2020 Nationa

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Introduction:

Welcome to the 2020 National and State HAI Progress Report using the 2015 bas
by comparing the number of observed infections to the number of predicted infecti
This report is created by CDC staff with the National Healthcare Safety Network (N

This workbook includes national and state-specific SIR data for Critical Access Ho

Scope of report:

HAI Types
Central line-associated bloodstream infections (CLABSI) by locations
Catheter-associated urinary tract infections (CAUTI) by locations
Ventilator-associated events (VAE) by locations
Surgical site infections (SSI)- All procedures for adults and pediatrics (using Complex Admission Readmission (A/R) model)
Surgical site infections (SSI)- adults (using Complex Admission Readmission (A/R) model), COLO and HYST
Hospital-onset methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia by facility-wide reporting
Hospital-onset *Clostridioides difficile* (CDI) by facility-wide reporting

al and State HAI Progress Report

cal Access Hospitals

eline and risk adjustment calculations. Standardized infection ratios (SIRs) are used to describe different HAI ty
ons. This year's report will compare 2020 SIRs to those from the prior year.
HSN).

spitals (CAHs).

CAH	
National	**State**
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2020 Annual National and State HAI Progress Report
Critical Access Hospitals: Full series of tables for all national and state-specific data

Tables included in this report:

monia (IVAC-Plus)

20 from Critical Access Hospitals

Critical Access Hospitals

Hospitals

Regression, Adults ≥ 18 years of age

Regression, Pediatrics < 18 years of age

Complex Admission/Readmission Model, Adults ≥ 18 years of age

Table 1. Characteristics of NHSN Critical Access Hospitals reporting to NHSN by State[1], 2020:
1a. Central line-associated bloodstream infections (CLABSI)[2]

	2020					
				Locations (n)[2]		
State	State NHSN Mandate[3]	Any Validation[4]	No. of Critical Access Hospitals Reporting[5]	Total	ICU	Wards[2]
Alabama	Yes	Yes	4	.	.	.
Alaska	No	No	3	.	.	.
Arizona			3	.	.	.
Arkansas			13	18	2	16
California	M	Yes	29	49	16	33
Colorado	M	No	19	24	4	20
Connecticut	No	No	0	.	.	.
D.C.	No	No	0	.	.	.
Delaware			0	.	.	.
Florida	No	Yes	7	8	1	7
Georgia	No	No	13	15	3	12
Guam			0	.	.	.
Hawaii	No	No	1	.	.	.
Idaho	No	No	10	13	3	10
Illinois	Yes	No	34	45	12	33
Indiana	Yes	Yes	35	55	15	40
Iowa	No	Yes	49	51	1	50
Kansas	No	No	48	54	5	49
Kentucky	No	No	20	23	3	20
Louisiana			6	8	2	6
Maine	Yes	No	15	23	2	21
Maryland	No	No	0	.	.	.
Massachusetts	No	No	3	.	.	.
Michigan	No	Yes	27	36	4	32
Minnesota	No	No	37	42	4	38
Mississippi	No	No	8	9	0	9
Missouri	No	No	22	29	6	23
Montana	No	No	8	14	3	11
Nebraska			15	16	2	14
Nevada	Yes	No	2	.	.	.
New Hampshire	Yes	No	12	18	6	12
New Jersey	No	No	0	.	.	.
New Mexico	Yes	No	7	11	3	8
New York	No	No	5	8	2	6
North Carolina			12	19	4	15
North Dakota	No	No	11	15	3	12
Ohio	No	No	24	35	9	26
Oklahoma	No	No	9	9	0	9
Oregon	Yes	No	22	37	13	24
Pennsylvania	Yes	Yes	14	25	5	20
Puerto Rico	Yes	No	0	.	.	.
Rhode Island	No	No	0	.	.	.
South Carolina	Yes	Yes	3	.	.	.
South Dakota	No	No	16	16	0	16
Tennessee	No	No	6	7	1	6
Texas			29	36	6	30
Utah			8	8	0	8
Vermont	No	No	8	11	4	7
Virgin Islands			0	.	.	.
Virginia	No	Yes	5	9	3	6
Washington	No	No	31	48	8	40
West Virginia	No	No	15	23	7	16
Wisconsin	No	Yes	52	71	12	59
Wyoming	No	No	10	12	2	10
All US			**730**	**978**	**185**	**793**

1b. Catheter-associated urinary tract infections (CAUTI)[2]

	2020					
State				Total	ICU	
Alabama	Yes	Yes	5	6	1	5
Alaska	No	No	3	.	.	.
Arizona			3	.	.	.
Arkansas			14	20	2	18
California	No	No	31	56	16	40
Colorado	No	No	26	32	4	28
Connecticut	No	No	1	.	.	.
D.C.	No	No	1	.	.	.
Delaware			1	.	.	.
Florida	No	Yes	7	9	1	8
Georgia	No	No	14	18	3	15
Guam			1	.	.	.
Hawaii	No	No	1	.	.	.
Idaho	No	No	14	18	3	15
Illinois	No	No	39	52	13	39
Indiana	Yes	Yes	35	60	15	45
Iowa	No	Yes	61	68	2	66
Kansas	No	No	55	65	4	61
Kentucky	No	No	21	24	3	21
Louisiana			6	10	2	8
Maine	Yes	No	15	26	2	24
Maryland	No	No	1	.	.	.
Massachusetts	No	No	3	.	.	.
Michigan	No	Yes	30	43	5	38
Minnesota	Yes	No	66	86	9	77
Mississippi	No	No	14	15	1	14

Missouri	No	No	24	34	7	27
Montana	No	No	10	21	3	18
Nebraska			25	32	4	28
Nevada	No	No	2	.	.	.
New Hampshire	M	No	13	21	6	15
New Jersey	No	No	1	.	.	.
New Mexico	No	No	9	18	5	13
New York	No	No	7	10	2	8
North Carolina			12	22	4	18
North Dakota	No	No	12	19	3	16
Ohio	No	No	24	38	9	29
Oklahoma	No	No	13	13	0	13
Oregon	Yes	No	25	46	13	33
Pennsylvania	Yes	Yes	15	29	5	24
Puerto Rico	Yes	No	1	.	.	.
Rhode Island	No		1	.	.	.
South Carolina	No	No	3	.	.	.
South Dakota	No	No	34	36	2	34
Tennessee	No	No	7	8	1	7
Texas			38	47	7	40
Utah			8	9	0	9
Vermont	No	No	4	.	.	.
Virgin Islands			1	.	.	.
Virginia	No	Yes	5	9	3	6
Washington	No	No	34	61	8	53
West Virginia	No	No	19	30	8	22
Wisconsin	No	Yes	57	85	12	73
Wyoming	No	No	12	14	2	12
All US			**884**	**1,241**	**200**	**1,041**

1c. Ventilator-associated events (VAE)

	2020					
State				Total	ICU	
Alabama	No	No	0	.	.	.
Alaska	No	No	2	.	.	.
Arizona			1	.	.	.
Arkansas			6	9	1	8
California	No	No	11	12	10	2
Colorado	No	No	2	.	.	.
Connecticut	No	No	0	.	.	.
D.C.	No	No	0	.	.	.
Delaware			0	.	.	.
Florida	No	Yes	3	.	.	.
Georgia	No	No	1	.	.	.
Guam			0	.	.	.
Hawaii	No	No	0	.	.	.
Idaho	No	No	3	.	.	.
Illinois	No	No	8	9	5	4
Indiana	No	No	18	20	15	5
Iowa	No	No	1	.	.	.
Kansas	No	No	3	.	.	.
Kentucky	No	No	4	.	.	.
Louisiana			2	.	.	.
Maine	No	No	5	5	2	3
Maryland	No	No	0	.	.	.
Massachusetts	No	No	1	.	.	.
Michigan	No	Yes	9	9	4	5
Minnesota	No	No	5	5	1	4
Mississippi	No	No	1	.	.	.

Missouri	No	No	4	.	.	.
Montana	No	No	2	.	.	.
Nebraska			0	.	.	.
Nevada	No	No	1	.	.	.
New Hampshire	No	No	5	6	5	1
New Jersey	No	No	0	.	.	.
New Mexico	No	No	3	.	.	.
New York	No	No	2	.	.	.
North Carolina			4	.	.	.
North Dakota	No	No	3	.	.	.
Ohio	No	No	11	16	9	7
Oklahoma	No	No	0	.	.	.
Oregon	No	No	7	11	5	6
Pennsylvania	Yes	Yes	10	13	5	8
Puerto Rico	Yes	No	0	.	.	.
Rhode Island	No	No	0	.	.	.
South Carolina	Yes	Yes	2	.	.	.
South Dakota	No	No	0	.	.	.
Tennessee	No	No	2	.	.	.
Texas			7	9	4	5
Utah			1	.	.	.
Vermont	No	No	0	.	.	.
Virgin Islands			0	.	.	.
Virginia	No	No	2	.	.	.
Washington	No	No	6	6	6	0
West Virginia	No	No	6	9	5	4
Wisconsin	No	Yes	15	19	10	9
Wyoming	No	No	4	.	.	.
All US			**183**	**220**	**121**	**99**

Table 1. Characteristics of NHSN Critical Access Hospitals reporting to NHSN by State[1], 2020: 1d. Surgical site infections[6]

	2020			
State		Any Validation[4]	No. of Critical Access Hospitals Reporting colon surgeries in adults[5]	No. of Procedures colon surgeries in adults[6]
Alabama	Yes	Yes	0	.
Alaska	No	No	1	.
Arizona			3	.
Arkansas			2	.
California	Yes	Yes	15	175
Colorado	M	No	12	60
Connecticut	No	No	0	.
D.C.	No	No	0	.
Delaware			0	.
Florida	No	Yes	2	.
Georgia	No	No	2	.
Guam			0	.
Hawaii	No	No	0	.
Idaho	No	No	4	.
Illinois	No	No	16	142
Indiana	Yes	No	21	119
Iowa	Yes	No	8	22
Kansas	Yes	No	8	36
Kentucky	No	No	7	33
Louisiana			0	.
Maine	No	No	7	71
Maryland	No	No	0	.
Massachusetts	No	No	2	.
Michigan	No	Yes	12	82
Minnesota	No	No	11	105
Mississippi	No	No	0	.
Missouri	No	No	10	37
Montana	No	No	4	.
Nebraska			3	.
Nevada	No	No	2	.
New Hampshire	No	No	8	60
New Jersey	No	No	0	.
New Mexico	No	No	2	.
New York	Yes	No	1	.
North Carolina			6	55
North Dakota	No	No	2	.
Ohio	Yes	No	12	92
Oklahoma	No	No	0	.
Oregon	Yes	No	15	162
Pennsylvania	Yes	Yes	7	48
Puerto Rico	Yes	No	0	.

Rhode Island	Yes	No	0	.
South Carolina	Yes	Yes	1	.
South Dakota	No	No	0	.
Tennessee	No	No	1	.
Texas			7	60
Utah			3	.
Vermont	No	No	1	.
Virgin Islands			0	.
Virginia	No	Yes	3	.
Washington	M	No	15	111
West Virginia	Yes	No	7	73
Wisconsin	Yes	Yes	34	241
Wyoming	Yes	No	3	.
All US			**280**	**2,100**

	2020			
State			No. of Critical Access Hospitals Reporting hysterectomy surgeries in adults[5]	No. of Procedures abdominal hysterectomy surgeries in adults[6]
Alabama	Yes	Yes	0	.
Alaska	No	No	1	.
Arizona			1	.
Arkansas			0	.
California	Yes	Yes	11	102
Colorado	M	No	11	44
Connecticut	No	No	0	.
D.C.	No	No	0	.
Delaware			0	.
Florida	No	Yes	0	.
Georgia	No	No	2	.
Guam			0	.
Hawaii	No	No	1	.
Idaho	No	No	3	.
Illinois	No	No	7	61
Indiana	Yes	No	17	129
Iowa	Yes	No	10	51
Kansas	Yes	No	6	81
Kentucky	No	No	2	.
Louisiana			2	.
Maine	No	No	9	99
Maryland	No	No	0	.
Massachusetts	No	No	2	.
Michigan	No	Yes	6	142
Minnesota	No	No	8	140
Mississippi	No	No	0	.
Missouri	No	No	7	40
Montana	No	No	5	117
Nebraska			2	.
Nevada	No	No	1	.
New Hampshire	No	No	8	69
New Jersey	No	No	0	.
New Mexico	No	No	1	.
New York	Yes	No	2	.
North Carolina			4	.
North Dakota	No	No	3	.
Ohio	Yes	No	10	121
Oklahoma	No	No	0	.
Oregon	Yes	No	11	146
Pennsylvania	Yes	Yes	7	72
Puerto Rico	Yes	No	0	.

Rhode Island	Yes	No	0	.
South Carolina	Yes	Yes	0	.
South Dakota	No	No	0	.
Tennessee	No	No	0	.
Texas			7	60
Utah			3	.
Vermont	No	No	4	.
Virgin Islands			0	.
Virginia	No	Yes	2	.
Washington	M	No	10	157
West Virginia	Yes	No	3	.
Wisconsin	Yes	Yes	24	268
Wyoming	Yes	No	3	.
All US			**216**	**2,269**

Table 1. Characteristics of NHSN Critical Access Hospitals reporting to NHSN by State[1], 2020:

1e. Hospital-onset methicillin-resistant *Staphylococcus aureus* bacteremia[7]

	2020		
State			
Alabama	No	No	4
Alaska	No	No	1
Arizona			4
Arkansas			9
California	M	Yes	33
Colorado	No	No	27
Connecticut	No	No	0
D.C.	No	No	0
Delaware			0
Florida	No	Yes	7
Georgia	No	No	13
Guam			0
Hawaii	No	No	2
Idaho	No	No	9
Illinois	Yes	No	47
Indiana	M	No	35
Iowa	No	Yes	31
Kansas	No	No	46
Kentucky	No	No	19
Louisiana			5
Maine	Yes	No	16
Maryland	No	No	0
Massachusetts	No	No	3
Michigan	No	Yes	28
Minnesota	No	No	30
Mississippi	No	No	8
Missouri	No	No	23
Montana	No	No	8
Nebraska			21
Nevada	Yes	No	2
New Hampshire	No	No	11
New Jersey	No	No	0
New Mexico	No	No	9
New York	No	No	5
North Carolina			11
North Dakota	No	No	12
Ohio	No	No	26
Oklahoma	No	No	13
Oregon	Yes	No	25
Pennsylvania	Yes	Yes	12
Puerto Rico	Yes	No	0
Rhode Island	No	No	0
South Carolina	Yes	Yes	2
South Dakota	No	No	4
Tennessee	No	No	6
Texas			29
Utah			7
Vermont	No	No	8
Virgin Islands			0
Virginia	No	Yes	5

Washington	No	No	23
West Virginia	No	No	16
Wisconsin	No	Yes	56
Wyoming	No	No	7
All US			**718**

1f. Hospital-onset *Clostridioides difficile*[7]

	2020		
State		Any Validation[4]	
Alabama	No	No	4
Alaska	No	No	2
Arizona			4
Arkansas			10
California	M	Yes	33
Colorado	No	No	27
Connecticut	No	No	0
D.C	No	No	0
Delaware			0
Florida	No	Yes	7
Georgia	No	No	13
Guam			0
Hawaii	No	No	1
Idaho	No	No	10
Illinois	Yes	No	47
Indiana	M	No	34
Iowa	No	Yes	48
Kansas	No	No	50
Kentucky	No	No	19
Louisiana			5
Maine	Yes	No	16
Maryland	No	No	0
Massachusetts	No	No	3
Michigan	No	Yes	27
Minnesota	No	No	53
Mississippi	No	No	11
Missouri	No	No	24
Montana	No	No	8
Nebraska			21
Nevada	No	No	3
New Hampshire	Yes	No	12
New Jersey	No	No	0
New Mexico	Yes	No	9
New York	No	No	5
North Carolina			11
North Dakota	No	No	12
Ohio	No	No	26
Oklahoma	No	No	13
Oregon	Yes	No	25
Pennsylvania	Yes	Yes	12
Puerto Rico	Yes	No	0
Rhode Island	No	No	0

South Carolina	Yes	Yes	3
South Dakota	No	No	35
Tennessee	No	No	6
Texas			29
Utah			7
Vermont	No	No	8
Virgin Islands			0
Virginia	No	Yes	5
Washington	No	Yes	33
West Virginia	No	No	15
Wisconsin	No	Yes	56
Wyoming	No	No	12
All US			**814**

Footnotes for Tables 1a-1f:

1. United States, Washington, D.C., Guam, Puerto Rico and Virgin Islands

2. Data included in this table are from 2020 from acute care facility ICUs (critical care units), NICUs (CLABSI only, see footnote 7), and ward plus (for this report wards also include step-down, mixed acuity and specialty care areas [hematology/oncology, bone marrow transplant]). Long-term acute care facilities and locations, inpatient rehabilitation facilities and locations, dialysis facilities and locations, and long term care facilities (skilled nursing facilities) are not included in Table 1.

3. Yes indicates that a legislative or regulatory requirement ("state mandate") for Critical Access Hospitals to report data for the given HAI type to the state health department or hospital association via NHSN was in effect at the beginning of the year. If no state mandate existed at the beginning of each year, but was implemented at some time during the year, the value of this column is "M" for midyear implementation. No indicates that a state mandate did not exist during the years included in this report. On Table 1c, the presence of a state mandate reflects a mandate for colon surgery or abdominal hysterectomy data.

4. Yes indicates that the state health department reported the completion of all of the following validation activities for NHSN data during that year: state health department had access to NHSN data, state health department performed an assessment of missing or implausible values on at least six months of the year's data prior to the freeze date of June 1, 2021 for 2020 data, and state health department contacted identified facilities. YesA indicates that the state also conducted an audit of facility medical or laboratory records prior to June 1, 2021 for 2020 data to confirm proper case ascertainment (although intensity of auditing activities varies by state). On Table 1d, validation information applies to either colon surgery or abdominal hysterectomy data. Information on validation efforts was requested from all states, regardless of the presence of a legislative mandate for the particular HAI type. Some states without mandatory reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntarily shared with them by facilities in their jurisdiction.

5. The number of facilities reporting at least one month of "in-plan" data to NHSN may be lower than the number of facilities in the state identified in footnote 3, as some hospitals in a state may not be included in the state mandate (e.g., facilities that do not have units or perform procedure covered by the mandate, or the mandate covers only facilities above a certain bed size).

6. SSIs included are those classified as deep incisional or organ/space infections following inpatient procedures within colon and abdominal hysterectomy surgeries, detected during the same admission as the surgical procedure or upon readmission to the same facility.

