

Supplemental Tables Executive Summary

The National and State Healthcare-Associated Infections (HAI) Progress Report includes data for inpatient rehabilitation facilities (IRFs) and long-term acute care hospitals (LTAC). The 2020 report includes summary of selected HAIs reported from pediatric and

The supplemental data includes infection-specific standardized infection ratios (SIR). The SIR is the ratio of the observed number of infections (events) to the number of patient days. The SIR metrics are calculated using the 2015 national baseline and risk adjustment factors. For more information, see NHSN's Guide to the SIR: <https://www.cdc.gov/nhsn/dataqueryandreporting/guide-to-the-sir/>

This report includes national data for the following HAI and facility types:

Oncology Hospitals	Oncology Locations	Pediatric Hospitals	Pediatric Locations
CLABSI	CLABSI	CLABSI	CLABSI
CAUTI	CAUTI	CAUTI	CAUTI
VAE	VAE	SSI*	
C. difficile		C. difficile	
MRSA bacteremia		MRSA bacteremia	
SSI-COLO and HYST		See Main Progress Report Table 2d	

*National SSI data includes 39 inpatient surgical procedure categories reported

[Please refer to the Executive Summary of the full report for the technical appendix.](#)

al and State HAI Progress Report

plemental Data Tables pediatric and Oncology Data

t provides a summary of select HAIs across four healthcare settings; acute care hospitals (ACHs), critical
>Hs). Data from CAHs are provided in the detailed technical tables but not in the report itself.
I oncology locations within ACHs as well as data from pediatric and oncology hospitals. These facility type

SIRs), which measure progress in reducing HAIs compared to the 2015 baseline time period.
r of predicted infections (events) for a summarized time period.
ment methodology. More information about these metrics can be found at:
[cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf](https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf)

to NHSN.

[Index of how the Progress Report data are generated.](#)

access hospitals (CAHs),

α-specific data provide national incidence data for 2020

HAI and Patient Population	No. of Oncology Hospitals Reporting ¹	Total Device Days ²
CLABSI, all ⁹	19	460,802
CAUTI, all ⁹	19	135,484
VAE, all ⁹	8	36,159
Laboratory-identified MRSA bacteremia, facility-wide ¹⁰	19	
Laboratory-identified C. difficile, facility-wide ¹⁰	19	
COLO Colon surgery	15	
HYST Abdominal hysterectomy	16	

1. The number of reporting facilities from oncology hospitals only included in the SIR calculation.
2. The number of device days included in the calculation of the SIR
3. Total patient days reported from all inpatient units, excluding counts from CMS-certified rehabilitation and psychiatric
4. Total inpatient admissions reported from all inpatient locations, excluding counts from CMS-certified rehabilitation
5. Community-onset events are defined as those that were identified in an inpatient location on the first, second, or third day
6. SSIs included are those classified as deep incisional or organ/space infections following inpatient procedures that were performed
7. Percent of facilities with at least one predicted infection (event) that had an SIR significantly greater than or less than the national average
8. Facility-specific percentiles are only calculated if at least 20 facilities had ≥ 1.0 predicted HAI in 2020. If a facility's predicted HAI is ≥ 1.0 , the facility is included in the percentile calculation.
9. Data from all ICUs and wards (and other non-critical care locations). This excludes NICUs. For VAE, pediatric intensive care unit (PICU) includes those events identified as infection-related ventilator-associated condition (IVAC) and possible
10. Hospital-onset events are defined as those that were identified in an inpatient location on the 4th day (or later) after admission.

