

# **Hospital-Acquired Infections in New York State, 2016**

## **Part 1: Summary for Consumers**

## Contents

<b>Introduction .....</b>	<b>3</b>
<b>Surgical Site Infections (SSIs) .....</b>	<b>4</b>
<b>Catheter-Associated Infections .....</b>	<b>5</b>
<b>Laboratory-identified (LabID) infections.....</b>	<b>6</b>
<i>Clostridium difficile</i> Infections (CDI) .....	7
Carbapenem-resistant Enterobacteriaceae (CRE) Infections .....	8
Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA) Infections .....	9
<b>Hospital Performance.....</b>	<b>10</b>
<b>Role of the State Health Department .....</b>	<b>26</b>
<b>What Patients Can do to Prevent Infections .....</b>	<b>27</b>

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 2016.

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. *Clostridium 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/>.

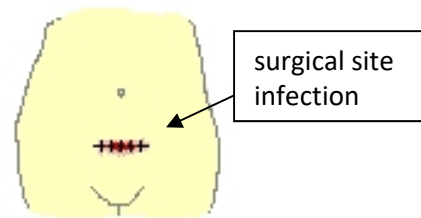
In accordance with NYS Public Health Law 2819, NYS hospitals have been reporting HAIs since 2007. In 2016, NYS required hospitals to report SSIs, CLABSIs, CDIs, and CRE infections. In addition, hospitals report data to NHSN to participate in programs offered by the Centers for Medicare and Medicaid Services (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 by specific hospital, 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.

# 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.



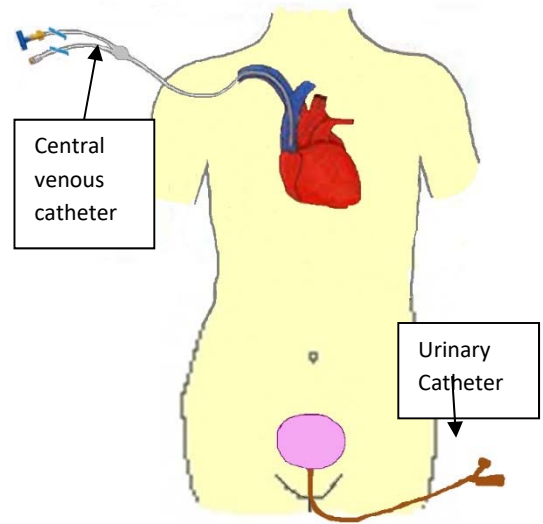
The infection rate is the number of SSIs divided by the number of procedures. Results from 2016 for all NYS hospitals are summarized below. SSIs were most frequent after colon surgery. Colon SSIs may be more difficult to prevent because the colon naturally contains a lot of bacteria. All SSI rates decreased between 2015 and 2016.

Type of Surgery	Number of Infections	Number of Procedures	Infection Rate	2016 rate compared to 2015
Colon	981	19,784	5.0/100 procedures	improved 11%
Hip	261	33,723	0.8/100 procedures	improved 20%
Abdominal hysterectomy	207	18,448	1.1/100 procedures	improved 7%
Coronary artery bypass graft				
Chest site SSIs	171	11,028	1.6/100 procedures	improved 15%
Donor site SSIs	33	9,791	0.3/100 procedures	improved 33%

2016 New York State data downloaded July 31, 2017.

# 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 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	2016 rate compared to 2015
Central venous	1,399	1,379,734	1.0/1,000 CVC days	improved 10%
Urinary	1,759	1,378,853	1.3/1,000 UC days	improved 2%

2016 NYS data downloaded from NHSN on July 31, 2017 (venous) and May 25, 2017 (urinary).

# 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 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: *Clostridium difficile* infections (CDIs) and carbapenem-resistant Enterobacteriaceae infections (CREs). Hospitals report methicillin-resistant *Staphylococcus aureus* (MRSA) BSIs to participate in CMS reporting programs. These infections are described on the following pages.

## ***Clostridium difficile* Infections (CDI)**

*Clostridium 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 *Clostridium difficile* acquired from contaminated surfaces or health care providers' hands.



Colon infected by *Clostridium difficile*, ©Samir 2009, [https://commons.wikimedia.org/wiki/File:Pseudomembranous\\_colitis\\_1.jpg](https://commons.wikimedia.org/wiki/File:Pseudomembranous_colitis_1.jpg).

CDI is the most common HAI of all indicators in this report. In 2016, 7,075 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.

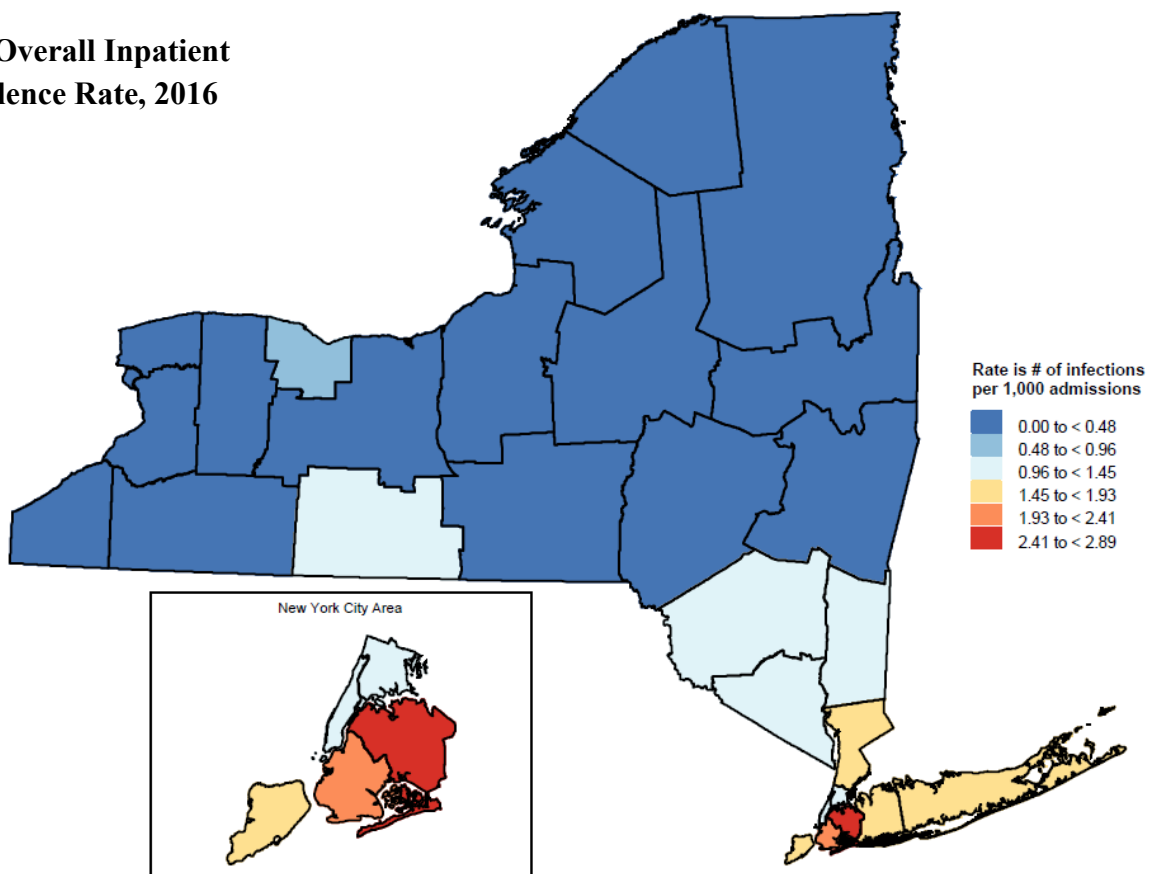
<b><i>Clostridium difficile</i> rate</b>	<b>Number of Infections</b>	<b>Number of Patient Days</b>	<b>Infection Rate</b>	<b>2016 rate compared to 2015</b>
Hospital Onset	6,939	10,569,009	6.6/10,000 patient days	improved 12%