7. Hospital-onset is defined as event detected on the 4th day (or later) after admission to an inpatient location within the facility.

HAI and Patient Population	No. of Critical Access Hospitals Reporting[1]
CLABSI, all[4]	730
ICUs[5]	185
Wards[6]	718
CAUTI, all[8]	884
	200
	862
VAE, all[8]	113
	95
	19

1. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criter
2. Percent of facilities with at least one predicted infection (event) that had an SIR significantly
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥1.0 predicted HAI
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 V.
6. Data from all wards (for this table wards also include step-down and specialty care areas [in
7. Data from all NICU locations, including Level II/III and Level III nurseries. Both umbilical line
8. Data from all ICUs and wards (and other non-critical care locations). This excludes NICUs. IVAC-plus includes those events identified as infection-related ventilator-associated conditio

NOTE: Risk factors used in the calculation of the number of predicted device-associated infect
Risk factors used in the calculation of the number of predicted MRSA bacteremia and CDI are

Total Patient Days	Total Device Days	No. of Infections (Events)			95% CI for SIR	
		Observed	Predicted	SIR	Lower	Upper
1,638,740	166,420	40	45.404	0.881	0.638	1.188
111,500	16,293	9	4.445	2.025	0.987	3.715
1,527,240	150,127	31	40.962	0.757	0.523	1.061
2,064,242	291,036	186	300.584	0.619	0.535	0.713
122,596	34,283	20	33.998	0.588	0.369	0.892
1,941,646	256,753	166	266.589	0.623	0.533	0.723
56,093	5,180	16	7.392	2.165	1.281	3.440
38,560	4,153	14	5.926	2.362	1.345	3.870
17,533	1,027	2	1.466	1.365	0.229	4.509

ria, this may be different from the numbers shown in Table 1. These tables contain data from Critical Access Hos
greater than or less than the nominal value of the national SIR for the given HAI type. This is only calculated if
in 2020. If a facility's predicted number of HAIs was <1.0, a facility-specific SIR was neither calculated nor inclu

AE, pediatric locations are excluded from SIR since pediatric and neonatal locations are excluded from VAE sur
cluding hematology/oncology, bone marrow transplant]). For VAE, pediatric locations are excluded from SIR sir
and central line-associated bloodstream infections are considered CLABSIs.
For VAE, pediatric locations are excluded from SIR since pediatric and neonatal locations are excluded from VA
n (IVAC) and possible ventilator-associated pneumonia (pVAP).

ions are listed in Appendix A.
listed in Appendix B.

Table 2a. National standardized infection ratios (SIRs) and facility-specific summary SIRs using HAI data
Central line-associated bloodstream infections (CLABSIs), catheter-associated urinary tract infections (

	Facility-specific SIRs						
No. Facilities with ≥1 Predicted Infection (Event)	**No. Facilities with SIR Significantly > National SIR**		**No. Facilities with SIR Significantly < National SIR**		**5%**	**10%**	**15%**
	N	**%[2]**	**N**				
0	.	.	.	.	.	.	.
0	.	.	.	.	.	.	.
0	.	.	.	.	.	.	.
54	0	0%	0	0%	0.000	0.000	0.000
4	0	0%	0	0%	.	.	.
48	0	0%	0	0%	0.000	0.000	0.000
0	.	.	.	.	.	.	.
0	.	.	.	.	.	.	.
0	.	.	.	.	.	.	.

spitals; as such, they exclude data from LTACHs, IRFs, and ACHs.
at least 10 facilities had ≥ 1.0 predicted HAI in 2020.
ded in the distribution of facility-specific SIRs.

veillance.
ıce pediatric and neonatal locations are excluded from VAE surveillance.

\E surveillance. This includes IVAC-plus events.

a reported to NHSN during 2020 by facility type, HAI, and patient population:
CAUTIs) and ventilator-associated events (VAE)

Percentile Distribution of Facility-specific SIRs[3]								
					Median			
20%	25%	30%	35%	40%	45%	50%	55%	60%
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
.	.	.	.	.	.	.	.	.
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.

65%	70%	75%	80%	85%	90%	95%
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0.042	0.468	0.564	0.674	0.790	0.874	0.968
.	.	.	.	.	.	.
0.441	0.575	0.660	0.789	0.838	0.903	0.973
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.

HAI and Patient Population	Reporting	
	No. of Critical Access Hospitals Reporting[1]	Total Admissions
MRSA bacteremia, facility-wide[4]	718	522,493
Hospital-onset *C. difficile,* facility-wide[4]	809	531,148

1. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria,
2. Percent of facilities with at least one predicted infection (event) that had an SIR significantly gre
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥1.0 predicted HAI in
4. Hospital-onset is defined as event detected on the 4th day (or later) after admission to an inpat

Note: Risk factors used in the calculation of the number of predicted MRSA bacteremia and CDI a

Hospitals		Standardized Infection Ratio Data			95% CI
Total Patient Days	Community-onset events	Hospital-onset events	Predicted Hospital-onset events	SIR	Lower
1,979,223	191	28	41.181	0.680	0.461
2,103,328	1,218	442	622.859	0.710	0.646

this may be different from the numbers shown in Table 1. These tables contain data from Critical Acce
eater than or less than the nominal value of the national SIR for the given HAI type. This is only calcula
2020. If a facility's predicted number of HAIs was <1.0, a facility-specific SIR was neither calculated no
tient location within the facility.

are listed in Appendix B.

Table 2b. National standardized infection ratios (SIRs) and facility-specific summa
hospital-onset methicillin-resistant *Staphylococcus aureus* (I

for SIR	Facility SIRs Compared to National SIR				
Upper	No. Facilities with ≥1 Predicted Event	No. Facilities with SIR Significantly > National SIR N		No. Facilities with SIR Significantly < National SIR N	
0.970	0	.	.	.	.
0.778	223	10	4%	2	1%

ss Hospitals; as such, they exclude data from LTACHs, IRFs, and ACHs.
ıted if at least 10 facilities had ≥ 1.0 predicted HAI in 2020.
r included in the distribution of facility-specific SIRs.

ıry SIRs using HAI data reported to NHSN during 2020 by facility type, HAI, and patient population: MRSA) bacteremia, and hospital-onset *Clostridioides difficile* (CDI)

	5%	10%	15%	20%	25%	30%	35%	40%	45%
	.	.	.	.	.	.	.	.	.
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.504

50%	55%	60%	65%	70%	75%	80%	85%	90%
.	.	.	.	.	.	.	.	.
0.605	0.676	0.767	0.867	0.940	1.123	1.360	1.681	1.924

95%
.
2.692

Surgical Procedure	No. of Critical Access Hospitals Reporting [2]	No. of Procedures
US, all NHSN procedures	414	27,139
US, SCIP procedures only[5]	399	21,741
AAA Abdominal aortic aneurysm repair[5]	0	.
AMP Limb amputation	15	62
APPY Appendix surgery	36	478
AVSD Shunt for dialysis	0	.
BILI Bile duct, liver or pancreatic surgery	10	19
BRST Breast surgery	22	91
CARD Cardiac surgery[5]	0	.
CABG- Coronary artery bypass graft[5,6]	0	.
CEA Carotid endarterectomy	1	.
CHOL Gallbladder surgery	48	540
COLO Colon surgery[5]	278	2,056
CRAN Craniotomy	0	.
CSEC Cesarean section	53	2,082
FUSN Spinal fusion	6	502
FX Open reduction of fracture	28	570
GAST Gastric surgery	17	135
HER Herniorrhaphy	34	239
HPRO Hip arthroplasty[5]	252	6,723
HTP Heart transplant	0	.
HYST Abdominal hysterectomy[5]	207	1,817
KPRO Knee arthroplasty[5]	267	11,015
KTP Kidney transplant	0	.
LAM Laminectomy	6	86
LTP Liver transplant	0	.
NECK surgery	0	.
NEPH Kidney surgery	2	.
OVRY Ovarian surgery	15	72
PACE Pacemaker surgery	3	.
PRST Prostate surgery	1	.
PVBY Peripheral vascular bypass surgery[5]	1	.
REC Rectal surgery[5]	12	41
SB Small bowel surgery	25	151
SPLE Spleen surgery	5	7
THOR Thoracic surgery	4	.
THYR Thyroid and/or parathyroid surgery	4	.
VHYS Vaginal hysterectomy[5]	17	87
VSHN Ventricular shunt	0	.
XLAP Abdominal surgery	27	284

1. SSIs included are those classified as deep incisional or organ/space infections following inpatient
2. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, thi
3. Risk factors used in the calculation of the number of predicted SSIs are listed in Appendix C.

4. Percent of facilities with at least one predicted infection that had an SIR significantly greater than
5. These procedures were presented in previous versions of the HAI Progress Report and follow sel
   and the corresponding SCIP procedures are listed in Appendix E.
6. Coronary artery bypass graft includes procedures with either chest only or chest and donor site in
7. Facility-specific percentiles are only calculated if at least 20 facilities had ≥ 1.0 predicted SSI in 20

Table 2c. National standardized infection ratios (SIRs) and facility-specific summary SI

No. of Infections			95% CI for SIR			Facility-
Observed	Predicted[3]	SIR	Lower	Upper	No. Hosp with ≥1 Predicted Infection	No. Hosp Significantly > N
103	129.010	0.798	0.655	0.964	24	0
94	110.738	0.849	0.690	1.034	17	.
.	.	.	.	.	.	.
0	0.032	.	.	.	0	.
3	1.459	2.056	0.523	5.595	0	.
.	.	.	.	.	.	.
0	0.162	.	.	.	0	.
0	0.604	.	.	.	0	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0	1.460	0.000		2.052	0	.
33	37.910	0.870	0.609	1.208	0	.
.	.	.	.	.	.	.
1	3.240	0.309	0.015	1.522	0	.
0	1.094	0.000		2.737	0	.
1	3.341	0.299	0.015	1.476	0	.
0	0.894	.	.	.	0	.
0	1.113	0.000		2.691	0	.
26	33.347	0.780	0.520	1.126	3	.
.	.	.	.	.	.	.
12	10.248	1.171	0.634	1.991	0	.
22	28.024	0.785	0.504	1.169	1	.
.	.	.	.	.	.	.
1	0.292	.	.	.	0	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0	0.072	.	.	.	0	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0	0.745	.	.	.	0	.
2	2.792	0.716	0.120	2.367	0	.
0	0.044	.	.	.	0	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
1	0.436	.	.	.	0	.
.	.	.	.	.	.	.
1	1.514	0.660	0.033	3.257	0	.

procedures that occurred in 2020 with a primary or other than primary skin closure technique, detected durin
s may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information abou

or less than the nominal value of the national SIR for the given procedure type. This is only calculated if at lea
ect inpatient surgical procedures approximating procedures covered by the Surgical Care Improvement Proje

cisions.
)20. If a facility's predicted number of SSIs was < 1.0, a facility-specific SIR was neither calculated nor include

Rs using adult surgical site infection (SSI) data[1] reported to NHSN from NHSN Critical Access Hos

specific SIRs with SIR > National SIR %[4]	No. Hosp with SIR Significantly < National SIR N		5%	10%	15%	20%	25%
0%	0	0%	0.000	0.000	0.000	0.000	0.000
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g the same admission as the surgical procedure or upon readmission to the same facility.
t exclusion criteria.

ast 10 facilities had ≥ 1.0 predicted SSI in 2020.
ct (SCIP). Specific NHSN procedures

ed in the distribution of facility-specific SIRs.

pitals during 2020 by surgical procedure.

Percentile Distribution of Facility-specific SIRs[7]									
				Median					
30%	35%	40%	45%	50%	55%	60%	65%	70%	75%
0.000	0.000	0.407	0.408	0.474	0.562	0.571	0.692	0.865	1.047

80%	85%	90%	95%
1.247	1.313	1.861	2.224
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Surgical Procedure	No. of Acute Care Hospitals Reporting[2]	No. of Procedures
US, all NHSN procedures	61	242
	21	31
	28	140
AMP Limb amputation	0	.
APPY Appendix surgery	0	.
AVSD Shunt for dialysis	0	.
BILI Bile duct, liver or pancreatic surgery	0	.
BRST Breast surgery	0	.
	0	.
	0	.
CEA Carotid endarterectomy	0	.
CHOL Gallbladder surgery	5	6
	15	18
CRAN Craniotomy (ALL AGE)	0	
CSEC Cesarean section	13	13
FUSN Spinal fusion (AGE >=2)	2	.
FX Open reduction of fracture	9	36
GAST Gastric surgery	0	.
HER Herniorrhaphy	1	.
	7	8
HTP Heart transplant	0	.
	0	.
	3	.
KTP Kidney transplant	0	.
LAM Laminectomy	0	.
LTP Liver transplant	0	.
NECK surgery	0	.
NEPH Kidney surgery	0	.
OVRY Ovarian surgery	0	.
PACE Pacemaker surgery	0	.
PRST Prostate surgery	0	.
	0	.
	0	.
RFUSN Refusion of spine	0	.
SB Small bowel surgery	0	.
SPLE Spleen surgery	0	.
THOR Thoracic surgery	0	.
THYR Thyroid and/or parathyroid surgery	0	.
	0	.
VSHN Ventricular shunt	0	.
XLAP Abdominal surgery	8	9

1. SSIs included are those classified as deep incisional or organ/space infections following inpatient
2. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, thi

statistics are only calculated for surgeries in which at least 5 facilities reported pediatric SSI data i
3. Risk factors used in the calculation of the number of predicted SSIs are listed in Appendix D.
4. Percent of facilities with at least one predicted infection that had an SIR significantly greater than
5. These procedures were presented in previous versions of the HAI Progress Report and follow sel
and the corresponding SCIP procedures are listed in Appendix E.
6. Coronary artery bypass graft includes procedures with either chest only or chest and donor site in
7. Facility-specific percentiles are only calculated if at least 20 facilities had ≥ 1.0 predicted SSI in 20

Table 2d. National standardized infection ratios (SIRs) and facility-specific summary SIR

No. of Infections			95% CI for SIR			Facility-
Observed		SIR	Lower	Upper	No. Hosp with ≥1 Predicted Infection	No. Hosp Significantly > N
1	0.755	.	.	.	.	.
1	0.367	.	.	.	.	.
0	0.187	.	.	.	.	.
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0	0.004	.	.	.	.	.
1	0.279	.	.	.	.	.
.	.	.	.	.	.	.
0	0.049	.	.	.	.	.
.	.	.	.	.	.	.
0	0.082	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0	0.033	.	.	.	.	.
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0	0.030	.	.	.	.	.

procedures in pediatric patients less than 18 years that occurred in 2020 with a primary or other than primar
s may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information abou

n 2020.

or less than the nominal value of the national SIR for the given procedure type. This is only calculated if at lea
ect inpatient surgical procedures approximating procedures covered by the Surgical Care Improvement Proje

cisions.
)20. If a facility's predicted number of SSIs was < 1.0, a facility-specific SIR was neither calculated nor include

s using pediatric surgical site infection (SSI) data[1] reported to NHSN from NHSN Critical Access H

specific SIRs with SIR > National SIR	N	No. Hosp with SIR Significantly < National SIR	5%	10%	15%	20%	25%
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y skin closure technique, detected during the same admission as the surgical procedure or upon readmiss
t exclusion criteria. SIRs and accompanying

ast 10 facilities had ≥ 1.0 predicted SSI in 2020.
ct (SCIP). Specific NHSN procedures

ed in the distribution of facility-specific SIRs.

ospitals during 2020 by surgical procedure.

				Median					
30%	35%	40%	45%	50%	55%	60%	65%	70%	75%
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sion to the same facility.

80%	85%	90%	95%

Table 3. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Critical Access Hospitals reporting during 2020

3a. Central line-associated bloodstream infections (CLABSI), all locations[1]

State	State NHSN Mandate[2]	Any Validation[3]	No. of Critical Access Hospitals Reporting[4]	No. of Infections		95% CI for SIR			Facility-specific SIRs			Facility-specific SIRs at Key Percentiles[6]				
				Observed	Predicted	SIR	Lower	Upper	No. of hosp with at least 1 predicted CLABSI	% of hosp with SIR sig higher than national SIR[5]	% of hosp with SIR sig lower than national SIR[5]	10%	25%	Median (50%)	75%	90%
Alabama	Yes	Yes	4	.	.	.	.	.	.	.	.	.	.	.	.	.
Alaska	No	No	3	.	.	.	.	.	.	.	.	.	.	.	.	.
Arizona			3	.	.	.	.	.	.	.	.	.	.	.	.	.
Arkansas			13	1	0.652	.	.	.	0	.	.	.	.	.	.	.
California	M	Yes	29	2	2.200	0.909	0.152	3.004	0	.	.	.	.	.	.	.
Colorado	M	No	19	0	0.723	.	.	.	0	.	.	.	.	.	.	.
Connecticut	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
D.C.	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
Delaware			0	.	.	.	.	.	.	.	.	.	.	.	.	.
Florida	No	Yes	7	0	0.285	.	.	.	0	.	.	.	.	.	.	.
Georgia	No	No	13	0	1.371	0.000	.	2.185	0	.	.	.	.	.	.	.
Guam			0	.	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Idaho	No	No	10	2	0.622	.	.	.	0	.	.	.	.	.	.	.
Illinois	Yes	No	34	1	2.348	0.426	0.021	2.100	0	.	.	.	.	.	.	.
Indiana	Yes	Yes	35	0	2.397	0.000	.	1.250	0	.	.	.	.	.	.	.
Iowa	No	Yes	49	0	2.231	0.000	.	1.343	0	.	.	.	.	.	.	.
Kansas	No	No	48	1	2.257	0.443	0.022	2.185	0	.	.	.	.	.	.	.
Kentucky	No	No	20	1	1.059	0.944	0.047	4.657	0	.	.	.	.	.	.	.
Louisiana			6	1	0.590	.	.	.	0	.	.	.	.	.	.	.
Maine	Yes	No	15	3	1.637	1.833	0.466	4.988	0	.	.	.	.	.	.	.
Maryland	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
Massachusetts	No	No	3	.	.	.	.	.	.	.	.	.	.	.	.	.
Michigan	No	Yes	27	0	0.980	.	.	.	0	.	.	.	.	.	.	.
Minnesota	No	No	37	2	2.085	0.959	0.161	3.169	0	.	.	.	.	.	.	.
Mississippi	No	No	8	0	0.398	.	.	.	0	.	.	.	.	.	.	.
Missouri	No	No	22	0	1.548	0.000	.	1.935	0	.	.	.	.	.	.	.
Montana	No	No	8	0	0.442	.	.	.	0	.	.	.	.	.	.	.
Nebraska			15	0	0.652	.	.	.	0	.	.	.	.	.	.	.
Nevada	Yes	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
New Hampshire	Yes	No	12	0	0.845	.	.	.	0	.	.	.	.	.	.	.
New Jersey	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
New Mexico	Yes	No	7	3	0.368	.	.	.	0	.	.	.	.	.	.	.
New York	No	No	5	1	0.363	.	.	.	0	.	.	.	.	.	.	.
North Carolina			12	0	0.779	.	.	.	0	.	.	.	.	.	.	.
North Dakota	No	No	11	0	0.451	.	.	.	0	.	.	.	.	.	.	.
Ohio	No	No	24	2	1.608	1.244	0.209	4.109	0	.	.	.	.	.	.	.
Oklahoma	No	No	9	0	0.448	.	.	.	0	.	.	.	.	.	.	.
Oregon	Yes	No	22	2	1.712	1.168	0.196	3.860	0	.	.	.	.	.	.	.
Pennsylvania	Yes	Yes	14	1	1.077	0.929	0.046	4.579	0	.	.	.	.	.	.	.
Puerto Rico	Yes	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
South Carolina	Yes	Yes	3	.	.	.	.	.	.	.	.	.	.	.	.	.
South Dakota	No	No	16	0	0.528	.	.	.	0	.	.	.	.	.	.	.
Tennessee	No	No	6	0	0.166	.	.	.	0	.	.	.	.	.	.	.
Texas			29	3	2.030	1.478	0.376	4.022	0	.	.	.	.	.	.	.
Utah			8	0	0.245	.	.	.	0	.	.	.	.	.	.	.
Vermont	No	No	8	0	0.772	.	.	.	0	.	.	.	.	.	.	.
Virgin Islands			0	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	No	Yes	5	0	0.479	.	.	.	0	.	.	.	.	.	.	.
Washington	No	No	31	6	2.744	2.187	0.886	4.548	0	.	.	.	.	.	.	.
West Virginia	No	No	15	0	1.054	0.000	.	2.842	0	.	.	.	.	.	.	.
Wisconsin	No	Yes	52	7	3.962	1.767	0.773	3.495	0	.	.	.	.	.	.	.
Wyoming	No	No	10	0	0.301	.	.	.	0	.	.	.	.	.	.	.

