345, 3.870)	H
East Orange General Hospital	16	0	0.54	---	---	---	---
Englewood Hospital and Medical Center	166	4	3.65	1.10	0.80	(0.348, 2.640)	S
Hackensack UMC Mountainside	81	3	2.38	1.26	0.64	(0.320, 3.426)	S
Hackensack University Medical Center	308	6	11.40	0.53	0.09	(0.213, 1.095)	S
HackensackUMC at Pascack Valley	28	0	0.73	---	---	---	---
Hackettstown Regional Medical Center	43	0	0.97	---	---	---	---
Hoboken University Medical Center	22	0	0.65	---	---	---	---
Holy Name Hospital	139	1	3.62	0.28	0.15	(0.014, 1.361)	S
Hunterdon Medical Center	70	1	1.76	0.57	0.65	(0.028, 2.803)	S
Inspira Medical Center Elmer	19	0	0.55	---	---	---	---
Inspira Medical Center Vineland	133	7	3.87	1.81	0.14	(0.790, 3.574)	S
Inspira Woodbury Medical Center	134	0	4.01	0.00	0.02	(---,0.747)	L
J.F.K. Medical Center	131	2	3.67	0.55	0.41	(0.091, 1.803)	S
Jersey City Medical Center	122	0	3.54	0.00	0.03	(---,0.846)	L
Jersey Shore University Medical Center	254	5	7.81	0.64	0.32	(0.235, 1.419)	S
Kennedy Health System	18	0	0.39	---	---	---	---
Kennedy Health System-Cherry Hill	35	0	0.84	---	---	---	---
Kennedy Health System-Washington Township Campus	112	6	3.06	1.96	0.13	(0.796, 4.085)	S
Lourdes Medical Center Burlington County	52	2	1.45	1.38	0.60	(0.232, 4.571)	S

Hospital Name	Procedure Count	Observed # of Colon Surgical Site Infections (O)	Expected # of Colon Surgical Site Infections (E) ^a	SIR ^b	p-value	95% Confidence Interval	National Comparison [‡]
Meadowlands Hospital Medical Center	13	0	0.31	---	---	---	---
Memorial Hospital of Salem County	11	0	0.28	---	---	---	---
Monmouth Medical Center	136	4	4.08	0.98	1.00	(0.312, 2.368)	S
Monmouth Medical Center-- Southern Campus	34	1	0.97	---	---	---	---
Morristown Medical Center	481	3	14.04	0.21	0.00	(0.054, 0.582)	S
Newark Beth Israel Medical Center	55	0	1.68	0.00	0.19	(---,1.784)	S
Newton Medical Center	126	4	3.75	1.07	0.84	(0.339, 2.574)	S
Ocean Medical Center	236	0	6.96	0.00	0.00	(---,0.431)	L
Our Lady of Lourdes Medical Center	122	5	3.94	1.27	0.56	(0.466, 2.816)	S
Overlook Hospital	348	4	10.50	0.38	0.03	(0.121, 0.919)	L
Palisades Medical Center	31	1	0.79	---	---	---	---
Raritan Bay Medical Center-Old Bridge	38	0	1.02	0.00	0.36	(---,2.936)	S
Raritan Bay Medical Center-Perth Amboy	56	2	1.34	1.49	0.54	(0.250, 4.918)	S
Riverview Medical Center	150	3	5.29	0.57	0.33	(0.144, 1.543)	S
Robert Wood Johnson University Hospital	225	6	8.45	0.71	0.42	(0.288, 1.477)	S
Robert Wood Johnson University Hospital at Rahway	45	1	1.10	0.91	1.00	(0.045, 4.469)	S
Robert Wood Johnson University Hospital Hamilton	137	8	4.60	1.74	0.14	(0.808, 3.302)	S
Robert Wood Johnson University Hospital Somerset	155	4	4.67	0.86	0.82	(0.272, 2.068)	S
Saint Barnabas Medical Center	389	5	11.96	0.42	0.03	(0.153, 0.926)	L
Saint Clare's Health System	98	1	3.36	0.30	0.19	(0.015, 1.467)	S
Saint Clare's Hospital Dover	29	1	0.80	---	---	---	---
Saint Joseph's Regional Medical Center	110	0	3.77	0.00	0.02	(---,0.795)	L
Saint Peter's University Hospital	147	3	4.22	0.71	0.60	(0.181, 1.936)	S
Shore Medical Center	131	3	4.01	0.75	0.67	(0.190, 2.037)	S
Southern Ocean Medical Center	46	1	1.02	0.98	1.00	(0.049, 4.848)	S
St. Francis Medical Center	23	0	0.62	---	---	---	---
St. Joseph's Wayne Hospital	44	1	0.89	---	---	---	---
St. Luke's-Warren Hospital	63	1	1.44	0.70	0.82	(0.035, 3.429)	S
St. Mary's Hospital	85	2	2.45	0.82	0.85	(0.137, 2.695)	S
St. Michael's Medical Center	30	2	0.73	---	---	---	---
The Cooper Health System	348	20	12.70	1.57	0.06	(0.989, 2.388)	S
The Valley Hospital	228	7	6.19	1.13	0.71	(0.495, 2.238)	S
Trinitas Regional Medical Center	93	1	3.18	0.32	0.22	(0.016, 1.551)	S

