Hospital-Acquired Infections

in New York State, 2018

Part 1: Summary for Consumers

NEW YORK STATE | Department of Health

November 2019

Contents

Introduction

What is the purpose of this report?

Hospital-acquired infections (HAIs) are infections that patients can get as a result of receiving treatment in a hospital. New York State (NYS) monitors HAI rates to ensure patient safety and provide the public with data to compare hospital infection rates. This report describes the HAIs that occurred in NYS hospitals in 2018.

This report provides information on six types of HAIs:

1. Surgical site infections (SSIs) following colon, coronary artery bypass graft, hip replacement, and hysterectomy procedures

2. Central line-associated bloodstream infections (CLABSIs)

3. Catheter-associated urinary tract infections (CAUTIs)

4. *Clostridioides difficile* infections (CDIs)

5. Carbapenem-resistant Enterobacteriaceae infections (CREs)

6. Methicillin-resistant *Staphylococcus aureus* (MRSA) bloodstream infections (BSIs)

These HAIs do not represent all possible HAIs, but they were selected because they are common, may have severe complications, can be compared between facilities, and are largely preventable when healthcare providers use infection prevention steps recommended by the Centers for Disease Control and Prevention (CDC).

Where do the numbers come from?

Hospitals report to the NYS Department of Health (DOH) using the CDC's National Healthcare Safety Network (NHSN). This online system allows hospitals in NYS and CDC to concurrently monitor the same data. All hospitals follow the same surveillance methods. Additional information about the NHSN can be found at http://www.cdc.gov/nhsn/.

In accordance with NYS Public Health Law 2819, NYS acute care hospitals have been reporting HAIs since 2007. In 2018, NYS required hospitals to report SSIs, CLABSIs, CDIs, and CRE infections. In addition, hospitals report data to NHSN to participate in programs offered by the Centers for Medicare and Medicaid Services (CMS). Data on CAUTIs and MRSA-BSIs are available as a result of a data use agreement (DUA) that allows NYS HAI staff to see NHSN data and use it for surveillance or prevention purposes. NYS measures are reported for individual hospitals, while DUA measures are only summarized at the state level because the DUA prohibits the use of the data for public reporting of facility-specific data. Data from Federal (e.g. Veterans) hospitals are not available either under Public Health Law or the DUA.

Surgical Site Infections (SSIs)

SSIs are infections that occur after surgery in the part of the body where the surgery took place. They may only involve the skin, or they may be more serious and involve tissue and organs. NYS requires hospitals to report SSIs associated with four types of surgery:

- Colon: Colon surgery is a procedure performed on the lower part of the digestive tract, called the large intestine or colon.
- Hip: Hip replacement or revision surgery involves removing damaged cartilage and bone from the hip joint and replacing or resurfacing them with new parts.
- Abdominal hysterectomy: Abdominal hysterectomy is the surgical removal of a woman's uterus through an incision in the abdominal wall.
- Coronary artery bypass graft (CABG): CABG surgery is a procedure performed for heart disease in which a vein or artery from the chest or another part of the body (termed the "donor site") is used to create an alternate path for blood to flow to the heart, bypassing a blocked artery.

SSIs can occur if bacteria enter the body at the incision site. Symptoms may include fever, pain, redness, and drainage.

surgical site infection
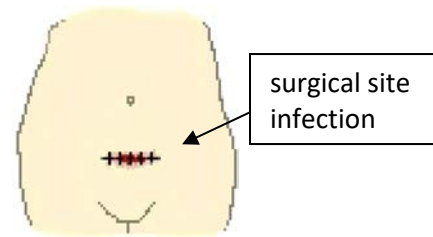
The infection rate is the number of SSIs divided by the number of procedures. Results from 2018 for all NYS hospitals are summarized below. SSIs were most frequent after colon surgery. Colon SSIs may be more difficult to prevent because the colon naturally contains a lot of bacteria.

| Type of Surgery	Number of Infections	Number of Procedures	Infection Rate	2018 rate compared to 2015
Colon	798	19,479	4.1/100 procedures	improved 27%
Hip	338	35,241	1.0/100 procedures	improved 0%
Abdominal hysterectomy	186	16,803	1.1/100 procedures	improved 10%
Coronary artery bypass graft[1]	148	10,540	1.4/100 procedures	improved 23%

2018 New York State data reported as of June 27, 2019. [1]chest-site SSIs.

Catheter-Associated Infections

A central venous catheter (CVC) is a tube that is placed into a large vein, usually in the neck, chest, arm, or groin, that is used to give fluids and medications, withdraw blood, and monitor the patient's condition. A CVC is different from a standard intravenous (IV) line because it goes farther into the body, ending near the heart, and because it may be used for weeks or even months.

Central venous catheter
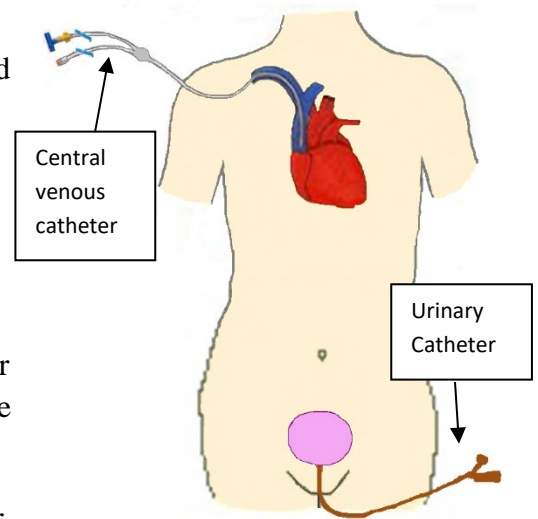
Urinary Catheter

A urinary catheter is a thin tube that is inserted into the bladder through the urethra to drain urine when a patient cannot urinate on his/her own.

Infections can sometimes occur when bacteria travel around or through the tube and enter the urinary tract or blood stream.

NYS monitors blood stream infections associated with CVC use. In addition, CMS monitors urinary tract infections associated with urinary catheter use. These infections are monitored in intensive care units and a few other medical/surgical units with less critical patients.

The risk of infection increases with the number of days a catheter is used. For this reason, infection rates are based on the total number of days catheters are used, rather than simply the number of patients. To calculate "catheter days" a daily count of patients with each type of catheter is performed at the same time each day. The daily counts are added up for the entire year to give the catheter days for that year.

Type of Catheter	Number of Infections	Number of Catheter Days	Infection Rate	2018 rate compared to 2015
Central venous	1,051	1,294,898	0.9/1,000 CVC days	improved 24%
Urinary	1,275	1,224,493	1.0/1,000 UC days	improved 25%

2018 NYS data reported as of June 27, 2019 (venous) and May 16, 2019 (urinary). Central venous catheter infections associated with use of extracorporeal membrane oxygenation and ventricular assist devices are shown in the number of infections and infection rate, but they were included when comparing to the 2015 rate for consistency of surveillance definitions.

Laboratory-identified (LabID) infections

LabID infections are identified based on laboratory testing and hospital admission and discharge data, rather than by clinical chart review. LabID cases are separated into reporting categories based on the time between hospital admission and specimen collection.

Admission Prevalent			Hospital onset			
Day 1 (Admission)	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7+

- Cases termed "admission prevalent", or "community onset" are cases in which the specimen was obtained during the first three days of the patient's inpatient stay. These cases are presumed to be unrelated to the patient's stay in that hospital.

- Cases termed "hospital-onset (HO)" are cases in which the specimen was obtained on day four or later during the hospital stay.

HO rates are the primary focus for this report because HO cases can be prevented or reduced in the hospital by appropriate antibiotic prescribing and by following infection prevention guidelines for hand washing, use of gowns and gloves, and equipment/environmental cleaning.

NYS requires that hospitals report two types of LabID infections: *Clostridioides difficile* infections (CDIs) and carbapenem-resistant Enterobacteriaceae (CRE). Hospitals report methicillin-resistant *Staphylococcus aureus* (MRSA) BSIs to participate in CMS reporting programs. These infections are described on the following pages.

Clostridioides difficile Infections (CDI)

Clostridioides difficile is a type of bacteria that can cause diarrhea and intestinal damage. The elderly and those who have recently taken antibiotics are at the greatest risk for developing CDI. When people take antibiotics, good bacteria that protect against infection may be destroyed along with the bad bacteria. The types of bacteria in the intestines might be altered for several months. During this time, patients can get sick from *Clostridioides difficile* acquired from contaminated surfaces or health care providers' hands.
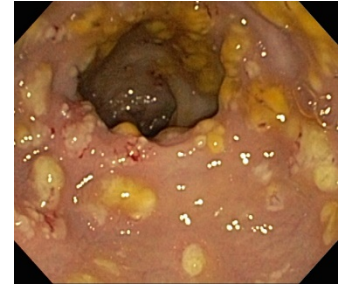
Colon infected by *Clostridioides difficile,* ©Samir 2009,
https://commons.wikimedia.org/wiki/File:Pseudomembranous_colitis_1.jpg.

CDI is the most common HAI of all indicators in this report. In 2018, 5,057 cases were detected after the third day of hospitalization, implying that the bacteria that caused the infection were acquired during that hospital visit or that medical interventions during that hospital visit led to infection in a colonized person. Over 10,000 additional cases were detected in the emergency department or early in the hospital stay; these cases are likely related to previous healthcare exposures.