All US	**730**	**40**	**45.404**	**0.881**	**0.638**	**1.188**	**0**	.	.	.	.	.	.	.	.

1. Data from all ICUs, wards (and other non-critical care locations), and NICUs. CLABSIs identified as Mucosal Barrier Injury (MBI) are excluded from the SIRs. These tables contain data from Critical Access Hospitals; as such, they exclude data from LTACHs, IRFs, and ACHs
2. Yes indicates the presence of a state mandate to report CLABSI data from any location to NHSN at the beginning of 2020. M indicates midyear implementation of a mandate.
   No indicates that a state mandate did not exist during 2020.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2020 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2020 NHSN data prior to June 1, 2021, and state health department contacted identified facilities.
   YesA indicates that the state also conducted an audit of facility medical or laboratory records prior to June 1, 2021 to confirm proper case ascertainment (although intensity of auditing activities varies by state). Information on validation efforts was requested from all states, regardless of the presence of a legislative mandate for the particular HAI type. Some states without mandatory reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntarily shared with them by facilities in their jurisdiction.
4. The number of reporting facilities included in the SIR calculation. SIRs and accompanying statistics are only calculated for states in which at least 5 facilities reported CLABSI data in 2020.
5. Percent of facilities with at least one predicted CLABSI that had an SIR significantly greater or less than the nominal value of the 2020 national overall CLABSI SIR of 0.881. This is only calculated if at least 10 facilities had ≥ 1.0 predicted CLABSI in 2020.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted CLABSI in 2020. If a facility's predicted number of CLABSI was <1.0, a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

Table 3. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Critical Access Hospitals reporting during 2020

3b. Central line-associated bloodstream infections (CLABSI), critical care locations[1]

State		No. of Critical Access Hospitals Reporting[3]	No. of Infections		95% CI for SIR			Facility-specific SIRs		Facility-specific SIRs at Key Percentiles[5]				
			Observed	Predicted	SIR	Lower	Upper	% of hosp with SIR sig higher than national SIR[4]	% of hosp with SIR sig lower than national SIR[4]	10%	25%		75%	90%
Alabama	Yes	1	.	.	.	.	.	.	.	.	.	.	.	.
Alaska	No	1	.	.	.	.	.	.	.	.	.	.	.	.
Arizona		2	.	.	.	.	.	.	.	.	.	.	.	.
Arkansas		2	.	.	.	.	.	.	.	.	.	.	.	.
California	M	16	1	0.638	.	.	.	.	.	.	.	.	.	.
Colorado	M	4	.	.	.	.	.	.	.	.	.	.	.	.
Connecticut	No	0	.	.	.	.	.	.	.	.	.	.	.	.
D.C.	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Delaware		0	.	.	.	.	.	.	.	.	.	.	.	.
Florida	No	1	.	.	.	.	.	.	.	.	.	.	.	.
Georgia	No	3	.	.	.	.	.	.	.	.	.	.	.	.
Guam		0	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	1	.	.	.	.	.	.	.	.	.	.	.	.
Idaho	No	3	.	.	.	.	.	.	.	.	.	.	.	.
Illinois	Yes	12	0	0.165	.	.	.	.	.	.	.	.	.	.
Indiana	Yes	15	0	0.403	.	.	.	.	.	.	.	.	.	.
Iowa	No	1	.	.	.	.	.	.	.	.	.	.	.	.
Kansas	No	5	0	0.080	.	.	.	.	.	.	.	.	.	.
Kentucky	No	3	.	.	.	.	.	.	.	.	.	.	.	.
Louisiana		2	.	.	.	.	.	.	.	.	.	.	.	.
Maine	Yes	2	.	.	.	.	.	.	.	.	.	.	.	.
Maryland	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Massachusetts	No	2	.	.	.	.	.	.	.	.	.	.	.	.
Michigan	No	4	.	.	.	.	.	.	.	.	.	.	.	.
Minnesota	No	4	.	.	.	.	.	.	.	.	.	.	.	.
Mississippi	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Missouri	No	6	0	0.184	.	.	.	.	.	.	.	.	.	.
Montana	No	3	.	.	.	.	.	.	.	.	.	.	.	.
Nebraska		2	.	.	.	.	.	.	.	.	.	.	.	.
Nevada	Yes	1	.	.	.	.	.	.	.	.	.	.	.	.
New Hampshire	Yes	6	0	0.052	.	.	.	.	.	.	.	.	.	.
New Jersey	No	0	.	.	.	.	.	.	.	.	.	.	.	.
New Mexico	Yes	3	.	.	.	.	.	.	.	.	.	.	.	.
New York	No	2	.	.	.	.	.	.	.	.	.	.	.	.
North Carolina		4	.	.	.	.	.	.	.	.	.	.	.	.
North Dakota	No	3	.	.	.	.	.	.	.	.	.	.	.	.
Ohio	No	9	1	0.221	.	.	.	.	.	.	.	.	.	.
Oklahoma	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Oregon	Yes	13	0	0.344	.	.	.	.	.	.	.	.	.	.
Pennsylvania	Yes	5	0	0.162	.	.	.	.	.	.	.	.	.	.
Puerto Rico	Yes	0	.	.	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	0	.	.	.	.	.	.	.	.	.	.	.	.
South Carolina	Yes	1	.	.	.	.	.	.	.	.	.	.	.	.
South Dakota	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Tennessee		1	.	.	.	.	.	.	.	.	.	.	.	.

Texas		6	1	0.057	.	.	.	.	.	.	.	.	.	.	.
Utah		0	.	.	.	.	.	.	.	.	.	.	.	.	.
Vermont	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.
Virgin Islands		0	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	No	3	.	.	.	.	.	.	.	.	.	.	.	.	.
Washington	No	8	1	0.402	.	.	.	.	.	.	.	.	.	.	.
West Virginia	No	7	0	0.149	.	.	.	.	.	.	.	.	.	.	.
Wisconsin	No	12	1	0.133	.	.	.	.	.	.	.	.	.	.	.
Wyoming	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
All US		**185**	**9**	**4.445**	**2.025**	**0.987**	**3.715**	**0**	.	.	.	.	.	.	.

1. Data from all ICUs; excludes wards (and other non-critical care locations), NICUs. CLABSIs identified as Mucosal Barrier Injury (MBI) are excluded from the SIRs. These tables contain data from Critical Access Hospitals; as such, they exclude data from LTACHs, IRFs, and ACHs.
2. Yes indicates the presence of a state mandate to report CLABSI data from critical care units to NHSN at the beginning of 2020. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2020. Note that almost all Critical Access Hospitals are required to report CLABSI data from ICUs to NHSN for participation in the Centers for Medicare and Medicaid Services' Hospital Inpatient Quality Reporting Program.
3. The number of reporting facilities included in the SIR calculation. SIRs and accompanying statistics are only calculated for states in which at least 5 facilities reported CLABSI data from at least one critical care location in 2020.
4. Percent of facilities with at least one predicted ICU CLABSI that had an SIR significantly greater or less than the nominal value of the 2020 national ICU CLABSI SIR of 2.025. This is only calculated if at least 10 facilities had at least one predicted ICU CLABSI in 2020.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted ICU CLABSI in 2020. If a facility's predicted number of ICU CLABSI was <1.0, a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

Table 3. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Critical Access Hospitals reporting during 2020

3c. Central line-associated bloodstream infections (CLABSI), ward (non-critical care) locations[1]

State			No. of Infections		95% CI for SIR			Facility-specific SIRs					
			Observed	Predicted	SIR	Lower	Upper			10%	25%	75%	90%
Alabama	No	4	.	.	.	.	.	.	.	.	.	.	.
Alaska	No	3	.	.	.	.	.	.	.	.	.	.	.
Arizona		3	.	.	.	.	.	.	.	.	.	.	.
Arkansas		13	1	0.645	.	.	.	0	.	.	.	.	.
California	M	28	1	1.561	0.641	0.032	3.159	0	.	.	.	.	.
Colorado	No	18	0	0.689	.	.	.	0	.	.	.	.	.
Connecticut	No	0	.	.	.	.	.	.	.	.	.	.	.
D.C.	No	0	.	.	.	.	.	.	.	.	.	.	.
Delaware		0	.	.	.	.	.	.	.	.	.	.	.
Florida	No	7	0	0.285	.	.	.	0	.	.	.	.	.
Georgia	No	12	0	1.160	0.000	.	2.582	0	.	.	.	.	.
Guam		0	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	1	.	.	.	.	.	.	.	.	.	.	.
Idaho	No	9	2	0.530	.	.	.	0	.	.	.	.	.
Illinois	No	32	1	2.183	0.458	0.023	2.259	0	.	.	.	.	.
Indiana	Yes	35	0	1.992	0.000	.	1.504	0	.	.	.	.	.
Iowa	No	49	0	2.229	0.000	.	1.344	0	.	.	.	.	.
Kansas	No	47	1	2.178	0.459	0.023	2.264	0	.	.	.	.	.
Kentucky	No	20	1	0.986	.	.	.	0	.	.	.	.	.
Louisiana		6	1	0.533	.	.	.	0	.	.	.	.	.
Maine	Yes	15	3	1.603	1.871	0.476	5.093	0	.	.	.	.	.
Maryland	No	0	.	.	.	.	.	.	.	.	.	.	.
Massachusetts	No	2	.	.	.	.	.	.	.	.	.	.	.
Michigan	No	27	0	0.903	.	.	.	0	.	.	.	.	.
Minnesota	No	37	2	2.040	0.980	0.164	3.239	0	.	.	.	.	.
Mississippi	No	8	0	0.399	.	.	.	0	.	.	.	.	.
Missouri	No	22	0	1.363	0.000	.	2.198	0	.	.	.	.	.
Montana	No	8	0	0.405	.	.	.	0	.	.	.	.	.
Nebraska		14	0	0.571	.	.	.	0	.	.	.	.	.
Nevada	Yes	2	.	.	.	.	.	.	.	.	.	.	.
New Hampshire	No	12	0	0.795	.	.	.	0	.	.	.	.	.
New Jersey	No	0	.	.	.	.	.	.	.	.	.	.	.
New Mexico	Yes	7	0	0.240	.	.	.	0	.	.	.	.	.
New York	No	5	1	0.352	.	.	.	0	.	.	.	.	.
North Carolina		12	0	0.657	.	.	.	0	.	.	.	.	.
North Dakota	No	11	0	0.399	.	.	.	0	.	.	.	.	.
Ohio	No	24	1	1.388	0.720	0.036	3.553	0	.	.	.	.	.
Oklahoma	No	9	0	0.447	.	.	.	0	.	.	.	.	.
Oregon	Yes	22	2	1.369	1.461	0.245	4.827	0	.	.	.	.	.
Pennsylvania	Yes	14	1	0.915	.	.	.	0	.	.	.	.	.
Puerto Rico	Yes	0	.	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	0	.	.	.	.	.	.	.	.	.	.	.
South Carolina	Yes	3	.	.	.	.	.	.	.	.	.	.	.
South Dakota	No	16	0	0.528	.	.	.	0	.	.	.	.	.
Tennessee	No	6	0	0.162	.	.	.	0	.	.	.	.	.
Texas		28	2	1.973	1.014	0.170	3.349	0	.	.	.	.	.
Utah		8	0	0.245	.	.	.	0	.	.	.	.	.
Vermont	No	6	0	0.624	.	.	.	0	.	.	.	.	.

Virgin Islands		0	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	No	5	0	0.431	.	.	.	0	.	.	.	.	.	.	.
Washington	No	31	5	2.343	2.134	0.782	4.731	0	.	.	.	.	.	.	.
West Virginia	No	15	0	0.905	.	.	.	0	.	.	.	.	.	.	.
Wisconsin	No	52	6	3.831	1.566	0.635	3.257	0	.	.	.	.	.	.	.
Wyoming	No	10	0	0.282	.	.	.	0	.	.	.	.	.	.	.
All US		**718**	**31**	**40.962**	**0.757**	**0.523**	**1.061**	**0**	.	.	.	.	.	.	.

1. Data from all wards (for this table wards also include step-down, mixed acuity and specialty care areas [including hematology/oncology, bone marrow transplant]). CLABSIs identified as Mucosal Barrier Injury (MBI) are excluded from the SIRs. These tables contain data from Critical Access Hospitals; as such, they exclude data from LTACHs, IRFs, and ACHs.
2. Yes indicates the presence of a state mandate to report CLABSI data from ward locations to NHSN at the beginning of 2020. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2020.
3. The number of reporting facilities included in the SIR calculation. SIRs and accompanying statistics are only calculated for states in which at least 5 facilities reported CLABSI data from at least one ward in 2020.
4. Percent of facilities with at least one predicted ward CLABSI that had an SIR significantly greater or less than the nominal value of the 2020 national ward CLABSI SIR of 0.757. This is only calculated if at least 10 facilities had at least one predicted ward CLABSI in 2020.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted ward CLABSI in 2020. If a facility's predicted number of ward CLABSI was <1.0, a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

Table 4. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Critical Access Hospitals reporting during 2020

4a. Catheter-associated urinary tract infections (CAUTI), all locations[1]

State				No. of Infections		95% CI for SIR			Facility-specific SIRs					
				Observed	Predicted	SIR	Lower	Upper	No. of hosp with at least 1 predicted CAUTI	10%	25%		75%	90%
Alabama	Yes	Yes	5	0	2.668	0.000	.	1.123	1	.	.	.	.	.
Alaska	No	No	3	.	.	.	.	.	.	.	.	.	.	.
Arizona			3	.	.	.	.	.	.	.	.	.	.	.
Arkansas			14	1	2.753	0.363	0.018	1.791	0	.	.	.	.	.
California	No	No	31	6	11.074	0.542	0.220	1.127	1	.	.	.	.	.
Colorado	No	No	26	9	10.198	0.883	0.430	1.620	3	.	.	.	.	.
Connecticut	No	No	1	.	.	.	.	.	.	.	.	.	.	.
D.C.	No	No	1	.	.	.	.	.	.	.	.	.	.	.
Delaware			1	.	.	.	.	.	.	.	.	.	.	.
Florida	No	Yes	7	0	4.446	0.000	.	0.674	1	.	.	.	.	.
Georgia	No	No	14	4	4.264	0.938	0.298	2.263	0	.	.	.	.	.
Guam			1	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	No	1	.	.	.	.	.	.	.	.	.	.	.
Idaho	No	No	14	5	3.992	1.253	0.459	2.776	1	.	.	.	.	.
Illinois	No	No	39	10	14.539	0.688	0.349	1.226	4	.	.	.	.	.
Indiana	Yes	Yes	35	4	15.089	0.265	0.084	0.639	3	.	.	.	.	.
Iowa	No	Yes	61	13	18.134	0.717	0.399	1.195	3	.	.	.	.	.
Kansas	No	No	55	11	15.203	0.724	0.380	1.258	1	.	.	.	.	.
Kentucky	No	No	21	5	6.206	0.806	0.295	1.786	0	.	.	.	.	.
Louisiana			6	2	2.338	0.855	0.143	2.826	0	.	.	.	.	.
Maine	Yes	No	15	3	7.781	0.386	0.098	1.049	2	.	.	.	.	.
Maryland	No	No	1	.	.	.	.	.	.	.	.	.	.	.
Massachusetts	No	No	3	.	.	.	.	.	.	.	.	.	.	.
Michigan	No	Yes	30	5	6.419	0.779	0.285	1.727	1	.	.	.	.	.
Minnesota	Yes	No	66	8	15.807	0.506	0.235	0.961	3	.	.	.	.	.
Mississippi	No	No	14	1	2.969	0.337	0.017	1.661	0	.	.	.	.	.
Missouri	No	No	24	3	6.796	0.441	0.112	1.201	1	.	.	.	.	.
Montana	No	No	10	3	6.468	0.464	0.118	1.262	4	.	.	.	.	.
Nebraska			25	4	5.199	0.769	0.244	1.856	0	.	.	.	.	.
Nevada	No	No	2	.	.	.	.	.	.	.	.	.	.	.
New Hampshire	M	No	13	4	10.407	0.384	0.122	0.927	4	.	.	.	.	.
New Jersey	No	No	1	.	.	.	.	.	.	.	.	.	.	.
New Mexico	No	No	9	2	6.004	0.333	0.056	1.101	2	.	.	.	.	.
New York	No	No	7	1	1.267	0.789	0.039	3.893	0	.	.	.	.	.
North Carolina			12	9	8.054	1.117	0.545	2.051	3	.	.	.	.	.
North Dakota	No	No	12	2	6.348	0.315	0.053	1.041	1	.	.	.	.	.
Ohio	No	No	24	4	9.788	0.409	0.130	0.986	2	.	.	.	.	.
Oklahoma	No	No	13	1	1.612	0.620	0.031	3.059	0	.	.	.	.	.
Oregon	Yes	No	25	9	9.865	0.912	0.445	1.674	1	.	.	.	.	.
Pennsylvania	Yes	Yes	15	6	5.286	1.135	0.460	2.361	0	.	.	.	.	.
Puerto Rico	Yes	No	1	.	.	.	.	.	.	.	.	.	.	.
Rhode Island	No		1	.	.	.	.	.	.	.	.	.	.	.
South Carolina	No	No	3	.	.	.	.	.	.	.	.	.	.	.
South Dakota	No	No	34	3	7.779	0.386	0.098	1.050	0	.	.	.	.	.
Tennessee	No	No	7	1	1.219	0.820	0.041	4.046	0	.	.	.	.	.
Texas			38	9	9.448	0.953	0.465	1.748	1	.	.	.	.	.
Utah			8	0	1.323	0.000	.	2.264	0	.	.	.	.	.

