2022 Nationa

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Introduction: Welcome to the 2022 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 acute care hospita

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)
[illegible] (using Complex AR model)
Hospital-onset methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia by facility-wide reporting
Hospital-onset *Clostridioides difficile* (CDI) by facility-wide reporting

*The Surgical Care Improvement Project (SCIP) procedures plus 5 of the most reported pro

l and State HAI Progress Report

ute Care Hospitals

eline and risk adjustment calculations. Standardized infection ratios (SIRs) are used to describe different HAI ty
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Characteristics of Acute Care Hospitals Reporting to Natior

Table 1. Characteristics of acute care hospitals reporting to NHSN, 2022	
Characteristics	**2022 Statistics**
Number of facilities reporting to NHSN[1]	3,951
Total Number of hospital admissions	36,448,691
Median number of beds	129
Mean number of beds	186
Median number of ICU beds	14
Mean number of ICU beds	29
Mean number of full time epidemiologists	0.44

Table 2. Number of reporting facilities by type, I	
Type of hospital	**No. (%)**
Children's hospitals	110 (2.78)
General hospitals	3,396 (85.95)
Military hospitals	30 (0.76)
Oncology hospitals	18 (0.46)
Orthopedic hospitals	36 (0.91)
Psychiatric hospitals	102 (2.58)
Surgical hospitals	108 (2.73)
Veterans Health Administration hospitals	126 (3.19)
Women's hospitals	13 (0.33)
Women and Child hospitals	12 (0.30)

Table 3. Total No. (%) of facilities affiliated with medical school and type, N	
Medical School Affiliation	Yes
	2,849 (72.11)
Type of medical school affiliation	
Graduate Medical School	583 (20.46)
Major Teaching School	1,512 (53.07)
Undergraduate Medical School	754 (26.47)

ıal Healthcare Safety Network (NHSN), 2022

NHSN 2022	
Median No. of beds	Mean No. of beds
153	184.97
142	198.20
55	86.47
93.5	162.28
28	40.81
84	108.96
23.5	36.13
84	111.63
108	159.46
236	237.83

HSN 2022
No
1,102 (27.89)
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2022 Annual National and State HAI Progress Report
Acute Care Hospitals: Full series of tables for all national and state-specific data

Tables included in this report:

Additional Resources

SIR Guide
Technical Appendix
HAI Progress Report Home Page

monia (IVAC-Plus)

22 from Acute Care Hospitals

ıdels from Acute Care Hospitals. List of CDC locations and their descriptions

pitals

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 Acute Care Hospitals reporting to NHSN by State[1], 2022:
1a. Central line-associated bloodstream infections (CLABSI)[2]

State	2022						
				Inpatient Locations			
	State NHSN Mandate[3]	Any Validation[4]	No. of Acute Care Hospitals Reporting[5]	Total	ICU	Wards[2]	NICU[6]
Alabama	Yes	Yes	89	542	150	371	21
Alaska	Yes	No	10	53	10	40	3
Arizona	No	No	75	470	107	343	20
Arkansas	Yes	Yes	52	346	76	244	26
California	Yes	YesA	343	2,895	567	2,068	260
Colorado	Yes	Yes	59	398	72	292	34
Connecticut	Yes	Yes	33	362	60	287	15
D.C.	Yes	No	9	119	26	84	9
Delaware	M	No	10	109	15	88	6
Florida	No	No	228	2,096	437	1,567	92
Georgia	Yes	YesA	112	906	198	653	55
Guam	No	No	2	.	.	.	.
Hawaii	No	Yes	16	99	24	71	4
Idaho	No	No	18	119	22	83	14
Illinois	Yes	Yes	136	1,098	209	839	50
Indiana	Yes	Yes	95	637	115	483	39
Iowa	No	Yes	39	237	46	176	15
Kansas	No	Yes	63	314	64	236	14
Kentucky	Yes	Yes	71	548	117	400	31
Louisiana	No	No	109	566	131	399	36
Maine	Yes	No	21	107	23	79	5
Maryland	Yes	Yes	47	484	83	376	25
Massachusetts	Yes	Yes	68	607	124	464	19
Michigan	No	Yes	101	789	158	593	38
Minnesota	Yes	Yes	50	349	63	267	19
Mississippi	Yes	No	64	411	85	299	27
Missouri	Yes	No	80	711	135	530	46
Montana	No	Yes	13	80	13	57	10
Nebraska	No	Yes	29	175	30	131	14
Nevada	Yes	No	30	261	49	193	19
New Hampshire	Yes	Yes	13	111	17	86	8
New Jersey	Yes	Yes	72	703	140	529	34
New Mexico	Yes	No	33	186	35	144	7
New York	Yes	YesA	177	1,791	369	1,340	82
North Carolina	Yes	YesA	104	913	175	688	50
North Dakota	No	No	10	75	12	56	7
Ohio	No	Yes	152	1,243	250	925	68
Oklahoma	No	Yes	84	410	84	314	12
Oregon	Yes	Yes	36	275	52	210	13
Pennsylvania	Yes	Yes	189	1,611	279	1,203	129
Puerto Rico	Yes	Yes	21	140	36	93	11
Rhode Island	No	No	11	98	18	79	1
South Carolina	Yes	Yes	65	540	110	395	35
South Dakota	No	Yes	22	91	19	67	5
Tennessee	Yes	Yes	99	722	169	519	34
Texas	Yes	YesA	366	2,404	497	1,737	170
Utah	Yes	No	38	184	41	124	19
Vermont	Yes	No	7	37	7	27	3
Virgin Islands			2	.	.	.	.
Virginia	Yes	Yes	83	716	130	539	47
Washington	Yes	Yes	59	478	78	363	37
West Virginia	Yes	No	32	216	49	157	10
Wisconsin	No	Yes	88	553	97	435	21
Wyoming	No	No	13	38	11	27	
All US			**3,848**	**29,435**	**5,886**	**21,779**	**1,770**

Table 1. Characteristics of NHSN Acute Care Hospitals reporting to NHSN by State[1], 2022:
1b. Catheter-associated urinary tract infections (CAUTI)[2]

State	2022					
				Locations (n)[2]		
				Total	ICU	
Alabama	Yes	Yes	90	531	150	381
Alaska	Yes	No	10	52	10	42
Arizona	No	No	75	453	107	346
Arkansas	Yes	Yes	51	331	76	255
California	No	No	336	2,673	567	2,106
Colorado	Yes	Yes	58	375	72	303
Connecticut	Yes	Yes	33	351	60	291
D.C.	Yes	No	9	110	26	84
Delaware	M	No	10	103	15	88
Florida	No	No	227	2,025	437	1,588
Georgia	Yes	YesA	113	866	198	668
Guam	No	No	2	.	.	.
Hawaii	No	Yes	16	99	24	75
Idaho	No	No	18	106	22	84
Illinois	No	No	136	1,055	209	846
Indiana	Yes	Yes	94	606	115	491
Iowa	No	Yes	40	225	46	179
Kansas	No	Yes	64	303	64	239
Kentucky	Yes	Yes	71	531	116	415
Louisiana	No	No	109	539	131	408
Maine	Yes	No	21	107	23	84
Maryland	Yes	Yes	48	467	83	384
Massachusetts	Yes	Yes	68	593	124	469
Michigan	No	Yes	101	767	158	609
Minnesota	Yes	Yes	50	335	63	272
Mississippi	Yes	No	64	394	85	309
Missouri	Yes	No	79	681	135	546

Montana	No	Yes	13	73	13	60
Nebraska	No	Yes	28	159	28	131
Nevada	No	No	30	250	49	201
New Hampshire	Yes	Yes	13	107	17	90
New Jersey	Yes	Yes	72	680	140	540
New Mexico	No	No	33	179	35	144
New York	No	Yes	176	1,745	369	1,376
North Carolina	Yes	Yes	104	879	175	704
North Dakota	No	No	10	69	12	57
Ohio	No	Yes	152	1,202	250	952
Oklahoma	No	Yes	84	402	84	318
Oregon	Yes	Yes	36	267	52	215
Pennsylvania	Yes	Yes	196	1,578	279	1,299
Puerto Rico	Yes	No	22	130	32	98
Rhode Island	No	No	11	96	18	78
South Carolina	Yes	Yes	65	517	110	407
South Dakota	No	Yes	22	87	19	68
Tennessee	Yes	Yes	100	697	169	528
Texas	No	No	365	2,258	497	1,761
Utah	Yes	No	38	169	41	128
Vermont	No	No	7	37	7	30
Virgin Islands			2	.	.	.
Virginia	Yes	Yes	83	685	130	555
Washington	Yes	Yes	60	457	78	379
West Virginia	Yes	No	32	214	49	165
Wisconsin	No	Yes	88	540	97	443
Wyoming	No	No	13	38	11	27
All US			**3,848**	**28,210**	**5,881**	**22,329**

1c. Ventilator-associated events (VAE)

State	2022					
				Total	ICU	
Alabama	No	No	47	98	83	15
Alaska	No	No	6	11	6	5
Arizona	No	No	27	51	41	10
Arkansas	No	No	25	42	39	3
California	No	No	171	428	300	128
Colorado	No	No	44	74	59	15
Connecticut	No	No	17	37	28	9
D.C.	No	No	2	.	.	.
Delaware	No	No	4	.	.	.
Florida	No	No	148	337	255	82
Georgia	Yes	YesA	73	206	154	52
Guam	No	No	2	.	.	.
Hawaii	No	No	9	19	16	3
Idaho	No	No	6	10	10	.
Illinois	No	No	44	89	65	24
Indiana	No	No	56	84	68	16
Iowa	No	Yes	12	13	13	.
Kansas	No	Yes	30	47	39	8
Kentucky	No	No	38	73	64	9
Louisiana	No	No	43	101	67	34
Maine	No	No	16	25	19	6
Maryland	No	No	22	46	30	16
Massachusetts	No	No	22	37	28	9
Michigan	No	Yes	57	122	81	41
Minnesota	No	No	13	36	26	10
Mississippi	No	No	27	53	46	7
Missouri	No	No	42	101	78	23