Hospital Name	Procedure Count	Observed # of Colon Surgical Site Infections (O)	Expected # of Colon Surgical Site Infections (E) ^a	SIR ^b	p-value	95% Confidence Interval	National Comparison [‡]
UMDNJ-University Hospital	93	9	3.70	2.43	0.02	(1.187, 4.466)	H
University Medical Center of Princeton at Plainsboro	108	3	3.30	0.91	0.94	(0.231, 2.475)	S
Virtua - WJH - Berlin	3	0	0.06	---	---	---	---
Virtua Health West Jersey Marlton	93	3	2.93	1.02	0.90	(0.260, 2.785)	S
Virtua Memorial Hospital	211	2	7.77	0.26	0.02	(0.043, 0.851)	L
Virtua Voorhees	303	4	10.10	0.40	0.04	(0.126, 0.955)	L
Statewide	8082	191	245.11	0.78	0.00	(0.674, 0.896)	L

Source: New Jersey Healthcare-Associated Infections for 2014 submitted through the National Healthcare Safety Network (NHSN).

^a Expected (E)= # of infections predicted using the model fitted from the NHSN data from 2006-2008 which serves as the baseline for future reports.

Important to note that if Expected is <1, the SIR is not calculated as the result is not precise.

^b Standardized Infection Ratio (SIR)= Observed (O)/ Expected (E)

[‡] Each hospital is compared to the National Ratio=1. The National Ratio is derived using the CDC's NHSN data from 2006-2008 (AJIC, December 2009).

L indicates hospital infections are LOWER than infections seen nationally.

H indicates hospital infections are HIGHER than infections seen nationally.

S indicates hospital infections are SIMILAR to infections seen nationally.

– SIR is not calculated because the Expected is < 1.

Table 6: 2014 Coronary Artery Bypass Graft Surgical Site Infections

HOSPITAL NAME	Number of Procedures	Observed # of CABG Infections (O)	Expected # of CABG Infections (E) ^a	SIR ^b	p-value	95 % Confidence Interval	National Comparison [‡]
AtlantiCare Regional Medical Center-Mainland Campus	143	3	1.99	1.51	0.46	(0.385, 4.114)	S
Deborah Heart and Lung Center	144	3	2.03	1.48	0.48	(0.377, 4.033)	S
Englewood Hospital and Medical Center	228	1	2.95	0.34	0.26	(0.017, 1.670)	S
Hackensack University Medical Center	307	2	4.96	0.40	0.17	(0.068, 1.332)	S
Jersey City Medical Center	175	3	2.29	1.31	0.60	(0.334, 3.569)	S
Jersey Shore University Medical Center	502	11	6.55	1.68	0.11	(0.883, 2.920)	S
Morristown Medical Center	908	3	9.59	0.31	0.02	(0.080, 0.851)	L
Newark Beth Israel Medical Center	183	4	2.33	1.72	0.30	(0.545, 4.137)	S
Our Lady of Lourdes Medical Center	467	3	4.70	0.64	0.46	(0.163, 1.739)	S
Robert Wood Johnson University Hospital	586	7	7.16	0.98	1.00	(0.428, 1.934)	S
Saint Barnabas Medical Center	220	1	2.59	0.39	0.35	(0.019, 1.908)	S
Saint Joseph's Regional Medical Center	244	3	2.91	1.03	0.89	(0.263, 2.811)	S
St. Francis Medical Center	102	1	2.15	0.46	0.48	(0.023, 2.291)	S
St. Mary's Hospital	73	2	0.89	---	---	---	---
St. Michael's Medical Center	128	0	1.73	0.00	0.18	(---,1.735)	S
The Cooper Health System	222	2	2.11	0.95	1.00	(0.159, 3.138)	S
The Valley Hospital	246	5	2.56	1.95	0.16	()	S
UMDNJ-University Hospital	32	0	0.45	---	---	---	---
Statewide	4910	54	59.91	0.90	0.45	(0.684, 1.167)	S

Source: New Jersey Healthcare-Associated Infections for 2014 submitted through the National Healthcare Safety Network (NHSN).