2016 NYS data downloaded from NHSN July 31, 2017.

# 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 New York City area.

## CRE Overall Inpatient Prevalence Rate, 2016



CRE is most deadly when it enters the bloodstream. Rates of new bloodstream infections and the overall new infection rate at all body sites are summarized below.

Carbapenem resistant Enterobacteriaceae rates	Number of New Infections	Number of Patient Days	Infection Rate	2016 rate compared to 2015
Hospital onset – bloodstream infections	227	11,441,024	0.20/10,000 patient days	Worse 9%
Hospital onset – all sites	1,324	11,441,024	1.16/10,000 patient days	Same

NYS data downloaded from NHSN July 31, 2017.



## Methicillin-resistant *Staphylococcus aureus* (MRSA) Infections

*Staphylococcus aureus* (*S. aureus*) is a common 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. A higher percentage of cases are classified as community-onset (65%) than hospital onset (35%). Rates of new hospital onset infections are summarized below.

<b>MRSA Infection rate</b>	<b>Number of New Bloodstream Infections</b>	<b>Number of Patient Days</b>	<b>Infection Rate</b>	<b>2016 rate compared to 2015</b>
Hospital Onset	717	11,413,571	0.63/10,000 patient days	improved 8%

NYS data downloaded from NHSN August 6, 2017.

# Hospital Performance

To evaluate hospital performance, NYS asks the question,

**“How did each hospital perform in 2016 compared to the NYS 2016 average?”**

This comparison is performed separately by type of HAI (i.e. SSI, CLABSI, CDI). 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).

- A 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. If the SIR is significantly higher than 1, the result is highlighted in red.
- A 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 experienced by the standard population. If the SIR is significantly lower than 1, the result is highlighted in blue.
- A 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, 2016 New York State

		Surgical Site Infections (SSI)				Central Line Associated Blood Stream Infections (CLABSI)				Hospital Onset <i>Clostridium difficile</i> Infections (CDI)			
Hospital	Year	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infection	Ratio	How does this hospital compare to the state average?
AO Fox Memorial	2015	1	1.5	0.66	Same	2	1.6	1.27	Same	4	3.2	1.24	Same
	2016	0	1.3	0.00	Same	0	0.9	0.00	Same	4	3.5	1.14	Same
Adirondack Medical	2015	5	3.3	1.50	Same	2	1.0	2.03	Same	6	4.4	1.37	Same
	2016	1	2.2	0.45	Same	0	0.7	0.00	Same	12	3.2	3.70	^ Worse
Albany Med Ctr	2015	36	40.6	0.89	Same	48	55.6	0.86	Same	182	148.5	1.23	^ Worse
	2016	33	36.0	0.92	Same	40	48.5	0.82	Same	131	149.0	0.88	Same
Albany Memorial	2015	0	2.3	0.00	Same	3	2.6	1.16	Same	5	4.6	1.09	Same
	2016	1	3.2	0.32	Same	3	1.6	1.93	Same	8	4.0	1.98	Same
Alice Hyde Med Ctr	2015	0	1.8	0.00	Same	0	0.3	0.00	Same	0	1.8	0.00	Same
	2016	0	1.1	0.00	Same	0	0.3	0.00	Same	0	1.9	0.00	Same
Arnot Ogden Med Ctr	2015	13	10.2	1.27	Same	11	10.9	1.01	Same	51	48.0	1.06	Same
	2016	8	9.0	0.89	Same	12	10.3	1.16	Same	48	39.0	1.23	Same
Auburn Memorial	2015	2	2.6	0.76	Same	1	1.8	0.57	Same	17	11.9	1.42	Same
	2016	0	4.1	0.00	**Better	1	1.5	0.66	Same	15	11.2	1.34	Same
Bellevue Ellis	2016	0	0.5	0.00	Same				No Data				Not calculated
Bellevue Hospital	2015	21	12.2	1.72	^ Worse	14	14.6	0.96	Same	90	85.2	1.06	Same
	2016	7	9.2	0.76	Same	23	15.2	1.52	Same	78	87.6	0.89	Same
Bertrand Chaffee	2015				No Data				Not calculated	2	1.1	1.75	Same
	2016				No Data				Not calculated	0	0.7	0.00	Same
Blythedale Childrens	2015				No Data				No Data				Not calculated
	2016				No Data				No Data				Not calculated
Bon Secours	2015	0	1.0	0.00	Same	0	1.0	0.00	Same	6	10.4	0.58	Same
	2016	1	1.6	0.64	Same	1	1.0	1.03	Same	0	7.1	0.00	**Better
Bronx-Lebanon	2015	15	7.3	2.05	^ Worse	24	14.8	1.62	^ Worse	79	76.4	1.03	Same
	2016	2	7.4	0.27	**Better	10	13.5	0.74	Same	44	49.5	0.89	Same

