2018 HAI REPORT

YALE-NEW HAVEN HOSPITAL

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 2018 data using the 2015 baseline.

CLABSIs

HEALTHCARE

INFECTIONS

PROGRESS

SIR = 0.68

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.



Facility SIR was lower than the statewide 2018 SIR of 0.82 (but not statistically significantly)

Facility SIR was statistically significantly lower than the national baseline SIR of 1.0

CAUTIs

SIR = 0.73

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.



Facility SIR was lower than the statewide 2018 SIR of 0.93 (but not statistically significantly)



Facility SIR was statistically significantly lower than the national baseline SIR of 1.0

MRSA Bacteremia SIR = 1.20

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.



Facility SIR was statistically significantly higher than the statewide 2018 SIR of 0.74



Facility SIR was higher 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

12%

Facility SIR was higher than the statewide 2018 SIR of 1.41 (but not statistically significantly)

1 58%

Facility SIR was higher than the national baseline SIR of 1.0 (but not statistically significantly)

SSI: Colon Surgery

1 31% F

Facility SIR was higher than the statewide 2018 SIR of 1.05 (but not statistically significantly)

Facility SIR was higher than the national baseline SIR of 1.0 (but not statistically significantly)

C. difficile Infections

SIR = 0.98

SIR = 1.58

SIR = 1.37

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.

1 20%

Facility SIR was statistically significantly higher than the statewide 2018 SIR of 0.82



Facility SIR was lower than the national baseline SIR of 1.0 (but not statistically significantly)

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CAUTI

Adult ICUs

Pediatric ICUs Adult Wards Pediatric Wards COLO SSI HYST SSI MRSA CDI

0.93

0.80

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 percent change of the facility's SIR from the national baseline SIR of 1.0, or the change from the statewide SIR for that HAI in given type of unit in 2018.



LEGEND		Al type	Unit type	Device days, number of procedures, or patient days	Observed infections	Predicted infections	SIR	95%CI	How does this facility compare?	
2018 facility SIR is significant- ly lower (better) than compari- son group (state or national baseline)									State (2018)	National baseline
		CLABSI	Adult ICUs	18,652	14	21.05	0.67	(0.38, 1.09)	√ 1%	√ 33%
2018 facility SIR is significant- ly higher (worse) than com- parison group (state or na- tional baseline) 2018 facility SIR is not statisti- cally significantly different from comparison group; arrow direction indicates if SIR is more or less than comparison group			Pediatric ICUs	1,235	1	1.78	0.56	(0.03, 2.77)	√ 67%	√ 44%
			Neonatal ICUs	3,714	1	4.93	0.20	(0.01, 1.00)	56%	√ 80%
			Adult Wards	25,788	21	25.15	0.84	(0.53, 1.26)	J 9%	√ 16%
			Pediatric Wards	1,533	0	1.51	0.00	(, 1.98)	√_100%	√ 100%
		CAUTI	Adult ICUs	22,197	21	39.21	0.54	(0.34, 0.81)	√ 33%	46%
			Pediatric ICUs	459	1	0.79				
2018 facility SIR cannot be calculated			Adult Wards	14,355	20	17.52	1.14	(0.72, 1.73)	14%	14%
			Pediatric Wards	260	0	0.21				
Statowido 2018SIRs		Colon procedures SSI		670	25	18.30	1.37	(0.90, 1.99)	1% 31%	☆ 37%
CLABSI	0.82	Abdominal hysterectomy		660	9	5.70	1.58	(0.77, 2.90)	☆ 12%	
Neonatal ICUs	0.47	MRSA events		384,533	25	20.77	1.20	(0.80, 1.75)	6 2%	<u> </u>
Adult Wards Pediatric Wards	0.92	CDI events		353,341	233	237.64	0.98	(0.86, 1.11)	20%	2%

0.61						
1.10	FACILITY PROFILE					
<1						
1.05	Number of staffed beds	Full time infection preventionists (40hr/wk)	Beds/full-time IP	CDC AMS Core elements fulfillment (max 7)		
1.41						
0.74	1 455	7	208	7		
0.82	1,455	/	200			