Vermont	No	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.
Virgin Islands			1	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	No	Yes	5	2	1.913	1.045	0.175	3.454	0	.	.	.	.	.	.	.
Washington	No	No	34	20	15.923	1.256	0.789	1.905	3	.	.	.	.	.	.	.
West Virginia	No	No	19	6	6.816	0.880	0.357	1.831	2	.	.	.	.	.	.	.
Wisconsin	No	Yes	57	10	24.486	0.408	0.207	0.728	5	.	.	.	.	.	.	.
Wyoming	No	No	12	0	4.217	0.000	.	0.710	1	.	.	.	.	.	.	.
All US			**884**	**186**	**300.584**	**0.619**	**0.535**	**0.713**	**54**	**0%**	**0%**	**0.000**	**0.000**	**0.000**	**0.564**	**0.874**

1. Data from all ICUs and wards (and other non-critical care locations). This excludes NICUs. These tables contain data from Critical Access Hospitals; as such, they exclude data from LTACHs, IRFs, and ACHs.
2. Yes indicates the presence of a state mandate to report CAUTI data from any location to NHSN at the beginning of 2020. M indicates midyear implementation of a mandate.
   No indicates that a state mandate did not exist during 2020.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2020 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2020 NHSN data prior to June 1, 2021, and state health department contacted identified facilities.
   YesA indicates that the state also conducted an audit of facility medical or laboratory records prior to June 1, 2021 to confirm proper case ascertainment (although intensity of auditing activities varies by state). Information on validation efforts was requested from all states, regardless of the presence of a legislative mandate for the particular HAI type. Some states without mandatory reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntarily shared with them by facilities in their jurisdiction.
4. The number of reporting facilities included in the SIR calculation. SIRs and accompanying statistics are only calculated for states in which at least 5 facilities reported CAUTI data in 2020.
5. Percent of facilities with at least one predicted CAUTI that had an SIR significantly greater or less than the nominal value of the 2020 national overall CAUTI SIR of 0.619. This is only calculated if at least 10 facilities had at least one predicted CAUTI in 2020.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted CAUTI in 2020. If a facility's predicted number of CAUTI was <1.0, a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

Table 4. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Critical Access Hospitals reporting during 2020

4b. Catheter-associated urinary tract infections (CAUTI), critical care locations[1]

State			No. of Infections			95% CI for SIR		Facility-specific SIRs						
			Observed	Predicted	SIR	Lower	Upper			10%	25%		75%	90%
Alabama	Yes	1	.	.	.	.	.	.	.	.	.	.	.	.
Alaska	M	1	.	.	.	.	.	.	.	.	.	.	.	.
Arizona		2	.	.	.	.	.	.	.	.	.	.	.	.
Arkansas		2	.	.	.	.	.	.	.	.	.	.	.	.
California	No	16	0	3.092	0.000	.	0.969	0	.	.	.	.	.	.
Colorado	No	4	.	.	.	.	.	.	.	.	.	.	.	.
Connecticut	No	0	.	.	.	.	.	.	.	.	.	.	.	.
D.C.	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Delaware		0	.	.	.	.	.	.	.	.	.	.	.	.
Florida	No	1	.	.	.	.	.	.	.	.	.	.	.	.
Georgia	No	3	.	.	.	.	.	.	.	.	.	.	.	.
Guam		0	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	1	.	.	.	.	.	.	.	.	.	.	.	.
Idaho	No	3	.	.	.	.	.	.	.	.	.	.	.	.
Illinois	No	13	0	0.882	.	.	.	.	.	.	.	.	.	.
Indiana	Yes	15	0	3.790	0.000	.	0.790	1	.	.	.	.	.	.
Iowa	No	2	.	.	.	.	.	.	.	.	.	.	.	.
Kansas	No	4	.	.	.	.	.	.	.	.	.	.	.	.
Kentucky	No	3	.	.	.	.	.	.	.	.	.	.	.	.
Louisiana		2	.	.	.	.	.	.	.	.	.	.	.	.
Maine	Yes	2	.	.	.	.	.	.	.	.	.	.	.	.
Maryland	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Massachusetts	No	2	.	.	.	.	.	.	.	.	.	.	.	.
Michigan	No	5	0	0.400	.	.	.	.	.	.	.	.	.	.
Minnesota	No	9	0	0.696	.	.	.	.	.	.	.	.	.	.
Mississippi	No	1	.	.	.	.	.	.	.	.	.	.	.	.
Missouri	No	7	0	1.507	0.000	.	1.988	1	.	.	.	.	.	.
Montana	No	3	.	.	.	.	.	.	.	.	.	.	.	.
Nebraska		4	.	.	.	.	.	.	.	.	.	.	.	.
Nevada	No	1	.	.	.	.	.	.	.	.	.	.	.	.
New Hampshire	No	6	1	1.441	0.694	0.035	3.423	0	.	.	.	.	.	.
New Jersey	No	0	.	.	.	.	.	.	.	.	.	.	.	.
New Mexico	No	5	0	2.039	0.000	.	1.469	1	.	.	.	.	.	.
New York	No	2	.	.	.	.	.	.	.	.	.	.	.	.
North Carolina		4	.	.	.	.	.	.	.	.	.	.	.	.
North Dakota	No	3	.	.	.	.	.	.	.	.	.	.	.	.
Ohio	No	9	1	1.473	0.679	0.034	3.348	0	.	.	.	.	.	.
Oklahoma	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Oregon	Yes	13	3	2.537	1.182	0.301	3.218	0	.	.	.	.	.	.
Pennsylvania	Yes	5	1	0.798	.	.	.	.	.	.	.	.	.	.
Puerto Rico	Yes	0	.	.	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	0	.	.	.	.	.	.	.	.	.	.	.	.
South Carolina	No	1	.	.	.	.	.	.	.	.	.	.	.	.
South Dakota	No	2	.	.	.	.	.	.	.	.	.	.	.	.
Tennessee	No	1	.	.	.	.	.	.	.	.	.	.	.	.
Texas		7	2	0.421	.	.	.	.	.	.	.	.	.	.
Utah		0	.	.	.	.	.	.	.	.	.	.	.	.
Vermont	No	2	.	.	.	.	.	.	.	.	.	.	.	.
Virgin Islands		0	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	No	3	.	.	.	.	.	.	.	.	.	.	.	.
Washington	No	8	0	1.767	0.000	.	1.695	0	.	.	.	.	.	.
West Virginia	Yes	8	2	0.935	.	.	.	.	.	.	.	.	.	.

Wisconsin	No	12	1	1.518	0.659	0.033	3.249	0	.	.	.	.	.	.	.	.
Wyoming	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.
All US		**200**	**20**	**33.998**	**0.588**	**0.369**	**0.892**	**4**	.	.	.	.	.	.	.	.

1. Data from all ICUs; excludes wards (and other non-critical care locations) and NICUs. These tables contain data from Critical Access Hospitals; as such, they exclude data from LTACHs, IRFs, and Yess.
2. Yes indicates the presence of a state mandate to report CAUTI data from critical care units to NHSN at the beginning of 2020. M indicates midyear implementation of a mandate.
   No indicates that a state mandate did not exist during 2020. Note that almost all Critical Access Hospitals are required to report CAUTI data from ICUs to NHSN for participation in the Centers for Medicare and Medicaid Services' Hospital Inpatient Quality Reporting Program.
3. The number of reporting facilities included in the SIR calculation. SIRs and accompanying statistics are only calculated for states in which at least 5 facilities reported CAUTI data from at least one critical care location in 2020.
4. Percent of facilities with at least one predicted ICU CAUTI that had an SIR significantly greater or less than the nominal value of the 2020 national ICU CAUTI SIR of 0.588. This is only calculated if at least 10 facilities had at least one predicted ICU CAUTI in 2020.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted ICU CAUTI in 2020. If a facility's predicted number of ICU CAUTI was <1.0, a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

Table 4. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Critical Access Hospitals reporting during 2020

4c. Catheter-associated urinary tract infections (CAUTI), ward (non-critical care) locations[1]

			No. of Infections			95% CI for SIR		Facility-specific SIRs				
State			Observed	Predicted	SIR	Lower	Upper		10%	25%	75%	90%
Alabama	Yes	5	0	1.896	0.000	.	1.580	1	.	.	.	.
Alaska	No	3	.	.	.	.	.	.	.	.	.	.
Arizona		3	.	.	.	.	.	.	.	.	.	.
Arkansas		14	0	2.646	0.000	.	1.132	0	.	.	.	.
California	No	30	6	7.982	0.752	0.305	1.563	1	.	.	.	.
Colorado	No	25	9	9.920	0.907	0.442	1.665	3	.	.	.	.
Connecticut	No	0	.	.	.	.	.	.	.	.	.	.
D.C.	No	0	.	.	.	.	.	.	.	.	.	.
Delaware		0	.	.	.	.	.	.	.	.	.	.
Florida	No	7	0	4.429	0.000	.	0.676	1	.	.	.	.
Georgia	No	13	4	3.524	1.135	0.361	2.738	0	.	.	.	.
Guam		0	.	.	.	.	.	.	.	.	.	.
Hawaii	No	1	.	.	.	.	.	.	.	.	.	.
Idaho	No	13	4	3.397	1.178	0.374	2.840	1	.	.	.	.
Illinois	No	37	10	13.658	0.732	0.372	1.305	4	.	.	.	.
Indiana	Yes	35	4	11.296	0.354	0.113	0.854	2	.	.	.	.
Iowa	No	61	13	18.059	0.720	0.400	1.200	3	.	.	.	.
Kansas	No	55	10	14.474	0.691	0.351	1.232	1	.	.	.	.
Kentucky	No	21	4	5.335	0.750	0.238	1.809	0	.	.	.	.
Louisiana		6	1	2.098	0.477	0.024	2.351	0	.	.	.	.
Maine	Yes	15	3	7.346	0.408	0.104	1.111	2	.	.	.	.
Maryland	No	0	.	.	.	.	.	.	.	.	.	.
Massachusetts	No	2	.	.	.	.	.	.	.	.	.	.
Michigan	No	30	5	6.017	0.831	0.304	1.842	1	.	.	.	.
Minnesota	No	65	8	15.112	0.529	0.246	1.005	3	.	.	.	.
Mississippi	No	13	1	2.930	0.341	0.017	1.683	0	.	.	.	.
Missouri	No	24	3	5.290	0.567	0.144	1.543	1	.	.	.	.
Montana	No	10	2	6.057	0.330	0.055	1.091	4	.	.	.	.
Nebraska		24	3	4.763	0.630	0.160	1.714	0	.	.	.	.
Nevada	No	2	.	.	.	.	.	.	.	.	.	.
New Hampshire	No	13	3	8.966	0.335	0.085	0.911	3	.	.	.	.
New Jersey	No	0	.	.	.	.	.	.	.	.	.	.
New Mexico	No	9	2	3.964	0.505	0.085	1.667	2	.	.	.	.
New York	No	7	1	1.112	0.899	0.045	4.435	0	.	.	.	.
North Carolina		12	8	6.391	1.252	0.581	2.377	1	.	.	.	.
North Dakota	No	12	1	5.093	0.196	0.010	0.968	1	.	.	.	.
Ohio	No	24	3	8.317	0.361	0.092	0.982	2	.	.	.	.
Oklahoma	No	13	1	1.613	0.620	0.031	3.058	0	.	.	.	.
Oregon	Yes	25	6	7.330	0.819	0.332	1.703	1	.	.	.	.
Pennsylvania	Yes	15	5	4.488	1.114	0.408	2.469	0	.	.	.	.
Puerto Rico	Yes	0	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	0	.	.	.	.	.	.	.	.	.	.
South Carolina	No	3	.	.	.	.	.	.	.	.	.	.
South Dakota	No	34	3	7.748	0.387	0.098	1.054	0	.	.	.	.
Tennessee	No	7	1	1.176	0.850	0.043	4.194	0	.	.	.	.
Texas		36	7	9.027	0.775	0.339	1.534	1	.	.	.	.
Utah		8	0	1.323	0.000	.	2.264	0	.	.	.	.
Vermont	No	3	.	.	.	.	.	.	.	.	.	.

Virgin Islands		0	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	No	5	2	1.596	1.253	0.210	4.140	0	.	.	.	.	.	.	.
Washington	No	34	20	14.159	1.413	0.887	2.143	2	.	.	.	.	.	.	.
West Virginia	Yes	19	4	5.882	0.680	0.216	1.640	1	.	.	.	.	.	.	.
Wisconsin	No	57	9	22.969	0.392	0.191	0.719	5	.	.	.	.	.	.	.
Wyoming	No	12	0	3.885	0.000	.	0.771	1	.	.	.	.	.	.	.
All US		**862**	**166**	**266.589**	**0.623**	**0.533**	**0.723**	**48**	**0%**	**0%**	**0.000**	**0.000**	**0.000**	**0.575**	**0.903**

1. Data from all wards (for this table wards also include stepdown, mixed acuity and specialty care areas [including hematology/oncology, bone marrow transplant]). This excludes NICU. These tables contain data from Critical Access Hospitals; as such, they exclude data from LTACHs, IRFs, and Yess.
2. Yes indicates the presence of a state mandate to report CAUTI data from ward locations to NHSN at the beginning of 2020. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2020.
3. The number of reporting facilities included in the SIR calculation. SIRs and accompanying statistics are only calculated for states in which at least 5 facilities reported CAUTI data from at least one ward in 2020.
4. Percent of facilities with at least one predicted ward CAUTI that had an SIR significantly greater or less than the nominal value of the 2020 national ward CAUTI SIR of 0.623. This is only calculated if at least 10 facilities had at least one predicted ward CAUTI in 2020.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted ward CAUTI in 2020. If a facility's predicted number of ward CAUTI was <1.0, a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

Table 5. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Critical Access Hospitals reporting during 2020

5a. Ventilator-associated events (VAE), all locations[1]

State				No. of Events			95% CI for SIR		Facility-specific SIRs				
				Observed	Predicted	SIR	Lower	Upper	No. of hosp with at least 1 predicted VAE	10%	25%	75%	90%
Alabama	No	No	0	.	.	.	.	.	.	.	.	.	.
Alaska	No	No	0	.	.	.	.	.	.	.	.	.	.
Arizona			1	.	.	.	.	.	.	.	.	.	.
Arkansas			1	.	.	.	.	.	.	.	.	.	.
California	No	No	10	4	1.127	3.548	1.127	8.559	0	.	.	.	.
Colorado	No	No	2	.	.	.	.	.	.	.	.	.	.
Connecticut	No	No	0	.	.	.	.	.	.	.	.	.	.
D.C.	No	No	0	.	.	.	.	.	.	.	.	.	.
Delaware			0	.	.	.	.	.	.	.	.	.	.
Florida	No	Yes	2	.	.	.	.	.	.	.	.	.	.
Georgia	No	No	1	.	.	.	.	.	.	.	.	.	.
Guam			0	.	.	.	.	.	.	.	.	.	.
Hawaii	No	No	0	.	.	.	.	.	.	.	.	.	.
Idaho	No	No	3	.	.	.	.	.	.	.	.	.	.
Illinois	No	No	3	.	.	.	.	.	.	.	.	.	.
Indiana	No	No	12	4	0.749	.	.	.	0	.	.	.	.
Iowa	No	No	0	.	.	.	.	.	.	.	.	.	.
Kansas	No	No	2	.	.	.	.	.	.	.	.	.	.
Kentucky	No	No	3	.	.	.	.	.	.	.	.	.	.
Louisiana			1	.	.	.	.	.	.	.	.	.	.
Maine	No	No	1	.	.	.	.	.	.	.	.	.	.
Maryland	No	No	0	.	.	.	.	.	.	.	.	.	.
Massachusetts	No	No	1	.	.	.	.	.	.	.	.	.	.
Michigan	No	Yes	6	2	0.228	.	.	.	0	.	.	.	.
Minnesota	No	No	2	.	.	.	.	.	.	.	.	.	.
Mississippi	No	No	0	.	.	.	.	.	.	.	.	.	.
Missouri	No	No	2	.	.	.	.	.	.	.	.	.	.
Montana	No	No	1	.	.	.	.	.	.	.	.	.	.
Nebraska			0	.	.	.	.	.	.	.	.	.	.
Nevada	No	No	1	.	.	.	.	.	.	.	.	.	.
New Hampshire	No	No	5	0	0.106	.	.	.	0	.	.	.	.
New Jersey	No	No	0	.	.	.	.	.	.	.	.	.	.
New Mexico	No	No	1	.	.	.	.	.	.	.	.	.	.
New York	No	No	1	.	.	.	.	.	.	.	.	.	.
North Carolina			4	.	.	.	.	.	.	.	.	.	.
North Dakota	No	No	1	.	.	.	.	.	.	.	.	.	.
Ohio	No	No	8	1	1.147	0.872	0.044	4.299	0	.	.	.	.
Oklahoma	No	No	0	.	.	.	.	.	.	.	.	.	.
Oregon	No	No	5	0	0.255	.	.	.	0	.	.	.	.
Pennsylvania	Yes	Yes	7	1	0.711	.	.	.	0	.	.	.	.
Puerto Rico	Yes	No	0	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	No	0	.	.	.	.	.	.	.	.	.	.
South Carolina	Yes	Yes	1	.	.	.	.	.	.	.	.	.	.
South Dakota	No	No	0	.	.	.	.	.	.	.	.	.	.
Tennessee	No	No	0	.	.	.	.	.	.	.	.	.	.
Texas			2	.	.	.	.	.	.	.	.	.	.

