

Hospital-Acquired Infections in New York State, 2019

Part 1: Summary for Consumers

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Acknowledgements:

Cover Images (from left to right): Acinetobacter, methicillin-resistant *Staphylococcus aureus*, carbapenem-resistant *Enterobacteriaceae*, *Candida*. From the Centers for Disease Control and Prevention Newsroom Image Library, <http://www.cdc.gov/media/subtopic/images.htm>.

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 2019.

This report provides information on six types of HAIs:

1. Surgical site infections (SSIs) following colon, coronary artery bypass graft, hip replacement, hysterectomy, and spinal fusion 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/>.

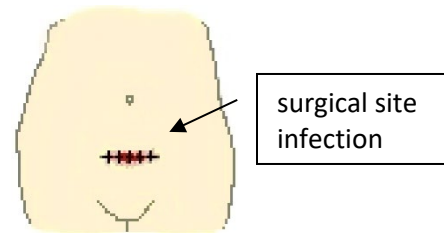
In accordance with NYS Public Health Law 2819, NYS acute care hospitals have been reporting HAIs since 2007. In 2019, NYS required hospitals to report SSIs, CLABSIs, CDIs, and CRE infections. In addition, hospitals report data to NHSN to participate in programs offered by the Centers for Medicare and 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 surgery is a procedure performed on the lower part of the digestive tract, called the large intestine or colon.
- 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 is the surgical removal of a woman’s uterus through an incision in the abdominal wall.
- Coronary artery bypass graft (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.
- Spinal fusion is a procedure to permanently connect two or more vertebrae in the *spine*, eliminating motion between them.

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



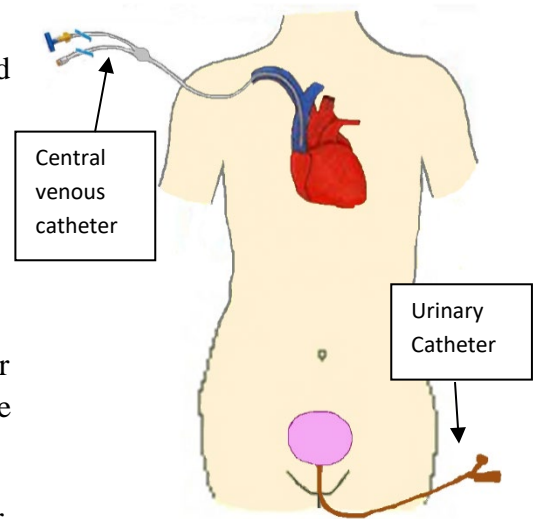
The infection rate is the number of SSIs divided by the number of procedures. Results from 2019 for all NYS hospitals are summarized below. SSIs were most frequent after colon surgery. Colon SSIs may be more difficult to prevent because the colon naturally contains a lot of bacteria.

Type of Surgery	Number of Infections	Number of Procedures	Infection Rate	2019 rate compared to 2015
Colon	776	19,207	4.0/100 procedures	improved 28%
Hip	310	35,216	1.0/100 procedures	improved 8%
Abdominal hysterectomy	230	17,312	1.3/100 procedures	worsened 8%
Coronary artery bypass graft ¹	132	10,627	1.2/100 procedures	improved 23%
Spinal fusion	343	29,036	1.2/100 procedures	Not applicable

2019 New York State data reported as of December 8, 2020. ¹chest-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.



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 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	2019 rate compared to 2015
Central venous	1,244	1,535,332	0.8/1,000 CVC days	improved 27%
Urinary	1,143	1,171,000	1.0/1,000 UC days	improved 25%

2019 NYS data reported as of November 23, 2020 (venous) and November 12, 2020 (urinary). Central venous catheter infections associated with mucosal barrier injury and the use of extracorporeal membrane oxygenation and ventricular assist devices were excluded from the number of infections in the second column.

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+

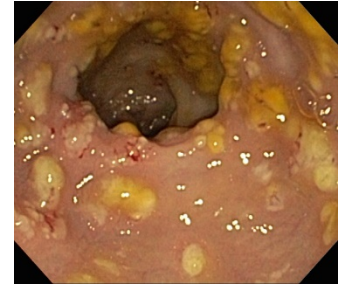
- Cases termed “admission prevalent”, or “community onset” are cases in which the specimen was obtained during the first three days of the patient’s inpatient stay. These cases are presumed to be unrelated to the patient’s stay in that hospital.
- Cases termed “hospital-onset (HO)” are cases in which 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 2019, 4,241 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 9,000 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 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.

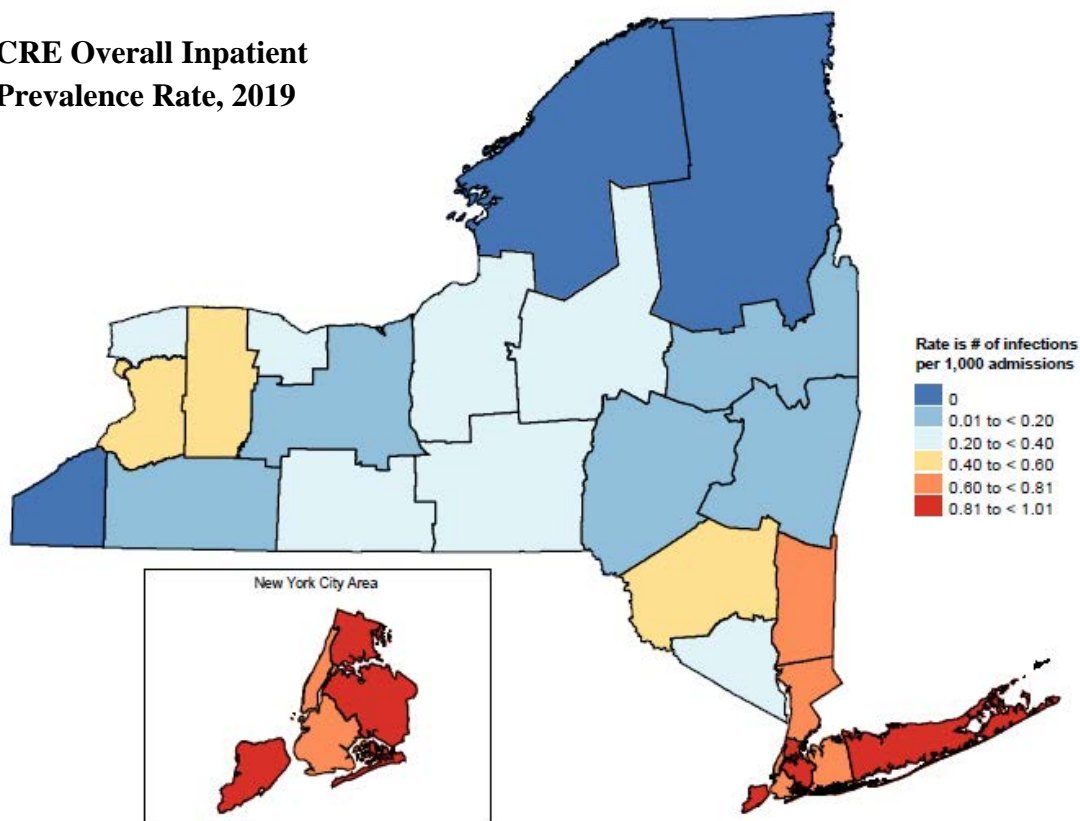
<i>Clostridioides difficile</i> rate	Number of Infections	Number of Patient Days	Infection Rate	2019 rate compared to 2015
Hospital Onset	4,241	10,412,350	4.1/10,000 patient days	improved 45%

2019 NYS data reported as of November 23, 2020.

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, 2019



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	2019 rate compared to 2015
Hospital onset – BSI	142	11,262,506	0.13/10,000 patient days	improved 38%
Hospital onset – all sites	767	11,262,506	0.68/10,000 patient days	improved 42%

NYS data reported as of November 23, 2020. 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 2019, 554 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 2,948 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	2019 rate compared to 2015
Hospital Onset	554	10,214,721	0.54/10,000 patient days	improved 20%

NYS data reported as of November 12, 2020.