Total Patient Days ³	Total Inpatient Admissions ⁴	Inpatient Community-onset events ⁵	Number of Procedures ⁶	No. of Infections (Events)	
				Observed	Predicted
784,187				438	501.598
777,252				134	139.932
12,414				58	37.338
804,726	128,963	66		68	104.188
798,279	125,235	324		617	1,074.840
			3,626	145	145.995
			3,203	44	31.109

atric locations. Patient days for *C.difficile* further excludes counts from NICUs and well-baby units.
 n and psychiatric locations. Admissions for *C.difficile* further excludes counts from NICUs and well-baby units.
 third day of a patient's admission to the facility. For *C.difficile*, this excluded events in which the patient was n
 at occurred in 2020 with a primary or other than primary skin closure technique, detected during the same ad
 than the nominal value of the national SIR for the given HAI type. This is only calculated if at least 10 facilities
 s predicted number of HAIs was <1.0, a facility-specific SIR was neither calculated nor included in the distribut
 cations are excluded from SIR since pediatric and neonatal locations are excluded from VAE surveillance. To
 le ventilator-associated pneumonia (pVAP). IVAC-plus events are a subset of the total VAE, meaning the IVA
 after admission to the facility.



Table 2e. National standardized infection ratios (SIRs) and facility-specific Central line-associated bloodstream infections (CLABSIs), catheter-associated Clostridioides difficile (C.difficile) and surgical site infection colon su

SIR	95% CI for SIR		No. Facilities with ≥ 1	Facility-specific SIRs		No. Facilities
	Lower	Upper		No. Facilities with SIR	%	
0.873	0.794	0.958	17	4	24%	1
0.958	0.805	1.130	10	0	0%	2
1.553	1.190	1.994	5	.	.	.
0.653	0.511	0.822	11	0	0%	0
0.574	0.530	0.621	18	5	28%	1
0.993	0.841	1.165	12	.	.	.
1.414	1.040	1.882	9	.	.	.
				460,802		
				135,484		
				36,159		

recently discharged from the reporting facility in the previous 4 weeks.
 mission as the surgical procedure or upon readmission to the same facility.
 s had ≥ 1.0 predicted HAI in 2020.
 ion of facility-specific SIRs.
 tal VAE includes IVAC-plus events.
 C-plus events are included in the total VAE SIR as well.

HAI and Patient Population	No. of Acute Care Hospitals Reporting from Oncology Locations ¹
CLABSI, all⁴	493
ICUs⁵	22
Wards⁶	491
CAUTI, all⁷	483
	22
	481
VAE, all⁷	20
ICU⁵	10
Ward⁶	12

1. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may
2. Percent of facilities with at least one predicted infection (event) that had an SIR significantly greater than
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥ 1.0 predicted HAI in 2020. If a
4. Data from all ICUs, wards (and other non-critical care locations), and NICUs.
5. Data from all ICUs; excludes wards (and other non-critical care locations) and NICUs. For VAE, pediatric
6. Data from all wards (for this table wards also include step-down and specialty care areas [including hemato
7. Data from all ICUs and wards (and other non-critical care locations). This excludes NICUs. For VAE, pediatric
IVAC-plus includes those events identified as infection-related ventilator-associated condition (IVAC) an

NOTE: Risk factors used in the calculation of the number of predicted device-associated infections are list

Total Patient Days	Total Device Days	No. of Infections (Events)			95% CI for SIR	
		Observed	Predicted	SIR	Lower	Upper
4,783,678	2,508,860	2,221	3,076.990	0.722	0.692	0.752
72,297	47,661	56	48.610	1.152	0.897	1.485
4,711,381	2,461,199	2,165	3,028.380	0.715	0.685	0.745
4,581,978	527,979	611	733.744	0.833	0.769	0.901
72,838	42,388	22	41.722	0.527	0.339	0.785
4,509,140	485,591	589	692.023	0.851	0.784	0.992
75,134	16,156	87	53.500	1.626	1.310	1.996
36,911	14,776	75	50.129	1.496	1.185	1.865
38,223	1,380	12	3.371	3.560	1.929	6.052

may be different from the numbers shown in Table 1. These tables contain data from acute care hospitals; as such, they may be less than or equal to the nominal value of the national SIR for the given HAI type. This is only calculated if at least one facility's predicted number of HAIs was <1.0, a facility-specific SIR was neither calculated nor included in the analysis.