Montana	No	No	6	7	6	1
Nebraska	No	No	8	15	12	3
Nevada	No	No	19	87	37	50
New Hampshire	No	No	10	10	10	.
New Jersey	No	No	52	133	91	42
New Mexico	No	No	18	22	16	6
New York	No	No	103	377	208	169
North Carolina	No	No	42	80	66	14
North Dakota	No	No	3	.	.	.
Ohio	No	Yes	75	260	118	142
Oklahoma	No	No	35	62	52	10
Oregon	No	No	20	29	23	6
Pennsylvania	Yes	Yes	133	365	246	119
Puerto Rico	Yes	Yes	14	57	19	38
Rhode Island	No	No	9	19	16	3
South Carolina	Yes	Yes	55	127	101	26
South Dakota	No	No	7	14	10	4
Tennessee	No	No	50	113	95	18
Texas	No	No	155	306	242	64
Utah	M	No	9	14	12	2
Vermont	No	No	1	.	.	.
Virgin Islands			2	.	.	.
Virginia	No	No	54	112	90	22
Washington	No	Yes	26	35	30	5
West Virginia	No	No	14	21	19	2
Wisconsin	No	No	33	62	39	23
Wyoming	No	No	7	8	7	1
All US			**1,963**	**4,504**	**3,201**	**1,303**

Table 1. Characteristics of NHSN Acute Care Hospitals reporting to NHSN by State[1], 2022: 1d. Surgical site infections[7]

State	2022			
		Any Validation[4]	No. of Acute Care Hospitals Reporting colon surgeries in adults[5]	No. of Procedures[7] colon surgeries in adults
Alabama	Yes	Yes	63	6,138
Alaska	Yes	No	8	608
Arizona	No	No	55	6,959
Arkansas	Yes	Yes	37	3,359
California	Yes	YesA	300	30,100
Colorado	Yes	Yes	51	5,632
Connecticut	Yes	Yes	26	3,713
D.C.	Yes	No	7	1,010
Delaware	M	No	7	1,056
Florida	No	No	197	25,769
Georgia	No	YesA	86	10,740
Guam	No	No	1	.
Hawaii	No	Yes	13	1,023
Idaho	No	No	16	1,522
Illinois	No	No	116	11,461
Indiana	Yes	Yes	78	6,895
Iowa	No	Yes	34	2,916
Kansas	No	Yes	40	2,952
Kentucky	Yes	Yes	59	5,417
Louisiana	No	No	72	5,401
Maine	No	No	18	1,543
Maryland	No	Yes	41	5,593
Massachusetts	Yes	Yes	55	7,061
Michigan	No	Yes	86	10,469
Minnesota	Yes	Yes	47	5,573
Mississippi	Yes	No	41	3,367
Missouri	Yes	No	66	7,862
Montana	No	No	11	882
Nebraska	No	Yes	23	2,125
Nevada	No	No	21	2,873
New Hampshire	Yes	Yes	13	1,364
New Jersey	Yes	Yes	69	7,966
New Mexico	No	No	24	1,648
New York	Yes	YesA	154	18,744
North Carolina	Yes	Yes	87	11,376
North Dakota	No	No	7	972
Ohio	No	Yes	127	14,735
Oklahoma	No	Yes	50	4,337
Oregon	Yes	Yes	33	4,084
Pennsylvania	Yes	Yes	136	15,238
Puerto Rico	M	No	2	.
Rhode Island	No	No	10	981
South Carolina	Yes	Yes	57	5,568
South Dakota	No	Yes	12	1,035
Tennessee	Yes	Yes	78	8,341
Texas	Yes	YesA	261	27,294
Utah	Yes	No	34	2,413
Vermont	No	No	6	604
Virgin Islands			1	.
Virginia	Yes	Yes	71	8,064
Washington	Yes	Yes	48	6,456
West Virginia	Yes	No	23	1,970
Wisconsin	No	Yes	71	6,060
Wyoming	No	No	10	304

All US		**3,059**	**329,649**

State	2022		No. of Acute Care Hospitals Reporting abdominal hysterectomy surgeries in adults[5]	No. of Procedures[7] abdominal hysterectomy surgeries in adults
		Any Validation[4]		
Alabama	Yes	Yes	49	7,983
Alaska	Yes	No	8	496
Arizona	No	No	51	6,753
Arkansas	Yes	Yes	34	3,665
California	Yes	YesA	272	22,552
Colorado	Yes	Yes	48	8,995
Connecticut	Yes	Yes	26	3,493
D.C.	Yes	No	6	905
Delaware	M	No	7	1,280
Florida	No	No	178	29,601
Georgia	No	YesA	82	16,040
Guam	No	No	1	.
Hawaii	No	Yes	11	773
Idaho	No	No	14	2,810
Illinois	No	No	104	12,343
Indiana	Yes	Yes	75	8,874
Iowa	No	Yes	32	3,581
Kansas	No	Yes	33	4,174
Kentucky	Yes	Yes	51	6,144
Louisiana	No	No	67	7,183
Maine	No	No	15	1,390
Maryland	Yes	Yes	38	4,817
Massachusetts	Yes	Yes	48	5,485
Michigan	No	Yes	79	10,889
Minnesota	Yes	Yes	45	6,134
Mississippi	Yes	No	38	5,818
Missouri	Yes	No	61	8,558
Montana	No	No	10	1,190
Nebraska	No	Yes	22	2,428
Nevada	No	No	18	4,229
New Hampshire	Yes	Yes	13	1,106
New Jersey	Yes	Yes	59	7,712
New Mexico	No	No	21	1,662
New York	Yes	YesA	147	15,725
North Carolina	Yes	Yes	86	11,169
North Dakota	No	No	7	924
Ohio	No	Yes	116	13,895
Oklahoma	No	Yes	51	7,023
Oregon	Yes	Yes	32	5,480
Pennsylvania	Yes	Yes	130	16,017
Puerto Rico	M	No	6	165
Rhode Island	No	No	9	1,321
South Carolina	Yes	Yes	49	6,766
South Dakota	No	Yes	15	1,605
Tennessee	Yes	Yes	70	10,327
Texas	Yes	No	249	45,298
Utah	Yes	No	34	3,369
Vermont	Yes	No	6	554
Virgin Islands			1	.
Virginia	Yes	Yes	62	10,262
Washington	Yes	Yes	49	7,951
West Virginia	Yes	No	20	2,867

Wisconsin	No	Yes	64	7,307
Wyoming	No	No	10	348
All US			**2,829**	**377,484**

Table 1. Characteristics of NHSN Acute Care Hospitals reporting to NHSN by State[1], 2022:
1e. Hospital-onset methicillin-resistant *Staphylococcus aureus* bacteremia[8]

State	2022		
Alabama	No	No	88
Alaska	Yes	No	8
Arizona	No	No	72
Arkansas	Yes	Yes	50
California	Yes	YesA	336
Colorado	Yes	No	56
Connecticut	Yes	Yes	32
D.C.	Yes	No	8
Delaware	Yes	No	9
Florida	No	No	221
Georgia	Yes	YesA	111
Guam	No	No	2
Hawaii	No	Yes	17
Idaho	No	No	17
Illinois	Yes	Yes	131
Indiana	Yes	Yes	94
Iowa	No	Yes	39
Kansas	No	Yes	62
Kentucky	Yes	Yes	68
Louisiana	No	No	102
Maine	Yes	No	19
Maryland	Yes	Yes	47
Massachusetts	Yes	Yes	69
Michigan	No	Yes	99
Minnesota	Yes	Yes	51
Mississippi	Yes	No	63
Missouri	No	No	75
Montana	No	No	12
Nebraska	No	Yes	28
Nevada	Yes	No	28
New Hampshire	No	No	13
New Jersey	Yes	Yes	71
New Mexico	No	No	32
New York	No	Yes	170
North Carolina	Yes	Yes	102
North Dakota	No	No	9
Ohio	No	Yes	146
Oklahoma	No	Yes	85
Oregon	Yes	Yes	35
Pennsylvania	Yes	No	180
Puerto Rico	Yes	Yes	8
Rhode Island	No	No	10
South Carolina	Yes	Yes	63
South Dakota	No	No	19
Tennessee	Yes	Yes	101
Texas	Yes	No	362
Utah	Yes	No	38

Vermont	No	No	6
Virgin Islands			1
Virginia	Yes	Yes	77
Washington	Yes	Yes	56
West Virginia	Yes	No	28
Wisconsin	No	Yes	86
Wyoming	No	No	11
All US			**3,723**

1f. Hospital-onset *Clostridioides difficile*[8]

State	2022		
Alabama	No	No	88
Alaska	Yes	No	9
Arizona	No	No	72
Arkansas	Yes	Yes	50
California	Yes	YesA	330
Colorado	Yes	Yes	56
Connecticut	Yes	Yes	32
D.C	Yes	No	8
Delaware	M	No	9
Florida	No	No	221
Georgia	Yes	YesA	111
Guam	No	No	2
Hawaii	No	Yes	17
Idaho	No	No	17
Illinois	Yes	Yes	131
Indiana	Yes	Yes	94
Iowa	No	Yes	39
Kansas	No	Yes	62
Kentucky	Yes	Yes	68
Louisiana	No	No	103
Maine	Yes	No	19
Maryland	Yes	Yes	47
Massachusetts	Yes	Yes	69
Michigan	No	Yes	99
Minnesota	Yes	Yes	51
Mississippi	Yes	No	63
Missouri	No	No	75
Montana	No	Yes	12
Nebraska	No	Yes	28
Nevada	No	No	28
New Hampshire	Yes	No	13
New Jersey	Yes	Yes	71
New Mexico	Yes	No	32
New York	Yes	YesA	171
North Carolina	Yes	Yes	103
North Dakota	No	No	9
Ohio	No	Yes	147
Oklahoma	No	Yes	85
Oregon	Yes	Yes	35
Pennsylvania	Yes	No	179
Puerto Rico	Yes	Yes	8
Rhode Island	No	No	10
South Carolina	Yes	Yes	63
South Dakota	No	Yes	19
Tennessee	Yes	Yes	101
Texas	Yes	No	362
Utah	Yes	No	38
Vermont	Yes	No	6
Virgin Islands			1
Virginia	Yes	Yes	78
Washington	Yes	Yes	56

West Virginia	Yes	No	28
Wisconsin	No	Yes	86
Wyoming	No	No	11
All US			**3,722**

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 2022 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]). This is only displayed if the state had at least 5 reporting facilities in 2022. 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 acute care 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, a blank field indicates data not available.