Hospital Performance

To evaluate hospital performance, NYS asks the question,

“How did each hospital perform in 2019 compared to the NYS 2019 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, 2019 New York State

		Colon SSI		CABG Chest SSI		Hip SSI		Hysterectomy SSI		Fusion SSI		CLABSI		CDI	
Hospital	Year	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR
AO Fox Memorial	2018	NA	NA			0/0.3	0.00	NA	NA			0/0.8	0.00	6/3.8	1.57
	2019	NA	NA			0/0.2	0.00			NA	NA	0/0.6	0.00	4/6.4	0.63
Adirondack Medical	2018	2/2.6	0.78			1/0.9	1.06	NA	NA			1/0.6	1.70	3/2.9	1.03
	2019	3/3.0	1.01			1/1.3	0.77	NA	NA			0/0.6	0.00	8/2.7	2.99
Albany Med Ctr	2018	33/20.0	^ 1.65	6/4.6	1.32	6/8.8	0.68	3/3.0	1.00			29/36.0	0.81	121/112.0	1.08
	2019	34/17.6	^ 1.93	4/3.8	1.04	11/7.3	1.52	4/3.3	1.22	9/8.2	1.10	27/35.7	0.76	67/57.3	1.17
Arnot Ogden Med Ctr	2018	1/2.7	0.38	0/0.6	0.00	5/2.6	1.89	0/0.3	0.00			4/4.5	0.88	22/20.5	1.07
	2019	3/2.5	1.22	2/0.6	3.17	3/2.1	1.45	0/0.3	0.00	2/1.8	1.12	6/3.4	1.74	4/17.4	* 0.23
Auburn Community Hos	2018	3/1.4	2.07			1/0.5	1.87	NA	NA			1/0.9	1.12	23/8.2	^ 2.82
	2019	0/1.1	0.00			2/0.6	3.30	NA	NA			2/0.7	2.72	10/10.8	0.93
Bellevue Ellis	2018							1/0.7	1.43					NA	NA
	2019							0/0.6	0.00					NA	NA
Bellevue Hospital	2018	3/3.9	0.77	4/1.7	2.37	0/0.8	0.00	2/1.5	1.29			34/13.3	^2.55	56/62.4	0.90
	2019	6/4.4	1.35	0/1.3	0.00	0/0.4	0.00	1/1.5	0.67	1/0.7	1.40	18/10.5	^1.72	43/41.3	1.04
Blythedale Childrens	2018											3/2.5	1.22	NA	NA
	2019											9/3.1	^2.91	NA	NA
Bon Secours	2018	1/0.6	1.57			NA	NA	NA	NA			1/0.4	2.36	2/2.7	0.75
	2019	0/0.6	0.00			NA	NA	NA	NA			0/0.3	0.00	1/3.6	0.28
BronxCare HealthSyst	2018	0/2.5	0.00			0/0.7	0.00	0/1.6	0.00			17/12.3	1.38	42/38.9	1.08
	2019	1/3.1	0.33			0/0.6	0.00	3/2.0	1.49	1/1.0	0.96	15/8.0	^1.87	46/33.8	1.36
Brookdale Hospital	2018	3/4.2	0.72			0/0.3	0.00	0/0.9	0.00			17/7.4	^2.29	16/14.6	1.10
	2019	5/4.4	1.14			0/0.3	0.00	0/1.5	0.00	NA	NA	9/8.3	1.08	6/11.2	0.54

Summary of Hospital-Acquired Infection Data, 2019 New York State

Hospital	Year	Colon SSI		CABG Chest SSI		Hip SSI		Hysterectomy SSI		Fusion SSI		CLABSI		CDI	
		Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR
Brooklyn Hosp Ctr	2018	0/2.6	0.00			0/0.9	0.00	8/2.4	^ 3.37			2/13.3	*0.15	8/29.0	* 0.28
	2019	0/2.1	0.00			0/0.8	0.00	2/2.4	0.82	0/0.5	0.00	2/11.3	*0.18	8/18.4	0.44
Brooks Memorial	2018	NA	NA			2/0.9	2.27	NA	NA			2/0.5	3.95	2/2.7	0.75
	2019	NA	NA			0/0.6	0.00	NA	NA			0/0.3	0.00	0/2.1	0.00
Buffalo General	2018	0/5.7	* 0.00	10/7.7	1.31	10/8.5	1.18	0/0.5	0.00			17/21.3	0.80	92/78.4	1.17
	2019	3/3.9	0.76	8/6.4	1.25	9/6.6	1.37	NA	NA	16/14.4	1.11	27/28.1	0.96	86/70.8	1.22
Calvary Hospital	2018													NA	NA
	2019													NA	NA
Canton-Potsdam	2018	2/1.8	1.09			0/1.0	0.00	1/0.3	3.32			0/1.5	0.00	10/8.4	1.18
	2019	3/2.0	1.50			1/1.1	0.91	1/0.3	3.36			1/1.0	1.03	18/7.7	^ 2.34
Catskill Regional MC	2018	1/1.1	0.91			NA	NA	0/0.5	0.00			2/0.7	3.01	12/5.8	2.06
	2019	1/0.9	1.16			NA	NA	2/0.6	3.49			0/0.6	0.00	16/5.1	^ 3.16
Cayuga Medical Ctr	2018	1/1.6	0.63			0/1.7	0.00	NA	NA			1/1.6	0.63	4/11.9	0.34
	2019	2/2.0	0.99			0/1.7	0.00	NA	NA	1/0.9	1.16	1/1.4	0.71	7/10.6	0.66
Claxton-Hepburn	2018	1/1.5	0.67			0/0.5	0.00	NA	NA			3/1.7	1.80	7/9.5	0.74
	2019	NA	NA			0/0.3	0.00	NA	NA			3/1.4	2.19	13/8.1	1.60
Clifton Springs	2018	NA	NA									0/1.1	0.00	1/5.3	0.19
	2019	NA	NA					NA	NA			0/1.0	0.00	2/3.2	0.62
Cohens Childrens	2018											4/8.5	0.47	NA	NA
	2019											8/13.3	0.60	NA	NA