## Summary of Hospital-Acquired Infection Data, 2016 New York State

		Surgical Site Infections (SSI)				Central Line Associated Blood Stream Infections (CLABSI)				Hospital Onset <i>Clostridium difficile</i> Infections (CDI)			
Hospital	Year	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infection	Ratio	How does this hospital compare to the state average?
Brookdale Hospital	2015	17	6.1	2.81	^ Worse	25	9.6	2.60	^ Worse	24	22.9	1.05	Same
	2016	17	6.1	2.78	^ Worse	16	7.7	2.07	^ Worse	14	22.0	0.64	Same
Brookhaven Memorial	2015	2	5.1	0.39	Same	28	12.6	2.22	^ Worse	83	57.2	1.45	^ Worse
	2016	6	5.3	1.12	Same	12	9.5	1.26	Same	52	44.9	1.16	Same
Brooklyn Hosp Ctr	2015	8	8.7	0.92	Same	31	12.6	2.47	^ Worse	42	52.3	0.80	Same
	2016	7	7.8	0.90	Same	6	9.6	0.63	Same	33	31.7	1.04	Same
Brooks Memorial	2015	4	2.4	1.69	Same	3	0.6	5.32	^ Worse	5	3.6	1.38	Same
	2016	1	1.8	0.56	Same	1	0.4	2.46	Same	3	4.5	0.66	Same
Buffalo General	2015	32	29.7	1.08	Same	40	32.2	1.24	Same	111	104.3	1.06	Same
	2016	18	24.8	0.73	Same	17	27.1	0.63	Same	94	102.0	0.92	Same
Burdett Care Center	2015				No Data				No Data				Not calculated
	2016				No Data				No Data				Not calculated
Calvary Hospital	2015				No Data				No Data				Not calculated
	2016				No Data				No Data				Not calculated
Canton-Potsdam	2015	5	4.7	1.06	Same	3	1.7	1.77	Same	10	12.2	0.82	Same
	2016	7	5.0	1.39	Same	0	1.3	0.00	Same	9	7.9	1.15	Same
Catskill Regional	2015	7	2.1	3.29	^ Worse	2	1.4	1.38	Same	14	8.2	1.72	Same
	2016	1	2.1	0.47	Same	2	1.2	1.61	Same	14	9.1	1.55	Same
Cayuga Medical Ctr	2015	3	4.9	0.62	Same	1	4.2	0.24	Same	15	16.9	0.89	Same
	2016	1	4.8	0.21	Same	1	2.4	0.42	Same	12	15.7	0.77	Same
Champlain Valley	2015	4	6.6	0.61	Same	4	12.4	0.32	**Better	12	44.7	0.27	**Better
	2016	6	5.9	1.02	Same	5	9.7	0.52	Same	42	56.1	0.75	Same
Claxton-Hepburn	2015	1	1.3	0.79	Same	2	1.9	1.06	Same	5	7.2	0.69	Same
	2016	2	1.0	1.93	Same	1	1.7	0.60	Same	8	6.7	1.20	Same
Clifton Springs	2015	3	1.4	2.12	Same	1	1.6	0.61	Same	2	8.5	0.24	Same
	2016				Not calculated	2	1.3	1.54	Same	6	7.7	0.78	Same

## Summary of Hospital-Acquired Infection Data, 2016 New York State

		Surgical Site Infections (SSI)				Central Line Associated Blood Stream Infections (CLABSI)				Hospital Onset <i>Clostridium difficile</i> Infections (CDI)			
Hospital	Year	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infection	Ratio	How does this hospital compare to the state average?
Cobleskill Regional	2015				No Data	0	0.1	0.00	Same	2	2.5	0.79	Same
	2016				No Data	0	0.1	0.00	Same	0	1.6	0.00	Same
Cohens Childrens	2016				No Data	5	9.4	0.53	Same				Not calculated
Columbia Memorial	2015	4	4.0	0.99	Same	3	2.1	1.44	Same	15	23.6	0.63	Same
	2016	4	5.2	0.77	Same	2	2.6	0.77	Same	20	20.3	0.99	Same
Coney Island Hosp	2015	2	4.3	0.47	Same	21	15.3	1.37	Same	92	77.8	1.18	Same
	2016	0	2.2	0.00	Same	34	13.2	2.57	^ Worse	94	78.2	1.20	Same
Corning Hospital	2015	2	3.2	0.62	Same	0	1.5	0.00	Same	9	15.9	0.57	Same
	2016	1	2.5	0.41	Same	3	1.1	2.69	Same	11	9.2	1.20	Same
Cortland Reg Med	2015	3	2.2	1.37	Same	0	1.6	0.00	Same	10	6.0	1.66	Same
	2016	1	1.3	0.77	Same	2	1.1	1.90	Same	2	5.5	0.36	Same
Crouse Hospital	2015	32	24.4	1.31	Same	18	20.9	0.86	Same	37	74.8	0.49	**Better
	2016	37	22.5	1.64	^ Worse	18	14.7	1.22	Same	35	49.5	0.71	Same
DeGraff Memorial	2015	0	1.0	0.00	Same	0	0.8	0.00	Same	5	5.7	0.88	Same
	2016	2	0.7	2.76	Same	0	0.5	0.00	Same	3	3.9	0.76	Same
East. Niag. Lockport	2015	0	2.1	0.00	Same	3	0.9	3.40	Same	3	9.9	0.30	Same
	2016	2	2.5	0.79	Same	1	0.4	2.51	Same	10	7.0	1.42	Same
Eastern Long Island	2015	1	0.6	1.55	Same	0	0.3	0.00	Same	4	5.7	0.70	Same
	2016	2	0.5	4.31	Same	0	0.2	0.00	Same	0	5.0	0.00	**Better
Ellis Hospital	2015	12	16.8	0.71	Same	2	11.1	0.18	**Better	52	53.4	0.97	Same
	2016	16	14.0	1.14	Same	5	10.6	0.47	Same	45	64.5	0.70	Same
Elmhurst Hospital	2015	15	5.8	2.56	^ Worse	16	10.2	1.56	Same	28	58.3	0.48	**Better
	2016	7	5.8	1.21	Same	35	11.6	3.02	^ Worse	29	44.5	0.65	Same
Erie County Med Ctr	2015	16	9.0	1.79	^ Worse	17	16.0	1.06	Same	67	70.4	0.95	Same
	2016	12	8.8	1.36	Same	10	13.2	0.76	Same	72	63.9	1.13	Same

## Summary of Hospital-Acquired Infection Data, 2016 New York State

		Surgical Site Infections (SSI)				Central Line Associated Blood Stream Infections (CLABSI)				Hospital Onset <i>Clostridium difficile</i> Infections (CDI)			
Hospital	Year	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infection	Ratio	How does this hospital compare to the state average?
FF Thompson	2015	3	5.2	0.57	Same	2	2.8	0.71	Same	13	14.5	0.90	Same
	2016	2	2.9	0.68	Same	2	3.0	0.68	Same	16	16.9	0.95	Same
Faxton St. Lukes	2015	11	6.5	1.68	Same	4	7.9	0.51	Same	62	59.4	1.04	Same
	2016	6	5.3	1.14	Same	4	6.2	0.65	Same	66	47.1	1.40	Same
Flushing Hospital	2015	8	5.5	1.45	Same	18	7.7	2.33	^ Worse	39	41.3	0.94	Same
	2016	7	5.2	1.33	Same	10	7.9	1.26	Same	50	33.5	1.49	^ Worse
Geneva General	2015	4	4.5	0.90	Same	2	2.7	0.75	Same	4	9.6	0.42	Same
	2016	5	4.4	1.13	Same	1	2.6	0.38	Same	25	25.9	0.96	Same
Glen Cove Hospital	2015	1	1.8	0.56	Same	0	0.8	0.00	Same	11	10.3	1.07	Same
	2016	1	2.1	0.47	Same	3	0.9	3.46	Same	8	8.8	0.91	Same
Glens Falls Hospital	2015	5	9.1	0.55	Same	0	7.0	0.00	**Better	35	44.4	0.79	Same
	2016	4	7.6	0.53	Same	3	6.1	0.49	Same	35	47.7	0.73	Same
Good Samar. Suffern	2015	2	10.0	0.20	**Better	25	9.7	2.59	^ Worse	48	47.7	1.01	Same
	2016	6	8.6	0.70	Same	6	7.8	0.77	Same	50	38.5	1.30	Same
Good Samar. W Islip	2015	37	24.6	1.50	^ Worse	17	20.1	0.85	Same	135	91.5	1.48	^ Worse
	2016	26	18.7	1.39	Same	7	17.0	0.41	**Better	89	67.3	1.32	Same
Harlem Hospital	2015	3	3.3	0.92	Same	11	6.0	1.84	Same	23	25.9	0.89	Same
	2016	2	2.1	0.93	Same	6	5.1	1.17	Same	16	22.4	0.71	Same
HealthAlli Broadway	2015	1	3.9	0.25	Same	0	5.9	0.00	**Better	33	14.2	2.32	^ Worse
	2016	0	3.0	0.00	Same	0	5.2	0.00	**Better	21	12.6	1.66	Same
HealthAlli MarysAve	2015	1	1.7	0.60	Same	0	0.5	0.00	Same	0	3.0	0.00	Same
	2016	0	1.2	0.00	Same	0	0.4	0.00	Same	1	2.0	0.51	Same
Helen Hayes Hospital	2015				No Data				Not calculated				Not calculated
	2016				No Data				Not calculated				Not calculated

