



**Healthcare-associated infections (HAIs)** are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC and Connecticut Department of Public Health priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The infection data are reported to CDC's National Healthcare Safety network (NHSN) and analyzed by the CT DPH.

This report is based on 2016 data using the 2015 baseline.

## CLABSI

SIR = 0.75

### CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS

When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

- ↓ 29% Facility SIR was lower than the statewide 2016 SIR of 1.03 (but not statistically significantly)
- ↓ 25% Facility SIR was lower than the national baseline SIR of 1.0 (but not statistically significantly)

## CAUTI

SIR = 0.83

### CATHETER-ASSOCIATED URINARY TRACT INFECTIONS

When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

- ↓ 13% Facility SIR was lower than the statewide 2016 SIR of 0.95 (but not statistically significantly)
- ↓ 17% Facility SIR was lower than the national baseline SIR of 1.0 (but not statistically significantly)

## MRSA Bacteremia

SIR = 0.00

### LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS

Methicillin-resistant *Staphylococcus aureus* (MRSA) is bacterium usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections

- ↓ 106% Facility SIR was lower than the statewide 2016 SIR of 1.06 (but not statistically significantly)
- ↓ 100% Facility SIR was lower than the national baseline SIR of 1.0 (but not statistically significantly)

## SSIs

### SURGICAL SITE INFECTIONS

When germs get into an area where surgery is or was performed, patients can get a surgical site infection. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

### SSI: Abdominal Hysterectomy

SIR = N/A

Facility SIR cannot be calculated

### SSI: Colon Surgery

SIR = 1.31

- ↑ 15% Facility SIR was higher than the statewide 2016 SIR of 1.16 (but not statistically significantly)
- ↑ 31% Facility SIR was higher than the national baseline SIR of 1.0 (but not statistically significantly)

## C. difficile Infections

SIR = 0.74

### LABORATORY IDENTIFIED HOSPITAL-ONSET C. DIFFICILE INFECTIONS

When a person takes antibiotics, good bacteria that protect against infection are damaged for up to months. During this time, patients can get sick from *Clostridium difficile*, bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.

- ↓ 27% Facility SIR was lower than the statewide 2016 SIR of 1.01 (but not statistically significantly)
- ↓ 26% Facility SIR was lower than the national baseline SIR of 1.0 (but not statistically significantly)

# 2016 HAI REPORT

# MIDDLESEX HOSPITAL



## HEALTHCARE ASSOCIATED INFECTIONS PROGRESS



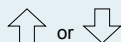
### LEGEND



2016 facility SIR is significantly lower (better) than comparison group (state or national baseline)



2016 facility SIR is significantly higher (worse) than comparison group (state or national baseline)



2016 facility SIR is not statistically significantly different from comparison group; arrow direction indicates if SIR is more or less than comparison group



2016 facility SIR cannot be calculated

### WHAT IS THE STANDARDIZED INFECTION RATIO?

The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time; lower SIRs are better. The SIR for a facility or state is adjusted to account for factors that might cause infection rates to be higher or lower, such as hospital size, teaching status, the type of patients a hospital serves, and surgery and patient characteristics.

### WHAT DO THE PERCENTAGES MEAN?

The percentage next to each arrow shows the amount the facility's SIR differs from the national baseline SIR of 1.0, or the amount it differs from the statewide SIR for that HAI in given type of unit in 2016.

HAI type	Unit type	Device days, number of procedures, or patient days	Observed infections	Predicted infections	SIR	95%CI	How does this facility compare?	
							State (2016)	National baseline
CLABSI	Adult ICUs	1,022	1	0.89				
	Adult Wards	2,367	1	1.79	0.56	(0.03, 2.76)	↓ 46%	↓ 44%
CAUTI	Adult ICUs	1,312	0	1.09	0	(, 2.74)	↓ 100%	↓ 100%
	Adult Wards	1,671	2	1.33	1.50	(0.25, 4.97)	↑ 42%	↑ 50%
Colon procedures SSI		155	5	3.81	1.31	(0.48, 2.91)	↑ 15%	↑ 31%
Abdominal hysterectomy SSI		89	0	0.66				
MRSA events		52,887	0	1.88	0.00	(, 1.60)	↓ 106%	↓ 100%
CDI events		50,130	19	25.64	0.74	(0.46, 1.14)	↓ 27%	↓ 26%

### Statewide 2016 SIRs

CLABSI	1.03
Adult ICUs	0.99
Neonatal ICUs	0.71
Pediatric ICUs	1.60
Adult Wards	1.02
Pediatric Wards	2.56
CAUTI	0.95
Adult ICUs	0.83
Pediatric ICUs	2.33
Adult Wards	1.06
Pediatric Wards	<1
COLO SSI	1.16
HYST SSI	0.96
MRSA	1.06
CDI	1.01

### FACILITY PROFILE

Number of staffed beds	Full time infection preventionists (40hr/wk)	Beds/full-time IP	CDC AMS Core elements fulfillment (max 7)
183	1.9	96.32	6