Summary of Hospital-Acquired Infection Data, 2019 New York State

		Colon SSI		CABG Chest SSI		Hip SSI		Hysterectomy SSI		Fusion SSI		CLABSI		CDI	
Hospital	Year	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR
Columbia Memorial	2018	4/2.1	1.86			2/1.0	1.92	0/0.7	0.00			4/2.0	1.98	31/9.6	^ 3.22
	2019	4/1.3	3.20			2/1.0	2.10	1/0.8	1.25			0/1.7	0.00	15/9.0	1.67
Coney Island Hosp	2018	1/1.8	0.54			2/0.7	2.94	2/0.4	5.25			7/8.7	0.81	40/51.3	0.78
	2019	1/2.6	0.39			2/0.9	2.20	0/0.9	0.00	0/0.2	0.00	8/8.0	1.00	38/32.2	1.18
Corning Hospital	2018	NA	NA			1/1.0	0.96	0/0.3	0.00			1/0.9	1.17	6/6.8	0.89
	2019	NA	NA			0/0.8	0.00	0/0.5	0.00			0/0.8	0.00	6/6.9	0.88
Crouse Hospital	2018	8/9.7	0.83			12/6.6	1.82	5/5.1	0.98			15/9.2	1.63	22/42.1	* 0.52
	2019	14/10.1	1.38			11/5.6	1.97	3/5.8	0.52	10/4.8	2.08	18/9.7	^1.86	28/39.7	0.70
Eastern Niagara Hosp	2018	2/1.3	1.51			0/0.3	0.00	NA	NA			2/0.3	7.23	5/5.1	0.99
	2019	0/1.1	0.00			0/0.3	0.00	NA	NA	2/0.3	7.03	0/0.3	0.00	8/4.2	1.91
Ellis Hospital	2018	11/6.6	1.66	2/2.6	0.78	2/2.5	0.79	0/0.8	0.00			2/8.6	*0.23	44/37.4	1.17
	2019	10/6.6	1.52	2/2.9	0.70	0/2.1	0.00	0/0.8	0.00	0/0.1	0.00	5/8.1	0.61	22/30.6	0.72
Elmhurst Hospital	2018	1/2.8	0.36			1/0.7	1.34	2/1.4	1.48			16/6.4	^2.49	23/36.4	0.63
	2019	8/4.0	1.98			0/0.5	0.00	2/1.5	1.30	1/1.0	0.95	7/5.1	1.37	22/31.9	0.69
Erie County Med Ctr	2018	10/4.1	^ 2.41			6/5.5	1.09					20/11.5	^1.74	56/45.6	1.23
	2019	2/3.7	0.54			3/5.0	0.60			15/6.6	^ 2.29	7/7.4	0.95	35/37.5	0.93
FF Thompson	2018	5/2.3	2.20			1/1.5	0.69	0/0.2	0.00			1/2.0	0.49	9/9.5	0.95
	2019	5/2.5	2.03			1/1.2	0.83	0/0.2	0.00	NA	NA	1/2.3	0.44	5/7.0	0.71
Faxton St. Lukes	2018	4/2.2	1.81			1/0.4	2.23	7/0.7	^ 9.61			7/5.4	1.30	34/24.1	1.41
	2019	0/2.9	0.00			0/0.5	0.00	6/1.5	^ 4.04	2/1.8	1.11	16/9.1	^1.77	44/25.6	^ 1.72
Flushing Hospital	2018	1/1.5	0.68			1/0.3	3.86	3/1.8	1.68			4/3.3	1.21	9/18.0	0.50
	2019	0/1.4	0.00			0/0.4	0.00	0/1.4	0.00			6/3.2	1.85	9/9.9	0.91

Summary of Hospital-Acquired Infection Data, 2019 New York State

Hospital	Year	Colon SSI		CABG Chest SSI		Hip SSI		Hysterectomy SSI		Fusion SSI		CLABSI		CDI	
		Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR
Geneva General	2018	0/1.9	0.00			0/1.5	0.00					0/1.5	0.00	4/11.4	0.35
	2019	3/2.0	1.50			0/1.0	0.00			1/2.3	0.43	1/1.5	0.69	6/9.2	0.65
Glen Cove Hospital	2018	2/1.6	1.22			0/0.3	0.00					1/0.5	1.82	4/5.4	0.74
	2019	0/1.5	0.00			NA	NA	NA	NA			0/0.6	0.00	2/5.1	0.39
Glens Falls Hospital	2018	8/5.5	1.45	NA	NA	4/1.7	2.35	0/0.4	0.00			1/3.8	0.26	33/24.8	1.33
	2019	4/5.9	0.68			1/1.5	0.67	0/0.9	0.00	NA	NA	1/3.9	0.26	10/10.6	0.95
Good Samar. Suffern	2018	4/3.9	1.03	2/1.7	1.15	0/2.0	0.00	0/0.6	0.00			4/5.2	0.78	41/24.7	^ 1.66
	2019	0/4.1	* 0.00	0/1.4	0.00	2/1.3	1.53	0/0.3	0.00	NA	NA	2/5.0	0.40	22/17.9	1.23
Good Samar. W Islip	2018	7/10.3	0.68	0/3.4	* 0.00	3/2.4	1.25	2/4.9	0.41			4/10.4	*0.38	41/53.4	0.77
	2019	20/10.6	^ 1.89	4/3.5	1.13	5/2.1	2.34	5/5.2	0.95	5/4.3	1.16	5/9.9	0.50	42/46.4	0.90
Guthrie Cortland MC	2018	1/1.3	0.78			0/0.3	0.00	0/0.3	0.00			0/1.0	0.00	4/13.3	* 0.30
	2019	NA	NA			1/0.3	3.45	NA	NA			0/0.7	0.00	4/14.2	* 0.28
Harlem Hospital	2018	0/1.9	0.00			NA	NA	1/0.3	3.47			3/5.3	0.57	8/17.8	0.45
	2019	1/1.1	0.90			NA	NA	1/0.3	2.90	0/0.2	0.00	3/3.5	0.86	13/13.9	0.94
HealthAlli Broadway	2018	0/2.0	0.00			0/0.5	0.00	NA	NA			1/3.4	0.30	12/6.5	1.85
	2019	2/2.0	1.00			0/0.4	0.00	NA	NA			0/2.3	0.00	15/7.1	2.11
HealthAlli MarysAve	2018	NA	NA			0/1.5	0.00					0/0.2	0.00	0/1.2	0.00
	2019					1/1.4	0.73					0/0.1	0.00	1/1.0	1.01
Henry J. Carter	2018													NA	NA
	2019													NA	NA

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		Colon SSI		CABG Chest SSI		Hip SSI		Hysterectomy SSI		Fusion SSI		CLABSI		CDI	
Hospital	Year	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR
Highland Hospital	2018	1/5.6	0.18			12/10.6	1.13	3/7.4	0.40			5/8.2	0.61	16/28.8	0.56
	2019	7/5.6	1.24			3/10.0	* 0.30	4/7.5	0.53	5/4.6	1.09	6/9.5	0.63	35/25.2	1.39
Hosp for Spec Surg	2018					27/39.5	* 0.68					0/2.0	0.00	NA	NA
	2019					29/37.3	0.78			31/22.5	1.38	1/2.0	0.51	NA	NA
Huntington Hospital	2018	4/7.6	0.53			3/2.5	1.19	0/1.5	0.00			0/1.6	0.00	33/30.9	1.07
	2019	5/7.8	0.64			0/2.5	0.00	1/1.3	0.79	4/2.9	1.39	0/2.5	0.00	24/25.8	0.93
Interfaith Med Ctr	2018	NA	NA			NA	NA	NA	NA			1/3.2	0.31	5/6.2	0.81
	2019	NA	NA			NA	NA	NA	NA			4/2.7	1.49	4/4.5	0.90
Jacobi Med Ctr	2018	10/5.0	2.00			0/0.5	0.00	3/1.2	2.58			13/7.0	1.85	45/35.3	1.28
	2019	7/3.8	1.85			1/0.5	2.11	5/1.5	^ 3.29	0/1.1	0.00	12/6.8	1.77	29/28.2	1.03
Jamaica Hospital	2018	2/2.9	0.68			0/0.7	0.00	0/1.0	0.00			11/5.3	^2.07	29/29.1	1.00
	2019	2/3.3	0.61			1/0.5	1.96	0/0.7	0.00	NA	NA	7/6.4	1.09	27/22.8	1.19
Jones Memorial	2018	NA	NA			NA	NA	NA	NA			0/0.6	0.00	1/3.7	0.27
	2019	NA	NA			0/0.3	0.00	NA	NA			0/0.4	0.00	1/2.0	0.49
Kenmore Mercy	2018	10/6.9	1.45			8/4.0	2.01					0/2.4	0.00	16/14.5	1.10
	2019	4/3.9	1.01			4/4.5	0.89	NA	NA	12/10.1	1.19	0/2.3	0.00	17/13.8	1.23
Kings County Hosp	2018	0/4.3	* 0.00			0/0.6	0.00	0/1.6	0.00			12/9.3	1.29	36/43.4	0.83
	2019	3/2.7	1.12			0/0.4	0.00	3/1.5	2.03	0/0.5	0.00	9/8.2	1.10	33/31.3	1.05
Kingsbrook Jewish MC	2018	4/1.8	2.25			NA	NA	NA	NA			19/6.3	^3.02	14/18.6	0.75
	2019	1/1.6	0.64			NA	NA	NA	NA			9/4.8	1.86	8/14.8	0.54
LIJ at Forest Hills	2018	1/3.5	0.28			1/1.0	1.02	1/1.4	0.70			4/3.7	1.08	28/25.6	1.09
	2019	0/3.9	* 0.00			2/0.8	2.50	0/1.6	0.00	NA	NA	1/4.2	0.24	9/24.5	* 0.37