^a Expected (E)= # of infections predicted using the model fitted from the NHSN data from 2006-2008.

This data set will serve as the baseline/benchmark for future reports.

Important to note that if Expected is <1, the SIR is not calculated as the result is not precise.

^b Standardized Infection Ratio (SIR)= Observed (O)/ Expected (E)

[‡] Each hospital is compared to the National Ratio=1. The National Ratio is derived using the CDC's NHSN data from 2006-2008 (AJIC, December 2009).

L indicates hospital infections are LOWER than infections seen nationally.

H indicates hospital infections are HIGHER than infections seen nationally.

S indicates hospital infections are SIMILAR to infections seen nationally.

– SIR is not calculated because the Expected is < 1.

CABG: includes procedures with either chest only or chest and donor site incisions.

Table 7: 2014 Overall Surgical Site Infections

Hospital Name	Procedure Count	Observed # of Overall Surgical Site Infections (O)	Expected # of Overall Surgical Site Infections (E) ^a	SIR ^b	p-value	95% Confidence Interval	National Comparison [‡]
AtlantiCare Regional Medical Center-City Campus	111	1	2.56	0.39	0.35	(0.020, 1.927)	S
AtlantiCare Regional Medical Center-Mainland Campus	1612	10	13.82	0.72	0.31	(0.368, 1.290)	S
Bayonne Medical Center	80	1	2.16	0.46	0.48	(0.023, 2.281)	S
Bayshore Community Hospital	110	0	2.06	0.00	0.13	(---,1.454)	S
Bergen Regional Medical Center	7	0	0.14	---	---	---	---
Cape Regional Medical Center	202	3	2.36	1.27	0.63	(0.323, 3.456)	S
Capital Health Medical Center - Hopewell	508	10	5.35	1.87	0.07	(0.949, 3.329)	S
Capital Health Regional Medical Center (RMC)	60	4	1.32	3.04	0.06	(0.965, 7.328)	S
Centrastate Medical Center	396	8	6.30	1.27	0.48	(0.590, 2.411)	S
Chilton Memorial Hospital	405	2	5.58	0.36	0.11	(0.060, 1.184)	S
Christ Hospital	140	0	1.78	0.00	0.17	(---,1.686)	S
Clara Maass Medical Center	322	5	4.14	1.21	0.64	(0.442, 2.674)	S
Community Medical Center	797	19	9.62	1.97	0.01	(1.224, 3.026)	H
Deborah Heart and Lung Center	144	3	2.03	1.48	0.48	(0.377, 4.033)	S
East Orange General Hospital	36	0	0.74	---	---	---	---
Englewood Hospital and Medical Center	714	5	8.60	0.58	0.21	(0.213, 1.289)	S
Hackensack UMC Mountainside	377	6	4.64	1.29	0.51	(0.524, 2.691)	S
Hackensack University Medical Center	2243	15	28.12	0.53	0.01	(0.310, 0.860)	L
HackensackUMC at Pascack Valley	73	0	0.98	---	---	---	---
Hackettstown Regional Medical Center	122	0	1.30	0.00	0.27	(---,2.305)	S
Hoboken University Medical Center	125	0	1.51	0.00	0.22	(---,1.979)	S
Holy Name Hospital	704	3	7.91	0.38	0.06	(0.096, 1.032)	S
Hunterdon Medical Center	265	2	3.33	0.60	0.51	(0.101, 1.986)	S
Inspira Medical Center Elmer	141	0	1.19	0.00	0.30	(---,2.513)	S
Inspira Medical Center Vineland	557	9	8.08	1.11	0.71	(0.543, 2.044)	S
Inspira Woodbury Medical Center	341	3	5.92	0.51	0.23	(0.129, 1.380)	S
J.F.K. Medical Center	467	2	5.94	0.34	0.08	(0.056, 1.112)	S
Jersey City Medical Center	442	4	7.15	0.56	0.23	(0.178, 1.349)	S
Jersey Shore University Medical Center	1243	19	19.18	0.99	1.00	(0.614, 1.518)	S
Kennedy Health System	50	0	0.64	---	---	---	---
Kennedy Health System-Cherry Hill	73	0	1.07	0.00	0.34	(---,2.789)	S
Kennedy Health System-Washington Township Campus	750	9	7.41	1.22	0.54	(0.592, 2.229)	S