Utah			0	.	.	.	.	.	.	.	.	.	.	.	.	.
Vermont	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
Virgin Islands			0	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	No	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Washington	No	No	6	1	0.938	.	.	.	0	.	.	.	.	.	.	.
West Virginia	No	No	5	0	0.070	.	.	.	0	.	.	.	.	.	.	.
Wisconsin	No	Yes	9	1	0.118	.	.	.	0	.	.	.	.	.	.	.
Wyoming	No	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
All US			**113**	**16**	**7.392**	**2.165**	**1.281**	**3.440**	**0**	.	.	.	.	.	.	.

1. Data from all ICUs and wards (and other non-critical care locations). This excludes NICUs. Pediatric locations (ICUs or wards) are excluded, since pediatric and neonatal locations are excluded from VAE surveillance. These tables contain data from Critical Access Hospitals; as such, they exclude data from LTACHs, IRFs, and ACHs.
2. Yes indicates the presence of a state mandate to report VAE data from any location to NHSN at the beginning of 2020. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2020.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2020 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2020 NHSN data prior to June 1, 2021, and state health department contacted identified facilities. YesA indicates that the state also conducted an audit of facility medical or laboratory records prior to June 1, 2021 to confirm proper case ascertainment (although intensity of auditing activities varies by state). Information on validation efforts was requested from all states, regardless of the presence of a legislative mandate for the particular HAI type. Some states without mandatory reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntarily shared with them by facilities in their jurisdiction.
4. The number of reporting facilities included in the SIR calculation. SIRs and accompanying statistics are only calculated for states in which at least 5 facilities reported VAE data in 2020.
5. Percent of facilities with at least one predicted VAE that had an SIR significantly greater or less than the nominal value of the 2020 national overall VAE SIR of 2.165. This is only calculated if at least 10 facilities had at least one predicted VAE in 2020.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted VAE in 2020. If a facility's predicted number of VAE was <1.0, a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

Table 5. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Critical Access Hospitals reporting during 2020

5b. Ventilator-associated events (VAE), critical care locations[1]

State		No. of Critical Access Hospitals Reporting3	No. of Events			95% CI for SIR		Facility-specific SIRs				
			Observed	Predicted	SIR	Lower	Upper		10%	25%	75%	90%
Alabama	No	0	.	.	.	.	.	.	.	.	.	.
Alaska	No	0	.	.	.	.	.	.	.	.	.	.
Arizona		1	.	.	.	.	.	.	.	.	.	.
Arkansas		1	.	.	.	.	.	.	.	.	.	.
California	No	10	4	1.127	3.548	1.127	8.559	0	.	.	.	.
Colorado	No	2	.	.	.	.	.	.	.	.	.	.
Connecticut	No	0	.	.	.	.	.	.	.	.	.	.
D.C.	No	0	.	.	.	.	.	.	.	.	.	.
Delaware		0	.	.	.	.	.	.	.	.	.	.
Florida	No	1	.	.	.	.	.	.	.	.	.	.
Georgia	No	1	.	.	.	.	.	.	.	.	.	.
Guam		0	.	.	.	.	.	.	.	.	.	.
Hawaii	No	0	.	.	.	.	.	.	.	.	.	.
Idaho	No	2	.	.	.	.	.	.	.	.	.	.
Illinois	No	2	.	.	.	.	.	.	.	.	.	.
Indiana	M	11	4	0.741	.	.	.	0	.	.	.	.
Iowa	No	0	.	.	.	.	.	.	.	.	.	.
Kansas	No	2	.	.	.	.	.	.	.	.	.	.
Kentucky	No	3	.	.	.	.	.	.	.	.	.	.
Louisiana		1	.	.	.	.	.	.	.	.	.	.
Maine	No	0	.	.	.	.	.	.	.	.	.	.
Maryland	No	0	.	.	.	.	.	.	.	.	.	.
Massachusetts	No	1	.	.	.	.	.	.	.	.	.	.
Michigan	No	3	.	.	.	.	.	.	.	.	.	.
Minnesota	No	1	.	.	.	.	.	.	.	.	.	.
Mississippi	No	0	.	.	.	.	.	.	.	.	.	.
Missouri	No	2	.	.	.	.	.	.	.	.	.	.
Montana	No	1	.	.	.	.	.	.	.	.	.	.
Nebraska		0	.	.	.	.	.	.	.	.	.	.
Nevada	No	1	.	.	.	.	.	.	.	.	.	.
New Hampshire	No	5	0	0.103	.	.	.	0	.	.	.	.
New Jersey	No	0	.	.	.	.	.	.	.	.	.	.
New Mexico	No	1	.	.	.	.	.	.	.	.	.	.
New York	No	1	.	.	.	.	.	.	.	.	.	.
North Carolina		2	.	.	.	.	.	.	.	.	.	.
North Dakota	No	1	.	.	.	.	.	.	.	.	.	.
Ohio	No	7	1	0.995	.	.	.	0	.	.	.	.
Oklahoma	No	0	.	.	.	.	.	.	.	.	.	.
Oregon	No	4	.	.	.	.	.	.	.	.	.	.
Pennsylvania	Yes	5	1	0.414	.	.	.	0	.	.	.	.
Puerto Rico	Yes	0	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	0	.	.	.	.	.	.	.	.	.	.
South Carolina	Yes	1	.	.	.	.	.	.	.	.	.	.
South Dakota	No	0	.	.	.	.	.	.	.	.	.	.
Tennessee	No	0	.	.	.	.	.	.	.	.	.	.
Texas		2	.	.	.	.	.	.	.	.	.	.
Utah		0	.	.	.	.	.	.	.	.	.	.
Vermont	No	0	.	.	.	.	.	.	.	.	.	.

Virgin Islands		0	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Washington	No	6	1	0.938	.	.	.	0	.	.	.	.	.	.	.
West Virginia	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.
Wisconsin	No	8	1	0.106	.	.	.	0	.	.	.	.	.	.	.
Wyoming	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
All US		**95**	**14**	**5.926**	**2.362**	**1.345**	**3.870**	**0**	**.**	**.**	**.**	**.**	**.**	**.**	**.**

1. Data from all ICUs; excludes wards (and other non-critical care locations) and NICUs. Pediatric location (ICUs) are excluded from SIR since pediatric and neonatal locations are excluded from VAE surveillance
   These tables contain data from Critical Access Hospitals; as such, they exclude data from LTACHs, IRFs, and ACHs.
2. Yes indicates the presence of a state mandate to report VAE data from critical care units to NHSN at the beginning of 2020. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2020.
3. The number of reporting facilities included in the SIR calculation. SIRs and accompanying statistics are only calculated for states in which at least 5 facilities reported VAE data from at least one critical care location in 2020.
4. Percent of facilities with at least one predicted ICU VAE that had an SIR significantly greater or less than the nominal value of the 2020 national ICU VAE SIR of 2.362. This is only calculated if at least 10 facilities had at least one predicted ICU VAE in 2020.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted ICU VAE in 2020. If a facility's predicted number of ICU VAE was <1.0, a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

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Table 5. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Critical Access Hospitals reporting during 2020

5c. Ventilator-associated events (VAE), ward (non-critical care) locations[1]

State			No. of Events			95% CI for SIR		Facility-specific SIRs				
			Observed	Predicted	SIR	Lower	Upper	10%	25%	75%	90%	
Alabama	No	0	.	.	.	.	.	.	.	.	.	.
Alaska	No	0	.	.	.	.	.	.	.	.	.	.
Arizona		0	.	.	.	.	.	.	.	.	.	.
Arkansas		0	.	.	.	.	.	.	.	.	.	.
California	No	0	.	.	.	.	.	.	.	.	.	.
Colorado	No	0	.	.	.	.	.	.	.	.	.	.
Connecticut	No	0	.	.	.	.	.	.	.	.	.	.
D.C.	No	0	.	.	.	.	.	.	.	.	.	.
Delaware		0	.	.	.	.	.	.	.	.	.	.
Florida	No	1	.	.	.	.	.	.	.	.	.	.
Georgia	No	0	.	.	.	.	.	.	.	.	.	.
Guam		0	.	.	.	.	.	.	.	.	.	.
Hawaii	No	0	.	.	.	.	.	.	.	.	.	.
Idaho	No	1	.	.	.	.	.	.	.	.	.	.
Illinois	No	1	.	.	.	.	.	.	.	.	.	.
Indiana	M	1	.	.	.	.	.	.	.	.	.	.
Iowa	No	0	.	.	.	.	.	.	.	.	.	.
Kansas	No	0	.	.	.	.	.	.	.	.	.	.
Kentucky	No	0	.	.	.	.	.	.	.	.	.	.
Louisiana		0	.	.	.	.	.	.	.	.	.	.
Maine	No	1	.	.	.	.	.	.	.	.	.	.
Maryland	No	0	.	.	.	.	.	.	.	.	.	.
Massachusetts	No	0	.	.	.	.	.	.	.	.	.	.
Michigan	No	3	.	.	.	.	.	.	.	.	.	.
Minnesota	No	1	.	.	.	.	.	.	.	.	.	.
Mississippi	No	0	.	.	.	.	.	.	.	.	.	.
Missouri	No	0	.	.	.	.	.	.	.	.	.	.
Montana	No	0	.	.	.	.	.	.	.	.	.	.
Nebraska		0	.	.	.	.	.	.	.	.	.	.
Nevada	No	0	.	.	.	.	.	.	.	.	.	.
New Hampshire	No	1	.	.	.	.	.	.	.	.	.	.
New Jersey	No	0	.	.	.	.	.	.	.	.	.	.
New Mexico	No	0	.	.	.	.	.	.	.	.	.	.
New York	No	0	.	.	.	.	.	.	.	.	.	.
North Carolina		2	.	.	.	.	.	.	.	.	.	.
North Dakota	No	0	.	.	.	.	.	.	.	.	.	.
Ohio	No	1	.	.	.	.	.	.	.	.	.	.
Oklahoma	No	0	.	.	.	.	.	.	.	.	.	.
Oregon	No	1	.	.	.	.	.	.	.	.	.	.
Pennsylvania	Yes	2	.	.	.	.	.	.	.	.	.	.
Puerto Rico	No	0	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	0	.	.	.	.	.	.	.	.	.	.
South Carolina	Yes	0	.	.	.	.	.	.	.	.	.	.
South Dakota	No	0	.	.	.	.	.	.	.	.	.	.
Tennessee	No	0	.	.	.	.	.	.	.	.	.	.
Texas		0	.	.	.	.	.	.	.	.	.	.
Utah		0	.	.	.	.	.	.	.	.	.	.
Vermont	No	0	.	.	.	.	.	.	.	.	.	.
Virgin Islands		0	.	.	.	.	.	.	.	.	.	.

Virginia	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
Washington	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
West Virginia	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Wisconsin	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Wyoming	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
All US		**19**	**2**	**1.466**	**1.365**	**0.229**	**4.509**	**0**	.	.	.	.	.	.	.

1. Data from all wards (for this table wards also include stepdown, mixed acuity and specialty care areas [including hematology/oncology, bone marrow transplant]). This excludes NICU. Pediatric location (wards) are excluded from SIR since pediatric and neonatal locations are excluded from VAE surveillance. These tables contain data from Critical Access Hospitals; as such, they exclude data from LTACHs, IRFs, and ACHs.
2. Yes indicates the presence of a state mandate to report VAE data from ward locations to NHSN at the beginning of 2020. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2020.
3. The number of reporting facilities included in the SIR calculation. SIRs and accompanying statistics are only calculated for states in which at least 5 facilities reported VAE data from at least one ward in 2020.
4. Percent of facilities with at least one predicted ward VAE that had an SIR significantly greater or less than the nominal value of the 2020 national ward VAE SIR of (missing). This is only calculated if at least 10 facilities had at least one predicted ward VAE in 2020.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted ward VAE in 2020. If a facility's predicted number of ward VAE was <1.0, a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

Table 6. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Critical Access Hospitals reporting during 2020

6a. Surgical site infections (SSI) following colon surgery[1] in adults, ≥ 18years

State			No. of Critical Access Hospitals Reporting[4]	No. of Procedures	No. of Infections		95% CI for SIR			Facility-specific SIRs					
					Observed	Predicted	SIR	Lower	Upper	No. of hosp with at least 1 predicted SSI	10%	25%		75%	90%
Alabama	Yes	Yes	0	.	.	.	.	.	.	.	.	.	.	.	.
Alaska	No	No	1	.	.	.	.	.	.	.	.	.	.	.	.
Arizona			3	.	.	.	.	.	.	.	.	.	.	.	.
Arkansas			2	.	.	.	.	.	.	.	.	.	.	.	.
California	Yes	Yes	15	175	2	3.439	0.582	0.098	1.921	0	.	.	.	.	.
Colorado	M	No	12	58	1	1.003	0.997	0.050	4.917	0	.	.	.	.	.
Connecticut	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
D.C.	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Delaware			0	.	.	.	.	.	.	.	.	.	.	.	.
Florida	No	Yes	2	.	.	.	.	.	.	.	.	.	.	.	.
Georgia	No	No	2	.	.	.	.	.	.	.	.	.	.	.	.
Guam			0	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Idaho	No	No	4	.	.	.	.	.	.	.	.	.	.	.	.
Illinois	No	No	16	139	1	2.641	0.379	0.019	1.868	0	.	.	.	.	.
Indiana	Yes	No	20	115	2	2.238	0.894	0.150	2.952	0	.	.	.	.	.
Iowa	Yes	No	8	22	0	0.433	.	.	.	0	.	.	.	.	.
Kansas	Yes	No	8	36	0	0.683	.	.	.	0	.	.	.	.	.
Kentucky	No	No	6	32	2	0.687	.	.	.	0	.	.	.	.	.
Louisiana			0	.	.	.	.	.	.	.	.	.	.	.	.
Maine	No	No	7	70	1	1.510	0.662	0.033	3.267	0	.	.	.	.	.
Maryland	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Massachusetts	No	No	2	.	.	.	.	.	.	.	.	.	.	.	.
Michigan	No	Yes	12	82	5	1.737	2.878	1.054	6.379	0	.	.	.	.	.
Minnesota	No	No	11	103	1	1.861	0.537	0.027	2.651	0	.	.	.	.	.
Mississippi	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Missouri	No	No	10	36	0	0.564	.	.	.	0	.	.	.	.	.
Montana	No	No	4	.	.	.	.	.	.	.	.	.	.	.	.
Nebraska			3	.	.	.	.	.	.	.	.	.	.	.	.
Nevada	No	No	2	.	.	.	.	.	.	.	.	.	.	.	.
New Hampshire	No	No	8	59	1	1.110	0.901	0.045	4.445	0	.	.	.	.	.
New Jersey	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
New Mexico	No	No	2	.	.	.	.	.	.	.	.	.	.	.	.
New York	Yes	No	1	.	.	.	.	.	.	.	.	.	.	.	.
North Carolina			6	55	1	0.959	.	.	.	0	.	.	.	.	.
North Dakota	No	No	2	.	.	.	.	.	.	.	.	.	.	.	.
Ohio	Yes	No	12	91	0	1.604	0.000	.	1.868	0	.	.	.	.	.
Oklahoma	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Oregon	Yes	No	15	158	3	2.983	1.006	0.256	2.737	0	.	.	.	.	.
Pennsylvania	Yes	Yes	7	46	0	0.881	.	.	.	0	.	.	.	.	.
Puerto Rico	Yes	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Rhode Island	Yes	No	0	.	.	.	.	.	.	.	.	.	.	.	.
South Carolina	Yes	Yes	1	.	.	.	.	.	.	.	.	.	.	.	.
South Dakota	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Tennessee	No	No	1	.	.	.	.	.	.	.	.	.	.	.	.
Texas			7	57	0	0.857	.	.	.	0	.	.	.	.	.
Utah			3	.	.	.	.	.	.	.	.	.	.	.	.
Vermont	No	No	1	.	.	.	.	.	.	.	.	.	.	.	.
Virgin Islands			0	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	No	Yes	3	.	.	.	.	.	.	.	.	.	.	.	.
Washington	M	No	15	109	3	1.880	1.595	0.406	4.342	0	.	.	.	.	.
West Virginia	Yes	No	7	71	0	1.289	0.000	.	2.324	0	.	.	.	.	.
Wisconsin	Yes	Yes	34	235	3	4.115	0.729	0.185	1.984	0	.	.	.	.	.
Wyoming	Yes	No	3	.	.	.	.	.	.	.	.	.	.	.	.
All US			**278**	**2,056**	**33**	**37.910**	**0.870**	**0.609**	**1.208**	**0**	.	.	.	.	.