ICU locations are excluded from SIR since pediatric and neonatal locations are excluded from VAE surveillance (e.g., surgery, radiology/oncology, bone marrow transplant). For VAE, pediatric locations are excluded from SIR since pediatric locations are excluded from SIR since pediatric and neonatal locations are excluded from VAE surveillance. IVAC-plus events are a subset of the total VAE, measured as possible ventilator-associated pneumonia (pVAP).

See Appendix A.

Table 2e. National standardized infection ratios (SIRs) and facility-specific summary SIRs using HA Central line-associated bloodstream infections (CLABSIs) and catheter-associated urinary tract infections (CAUTIs)

No. Facilities with ≥ 1 Predicted Infection (Event)	Facility-specific SIRs				5%
	No. Facilities with SIR Significantly > National SIR		No. Facilities with SIR Significantly < National SIR		
	N	% ²	N	%	
406	21	5%	13	3%	0.000
13	1	8%	1	8%	
404	21	5%	14	3%	0.000
233	7	3%	3	1%	0.000
10	0	0%	1	10%	
232	7	3%	2	1%	0.000
7	.	.	.	.	.
7	.	.	.	.	.
0	.	.	.	.	.

such, they exclude data from LTACHs, IRFs, and CAHs.

At least 10 facilities had ≥ 1.0 predicted HAI in 2020.

Table 2e shows the distribution of facility-specific SIRs.

ce.

pediatric and neonatal locations are excluded from VAE surveillance.

Surveillance. Total VAE includes IVAC-plus events.

Since the IVAC-plus events are included in the total VAE SIR as well.

HAI and Patient Population	No. of Pediatric Hospitals	
CAUTI, all ⁸	106 95	3,960,381 165,527
Laboratory-identified MRSA bacteremia, facility-wide ⁹	75	
Laboratory-identified C. difficile, facility-wide ⁹	73	
COLO Colon surgery	4	
HYST Abdominal hysterectomy	0	

1. The number of reporting facilities from pediatric hospitals only included in the SIR calculation.
2. The number of device days included in the calculation of the SIR
4. Total inpatient admissions reported from all inpatient locations, excluding counts from CMS-certified rehabilitation
6. SSIs included are those classified as deep incisional or organ/space infections following inpatient procedures the
7. Percent of facilities with at least one predicted infection (event) that had an SIR significantly greater than or less
8. Facility-specific percentiles are only calculated if at least 20 facilities had ≥ 1.0 predicted HAI in 2020. If a facility's
9. Hospital-onset events are defined as those that were identified in an inpatient location on the 4th day (or later) at

				<u>No. of Infections (Events)</u>	
				Observed	Predicted
1,321,159				1,193	1,803.140
2,227,149				173	202.812
3,149,968	478,854	155		125	130.032
2,219,097	429,025	585		810	916.183
				.	.
				.	.

n and psychiatric locations. Admissions for C.difficile further excludes counts from NICUs and well-baby units.

at occurred in 2020 with a primary or other than primary skin closure technique, detected during the same admission than the nominal value of the national SIR for the given HAI type. This is only calculated if at least 10 facilities; if the predicted number of HAIs was <1.0, a facility-specific SIR was neither calculated nor included in the distribution after admission to the facility.



Table 2f. National standardized infection ratios (SIRs) and facility-specific Central line-associated bloodstream infections (CLABSIs), catheter-associated Clostridioides difficile (C.difficile) and surgical site infection colon su

SIR	<u>95% CI for SIR</u>		<u>Facility-specific SIRs</u>		
	Lower	Upper	No. Facilities with ≥ 1 Predicted Infection (Event)	No. Facilities with SIR Significantly > National SIR	No. Facilities Significantly <
0.662	0.625	0.700	80	5	10
0.853	0.733	0.987	55	4	2
0.961	0.804	1.141	44	5	2
0.884	0.825	0.947	58	8	11
.
.

mission as the surgical procedure or upon readmission to the same facility.
 s had ≥ 1.0 predicted HAI in 2020.
 tion of facility-specific SIRs.

90%

95%

1.229

1.383

1.993

2.609

2.255

2.749

1.413

1.667

.

.

.