The longer a person stays in the hospital, the higher the total risk of acquiring an infection in the hospital, so the HO rate is reported using a denominator of "patient days". To calculate patient days a daily count of patients is performed at the same time each day. The daily counts are added up for the entire year to give the patient days for that year. The HO rate is defined as the number of new infections identified more than three days after hospital admission, per 10,000 patient days.

Clostridioides difficile rate	Number of Infections	Number of Patient Days	Infection Rate	2018 rate compared to 2015
Hospital Onset	5,057	10,449,466	4.8/10,000 patient days	improved 35%

2018 NYS data reported as of June 18, 2019.

Carbapenem-resistant Enterobacteriaceae (CRE) Infections

Enterobacteriaceae are a family of bacteria that are normally found in the intestines. They cause infections if they spread to other locations in the body (e.g. through surgery or trauma), or are introduced into other body sites by contact with an infected person or contaminated surfaces. They are called carbapenem-resistant Enterobacteriaceae (CRE) when they become highly resistant to most antibiotics, including a type of antibiotics called carbapenems. Infections with CRE are difficult to treat because most antibiotics do not work against them. Healthy people usually do not get CRE infections. CRE are more likely to affect patients with compromised immune systems and those who use invasive devices like ventilators and catheters. CRE is currently most common in the downstate area.

CRE Overall Inpatient Prevalence Rate, 2018

Rate is # of infections per 1,000 admissions

- 0.00 to < 0.28
- 0.28 to < 0.55
- 0.55 to < 0.83
- 0.83 to < 1.11
- 1.11 to < 1.38
- 1.38 to < 1.66

New York City Area
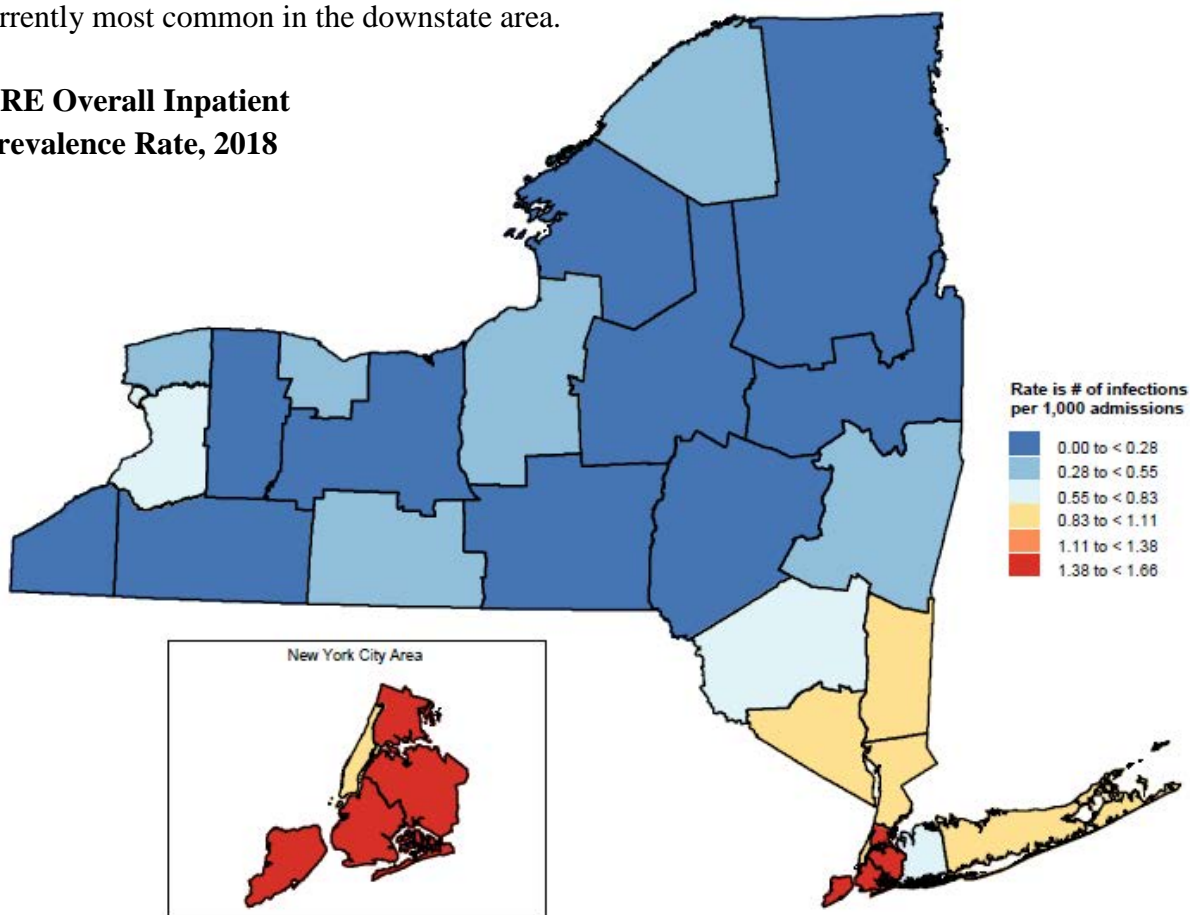
CRE is most deadly when it enters the bloodstream. Rates of new bloodstream infections and the overall infection rate at all body sites are summarized below. CRE that is identified in non-sterile body sites like skin or urine may represent colonization (present but not causing symptoms of illness), but these events are counted as infections for this report.

Carbapenem resistant Enterobacteriaceae rates	Number of New Infections	Number of Patient Days	Infection Rate	2018 rate compared to 2015
Hospital onset – BSI	150	11,330,490	0.13/10,000 patient days	improved 34%
Hospital onset – all sites	885	11,330,490	0.78/10,000 patient days	improved 32%

NYS data reported as of June 18, 2019. BSI: bloodstream infection

Methicillin-resistant *Staphylococcus aureus* (MRSA) Infections

Staphylococcus aureus (*S. aureus*) is a common type of bacteria normally found on the skin or in the nose of 20 to 30 percent of healthy individuals. When *S. aureus* is resistant to the antibiotics oxacillin, cefoxitin, or methicillin, it is called MRSA. MRSA infections can cause a broad range of symptoms depending on the patient's health and the part of the body that is infected. One of the most serious types of infection occurs in the blood, called a bloodstream infection (MRSA-BSI).

MRSA has been present in NYS and the rest of the country for many years. In 2018, 661 cases of MRSA-BSI were detected after the third day of hospitalization, implying that the bacteria that caused the infection were acquired during that hospital visit or that medical interventions during that hospital visit led to infection in a colonized person. An additional 3,331 positive blood samples were detected in the emergency department or early in the hospital stay; these cases are not likely related to that hospital admission. Rates of new hospital onset infections are summarized below.

MRSA Infection rate	Number of New Bloodstream Infections	Number of Patient Days	Infection Rate	2018 rate compared to 2015
Hospital Onset	661	11,225,000	0.59/10,000 patient days	improved 17%

NYS data reported as of May 16, 2019.

Hospital Performance

To evaluate hospital performance, NYS asks the question,

"How did each hospital perform in 2018 compared to the NYS 2018 average?"

This comparison is performed separately by type of HAI (i.e. SSI, CLABSI, and CDI; CRE was not included due to the lack of a suitable risk adjustment model). The comparison takes into account differences in patient populations related to severity of illness and other factors that may affect the risk of developing an HAI. A hospital that performs many complex procedures on very sick patients would be expected to have a higher infection rate than a hospital that performs more routine procedures on healthier patients. Therefore, before comparing the infection rates of hospitals, it is important to adjust for the proportion of high and low risk patients. DOH predicts the number of infections based on the NYS average infection rate for similar patients, then divides the number of observed infections by the number of predicted infections. This is called the standardized infection ratio (SIR).

- An SIR above 1.0 means that the infection rate at the hospital is worse than the state average, even after adjusting for differences in that hospital's patient population. The difference above 1.0 is the percentage by which the infection rate exceeds that of the state average. For example, a hospital SIR of 1.12 indicates that the hospital performed 12% worse than the state average. If the SIR is significantly higher than 1, the result is highlighted in red.

- An SIR below 1.0 means that the infection rate is better than the state average after adjusting for differences in that hospital's patient population. The difference below 1.0 is the percentage by which the infection rate is lower than that of the state average. For example, a hospital SIR of 0.85 indicates that the hospital performed 15% better than the state average. If the SIR is significantly lower than 1, the result is highlighted in blue.

- An SIR of 1.0 means the observed number of infections is equal to the number of predicted infections. If the SIR is not significantly different from the state average, the result is highlighted in grey.

- No SIR was calculated when there was not enough data for a hospital.

More detailed information on the risk adjustment method and hospital performance is available in Part 2: Technical Report.