Hospital Name	Procedure Count	Observed # of Overall Surgical Site Infections (O)	Expected # of Overall Surgical Site Infections (E) ^a	SIR ^b	p-value	95% Confidence Interval	National Comparison [‡]
Lourdes Medical Center Burlington County	120	2	1.86	1.08	0.84	(0.180, 3.550)	S
Meadowlands Hospital Medical Center	79	0	0.73	---	---	---	---
Memorial Hospital of Salem County	42	0	0.48	---	---	---	---
Monmouth Medical Center	768	7	9.54	0.73	0.43	(0.321, 1.452)	S
Monmouth Medical Center-- Southern Campus	56	1	1.09	0.92	1.00	(0.046, 4.532)	S
Morristown Medical Center	3144	9	33.48	0.27	0.00	(0.131, 0.493)	L
Newark Beth Israel Medical Center	590	5	7.51	0.67	0.37	(0.244, 1.477)	S
Newton Medical Center	277	4	4.49	0.89	0.88	(0.283, 2.148)	S
Ocean Medical Center	829	0	10.39	0.00	0.00	(---,0.288)	L
Our Lady of Lourdes Medical Center	683	9	9.51	0.95	0.91	(0.462, 1.737)	S
Overlook Hospital	936	4	13.70	0.29	0.00	(0.093, 0.704)	S
Palisades Medical Center	61	1	0.97	---	---	---	---
Raritan Bay Medical Center-Old Bridge	57	0	1.13	0.00	0.33	(---,2.661)	S
Raritan Bay Medical Center-Perth Amboy	145	2	1.93	1.04	0.88	(0.174, 3.430)	S
Riverview Medical Center	677	6	10.30	0.58	0.17	(0.236, 1.212)	S
Robert Wood Johnson University Hospital	1467	23	21.13	1.09	0.66	(0.707, 1.608)	S
Robert Wood Johnson University Hospital at Rahway	89	1	1.40	0.71	0.84	(0.036, 3.513)	S
Robert Wood Johnson University Hospital Hamilton	505	11	6.77	1.63	0.13	(0.855, 2.825)	S
Robert Wood Johnson University Hospital Somerset	447	9	6.62	1.36	0.36	(0.663, 2.494)	S
Saint Barnabas Medical Center	1486	11	18.89	0.58	0.06	(0.306, 1.012)	S
Saint Clare's Health System	297	6	4.58	1.31	0.49	(0.531, 2.723)	S
Saint Clare's Hospital Dover	44	1	0.86	---	---	---	---
Saint Joseph's Regional Medical Center	581	3	8.49	0.35	0.04	(0.090, 0.961)	L
Saint Peter's University Hospital	581	5	7.59	0.66	0.36	(0.241, 1.459)	S
Shore Medical Center	567	4	6.47	0.62	0.34	(0.196, 1.492)	S
Southern Ocean Medical Center	131	1	1.53	0.65	0.76	(0.033, 3.218)	S
St. Francis Medical Center	140	1	2.94	0.34	0.26	(0.017, 1.681)	S
St. Joseph's Wayne Hospital	141	1	1.55	0.65	0.76	(0.032, 3.188)	S
St. Luke's-Warren Hospital	166	1	2.09	0.48	0.51	(0.024, 2.365)	S
St. Mary's Hospital	254	4	3.97	1.01	0.93	(0.320, 2.432)	S
St. Michael's Medical Center	334	3	3.88	0.77	0.71	(0.197, 2.105)	S
The Cooper Health System	1208	31	19.59	1.58	0.02	(1.094, 2.219)	H
The Valley Hospital	1005	16	11.94	1.34	0.25	(0.794, 2.131)	S

Hospital Name	Procedure Count	Observed # of Overall Surgical Site Infections (O)	Expected # of Overall Surgical Site Infections (E) ^a	SIR ^b	p-value	95% Confidence Interval	National Comparison [‡]
Trinitas Regional Medical Center	317	2	5.41	0.37	0.12	(0.062, 1.221)	S
UMDNJ-University Hospital	211	9	5.34	1.69	0.14	(0.822, 3.094)	S
University Medical Center of Princeton at Plainsboro	828	6	8.29	0.72	0.45	(0.293, 1.505)	S
Virtua - WJH - Berlin	3	0	0.06	---	---	---	---
Virtua Health West Jersey Marlton	611	6	5.64	1.06	0.83	(0.431, 2.212)	S
Virtua Memorial Hospital	477	6	9.95	0.60	0.20	(0.244, 1.255)	S
Virtua Voorhees	2145	9	20.25	0.44	0.01	(0.217, 0.816)	L
Statewide	36116	363	465.24	0.78	0.00	(0.703, 0.864)	L

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[‡] Each hospital is compared to the National Ratio=1. The National Ratio is derived using the CDC's NHSN data from 2006-2008 (AJIC, December 2009).

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