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, 2023 for 2022 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, 2023 for 2022 data 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.

5. The number of facilities reporting at least one month of "in-plan" data to NHSN

6. NICU locations included are those classified by NHSN CDC location codes as Level II/III, Level III, and Level IV neonatal critical care areas. A Level II/III neonatal critical care area is defined by NHSN as a combined nursery housing both Level II and III newborns and infants. A Level III neonatal critical care area is defined by NHSN as a hospital NICU organized with personnel and equipment to provide continuous life support and comprehensive care for extremely high-risk newborn infants and those with complex and critical illness. NICU Level IV is defined as critical care area for the care of newborns and infants with serious illness requiring Level IV care; area is supervised by a neonatologist. NICU Level IV has Level III capabilities plus others detailed in the location chapter of the NHSN manual. Location Chapter: NHSN Manual

7. 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. This is the crude number of procedures with no considerations to the universal exclusion criteria. This is only displayed if the state had at least 5 reporting facilities in 2022.

8. 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 Acute Care Hospitals Reporting[1]	Total Patient Days
CLABSI, all[4]	3,728	145,522,697
ICUs[5]	3,090	20,278,142
Wards[6]	3,698	118,885,880
NICUs[7]	1,023	6,358,675
CAUTI, all[8]	3,780	143,860,682
	3,095	20,304,590
	3,766	123,556,092
VAE, all[8]	1,874	14,331,064
	1,804	10,664,508
	443	3,666,556

1. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be diff
2. Percent of facilities with at least one predicted infection (event) that had an SIR significantly greater than or les
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥1.0 predicted HAI in 2022. If a facilit
4. Data from all ICUs, wards (and other non-critical care locations), and NICUs.
5. Data from all ICUs; excludes wards (and other non-critical care locations) and NICUs. For VAE, pediatric locati
6. Data from all wards (for this table wards also include step-down and specialty care areas [including hematolog
7. Data from all NICU locations, including Level II/III, Level III, and Level IV nurseries. Both umbilical line and cen
8. Data from all ICUs and wards (and other non-critical care locations). This excludes NICUs. For VAE, pediatric IVAC-plus includes those events identified as infection-related ventilator-associated condition (IVAC) and possi

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

Table 2a. National standardized infecti
Central line-associated l

Total Device Days	No. of Infections (Events)			95% CI for SIR	
	Observed	Predicted	SIR	Lower	Upper
27,695,414	23,389	27,993.688	0.836	0.825	0.846
9,210,882	9,666	10,074.210	0.959	0.940	0.979
17,147,623	12,449	16,067.482	0.775	0.761	0.788
1,336,909	1,274	1,852.002	0.688	0.651	0.726
25,186,938	20,237	29,055.165	0.697	0.687	0.706
9,713,553	7,784	13,320.800	0.584	0.571	0.597
15,473,385	12,453	15,734.390	0.791	0.778	0.805
3,956,131	32,631	27,472.921	1.188	1.175	1.201
3,630,973	31,186	25,980.375	1.200	1.187	1.214
325,158	1,445	1,492.546	0.968	0.919	1.019

erent from the numbers shown in Table 1. These tables contain data from acute care hospit
s than the nominal value of the national SIR for the given HAI type. This is only calculated i
y's predicted number of HAIs was <1.0, a facility-specific SIR was neither calculated nor incl

ons are excluded from SIR since pediatric and neonatal locations are excluded from VAE su
y/oncology, bone marrow transplant]). For VAE, pediatric locations are excluded from SIR s
tral line-associated bloodstream infections are considered CLABSIs.
locations are excluded from SIR since pediatric and neonatal locations are excluded from V
ible ventilator-associated pneumonia (pVAP). IVAC-plus events are a subset of the total VA

ppendix A.

ion ratios (SIRs) and facility-specific summary SIRs using HAI data reported to NHSN during 2022 by bloodstream infections (CLABSIs), catheter-associated urinary tract infections (CAUTIs) and ventilat

	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%
	N	%[2]	N		
2,475	237	10%	238	10%	0.000
1,792	142	8%	124	7%	0.000
2,092	140	7%	112	5%	0.000
420	21	5%	21	5%	0.000
2,650	250	9%	242	9%	0.000
1,952	136	7%	104	5%	0.000
2,304	179	8%	156	7%	0.000
1,507	436	29%	388	26%	0.000
1,472	422	29%	377	26%	0.000
226	40	18%	40	18%	0.000

tals; as such, they exclude data from LTACHs, IRFs, and CAHs.
if at least 10 facilities had ≥ 1.0 predicted HAI in 2022.
luded in the distribution of facility-specific SIRs.

urveillance.
since pediatric and neonatal locations are excluded from VAE surveillance.

/AE surveillance. Total VAE includes IVAC-plus events.
AE, meaning the IVAC-plus events are included in the total VAE SIR as well.

facility type, HAI, and patient population:
or-associated events (VAE)

						Percentile Distribution of Facility-speci			
								Median	
10%	15%	20%	25%	30%	35%	40%	45%	50%	55%
0.000	0.223	0.338	0.409	0.486	0.556	0.631	0.700	0.756	0.816
0.000	0.000	0.258	0.369	0.448	0.554	0.654	0.730	0.807	0.892
0.000	0.000	0.219	0.326	0.412	0.478	0.550	0.609	0.668	0.730
0.000	0.000	0.000	0.100	0.274	0.381	0.437	0.512	0.589	0.655
0.000	0.159	0.269	0.342	0.401	0.465	0.526	0.584	0.646	0.707
0.000	0.000	0.000	0.000	0.170	0.260	0.327	0.386	0.458	0.517
0.000	0.000	0.000	0.243	0.342	0.412	0.474	0.555	0.615	0.690
0.000	0.000	0.000	0.332	0.549	0.729	0.916	1.088	1.260	1.424
0.000	0.000	0.046	0.353	0.551	0.729	0.927	1.098	1.269	1.433
0.000	0.000	0.000	0.000	0.000	0.275	0.420	0.627	0.825	0.941

fic SIRs[3]

60%	65%	70%	75%	80%	85%	90%	95%
0.885	0.960	1.044	1.147	1.289	1.438	1.688	2.149
0.971	1.078	1.216	1.341	1.481	1.704	2.009	2.654
0.792	0.852	0.933	1.034	1.166	1.343	1.548	1.916
0.759	0.819	0.907	0.971	1.064	1.206	1.539	1.893
0.776	0.841	0.917	1.004	1.132	1.274	1.553	2.000
0.588	0.666	0.744	0.824	0.927	1.042	1.225	1.525
0.756	0.831	0.909	0.983	1.091	1.222	1.397	1.625
1.576	1.750	1.921	2.146	2.347	2.614	2.980	3.642
1.576	1.798	1.963	2.148	2.348	2.632	3.009	3.642
1.058	1.229	1.440	1.625	1.820	2.237	2.523	3.003

HAI and Patient Population	No. of Acute Care Hospitals Reporting by CDC Locations[1]
Adolescent Behavioral Health Ward	4
Adult Mixed Acuity Unit	474
Adult Step Down Unit	1,189
Antenatal Care Ward	94
Behavioral Health/Psych Ward	180
Burn Critical Care	62
Burn Ward	27
Chronic Behavioral Health/Psych Unit	2
Chronic Care Unit	16
Dialysis Specialty Care Area	9
Ear, Nose, Throat Ward	3
Gastrointestinal Ward	16
Genitourinary Ward	21
Gerontology Ward	33
Gynecology Ward	86
Inpatient Hospice	22
Jail Unit	32
Labor and Delivery Ward	277
Labor, Delivery, Recovery, Postpartum Suite	348
Medical Cardiac Critical Care	267
Medical Critical Care	813
Medical Ward	1,578
Medical-Surgical Critical Care	2,261
Medical-Surgical Ward	2,616
Mixed Age Mixed Acuity Unit	129
Neonatal Critical Care (Level II/III)	564
Neonatal Critical Care (Level III)	410
Neonatal Critical Care (Level IV)	73
Neurologic Critical Care	98
Neurology Ward	181
Neurosurgical Critical Care	195
Neurosurgical Ward	111
Oncology General Hematology-Oncology Ward	392
Oncology Hematopoietic Stem Cell Transplant Ward	97
Oncology Leukemia Ward	5
Oncology Leukemia/Lymphoma Ward	18
Oncology Lymphoma Ward	3
Oncology Medical Critical Care	5
Oncology Medical-Surgical Critical Care	13
Oncology Mixed Acuity Unit (all ages)	8
Oncology Pediatric Critical Care	3
Oncology Pediatric General Hematology/Oncology Ward	103
Oncology Pediatric Hematopoietic Stem Cell Transplant Ward	22

Oncology Solid Tumor Ward	14
Oncology Step Down Unit	12
Oncology Surgical Critical Care	3
Orthopedic Trauma Ward	41
Orthopedic Ward	541
Pediatric Behavioral Health Ward	5
Pediatric Burn Critical Care	5
Pediatric Burn Ward	1
Pediatric Medical Critical Care	1
Pediatric Medical Ward	31
Pediatric Medical-Surgical Critical Care	140
Pediatric Medical-Surgical Ward	281
Pediatric Mixed Acuity Unit	432
Pediatric Neurology Ward	50
Pediatric Neurosurgical Critical Care	6
Pediatric Neurosurgical Ward	3
Pediatric Orthopedic Ward	9
Pediatric Rehabilitation Ward (within Hospital)	11
Pediatric Solid Organ Transplant Specialty Care Area	4
Pediatric Step Down Unit	39
Pediatric Surgical Cardiothoracic Critical Care	63
Pediatric Surgical Critical Care	4
Pediatric Surgical Ward	29
Pediatric Trauma Critical Care	2
Plastic Surgery Ward	1
Postpartum Ward	480
Prenatal Critical Care	7
Pulmonary Ward	130
Rehabilitation Ward (within Hospital)	37
Respiratory Critical Care	46
Solid Organ Transplant Specialty Care Area	46
Special Care Nursery (Level II)	154
Stroke (Acute) Ward	33
Surgical Cardiothoracic Critical Care	405
Surgical Critical Care	363
Surgical Ward	1,125
Telemetry Ward	880
Trauma Critical Care	128
Vascular Surgery Ward	27
Ventilator Dependent Unit	2
Well Newborn-- Nursery (Level I)	46

1. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be
Total number of facilities reporting the locations will be higher than the number of facilities in table 2a becaus
2. Percent of Locations with at least one predicted infection (event) that had an SIR significantly greater than
3. Location-specific percentiles are only calculated if at least 20 locations had ≥1.0 predicted HAI in 2022. If a

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

e 2a. National standardized infection ratios (SIRs) and facility-specific summary SIRs using HAI data report
Central line-associated bloodstream infections (CL

Number of CDC Locations	Total Patient Days	Total Device Days	No. of Infections (Events)			95%
			Observed	Predicted	SIR	Lower
.	.	.	.	.	.	.
824	4,221,636	716,019	545	527.252	1.034	0.950
1,962	11,736,858	1,896,692	1,506	1,764.623	0.853	0.811
95	170,398	6,521	4	5.283	0.757	0.241
234	491,928	11,431	5	8.601	0.581	0.213
62	180,011	74,192	103	246.829	0.417	0.342
30	119,152	23,829	13	18.829	0.690	0.384
.	.	.	.	.	.	.
17	65,699	11,820	10	8.259	1.211	0.615
9	48,934	15,840	7	17.554	0.399	0.174
.	.	.	.	.	.	.
19	156,126	29,785	39	24.211	1.611	1.161
23	155,424	31,810	30	25.141	1.193	0.820
34	279,057	25,099	20	20.179	0.991	0.622
90	248,813	30,636	20	24.407	0.819	0.515
23	48,143	12,448	0	10.008	0.000	.
38	109,464	15,996	18	12.011	1.499	0.916
282	244,792	5,751	1	4.542	0.220	0.011
359	382,052	5,988	0	4.340	0.000	.
288	1,009,326	475,145	599	518.744	1.155	1.065
976	3,471,544	1,566,442	2,064	1,644.147	1.255	1.202
3,391	24,143,671	3,015,127	2,206	2,707.672	0.815	0.781
2,569	8,690,194	3,782,116	3,617	3,649.619	0.991	0.959
5,276	34,560,256	3,952,298	2,289	3,351.524	0.683	0.655
147	541,169	90,171	66	63.642	1.037	0.809
584	2,180,754	370,665	333	517.164	0.644	0.577
416	2,951,217	619,278	607	864.795	0.702	0.648
92	1,226,704	346,966	334	470.042	0.711	0.637
103	400,783	134,704	130	145.181	0.895	0.751
199	1,535,436	145,897	83	138.065	0.601	0.482
218	959,492	303,094	313	333.579	0.938	0.839
125	964,025	103,132	66	97.001	0.680	0.530
503	3,404,044	1,376,653	1,146	1,550.371	0.739	0.697
126	675,623	552,189	706	864.780	0.816	0.758
7	67,152	52,066	35	56.549	0.619	0.438
25	194,695	143,215	199	161.372	1.233	1.071
.	.	.	.	.	.	.
5	25,262	18,344	20	19.890	1.006	0.631
14	40,497	24,605	30	24.165	1.241	0.853
14	59,648	25,354	14	16.334	0.857	0.488
.	.	.	.	.	.	.
112	609,647	421,832	395	529.599	0.746	0.675
22	83,294	64,928	87	112.485	0.773	0.623

36	317,791	119,119	67	133.562	0.502	0.392
19	85,788	45,133	29	43.196	0.671	0.458
.	.	.	.	.	.	.
46	384,797	37,176	34	30.058	1.131	0.796
598	3,532,693	337,045	146	254.549	0.574	0.486
5	5,111	79	0	0.080	.	.
5	5,988	2,490	1	3.363	0.297	0.015
.	.	.	.	.	.	.
.	.	.	.	.	.	.
31	60,894	18,866	26	27.820	0.935	0.624
203	926,199	126,285	144	133.770	1.076	0.911
298	1,048,357	410,834	510	620.740	0.822	0.753
556	2,241,594	326,570	319	329.686	0.968	0.866
57	166,082	29,419	36	25.043	1.438	1.022
7	21,818	1,942	1	2.075	0.482	0.024
.	.	.	.	.	.	.
9	17,693	1,565	1	1.593	0.628	0.031
11	46,335	5,085	1	5.554	0.180	0.009
.	.	.	.	.	.	.
46	194,626	42,598	47	45.662	1.029	0.765
64	362,910	263,696	352	413.017	0.852	0.767
.	.	.	.	.	.	.
35	234,614	41,511	33	45.390	0.727	0.509
.	.	.	.	.	.	.
.	.	.	.	.	.	.
519	869,108	10,814	3	8.057	0.372	0.095
7	8,662	168	0	0.184	.	.
181	889,020	137,176	127	106.285	1.195	1.000
58	229,603	25,654	13	21.118	0.616	0.342
56	114,743	46,309	79	49.682	1.590	1.267
56	401,990	137,821	117	162.484	0.720	0.598
157	182,814	10,859	8	9.656	0.829	0.385
34	204,294	18,547	7	14.210	0.493	0.215
441	1,653,652	1,066,311	734	1,160.548	0.632	0.588
411	1,581,495	764,509	780	833.963	0.935	0.871
1,552	10,805,106	1,473,297	896	1,335.122	0.671	0.628
1,499	11,396,432	1,352,277	849	1,158.066	0.733	0.685
146	640,759	247,842	302	369.554	0.817	0.729
32	250,733	49,629	29	39.641	0.732	0.499
.	.	.	.	.	.	.
46	23,724	573	0	0.434	.	.

ɜ different from the numbers shown in Table 1. These tables contain data from acute care hospitals; as such, they e
e the same facilities may be reporting more than 1 locdc.
or less than the nominal value of the national SIR for the given HAI type. This is only calculated if at least 10 locati
ɜ location's predicted number of HAIs was <1.0, a location-specific SIR was neither calculated nor included in the di

in Appendix A.

ed to NHSN during 2022 by facility type, HAI, and patient population:
_ABSIs)

CI for SIR		Location-specific SIRs		
Upper	No. CDC Locations with ≥1 Predicted Infection (Event)	No. Locations with SIR Significantly > National SIR		No. Locati Significantly
		N		N
.	.	.	.	.
1.123	176	9	5%	1
0.897	651	32	5%	6
1.826	1	.	.	.
1.288	0	.	.	.
0.504	59	2	3%	11
1.151	6	.	.	.
.	.	.	.	.
2.158	4	.	.	.
0.789	6	.	.	.
.	2	.	.	.
2.180	14	1	7%	0
1.682	12	1	8%	0
1.504	7	.	.	.
1.243	9	.	.	.
0.299	2	.	.	.
2.323	2	.	.	.
1.086	0	.	.	.
0.690	0	.	.	.
1.250	188	20	11%	0
1.310	571	77	13%	4
0.849	993	30	3%	2
1.024	1,289	95	7%	15
0.711	1,081	15	1%	1
1.311	18	9	5%	1
0.716	145	4	3%	6
0.759	225	11	5%	13
0.790	84	3	4%	6
1.060	62	2	3%	1
0.741	41	0	0%	0
1.047	141	11	8%	0
0.860	34	0	0%	0
0.783	423	6	1%	13
0.878	111	7	6%	6
0.851	7	.	.	.
1.414	25	7	28%	0
.	.	.	.	.
1.525	5	.	.	.
1.750	8	.	.	.
1.404	7	.	.	.
.	.	.	.	.
0.822	102	2	2%	6
0.949	18	1	6%	0

0.633	32	1	3%	5
0.952	12	1	8%	0
.	.	.	.	.
1.563	9	.	.	.
0.672	54	1	2%	0
.	0	.	.	.
1.466	1	.	.	.
.	.	.	.	.
.	.	.	.	.
1.350	10	1	10%	0
1.263	47	2	4%	0
0.895	147	7	5%	7
1.078	110	2	2%	0
1.969	6	.	.	.
2.377	0	.	.	.
.	.	.	.	.
3.095	0	.	.	.
0.888	0	.	.	.
.	.	.	.	.
1.357	19	1	5%	0
0.945	62	4	6%	4
.	.	.	.	.
1.009	17	0	0%	0
.	.	.	.	.
.	.	.	.	.
1.013	0	.	.	.
.	0	.	.	.
1.417	40	4	10%	0
1.026	2	.	.	.
1.971	17	2	12%	0
0.860	51	1	2%	1
1.573	0	.	.	.
0.974	1	.	.	.
0.679	350	6	2%	16
1.003	305	27	9%	3
0.716	499	10	2%	1
0.784	394	7	2%	1
0.913	120	7	6%	2
1.037	20	0	0%	0
.	.	.	.	.
.	0	.	.	.

xclude data from LTACHs, IRFs, and CAHs.

ons had ≥ 1.0 predicted HAI in 2022.
stribution of location-specific SIRs.

ons with SIR < National SIR	Median 10%	25%	50%	75%	90%
.	.	.	.	.	.
1%	0.000	0.000	0.816	1.560	2.149
1%	0.000	0.000	0.684	1.270	2.082
.	.	.	.	.	.
.	.	.	.	.	.
19%	0.000	0.000	0.283	0.606	0.918
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
0%	.	.	.	.	.
0%	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
0%	0.000	0.552	0.935	1.631	2.536
1%	0.000	0.483	1.062	1.760	2.508
0%	0.000	0.000	0.673	1.193	1.916
1%	0.000	0.261	0.768	1.445	2.163
0%	0.000	0.000	0.568	1.002	1.775
1%	.	.	.	.	.
4%	0.000	0.000	0.521	0.932	1.486
6%	0.000	0.000	0.626	0.997	1.720
7%	0.000	0.314	0.659	1.044	1.333
2%	0.000	0.000	0.735	1.523	2.074
0%	0.000	0.000	0.194	0.820	0.980
0%	0.000	0.000	0.726	1.391	2.218
0%	0.000	0.000	0.503	0.888	1.593
3%	0.000	0.275	0.628	1.061	1.482
5%	0.214	0.516	0.769	1.097	1.525
.	.	.	.	.	.
0%	0.166	0.478	1.170	1.636	1.926
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
6%	0.000	0.302	0.661	0.994	1.385
0%	.	.	.	.	.

