



**Illinois Statewide Report of Coronary Artery Bypass Graft (CABG) Surgery Surgical Site Infections (SSI)  
Acute Care and Critical Access Hospitals - NHSN Event Reporting  
January 1, 2016 – December 31, 2016**

The Hospital Report Card Act (Illinois Public Act 93-563) requires Illinois hospitals to report surgical site infections (SSI) occurring following coronary artery bypass graft (CABG) surgery. SSIs are infections that occur in the wound created by an invasive surgical procedure and are one of the most important causes of healthcare-associated infections (HAI). Illinois hospitals have been reporting surgical site infection data using the CDC's National Healthcare Safety Network (NHSN) surveillance system since April, 2010. Comparison summary data for SSIs, expressed as a Standardized Infection Ratio (SIR), are presented by hospital for CABG surgery. Interpretation of these summary measures is provided. This report and analysis reflects the January 1, 2016 to December 31, 2016 SSI data of Illinois hospitals that performs coronary artery bypass graft surgery (CABG).

**Standardized Infection Ratio and 95% Confidence Interval**

The SIR is a measure that compares the SSI burden at a facility to that of the national referent population (2015 NHSN inpatient data). NHSN uses risk models that determine the predicted number of surgical site infections based on the national baseline data, adjusting for statistically significant risk factors. A facility's SIR is calculated as the actual, or observed number of healthcare-associated incident cases reported by the facility divided by the predicted number of infections.

The corresponding 95% confidence interval (CI) is statistical measure that shows a range of estimated possible values for the SIR. The upper and lower bounds of the interval are used to determine the statistical significance and precision of the SIR. The SIR and 95% CI are interpreted as follows:

- If the 95% CI includes 1 (i.e., the lower bound is  $<1.00$  and the upper bound is  $>1.00$ ), the hospital's number of infections is similar to (not significantly different from) the predicted number.
- If the SIR is  $>1.0$  and the 95% CI does not include 1, the hospital had a significantly higher number of infections than predicted.
- If the SIR is  $<1.0$  and the 95% CI does not include 1, the hospital had a significantly lower number of infections than predicted.

Additional information regarding SSI risk models and SIR calculations can be found at: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf>

**Surgical Site Infection (SSI) Standardized Infection Ratio (SIR <sup>a</sup>)**  
**Coronary Artery Bypass Graft Surgery (CABG)**  
**Reportable Period: January 1, 2016 - December 31, 2016**  
**STATEWIDE**

Hospital Name	Hospital City	Observed Number of CBGB <sup>b</sup>	Number of CBGB Performed	Statistically Predicted Number of CBGB	Standardized Infection Ratio (SIR) <sup>c</sup>	95% Confidence Interval		Statistical Interpretation <sup>e</sup>
						Lower Limit <sup>d</sup>	Upper Limit	
AMITA Health Adventist Medical Center Hinsdale	Hinsdale	0	66	0.34	.	.	.	Not Available
AMITA Health Adventist Medical Center La Grange	LaGrange	0	29	0.16	.	.	.	Not Available
AMITA Health Alexian Brothers Medical Center Elk Grove Village **	Elk Grove Village	0	220	1.04	0.00	.	2.90	Similar
Advocate BroMenn Medical Center *	Normal	.	.	.	.	.	.	Not Available
Advocate Christ Medical Center	Oak Lawn	2	403	3.98	0.50	0.08	1.66	Similar
Advocate Condell Medical Center	Libertyville	0	131	0.70	.	.	.	Not Available
Advocate Good Samaritan Hospital	Downers Grove	1	136	0.80	.	.	.	Not Available
Advocate Good Shepherd Hospital	Barrington	0	125	0.66	.	.	.	Not Available
Advocate Illinois Masonic Medical Center	Chicago	1	85	0.75	.	.	.	Not Available
Advocate Lutheran General Hospital	Park Ridge	0	138	0.78	.	.	.	Not Available
Advocate Sherman Hospital	Elgin	0	115	0.58	.	.	.	Not Available
Blessing Hospital	Quincy	0	98	0.45	.	.	.	Not Available
Carle Foundation Hospital	Urbana	5	208	1.85	2.70	0.99	5.98	Similar
Centegra Hospital - McHenry	Mchenry	7	158	1.39	5.05	2.21	9.98	Higher
Decatur Memorial Hospital	Decatur	0	47	0.28	.	.	.	Not Available
Edward Hospital **	Naperville	0	197	1.41	0.00	.	2.12	Similar
Elmhurst Memorial Hospital	Elmhurst	0	30	0.22	.	.	.	Not Available
Franciscan St. James Health	Chicago Heights	1	70	0.54	.	.	.	Not Available