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HAI and Patient Population	No. of Acute Care Hospitals Reporting from Pediatric Locations ¹
	600
	329
	589
	633
	336
	607

1. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may
2. Percent of facilities with at least one predicted infection (event) that had an SIR significantly greater than
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥ 1.0 predicted HAI in 2020. If \geq
4. Data from all ICUs, wards (and other non-critical care locations), and NICUs.
5. Data from all ICUs; excludes wards (and other non-critical care locations) and NICUs. For VAE, pediatric
6. Data from all wards (for this table wards also include step-down and specialty care areas [including hem

NOTE: Risk factors used in the calculation of the number of predicted device-associated infections are listed

Total Patient Days	Total Device Days	No. of Infections (Events)			95% CI for SIR	
		Observed	Predicted	SIR	Lower	Upper
4,699,320	1,570,579	1,465	2,045.030	0.716	0.680	0.754
1,195,079	613,566	674	9,929.900	0.725	0.672	0.781
3,504,241	957,013	791	1,115.120	0.709	0.661	0.760
4,029,392	285,037	353	367.513	0.961	0.864	1.065
1,178,568	180,413	225	274.589	0.819	0.717	0.932
2,850,824	104,624	128	92.924	1.377	1.154	1.632

be different from the numbers shown in Table 1. These tables contain data from acute care hospitals; as s
 1 or less than the nominal value of the national SIR for the given HAI type. This is only calculated if at leas
 a facility's predicted number of HAIs was <1.0, a facility-specific SIR was neither calculated nor included in

c locations are excluded from SIR since pediatric and neonatal locations are excluded from VAE surveillan
 iatology/oncology, bone marrow transplant]). For VAE, pediatric locations are excluded from SIR since pec

ed in Appendix A.

Table 2e. National standardized infection ratios (SIRs) and facility-specific summary SIRs using HA Central line-associated bloodstream infections (CLABSIs) and catheter-associated urinary tract infections (CAUTIs)

No. Facilities with ≥ 1 Predicted Infection (Event)	Facility-specific SIRs				5%
	No. Facilities with SIR Significantly > National SIR		No. Facilities with SIR Significantly < National SIR		
	N	%	N	%	
192	16	8%	5	3%	0.000
147	8	5%	3	2%	0.000
154	10	6%	5	3%	0.000
104	8	8%	4	4%	0.000
85	5	6%	3	4%	0.000
20	1	5%	0	0%	0.000

such, they exclude data from LTACHs, IRFs, and CAHs.

At least 10 facilities had ≥ 1.0 predicted HAI in 2020.

Table 2e shows the distribution of facility-specific SIRs.

ce.

Psychiatric and neonatal locations are excluded from VAE surveillance.

**I data reported to NHSN during 2020 by facility type, HAI, and patient population:
 actions (CAUTIs) in pediatric locations across facility types in the acute care hospitals**

								Median	
10%	15%	20%	25%	30%	35%	40%	45%	50%	55%
0.023	0.270	0.315	0.379	0.433	0.500	0.566	0.609	0.651	0.700
0.000	0.000	0.252	0.347	0.400	0.462	0.549	0.583	0.615	0.693
0.000	0.098	0.270	0.341	0.414	0.479	0.527	0.604	0.659	0.733
0.000	0.000	0.000	0.232	0.405	0.539	0.617	0.722	0.797	0.896
0.000	0.000	0.000	0.000	0.236	0.360	0.394	0.469	0.689	0.813
0.000	0.000	0.000	0.000	0.462	0.569	0.592	0.813	0.883	0.919

60%	65%	70%	75%	80%	85%	90%	95%
0.750	0.834	0.901	0.979	1.074	1.269	1.452	1.699
0.757	0.829	0.879	0.983	1.053	1.162	1.377	1.754
0.787	0.868	0.933	1.049	1.151	1.319	1.507	1.939
0.987	1.109	1.197	1.336	1.690	1.922	2.362	2.763
0.891	1.036	1.185	1.387	1.658	1.844	2.129	2.804
0.954	0.975	1.057	1.472	1.601	2.209	2.688	2.788