16%	.	.	.	.	.
0%	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
0%	0.000	0.000	0.574	0.966	1.783
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
0%	.	.	.	.	.
0%	0.000	0.370	0.931	1.831	2.427
5%	0.000	0.382	0.724	1.225	1.673
0%	0.000	0.557	0.872	1.385	1.756
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
0%	.	.	.	.	.
6%	0.157	0.439	0.807	1.141	1.440
.	.	.	.	.	.
0%	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
0%	0.000	0.000	0.703	1.627	2.882
.	.	.	.	.	.
0%	.	.	.	.	.
2%	0.000	0.313	0.517	1.018	1.483
.	.	.	.	.	.
.	.	.	.	.	.
5%	0.000	0.000	0.493	0.938	1.343
1%	0.000	0.234	0.748	1.395	2.091
0%	0.000	0.000	0.548	0.926	1.638
0%	0.000	0.000	0.659	0.948	1.686
2%	0.000	0.218	0.607	1.062	1.796
0%	0.000	0.000	0.461	1.105	1.733
.	.	.	.	.	.
.	.	.	.	.	.

HAI and Patient Population	No. of Acute Care Hospitals Reporting by CDC Location[1]
Adolescent Behavioral Health Ward	3
Adult Mixed Acuity Unit	476
Adult Step Down Unit	1,188
Antenatal Care Ward	111
Behavioral Health/Psych Ward	208
Burn Critical Care	62
Burn Ward	28
Chronic Behavioral Health/Psych Unit	7
Chronic Care Unit	17
Chronic Rehabilitation Unit	1
Dialysis Specialty Care Area	10
Ear, Nose, Throat Ward	3
Gastrointestinal Ward	16
Genitourinary Ward	22
Gerontology Ward	33
Gynecology Ward	115
Inpatient Hospice	22
Jail Unit	31
Labor and Delivery Ward	491
Labor, Delivery, Recovery, Postpartum Suite	650
Medical Cardiac Critical Care	266
Medical Critical Care	813
Medical Ward	1,594
Medical-Surgical Critical Care	2,266
Medical-Surgical Ward	2,644
Mixed Age Mixed Acuity Unit	134
Neurologic Critical Care	98
Neurology Ward	180
Neurosurgical Critical Care	195
Neurosurgical Ward	112
Oncology General Hematology-Oncology Ward	389
Oncology Hematopoietic Stem Cell Transplant Ward	96
Oncology Leukemia Ward	5
Oncology Leukemia/Lymphoma Ward	18
Oncology Lymphoma Ward	3
Oncology Medical Critical Care	5
Oncology Medical-Surgical Critical Care	13
Oncology Mixed Acuity Unit (all ages)	8
Oncology Pediatric Critical Care	3
Oncology Pediatric General Hematology/Oncology Ward	96
Oncology Pediatric Hematopoietic Stem Cell Transplant Wa	18
Oncology Solid Tumor Ward	14
Oncology Step Down Unit	12

Oncology Surgical Critical Care	3
Orthopedic Trauma Ward	41
Orthopedic Ward	552
Pediatric Behavioral Health Ward	3
Pediatric Burn Critical Care	5
Pediatric Burn Ward	1
Pediatric Medical Critical Care	1
Pediatric Medical Ward	29
Pediatric Medical-Surgical Critical Care	137
Pediatric Medical-Surgical Ward	281
Pediatric Mixed Acuity Unit	434
Pediatric Neurology Ward	50
Pediatric Neurosurgical Critical Care	6
Pediatric Neurosurgical Ward	3
Pediatric Orthopedic Ward	10
Pediatric Rehabilitation Ward (within Hospital)	11
Pediatric Solid Organ Transplant Specialty Care Area	4
Pediatric Step Down Unit	38
Pediatric Surgical Cardiothoracic Critical Care	62
Pediatric Surgical Critical Care	4
Pediatric Surgical Ward	29
Pediatric Trauma Critical Care	2
Plastic Surgery Ward	1
Postpartum Ward	717
Prenatal Critical Care	11
Pulmonary Ward	128
Rehabilitation Ward (within Hospital)	40
Respiratory Critical Care	47
Solid Organ Transplant Specialty Care Area	46
Special Care Nursery (Level II)	8
Stroke (Acute) Ward	34
Surgical Cardiothoracic Critical Care	405
Surgical Critical Care	364
Surgical Ward	1,145
Telemetry Ward	881
Trauma Critical Care	128
Vascular Surgery Ward	27
Ventilator Dependent Unit	2
Well Newborn-- Nursery (Level I)	23

1. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria,
Total number of facilities reporting the locations will be higher than the number of facilities in table
2. Percent of Locations with at least one predicted infection (event) that had an SIR significantly g
3. Location-specific percentiles are only calculated if at least 20 locations had ≥1.0 predicted HAI i
Total number of facilities repotting the locations will be higher than the number of facilities in table

NOTE: Risk factors used in the calculation of the number of predicted device-associated infection

able 2a. National standardized infection ratios (SIRs) and facility-specific summary SIRs using HAI data rep
Catheter-associated urinary tract infections (

Number of CDC Locations	Total Patient Days	Total Device Days	No. of Infections (Events)			95%
			Observed	Predicted	SIR	Lower
.	.	.	.	.	.	.
824	4,229,732	651,586	602	679.400	0.886	0.817
1,958	11,747,032	1,898,949	1,728	2,382.510	0.725	0.692
114	289,677	20,444	4	2.357	1.697	0.539
250	474,530	11,741	16	28.227	0.567	0.336
62	180,217	67,875	126	223.608	0.563	0.471
31	118,624	20,324	25	27.590	0.906	0.599
10	48,117	1,453	1	1.613	0.620	0.031
18	75,932	15,635	12	25.194	0.476	0.258
.	.	.	.	.	.	.
10	56,737	5,102	5	5.927	0.844	0.309
.	.	.	.	.	.	.
19	156,126	18,970	17	21.745	0.782	0.471
24	155,755	32,697	18	35.582	0.506	0.309
34	281,245	28,383	32	35.361	0.905	0.630
119	402,215	54,183	30	5.848	5.130	3.525
23	47,372	23,431	2	44.073	0.045	0.008
37	105,845	9,649	10	10.778	0.928	0.471
509	1,089,078	211,947	11	22.624	0.486	0.256
678	1,730,162	221,666	13	21.396	0.608	0.338
287	1,009,637	427,923	371	638.802	0.581	0.524
976	3,478,831	1,754,969	1,312	2,039.558	0.643	0.609
3,422	24,311,429	2,699,520	2,471	2,920.702	0.846	0.813
2,574	8,711,085	4,459,498	3,129	4,541.059	0.689	0.665
5,325	34,873,953	4,350,609	3,154	3,914.246	0.806	0.778
152	572,513	94,508	64	87.454	0.732	0.568
103	400,880	167,536	219	551.796	0.397	0.347
198	1,530,923	174,582	247	340.941	0.724	0.638
218	960,221	415,212	630	1,412.383	0.446	0.412
126	965,439	120,886	196	232.879	0.842	0.730
500	3,387,821	400,267	457	613.335	0.745	0.679
125	649,834	48,396	93	78.096	1.191	0.967
7	67,152	5,692	9	5.471	1.645	0.802
25	192,662	13,488	28	14.772	1.896	1.284
.	.	.	.	.	.	.
5	25,262	16,392	11	17.151	0.641	0.337
14	40,386	20,613	21	20.092	1.045	0.664
14	58,868	9,842	3	6.981	0.430	0.109
.	.	.	.	.	.	.
104	462,324	9,917	19	17.215	1.104	0.684
18	54,057	1,057	0	1.942	0.000	.
36	317,791	52,027	46	54.302	0.847	0.627
19	85,788	14,881	18	14.518	1.240	0.758

.	.	.	.	.	.	.
46	384,613	44,740	63	39.591	1.591	1.233
614	3,568,456	477,878	328	373.737	0.878	0.786
.	.	.	.	.	.	.
5	6,054	1,495	2	1.884	1.062	0.178
.	.	.	.	.	.	.
.	.	.	.	.	.	.
30	60,359	6,813	14	11.314	1.237	0.704
197	715,812	16,201	19	11.344	1.675	1.038
298	1,043,577	148,986	215	252.011	0.853	0.745
551	1,941,745	50,344	38	38.906	0.977	0.701
55	131,717	6,523	5	7.059	0.708	0.260
7	15,852	263	0	0.207	.	.
.	.	.	.	.	.	.
10	22,738	2,577	0	1.484	0.000	.
11	32,842	1,165	2	0.877	.	.
.	.	.	.	.	.	.
44	126,095	2,758	2	3.574	0.560	0.094
63	355,697	45,787	53	46.794	1.133	0.857
.	.	.	.	.	.	.
36	229,593	13,788	8	11.802	0.678	0.315
.	.	.	.	.	.	.
.	.	.	.	.	.	.
791	3,398,247	358,612	23	37.767	0.609	0.395
11	17,621	2,212	0	2.485	0.000	.
179	882,982	108,371	131	146.904	0.892	0.749
62	258,931	71,759	107	214.322	0.499	0.411
57	114,980	47,605	37	57.662	0.642	0.458
56	400,948	73,676	51	97.215	0.525	0.395
8	1,922	371	0	0.289	.	.
35	206,326	21,057	26	39.765	0.654	0.436
441	1,653,749	917,654	571	1,124.843	0.508	0.467
412	1,582,112	864,819	650	1,480.144	0.439	0.406
1,575	10,888,609	1,619,716	1213	1615.813	0.751	0.709
1,502	11,405,788	1,339,933	1,062	1,391.632	0.763	0.718
145	640,015	340,499	411	890.442	0.462	0.419
32	251,843	31,519	26	35.086	0.741	0.494
.	.	.	.	.	.	.
24	19,294	145	0	0.093	.	.