1. Critical Access Hospitals are not required to report SSIs following inpatient colon procedures in adults 18 years and older to NHSN for participation in the Centers for Medicare and Medicaid Services' (CMS) Hospital Inpatient Quality Reporting Program. SSIs included in this table are those classified as deep incisional or organ/space infections following NHSN-defined inpatient colon procedures that occurred in 2020 with a primary or other than primary skin closure technique, detected during the same admission as the surgical procedure or upon readmission to the same facility. The colon surgery SSI data published in this report use different risk adjustment methodology and a different subset of data than that which are used for public reporting by CMS.
2. Yes indicates the presence of a state mandate to report SSIs following colon surgery to NHSN at the beginning of 2020. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2020.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2020 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2020 NHSN data prior to June 1, 2021, and state health department contacted identified facilities. YesA indicates that the state also conducted an audit of facility medical or laboratory records prior to June 1, 2021 to confirm proper case ascertainment (although intensity of auditing activities varies by state). Information on validation efforts was requested from all states, regardless of the presence of a legislative mandate for the particular HAI type. Some states without mandatory reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntarily shared with them by facilities in their jurisdiction.
4. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information about exclusion criteria. SIRs and accompanying statistics are only calculated for states in which at least 5 facilities reported SSI data following colon surgery in 2020.
5. Percent of facilities with at least one predicted colon surgery SSI that had an SIR significantly greater or less than the nominal value of the 2020 national colon surgery SIR of 0.870. This is only calculated if at least 10 facilities had at least one predicted colon surgery SSI in 2020.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted colon surgery SSI in 2020. If a facility's predicted number of colon surgery SSI was <1.0, a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

Table 6. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Critical Access Hospitals reporting during 2020

6b. Surgical site infections (SSI) following abdominal hysterectomy surgery[1] in adults, ≥ 18years

State			No. of Critical Access Hospitals Reporting[4]	No. of Procedures	No. of Infections			95% CI for SIR		Facility-specific SIRs					
					Observed	Predicted	SIR	Lower	Upper		10%	25%		75%	90%
Alabama	Yes	Yes	0	.	.	.	.	.	.	.	.	.	.	.	.
Alaska	No	No	1	.	.	.	.	.	.	.	.	.	.	.	.
Arizona			1	.	.	.	.	.	.	.	.	.	.	.	.
Arkansas			0	.	.	.	.	.	.	.	.	.	.	.	.
California	Yes	Yes	11	81	0	0.409	.	.	.	0	.	.	.	.	.
Colorado	M	No	10	33	0	0.183	.	.	.	0	.	.	.	.	.
Connecticut	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
D.C.	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Delaware			0	.	.	.	.	.	.	.	.	.	.	.	.
Florida	No	Yes	0	.	.	.	.	.	.	.	.	.	.	.	.
Georgia	No	No	1	.	.	.	.	.	.	.	.	.	.	.	.
Guam			0	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	No	1	.	.	.	.	.	.	.	.	.	.	.	.
Idaho	No	No	3	.	.	.	.	.	.	.	.	.	.	.	.
Illinois	No	No	7	61	0	0.377	.	.	.	0	.	.	.	.	.
Indiana	Yes	No	15	118	2	0.634	.	.	.	0	.	.	.	.	.
Iowa	Yes	No	10	39	1	0.249	.	.	.	0	.	.	.	.	.
Kansas	Yes	No	6	71	2	0.358	.	.	.	0	.	.	.	.	.
Kentucky	No	No	2	.	.	.	.	.	.	.	.	.	.	.	.
Louisiana			2	.	.	.	.	.	.	.	.	.	.	.	.
Maine	No	No	9	99	1	0.551	.	.	.	0	.	.	.	.	.
Maryland	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Massachusetts	No	No	2	.	.	.	.	.	.	.	.	.	.	.	.
Michigan	No	Yes	6	71	1	0.369	.	.	.	0	.	.	.	.	.
Minnesota	No	No	8	79	2	0.510	.	.	.	0	.	.	.	.	.
Mississippi	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Missouri	No	No	6	36	0	0.197	.	.	.	0	.	.	.	.	.
Montana	No	No	5	56	0	0.329	.	.	.	0	.	.	.	.	.
Nebraska			2	.	.	.	.	.	.	.	.	.	.	.	.
Nevada	No	No	1	.	.	.	.	.	.	.	.	.	.	.	.
New Hampshire	No	No	8	64	0	0.339	.	.	.	0	.	.	.	.	.
New Jersey	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
New Mexico	No	No	1	.	.	.	.	.	.	.	.	.	.	.	.
New York	Yes	No	2	.	.	.	.	.	.	.	.	.	.	.	.
North Carolina			4	.	.	.	.	.	.	.	.	.	.	.	.
North Dakota	No	No	3	.	.	.	.	.	.	.	.	.	.	.	.
Ohio	Yes	No	9	116	0	0.714	.	.	.	0	.	.	.	.	.
Oklahoma	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Oregon	Yes	No	11	140	2	0.832	.	.	.	0	.	.	.	.	.
Pennsylvania	Yes	Yes	7	28	0	0.168	.	.	.	0	.	.	.	.	.
Puerto Rico	Yes	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Rhode Island	Yes	No	0	.	.	.	.	.	.	.	.	.	.	.	.
South Carolina	Yes	Yes	0	.	.	.	.	.	.	.	.	.	.	.	.
South Dakota	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Tennessee	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Texas			6	15	0	0.094	.	.	.	0	.	.	.	.	.
Utah			3	.	.	.	.	.	.	.	.	.	.	.	.
Vermont	No	No	4	.	.	.	.	.	.	.	.	.	.	.	.
Virgin Islands			0	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	No	Yes	2	.	.	.	.	.	.	.	.	.	.	.	.
Washington	M	No	9	115	0	0.594	.	.	.	0	.	.	.	.	.
West Virginia	Yes	No	3	.	.	.	.	.	.	.	.	.	.	.	.
Wisconsin	Yes	Yes	23	255	0	1.382	0.000	.	2.167	0	.	.	.	.	.
Wyoming	Yes	No	3	.	.	.	.	.	.	.	.	.	.	.	.
All US			**207**	**1,817**	**12**	**10.248**	**1.171**	**0.634**	**1.991**	**0**	.	.	.	.	.

1. Critical Access Hospitals are not required to report SSIs following inpatient abdominal hysterectomy procedures in adults 18 years and older to NHSN for participation in the Centers for Medicare and Medicaid Services' (CMS) Hospital Inpatient Quality Reporting Program. SSIs included are those classified as deep incisional or organ/space infections following NHSN-defined inpatient abdominal hysterectomy procedures that occurred in 2020 with a primary or other than primary skin closure technique, detected during the same admission as the surgical procedure or upon readmission to the same facility. The abdominal hysterectomy SSI data published in this report use different risk adjustment methodology and a different subset of data than that which are used for public reporting by CMS.
2. Yes indicates the presence of a state mandate to report SSIs following abdominal hysterectomy surgery to NHSN at the beginning of 2020. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2020.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2020 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2020 NHSN data prior to June 1, 2021, and state health department contacted identified facilities. YesA indicates that the state also conducted an audit of facility medical or laboratory records prior to June 1, 2021 to confirm proper case ascertainment (although intensity of auditing activities varies by state). Information on validation efforts was requested from all states, regardless of the presence of a legislative mandate for the particular HAI type. Some states without mandatory reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntarily shared with them by facilities in their jurisdiction.
4. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information about exclusion criteria. SIRs and accompanying statistics are only calculated for states in which at least 5 facilities reported SSI data following abdominal hysterectomy surgery in 2020.
5. Percent of facilities with at least one predicted abdominal hysterectomy SSI that had an SIR significantly greater or less than the nominal value of the 2020 national abdominal hysterectomy SIR of 1.171. This is only calculated if at least 10 facilities had at least one predicted abdominal hysterectomy SSI in 2020.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted abdominal hysterectomy SSI in 2020. If a facility's predicted number of abdominal hysterectomy SSI was <1.0, a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

Table 7. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Critical Access Hospitals reporting during 2020

Hospital-onset methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia, facility-wide[1]

State			No. of Critical Access Hospitals Reporting4	No. of Events			95% CI for SIR		Facility-specific SIRs					
				Observed	Predicted	SIR	Lower	Upper	No. of hosp with at least 1 predicted HO MRSA bacteremia	10%	25%	75%	90%	
Alabama	No	No	4	.	.	.	.	.	.	.	.	.	.	.
Alaska	No	No	1	.	.	.	.	.	.	.	.	.	.	.
Arizona			4	.	.	.	.	.	.	.	.	.	.	.
Arkansas			9	0	0.365	.	.	.	0	.	.	.	.	.
California	M	Yes	33	0	1.853	0.000	.	1.617	0	.	.	.	.	.
Colorado	No	No	27	0	1.212	0.000	.	2.472	0	.	.	.	.	.
Connecticut	No	No	0	.	.	.	.	.	.	.	.	.	.	.
D.C.	No	No	0	.	.	.	.	.	.	.	.	.	.	.
Delaware			0	.	.	.	.	.	.	.	.	.	.	.
Florida	No	Yes	7	0	0.355	.	.	.	0	.	.	.	.	.
Georgia	No	No	13	0	1.165	0.000	.	2.571	0	.	.	.	.	.
Guam			0	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	No	2	.	.	.	.	.	.	.	.	.	.	.
Idaho	No	No	9	0	0.530	.	.	.	0	.	.	.	.	.
Illinois	Yes	No	47	2	2.303	0.868	0.146	2.869	0	.	.	.	.	.
Indiana	M	No	35	2	2.123	0.942	0.158	3.112	0	.	.	.	.	.
Iowa	No	Yes	31	0	1.176	0.000	.	2.547	0	.	.	.	.	.
Kansas	No	No	46	0	1.957	0.000	.	1.531	0	.	.	.	.	.
Kentucky	No	No	19	1	0.927	.	.	.	0	.	.	.	.	.
Louisiana			5	0	0.289	.	.	.	0	.	.	.	.	.
Maine	Yes	No	16	2	1.424	1.404	0.235	4.640	0	.	.	.	.	.
Maryland	No	No	0	.	.	.	.	.	.	.	.	.	.	.
Massachusetts	No	No	3	.	.	.	.	.	.	.	.	.	.	.
Michigan	No	Yes	28	0	1.232	0.000	.	2.432	0	.	.	.	.	.
Minnesota	No	No	30	1	1.374	0.728	0.036	3.589	0	.	.	.	.	.
Mississippi	No	No	8	1	0.422	.	.	.	0	.	.	.	.	.
Missouri	No	No	23	0	1.825	0.000	.	1.641	0	.	.	.	.	.
Montana	No	No	8	0	0.934	.	.	.	0	.	.	.	.	.
Nebraska			21	1	0.758	.	.	.	0	.	.	.	.	.
Nevada	Yes	No	2	.	.	.	.	.	.	.	.	.	.	.
New Hampshire	No	No	11	0	1.023	0.000	.	2.928	0	.	.	.	.	.
New Jersey	No	No	0	.	.	.	.	.	.	.	.	.	.	.
New Mexico	No	No	9	1	0.414	.	.	.	0	.	.	.	.	.
New York	No	No	5	0	0.352	.	.	.	0	.	.	.	.	.
North Carolina			11	0	0.969	.	.	.	0	.	.	.	.	.
North Dakota	No	No	12	0	0.509	.	.	.	0	.	.	.	.	.
Ohio	No	No	26	4	1.743	2.295	0.729	5.536	0	.	.	.	.	.
Oklahoma	No	No	13	0	0.361	.	.	.	0	.	.	.	.	.
Oregon	Yes	No	25	1	1.669	0.599	0.030	2.955	0	.	.	.	.	.
Pennsylvania	Yes	Yes	12	0	0.789	.	.	.	0	.	.	.	.	.
Puerto Rico	Yes	No	0	.	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	No	0	.	.	.	.	.	.	.	.	.	.	.
South Carolina	Yes	Yes	2	.	.	.	.	.	.	.	.	.	.	.
South Dakota	No	No	4	.	.	.	.	.	.	.	.	.	.	.
Tennessee	No	No	6	0	0.155	.	.	.	0	.	.	.	.	.
Texas			29	2	1.554	1.287	0.216	4.252	0	.	.	.	.	.
Utah			7	0	0.175	.	.	.	0	.	.	.	.	.

Vermont	No	No	8	1	0.860	.	.	.	0	.	.	.	.	.	.	.
Virgin Islands			0	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	No	Yes	5	1	0.479	.	.	.	0	.	.	.	.	.	.	.
Washington	No	No	23	2	1.755	1.140	0.191	3.765	0	.	.	.	.	.	.	.
West Virginia	No	No	16	1	1.032	0.969	0.048	4.779	0	.	.	.	.	.	.	.
Wisconsin	No	Yes	56	3	3.533	0.849	0.216	2.311	0	.	.	.	.	.	.	.
Wyoming	No	No	7	0	0.281	.	.	.	0	.	.	.	.	.	.	.
All US			**718**	**28**	**41.181**	**0.680**	**0.461**	**0.970**	**0**	**.**	**.**	**.**	**.**	**.**	**.**	**.**

1. Critical Access Hospitals are not required to report facility-wide MRSA bacteremia data to NHSN for participation in the Centers for Medicare and Medicaid Services' (CMS) Hospital Inpatient Quality Reporting Program. Hospital-onset is defined as event detected on the 4th day (or later) after admission to an inpatient location within the facility.
2. Yes indicates the presence of a state mandate to report facility-wide MRSA bacteremia data to NHSN at the beginning of 2020. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2020.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2020 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2020 NHSN data prior to June 1, 2021, and state health department contacted identified facilities. YesA indicates that the state also conducted an audit of facility medical or laboratory records prior to June 1, 2021 to confirm proper case ascertainment (although intensity of auditing activities varies by state). Information on validation efforts was requested from all states, regardless of the presence of a legislative mandate for the particular HAI type. Some states without mandatory reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntarily shared with them by facilities in their jurisdiction.
4. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information about exclusion criteria. SIRs and accompanying statistics are only calculated for states in which at least 5 facilities reported MRSA bacteremia data in 2020.
5. Percent of facilities with at least one predicted hospital-onset MRSA bacteremia that had an SIR significantly greater or less than the nominal value of the 2020 national hospital-onset MRSA bacteremia SIR of 0.680. This is only calculated if at least 10 facilities had at least one predicted hospital-onset MRSA bacteremia in 2020.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted hospital-onset MRSA bacteremia in 2020. If a facility's predicted number of hospital-onset MRSA bacteremia was <1.0, a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

Table 8. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Critical Access Hospitals reporting during 2020

Hospital-onset *Clostridioides difficile* (CDI), facility-wide[1]

State				No. of Events			95% CI for SIR		Facility-specific SIRs						
				Observed	Predicted	SIR	Lower	Upper	No. of hosp with at least 1 predicted HO CDI			10%	25%	75%	90%
Alabama	No	No	4	.	.	.	.	.	.	.	.	.	.	.	.
Alaska	No	No	2	.	.	.	.	.	.	.	.	.	.	.	.
Arizona			4	.	.	.	.	.	.	.	.	.	.	.	.
Arkansas			10	5	5.248	0.953	0.349	2.112	1	.	.	.	.	.	.
California	M	Yes	33	14	25.524	0.549	0.312	0.898	9	.	.	.	.	.	.
Colorado	No	No	27	15	15.980	0.939	0.545	1.513	4	.	.	.	.	.	.
Connecticut	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
D.C	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Delaware			0	.	.	.	.	.	.	.	.	.	.	.	.
Florida	No	Yes	7	1	4.320	0.231	0.012	1.142	1	.	.	.	.	.	.
Georgia	No	No	13	10	13.196	0.758	0.385	1.351	7	.	.	.	.	.	.
Guam			0	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	No	1	.	.	.	.	.	.	.	.	.	.	.	.
Idaho	No	No	9	6	6.519	0.920	0.373	1.914	3	.	.	.	.	.	.
Illinois	Yes	No	47	26	32.378	0.803	0.536	1.160	8	.	.	.	.	.	.
Indiana	M	No	34	23	32.349	0.711	0.462	1.050	10	10%	0%	.	.	.	.
Iowa	No	Yes	48	12	24.429	0.491	0.266	0.835	3	.	.	.	.	.	.
Kansas	No	No	49	18	25.981	0.693	0.424	1.074	7	.	.	.	.	.	.
Kentucky	No	No	19	9	13.498	0.667	0.325	1.224	3	.	.	.	.	.	.
Louisiana			5	3	3.542	0.847	0.215	2.305	1	.	.	.	.	.	.
Maine	Yes	No	16	19	20.175	0.942	0.584	1.443	12	0%	0%	.	.	.	.
Maryland	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Massachusetts	No	No	3	.	.	.	.	.	.	.	.	.	.	.	.
Michigan	No	Yes	27	10	17.664	0.566	0.288	1.009	3	.	.	.	.	.	.
Minnesota	No	No	52	25	32.744	0.763	0.505	1.110	13	8%	0%	.	.	.	.
Mississippi	No	No	11	3	6.879	0.436	0.111	1.187	3	.	.	.	.	.	.
Missouri	No	No	23	17	28.654	0.593	0.357	0.931	9	.	.	.	.	.	.
Montana	No	No	8	5	11.833	0.423	0.155	0.937	4	.	.	.	.	.	.
Nebraska			21	5	8.545	0.585	0.214	1.297	1	.	.	.	.	.	.
Nevada	No	No	3	.	.	.	.	.	.	.	.	.	.	.	.
New Hampshire	Yes	No	12	5	15.874	0.315	0.115	0.698	10	0%	0%	.	.	.	.
New Jersey	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
New Mexico	Yes	No	9	5	5.222	0.957	0.351	2.122	2	.	.	.	.	.	.
New York	No	No	5	6	6.051	0.992	0.402	2.062	3	.	.	.	.	.	.
North Carolina			11	9	13.027	0.691	0.337	1.268	6	.	.	.	.	.	.
North Dakota	No	No	12	3	6.255	0.480	0.122	1.305	2	.	.	.	.	.	.
Ohio	No	No	26	20	27.935	0.716	0.450	1.086	10	10%	0%	.	.	.	.
Oklahoma	No	No	13	3	4.214	0.712	0.181	1.938	0	.	.	.	.	.	.
Oregon	Yes	No	25	26	23.729	1.096	0.731	1.583	10	10%	0%	.	.	.	.
Pennsylvania	Yes	Yes	12	7	13.433	0.521	0.228	1.031	6	.	.	.	.	.	.
Puerto Rico	Yes	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
South Carolina	Yes	Yes	2	.	.	.	.	.	.	.	.	.	.	.	.
South Dakota	No	No	35	9	13.691	0.657	0.321	1.206	3	.	.	.	.	.	.
Tennessee	No	No	6	3	2.058	1.458	0.371	3.967	0	.	.	.	.	.	.
Texas			29	19	19.665	0.966	0.599	1.481	6	.	.	.	.	.	.
Utah			7	2	1.932	1.035	0.174	3.420	0	.	.	.	.	.	.
Vermont	No	No	8	8	12.912	0.620	0.288	1.177	6	.	.	.	.	.	.
Virgin Islands			0	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	No	Yes	5	8	7.247	1.104	0.513	2.096	5	.	.	.	.	.	.