Summary of Hospital-Acquired Infection Data, 2018 New York State

Hospital	Year	Colon SSI Obs/Pred	SIR	CABG Chest SSI Obs/Pred	SIR	Hip SSI Obs/Pred	SIR	Hyst SSI Obs/Pred	SIR	CLABSI Obs/Pred	SIR	CDI Obs/Pred	SIR
AO Fox Memorial	2017	1/0.9	1.14			0/0.2	0.00	NA	NA	0/0.8	0.00	3/5.9	0.50
	2018	NA	NA			0/0.3	0.00	NA	NA	0/0.8	0.00	6/3.5	1.74
Adirondack Medical	2017	1/1.4	0.71			1/0.8	1.27	NA	NA	1/0.8	1.30	3/2.5	1.22
	2018	2/2.5	0.79			1/0.9	1.06	NA	NA	1/0.6	1.71	3/2.9	1.04
Albany Med Ctr	2017	29/20.1	1.44	4/3.5	1.15	7/7.5	0.94	4/3.5	1.14	51/45.9	1.11	105/115.9	0.91
	2018	33/19.8	^ 1.67	6/4.3	1.38	6/8.8	0.68	3/3.0	1.00	29/35.9	0.81	121/112.4	1.08
Albany Memorial	2017	2/1.8	1.11			NA	NA	0/0.3	0.00	2/1.0	2.10	3/3.7	0.81
	2018	NA	NA			NA	NA	0/0.2	0.00	0/0.8	0.00	2/3.6	0.55
Alice Hyde Med Ctr	2017	NA	NA			1/0.4	2.74	NA	NA	1/0.3	3.26	0/1.1	0.00
	2018	NA	NA			0/0.4	0.00			1/0.2	4.57	0/1.0	0.00
Arnot Ogden Med Ctr	2017	3/4.2	0.71	0/1.1	0.00	2/2.7	0.74	2/0.3	6.13	5/5.7	0.88	34/29.6	1.15
	2018	1/2.6	0.38	0/0.6	0.00	5/2.6	1.89	0/0.3	0.00	4/4.5	0.88	22/20.2	1.09
Auburn Memorial	2017	2/2.4	0.82			0/0.4	0.00	0/0.2	0.00	3/1.3	2.40	15/12.7	1.19
	2018	3/1.4	2.10			1/0.5	1.85	NA	NA	1/0.9	1.13	23/8.1	^ 2.84
Bellevue Ellis	2017							0/0.3	0.00			NA	NA
	2018							1/0.7	1.45			NA	NA
Bellevue Hospital	2017	4/4.2	0.96	4/2.5	1.58	2/0.8	2.65	0/1.5	0.00	31/15.3	^2.02	52/65.4	0.79
	2018	3/3.9	0.77	4/1.8	2.28	0/0.8	0.00	2/1.5	1.30	34/13.2	^2.57	56/62.5	0.90
Bertrand Chaffee	2017	NA	NA							0/0.0	0.00	0/0.9	0.00
	2018	NA	NA							NA	NA	1/0.6	1.54
Blythedale Childrens	2017									8/2.5	^3.21	NA	NA
	2018									3/2.5	1.22	NA	NA
Bon Secours	2017	NA	NA			NA	NA	NA	NA	0/0.6	0.00	4/5.0	0.79
	2018	1/0.6	1.60			NA	NA	NA	NA	1/0.4	2.37	2/2.6	0.76
BronxCare	2017	2/3.1	0.64			2/0.7	2.84	1/1.5	0.69	15/11.5	1.31	45/38.2	1.18
	2018	0/2.5	0.00			0/0.7	0.00	0/1.6	0.00	17/12.2	1.39	42/38.8	1.08
Brookdale Hospital	2017	8/3.7	2.19			1/0.2	4.23	2/0.9	2.35	5/4.7	1.06	13/16.3	0.80
	2018	3/4.1	0.73			0/0.3	0.00	0/0.9	0.00	17/7.4	^2.31	16/14.5	1.10
Brooklyn Hosp Ctr	2017	1/2.8	0.35			2/1.1	1.87	1/3.0	0.34	1/8.8	*0.11	5/23.8	* 0.21
	2018	0/2.5	0.00			0/1.0	0.00	8/2.4	^ 3.39	2/13.2	*0.15	8/27.6	* 0.29
Brooks Memorial	2017	NA	NA			1/1.1	0.92	0/0.3	0.00	1/0.6	1.73	1/5.0	0.20
	2018	NA	NA			2/0.9	2.26	NA	NA	2/0.5	3.96	2/2.6	0.76

Summary of Hospital-Acquired Infection Data, 2018 New York State

Hospital	Year	Colon SSI Obs/Pred	SIR	CABG Chest SSI Obs/Pred	SIR	Hip SSI Obs/Pred	SIR	Hyst SSI Obs/Pred	SIR	CLABSI Obs/Pred	SIR	CDI Obs/Pred	SIR
Buffalo General	2017	6/6.1	0.99	10/7.6	1.31	3/7.6	0.40	2/0.6	3.49	23/25.8	0.89	69/78.9	0.87
	2018	0/5.7	* 0.00	10/7.3	1.36	10/8.5	1.18	0/0.5	0.00	17/21.1	0.80	92/78.4	1.17
Burdett Care Center	2017											NA	NA
	2018											NA	NA
Calvary Hospital	2017											NA	NA
	2018											NA	NA
Canton-Potsdam	2017	3/2.7	1.10			1/0.7	1.39	3/0.4	^ 6.90	2/1.3	1.54	12/11.9	1.01
	2018	2/1.8	1.11			0/1.0	0.00	1/0.3	3.33	0/1.4	0.00	10/8.4	1.19
Catskill Regional	2017	NA	NA			NA	NA	1/0.7	1.35	1/1.1	0.94	18/8.9	^ 2.03
	2018	1/1.1	0.92			NA	NA	0/0.5	0.00	2/0.7	3.01	12/5.8	2.08
Cayuga Medical Ctr	2017	1/1.7	0.58			1/1.5	0.65	NA	NA	1/1.8	0.55	1/12.4	* 0.08
	2018	1/1.6	0.64			0/1.7	0.00	NA	NA	1/1.6	0.63	4/11.9	0.34
Champlain Valley	2017	3/5.4	0.56			0/0.9	0.00	0/0.4	0.00	2/6.5	0.31	32/60.1	* 0.53
	2018	3/4.1	0.74			1/1.4	0.73	1/0.4	2.73	2/4.5	0.45	36/50.2	0.72
Claxton-Hepburn	2017	NA	NA			1/0.4	2.73	NA	NA	2/1.5	1.32	10/5.2	1.94
	2018	1/1.5	0.68			0/0.5	0.00	NA	NA	3/1.7	1.81	7/9.5	0.74
Clifton Springs	2017	NA	NA							0/1.2	0.00	1/6.4	0.16
	2018	NA	NA							0/1.1	0.00	1/5.3	0.19
Cobleskill Regional	2017									0/0.2	0.00	2/1.8	1.12
	2018									0/0.1	0.00	NA	NA
Cohens Childrens	2017									9/11.2	0.80	NA	NA
	2018									4/8.5	0.47	NA	NA
Columbia Memorial	2017	3/2.9	1.04			0/0.9	0.00	3/0.9	3.47	7/2.3	^3.05	25/14.2	1.77
	2018	4/2.1	1.90			2/1.0	1.92	0/0.7	0.00	4/2.0	1.98	31/10.0	^ 3.10
Coney Island Hosp	2017	0/2.2	0.00			0/0.9	0.00	0/0.4	0.00	12/11.9	1.01	72/53.5	1.35
	2018	1/1.8	0.55			2/0.7	2.91	2/0.4	5.26	7/8.6	0.81	40/51.3	0.78
Corning Hospital	2017	2/1.3	1.55			2/1.1	1.85	1/0.5	2.20	0/1.2	0.00	7/9.9	0.71
	2018	NA	NA			1/1.1	0.95	0/0.3	0.00	1/0.9	1.17	6/6.0	0.99
Cortland Reg Med	2017	0/1.6	0.00			1/0.4	2.62	0/0.3	0.00	0/0.8	0.00	5/4.8	1.05
	2018	0/1.3	0.00			0/0.4	0.00	0/0.3	0.00	0/1.0	0.00	4/13.3	* 0.30
Crouse Hospital	2017	15/11.5	1.30			4/6.0	0.66	6/4.9	1.23	22/12.9	^1.71	26/33.3	0.78
	2018	8/9.5	0.84			12/6.6	1.82	5/5.1	0.98	15/9.2	1.64	22/42.4	* 0.52