this may be different from the numbers shown in Table 1. These tables contain data from acute care hospitals; as s
2a because the same facilities may be reporting more than 1 locdc.
reater than or less than the nominal value of the national SIR for the given HAI type. This is only calculated if at lea
in 2022. If a location's predicted number of HAIs was <1.0, a location-specific SIR was neither calculated nor includ
2a because the same facilities may be reporting more than 1 locdc

s are listed in Appendix A.

orted to NHSN during 2022 by facility type, HAI, and patient population:
CAUTIs)

CI for SIR		Location-specific SIRs			
Upper	No. CDC Locations with ≥1 Predicted Infection (Event)	No. Locations with SIR Significantly > National SIR		No. Locations with SIR Significantly < National SIR	
		N		N	
.	.	.	.	.	.
0.959	261	4	2%	.	.
0.760	989	38	4%	2	0%
4.093	0	.	.	.	.
0.901	1	.	.	.	.
0.669	60	3	5%	4	7%
1.318	10	0	0%	0	0%
3.057	0	.	.	.	.
0.810	8	.	.	.	.
.	.	.	.	.	.
1.870	2	.	.	.	.
.	.	.	.	.	.
1.226	11	0	0%	0	0%
0.784	14	0	0%	0	0%
1.262	12	1	8%	0	0%
7.231	0	.	.	.	.
0.150	14	0	0%	1	7%
1.654	0	.	.	.	.
0.845	0	.	.	.	.
1.013	0	.	.	.	.
0.642	228	4	2%	7	3%
0.679	629	26	4%	9	1%
0.880	1,199	39	3%	0	0%
0.714	1,502	65	4%	20	1%
0.834	1,393	36	3%	1	0%
0.928	26	2	8%	0	0%
0.452	98	1	1%	15	15%
0.819	143	4	3%	0	0%
0.482	210	3	1%	42	20%
0.966	103	7	7%	0	0%
0.816	275	9	3%	0	0%
1.452	30	1	3%	0	0%
3.019	1	.	.	.	.
2.703	6	.	.	.	.
.	.	.	.	.	.
1.115	5	.	.	.	.
1.570	7	.	.	.	.
1.169	3	.	.	.	.
.	.	.	.	.	.
1.692	0	.	.	.	.
1.543	0	.	.	.	.
1.120	25	1	4%	0	0%
1.922	5	.	.	.	.

.	.	.	.	.	.
2.023	16	3	19%	0	0%
0.977	118	4	3%	0	0%
.	.	.	.	.	.
3.508	1	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
2.027	1	.	.	.	.
2.567	1	.	.	.	.
0.973	89	3	3%	0	0%
1.327	1	.	.	.	.
1.570	1	.	.	.	.
.	0	.	.	.	.
.	.	.	.	.	.
2.019	0	.	.	.	.
.	0	.	.	.	.
.	.	.	.	.	.
1.849	0	.	.	.	.
1.470	16	0	0%	0	0%
.	.	.	.	.	.
1.287	3	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
0.899	0	.	.	.	.
1.206	1	.	.	.	.
1.055	57	5	9%	0	0%
0.601	35	2	6%	7	20%
0.875	17	1	6%	0	0%
0.684	43	1	2%	0	0%
.	0	.	.	.	.
0.944	16	0	0%	0	0%
0.551	363	5	1%	12	3%
0.474	364	4	1%	28	8%
0.794	695	16	2%	1	0%
0.810	562	12	2%	0	0%
0.508	138	3	2%	21	15%
1.070	15	0	0%	0	0%
.	.	.	.	.	.
.	0	.	.	.	.

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

ast 10 locations had ≥ 1.0 predicted HAI in 2022.
led in the distribution of location-specific SIRs.

		Median		
10%	**25%**	**50%**	**75%**	**90%**
.	.	.	.	.
0.000	0.000	0.800	1.431	1.969
0.000	0.000	0.593	1.019	1.804
.	.	.	.	.
.	.	.	.	.
0.000	0.146	0.519	0.856	1.265
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
0.000	0.000	0.519	0.887	1.513
0.000	0.000	0.479	0.903	1.599
0.000	0.000	0.703	1.230	1.973
0.000	0.000	0.553	1.000	1.628
0.000	0.000	0.639	1.241	1.947
0.000	0.000	0.733	1.511	1.867
0.000	0.116	0.364	0.567	0.711
0.000	0.000	0.644	1.047	1.607
0.000	0.118	0.366	0.666	1.034
0.000	0.000	0.653	1.200	1.839
0.000	0.000	0.616	1.131	1.927
0.000	0.392	0.798	1.452	2.498
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
0.000	0.000	0.547	1.381	1.884
.	.	.	.	.

.	.	.	.	.
.	.	.	.	.
0.000	0.000	0.807	1.325	2.134
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
0.000	0.000	0.661	1.503	2.042
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
0.000	0.000	0.540	1.368	2.303
0.000	0.088	0.376	0.762	1.202
.	.	.	.	.
0.000	0.000	0.381	0.715	1.183
.	.	.	.	.
.	.	.	.	.
0.000	0.000	0.380	0.780	1.225
0.000	0.000	0.362	0.655	1.028
0.000	0.000	0.658	1.105	1.792
0.000	0.000	0.588	0.991	1.743
0.000	0.174	0.361	0.645	0.951
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.

HAI and Patient Population	No. of Acute Care Hospitals Reporting[1]
Adult Mixed Acuity Unit	117
Adult Step Down Unit	220
Antenatal Care Ward	2
Burn Critical Care	34
Burn Ward	6
Ear, Nose, Throat Ward	1
Gastrointestinal Ward	1
Jail Unit	1
Labor and Delivery Ward	3
Labor, Delivery, Recovery, Postpartum Suite	2
Long Term Acute Care Ward	1
Medical Cardiac Critical Care	153
Medical Critical Care	427
Medical Ward	63
Medical-Surgical Critical Care	1,401
Medical-Surgical Ward	82
Neurologic Critical Care	57
Neurology Ward	4
Neurosurgical Critical Care	112
Neurosurgical Ward	1
Oncology General Hematology-Oncology Ward	9
Oncology Hematopoietic Stem Cell Transplant Ward	4
Oncology Medical Critical Care	5
Oncology Medical-Surgical Critical Care	6
Oncology Surgical Critical Care	2
Orthopedic Ward	7
Postpartum Ward	7
Prenatal Critical Care	2
Pulmonary Ward	20
Respiratory Critical Care	28
Solid Organ Transplant Specialty Care Area	6
Stroke (Acute) Ward	2
Surgical Cardiothoracic Critical Care	248
Surgical Critical Care	190
Surgical Ward	26
Telemetry Ward	37

Trauma Critical Care	84
Vascular Surgery Ward	1

1. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteri
Total number of facilities reporting the locations will be higher than the number of facilities in tal
2. Percent of Locations with at least one predicted infection (event) that had an SIR significantl
3. Location-specific percentiles are only calculated if at least 20 locations had ≥1.0 predicted H

NOTE: Risk factors used in the calculation of the number of predicted device-associated infecti

Table 2a. National standardized infection ratios (SIRs) and facility-specific summary SIRs us
Ventilator-associate

Number of CDC Locations	Total Patient Days	Total Device Days	No. of Infections (Events)	
			Observed	Predicted
147	509,918	73,595	600	644.081
291	1,356,417	144,438	611	586.193
.	.	.	.	.
34	91,915	21,100	235	166.645
6	18,584	4,611	10	12.587
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
159	543,826	155,869	1,280	1,304.486
507	1,866,448	706,664	6,509	5,615.435
103	536,683	22,971	57	53.702
1,578	5,155,775	1,736,456	14,038	10,290.869
117	513,300	35,231	71	82.265
59	232,335	81,969	726	724.064
.	.	.	.	.
125	509,552	163,331	1,333	1,433.295
.	.	.	.	.
11	39,817	4,448	0	12.568
.	.	.	.	.
5	25,262	9,890	40	39.491
6	13,978	4,743	66	14.787
.	.	.	.	.
7	40,188	1,582	3	3.917
8	13,069	134	0	0.315
.	.	.	.	.
23	131,866	12,474	44	39.287
33	66,891	24,019	232	110.511
6	18,759	3,161	1	9.451
.	.	.	.	.
265	959,345	279,583	2,245	1,991.267
211	801,309	286,769	2,756	2,417.392
33	130,869	5,386	14	13.071
47	275,510	13,134	20	24.975

	91	387,222	157,851	1,726	1,861.817
	.	.	.	.	.

a, this may be different from the numbers shown in Table 1. These tables contain data from acute care
ble 2a because the same facilities may be reporting more than 1 locdc.
y greater than or less than the nominal value of the national SIR for the given HAI type. This is only calc
AI in 2022. If a location's predicted number of HAIs was <1.0, a location-specific SIR was neither calcula

ons are listed in Appendix A.

sing HAI data reported to NHSN during 2022 by facility type, HAI, and patient population:
ed events (VAE)

95% CI for SIR			Location-specific SIRs		
SIR	Lower	Upper	No. CDC Locations with ≥1 Predicted Infection (Event)	No. Locations with SIR Significantly > National SIR	
				N	
0.932	0.859	1.008	142	6	4%
1.042	0.962	1.127	253	12	5%
.	.	.	.	.	.
1.410	1.238	1.599	34	4	12%
0.795	0.404	1.416	6	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
.	.	.	.	.	.
0.981	0.929	1.036	158	7	4%
1.159	1.131	1.188	502	62	12%
1.061	0.811	1.365	68	2	3%
1.364	1.342	1.387	1,555	225	14%
0.863	0.679	1.082	87	1	1%
1.003	0.932	1.078	59	7	12%
.	.	.	.	.	.
0.930	0.881	0.981	125	14	11%
.	.	.	.	.	.
0.000	.	0.238	9	.	.
.	.	.	.	.	.
1.013	0.733	1.366	5	.	.
4.463	3.480	5.643	6	.	.
.	.	.	.	.	.
0.766	0.195	2.085	7	.	.
.	.	.	7	.	.
.	.	.	.	.	.
1.120	0.824	1.490	22	1	5%
2.099	1.842	2.383	30	10	33%
0.106	0.005	0.522	6	.	.
.	.	.	.	.	.
1.127	1.082	1.175	265	30	11%
1.140	1.098	1.183	210	20	10%
1.071	0.610	1.755	28	1	4%
0.801	0.503	1.215	40	0	0%

0.927	0.884	0.972	91	9	10%
.	.	.	.	.	.

hospitals; as such, they exclude data from LTACHs, IRFs, and CAHs.

culated if at least 10 locations had ≥ 1.0 predicted HAI in 2022.
ated nor included in the distribution of location-specific SIRs.