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Hospital	Year	Colon SSI		CABG Chest SSI		Hip SSI		Hysterectomy SSI		Fusion SSI		CLABSI		CDI	
		Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR
LIJ at Valley Stream	2018	2/2.2	0.91			3/3.2	0.93	NA	NA			2/1.5	1.30	7/16.3	0.43
	2019	2/1.9	1.03			1/3.8	0.26	NA	NA	1/2.2	0.45	0/1.1	0.00	6/16.1	* 0.37
LIJ(Long Isl Jewish)	2018	13/19.5	0.67			3/2.4	1.24	5/8.1	0.62			7/11.8	0.60	88/82.2	1.07
	2019	14/21.0	0.67			0/1.7	0.00	11/10.7	1.03	6/5.4	1.11	7/12.5	0.56	69/74.6	0.92
Lenox Hill Hospital	2018	14/13.3	1.05	4/5.9	0.68	1/3.3	0.30	4/2.4	1.64			10/10.1	0.99	26/50.8	* 0.51
	2019	4/14.5	* 0.28	1/4.7	0.21	1/3.9	0.25	3/4.4	0.68	8/7.0	1.14	8/10.4	0.77	36/40.9	0.88
Lincoln Med Ctr	2018	5/4.5	1.10			1/0.4	2.63	1/1.2	0.86			6/6.6	0.91	18/15.9	1.13
	2019	2/3.2	0.62			0/0.3	0.00	3/1.0	3.03	0/1.0	0.00	12/7.4	1.62	9/12.0	0.75
Long Isl. Community	2018	1/4.1	0.24			0/0.6	0.00					7/4.3	1.64	45/32.8	1.37
	2019	1/3.3	0.30			1/0.7	1.49			0/1.1	0.00	11/4.9	^2.24	32/25.2	1.27
Maimonides Med Ctr	2018	15/11.4	1.31	13/4.9	^ 2.67	2/2.0	0.98	2/3.1	0.64			16/15.5	1.03	31/47.3	0.65
	2019	8/9.8	0.82	8/3.4	^ 2.37	1/2.0	0.50	3/3.9	0.77	3/4.2	0.71	30/16.5	^1.82	47/40.8	1.15
Mary Imogene Bassett	2018	14/8.2	1.71	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
	2019	7/8.4	0.84	0/1.3	0.00	1/1.9	0.51	2/0.9	2.20	0/1.7	0.00	5/5.6	0.89	23/18.8	1.22
Massena Memorial	2018	NA	NA			NA	NA	NA	NA			0/0.1	0.00	2/2.5	0.80
	2019	NA	NA			NA	NA	NA	NA			0/0.1	0.00	2/1.4	1.44
Mather Hospital	2018	7/4.7	1.49			2/1.4	1.43	3/0.8	3.97			4/6.4	0.62	24/13.6	1.77
	2019	6/4.1	1.48			0/1.0	0.00	2/1.0	1.99	4/3.1	1.29	4/5.2	0.77	20/14.3	1.40
Memor SloanKettering	2018	56/57.1	0.98			3/2.1	1.41	18/13.3	1.35			15/5.4	^2.77	NA	NA
	2019	74/68.0	1.09			4/1.5	2.62	23/20.2	1.14	5/4.4	1.13	99/83.1	1.19	NA	NA

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		Colon SSI		CABG Chest SSI		Hip SSI		Hysterectomy SSI		Fusion SSI		CLABSI		CDI	
Hospital	Year	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR
Mercy Hosp Buffalo	2018	15/11.1	1.35	1/5.8	* 0.17	2/1.6	1.26	0/1.4	0.00			3/10.2	*0.29	57/39.8	1.43
	2019	13/8.3	1.56	0/4.9	* 0.00	2/1.4	1.38	0/1.6	0.00	7/9.0	0.78	4/7.7	0.52	34/39.4	0.86
Mercy Med Ctr	2018	1/1.5	0.66			1/0.7	1.36	0/0.4	0.00			2/2.7	0.75	15/18.1	0.83
	2019	1/2.1	0.49			1/0.8	1.22	0/0.5	0.00	1/2.0	0.50	0/3.0	0.00	11/15.6	0.71
Metropolitan Hosp	2018	NA	NA			1/0.1	7.14	0/0.3	0.00			1/2.2	0.46	4/9.6	0.42
	2019	1/0.8	1.32			2/0.4	5.30	0/0.5	0.00	NA	NA	1/1.8	0.54	5/6.4	0.79
MidHudson Reg of WMC	2018	0/1.5	0.00			0/0.7	0.00	1/0.3	3.60			5/2.3	2.21	6/4.9	1.23
	2019	0/1.0	0.00			0/0.7	0.00	0/0.4	0.00	1/0.5	2.12	1/2.2	0.45	11/5.0	2.21
Millard Fill. Suburb	2018	15/11.4	1.31			3/4.3	0.71	3/4.6	0.66			2/8.4	*0.24	32/33.6	0.95
	2019	10/11.4	0.88			4/3.9	1.03	4/5.1	0.78	0/0.3	0.00	5/6.7	0.75	34/32.9	1.03
Montefiore-Einstein	2018	14/7.7	1.82	3/2.8	1.06			9/4.0	^ 2.26			21/13.0	1.61	110/57.0	^ 1.93
	2019	11/7.2	1.54	6/2.1	^ 2.92			14/5.4	^ 2.62			30/15.1	^1.99	77/56.7	1.36
Montefiore-Moses	2018	21/13.4	1.57	8/4.1	1.96	0/0.5	0.00	0/1.7	0.00			43/34.7	1.24	203/131.0	^ 1.55
	2019	12/11.2	1.07	8/3.8	2.12	2/0.3	5.98	3/1.5	2.07	5/7.7	0.65	49/41.0	1.20	204/123.9	^ 1.65
Montefiore-Mt Vernon	2018	3/1.0	3.08			NA	NA	1/0.3	3.27			3/0.8	3.77	6/4.0	1.52
	2019	1/0.8	1.21			NA	NA	NA	NA			0/0.6	0.00	4/3.2	1.27
Montefiore-NewRochl	2018	1/1.2	0.82			1/1.0	0.98	0/0.3	0.00			5/1.9	2.61	15/9.5	1.57
	2019	1/1.2	0.83			0/1.0	0.00	2/0.4	4.62	0/0.9	0.00	6/1.9	^3.20	10/9.4	1.06
Montefiore-Nyack	2018	4/3.1	1.27			1/1.2	0.85	1/0.5	1.85			4/3.4	1.18	7/30.6	* 0.23
	2019	0/3.2	* 0.00			1/1.0	0.97	0/1.0	0.00	NA	NA	0/3.2	*0.00	8/21.7	* 0.37
Montefiore-Wakefield	2018	1/1.2	0.87			8/6.0	1.32	NA	NA			9/5.8	1.55	56/24.6	^ 2.28
	2019	NA	NA			8/5.9	1.35	NA	NA			11/5.4	^2.05	29/20.5	1.41