Summary of Hospital-Acquired Infection Data, 2018 New York State

Hospital	Year	Colon SSI Obs/Pred	SIR	CABG Chest SSI Obs/Pred	SIR	Hip SSI Obs/Pred	SIR	Hyst SSI Obs/Pred	SIR	CLABSI Obs/Pred	SIR	CDI Obs/Pred	SIR
DeGraff Memorial	2017	NA	NA			NA	NA			0/0.3	0.00	3/2.6	1.15
	2018											NA	NA
East. Niag. Lockport	2017	3/1.5	2.01			NA	NA	NA	NA	0/0.3	0.00	5/6.5	0.77
	2018	2/1.3	1.54			0/0.3	0.00	NA	NA	2/0.3	7.24	5/5.0	0.99
Eastern Long Island	2017	NA	NA			NA	NA			1/0.2	5.63	5/4.8	1.04
	2018	NA	NA			NA	NA			0/0.1	0.00	0/3.4	0.00
Ellis Hospital	2017	11/6.8	1.63	0/3.8	* 0.00	3/2.8	1.08	0/0.7	0.00	7/10.1	0.69	72/31.5	^ 2.29
	2018	11/6.5	1.69	2/2.4	0.82	2/2.5	0.79	0/0.8	0.00	2/8.7	*0.23	44/37.3	1.18
Elmhurst Hospital	2017	9/3.7	^ 2.41			0/0.7	0.00	2/1.3	1.50	14/8.5	1.64	18/37.1	* 0.48
	2018	1/2.7	0.36			1/0.8	1.33	2/1.3	1.48	16/6.4	^2.50	23/36.5	0.63
Erie County Med Ctr	2017	5/4.7	1.06			6/5.2	1.14			22/12.0	^1.83	57/52.0	1.10
	2018	9/4.2	2.13			6/5.5	1.09			20/11.4	^1.76	56/46.0	1.22
FF Thompson	2017	2/2.1	0.97			0/1.5	0.00	1/0.4	2.64	1/2.2	0.45	12/11.8	1.02
	2018	5/2.2	2.24			1/1.5	0.68	0/0.2	0.00	1/2.0	0.49	9/9.5	0.95
Faxton St. Lukes	2017	3/4.3	0.69			3/0.6	^ 5.18	4/0.8	^ 4.71	4/5.6	0.71	51/35.7	1.43
	2018	4/2.2	1.83			1/0.5	2.21	7/0.7	^ 9.72	7/5.4	1.31	34/24.1	1.41
Flushing Hospital	2017	4/1.4	2.84			1/0.5	2.01	4/1.8	2.23	6/5.4	1.12	26/22.8	1.14
	2018	1/1.4	0.69			1/0.3	3.81	3/1.8	1.70	4/3.3	1.22	9/18.0	0.50
Geneva General	2017	1/2.6	0.38			0/1.2	0.00			1/2.1	0.47	8/15.8	0.51
	2018	0/1.9	0.00			0/1.6	0.00			0/1.5	0.00	4/11.4	0.35
Glen Cove Hospital	2017	1/1.7	0.59			NA	NA			0/0.7	0.00	4/7.2	0.56
	2018	2/1.6	1.24			0/0.3	0.00			1/0.5	1.82	5/5.2	0.96
Glens Falls Hospital	2017	3/6.5	0.46			1/1.6	0.61	0/0.4	0.00	2/5.0	0.40	39/27.1	1.44
	2018	8/5.5	1.47	NA	NA	4/1.7	2.34	0/0.4	0.00	1/3.8	0.26	33/24.9	1.33
Good Samar. Suffern	2017	7/5.5	1.28	1/1.3	0.76	2/1.6	1.29	0/0.3	0.00	4/4.1	0.99	46/32.7	1.41
	2018	4/3.8	1.05	2/1.7	1.19	0/2.0	0.00	0/0.5	0.00	4/5.1	0.78	41/24.6	^ 1.66
Good Samar. W Islip	2017	9/10.0	0.90	6/4.5	1.35	3/1.7	1.80	3/4.0	0.75	2/15.4	*0.13	65/46.5	1.40
	2018	6/10.2	0.59	0/3.3	* 0.00	3/2.4	1.24	2/4.9	0.41	4/10.4	*0.38	41/53.6	0.77
Harlem Hospital	2017	2/1.8	1.08			NA	NA	0/0.3	0.00	6/6.0	1.01	25/18.5	1.35
	2018	0/1.9	0.00			NA	NA	1/0.3	3.50	3/5.3	0.57	8/17.8	0.45
HealthAlli Broadway	2017	1/2.3	0.44			1/0.6	1.81	NA	NA	8/3.7	2.17	13/8.4	1.55
	2018	0/1.9	0.00			0/0.5	0.00	NA	NA	1/3.4	0.29	12/6.5	1.85

Summary of Hospital-Acquired Infection Data, 2018 New York State

Hospital	Year	Colon SSI Obs/Pred	SIR	CABG Chest SSI Obs/Pred	SIR	Hip SSI Obs/Pred	SIR	Hyst SSI Obs/Pred	SIR	CLABSI Obs/Pred	SIR	CDI Obs/Pred	SIR
HealthAlli MarysAve	2017	NA	NA			0/1.0	0.00			0/0.2	0.00	0/1.4	0.00
	2018	NA	NA			0/1.5	0.00			0/0.2	0.00	0/1.2	0.00
Henry J. Carter	2017											NA	NA
	2018											NA	NA
Highland Hospital	2017	5/6.5	0.77			10/9.1	1.10	0/5.6	* 0.00	9/12.1	0.74	22/29.3	0.75
	2018	1/5.5	0.18			12/10.6	1.13	3/7.4	0.41	5/8.2	0.61	16/28.8	0.56
Hosp for Spec Surg	2017					17/36.4	* 0.47			0/2.6	0.00	NA	NA
	2018					27/39.5	* 0.68			0/2.0	0.00	NA	NA
Huntington Hospital	2017	3/8.1	0.37			3/2.2	1.39	2/1.3	1.52	2/2.2	0.91	30/30.1	1.00
	2018	4/7.5	0.53			3/2.5	1.19	0/1.5	0.00	0/1.6	0.00	33/30.9	1.07
Interfaith Med Ctr	2017	NA	NA			NA	NA	NA	NA	4/2.5	1.62	1/6.5	0.15
	2018	NA	NA			NA	NA	NA	NA	1/3.2	0.31	5/7.5	0.66
Ira Davenport	2017									NA	NA	0/0.2	0.00
	2018							NA	NA	NA	NA	0/0.1	0.00
JT Mather Hospital	2017	10/5.2	1.91			0/1.2	0.00	2/0.9	2.31	2/7.1	0.28	41/15.8	^ 2.59
	2018	7/4.6	1.51			2/1.4	1.42	3/0.8	3.99	4/6.4	0.63	24/13.6	1.77
Jacobi Med Ctr	2017	7/6.4	1.10			0/0.7	0.00	3/1.7	1.73	12/6.5	1.83	46/40.3	1.14
	2018	10/5.0	2.01			1/0.5	1.99	2/1.1	1.74	10/7.0	1.43	46/34.6	1.33
Jamaica Hospital	2017	3/3.5	0.85			2/0.6	3.28	3/1.8	1.64	11/7.5	1.46	32/39.5	0.81
	2018	2/2.8	0.71			0/0.8	0.00	0/1.0	0.00	11/5.3	^2.08	29/29.2	0.99
Jones Memorial	2017	NA	NA			NA	NA	0/0.3	0.00	0/0.8	0.00	1/3.8	0.27
	2018	NA	NA			NA	NA	NA	NA	0/0.6	0.00	1/3.7	0.27
Kenmore Mercy	2017	7/6.0	1.17			5/4.0	1.24	NA	NA	2/2.1	0.93	15/14.1	1.06
	2018	10/6.8	1.47			8/4.0	2.00			0/2.4	0.00	16/14.5	1.10
Kings County Hosp	2017	4/7.6	0.52			0/0.6	0.00	1/1.8	0.55	15/11.8	1.27	29/32.3	0.90
	2018	0/4.2	* 0.00			0/0.6	0.00	0/1.5	0.00	12/9.3	1.29	36/43.5	0.83
Kingsbrook Jewish MC	2017	5/2.2	2.28			NA	NA	NA	NA	25/6.8	^3.66	48/26.5	^ 1.81
	2018	4/1.8	2.28			NA	NA	NA	NA	19/6.3	^3.01	14/18.6	0.75
LIJ at Forest Hills	2017	4/3.9	1.04			0/1.1	0.00	1/1.2	0.85	2/4.3	0.47	22/24.1	0.91
	2018	1/3.5	0.29			1/1.0	1.01	1/1.4	0.70	4/3.7	1.08	28/25.6	1.09
LIJ at Valley Stream	2017	4/2.3	1.70			0/0.8	0.00	NA	NA	2/1.7	1.21	8/14.5	0.55
	2018	2/2.2	0.93			3/3.2	0.93	NA	NA	2/1.5	1.31	7/15.8	0.44