No. Locations with SIR Significantly < National SIR		Median				
N		10%	25%	50%	75%	90%
34	24%	0.000	0.000	0.770	1.501	2.258
35	14%	0.000	0.000	0.610	1.674	3.115
.	.	.	.	.	.	.
6	18%	0.000	0.322	1.294	1.945	3.055
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
46	29%	0.000	0.442	0.993	1.683	2.231
150	30%	0.000	0.426	1.143	1.875	2.650
2	3%	0.000	0.000	0.868	1.719	3.389
355	23%	0.000	0.268	1.266	2.175	3.072
6	7%	0.000	0.000	0.195	2.555	3.283
24	41%	0.000	0.271	0.805	1.419	2.508
.	.	.	.	.	.	.
55	44%	0.066	0.300	0.806	1.625	2.235
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
4	18%	0.000	0.307	0.524	1.980	2.346
4	13%	0.355	1.415	2.848	4.387	5.131
.	.	.	.	.	.	.
.	.	.	.	.	.	.
79	30%	0.000	0.336	1.152	1.914	2.768
72	34%	0.000	0.427	1.079	1.691	2.253
1	4%	0.000	0.000	0.000	0.000	4.795
1	3%	0.000	0.000	0.000	1.059	2.603

44	48%	0.000	0.466	0.893	1.426	2.193
.	.	.	.	.	.	.

HAI and Patient Population	Reporting	
		Total Admissions[2]
Laboratory-identified MRSA bacteremia, facility-wide	3,723	35,031,910
Laboratory-identified *C. difficile*, facility-wide	3,722	31,831,279

1. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this ma
2. Total inpatient admissions reported from all inpatient locations, excluding counts from CMS-certified re
3. Total patient days reported from all inpatient units, excluding counts from CMS-certified rehabilitation a
4. Community-onset events are defined as those that were identified in an inpatient location on the first, s
5. Hospital-onset events are defined as those that were identified in an inpatient location on the 4th day (
6. Calculated from a negative binomial regression model. Risk factors used in the calculation of the numb
7. Percent of facilities with at least one predicted event that had an SIR significantly greater than or less t
8. Percentile distribution of facility-specific SIRs. This is only calculated if at least 20 facilities had ≥1.0 pr

Table 2b. National standardized infection ratios (SIR
Laboratory-identified methicillin-resistant *Staphylococcu*

Hospitals		Standardized Infection Ratio Data			
Total Patient Days[3]	Inpatient Community-onset events[4]	Hospital-onset events[5]	Predicted Hospital-onset events[6]	SIR	95% CI Lower
165,729,704	14,883	9,830	10,878.368	0.904	0.886
152,907,604	52,697	42,601	88,078.899	0.484	0.479

ay be different from the numbers shown in Table 1.
ehabilitation and psychiatric locations. Admissions for *C.difficile* further excludes counts from NICUs and w
and psychiatric locations. Patient days for *C.difficile* further excludes counts from NICUs and well-baby uni
second, or third day of a patient's admission to the facility. For *C.difficile*, this excluded events in which the
(or later) after admission to the facility.
ber of predicted events are listed in Appendix B.
than the nominal value of the national SIR for the given HAI type. This is only calculated if at least 10 facili
redicted HAI in 2022. If a facility's predicted number of events was <1.0, a facility-specific SIR was neither c

Rs) and facility-specific SIR distributions using HAI data reported to NHSN during 2022:
***us aureus* (MRSA) bacteremia and *Clostridioides difficile* (*C. difficile*) in Acute Care Hospitals**

		Facility SIRs Compared to National SIR					
for SIR		No. Facilities with ≥1 Predicted Event	No. Facilities with SIR Significantly > National SIR		No. Facilities with SIR Significantly < National SIR		5%
	Upper		N	%[7]	N		
	0.922	1,999	129	6%	82	4%	0.000
	0.488	3,166	419	13%	533	17%	0.000

ell-baby units.
ts.
patient was recently discharged from the reporting facility in the previous 4 weeks.

ities had ≥ 1.0 predicted HAI in 2022.
calculated nor included in the distribution of facility-specific SIRs.

Percentile Distribution of Facility-spe

10%	15%	20%	25%	30%	35%	40%	45%	50%	55%
0.000	0.178	0.336	0.435	0.507	0.581	0.645	0.726	0.793	0.864
0.000	0.110	0.170	0.213	0.247	0.294	0.334	0.375	0.417	0.456

cific SIRs[8]

60%	65%	70%	75%	80%	85%	90%	95%
0.940	1.017	1.133	1.265	1.411	1.625	1.863	2.290
0.503	0.550	0.606	0.673	0.736	0.838	0.981	1.242

Surgical Procedure	No. of Acute Care Hospitals Reporting [2]	No. of Procedures
US, all NHSN procedures	3,281	2,816,294
US, SCIP procedures only[5]	3,249	1,533,231
AAA Abdominal aortic aneurysm repair[5]	164	526
AMP Limb amputation	239	16,421
APPY Appendix surgery	503	40,872
AVSD Shunt for dialysis	128	1,468
BILI Bile duct, liver or pancreatic surgery	383	14,956
BRST Breast surgery	345	23,741
CABG- Coronary artery bypass graft[5,6]	666	112,944
CARD Cardiac surgery[5]	401	45,425
CEA Carotid endarterectomy	212	5,914
CHOL Gallbladder surgery	508	71,328
COLO Colon surgery[5]	3,052	320,128
CRAN Craniotomy	251	47,597
CSEC Cesarean section	644	332,614
FUSN Spinal fusion	893	225,907
FX Open reduction of fracture	511	66,931
GAST Gastric surgery	475	38,684
HER Herniorrhaphy	301	21,097
HPRO Hip arthroplasty[5]	2,149	347,614
HTP Heart transplant	33	943
HYST Abdominal hysterectomy[5]	2,789	250,602
KPRO Knee arthroplasty[5]	2,073	429,887
KTP Kidney transplant	49	6,504
LAM Laminectomy	674	134,399
LTP Liver transplant	32	2,551
NECK Neck surgery	121	3,383
NEPH Kidney surgery	322	11,591
OVRY Ovarian surgery	432	21,454
PACE Pacemaker surgery	334	21,846
PRST Prostate surgery	149	5,772
PVBY Peripheral vascular bypass surgery[5]	270	9,656
REC Rectal surgery[5]	417	10,479
SB Small bowel surgery	500	47,457
SPLE Spleen surgery	278	2,943
THOR Thoracic surgery	399	34,947
THYR Thyroid and/or parathyroid surgery	161	4,860
VHYS Vaginal hysterectomy[5]	520	5,970
VSHN Ventricular shunt	161	4,998
XLAP Abdominal surgery	497	71,885

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

No. of Infections			95% CI for SIR			Facility-
Observed	Predicted[3]	SIR	Lower	Upper	No. Hosp with ≥1 Predicted Infection	No. Hosp Significantly > N
22,416	23,684.072	0.946	0.934	0.959	2,402	209
14,454	15,970.094	0.905	0.890	0.920	2,327	171
3	3.577	0.839	0.213	2.283	0	.
194	69.185	2.804	2.430	3.220	31	1
130	164.236	0.792	0.664	0.937	33	1
9	3.817	2.358	1.150	4.327	0	.
386	413.502	0.933	0.844	1.030	89	9
215	271.308	0.792	0.692	0.904	78	4
728	922.965	0.789	0.733	0.848	314	17
157	195.437	0.803	0.685	0.937	72	3
4	4.938	0.810	0.257	1.954	0	.
328	293.539	1.117	1.001	1.243	100	4
7,355	8,574.092	0.858	0.838	0.878	1,780	116
586	528.615	1.109	1.021	1.201	120	8
771	669.828	1.151	1.072	1.234	198	18
2,125	1,821.591	1.167	1.118	1.217	430	38
521	508.411	1.025	0.940	1.116	135	14
256	283.666	0.902	0.797	1.018	87	3
195	169.736	1.149	0.996	1.319	48	1
2,487	2,439.432	1.019	0.980	1.060	819	47
5	9.584	0.522	0.191	1.156	3	.
1,695	1,782.006	0.951	0.907	0.997	540	27
1,753	1,632.761	1.074	1.024	1.125	547	30
58	39.374	1.473	1.129	1.891	17	2
383	509.559	0.752	0.679	0.830	168	5
82	128.500	0.638	0.511	0.788	25	2
62	74.171	0.836	0.646	1.064	15	0
52	38.250	1.359	1.026	1.769	4	.
16	16.066	0.996	0.590	1.583	0	.
36	38.231	0.942	0.669	1.290	2	.
35	15.007	2.332	1.650	3.208	0	.
178	194.816	0.914	0.787	1.056	70	3
62	190.189	0.326	0.252	0.415	53	3
810	968.003	0.837	0.781	0.896	246	12
18	18.148	0.992	0.606	1.537	0	.
116	147.281	0.788	0.654	0.941	40	4
3	3.888	0.772	0.196	2.100	0	.
36	34.818	1.034	0.735	1.416	0	.
94	70.697	1.330	1.080	1.620	25	2
472	434.847	1.085	0.991	1.187	135	7

procedures that occurred in 2022 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.
)22. If a facility's predicted number of SSIs was < 1.0, a facility-specific SIR was neither calculated nor include