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Hospital	Year	Colon SSI		CABG Chest SSI		Hip SSI		Hysterectomy SSI		Fusion SSI		CLABSI		CDI	
		Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR
Mount St. Marys	2018	0/1.4	0.00			0/0.6	0.00	NA	NA			0/2.2	0.00	16/16.7	0.96
	2019	2/0.9	2.35			0/0.7	0.00	0/0.3	0.00			0/0.4	0.00	5/15.0	* 0.33
Mt Sinai	2018	30/27.6	1.09	8/6.1	1.30	1/3.7	0.27	2/4.8	0.41			44/26.4	^1.67	110/119.7	0.92
	2019	27/30.7	0.88	7/4.6	1.51	2/3.7	0.54	4/6.7	0.59	21/16.2	1.30	61/42.5	^1.43	112/112.4	1.00
Mt Sinai Beth Israel	2018	7/4.6	1.52			0/0.6	0.00	0/0.4	0.00			3/5.2	0.58	4/22.7	* 0.18
	2019	3/1.8	1.64			1/0.6	1.80	NA	NA	NA	NA	2/4.5	0.44	3/18.8	* 0.16
Mt Sinai Brooklyn	2018	1/2.3	0.43			0/0.6	0.00	0/0.5	0.00			4/3.7	1.07	4/18.7	* 0.21
	2019	1/3.5	0.29			0/0.5	0.00	0/0.4	0.00			2/3.0	0.66	1/13.6	* 0.07
Mt Sinai Morningside	2018	4/4.2	0.95	0/5.4	* 0.00	0/1.2	0.00	0/0.6	0.00			7/6.7	1.05	9/29.1	* 0.31
	2019	2/4.8	0.42	0/4.9	* 0.00	3/1.3	2.40	2/0.9	2.13	0/1.1	0.00	9/7.2	1.26	9/29.4	* 0.31
Mt Sinai Queens	2018	1/1.7	0.59			1/0.9	1.17	NA	NA			3/3.6	0.84	8/15.6	0.51
	2019	1/3.2	0.31			1/0.7	1.37	0/0.6	0.00			3/3.0	1.01	7/13.3	0.53
Mt Sinai S Nassau	2018	12/8.5	1.41			1/1.5	0.67	1/2.7	0.37			17/12.3	1.38	37/47.9	0.77
	2019	12/10.1	1.18			3/1.6	1.87	1/2.7	0.37	4/2.7	1.47	6/10.3	0.58	25/45.9	* 0.54
Mt Sinai West	2018	3/8.2	0.37			2/4.2	0.47	1/1.9	0.53			1/3.3	0.31	6/30.2	* 0.20
	2019	6/8.7	0.69			5/4.4	1.14	3/3.3	0.90	2/4.6	0.44	5/4.0	1.25	4/29.0	* 0.14
NY Community Hosp	2018	NA	NA			1/0.3	3.53	NA	NA			0/1.1	0.00	27/15.6	1.73
	2019	NA	NA			NA	NA	NA	NA			2/1.1	1.86	26/14.8	1.76
NYP-Allen	2018	NA	NA			NA	NA	NA	NA			1/2.9	0.35	18/20.1	0.90
	2019	NA	NA			NA	NA	NA	NA	4/10.0	0.40	7/2.5	^2.79	10/14.9	0.67

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		Colon SSI		CABG Chest SSI		Hip SSI		Hysterectomy SSI		Fusion SSI		CLABSI		CDI	
Hospital	Year	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR
NYP-Brklyn Methodist	2018	7/10.0	0.70	1/1.6	0.62	2/2.3	0.89	1/4.8	0.21			8/13.5	0.59	92/71.3	1.29
	2019	3/7.5	0.40	0/1.2	0.00	2/1.9	1.04	2/4.6	0.43	2/1.6	1.28	10/11.9	0.84	93/67.7	^ 1.37
NYP-Columbia	2018	8/15.8	* 0.50	15/8.1	^ 1.84	5/4.1	1.22	2/2.5	0.79			49/39.7	1.23	198/146.1	^ 1.36
	2019	21/16.3	1.29	15/6.7	^ 2.25	0/3.6	* 0.00	5/3.2	1.54	0/2.6	0.00	74/48.9	^1.51	104/109.4	0.95
NYP-Hudson Valley	2018	1/1.5	0.65			5/2.5	2.04	NA	NA			1/1.9	0.52	20/15.7	1.28
	2019	1/2.0	0.50			2/1.8	1.11	NA	NA	0/0.5	0.00	2/1.5	1.38	15/12.2	1.23
NYP-Lawrence	2018	2/2.9	0.70			1/1.5	0.66	NA	NA			2/4.0	0.50	33/22.5	1.46
	2019	3/2.4	1.24			1/1.7	0.60	NA	NA	0/0.6	0.00	0/3.0	*0.00	23/19.7	1.17
NYP-Lower Manhattan	2018	2/1.6	1.25			1/0.7	1.37	0/0.4	0.00			1/3.3	0.30	15/15.4	0.97
	2019	0/1.2	0.00			0/0.8	0.00	0/0.6	0.00	2/5.2	0.38	3/2.9	1.04	13/12.4	1.05
NYP-Morgan Stanley	2018	0/1.7	0.00					NA	NA			36/21.2	^1.70	NA	NA
	2019	2/1.2	1.64			NA	NA	0/0.4	0.00	3/3.9	0.78	19/23.9	0.79	NA	NA
NYP-Queens	2018	7/8.8	0.79	0/1.6	0.00	2/3.1	0.65	0/2.0	0.00			3/9.0	*0.33	43/76.6	* 0.56
	2019	8/7.9	1.01	0/1.2	0.00	1/2.6	0.39	1/2.7	0.37	1/2.1	0.48	1/9.3	*0.11	34/62.8	* 0.54
NYP-Weill Cornell	2018	18/16.6	1.09	1/3.5	0.29	1/1.5	0.66	2/1.9	1.04			52/34.5	^1.51	205/116.4	^ 1.76
	2019	14/15.5	0.90	1/2.6	0.38	3/1.9	1.55	4/2.2	1.80	3/5.5	0.55	71/51.5	^1.38	148/114.1	^ 1.30
NYU Langone Brooklyn	2018	13/7.0	1.85			0/2.8	0.00	4/1.7	2.31			3/4.5	0.66	30/33.9	0.88
	2019	6/7.0	0.85			1/2.4	0.43	0/2.2	0.00	1/1.8	0.54	4/4.9	0.81	31/31.0	1.00
NYU Orthopedic Hosp	2018					21/18.3	1.15					0/0.1	0.00	NA	NA
	2019					21/15.6	1.34			0/4.9	* 0.00	0/0.1	0.00	NA	NA
NYU Tisch	2018	18/24.4	0.74	3/4.6	0.66	0/0.9	0.00	3/3.7	0.82			15/23.7	0.63	75/79.5	0.94
	2019	18/21.5	0.84	6/3.4	1.74	2/0.7	3.01	2/4.0	0.50	4/17.1	* 0.23	32/30.2	1.06	74/77.3	0.96