## Summary of Hospital-Acquired Infection Data, 2016 New York State

		Surgical Site Infections (SSI)				Central Line Associated Blood Stream Infections (CLABSI)				Hospital Onset <i>Clostridium difficile</i> Infections (CDI)			
Hospital	Year	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infection	Ratio	How does this hospital compare to the state average?
Henry J. Carter	2015				No Data				No Data				Not calculated
	2016				No Data				No Data				Not calculated
Highland Hospital	2015	25	21.6	1.16	Same	7	18.1	0.39	**Better	55	51.6	1.07	Same
	2016	20	17.6	1.14	Same	2	16.5	0.12	**Better	40	45.5	0.88	Same
Hosp for Spec Surg	2015	11	35.9	0.31	**Better	1	3.0	0.34	Same				Not calculated
	2016	17	28.0	0.61	**Better	0	3.2	0.00	**Better				Not calculated
Huntington Hospital	2015	13	11.0	1.18	Same	3	3.8	0.78	Same	33	43.0	0.77	Same
	2016	11	11.5	0.95	Same	3	3.4	0.89	Same	39	36.7	1.06	Same
Interfaith Med Ctr	2015	0	1.6	0.00	Same	5	2.7	1.83	Same	11	9.6	1.14	Same
	2016	1	1.5	0.68	Same	7	2.6	2.73	^ Worse	14	8.6	1.63	Same
Ira Davenport	2015				Not calculated				Not calculated	1	0.8	1.23	Same
	2016				No Data	0	0.1	0.00	Same	0	0.4	0.00	Same
JT Mather Hospital	2015	12	7.4	1.63	Same	3	7.5	0.40	Same	44	29.7	1.48	Same
	2016	7	6.7	1.05	Same	5	6.4	0.78	Same	33	18.9	1.75	^ Worse
Jacobi Med Ctr	2015	11	10.4	1.06	Same	7	7.3	0.96	Same	59	63.4	0.93	Same
	2016	8	8.7	0.92	Same	14	7.3	1.92	^ Worse	64	53.3	1.20	Same
Jamaica Hospital	2015	12	8.4	1.43	Same	10	10.6	0.95	Same	55	55.3	0.99	Same
	2016	6	6.4	0.93	Same	6	8.2	0.73	Same	54	51.6	1.05	Same
Jones Memorial	2015	1	0.9	1.10	Same	0	1.2	0.00	Same	3	1.9	1.59	Same
	2016	0	0.7	0.00	Same	0	1.0	0.00	Same	2	1.8	1.08	Same
Kenmore Mercy	2015	16	11.7	1.37	Same	2	3.6	0.55	Same	19	24.0	0.79	Same
	2016	9	8.8	1.02	Same	0	2.5	0.00	Same	18	17.3	1.04	Same
Kings County Hosp	2015	5	11.3	0.44	Same	18	13.5	1.33	Same	49	45.8	1.07	Same
	2016	8	9.0	0.89	Same	13	13.9	0.94	Same	17	34.3	0.50	**Better
Kingsbrook Jewish MC	2015	1	3.5	0.28	Same	11	5.8	1.88	Same	37	26.4	1.40	Same
	2016	3	2.8	1.07	Same	24	7.7	3.12	^ Worse	40	27.4	1.46	Same

## Summary of Hospital-Acquired Infection Data, 2016 New York State

		Surgical Site Infections (SSI)				Central Line Associated Blood Stream Infections (CLABSI)				Hospital Onset <i>Clostridium difficile</i> Infections (CDI)			
Hospital	Year	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infection	Ratio	How does this hospital compare to the state average?
LIJ at Forest Hills	2015	3	6.9	0.43	Same	6	6.4	0.94	Same	62	45.0	1.38	Same
	2016	4	7.1	0.56	Same	1	4.4	0.23	Same	26	33.8	0.77	Same
LIJ at Valley Stream	2015	1	3.8	0.26	Same	2	3.5	0.57	Same	11	23.4	0.47	**Better
	2016	2	3.4	0.59	Same	5	2.8	1.76	Same	25	20.9	1.19	Same
Lenox Hill Hospital	2015	25	29.8	0.84	Same	13	15.3	0.85	Same	67	71.5	0.94	Same
	2016	24	28.6	0.84	Same	7	12.2	0.57	Same	45	57.9	0.78	Same
Lincoln Med Ctr	2015	6	5.9	1.02	Same	23	11.9	1.93	^ Worse	21	25.8	0.81	Same
	2016	3	5.7	0.53	Same	9	10.4	0.86	Same	10	22.1	0.45	**Better
Long Isl Jewish(LIJ)	2015	24	32.5	0.74	Same	18	26.2	0.69	Same	131	144.4	0.91	Same
	2016	24	32.2	0.75	Same	16	14.7	1.09	Same	104	100.7	1.03	Same
Maimonides Med Ctr	2015	35	26.8	1.31	Same	27	23.9	1.13	Same	56	69.3	0.81	Same
	2016	23	25.3	0.91	Same	43	22.4	1.92	^ Worse	56	60.8	0.92	Same
Mary Imogene Bassett	2015	16	14.0	1.14	Same	2	6.1	0.33	Same	22	31.0	0.71	Same
	2016	13	12.8	1.01	Same	4	6.1	0.65	Same	23	28.1	0.82	Same
Massena Memorial	2015	0	0.6	0.00	Same	0	0.2	0.00	Same	3	3.1	0.95	Same
	2016	0	0.5	0.00	Same	0	0.1	0.00	Same	3	2.2	1.35	Same
Memor SloanKettering	2015	64	73.2	0.87	Same				No Data				Not calculated
	2016	86	81.4	1.06	Same				No Data				Not calculated
Mercy Hosp Buffalo	2015	33	24.5	1.35	Same	15	15.0	1.00	Same	57	54.4	1.05	Same
	2016	33	23.3	1.42	Same	8	14.7	0.55	Same	61	48.1	1.27	Same
Mercy Med Ctr	2015	4	6.2	0.65	Same	7	5.1	1.37	Same	43	34.2	1.26	Same
	2016	1	5.0	0.20	Same	5	3.9	1.28	Same	47	32.7	1.44	Same
Metropolitan Hosp	2015	10	2.8	3.63	^ Worse	3	2.2	1.35	Same	11	17.9	0.61	Same
	2016	0	3.2	0.00	**Better	3	2.4	1.26	Same	4	15.4	0.26	**Better
MidHudson Reg of WMC	2015	4	4.5	0.89	Same	4	5.6	0.71	Same	11	9.8	1.12	Same
	2016	3	3.7	0.81	Same	2	4.7	0.43	Same	20	10.0	2.00	^ Worse
Millard Fill. Suburb	2015	22	23.2	0.95	Same	19	12.6	1.50	Same	63	58.8	1.07	Same
	2016	16	21.2	0.76	Same	3	9.5	0.31	**Better	30	50.9	0.59	**Better