14

Summary of Hospital-Acquired Infection Data, 2018 New York State

Hospital	Year	Colon SSI Obs/Pred	Colon SSI SIR	CABG Chest SSI Obs/Pred	CABG Chest SSI SIR	Hip SSI Obs/Pred	Hip SSI SIR	Hyst SSI Obs/Pred	Hyst SSI SIR	CLABSI Obs/Pred	CLABSI SIR	CDI Obs/Pred	CDI SIR
Lenox Hill Hospital	2017	9/12.5	0.72	8/6.1	1.31	2/2.9	0.68	2/3.2	0.62	4/11.6	*0.35	36/50.4	0.71
	2018	14/13.1	1.07	4/5.9	0.68	1/3.3	0.30	4/2.4	1.65	10/10.0	1.00	26/50.9	* 0.51
Lincoln Med Ctr	2017	7/5.4	1.29			2/0.4	5.69	0/0.8	0.00	11/9.5	1.16	13/17.3	0.75
	2018	5/4.5	1.12			1/0.4	2.62	1/1.2	0.86	6/6.5	0.92	18/15.8	1.14
Long Isl Jewish(LIJ)	2017	8/22.6	* 0.35			3/2.3	1.28	10/9.5	1.05	9/14.3	0.63	98/90.9	1.08
	2018	13/19.1	0.68			3/2.4	1.24	5/8.1	0.62	7/11.7	0.60	88/82.6	1.07
Long Isl. Community	2017	2/4.2	0.48			0/0.8	0.00			13/6.4	^2.03	51/54.2	0.94
	2018	1/4.1	0.25			0/0.6	0.00			7/4.2	1.66	45/32.8	1.37
Maimonides Med Ctr	2017	15/10.4	1.44	3/3.5	0.85	1/1.8	0.56	7/4.8	1.45	28/19.6	1.43	43/54.0	0.80
	2018	15/11.2	1.33	13/4.8	^ 2.72	2/2.1	0.97	2/3.1	0.65	16/15.4	1.04	31/47.5	0.65
Mary Imogene Bassett	2017	16/9.5	1.68	4/1.8	2.23	5/2.3	2.15	1/1.0	1.04	1/6.7	*0.15	17/19.9	0.85
	2018	14/8.1	1.73	0/1.1	0.00	1/2.2	0.45	0/0.6	0.00	9/7.0	1.28	16/18.4	0.87
Massena Memorial	2017	NA	NA			0/0.3	0.00	NA	NA	0/0.2	0.00	4/2.0	2.03
	2018	NA	NA			NA	NA	NA	NA	0/0.1	0.00	0/2.1	0.00
Memor SloanKettering	2017	70/64.6	1.08			4/1.7	2.32	17/16.0	1.06	8/5.5	1.46	NA	NA
	2018	56/56.4	0.99			3/2.1	1.40	18/13.3	1.35	15/5.4	^2.76	NA	NA
Mercy Hosp Buffalo	2017	6/10.1	0.60	7/6.5	1.08	1/1.4	0.74	1/1.9	0.51	9/11.7	0.77	52/42.2	1.23
	2018	15/11.0	1.37	1/5.5	0.18	2/1.6	1.25	0/1.4	0.00	3/10.1	*0.30	57/39.8	1.43
Mercy Med Ctr	2017	1/2.2	0.46			0/0.7	0.00	0/0.5	0.00	1/3.2	0.31	21/17.7	1.18
	2018	1/1.5	0.67			1/0.7	1.35	0/0.4	0.00	2/2.7	0.75	15/18.1	0.83
Metropolitan Hosp	2017	2/1.9	1.05			NA	NA	0/0.6	0.00	1/2.9	0.35	6/10.3	0.58
	2018	NA	NA			1/0.1	7.11	0/0.3	0.00	1/2.2	0.46	4/9.5	0.42
MidHudson Reg of WMC	2017	1/2.7	0.37			0/0.9	0.00	0/0.5	0.00	4/3.1	1.30	16/7.3	^ 2.18
	2018	0/1.5	0.00			0/0.7	0.00	1/0.3	3.62	5/2.2	2.22	6/4.9	1.23
Millard Fill. Suburb	2017	8/12.7	0.63			6/3.8	1.57	3/5.6	0.54	6/8.1	0.74	38/33.3	1.14
	2018	15/11.2	1.34			3/4.3	0.70	3/4.6	0.66	2/8.4	*0.24	32/33.7	0.95
Montefiore-Einstein	2017	8/11.0	0.73	12/3.8	^ 3.19			7/5.7	1.23	19/18.1	1.05	116/86.0	^ 1.35
	2018	14/7.6	^ 1.85	3/2.8	1.07			9/4.0	^ 2.26	21/13.0	1.61	110/57.1	^ 1.93
Montefiore-Moses	2017	11/14.9	0.74	10/4.3	^ 2.35	2/0.7	2.83	3/2.0	1.49	47/41.8	1.13	200/150.0	^ 1.33
	2018	21/13.2	1.60	8/4.0	2.02	0/0.5	0.00	0/1.7	0.00	43/34.7	1.24	203/131.8	^ 1.54
Montefiore-Mt Vernon	2017	0/1.1	0.00			NA	NA	0/0.4	0.00	4/0.9	^4.35	13/4.6	^ 2.85
	2018	3/1.0	3.14			NA	NA	1/0.3	3.32	3/0.8	3.79	6/3.9	1.53

Summary of Hospital-Acquired Infection Data, 2018 New York State

Hospital	Year	Colon SSI Obs/Pred	SIR	CABG Chest SSI Obs/Pred	SIR	Hip SSI Obs/Pred	SIR	Hyst SSI Obs/Pred	SIR	CLABSI Obs/Pred	SIR	CDI Obs/Pred	SIR
Montefiore-NewRochl	2017	3/1.5	2.01			1/1.2	0.86	0/0.5	0.00	2/2.4	0.85	14/11.2	1.26
	2018	1/1.2	0.84			1/1.0	0.97	0/0.3	0.00	5/1.9	2.63	15/9.5	1.59
Montefiore-Nyack	2017	3/3.5	0.87			0/1.0	0.00	0/0.6	0.00	1/4.3	0.23	26/52.4	* 0.50
	2018	4/3.1	1.29			1/1.2	0.84	1/0.5	1.87	4/3.3	1.20	7/30.3	* 0.23
Montefiore-Wakefield	2017	4/1.6	2.53			9/5.3	1.69	1/0.8	1.32	7/7.8	0.90	43/28.7	1.50
	2018	1/1.1	0.88			8/6.1	1.32	NA	NA	9/5.8	1.56	56/24.6	^ 2.28
Mount St. Marys	2017	3/1.5	1.94			2/0.6	3.13	NA	NA	0/2.3	0.00	10/12.1	0.83
	2018	0/1.4	0.00			0/0.6	0.00	NA	NA	0/2.2	0.00	16/16.7	0.96
Mt Sinai	2017	46/32.6	^ 1.41	4/7.1	0.56	3/3.7	0.81	12/6.0	^ 2.01	67/35.8	^1.87	123/124.9	0.99
	2018	30/27.2	1.10	8/6.2	1.29	1/3.7	0.27	2/4.8	0.42	44/26.3	^1.67	110/120.2	0.92
Mt Sinai Beth Israel	2017	17/7.8	^ 2.19			2/1.6	1.27	2/0.9	2.22	9/7.5	1.19	7/26.5	* 0.26
	2018	6/4.5	1.32			0/0.6	0.00	0/0.4	0.00	3/5.2	0.58	4/24.4	* 0.16
Mt Sinai Brooklyn	2017	2/2.2	0.93			2/0.5	4.29	1/0.4	2.32	10/5.1	1.95	6/21.7	* 0.28
	2018	1/2.3	0.43			0/0.6	0.00	0/0.5	0.00	4/3.8	1.07	4/18.7	* 0.21
Mt Sinai Queens	2017	3/2.9	1.02			1/1.0	0.96	2/0.4	5.51	3/3.9	0.77	7/16.6	0.42
	2018	1/1.7	0.60			1/0.9	1.16	NA	NA	3/3.6	0.84	8/15.6	0.51
Mt Sinai St Lukes	2017	3/4.1	0.74	3/4.8	0.62	1/1.2	0.81	0/0.9	0.00	9/7.7	1.18	10/26.9	* 0.37
	2018	4/4.2	0.96	0/5.4	* 0.00	0/1.2	0.00	0/0.6	0.00	7/6.6	1.06	9/29.0	* 0.31
Mt Sinai West	2017	7/8.0	0.88			6/3.2	1.90	1/1.8	0.56	2/3.2	0.62	7/34.3	* 0.20
	2018	3/8.1	0.37			2/4.2	0.47	1/1.9	0.53	1/3.2	0.31	6/30.3	* 0.20
NY Community Hosp	2017	2/1.0	1.95			NA	NA	NA	NA	1/1.2	0.80	47/24.4	^ 1.93
	2018	NA	NA			1/0.3	3.47	NA	NA	0/1.1	0.00	27/15.6	1.73
NY Eye&Ear Mt Sinai	2017									NA	NA	NA	NA
	2018									NA	NA	NA	NA
NYP-Allen	2017	NA	NA			NA	NA	NA	NA	7/3.1	2.25	27/19.4	1.39
	2018	NA	NA			NA	NA	NA	NA	1/2.9	0.35	18/20.2	0.89
NYP-Brklyn Methodist	2017	8/9.5	0.84	1/2.2	0.45	2/2.8	0.72	1/4.9	0.20	12/14.7	0.82	87/77.3	1.13
	2018	7/9.9	0.71	1/1.6	0.64	2/2.3	0.88	1/4.8	0.21	8/13.4	0.60	92/71.7	1.28
NYP-Columbia	2017	11/19.1	0.58	18/12.2	1.48	6/3.0	1.98	4/3.1	1.27	56/42.9	1.31	197/147.2	^ 1.34
	2018	8/15.7	0.51	15/6.6	^ 2.27	5/4.1	1.22	2/2.5	0.79	49/39.4	1.25	198/146.4	^ 1.35
NYP-Hudson Valley	2017	4/2.2	1.82			3/1.9	1.55	NA	NA	3/2.5	1.21	31/21.6	1.44
	2018	1/1.5	0.66			5/2.5	2.03	NA	NA	1/1.9	0.53	20/15.7	1.28