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Hospital	Year	Colon SSI		CABG Chest SSI		Hip SSI		Hysterectomy SSI		Fusion SSI		CLABSI		CDI	
		Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR
NYU Winthrop	2018	16/17.3	0.92	4/5.1	0.78	8/3.8	2.13	9/4.3	2.09			19/20.2	0.94	86/77.6	1.11
	2019	9/16.5	0.54	0/3.2	* 0.00	7/3.7	1.88	1/5.1	0.20	5/5.3	0.94	5/14.9	*0.34	77/59.1	1.30
Nassau University	2018	3/2.6	1.13			0/0.8	0.00	3/1.1	2.81			3/3.9	0.76	24/23.1	1.04
	2019	NA	NA			0/0.5	0.00	1/0.7	1.40	1/1.3	0.80	4/3.8	1.06	11/14.9	0.74
Nathan Littauer	2018	NA	NA			0/0.6	0.00	0/0.3	0.00			0/1.1	0.00	3/1.9	1.62
	2019	NA	NA			0/0.6	0.00	0/0.5	0.00	0/1.1	0.00	1/0.9	1.17	5/1.6	3.20
Newark Wayne	2018	1/1.7	0.60			1/0.7	1.35	0/0.5	0.00			2/2.2	0.89	12/8.1	1.49
	2019	2/1.3	1.54			1/0.8	1.30	0/0.7	0.00			0/1.6	0.00	5/6.3	0.79
Niagara Falls	2018	2/1.1	1.78			NA	NA	2/0.3	7.94			3/1.6	1.89	5/9.1	0.55
	2019	0/0.8	0.00			1/0.2	6.04	0/0.3	0.00	2/1.6	1.26	0/1.7	0.00	4/5.5	0.73
North Central Bronx	2018	NA	NA					1/0.3	3.23			0/0.6	0.00	5/10.3	0.49
	2019	0/1.1	0.00					0/0.4	0.00			0/0.6	0.00	4/6.4	0.63
North Shore	2018	10/25.9	* 0.39	5/10.1	0.50	8/5.1	1.55	4/3.6	1.11			17/21.5	0.79	101/113.1	0.89
	2019	13/19.5	0.67	7/7.7	0.91	3/5.6	0.54	2/3.1	0.65	17/8.8	^ 1.93	22/30.5	0.72	90/120.7	* 0.75
Northern Dutchess	2018	1/1.6	0.62			2/2.2	0.93	NA	NA			1/1.3	0.74	7/6.2	1.13
	2019	0/1.1	0.00			0/1.7	0.00	NA	NA	1/1.3	0.78	0/1.1	0.00	3/3.0	1.01
Northern Westchester	2018	1/4.0	0.25			7/2.6	^ 2.72	4/1.9	2.09			3/2.5	1.19	15/16.6	0.90
	2019	4/3.9	1.03			3/0.8	3.68	5/2.0	2.51	1/2.2	0.46	1/2.1	0.47	7/8.7	0.81
Noyes Memorial	2018	2/1.1	1.84			0/0.4	0.00	NA	NA			0/0.7	0.00	1/3.5	0.29
	2019	1/1.2	0.86			0/0.4	0.00	NA	NA			2/0.6	3.61	1/3.8	0.26

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		Colon SSI		CABG Chest SSI		Hip SSI		Hysterectomy SSI		Fusion SSI		CLABSI		CDI	
Hospital	Year	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR
Oishei Childrens	2018	0/1.2	0.00					1/0.5	2.06			4/6.9	0.58	NA	NA
	2019	0/1.2	0.00					0/0.4	0.00	NA	NA	10/9.6	1.04	NA	NA
Olean General	2018	2/2.2	0.89			2/0.7	2.92	0/0.1	0.00			3/2.7	1.10	15/12.9	1.17
	2019	3/1.4	2.08			0/0.8	0.00	NA	NA	2/0.3	5.89	3/2.7	1.10	23/12.2	^ 1.88
Oneida Healthcare	2018	5/3.0	1.68			0/0.2	0.00	0/0.6	0.00			1/0.6	1.78	3/4.3	0.69
	2019	5/3.1	1.64			NA	NA	1/0.4	2.26			0/0.4	0.00	0/4.1	0.00
Orange Regional	2018	12/8.3	1.45			3/3.6	0.83	1/0.7	1.34			7/4.3	1.63	54/48.2	1.12
	2019	13/6.9	^ 1.88			1/3.7	0.27	0/1.3	0.00	0/0.3	0.00	12/4.6	^2.61	57/36.6	^ 1.56
Oswego Hospital	2018	NA	NA			0/0.5	0.00	0/0.5	0.00			0/0.6	0.00	5/6.3	0.79
	2019	3/1.2	2.47			1/0.5	2.22	3/0.7	4.24			0/0.6	0.00	2/3.5	0.57
Our Lady of Lourdes	2018	8/4.1	1.97			1/3.1	0.33	0/0.3	0.00			1/4.9	0.21	22/20.5	1.07
	2019	7/3.4	2.09			2/3.0	0.66	1/0.2	4.57	1/1.6	0.61	5/3.5	1.45	22/17.1	1.28
Peconic Bay Medical	2018	0/3.1	* 0.00			3/3.8	0.78	NA	NA			1/2.8	0.36	7/18.3	* 0.38
	2019	0/2.6	0.00			1/3.2	0.31	NA	NA	0/0.7	0.00	0/1.7	0.00	21/16.9	1.24
Phelps Memorial	2018	0/1.4	0.00			0/2.2	0.00	0/0.2	0.00			2/1.6	1.23	18/17.2	1.05
	2019	0/1.3	0.00			0/2.0	0.00	0/0.3	0.00	0/1.0	0.00	2/1.6	1.25	10/9.7	1.03
Plainview Hospital	2018	1/4.6	0.22			2/1.7	1.16	0/0.5	0.00			6/2.7	2.19	14/17.7	0.79
	2019	2/4.1	0.49			6/1.4	^ 4.31	0/0.6	0.00	0/0.4	0.00	2/1.7	1.20	10/16.5	0.61
Putnam Hospital	2018	4/2.9	1.40			2/3.1	0.65	0/0.2	0.00			0/1.4	0.00	11/8.7	1.26
	2019	2/1.9	1.03			7/2.9	2.41	1/0.6	1.81	1/1.2	0.85	0/1.2	0.00	3/3.4	0.89
Queens Hospital	2018	5/1.7	2.96					0/1.0	0.00			4/4.7	0.86	14/16.4	0.86
	2019	3/2.3	1.31					3/1.3	2.35			2/5.7	0.35	14/16.1	0.87