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HSHS St Elizabeth's Hospital	Belleville	1	119	0.98	.	.	.	Not Available
HSHS St John's Hospital	Springfield	1	367	3.14	0.32	0.02	1.57	Similar
Ingalls Memorial Hospital	Harvey	1	32	0.22	.	.	.	Not Available
John H Stroger Jr Hospital of Cook County	Chicago	0	60	0.71	.	.	.	Not Available
Loyola Gottlieb Memorial Hospital	Melrose Park	0	54	0.55	.	.	.	Not Available
Loyola University Medical Center	Maywood	8	266	2.94	2.72	1.26	5.17	Higher
MacNeal Hospital **	Berwyn	0	86	1.07	0.00	.	2.81	Similar
Memorial Hospital	Belleville	0	135	0.87	.	.	.	Not Available
Memorial Hospital of Carbondale	Carbondale	1	164	0.96	.	.	.	Not Available
Memorial Medical Center	Springfield	3	338	2.68	1.12	0.29	3.05	Similar
Mercy Hospital & Medical Center *	Chicago	.	.	.	.	.	.	Not Available
Mercyhealth Hospital-Rockton Avenue	Rockford	0	64	0.41	.	.	.	Not Available
Metrosouth Medical Center	Blue Island	0	22	0.18	.	.	.	Not Available
Mount Sinai Hospital	Chicago	0	34	0.17	.	.	.	Not Available
Northshore Univ HS Evanston Hospital **	Evanston	0	123	1.33	0.00	.	2.26	Similar
Northshore Univ HS Highland Park Hospital	Highland Park	0	88	0.60	.	.	.	Not Available
Northwest Community Healthcare Hospital	Arlington Heights	2	137	0.90	.	.	.	Not Available
Northwestern Medicine Central DuPage Hospital **	Winfield	0	170	1.42	0.00	.	2.11	Similar

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Northwestern Memorial Hospital **	Chicago	0	225	1.85	0.00	.	1.62	Similar
OSF Saint Anthony Medical Center	Rockford	0	165	0.88	.	.	.	Not Available
OSF Saint Francis Medical Center	Peoria	3	185	1.78	1.68	0.43	4.58	Similar
OSF St Joseph Medical Center	Bloomington	0	46	0.24	.	.	.	Not Available
Palos Community Hospital **	Palos Heights	0	196	1.08	0.00	.	2.77	Similar
Presence Covenant Medical Center	Urbana	0	92	0.68	.	.	.	Not Available
Presence Mercy Medical Center	Aurora	0	93	0.53	.	.	.	Not Available
Presence Resurrection Medical Center **	Chicago	0	161	1.31	0.00	.	2.28	Similar
Presence Saint Francis Hospital	Evanston	1	38	0.17	.	.	.	Not Available
Presence Saint Joseph Hospital	Elgin	0	34	0.16	.	.	.	Not Available
Presence Saint Joseph Hospital	Chicago	0	34	0.21	.	.	.	Not Available
Presence Saint Joseph Medical Center	Joliet	1	142	1.15	0.87	0.04	4.29	Similar
Presence Saints Mary and Elizabeth Medical Center	Chicago	0	30	0.26	.	.	.	Not Available
Riverside Medical Center	Kankakee	0	86	0.61	.	.	.	Not Available
Rush University Medical Center	Chicago	0	111	0.82	.	.	.	Not Available
Rush-Copley Medical Center	Aurora	1	69	0.41	.	.	.	Not Available
SSM Health Good Samaritan Hospital	Mount Vernon	1	48	0.47	.	.	.	Not Available
Swedish Covenant Hospital	Chicago	0	113	0.94	.	.	.	Not Available

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SwedishAmerican Hospital	Rockford	2	136	0.95	.	.	.	Not Available
Unitypoint Health - Methodist	Peoria	0	70	0.40	.	.	.	Not Available
Unitypoint Health - Trinity Rock Island **	Rock Island	0	162	1.04	0.00	.	2.90	Similar
University of Chicago Medicine	Chicago	1	174	2.50	0.40	0.02	1.97	Similar
University of Illinois Hospital & Health Sci System	Chicago	2	39	0.33	.	.	.	Not Available
Vista Medical Center East	Waukegan	1	45	0.27	.	.	.	Not Available
Weiss Memorial Hospital *	Chicago	.	.	.	.	.	.	Not Available
West Suburban Medical Center *	Oak Park	.	.	.	.	.	.	Not Available

NHSN Data contained in this report were last generated on November 14, 2017

\* Hospital with 20 or fewer procedures performed. Reporting on too few procedures is a risk to patient confidentiality.

\*\* Hospital reported zero infections, however, the number of reported events is not significantly different than predicted.

<sup>a</sup> The Standardized Infection Ratio (SIR) is a summary measure used to compare the SSI experience amongst a group of patients undergoing the procedure to that of a standard population. It is the observed number of infections divided by the predicted number of infections.

<sup>b</sup> Excludes Superficial Incisional Secondary (SIS) and Deep Incisional Secondary (DIS) SSIs.

<sup>c</sup> If the predicted number of infections is less than 1.0, the SIR is not calculated because it does not meet the minimum requirement for precision.

<sup>d</sup> The lower bound of the confidence interval is calculated only if the infection count is greater than 0.

<sup>e</sup> Statistical Interpretation of SIR:

- If the 95% confidence interval includes 1, the hospital's infection rate is similar (not significantly different) from predicted
- If the SIR is greater than 1.0 and the 95% confidence interval does not include 1, the hospital's infection rate is significantly higher than predicted
- If the SIR is less than 1.0 and the 95% confidence interval does not include 1, the hospital's infection rate is significantly lower than predicted

NOTE: All conclusions are based on the assumption that the hospital's patient population is similar to the NHSN pooled patient population