Summary of Hospital-Acquired Infection Data, 2018 New York State

Hospital	Year	Colon SSI Obs/Pred	Colon SSI SIR	CABG Chest SSI Obs/Pred	CABG Chest SSI SIR	Hip SSI Obs/Pred	Hip SSI SIR	Hyst SSI Obs/Pred	Hyst SSI SIR	CLABSI Obs/Pred	CLABSI SIR	CDI Obs/Pred	CDI SIR
NYP-Lawrence	2017	3/1.8	1.69			0/2.5	0.00	NA	NA	11/4.5	^2.44	20/20.6	0.97
	2018	2/2.8	0.71			1/1.5	0.66	NA	NA	2/4.0	0.50	33/22.6	1.46
NYP-Lower Manhattan	2017	2/1.8	1.12			0/0.4	0.00	0/0.4	0.00	4/3.5	1.15	21/15.5	1.36
	2018	2/1.6	1.27			1/0.7	1.36	0/0.4	0.00	1/3.3	0.30	15/15.4	0.97
NYP-Morgan Stanley	2017	1/1.7	0.59			NA	NA	0/0.6	0.00	15/20.6	0.73	NA	NA
	2018	0/1.7	0.00					NA	NA	36/21.2	^1.70	NA	NA
NYP-Queens	2017	4/8.8	0.46	1/2.5	0.39	2/3.0	0.66	0/1.8	0.00	6/10.4	0.58	55/84.4	* 0.65
	2018	7/8.7	0.81	0/1.6	0.00	2/3.1	0.64	0/2.0	0.00	3/9.0	*0.33	43/77.1	* 0.56
NYP-Weill Cornell	2017	13/19.2	0.68	0/5.0	* 0.00	0/1.6	0.00	1/2.4	0.41	61/38.7	^1.58	206/138.3	^ 1.49
	2018	18/16.3	1.10	1/2.9	0.34	1/1.5	0.65	2/1.9	1.04	52/34.3	^1.51	205/116.5	^ 1.76
NYU Langone Brooklyn	2017	16/8.2	^ 1.95			4/2.1	1.93	3/2.0	1.48	11/6.4	1.72	44/36.4	1.21
	2018	13/6.9	^ 1.88			0/2.8	0.00	4/1.7	2.32	3/4.5	0.67	30/34.1	0.88
NYU Orthopedic Hosp	2017					23/16.8	1.37			0/0.2	0.00	NA	NA
	2018					21/18.4	1.14			0/0.1	0.00	NA	NA
NYU Tisch	2017	18/27.6	0.65	6/4.5	1.34	0/0.9	0.00	5/3.2	1.58	24/30.1	0.80	98/86.1	1.14
	2018	18/24.0	0.75	3/4.5	0.66	0/0.9	0.00	3/3.7	0.82	15/23.0	0.65	75/71.3	1.05
NYU Winthrop	2017	14/16.3	0.86	6/4.4	1.36	5/3.5	1.42	3/4.0	0.76	23/22.9	1.00	89/89.6	0.99
	2018	16/17.0	0.94	4/4.9	0.81	8/3.8	2.12	9/4.3	2.11	19/20.2	0.94	86/78.0	1.10
Nassau University	2017	1/2.8	0.36			1/0.5	1.97	1/0.6	1.59	5/5.1	0.99	22/19.7	1.12
	2018	1/2.7	0.37			0/0.9	0.00	3/1.1	2.84	3/3.9	0.77	24/23.2	1.04
Nathan Littauer	2017	NA	NA			0/0.5	0.00	NA	NA	0/0.8	0.00	4/2.7	1.47
	2018	NA	NA			1/0.6	1.68	0/0.3	0.00	0/1.1	0.00	3/1.8	1.64
Newark Wayne	2017	2/1.2	1.73			2/0.9	2.23	0/0.6	0.00	0/2.6	0.00	3/11.9	* 0.25
	2018	1/1.6	0.61			1/0.7	1.34	0/0.5	0.00	2/2.2	0.89	12/8.1	1.49
Niagara Falls	2017	2/1.1	1.78			2/0.3	6.95	0/0.3	0.00	1/1.8	0.56	9/8.6	1.04
	2018	2/1.1	1.82			NA	NA	2/0.3	8.00	3/1.6	1.90	5/9.1	0.55
North Central Bronx	2017	NA	NA					0/0.5	0.00	2/0.8	2.38	7/8.3	0.84
	2018	NA	NA					1/0.3	3.24	0/0.6	0.00	5/10.7	0.47
North Shore	2017	15/26.8	* 0.56	2/9.8	* 0.20	4/4.9	0.82	4/3.3	1.20	21/24.5	0.86	109/119.5	0.91
	2018	10/25.4	* 0.39	5/10.0	0.50	8/5.2	1.55	4/3.6	1.12	17/21.4	0.79	101/113.4	0.89
Northern Dutchess	2017	1/1.4	0.73			4/2.2	1.80	NA	NA	0/1.2	0.00	20/8.3	^ 2.40
	2018	1/1.6	0.63			2/2.2	0.93	NA	NA	1/1.3	0.74	7/6.1	1.14

Summary of Hospital-Acquired Infection Data, 2018 New York State

Hospital	Year	Colon SSI Obs/Pred	SIR	CABG Chest SSI Obs/Pred	SIR	Hip SSI Obs/Pred	SIR	Hyst SSI Obs/Pred	SIR	CLABSI Obs/Pred	SIR	CDI Obs/Pred	SIR
Northern Westchester	2017	3/3.8	0.79			1/2.4	0.41	6/2.2	2.72	5/2.5	1.98	20/25.7	0.78
	2018	2/3.9	0.51			7/2.5	^ 2.75	4/1.9	2.10	3/2.5	1.18	15/16.3	0.92
Noyes Memorial	2017	NA	NA			1/0.5	1.86	0/0.3	0.00	0/0.6	0.00	5/5.1	0.99
	2018	2/1.1	1.87			0/0.4	0.00	NA	NA	0/0.7	0.00	1/3.4	0.29
Oishei Childrens	2017	0/0.9	0.00					0/0.5	0.00	13/10.0	1.30	NA	NA
	2018	0/1.2	0.00					1/0.5	2.07	4/6.9	0.58	NA	NA
Olean General	2017	6/3.0	1.98			0/0.9	0.00	0/0.5	0.00	2/3.5	0.57	16/16.0	1.00
	2018	2/2.2	0.91			2/0.7	2.90	0/0.1	0.00	3/2.7	1.10	15/12.9	1.16
Oneida Healthcare	2017	4/3.2	1.25			NA	NA	1/0.7	1.49	0/0.7	0.00	1/6.2	0.16
	2018	5/2.9	1.72			0/0.2	0.00	0/0.6	0.00	1/0.6	1.79	3/4.3	0.70
Orange Regional	2017	5/7.8	0.64			0/3.3	* 0.00	2/2.2	0.92	8/6.9	1.16	76/57.9	1.31
	2018	11/8.1	1.35			3/3.6	0.82	1/0.7	1.36	7/4.3	1.62	54/48.2	1.12
Oswego Hospital	2017	4/1.7	2.42			0/0.5	0.00	2/0.5	3.97	2/1.1	1.79	8/10.3	0.78
	2018	NA	NA			0/0.5	0.00	0/0.5	0.00	0/0.6	0.00	5/6.2	0.80
Our Lady of Lourdes	2017	0/5.0	* 0.00			0/3.1	* 0.00	0/0.5	0.00	4/4.7	0.85	17/20.7	0.82
	2018	8/4.1	1.96			1/3.1	0.32	0/0.3	0.00	1/4.9	0.21	21/20.9	1.00
Peconic Bay Medical	2017	3/3.2	0.94			4/3.8	1.04	0/0.4	0.00	0/2.0	0.00	18/18.2	0.99
	2018	0/3.0	* 0.00			3/3.8	0.78	NA	NA	1/2.7	0.36	7/18.0	* 0.39
Phelps Memorial	2017	0/1.6	0.00			1/1.8	0.57	1/0.4	2.33	1/1.6	0.61	26/23.2	1.12
	2018	0/1.4	0.00			0/2.2	0.00	0/0.2	0.00	2/1.6	1.22	18/17.2	1.05
Plainview Hospital	2017	1/4.0	0.25			2/1.4	1.44	0/0.5	0.00	3/2.4	1.25	13/13.9	0.94
	2018	1/4.5	0.22			2/1.7	1.15	0/0.5	0.00	6/2.8	2.18	14/17.7	0.79
Putnam Hospital	2017	5/3.2	1.56			3/2.9	1.04	0/0.3	0.00	1/1.4	0.69	11/13.2	0.84
	2018	4/2.8	1.43			2/3.1	0.65	0/0.2	0.00	0/1.4	0.00	11/8.7	1.26
Queens Hospital	2017	3/3.0	0.99					1/1.3	0.77	5/4.0	1.26	13/16.0	0.81
	2018	5/1.7	3.02					0/1.0	0.00	4/4.7	0.86	14/16.3	0.86
Richmond Univ MC	2017	14/5.0	^ 2.79			4/0.6	^ 6.75	3/2.4	1.26	13/6.8	^1.90	48/31.3	^ 1.53
	2018	4/3.4	1.19			2/0.5	3.81	1/2.2	0.46	4/5.1	0.78	33/20.5	1.61
Rochester General	2017	20/17.5	1.14	8/9.4	0.85	6/4.7	1.28	4/6.0	0.67	13/21.5	0.60	84/75.8	1.11
	2018	18/15.3	1.17	11/7.5	1.46	10/5.4	1.85	5/4.9	1.02	20/19.6	1.02	63/72.9	0.86
Rome Memorial	2017	NA	NA			0/0.4	0.00	NA	NA	0/0.8	0.00	8/7.8	1.03
	2018	NA	NA			0/0.3	0.00	NA	NA	3/0.8	3.96	5/5.1	0.98