## Summary of Hospital-Acquired Infection Data, 2016 New York State

		Surgical Site Infections (SSI)				Central Line Associated Blood Stream Infections (CLABSI)				Hospital Onset <i>Clostridium difficile</i> Infections (CDI)			
Hospital	Year	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infection	Ratio	How does this hospital compare to the state average?
Monroe Community	2015				No Data				No Data	0	0.0	0.00	Same
	2016				No Data				No Data				Not calculated
Montefiore-Einstein	2015	33	21.9	1.50	^ Worse	22	18.1	1.22	Same	123	89.6	1.37	^ Worse
	2016	23	18.6	1.23	Same	25	18.3	1.37	Same	117	93.7	1.25	Same
Montefiore-Moses	2015	16	21.9	0.73	Same	40	45.2	0.89	Same	199	193.3	1.03	Same
	2016	26	23.7	1.10	Same	42	43.6	0.96	Same	221	158.5	1.39	^ Worse
Montefiore-Mt Vernon	2015	1	1.7	0.59	Same	1	1.6	0.62	Same	6	8.0	0.75	Same
	2016	2	1.1	1.76	Same	4	1.6	2.42	Same	17	7.6	2.23	^ Worse
Montefiore-NewRochl	2015	6	5.2	1.15	Same	3	3.3	0.90	Same	27	23.1	1.17	Same
	2016	5	4.3	1.16	Same	6	2.6	2.30	Same	20	18.3	1.09	Same
Montefiore-Wakefield	2015	15	9.2	1.63	Same	5	7.8	0.64	Same	49	48.5	1.01	Same
	2016	13	8.0	1.62	Same	5	7.5	0.66	Same	72	35.5	2.03	^ Worse
Mount St. Marys	2015	3	3.4	0.88	Same	0	2.6	0.00	Same	5	10.4	0.48	Same
	2016	2	3.1	0.66	Same	2	3.0	0.68	Same	4	12.2	0.33	Same
Mt Sinai	2015	95	70.8	1.34	^ Worse	54	55.3	0.98	Same	287	197.7	1.45	^ Worse
	2016	68	58.8	1.16	Same	62	46.6	1.33	^ Worse	167	154.9	1.08	Same
Mt Sinai Beth Israel	2015	18	22.6	0.80	Same	12	20.5	0.59	Same	66	83.8	0.79	Same
	2016	19	16.5	1.15	Same	16	12.6	1.27	Same	29	58.3	0.50	**Better
Mt Sinai Brooklyn	2015	4	5.3	0.76	Same	3	5.2	0.57	Same	30	48.5	0.62	**Better
	2016	1	4.5	0.22	Same	8	4.0	1.99	Same	14	23.9	0.59	Same
Mt Sinai Queens	2015	2	5.8	0.35	Same	2	3.1	0.64	Same	18	28.7	0.63	Same
	2016	2	3.9	0.51	Same	6	4.0	1.51	Same	9	24.7	0.36	**Better
Mt Sinai St Lukes	2015	7	10.1	0.69	Same	4	8.2	0.49	Same	45	52.3	0.86	Same
	2016	5	9.0	0.56	Same	8	7.6	1.06	Same	23	37.7	0.61	Same
Mt Sinai West	2015	12	16.1	0.75	Same	4	5.2	0.77	Same	45	62.1	0.72	Same
	2016	11	13.4	0.82	Same	3	4.4	0.68	Same	19	41.6	0.46	**Better
NY Community Hosp	2015	0	2.0	0.00	Same	4	1.5	2.63	Same	41	30.5	1.34	Same
	2016	1	1.9	0.53	Same	1	1.5	0.68	Same	32	24.5	1.31	Same

## Summary of Hospital-Acquired Infection Data, 2016 New York State

		Surgical Site Infections (SSI)				Central Line Associated Blood Stream Infections (CLABSI)				Hospital Onset <i>Clostridium difficile</i> Infections (CDI)			
Hospital	Year	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infection	Ratio	How does this hospital compare to the state average?
NY Eye&Ear Mt Sinai	2015				No Data				Not calculated				Not calculated
	2016				No Data				Not calculated				Not calculated
NYP-Allen	2015	3	2.3	1.28	Same	2	2.3	0.86	Same	23	32.4	0.71	Same
	2016	0	1.4	0.00	Same	3	3.0	0.98	Same	23	25.0	0.92	Same
NYP-Brklyn Methodist	2015	16	24.7	0.65	Same	26	19.3	1.35	Same	140	119.0	1.18	Same
	2016	10	22.1	0.45	**Better	16	15.0	1.07	Same	134	94.9	1.41	^ Worse
NYP-Columbia	2015	31	44.7	0.69	**Better	74	53.6	1.38	^ Worse	234	173.1	1.35	^ Worse
	2016	38	47.7	0.80	Same	70	56.3	1.24	Same	238	191.2	1.24	^ Worse
NYP-Hudson Valley	2015	4	5.7	0.70	Same	0	2.0	0.00	Same	17	13.0	1.31	Same
	2016	3	4.0	0.76	Same	2	2.7	0.73	Same	24	30.5	0.79	Same
NYP-Lawrence	2015	5	5.1	0.97	Same	7	6.0	1.16	Same	40	32.1	1.25	Same
	2016	5	4.2	1.18	Same	9	5.4	1.68	Same	24	26.9	0.89	Same
NYP-Lower Manhattan	2015	4	6.1	0.66	Same	1	4.1	0.24	Same	22	18.6	1.18	Same
	2016	4	5.1	0.79	Same	8	3.7	2.15	Same	26	20.8	1.25	Same
NYP-Morgan Stanley	2015	0	3.0	0.00	Same	28	21.3	1.31	Same				Not calculated
	2016	0	2.4	0.00	Same	15	17.8	0.84	Same				Not calculated
NYP-Queens	2015	17	19.1	0.89	Same	23	14.9	1.54	Same	155	144.2	1.07	Same
	2016	16	20.6	0.78	Same	23	14.0	1.64	^ Worse	97	115.5	0.84	Same
NYP-Weill Cornell	2015	39	43.5	0.90	Same	62	50.8	1.22	Same	216	166.4	1.30	^ Worse
	2016	21	34.8	0.60	**Better	46	45.9	1.00	Same	218	156.2	1.40	^ Worse
NYU Joint Diseases	2015	20	15.0	1.33	Same	0	0.4	0.00	Same				Not calculated
	2016	16	14.4	1.11	Same	1	0.3	3.58	Same				Not calculated
NYU Lutheran	2015	5	12.8	0.39	**Better	15	12.4	1.21	Same	110	76.1	1.45	^ Worse
	2016	14	10.1	1.39	Same	23	9.7	2.36	^ Worse	86	59.2	1.45	^ Worse
NYU Tisch	2015	29	34.1	0.85	Same	28	31.7	0.88	Same	119	109.0	1.09	Same
	2016	44	36.9	1.19	Same	37	31.3	1.18	Same	119	103.8	1.15	Same
Nassau University	2015	6	5.2	1.15	Same	0	5.9	0.00	**Better	12	26.7	0.45	**Better
	2016	4	4.1	0.98	Same	3	6.3	0.47	Same	14	25.7	0.54	Same