Washington	No	Yes	33	23	30.689	0.749	0.487	1.107	15	7%	0%	.	.	.	.	.	
West Virginia	No	No	15	23	16.723	1.375	0.893	2.031	10	0%	0%	.	.	.	.	.	
Wisconsin	No	Yes	56	31	52.229	0.594	0.410	0.832	23	4%	0%	0.000	0.000	0.219	1.061	1.411	
Wyoming	No	No	12	1	6.129	0.163	0.008	0.805	1	.	.	.	.	.	.	.	
All US			**809**	**442**	**622.859**	**0.710**	**0.646**	**0.778**	**223**	**4%**	**1%**	**0.000**	**0.000**	**0.605**	**1.123**	**1.924**	

1. Critical Access Hospitals are not required to report facility-wide CDI data to NHSN for participation in the Centers for Medicare and Medicaid Services' (CMS) Hospital Inpatient Quality Reporting Program. Hospital-onset is defined as event detected on the 4th day (or later) after admission to an inpatient location within the facility.
2. Yes indicates the presence of a state mandate to report facility-wide CDI data to NHSN at the beginning of 2020. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2020.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2020 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2020 NHSN data prior to June 1, 2021, and state health department contacted identified facilities. YesA indicates that the state also conducted an audit of facility medical or laboratory records prior to June 1, 2021 to confirm proper case ascertainment (although intensity of auditing activities varies by state). Information on validation efforts was requested from all states, regardless of the presence of a legislative mandate for the particular HAI type. Some states without mandatory reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntarily shared with them by facilities in their jurisdiction.
4. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information about exclusion criteria. SIRs and accompanying statistics are only calculated for states in which at least 5 facilities reported CDI data in 2020.
5. Percent of facilities with at least one predicted hospital-onset CDI that had an SIR significantly greater or less than the nominal value of the 2020 national hospital-onset CDI SIR of 0.710. This is only calculated if at least 10 facilities had at least one predicted hospital-onset CDI in 2020.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted hospital-onset CDI in 2020. If a facility's predicted number of hospital-onset CDI was <1.0, a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

Table 9. Changes in national standardized infection ratios (SIRs) using HAI data reported from all NHSN Crit
Central line-associated bloodstream infections (CLABSIs), catheter-associated urinary tract infections (CAUTIs), ventilator-a
Clostridioides difficile infections, and surgical site infections (SSIs) following Surgical Care Im

	2019 SIR	2020 SIR	Percent Change	Direction of Change, Based on Statistical Significance	p-value[9]
CLABSI, all locations[1]	0.522	0.881	69%	Increase	0.0392
CLABSI, ICU[2]	0.763	2.025	165%	No change	0.1388
CLABSI, Ward[3]	0.501	0.757	51%	No change	0.1392
CAUTI, all locations[5]	0.569	0.619	9%	No change	0.4232
CAUTI, ICU[2]	0.457	0.588	29%	No change	0.4652
CAUTI, Ward[3]	0.582	0.623	7%	No change	0.5436
	1.600	2.165	35%	No change	1.0000
ICUs[5]	1.594	2.362	48%	No change	1.0000
Wards[6]	1.622	1.365	16%	No change	1.0000
Hospital-onset MRSA bacteremia, facility-wide[6]	0.587	0.680	16%	No change	0.5923
Hospital-onset *C. difficile* infections, facility-wide[6]	0.794	0.710	11%	No change	0.0774
SSI, combined SCIP procedures[7]	0.997	0.849	15%	No change	0.2331
SSI, Hip arthroplasty	0.79	0.780	1%	No change	0.9623
SSI, Knee arthroplasty	1.087	0.785	28%	No change	0.2274
SSI, Coronary artery bypass graft[8]	.	.	.	.	.
SSI, Cardiac surgery	.	.	.	.	.
SSI, Peripheral vascular bypass surgery	.	.	.	.	.
SSI, Abdominal aortic aneurysm repair	.	.	.	.	.
SSI, Colon surgery	0.962	0.870	10%	No change	0.6674
SSI, Rectal surgery	.	.	.	.	.
SSI, Abdominal hysterectomy	1.439	1.171	19%	No change	0.5861
SSI, Vaginal hysterectomy	.	.	.	.	.

* Statistically significant, p < 0.0500. Statistical significance based on two-tailed p-value < 0.05, reflected in the relative percent change in magnitude

1. Data from all ICUs, wards (and other non-critical care locations), and NICUs. This excludes LTAC locations (or facilities) and IRF locations (or fac
2. Data from all ICUs; excludes wards (and other non-critical care locations), NICUs, LTAC locations (or facilities), and IRF locations (or facilities).
3. Data from all wards (for this table wards also include step-down and specialty care areas [including hematology/oncology, bone marrow transplan
4. Data from all NICU locations, including Level II/III and Level III nurseries. Both umbilical line and central line-associated bloodstream infections ar
5. Data from all ICUs and wards (and other non-critical care locations). This excludes NICUs, LTAC locations (or facilities) and IRF locations (or faci
6. Hospital-onset is defined as event detected on the 4th day (or later) after admission to an inpatient location within the facility.
7. These procedures were presented in previous versions of the HAI Progress Report and follow select inpatient surgical procedures with a primary a
   using NHSN surgical procedure categorizations. Includes SSIs that were classified as deep incisional or organ/space, and were detected upon ad
8. Coronary artery bypass graft includes procedures with either chest only or chest and donor site incisions.

9. The p-value cannot be estimated when the denominator of percent change (2019 SIR) = 0.

tical Access Hospitals reporting during 2020 by HAI and patient population:
associated events (VAEs), methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia,
provement Project (SCIP) procedures, 2019 compared to 2020

cilities) and ACHs.

t]. This excludes LTAC locations [or facilities] and IRF locations [or facilities]).
e considered CLABSIs.
ilities).

and other primary skin closure technique approximating the procedures covered by SCIP,
mission or readmission. Specific NHSN procedures and the corresponding SCIP procedures are listed in Appendix C.

Table 10. Changes in state-specific standardized infection ratios (SIRs) between 2019 and 2020 from NHSN Critical Access Hospitals

10a. Central line-associated bloodstream infections (CLABSI), all locations[1]

	All Critical Access Hospitals Reporting to NHSN				
State[2]	**2019 SIR**	**2020 SIR**	**Percent Change[3]**	**Direction of Change, Based on Statistical Significance**	**p-value**
Alabama	.	.	.	.	.
Alaska	.	.	.	.	.
Arizona	.	.	.	.	.
Arkansas	.	.	.	.	.
California	1.775	0.909	49%	No change	0.4700
Colorado	.	.	.	.	.
Connecticut	.	.	.	.	.
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	.	.	.	.	.
Georgia	0.000	0.000	0%	.	Inestimable
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Idaho	.	.	.	.	.
Illinois	0.000	0.426	>>100%	.	Inestimable
Indiana	0.000	0.000	0%	.	Inestimable
Iowa	0.000	0.000	0%	.	Inestimable
Kansas	0.364	0.443	22%	No change	0.9026
Kentucky	1.103	0.944	14%	No change	0.9443
Louisiana	.	.	.	.	.
Maine	0.668	1.833	174%	No change	0.4208
Maryland	.	.	.	.	.
Massachusetts	.	.	.	.	.
Michigan	.	.	.	.	.
Minnesota	1.312	0.959	27%	No change	0.761
Mississippi	.	.	.	.	.
Missouri	0.000	0.000	0%	.	Inestimable
Montana	.	.	.	.	.
Nebraska	.	.	.	.	.
Nevada	.	.	.	.	.
New Hampshire	.	.	.	.	.
New Jersey	.	.	.	.	.
New Mexico	.	.	.	.	.
New York	.	.	.	.	.
North Carolina	.	.	.	.	.
North Dakota	.	.	.	.	.
Ohio	0.000	1.244	>>100%	.	Inestimable
Oklahoma	.	.	.	.	.
Oregon	0.000	1.168	>>100%	.	Inestimable
Pennsylvania	1.499	0.929	38%	No change	0.7490
Puerto Rico	.	.	.	.	.
Rhode Island	.	.	.	.	.
South Carolina	.	.	.	.	.
South Dakota	.	.	.	.	.
Tennessee	.	.	.	.	.
Texas	0.000	1.478	>>100%	.	Inestimable
Utah	.	.	.	.	.
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	.	.	.	.	.
Washington	0.362	2.187	504%	No change	0.0688
West Virginia	.	0.000	.	.	.
Wisconsin	1.256	1.767	41%	No change	0.5752
Wyoming	.	.	.	.	.
All US	**0.522**	**0.881**	**69%**	**Increase**	**0.0392**

* Statistically significant, p < 0.0500. Statistical significance based on two-tailed p-value < 0.05, reflected in the relative percent change in magnitude.

1. Data from all ICUs, wards (and other non-critical care locations). This excludes LTAC locations (or facilities) and IRF locations (or facilities).

2. States without SIR either in 2019 and/or 2020 and therefore subsequent data not calculated.

3.For states with <100% or >100% value in the percent change field, the p-value cannot be estimated due to sparse data reported within the facility type. The p-value is indicated as inestimable when the denominator of percent change (2019 SIR) = 0.

Table 10. Changes in state-specific standardized infection ratios (SIRs) between 2019 and 2020 from NHSN Critical Access Hospitals

10b. Catheter-associated urinary tract infections (CAUTI), all locations[1]

	All Critical Access Hospitals Reporting to NHSN				
	2019 SIR	2020 SIR		Direction of Change, Based on Statistical Significance	p-value
Alabama	0.000	0.000	0%	.	Inestimable
Alaska	0.000	0.000	0%	.	Inestimable
Arizona	0.000	0.000	>>100%	.	Inestimable
Arkansas	0.539	0.363	33%	No change	0.7992
California	0.744	0.542	27%	No change	0.5707
Colorado	0.995	0.883	11%	No change	0.8070
Connecticut	.	.	.	.	.
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	0.216	0.000	>>100%	No change	0.5097
Georgia	0.691	0.938	36%	No change	0.6757
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Idaho	1.685	1.253	26%	No change	0.6207
Illinois	0.516	0.688	33%	No change	0.5720
Indiana	0.459	0.265	42%	No change	0.4125
Iowa	0.569	0.717	26%	No change	0.5914
Kansas	0.416	0.724	74%	No change	0.2585
Kentucky	0.632	0.806	28%	No change	0.7316
Louisiana	0.943	0.855	9%	No change	0.9267
Maine	0.309	0.386	25%	No change	0.7959
Maryland	.	.	.	.	.
Massachusetts	.	.	.	.	.
Michigan	0.827	0.779	6%	No change	0.9299
Minnesota	0.364	0.506	39%	No change	0.5551
Mississippi	0.905	0.337	63%	No change	0.4325
Missouri	0.585	0.441	25%	No change	0.7325
Montana	0.000	0.464	>>100%	.	Inestimable
Nebraska	0.933	0.769	18%	No change	0.7914
Nevada	0.000	0.000	0%	.	Inestimable
New Hampshire	0.335	0.384	15%	No change	0.8741
New Jersey	.	.	.	.	.
New Mexico	0.417	0.333	20%	No change	0.8332
New York	3.135	0.789	75%	No change	0.2215
North Carolina	0.207	1.117	440%	Increase	0.0184
North Dakota	0.000	0.315	>>100%	.	Inestimable
Ohio	0.213	0.409	92%	No change	0.4838
Oklahoma	1.106	0.620	44%	No change	0.6776
Oregon	0.770	0.912	18%	No change	0.7228
Pennsylvania	0.420	1.135	170%	No change	0.1657
Puerto Rico	.	.	.	.	.
Rhode Island	.	.	.	.	.
South Carolina	.	.	.	.	.
South Dakota	0.238	0.386	62%	No change	0.6278
Tennessee	0.000	0.820	>>100%	.	inestimable
Texas	1.343	0.953	29%	No change	0.4732
Utah	0.000	0.000	0%	.	Inestimable
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	0.580	1.045	80%	No change	0.6845
Washington	1.300	1.256	3%	No change	0.9148
West Virginia	0.155	0.880	468%	No change	0.0813
Wisconsin	0.331	0.408	23%	No change	0.6453
Wyoming	0.000	0.000	0%	.	Inestimable
All US	**0.569**	**0.619**	**9%**	**No change**	**0.4232**

* Statistically significant, p < 0.0500. Statistical significance based on two-tailed p-value < 0.05, reflected in the relative percent change in magnitude.

1. Data from all ICUs, wards (and other non-critical care locations). This excludes LTAC locations (or facilities) and IRF locations (or facilities).

2. States without SIR either in 2019 and/or 2020 and therefore subsequent data not calculated.

3.For states with <100% or >100% value in the percent change field, the p-value cannot be estimated due to sparse data reported within the facility type. The p-value is indicated as inestimable when the denominator of percent change (2019 SIR) = 0.

Table 10. Changes in state-specific standardized infection ratios (SIRs) between 2019 and 2020 from NHSN Critical Access Hospitals

10c. Ventilator-associated events (VAE), all locations[1]

	All Critical Access Hospitals Reporting to NHSN			
	2019 SIR	2020 SIR	Direction of Change, Based on Statistical Significance	p-value
Alabama	.	.	.	.
Alaska	.	.	.	.
Arizona	.	.	.	.
Arkansas	.	.	.	.
California	.	3.548	.	.
Colorado	.	.	.	.
Connecticut	.	.	.	.
D.C.	.	.	.	.
Delaware	.	.	.	.
Florida	.	.	.	.
Georgia	.	.	.	.
Guam	.	.	.	.
Hawaii	.	.	.	.
Idaho	.	.	.	.
Illinois	.	.	.	.
Indiana	.	.	.	.
Iowa	.	.	.	.
Kansas	.	.	.	.
Kentucky	.	.	.	.
Louisiana	.	.	.	.
Maine	.	.	.	.
Maryland	.	.	.	.
Massachusetts	.	.	.	.
Michigan	.	.	.	.
Minnesota	.	.	.	.
Mississippi	.	.	.	.
Missouri	.	.	.	.
Montana	.	.	.	.
Nebraska	.	.	.	.
Nevada	.	.	.	.
New Hampshire	.	.	.	.
New Jersey	.	.	.	.
New Mexico	.	.	.	.
New York	.	.	.	.
North Carolina	.	.	.	.
North Dakota	.	.	.	.
Ohio	.	0.872	.	.
Oklahoma	.	.	.	.
Oregon	.	.	.	.
Pennsylvania	.	.	.	.
Puerto Rico	.	.	.	.
Rhode Island	.	.	.	.
South Carolina	.	.	.	.
South Dakota	.	.	.	.
Tennessee	.	.	.	.
Texas	.	.	.	.
Utah	.	.	.	.
Vermont	.	.	.	.
Virgin Islands	.	.	.	.
Virginia	.	.	.	.
Washington	.	.	.	.
West Virginia	.	.	.	.
Wisconsin	.	.	.	.
Wyoming	.	.	.	.
All US	**1.600**	**2.165**	**35%**	**No change**	**1.0000**

* Statistically significant, p < 0.0500. Statistical significance based on two-tailed p-value < 0.05, reflected in the relative percent change in magnitude.

1. Data from all ICUs, wards (and other non-critical care locations). This excludes LTAC locations (or facilities) and IRF locations (or facilities).

2. States without SIR either in 2019 and/or 2020 and therefore subsequent data not calculated.

3.For states with <100% or >100% value in the percent change field, the p-value cannot be estimated due to sparse data reported within the facility type. The p-value is indicated as inestimable when the denominator of percent change (2019 SIR) = 0.

Table 10. Changes in state-specific standardized infection ratios (SIRs) between 2019 and 2020 from NHSN Critical Access Hospitals

10d. Surgical site infections (SSI) following colon surgery[1]

	All Critical Access Hospitals Reporting to NHSN				
	2019 SIR	2020 SIR		Direction of Change, Based on Statistical Significance	p-value
Alabama	.	.	.	.	.
Alaska	.	.	.	.	.
Arizona	.	.	.	.	.
Arkansas	.	.	.	.	.
California	1.608	0.582	64%	No change	0.218
Colorado	3.823	0.997	74%	No change	0.236
Connecticut	.	.	.	.	.
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	.	.	.	.	.
Georgia	.	.	.	.	.
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Idaho	.	.	.	.	.
Illinois	0.413	0.379	8%	No change	0.957
Indiana	0.256	0.894	249%	No change	0.3491
Iowa	.	.	.	.	.
Kansas	.	.	.	.	.
Kentucky	.	.	.	.	.
Louisiana	.	.	.	.	.
Maine	0.000	0.662	>>100%	.	Inestimable
Maryland	.	.	.	.	.
Massachusetts	.	.	.	.	.
Michigan	0.977	2.878	195%	No change	0.2046
Minnesota	3.464	0.537	84%	Decrease	0.0454
Mississippi	.	.	.	.	.
Missouri	.	.	.	.	.
Montana	.	.	.	.	.
Nebraska	.	.	.	.	.
Nevada	.	.	.	.	.
New Hampshire	1.505	0.901	40%	No change	0.7293
New Jersey	.	.	.	.	.
New Mexico	.	.	.	.	.
New York	.	.	.	.	.
North Carolina	1.551	.	.	.	.
North Dakota	.	.	.	.	.
Ohio	0.000	0.000	0%	.	Inestimable
Oklahoma	.	.	.	.	.
Oregon	0.535	1.006	88%	No change	0.5204
Pennsylvania	.	.	.	.	.
Puerto Rico	.	.	.	.	.
Rhode Island	.	.	.	.	.
South Carolina	.	.	.	.	.
South Dakota	.	.	.	.	.
Tennessee	.	.	.	.	.
Texas	.	.	.	.	.
Utah	.	.	.	.	.
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	.	.	.	.	.
Washington	0.516	1.595	209%	No change	0.3602
West Virginia	0.000	0.000	0%	.	Inestimable
Wisconsin	0.853	0.729	15%	No change	0.8545
Wyoming	.	.	.	.	.
All US	**0.962**	**0.870**	**10%**	**No change**	**0.6674**

* Statistically significant, p < 0.0500. Statistical significance based on two-tailed p-value < 0.05, reflected in the relative percent change in magnitude.

1. SSIs included are those classified as deep incisional or organ/space infections following NHSN-defined inpatient colon procedures with both primary ar detected during the same admission as the surgical procedure or upon readmission to the same facility.
2. States without SIR either in 2019 and/or 2020 and therefore subsequent data not calculated.
3.For states with <100% or >100% value in the percent change field, the p-value cannot be estimated due to sparse data reported within the facility type. The p-value is indicated as inestimable when the denominator of percent change (2019 SIR) = 0.

ıd other than primary skin closure technique,

Table 10. Changes in state-specific standardized infection ratios (SIRs) between 2019 and 2020 from NHSN Critical Access Hospitals

10e. Surgical site infections (SSI) following abdominal hysterectomy surgery[1]

	All Critical Access Hospitals Reporting to NHSN				
	2019 SIR	2020 SIR		Direction of Change, Based on Statistical Significance	p-value
Alabama	.	.	.	.	.
Alaska	.	.	.	.	.
Arizona	.	.	.	.	.
Arkansas	.	.	.	.	.
California	.	.	.	.	.
Colorado	.	.	.	.	.
Connecticut	.	.	.	.	.
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	.	.	.	.	.
Georgia	.	.	.	.	.
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Idaho	.	.	.	.	.
Illinois	.	.	.	.	.
Indiana	1.864	.	.	.	.
Iowa	.	.	.	.	.
Kansas	.	.	.	.	.
Kentucky	.	.	.	.	.
Louisiana	.	.	.	.	.
Maine	.	.	.	.	.
Maryland	.	.	.	.	.
Massachusetts	.	.	.	.	.
Michigan	.	.	.	.	.
Minnesota	.	.	.	.	.
Mississippi	.	.	.	.	.
Missouri	.	.	.	.	.
Montana	.	.	.	.	.
Nebraska	.	.	.	.	.
Nevada	.	.	.	.	.
New Hampshire	.	.	.	.	.
New Jersey	.	.	.	.	.
New Mexico	.	.	.	.	.
New York	.	.	.	.	.
North Carolina	.	.	.	.	.
North Dakota	.	.	.	.	.
Ohio	.	.	.	.	.
Oklahoma	.	.	.	.	.
Oregon	.	.	.	.	.
Pennsylvania	.	.	.	.	.
Puerto Rico	.	.	.	.	.
Rhode Island	.	.	.	.	.
South Carolina	.	.	.	.	.
South Dakota	.	.	.	.	.
Tennessee	.	.	.	.	.
Texas	.	.	.	.	.
Utah	.	.	.	.	.
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	.	.	.	.	.
Washington	.	.	.	.	.
West Virginia	.	.	.	.	.
Wisconsin	2.184	0.000	>>100%	No change	0.105
Wyoming					
All US	**1.439**	**1.171**	**19%**	**No change**	**0.5861**

* Statistically significant, p < 0.0500. Statistical significance based on two-tailed p-value < 0.05, reflected in the relative percent change in magnitude.