Summary of Hospital-Acquired Infection Data, 2018 New York State

Hospital	Year	Colon SSI Obs/Pred	Colon SSI SIR	CABG Chest SSI Obs/Pred	CABG Chest SSI SIR	Hip SSI Obs/Pred	Hip SSI SIR	Hyst SSI Obs/Pred	Hyst SSI SIR	CLABSI Obs/Pred	CLABSI SIR	CDI Obs/Pred	CDI SIR
Roswell Park	2017	16/7.5	^ 2.13					5/3.1	1.63	2/1.8	1.09	NA	NA
	2018	21/10.1	^ 2.09					3/2.9	1.04	5/2.0	2.56	NA	NA
SUNY Downstate MedCr	2017	4/3.4	1.17	0/0.9	0.00	0/0.5	0.00	3/2.5	1.22	17/10.6	1.61	31/29.5	1.05
	2018	1/2.2	0.45	2/1.3	1.58	2/1.0	2.02	3/2.1	1.44	7/7.0	1.00	22/21.8	1.01
Samaritan- Troy	2017	5/3.2	1.54			5/1.1	^ 4.46	3/0.7	4.59	2/4.5	0.45	5/10.2	0.49
	2018	6/3.7	1.61			3/1.1	2.65	0/0.5	0.00	4/4.8	0.84	21/19.6	1.07
Samaritan- Watertown	2017	3/3.1	0.97			3/1.0	3.08	3/1.1	2.63	2/3.1	0.65	24/30.2	0.80
	2018	1/2.7	0.37			0/0.9	0.00	1/1.1	0.87	3/2.9	1.04	15/20.8	0.72
Saratoga Hospital	2017	3/4.5	0.66			4/4.3	0.94	NA	NA	2/3.4	0.59	25/20.9	1.20
	2018	6/5.5	1.10			2/4.5	0.44	NA	NA	2/3.6	0.56	28/25.9	1.08
Sisters of Charity	2017	10/5.2	1.91			0/1.5	0.00	1/2.9	0.35	5/7.7	0.65	17/19.9	0.85
	2018	8/4.9	1.64			2/1.2	1.71	3/2.7	1.11	9/7.1	1.27	28/23.1	1.21
Sisters- St Joseph	2017	5/1.8	2.80			2/1.9	1.03	0/0.4	0.00	0/2.3	0.00	12/8.5	1.41
	2018	3/1.4	2.20			2/2.2	0.90	2/0.7	2.80	3/2.2	1.39	10/6.2	1.60
South Nassau Comm.	2017	7/8.6	0.82			2/3.1	0.65	4/2.9	1.37	12/12.9	0.93	56/60.1	0.93
	2018	12/8.4	1.43			1/1.5	0.66	1/2.6	0.38	17/12.2	1.39	37/48.0	0.77
Southside	2017	5/10.1	0.49	3/3.3	0.91	2/3.1	0.64	0/3.1	* 0.00	9/5.8	1.55	51/35.4	1.44
	2018	4/8.5	0.47	4/2.9	1.40	3/3.7	0.81	1/4.0	0.25	8/5.3	1.51	35/32.9	1.06
St Anthony	2017	NA	NA			1/0.9	1.15	1/0.5	2.15	0/0.3	0.00	3/3.7	0.81
	2018	NA	NA			0/0.8	0.00	0/0.3	0.00	1/0.3	3.81	4/4.7	0.85
St Barnabas	2017	0/4.3	* 0.00			0/0.4	0.00	0/0.4	0.00	1/3.1	0.33	9/20.2	* 0.45
	2018	0/3.3	* 0.00			1/0.5	1.82	NA	NA	1/2.7	0.37	1/20.8	* 0.05
St Catherine Siena	2017	2/5.1	0.39			1/1.0	0.95	0/0.4	0.00	1/5.4	0.19	15/22.6	0.67
	2018	1/3.7	0.27			1/1.2	0.82	0/0.3	0.00	2/4.3	0.46	8/18.4	0.44
St Charles Hospital	2017	3/2.2	1.34			2/2.5	0.79	0/0.4	0.00	0/1.7	0.00	15/19.3	0.78
	2018	0/1.6	0.00			3/2.6	1.16	0/0.4	0.00	0/1.2	0.00	24/16.9	1.42
St Elizabeth Medical	2017	1/3.1	0.32	7/3.7	1.88	3/2.7	1.11	NA	NA	3/5.7	0.52	41/33.4	1.23
	2018	6/4.7	1.29	4/2.2	1.84	5/2.3	2.21	NA	NA	8/5.3	1.51	41/24.5	^ 1.67
St Francis- Roslyn	2017	11/10.5	1.05	5/9.8	0.51	2/5.9	0.34	NA	NA	7/16.3	*0.43	28/54.2	* 0.52
	2018	9/10.9	0.83	4/7.8	0.51	2/6.0	0.33	NA	NA	3/11.0	*0.27	34/47.7	0.71
St James Mercy	2017	NA	NA			NA	NA			1/0.2	4.35	0/0.4	0.00
	2018	NA	NA			NA	NA			0/0.2	0.00	0/0.3	0.00

Summary of Hospital-Acquired Infection Data, 2018 New York State

Hospital	Year	Colon SSI Obs/Pred	SIR	CABG Chest SSI Obs/Pred	SIR	Hip SSI Obs/Pred	SIR	Hyst SSI Obs/Pred	SIR	CLABSI Obs/Pred	SIR	CDI Obs/Pred	SIR
St Johns Dobbs Ferry	2017	NA	NA			1/0.8	1.24			NA	NA	0/0.5	0.00
	2018					2/1.2	1.67			NA	NA	0/0.4	0.00
St Johns Episcopal	2017	1/1.8	0.55			2/0.2	8.05	0/0.4	0.00	6/3.5	1.70	14/15.7	0.89
	2018	3/1.8	1.70			3/0.4	^ 7.38	NA	NA	12/3.8	^3.17	13/15.9	0.82
St Johns Riverside	2017	5/2.4	2.07			0/0.3	0.00	0/0.6	0.00	2/2.6	0.78	7/9.4	0.75
	2018	3/1.8	1.63			1/0.3	3.00	1/0.6	1.75	0/2.4	0.00	16/10.9	1.47
St Joseph- Bethpage	2017	5/2.0	2.55			0/0.4	0.00			1/2.7	0.37	14/18.4	0.76
	2018	2/1.5	1.30			0/0.5	0.00	NA	NA	0/1.9	0.00	14/12.5	1.12
St Josephs- Elmira	2017									0/0.1	0.00	4/3.9	1.02
	2018									NA	NA	0/1.9	0.00
St Josephs- Syracuse	2017	19/12.4	1.53	10/9.0	1.11	6/8.6	0.69	1/1.6	0.63	8/17.8	*0.45	63/64.9	0.97
	2018	11/11.4	0.97	10/8.8	1.14	11/8.9	1.24	0/1.5	0.00	0/13.9	*0.00	59/54.1	1.09
St Josephs- Yonkers	2017	NA	NA			0/0.3	0.00	NA	NA	1/1.3	0.76	1/4.5	0.22
	2018	NA	NA			0/0.4	0.00	NA	NA	2/1.1	1.90	8/4.3	1.88
St Lukes Cornwall	2017	0/2.8	0.00			3/1.9	1.59	0/0.5	0.00	2/3.3	0.61	29/32.6	0.89
	2018	0/2.6	0.00			3/2.2	1.35	0/0.3	0.00	0/3.2	*0.00	11/21.8	0.50
St Marys Amsterdam	2017	1/1.0	0.96			3/0.8	3.97	NA	NA	1/1.5	0.65	10/6.7	1.49
	2018	0/1.0	0.00			2/0.9	2.35	NA	NA	1/1.4	0.73	9/6.2	1.45
St Peters Hospital	2017	19/16.0	1.19	5/8.1	0.62	8/10.0	0.80	3/3.3	0.90	11/24.4	*0.45	48/58.9	0.81
	2018	11/12.1	0.91	3/6.9	0.44	4/8.5	0.47	7/4.7	1.50	8/20.8	*0.38	40/69.0	* 0.58
Staten Island U N	2017	11/9.2	1.20	1/2.9	0.34	3/3.1	0.96	2/1.7	1.20	8/8.7	0.92	69/69.2	1.00
	2018	12/9.6	1.25	0/3.5	* 0.00	3/3.1	0.98	3/1.7	1.80	4/8.2	0.49	85/63.4	1.34
Staten Island U S	2017	NA	NA					NA	NA	2/1.7	1.19	24/14.4	1.66
	2018	NA	NA							1/1.5	0.66	11/16.2	0.68
StonyBrkSouthampton	2017	3/2.3	1.33			0/0.2	0.00	0/0.3	0.00	4/1.5	2.71	11/7.2	1.52
	2018	0/1.2	0.00			0/0.3	0.00	2/0.5	4.05	5/1.4	^3.66	20/9.6	^ 2.08
StonyBrookUniv	2017	11/12.7	0.87	4/3.1	1.30	3/4.5	0.66	6/3.2	1.88	12/21.4	*0.56	98/98.3	1.00
	2018	16/11.8	1.36	4/2.6	1.54	5/5.5	0.91	9/2.8	^ 3.19	16/18.4	0.87	137/93.6	^ 1.46
Strong Memorial	2017	25/16.6	1.51	7/4.4	1.60	1/1.2	0.84	1/2.6	0.39	45/54.9	0.82	158/149.1	1.06
	2018	20/17.3	1.15	5/3.3	1.50	1/1.4	0.69	1/2.1	0.47	36/41.1	0.88	149/115.4	^ 1.29
Sunnyview Rehab Hosp	2017									0/0.1	0.00	NA	NA
	2018									0/0.1	0.00	NA	NA