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Hospital	Year	Colon SSI		CABG Chest SSI		Hip SSI		Hysterectomy SSI		Fusion SSI		CLABSI		CDI	
		Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR
Richmond Univ MC	2018	4/3.4	1.17			2/0.5	3.83	1/2.2	0.46			4/5.1	0.78	33/20.5	1.61
	2019	9/3.6	^ 2.51			2/0.5	3.65	3/2.1	1.45	0/1.0	0.00	8/6.6	1.21	36/14.6	^ 2.46
Rochester General	2018	18/15.6	1.15	11/8.2	1.35	10/5.4	1.86	5/4.9	1.02			20/19.7	1.02	63/72.5	0.87
	2019	18/14.4	1.25	8/7.4	1.07	11/5.0	^ 2.20	4/5.0	0.79	5/5.0	1.01	23/27.2	0.85	53/65.2	0.81
Rome Memorial	2018	NA	NA			0/0.3	0.00	NA	NA			3/0.8	3.94	5/5.1	0.97
	2019	0/0.6	0.00			NA	NA	NA	NA	NA	NA	1/0.7	1.34	8/10.1	0.79
Roswell Park	2018	23/10.2	^ 2.25					3/2.9	1.04			5/1.9	2.57	NA	NA
	2019	15/9.1	1.64					6/3.8	1.57	NA	NA	23/27.5	0.84	NA	NA
SJRH Dobbs Ferry	2018					2/1.2	1.68					NA	NA	0/0.4	0.00
	2019	NA	NA			2/1.0	1.98			1/0.4	2.49	NA	NA	1/0.4	2.24
SJRH St Johns	2018	3/1.9	1.61			1/0.3	3.05	1/0.6	1.73			0/2.4	0.00	16/10.9	1.47
	2019	1/1.9	0.52			1/0.4	2.38	2/0.8	2.48	4/1.8	2.25	0/2.4	0.00	11/8.6	1.28
SUNY Downstate MC	2018	1/2.2	0.45	2/1.3	1.48	2/1.0	2.03	3/2.1	1.44			7/7.0	1.00	22/21.8	1.01
	2019	2/2.3	0.88	2/0.9	2.13	0/0.5	0.00	3/1.7	1.72	1/0.6	1.66	8/8.3	0.97	17/18.9	0.90
Samaritan AlbanyMem	2018	NA	NA			NA	NA	0/0.2	0.00			0/0.8	0.00	2/3.7	0.54
	2019	NA	NA					NA	NA			0/0.2	0.00	1/2.2	0.45
Samaritan Hosp Troy	2018	6/3.8	1.59			3/1.1	2.67	0/0.5	0.00			4/4.8	0.84	21/19.6	1.07
	2019	5/2.9	1.74			2/0.8	2.42	2/0.6	3.13	1/1.4	0.71	8/4.3	1.88	15/13.9	1.08
Samaritan- Watertown	2018	1/2.8	0.36			0/0.9	0.00	1/1.2	0.87			3/2.9	1.03	15/20.8	0.72
	2019	1/2.6	0.39			2/1.0	1.95	1/1.2	0.87	0/0.4	0.00	2/2.5	0.79	15/20.6	0.73

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		Colon SSI		CABG Chest SSI		Hip SSI		Hysterectomy SSI		Fusion SSI		CLABSI		CDI	
Hospital	Year	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR
Saratoga Hospital	2018	6/5.6	1.08			2/4.5	0.45	NA	NA			2/3.5	0.56	28/25.8	1.08
	2019	14/6.0	^ 2.33			1/4.1	0.25	0/0.4	0.00	2/1.7	1.18	3/4.4	0.68	9/10.6	0.85
Sisters of Charity	2018	8/5.0	1.61			2/1.2	1.72	3/2.7	1.11			9/7.1	1.27	28/23.1	1.21
	2019	4/4.3	0.94			1/1.0	0.98	1/2.4	0.42	5/5.4	0.92	2/4.7	0.42	22/24.1	0.91
Sisters- St Joseph	2018	3/1.4	2.17			2/2.2	0.91	2/0.7	2.78			3/2.2	1.38	10/6.3	1.59
	2019	NA	NA			1/2.2	0.46	0/0.8	0.00	1/0.5	1.90	0/0.9	0.00	8/10.7	0.74
South Shore UH	2018	4/8.6	0.46	4/2.9	1.36	3/3.7	0.82	1/4.0	0.25			8/5.4	1.50	35/33.0	1.06
	2019	5/8.6	0.58	3/3.2	0.93	3/4.0	0.75	6/4.8	1.24	2/1.8	1.10	5/5.6	0.89	24/32.2	0.74
St Anthony	2018	NA	NA			0/0.8	0.00	0/0.3	0.00			1/0.3	3.80	4/4.7	0.84
	2019	NA	NA			0/0.6	0.00	0/0.4	0.00			0/0.2	0.00	1/2.2	0.47
St Barnabas	2018	0/3.3	* 0.00			1/0.5	1.83	NA	NA			1/2.7	0.37	1/20.8	* 0.05
	2019	1/2.5	0.40			0/0.4	0.00	NA	NA	0/0.7	0.00	3/3.3	0.92	7/14.4	0.49
St Catherine Siena	2018	1/3.7	0.27			1/1.2	0.83	0/0.4	0.00			2/4.4	0.46	8/18.4	0.43
	2019	3/3.7	0.81			2/1.1	1.83	1/0.3	3.64	3/2.8	1.09	0/3.9	*0.00	11/19.1	0.58
St Charles Hospital	2018	0/1.6	0.00			3/2.6	1.16	0/0.4	0.00			0/1.2	0.00	24/17.0	1.41
	2019	0/1.7	0.00			2/2.6	0.78	0/0.8	0.00	0/0.7	0.00	0/1.3	0.00	24/16.5	1.46
St Elizabeth Medical	2018	6/4.7	1.27	4/2.4	1.70	5/2.2	2.24	NA	NA			8/5.3	1.50	41/24.6	^ 1.67
	2019	5/3.6	1.39	3/2.3	1.33	2/2.5	0.79	NA	NA	NA	NA	10/4.7	^2.12	38/21.2	^ 1.79
St Francis- Roslyn	2018	9/11.1	0.81	4/8.0	0.50	2/6.0	0.33	NA	NA			3/11.1	*0.27	34/48.0	0.71
	2019	10/11.8	0.85	4/7.1	0.57	5/5.7	0.87	NA	NA	10/5.6	1.79	4/10.7	*0.37	32/43.3	0.74
St Johns Episcopal	2018	3/1.8	1.68			3/0.4	^ 7.47	NA	NA			12/3.9	^3.12	13/15.9	0.82
	2019	0/1.9	0.00			1/0.3	3.69	0/0.3	0.00			3/2.9	1.03	13/15.0	0.87

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Hospital	Year	Colon SSI		CABG Chest SSI		Hip SSI		Hysterectomy SSI		Fusion SSI		CLABSI		CDI	
		Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR
St Joseph- Bethpage	2018	2/1.6	1.28			0/0.5	0.00	NA	NA			0/1.9	0.00	14/12.5	1.12
	2019	0/0.9	0.00			2/0.8	2.58	NA	NA	1/0.3	3.73	0/1.7	0.00	6/12.0	0.50
St Josephs- Syracuse	2018	12/11.5	1.04	10/9.3	1.08	12/8.8	1.36	0/1.5	0.00			1/14.0	*0.07	59/53.8	1.10
	2019	8/11.8	0.68	7/8.7	0.81	4/7.6	0.53	1/1.7	0.57	1/6.3	* 0.16	3/17.0	*0.18	35/50.9	0.69
St Josephs- Yonkers	2018	NA	NA			0/0.4	0.00	NA	NA			2/1.1	1.90	8/4.3	1.87
	2019	NA	NA			1/0.2	4.83	NA	NA	NA	NA	1/1.2	0.80	2/3.9	0.51
St Lukes Cornwall	2018	0/2.7	0.00			3/2.2	1.36	0/0.3	0.00			0/3.2	*0.00	11/21.8	0.50
	2019	0/2.1	0.00			3/1.2	2.44	1/0.4	2.51	0/0.9	0.00	0/3.3	*0.00	14/16.8	0.83
St Marys Amsterdam	2018	0/1.0	0.00			2/0.8	2.37	NA	NA			1/1.4	0.73	9/6.2	1.45
	2019	1/1.1	0.94			3/0.8	3.73	NA	NA	0/1.3	0.00	2/1.7	1.15	13/5.4	^ 2.42
St Peters Hospital	2018	11/12.3	0.90	3/7.2	0.42	4/8.5	0.47	7/4.7	1.49			8/20.9	*0.38	40/68.5	* 0.58
	2019	13/12.5	1.04	5/5.9	0.85	7/9.0	0.78	7/7.4	0.95	3/3.1	0.97	8/18.6	*0.43	59/74.1	0.80
Staten Island UNorth	2018	12/9.7	1.23	0/3.7	* 0.00	3/3.0	0.99	3/1.7	1.79			4/8.2	0.49	85/63.3	1.34
	2019	11/10.5	1.05	0/3.2	* 0.00	2/3.3	0.61	1/3.5	0.29	0/2.6	0.00	8/6.2	1.29	87/60.5	^ 1.44
Staten Island USouth	2018	NA	NA									1/1.5	0.66	11/16.2	0.68
	2019	NA	NA					NA	NA			0/1.2	0.00	17/14.7	1.15
Strong Memorial	2018	20/17.6	1.14	5/3.5	1.44	1/1.4	0.70	1/2.1	0.47			36/41.1	0.88	149/115.5	^ 1.29
	2019	35/16.8	^ 2.09	6/2.7	2.20	3/1.6	1.91	4/2.8	1.41	16/9.5	1.68	56/55.4	1.01	148/97.4	^ 1.52
Sunnyview Rehab Hosp	2018											0/0.1	0.00	NA	NA
	2019											0/0.1	0.00	NA	NA