## Summary of Hospital-Acquired Infection Data, 2016 New York State

		Surgical Site Infections (SSI)				Central Line Associated Blood Stream Infections (CLABSI)				Hospital Onset <i>Clostridium difficile</i> Infections (CDI)			
Hospital	Year	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infection	Ratio	How does this hospital compare to the state average?
Nathan Littauer	2015	1	1.9	0.54	Same	0	0.7	0.00	Same	3	2.8	1.08	Same
	2016	1	1.6	0.61	Same	1	0.6	1.66	Same	4	3.0	1.32	Same
Newark Wayne	2015	3	2.8	1.06	Same	3	3.3	0.90	Same	13	26.6	0.49	**Better
	2016	4	2.5	1.62	Same	1	2.4	0.42	Same	14	21.3	0.66	Same
Niagara Falls	2015	2	1.9	1.05	Same	3	3.3	0.90	Same	19	14.6	1.30	Same
	2016	3	2.6	1.13	Same	5	2.3	2.16	Same	7	11.1	0.63	Same
North Central Bronx	2015	0	1.1	0.00	Same	2	1.3	1.52	Same	5	15.1	0.33	**Better
	2016	2	2.0	0.99	Same	1	1.0	0.97	Same	8	13.8	0.58	Same
North Shore	2015	57	57.0	1.00	Same	11	25.9	0.42	**Better	150	182.3	0.82	Same
	2016	36	55.5	0.65	**Better	15	27.2	0.55	**Better	155	167.8	0.92	Same
Northern Dutchess	2015	5	3.0	1.64	Same	2	1.2	1.68	Same	19	9.4	2.01	^ Worse
	2016	6	3.8	1.58	Same	1	1.1	0.90	Same	14	8.9	1.56	Same
Northern Westchester	2015	11	8.7	1.26	Same	2	3.9	0.51	Same	35	27.4	1.28	Same
	2016	13	7.2	1.81	Same	2	2.7	0.75	Same	26	24.1	1.08	Same
Noyes Memorial	2015	2	1.8	1.11	Same	0	0.5	0.00	Same	3	3.8	0.79	Same
	2016	2	2.0	1.02	Same	0	0.6	0.00	Same	2	4.0	0.50	Same
Nyack Hospital	2015	6	5.7	1.05	Same	3	5.4	0.56	Same	30	53.6	0.56	**Better
	2016	6	5.0	1.20	Same	4	3.9	1.03	Same	48	51.4	0.93	Same
Olean General	2015	1	4.5	0.22	Same	6	3.9	1.52	Same	24	20.1	1.20	Same
	2016	4	4.1	0.97	Same	5	3.2	1.58	Same	24	18.0	1.34	Same
Oneida Healthcare	2015	5	4.0	1.25	Same	0	0.9	0.00	Same	5	5.4	0.92	Same
	2016	5	3.9	1.27	Same	0	1.0	0.00	Same	3	5.0	0.60	Same
OrangeReg Goshen-Mid	2015	8	12.6	0.64	Same	12	12.2	0.99	Same	114	69.8	1.63	^ Worse
	2016	7	12.6	0.55	Same	11	11.1	0.99	Same	97	68.6	1.41	^ Worse
Oswego Hospital	2015	2	3.6	0.56	Same	0	1.8	0.00	Same	2	12.7	0.16	**Better
	2016	3	3.6	0.83	Same	1	1.6	0.63	Same	7	12.4	0.57	Same
Our Lady of Lourdes	2015	12	9.7	1.24	Same	5	6.9	0.73	Same	43	43.9	0.98	Same
	2016	9	7.6	1.18	Same	3	5.5	0.55	Same	28	27.4	1.02	Same

## Summary of Hospital-Acquired Infection Data, 2016 New York State

		Surgical Site Infections (SSI)				Central Line Associated Blood Stream Infections (CLABSI)				Hospital Onset <i>Clostridium difficile</i> Infections (CDI)			
Hospital	Year	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infection	Ratio	How does this hospital compare to the state average?
Peconic Bay Medical	2015	7	10.2	0.69	Same	3	1.6	1.85	Same	34	21.1	1.61	Same
	2016	10	6.9	1.44	Same	6	2.0	3.07	^ Worse	22	18.6	1.18	Same
Phelps Memorial	2015	0	3.8	0.00	**Better	2	2.9	0.69	Same	22	33.2	0.66	Same
	2016	0	3.7	0.00	**Better	1	2.0	0.50	Same	24	25.8	0.93	Same
Plainview Hospital	2015	10	8.9	1.12	Same	3	3.7	0.82	Same	35	30.4	1.15	Same
	2016	7	8.6	0.81	Same	5	3.4	1.48	Same	22	22.8	0.96	Same
Putnam Hospital	2015	6	7.0	0.85	Same	4	1.9	2.10	Same	23	23.8	0.96	Same
	2016	6	6.0	1.00	Same	2	2.1	0.94	Same	28	24.6	1.14	Same
Queens Hospital	2015	4	5.2	0.76	Same	7	6.0	1.16	Same	18	27.6	0.65	Same
	2016	7	5.2	1.35	Same	4	4.7	0.84	Same	19	20.9	0.91	Same
Richmond Univ MC	2015	13	9.4	1.39	Same	14	11.2	1.25	Same	51	46.7	1.09	Same
	2016	15	8.6	1.74	Same	16	7.9	2.02	^ Worse	56	35.5	1.58	^ Worse
Rochester General	2015	46	43.8	1.05	Same	30	26.2	1.14	Same	128	170.0	0.75	**Better
	2016	43	39.7	1.08	Same	26	25.4	1.02	Same	124	168.2	0.74	**Better
Rome Memorial	2015	0	1.8	0.00	Same	1	1.6	0.64	Same	20	10.0	2.01	^ Worse
	2016	1	1.3	0.78	Same	1	1.1	0.91	Same	20	14.6	1.37	Same
Roswell Park	2015	20	12.5	1.61	Same				No Data				Not calculated
	2016	25	10.2	2.45	^ Worse				No Data				Not calculated
SUNY Downstate MedCr	2015	8	6.9	1.17	Same	44	12.9	3.42	^ Worse	60	49.8	1.20	Same
	2016	8	8.1	0.99	Same	22	11.6	1.90	^ Worse	38	39.7	0.96	Same
Samaritan- Troy	2015	4	6.7	0.59	Same	3	5.3	0.57	Same	7	11.2	0.62	Same
	2016	3	7.2	0.41	Same	1	4.6	0.22	Same	5	8.3	0.60	Same
Samaritan- Watertown	2015	7	5.8	1.21	Same	6	4.3	1.39	Same	20	34.7	0.58	**Better
	2016	3	3.9	0.78	Same	0	3.5	0.00	**Better	18	31.8	0.57	Same
Saratoga Hospital	2015	9	8.4	1.07	Same	1	6.9	0.14	**Better	43	31.6	1.36	Same
	2016	8	8.1	0.99	Same	3	4.7	0.64	Same	38	31.1	1.22	Same
Sisters of Charity	2015	18	12.3	1.46	Same	6	8.3	0.73	Same	30	30.4	0.99	Same
	2016	17	10.6	1.61	Same	3	7.1	0.42	Same	24	26.7	0.90	Same