Summary of Hospital-Acquired Infection Data, 2018 New York State

Hospital	Year	Colon SSI Obs/Pred	SIR	CABG Chest SSI Obs/Pred	SIR	Hip SSI Obs/Pred	SIR	Hyst SSI Obs/Pred	SIR	CLABSI Obs/Pred	SIR	CDI Obs/Pred	SIR
Syosset Hospital	2017	NA	NA			4/4.4	0.92			0/0.7	0.00	2/6.6	0.30
	2018	NA	NA			5/4.2	1.20			0/1.0	0.00	4/4.6	0.87
UHS Binghamton	2017					5/2.4	2.06			1/1.2	0.84	10/9.3	1.08
	2018	NA	NA			6/2.2	^ 2.77	NA	NA	0/1.0	0.00	12/7.2	1.66
UHS Chenango Memor	2017	NA	NA			0/0.4	0.00	NA	NA	0/0.1	0.00	2/2.1	0.97
	2018	NA	NA			1/0.4	2.49	NA	NA	1/0.2	5.96	0/2.6	0.00
UHS Wilson	2017	10/5.9	1.69	4/2.5	1.59	0/0.3	0.00	0/0.8	0.00	20/9.2	^2.17	34/27.8	1.22
	2018	19/8.9	^ 2.14	3/2.2	1.34	0/0.4	0.00	2/1.1	1.75	15/9.4	1.59	52/29.0	^ 1.79
UPMC Chautauqua WCA	2017	1/2.0	0.51			2/0.3	6.01	0/0.4	0.00	2/2.7	0.74	17/34.1	* 0.50
	2018	0/1.4	0.00			0/0.5	0.00	NA	NA	7/2.8	^2.50	10/20.0	0.50
United Memorial	2017	NA	NA			1/1.0	0.97	NA	NA	0/1.0	0.00	5/9.0	0.56
	2018	NA	NA			2/1.3	1.58	NA	NA	0/1.1	0.00	2/7.7	0.26
Unity Hosp Rochester	2017	8/9.2	0.87			8/7.4	1.08	1/1.6	0.64	4/11.5	*0.35	26/36.6	0.71
	2018	5/8.7	0.57			9/6.3	1.43	0/1.3	0.00	2/11.5	*0.17	38/32.0	1.19
Univ Hosp SUNY Upst	2017	11/12.6	0.87	0/1.4	0.00	1/1.4	0.73	0/1.0	0.00	16/28.3	*0.56	76/92.5	0.82
	2018	13/13.0	1.00	1/2.8	0.35	4/1.1	3.55	1/0.8	1.29	14/28.6	*0.49	87/82.9	1.05
Upst. Community Gen	2017	1/3.7	0.27			5/3.5	1.44	1/0.7	1.35	1/3.1	0.32	12/20.8	0.58
	2018	0/2.5	0.00			1/3.7	0.27	0/0.4	0.00	3/2.5	1.20	18/17.8	1.01
Vassar Brothers	2017	1/11.0	* 0.09	1/2.3	0.43	1/2.3	0.43	2/2.8	0.72	2/9.8	*0.20	92/84.8	1.09
	2018	5/13.1	* 0.38	4/3.0	1.32	0/3.1	* 0.00	0/3.2	* 0.00	6/9.4	0.64	91/73.9	1.23
Westchester Medical	2017	2/9.6	* 0.21	2/3.4	0.59	1/0.7	1.46	3/4.5	0.66	23/34.3	0.67	159/118.9	^ 1.34
	2018	11/10.4	1.05	3/3.9	0.78	1/0.8	1.23	1/3.7	0.27	22/29.2	0.75	127/100.6	1.26
White Plains Hosp	2017	9/6.7	1.34			2/2.0	1.00	1/2.0	0.50	4/7.4	0.54	42/28.4	1.48
	2018	7/6.1	1.14			3/2.2	1.38	2/2.1	0.96	2/6.1	0.33	26/32.2	0.81
Woodhull Med Ctr	2017	2/1.8	1.13			1/0.2	4.03	0/0.6	0.00	6/4.9	1.24	7/15.5	0.45
	2018	0/1.1	0.00			0/0.2	0.00	0/0.3	0.00	5/3.6	1.40	7/13.2	0.53
Wyckoff Heights	2017	3/2.6	1.16			NA	NA	1/1.3	0.77	8/4.4	1.83	20/19.7	1.01
	2018	3/2.2	1.36			0/0.2	0.00	0/0.7	0.00	9/4.4	2.06	17/17.5	0.97
Wyoming County Comm.	2017	NA	NA			1/0.3	3.52	NA	NA	0/0.4	0.00	0/1.6	0.00
	2018	NA	NA			0/0.5	0.00	NA	NA	NA	NA	1/1.3	0.78

Each hospital's 2018 data was compared to the NYS 2018 average. CLABSIs were reported in selected intensive care units and wards. See Technical Report for details on risk adjustment methods. ▉ Significantly better than the NYS average. ▉ Significantly worse than the NYS average. ▉ Same: Not significantly different from the NYS average. No data: Hospital does not have any reportable data. Not calculated: The hospital performed fewer than 20 procedures, used fewer than 50 central line days, or was a specialty hospital that was excluded from CDI risk adjustment.

Summary of hospital performance

In 2018, 37 hospitals (21%) were flagged red for having an HAI rate significantly higher than the state average in one of the 20 indicators (i.e. colon SSI, CABG chest SSI, CABG donor SSI, hip SSI, hysterectomy SSI, CLABSIs in eight types of ICUs and five types of wards, overall CLABSI SIR, and CDI). Hospital infection preventionists were required to submit improvement plans to NYSDOH to address each red flag. The details of the response and NYS involvement increase based on the number of consecutive years flagged high, following the NYSDOH HAI Reporting Program's "Policy for Facilities with Consecutive Years of High HAI Rates" (https://www.health.ny.gov/statistics/facilities/hospital/hospital_acquired_infections/docs/policy_repeat_high_hai_rates.pdf).

What should I do with this information?

It's important to understand that numbers alone won't show how well a hospital is doing in preventing HAIs. This report shows how hospitals performed in 2017 and 2018, based on a selected set of HAIs and with limited adjustment for differences between patient populations. Consumers should consult with doctors, healthcare facilities, health insurance carriers, and reputable healthcare websites before deciding where to receive care. Decisions regarding healthcare quality should not be based on these data alone.

Role of the State Health Department

The NYSDOH collaborates with federal agencies, healthcare facilities, and the public with the common goal of reducing HAIs and antibiotic resistance. Some specific achievements in 2018 are listed below.

- DOH continued to audit hospitals to ensure that public reporting fairly reflects what is actually occurring in each hospital.

- DOH continued to monitor the improvement plans of hospitals flagged with high HAI rates to encourage improvement and provide assistance as requested.

- DOH visited facilities with high CRE rates and *Candida auris* rates, discussing a variety of topics including facility-wide CRE surveillance and prevention practices, barriers to implementation, antibiotic stewardship activities, and other strategies intended to reduce facility incidence rates.

- DOH continued to act as a central resource for up-to-date, evidence-based information on HAI prevention, and DOH continued to assist facilities in responding to outbreaks.

Additional information on these topics is available in Part 2: Technical Report.

What Patients Can do to Prevent Infections

1. **Keep hands clean.**

   Be sure everyone cleans their hands before touching you. If you do not see your healthcare providers clean their hands before caring for you, don't be shy about asking them to do so. Keep your own hands clean to avoid contaminating yourself.

2. **Talk to your doctors about all of your questions and concerns.**

   Clear communication is very important. Ask your doctor what specific steps he or she takes to prevent infections, as well as what you can do to help prevent infections.

3. **Take antibiotics only if necessary and exactly as your doctor prescribes.**

   Ask your doctor if you really need an antibiotic and what you can do to feel better if you don't. Ask if tests will be done to make sure the right antibiotic is prescribed.

4. **Know the signs and symptoms of infection so you can seek medical care quickly.**

   Diarrhea while taking an antibiotic could be a sign of *Clostridioides difficile* infection. Carefully follow your doctor's instructions for post-operative care of your wounds. Watch for fever, as well as redness, pain, or discharge near a surgery or catheter site.

5. **If you have a central line or urinary catheter, ask each day if it is necessary.**

   Invasive devices provide a way for bacteria to enter the body. Carefully follow instructions for care of these devices when they are necessary.

Additional information on HAIs is available from CDC at http://www.cdc.gov/hai/.