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		Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR
Syosset Hospital	2018	NA	NA			5/4.1	1.21					0/1.0	0.00	4/4.7	0.86
	2019	NA	NA			1/3.7	0.27			0/0.5	0.00	0/0.6	0.00	3/4.2	0.72
UHS Binghamton	2018	NA	NA			6/2.3	2.64	NA	NA			0/1.1	0.00	12/7.2	1.66
	2019	NA	NA			3/2.4	1.23			1/0.4	2.63	0/0.7	0.00	8/5.3	1.50
UHS Chenango Memor	2018	NA	NA			1/0.4	2.50	NA	NA			1/0.2	5.93	0/2.6	0.00
	2019	NA	NA			0/0.2	0.00	0/0.3	0.00	1/0.2	4.06	0/0.1	0.00	1/3.2	0.31
UHS Wilson	2018	19/9.1	^ 2.08	4/2.5	1.63	0/0.4	0.00	2/1.3	1.49			15/9.5	1.57	52/29.1	^ 1.79
	2019	9/8.5	1.05	0/1.8	0.00	0/0.5	0.00	4/1.8	2.21	4/3.8	1.04	11/9.1	1.21	37/25.2	1.47
UPMC Chautauqua	2018	1/1.4	0.72			0/0.5	0.00	NA	NA			7/2.8	2.48	10/20.0	0.50
	2019	1/1.9	0.52			0/0.6	0.00	NA	NA			4/2.7	1.47	11/11.7	0.94
UVM Alice Hyde	2018	NA	NA			0/0.4	0.00					1/0.2	4.54	0/1.0	0.00
	2019	NA	NA			0/0.2	0.00	NA	NA			0/0.2	0.00	0/0.9	0.00
UVM Champlain Valley	2018	3/4.2	0.72			1/1.4	0.73	1/0.4	2.71			2/4.5	0.44	36/49.8	0.72
	2019	6/3.9	1.55			0/1.4	0.00	1/1.0	1.05	2/0.2	^11.77	4/4.3	0.92	37/23.2	^ 1.60
United Memorial	2018	NA	NA			2/1.3	1.59	NA	NA			0/1.1	0.00	2/7.7	0.26
	2019	2/0.9	2.15			2/1.2	1.63	1/0.5	1.86			1/0.8	1.19	6/10.2	0.59
Unity Hosp Rochester	2018	5/8.8	0.57			9/6.3	1.43	0/1.3	0.00			2/11.6	*0.17	38/32.0	1.19
	2019	2/6.9	0.29			11/6.3	1.76	2/1.2	1.61	5/4.9	1.03	8/10.9	0.73	45/28.4	^ 1.58
UnivHSUNY Upstate	2018	13/13.2	0.99	1/2.8	0.36	4/1.1	3.57	1/0.8	1.31			14/28.6	*0.49	87/83.2	1.05
	2019	12/11.5	1.04	2/2.9	0.70	3/1.2	2.53	2/1.1	1.88	20/12.4	1.61	23/37.8	*0.61	42/30.4	1.38
UnivHStonyBrkSoutham	2018	0/1.3	0.00			0/0.3	0.00	2/0.5	4.02			6/1.4	^4.44	20/9.6	^ 2.08
	2019	NA	NA			NA	NA	NA	NA			0/1.3	0.00	11/10.7	1.02

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Hospital	Year	Colon SSI		CABG Chest SSI		Hip SSI		Hysterectomy SSI		Fusion SSI		CLABSI		CDI	
		Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR	Obs/Pred	SIR
UnivHStonyBrookELI	2018	NA	NA			NA	NA					0/0.1	0.00	0/3.4	0.00
	2019	NA	NA			NA	NA					0/0.1	0.00	1/3.1	0.32
UnivHStonyBrookU	2018	16/11.9	1.34	4/2.7	1.49	5/5.5	0.91	9/2.8	^ 3.18			16/18.5	0.87	137/93.2	^ 1.47
	2019	17/13.6	1.25	3/3.1	0.97	1/4.9	0.20	3/4.6	0.65	6/5.1	1.17	24/25.8	0.93	128/103.4	1.24
Upst. Community Gen	2018	0/2.5	0.00			1/3.7	0.27	0/0.4	0.00			3/2.5	1.20	18/17.7	1.02
	2019	4/3.4	1.18			9/3.9	^ 2.29	2/0.4	4.86	2/0.6	3.22	1/2.7	0.37	4/5.8	0.69
Vassar Brothers	2018	6/13.4	* 0.45	4/3.1	1.28	0/3.1	* 0.00	0/3.3	* 0.00			6/9.4	0.64	91/74.4	1.22
	2019	4/11.7	* 0.34	1/2.9	0.34	3/2.8	1.09	1/3.9	0.26	4/3.2	1.24	7/11.4	0.61	29/22.0	1.32
Westchester Medical	2018	11/10.6	1.04	3/4.0	0.75	1/0.8	1.24	1/3.7	0.27			22/29.4	0.75	127/100.4	1.26
	2019	14/10.0	1.39	9/4.3	2.12	0/0.9	0.00	4/5.5	0.73	2/5.1	0.39	45/39.0	1.16	112/94.8	1.18
White Plains Hosp	2018	7/6.3	1.12			3/2.2	1.38	2/2.1	0.96			2/6.2	0.32	26/32.1	0.81
	2019	7/6.6	1.06			2/2.4	0.85	2/2.4	0.82	0/2.1	0.00	4/5.7	0.70	16/25.0	0.64
Woodhull Med Ctr	2018	0/1.1	0.00			0/0.2	0.00	0/0.3	0.00			5/3.6	1.39	7/13.1	0.53
	2019	NA	NA			0/0.2	0.00	0/0.6	0.00			4/2.8	1.43	13/11.4	1.14
Wyckoff Heights	2018	3/2.2	1.34			0/0.2	0.00	0/0.7	0.00			9/4.4	2.05	17/17.5	0.97
	2019	3/2.4	1.24			2/0.4	4.77	3/1.1	2.65	0/0.4	0.00	3/4.0	0.74	14/15.0	0.94
Wyoming County Comm.	2018	NA	NA			0/0.5	0.00	NA	NA			NA	NA	1/1.3	0.77
	2019	NA	NA			0/0.5	0.00	NA	NA			NA	NA	0/1.8	0.00

Each hospital's 2019 data was compared to the NYS 2019 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 2019, 42 hospitals (25%) were flagged red for having an HAI rate significantly higher than the state average in one of the 23 indicators (i.e. colon SSI, CABG chest SSI, CABG donor SSI, hip SSI, hysterectomy SSI, fusion SSI, CLABSIs in eight types of ICUs and seven 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 2018 and 2019, 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 2019 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/>.