## Summary of Hospital-Acquired Infection Data, 2016 New York State

		Surgical Site Infections (SSI)				Central Line Associated Blood Stream Infections (CLABSI)				Hospital Onset <i>Clostridium difficile</i> Infections (CDI)			
Hospital	Year	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infection	Ratio	How does this hospital compare to the state average?
Sisters- St Joseph	2015	14	4.8	2.92	^ Worse	3	4.3	0.70	Same	22	21.9	1.00	Same
	2016	8	4.5	1.76	Same	1	2.9	0.35	Same	4	9.5	0.42	Same
South Nassau Comm.	2015	22	19.0	1.16	Same	6	18.3	0.33	**Better	114	101.9	1.12	Same
	2016	18	16.5	1.09	Same	10	15.4	0.65	Same	64	86.7	0.74	Same
Southampton	2015	5	3.3	1.53	Same	4	2.7	1.49	Same	15	12.5	1.20	Same
	2016	2	2.6	0.78	Same	4	2.0	2.00	Same	20	12.9	1.55	Same
Southside	2015	18	22.5	0.80	Same	7	6.3	1.12	Same	44	47.4	0.93	Same
	2016	21	20.3	1.03	Same	5	5.8	0.87	Same	45	38.9	1.16	Same
St Anthony	2015	0	1.6	0.00	Same	1	1.1	0.92	Same	7	5.9	1.18	Same
	2016	1	1.6	0.64	Same	0	0.7	0.00	Same	12	6.5	1.85	Same
St Barnabas	2015	5	4.2	1.18	Same	12	5.7	2.10	^ Worse	37	30.2	1.22	Same
	2016	3	5.9	0.51	Same	4	3.9	1.02	Same	18	40.8	0.44	**Better
St Catherine Siena	2015	5	5.5	0.90	Same	5	6.3	0.79	Same	49	47.7	1.03	Same
	2016	4	4.8	0.83	Same	4	4.6	0.86	Same	31	36.2	0.86	Same
St Charles Hospital	2015	6	6.0	0.99	Same	6	4.5	1.33	Same	28	36.4	0.77	Same
	2016	0	4.0	0.00	**Better	3	3.0	1.01	Same	22	26.5	0.83	Same
St Elizabeth Medical	2015	8	11.2	0.72	Same	3	9.3	0.32	**Better	51	35.3	1.44	Same
	2016	18	12.1	1.48	Same	1	7.1	0.14	**Better	45	36.0	1.25	Same
St Francis- Roslyn	2015	22	25.9	0.85	Same	14	19.5	0.72	Same	102	86.1	1.19	Same
	2016	32	28.4	1.13	Same	12	21.1	0.57	**Better	77	71.3	1.08	Same
St James Mercy	2015				Not calculated	0	0.3	0.00	Same	0	0.8	0.00	Same
	2016				Not calculated	0	0.3	0.00	Same	0	0.6	0.00	Same
St Johns Dobbs Ferry	2016	2	0.6	3.32	Same	0	0.1	0.00	Same	1	0.6	1.57	Same
St Johns Episcopal	2015	5	2.6	1.91	Same	12	6.1	1.97	^ Worse	13	25.0	0.52	Same
	2016	6	3.4	1.76	Same	17	6.7	2.55	^ Worse	15	21.1	0.71	Same
St Johns Riverside	2015	10	5.0	2.02	Same	2	4.7	0.42	Same	23	17.4	1.32	Same
	2016	7	3.1	2.29	Same	2	3.3	0.61	Same	21	12.9	1.63	Same

## Summary of Hospital-Acquired Infection Data, 2016 New York State

		Surgical Site Infections (SSI)				Central Line Associated Blood Stream Infections (CLABSI)				Hospital Onset <i>Clostridium difficile</i> Infections (CDI)			
Hospital	Year	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infection	Ratio	How does this hospital compare to the state average?
St Joseph -Bethpage	2015	8	3.3	2.45	^ Worse	6	3.7	1.62	Same	33	27.9	1.18	Same
	2016	2	2.3	0.88	Same	1	2.8	0.36	Same	24	21.8	1.10	Same
St Josephs- Elmira	2015				No Data	0	0.3	0.00	Same	3	5.1	0.58	Same
	2016				No Data	0	0.3	0.00	Same	1	4.8	0.21	Same
St Josephs- Syracuse	2015	38	36.7	1.04	Same	41	31.6	1.30	Same	121	95.8	1.26	Same
	2016	31	32.9	0.94	Same	18	24.3	0.74	Same	89	76.1	1.17	Same
St Josephs- Yonkers	2015	0	1.7	0.00	Same	2	2.5	0.80	Same	11	8.3	1.33	Same
	2016	1	1.6	0.64	Same	3	1.7	1.76	Same	6	6.8	0.89	Same
St Lukes Cornwall	2015	5	4.3	1.17	Same	1	3.5	0.28	Same	45	33.4	1.35	Same
	2016	4	5.4	0.74	Same	0	3.4	0.00	**Better	33	28.5	1.16	Same
St Marys Amsterdam	2015	1	2.2	0.45	Same	0	2.6	0.00	Same	10	12.5	0.80	Same
	2016	3	2.3	1.29	Same	0	1.7	0.00	Same	2	9.3	0.21	**Better
St Marys Troy	2015	1	1.0	0.97	Same	3	2.4	1.27	Same	7	4.1	1.73	Same
St Peters Hospital	2015	43	45.1	0.95	Same	21	32.2	0.65	**Better	74	91.7	0.81	Same
	2016	48	44.0	1.09	Same	13	29.8	0.44	**Better	65	77.7	0.84	Same
Staten Island U N	2015	17	24.8	0.68	Same	9	19.3	0.47	**Better	117	116.4	1.01	Same
	2016	22	19.1	1.15	Same	12	13.6	0.88	Same	104	92.5	1.12	Same
Staten Island U S	2016				Not calculated	0	2.1	0.00	Same	19	20.8	0.91	Same
Strong Memorial	2015	29	33.7	0.86	Same	44	58.0	0.76	Same	217	231.2	0.94	Same
	2016	26	26.6	0.98	Same	51	53.6	0.95	Same	210	179.3	1.17	Same
Sunnyview Rehab Hosp	2015				No Data	0	0.2	0.00	Same				Not calculated
	2016				No Data	0	0.2	0.00	Same				Not calculated
Syosset Hospital	2015	4	4.4	0.91	Same	1	1.2	0.85	Same	6	5.7	1.06	Same
	2016	3	3.9	0.78	Same	0	1.0	0.00	Same	4	7.5	0.53	Same
TLC Lake Shore	2015	0	0.3	0.00	Same				Not calculated	1	1.0	1.05	Same
	2016				Not calculated				Not calculated	1	1.2	0.81	Same
UHS Binghamton	2016	3	2.2	1.35	Same	1	1.9	0.52	Same	12	13.3	0.90	Same