1. SSIs included are those classified as deep incisional or organ/space infections following NHSN-defined inpatient abdominal hysterectomy procedures w
detected during the same admission as the surgical procedure or upon readmission to the same facility.
2. States without SIR either in 2019 and/or 2020 and therefore subsequent data not calculated.
3.For states with <100% or >100% value in the percent change field, the p-value cannot be estimated due to sparse data reported within the facility type.
The p-value is indicated as inestimable when the denominator of percent change (2019 SIR) = 0.

ıith a primary or other than primary skin closure technique,

Table 10. Changes in state-specific standardized infection ratios (SIRs) between 2019 and 2020 from NHSN Critical Access Hospitals

10f. Hospital-onset methicillin-resistant Staphylococcus aureus (MRSA) bacteremia, facility-wide[1]

	All Critical Access Hospitals Reporting to NHSN				
	2019 SIR	2020 SIR		Direction of Change, Based on Statistical Significance	p-value
Alabama	.	.	.	.	.
Alaska	.	.	.	.	.
Arizona	.	.	.	.	.
Arkansas	.	.	.		.
California	1.393	0.000	100%	No change	0.155
Colorado	0.000	0.000	0%	.	inestimable
Connecticut	.	.	.	.	.
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	.	.	.	.	.
Georgia	0.000	0.000	0%	.	inestimable
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Idaho	.	.	.	.	.
Illinois	0.821	0.868	6%	No change	0.958
Indiana	0.907	0.942	4%	No change	0.972
Iowa	0.000	0.000	0%		inestimable
Kansas	0.471	0.000	100%	No change	0.521
Kentucky	1.835	.	.		.
Louisiana	.	.	.		.
Maine	0.000	1.404	>>100.0	.	inestimable
Maryland	.	.	.	.	.
Massachusetts	.	.	.	.	.
Michigan	0.000	0.000	0%		inestimable
Minnesota	1.678	0.728	57%	No change	0.547
Mississippi	.	.	.	.	.
Missouri	1.030	0.000	100%	No change	0.266
Montana	.	.	.	.	.
Nebraska	.	.	.	.	.
Nevada	.	.	.	.	.
New Hampshire	0.000	0.000	0%		inestimable
New Jersey	.	.	.	.	.
New Mexico	.	.	.	.	.
New York	.	.	.	.	.
North Carolina	0.973	.	.	.	.
North Dakota	.	.	.	.	.
Ohio	1.630	2.295	41%	No change	0.675
Oklahoma	.	.	.	.	.
Oregon	1.648	0.599	64%	No change	0.420
Pennsylvania	.	.	.	.	.
Puerto Rico	.	.	.	.	.
Rhode Island	.	.	.	.	.
South Carolina	.	.	.	.	.
South Dakota	.	.	.	.	.
Tennessee	.	.	.	.	.
Texas	1.355	1.287	0.05	No change	0.961
Utah	.	.	.	.	.
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	.	.	.	.	.
Washington	0.514	1.140	122%	No change	0.568
West Virginia	0.000	0.969	>>100.0	.	inestimable
Wisconsin	0.000	0.849	>>100.0	.	inestimable
Wyoming	.	.	.	.	.
All US	**0.587**	**0.680**	**16%**	**No change**	**0.592**

* Statistically significant, p < 0.0500. Statistical significance based on two-tailed p-value < 0.05, reflected in the relative percent change in magnitude.

1. Hospital-onset is defined as event detected on the 4th day (or later) after admission to an inpatient location within the facility.

2. States without SIR either in 2019 and/or 2020 and therefore subsequent data not calculated.

3.For states with <100% or >100% value in the percent change field, the p-value cannot be estimated due to sparse data reported within the facility type. The p-value is indicated as inestimable when the denominator of percent change (2019 SIR) = 0.

Table 10. Changes in state-specific standardized infection ratios (SIRs) between 2019 and 2020 from NHSN Critical Access Hospitals

10g. Hospital-onset *Clostridioides difficile* infection (CDI), facility-wide[1]

	All Critical Access Hospitals Reporting to NHSN				
	2019 SIR	2020 SIR		Direction of Change, Based on Statistical Significance	p-value
Alabama	.	.	.	.	.
Alaska	.	.	.	.	.
Arizona	.	.	.	.	.
Arkansas	1.600	0.953	40%	No change	0.3400
California	0.895	0.549	39%	No change	0.1383
Colorado	1.257	0.939	25%	No change	0.3928
Connecticut	.	.	.	.	.
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	0.396	0.231	42%	No change	0.7048
Georgia	0.629	0.758	21%	No change	0.6811
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Idaho	0.968	0.920	5%	No change	0.9368
Illinois	1.314	0.803	-39%	Decrease	0.0448
Indiana	0.503	0.711	41%	No change	0.2818
Iowa	0.465	0.491	6%	No change	0.8934
Kansas	0.738	0.693	6%	No change	0.8476
Kentucky	0.866	0.667	23%	No change	0.5578
Louisiana	.	0.847	.	.	.
Maine	0.573	0.942	64%	No change	0.1459
Maryland	.	.	.	.	.
Massachusetts	.	.	.	.	.
Michigan	0.642	0.566	12%	No change	0.7735
Minnesota	0.681	0.763	12%	No change	0.6923
Mississippi	0.722	0.436	40%	No change	0.4808
Missouri	0.571	0.593	4%	No change	0.9079
Montana	0.497	0.423	15%	No change	0.7962
Nebraska	0.861	0.585	32%	No change	0.5143
Nevada	.	.	.	.	.
New Hampshire	0.917	0.315	-66%	Decrease	0.0293
New Jersey	.	.	.	.	.
New Mexico	0.345	0.957	177%	No change	0.1737
New York	1.923	0.992	48%	No change	0.1741
North Carolina	0.777	0.691	11%	No change	0.7975
North Dakota	0.443	0.480	8%	No change	0.9264
Ohio	0.955	0.716	25%	No change	0.3282
Oklahoma	0.889	0.712	20%	No change	0.7874
Oregon	1.101	1.096	0%	No change	0.9880
Pennsylvania	0.890	0.521	41%	No change	0.2751
Puerto Rico	.	.	.	.	.
Rhode Island	.	.	.	.	.
South Carolina	.	.	.	.	.
South Dakota	0.859	0.657	24%	No change	0.5529
Tennessee	0.802	1.458	82%	No change	0.5441
Texas	0.457	0.966	111%	No change	0.0608
Utah	0.000	1.035	>>100.0	.	inestimable
Vermont	0.641	0.620	3%	No change	0.9512
Virgin Islands	.	.	.	.	.
Virginia	1.092	1.104	1%	No change	0.9751
Washington	0.766	0.749	2%	No change	0.9421
West Virginia	0.651	1.375	111%	Increase	0.0379
Wisconsin	0.980	0.594	-39%	Decrease	0.0258
Wyoming	0.639	0.163	74%	No change	0.2269
All US	**0.794**	**0.710**	**11%**	**No change**	**0.0774**

* Statistically significant, p < 0.0500. Statistical significance based on two-tailed p-value < 0.05, reflected in the relative percent change in magnitude.

1. Hospital-onset is defined as event detected on the 4th day (or later) after admission to an inpatient location within the facility.

2. States without SIR either in 2019 and/or 2020 and therefore subsequent data not calculated.

3.For states with <100% or >100% value in the percent change field, the p-value cannot be estimated due to sparse data reported within the facility type. The p-value is indicated as inestimable when the denominator of percent change (2019 SIR) = 0.

Appendix A. Factors used in NHSN risk adjustment of the device-associated HAIs Negative Binomial Regression Models1 in Critical Access Hospitals

HAI Type	Validated Parameters for Risk Model
CLABSI (non-NICU)	Intercept Medical School Affiliation* Location Type Facility Type* Facility Bed size*
CLABSI (NICU)	Intercept Birthweight
CAUTI	Intercept Medical School Affiliation* Location Facility Type* Facility Bed size*
VAE	Intercept Medical School Affiliation* Medical School Type* Location Type Facility Type* Facility Bed size*

1. SIR Guide: **https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf**

* Facility bed size, facility type and medical school affiliation are taken from the Annual Hospital Survey.

Appendix B. Factors used in NHSN risk adjustment of the MRSA Bacteremia and C. difficile Negative Binomial Regression Models1 in Critical Access Hospitals

HAI Type	Validated Parameters for Risk Model
MRSA bacteremia	Intercept
C. difficile	Intercept Inpatient CO admission prevalence rate* CDI test type+ Medical school affiliation‡ Number of ICU beds‡ Facility type Bed size‡ Reporting from an ED or 24-hour observation unit

1. MRSA bacteremia and CDI risk adjustment methodology in the SIR Guide: **https://www.cdc.gov/nhsr**

* Inpatient community-onset prevalence is calculated as the # of inpatient community-onset MRSA blood admissions x 100.

** Average length of stay is taken from the Annual Hospital Survey. It is calculated as: total # of annual pa

‡ Medical school affiliation, number of ICU beds, and facility bed size are taken from the Annual Hospital S

+ CDI test type is reported on the FacWideIN MDRO denominator form on the 3rd month of each quarter.

ı/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf
ɐvents, divided by total

tient days / total # of annual admissions.
Survey.

Appendix C. List of NHSN procedures included in this repo
Admission/Re-admission SSI Logistic Regression Model[1], A

NHSN Procedure Code	NHSN Procedure
AAA	Abdominal aortic aneurysm
AMP	Limb amputation
APPY	Appendectomy
AVSD	Arteriovenous shunt for dialysis
BILI	Bile duct, liver or pancreatic surgery
BRST	Breast surgery
CABG	Coronary artery bypass graft
CARD	Cardiac surgery
CEA	Carotid endarterectomy
CHOL	Cholecystectomy
COLO	Colon surgery
CRAN	Craniotomy
CSEC	Cesarean delivery
FUSN	Spinal fusion
FX	Open reduction of long bone fracture
GAST	Gastric surgery
HER	Herniorrhaphy
HPRO	Hip arthroplasty
HTP	Heart transplant
HYST	Abdominal hysterectomy
KPRO	Knee arthroplasty
KTP	Kidney transplant
LTP	Liver transplant
NECK	Neck surgery
NEPH	Kidney surgery
OVRY	Ovarian surgery
PACE	Pacemaker surgery
PRST	Prostate surgery
PVBY	Peripheral vascular bypass surgery
REC	Rectal surgery
RFUSN	Refusion of spine

SB	Small-bowel surgery
SPLE	Spleen surgery
THOR	Thoracic surgery
THYR	Thyroid and/or parathyroid surgery
VHYS	Vaginal hysterectomy
VSHN	Ventricular shunt
XLAP	Exploratory Laparotomy

1. SSI risk adjustment methodology: SIR Guide: **https://www.c**

* These risk factors originate from the Annual Facility Survey.

‡ None of the variables investigated were statistically significantl
As a result, the overall incidence will be used in the SIR calcu

Exclusion Criteria: SIR Guide: **https://www.cdc.gov/nhsn/pdfs**

rt with predictive risk factors from the NHSN Complex
Adults ≥ 18 years of age

Validated Parameters for Risk Model
Intercept-only model[‡]
anesthesia, wound class, hospital bed size*, age
gender, wound class, hospital bed size*, procedure duration
gender, emergency, trauma, hospital bed size*, scope, age, procedure duration
ASA score, closure, age, procedure duration, BMI
emergency, medical school affiliation*, age, procedure duration, BMI
gender, diabetes, ASA score, trauma, wound class, medical school affiliation*, hospital bed size*, age, procedure duration, BMI, age-gender interaction
wound class
gender, diabetes, ASA score, wound class, hospital bed size*, age, procedure duration, age-gender interaction
gender, diabetes, trauma, anesthesia, ASA score, wound class, hospital bed size*, scope, closure, age, procedure duration, BMI
diabetes, trauma, ASA score, age, procedure duration, wound class
emergency, ASA score, wound class, medical school affiliation*, hospital bed size*, age, procedure duration, duration of labor
gender, diabetes, trauma, ASA score, medical school affiliation*, hospital bed size*, procedure duration, BMI, spinal level, approach
gender, diabetes, ASA score, wound class, closure, age, procedure duration, BMI
wound class, scope, age, procedure duration, BMI
gender, ASA score, wound class, medical school affiliation*, hospital bed size*, scope, age, procedure duration, BMI
diabetes, trauma, anesthesia, ASA score, wound class, medical school affiliation*, hospital bed size*, age, procedure duration, BMI, procedure type
closure
diabetes, ASA score, hospital bed size*, scope, age, procedure duration, BMI
gender, trauma, anesthesia, ASA score, wound class, medical school affiliation*, hospital bed size*, age, procedure duration, BMI, procedure type
procedure duration, diabetes, ASA score, hospital bed size*, BMI
age
procedure duration
wound class
age
BMI, diabetes, procedure duration, number of beds
ASA score, procedure duration, number of beds, oncology
age, procedure duration, number of beds

gender, age, procedure duration, oncology
ASA score
procedure duration, medical school affiliation*
medical school affiliation*
age
ASA score, closure, diabetes, procedure duration, emergency, gender, scope, wound class, trauma

dc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf

ly associated with SSI risk in these procedure categories.
lation (i.e., intercept-only model).
s/ps-analysis-resources/nhsn-sir-guide.pdf

Appendix D. List of NHSN procedures included in this re
Complex Admission/Re-admission SSI Logistic Regressi

NHSN Procedure Code	NHSN Procedure
AAA	Abdominal aortic aneurysm
AMP	Limb amputation
APPY	Appendectomy
AVSD	Arteriovenous shunt for dialysis
BILI	Bile duct, liver or pancreatic surgery
BRST	Breast surgery
CARD	Cardiac surgery
CABG	Coronary artery bypass graft
CEA	Carotid endarterectomy
CHOL‡	Cholecystectomy
COLO	Colon surgery
CRAN, age ≥2	Craniotomy
CRAN, age <2‡	
CSEC	Cesarean delivery
FUSN, age ≥2	Spinal fusion
FUSN, age <2	
FX	Open reduction of long bone fracture
GAST	Gastric surgery
HER‡	Herniorrhaphy
HPRO‡	Hip arthroplasty
HTP	Heart transplant
HYST‡	Abdominal hysterectomy
KPRO‡	Knee arthroplasty
KTP‡	Kidney transplant
LAM‡	Laminectomy
LTP‡	Liver transplant
NECK	Neck surgery
NEPH	Kidney surgery
OVRY	Ovarian surgery
PACE	Pacemaker surgery
PRST	Prostate surgery
PVBY	Peripheral vascular bypass surgery
REC‡	Rectal surgery
RFUSN‡	Refusion of spine
SB	Small-bowel surgery
SPLE	Spleen surgery
THOR	Thoracic surgery
THYR	Thyroid and/or parathyroid surgery
VHYS	Vaginal hysterectomy
VSHN	Ventricular shunt
XLAP	Exploratory Laparotomy

* These risk factors originate from the Annual Facility Survey
^ Sufficient national data were not available for analysis. As a

As a result, the overall incidence will be used in the SIR cal

port with predictive risk factors from the NHSN
ion Model[1], Pediatrics < 18 years of age

Validated Parameters for Risk Model
No SIR available^
No SIR available^
Hospital bed size*, procedure duration, wound class
Trauma
procedure duration, age
closure, wound class, age, trauma, procedure duration
BMI, anesthesia
duration of labor
ASA score, BMI
Procedure duration, closure technique
diabetes, wound class
Trauma
Age
Trauma

.
a result, no SIRs can be calculated for these procedures.

lculation (i.e., intercept-only model).

Appendix E. List of NHSN procedures and corresponding SCIP procedures included in this report with factors used in the NHSN risk adjustment of the Complex Admission/Readmission Model[1] for adults

SCIP Procedure	NHSN Procedure	Validated Parameters for Risk Model
Vascular	Abdominal aortic aneurysm repair	
	Peripheral vascular bypass surgery	BMI, diabetes, procedure duration, number of beds
Coronary artery bypass graft	Coronary artery bypass graft with both chest and donor site incisions	emergency, medical school affiliation*, age, procedure duration, BMI
	Coronary artery bypass graft with chest incision only	
Other cardiac	Cardiac surgery	gender, diabetes, ASA score, trauma, wound class, medical school affiliation*, hospital bed size*, age, procedure duration, BMI, age-gender interaction
Colon surgery	Colon surgery	gender, diabetes, trauma, anesthesia, ASA score, wound class, hospital bed size*, scope, closure, age, procedure duration, BMI
	Rectal surgery	ASA score, procedure duration, number of beds, oncology
Hip arthroplasty	Hip arthroplasty	diabetes, trauma, anesthesia, ASA score, wound class, medical school affiliation*, hospital bed size*, age, procedure duration, BMI, procedure type
Abdominal hysterectomy	Abdominal hysterectomy	diabetes, ASA score, hospital bed size*, scope, age, procedure duration, BMI
Knee arthroplasty	Knee arthroplasty	gender, trauma, anesthesia, ASA score, wound class, medical school affiliation*, hospital bed size*, age, procedure duration, BMI, procedure type
Vaginal hysterectomy	Vaginal hysterectomy	medical school affiliation*

* These risk factors originate from the Annual Facility Survey.

As a result, the overall incidence will be used in the SIR calculation (i.e., intercept-only model).

Additional Resources

SIR Guide: https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sir-guide.pdf

Technical Appendix (2019 Report): http://www.cdc.gov/hai/progress-report/index.html
Explains the methodology used to produce the HAI Report.

HAI Progress Report Home Page: http://www.cdc.gov/hai/progress-report/index.html
The complete HAI Report, including the Executive Summary and previous reports, can be found at the above

website.