## Summary of Hospital-Acquired Infection Data, 2016 New York State

		Surgical Site Infections (SSI)				Central Line Associated Blood Stream Infections (CLABSI)				Hospital Onset <i>Clostridium difficile</i> Infections (CDI)			
Hospital	Year	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infection	Ratio	How does this hospital compare to the state average?
UHS Chenango Memor	2015	4	1.0	3.82	^ Worse	1	0.3	3.22	Same	2	2.7	0.74	Same
	2016	2	0.7	2.93	Same	0	0.2	0.00	Same	0	3.6	0.00	Same
UHS Wilson	2015	15	14.3	1.05	Same	9	13.1	0.69	Same	65	79.0	0.82	Same
	2016	13	10.2	1.28	Same	15	10.6	1.41	Same	49	38.1	1.29	Same
UPMC Chautauqua WCA	2015	1	3.6	0.28	Same	0	3.8	0.00	**Better	22	18.7	1.18	Same
	2016	1	2.6	0.39	Same	1	2.9	0.35	Same	24	34.6	0.69	Same
United Memorial	2015	0	2.8	0.00	Same	0	0.9	0.00	Same	15	13.9	1.08	Same
	2016	4	2.2	1.84	Same	0	0.9	0.00	Same	7	9.8	0.72	Same
Unity Hosp Rochester	2015	20	18.9	1.06	Same	6	14.6	0.41	**Better	29	51.9	0.56	**Better
	2016	13	16.6	0.79	Same	2	14.1	0.14	**Better	44	39.5	1.11	Same
Univ Hosp SUNY Upst	2015	22	13.0	1.69	^ Worse	26	36.4	0.71	Same	94	92.6	1.02	Same
	2016	29	11.1	2.61	^ Worse	29	31.7	0.91	Same	95	120.9	0.79	Same
Univ Hosp StonyBrook	2015	33	32.6	1.01	Same	24	28.9	0.83	Same	194	161.8	1.20	Same
	2016	29	23.7	1.23	Same	19	22.6	0.84	Same	141	129.6	1.09	Same
Upst. Community Gen	2015	17	8.3	2.04	^ Worse	0	2.7	0.00	Same	17	25.3	0.67	Same
	2016	14	7.1	1.98	^ Worse	2	2.8	0.71	Same	19	20.9	0.91	Same
Vassar Brothers	2015	14	20.1	0.70	Same	9	14.9	0.60	Same	122	135.3	0.90	Same
	2016	10	19.8	0.50	**Better	9	12.2	0.74	Same	107	121.5	0.88	Same
Westchester Medical	2015	23	16.4	1.40	Same	34	41.6	0.82	Same	100	104.8	0.95	Same
	2016	18	18.2	0.99	Same	37	34.6	1.07	Same	139	122.8	1.13	Same
White Plains Hosp	2015	15	10.8	1.38	Same	12	12.5	0.96	Same	45	46.6	0.97	Same
	2016	9	10.8	0.83	Same	7	9.1	0.77	Same	43	37.7	1.14	Same
Winthrop University	2015	37	30.7	1.21	Same	19	25.7	0.74	Same	131	126.0	1.04	Same
	2016	41	30.1	1.36	Same	17	24.6	0.69	Same	98	94.6	1.04	Same
Woman and Childrens	2015	6	2.0	3.01	^ Worse	14	9.1	1.53	Same				Not calculated
	2016	5	2.1	2.40	Same	10	6.9	1.45	Same				Not calculated
Woodhull Med Ctr	2015	1	3.1	0.32	Same	17	7.2	2.36	^ Worse	33	37.2	0.89	Same
	2016	1	2.8	0.35	Same	6	5.6	1.08	Same	12	18.4	0.65	Same

## Summary of Hospital-Acquired Infection Data, 2016 New York State

		Surgical Site Infections (SSI)				Central Line Associated Blood Stream Infections (CLABSI)				Hospital Onset <i>Clostridium difficile</i> Infections (CDI)			
Hospital	Year	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infections	Ratio	How does this hospital compare to the state average?	Observed infections	Predicted infection	Ratio	How does this hospital compare to the state average?
Wyckoff Heights	2015	8	4.5	1.76	Same	14	7.0	1.99	^ Worse	22	18.0	1.22	Same
	2016	7	5.2	1.35	Same	9	6.1	1.49	Same	29	26.2	1.11	Same
Wyoming County Comm.	2015	1	1.1	0.92	Same	0	0.7	0.00	Same	0	2.2	0.00	Same
	2016	0	0.5	0.00	Same	0	0.4	0.00	Same	0	1.8	0.00	Same

Each hospital's 2016 data was compared to the NYS 2016 average. 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.

In 2015, the following five hospital pairs reported combined data: Cohen/Long Island Jewish, Bellevue/Ellis, St Johns Riverside/Dobbs Ferry, Staten Island University North/South, UHS Binghamton/Wilson, while in 2016 they reported separately.



## **Summary of hospital performance.**

In 2016, 42 hospitals were flagged red for having an HAI rate significantly higher than the state average in one of the 21 indicators (i.e. colon SSI, CABG chest SSI, CABG donor SSI, hip SSI, hysterectomy SSI, overall SSI SIR, 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"

([http://www.health.ny.gov/statistics/facilities/hospital/hospital\\_acquired\\_infections/2015/docs/policy\\_repeat\\_high\\_hai\\_rates.pdf](http://www.health.ny.gov/statistics/facilities/hospital/hospital_acquired_infections/2015/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 during a single year, 2016, 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 2016 are listed below.

- DOH continued to audit the 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 continued leading a NYS CDI prevention collaborative. In 2016 DOH focused on improving communication of infection control information when patients are transferred between hospitals and nursing homes. Through use of webinar presentations, DOH educated participating facilities on evidence-based infection prevention and control practices.
- DOH visited facilities with high CRE rates and *C. 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 provide grant funding to health care organizations to develop, implement, and evaluate strategies to reduce targeted HAIs.
- 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 you doctors about all 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 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 Clostridium 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/>.