SIRs using adult surgical site infection (SSI) data[1] reported to NHSN from NHSN Acute Care Hospi

specific SIRs with SIR > National SIR %[4]	No. Hosp with SIR Significantly < National SIR N		5%	10%	15%	20%	25%
9%	200	8%	0.000	0.000	0.235	0.383	0.485
7%	132	6%	0.000	0.000	0.203	0.342	0.444
.	.	.	.	.	.	.	.
3%	7	23%	0.000	0.000	0.000	0.000	0.631
3%	0	0%	0.000	0.000	0.000	0.000	0.000
.	.	.	.	.	.	.	.
10%	4	4%	0.000	0.000	0.000	0.320	0.592
5%	2	3%	0.000	0.000	0.000	0.000	0.000
5%	2	1%	0.000	0.000	0.000	0.000	0.000
4%	0	0%	0.000	0.000	0.000	0.000	0.000
.	.	.	.	.	.	.	.
4%	0	0%	0.000	0.000	0.000	0.000	0.424
7%	75	4%	0.000	0.000	0.000	0.233	0.376
7%	7	6%	0.000	0.000	0.000	0.284	0.455
9%	13	7%	0.000	0.000	0.000	0.000	0.222
9%	26	6%	0.000	0.000	0.000	0.258	0.431
10%	6	4%	0.000	0.000	0.000	0.000	0.380
3%	1	1%	0.000	0.000	0.000	0.000	0.000
2%	0	0%	0.000	0.000	0.000	0.000	0.122
6%	15	2%	0.000	0.000	0.000	0.000	0.304
.	.	.	.	.	.	.	.
5%	15	3%	0.000	0.000	0.000	0.000	0.262
5%	8	1%	0.000	0.000	0.000	0.000	0.000
12%	0	0%	.	.	.	.	.
3%	1	1%	0.000	0.000	0.000	0.000	0.000
8%	0	0%	0.000	0.000	0.140	0.208	0.310
0%	0	0%	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
4%	1	1%	0.000	0.000	0.000	0.000	0.000
6%	0	0%	0.000	0.000	0.000	0.000	0.000
5%	15	6%	0.000	0.000	0.000	0.000	0.204
.	.	.	.	.	.	.	.
10%	0	0%	0.000	0.000	0.000	0.000	0.000
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
8%	0	0%	0.000	0.000	0.340	0.566	0.750
5%	5	4%	0.000	0.000	0.000	0.000	0.354

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 2022.
ct (SCIP). Specific NHSN procedures

ed in the distribution of facility-specific SIRs.

tals during 2022 by surgical procedure.

Percentile Distribution of Facility-specific SIRs[7]									
				Median					
30%	35%	40%	45%	50%	55%	60%	65%	70%	75%
0.563	0.633	0.700	0.778	0.867	0.927	0.998	1.096	1.196	1.295
0.525	0.608	0.678	0.760	0.824	0.899	0.978	1.080	1.171	1.281
.	.	.	.	.	.	.	.	.	.
0.816	1.009	1.209	1.265	1.319	1.766	1.928	2.499	2.592	2.747
0.000	0.000	0.000	0.000	0.000	0.686	0.709	0.755	0.913	1.033
.	.	.	.	.	.	.	.	.	.
0.651	0.785	0.807	0.869	0.947	0.976	1.097	1.163	1.231	1.362
0.000	0.115	0.260	0.506	0.611	0.748	0.799	0.835	0.944	1.099
0.000	0.365	0.445	0.549	0.623	0.687	0.766	0.861	0.925	1.063
0.000	0.000	0.000	0.290	0.459	0.652	0.691	0.769	0.905	1.178
.	.	.	.	.	.	.	.	.	.
0.593	0.714	0.828	0.878	0.931	1.070	1.244	1.417	1.611	1.736
0.464	0.540	0.613	0.678	0.756	0.838	0.910	0.980	1.093	1.254
0.595	0.648	0.721	0.817	0.946	1.023	1.149	1.244	1.328	1.578
0.407	0.585	0.659	0.742	0.851	0.958	1.083	1.197	1.380	1.545
0.524	0.622	0.723	0.817	0.935	1.096	1.217	1.319	1.464	1.621
0.512	0.634	0.765	0.844	0.923	0.971	1.137	1.314	1.521	1.647
0.000	0.259	0.398	0.559	0.677	0.765	0.884	1.064	1.221	1.338
0.479	0.626	0.651	0.654	0.744	0.851	0.874	0.936	1.032	1.217
0.444	0.572	0.667	0.748	0.820	0.913	1.001	1.159	1.302	1.459
.	.	.	.	.	.	.	.	.	.
0.405	0.528	0.603	0.658	0.759	0.849	0.938	1.047	1.226	1.444
0.513	0.622	0.726	0.807	0.875	0.943	1.125	1.293	1.434	1.596
.	.	.	.	.	.	.	.	.	.
0.000	0.299	0.396	0.443	0.565	0.643	0.722	0.861	0.927	1.053
0.313	0.388	0.415	0.438	0.463	0.480	0.601	0.792	0.825	0.844
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
0.000	0.349	0.436	0.570	0.731	0.851	0.888	0.960	1.088	1.188
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.127	0.463	0.610
0.320	0.468	0.550	0.696	0.775	0.868	0.926	0.993	1.130	1.253
.	.	.	.	.	.	.	.	.	.
0.000	0.000	0.356	0.520	0.615	0.810	0.888	0.919	1.032	1.407
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
0.854	0.982	1.144	1.363	1.561	1.673	2.012	2.380	2.634	2.786
0.517	0.635	0.689	0.744	0.847	0.952	1.164	1.399	1.603	1.784

80%	85%	90%	95%
1.430	1.570	1.825	2.201
1.405	1.560	1.809	2.210
.	.	.	.
3.053	3.596	3.640	4.515
1.330	1.592	2.077	2.623
.	.	.	.
1.525	1.868	2.217	2.847
1.486	2.040	2.245	2.601
1.294	1.561	1.945	2.881
1.520	1.848	2.319	2.511
.	.	.	.
1.825	2.060	2.377	2.607
1.427	1.607	1.848	2.301
1.837	2.061	2.315	2.899
1.809	1.990	2.548	3.446
1.844	2.024	2.458	2.897
1.797	2.122	2.369	3.120
1.412	1.547	2.254	2.766
1.422	1.739	2.288	2.487
1.633	1.890	2.298	2.851
.	.	.	.
1.672	1.901	2.259	2.661
1.775	1.964	2.257	2.896
.	.	.	.
1.256	1.497	1.795	2.711
1.035	1.171	1.761	1.881
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
1.409	1.575	1.771	2.393
0.718	0.811	0.898	1.074
1.565	1.688	1.896	2.146
.	.	.	.
1.525	1.808	2.578	2.826
.	.	.	.
.	.	.	.
2.905	3.369	3.812	3.812
1.972	2.271	2.514	2.820

Surgical Procedure	No. of Acute Care Hospitals Reporting[2]	No. of Procedures
US, all NHSN procedures	1,180	60,300
	702	15,213
	0	.
AMP Limb amputation	0	.
APPY Appendix surgery	352	11,599
AVSD Shunt for dialysis	0	.
BILI Bile duct, liver or pancreatic surgery	64	324
BRST Breast surgery	0	.
	0	.
	86	8,099
CEA Carotid endarterectomy	0	.
CHOL Gallbladder surgery	201	1,486
COLO Colon surgery[5]	613	6,421
CRAN Craniotomy (**ALL AGE**)	112	3,882
CSEC Cesarean section	432	1,503
FUSN Spinal fusion (**AGE >=2**)	280	8,335
FX Open reduction of fracture	238	3,578
GAST Gastric surgery	0	.
HER Herniorrhaphy	55	1,189
	104	210
HTP Heart transplant	0	.
	39	50
	50	74
KTP Kidney transplant	17	153
LAM Laminectomy	133	2,237
LTP Liver transplant	11	155
NECK Neck surgery	0	.
NEPH Kidney surgery	0	.
OVRY Ovarian surgery	0	.
PACE Pacemaker surgery	0	.
PRST Prostate surgery	0	.
	0	.
	57	359
SB Small bowel surgery	120	1,574
SPLE Spleen surgery	0	.
THOR Thoracic surgery	105	1,624
THYR Thyroid and/or parathyroid surgery	0	.
	0	.
VSHN Ventricular shunt	78	4,840
XLAP Abdominal surgery	182	2,608

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 SI

No. of Infections			95% CI for SIR			Facility-
Observed		SIR	Lower	Upper	No. Hosp with ≥1 Predicted Infection	No. Hosp Significantly > N
570	625.887	0.911	0.838	0.988	117	8
183	246.422	0.743	0.641	0.856	61	4
.	.	.	.	.	.	.
.	.	.	.	.	.	.
17	49.848	0.341	0.205	0.535	11	0
.	.	.	.	.	.	.
7	7.536	0.929	0.406	1.837	0	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
59	86.020	0.686	0.527	0.879	31	1
.	.	.	.	.	.	.
0	1.040	0.000	.	2.880	0	.
120	156.733	0.766	0.638	0.912	36	1
52	36.160	1.438	1.085	1.871	13	1
6	3.746	1.602	0.649	3.332	0	.
107	93.209	1.148	0.945	1.382	31	1
11	12.624	0.871	0.458	1.514	1	.
.	.	.	.	.	.	.
2	1.665	1.201	0.201	3.970	0	.
0	0.861	.	.	.	0	.
.	.	.	.	.	.	.
0	0.960	.	.	.	0	.
2	0.807	.	.	.	0	.
1	1.239	0.807	0.040	3.980	0	.
14	14.317	0.978	0.557	1.602	0	.
12	10.695	1.122	0.608	1.907	6	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
2	1.041	1.921	0.322	6.347	0	.
13	18.774	0.692	0.385	1.154	3	.
.	.	.	.	.	.	.
2	2.578	0.776	0.130	2.563	0	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
123	111.073	1.107	0.924	1.317	43	1
20	14.961	1.337	0.839	2.028	1	.

t procedures in pediatric patients less than 18 years that occurred in 2022 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 2022.

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

IRs using pediatric surgical site infection (SSI) data[1] reported to NHSN from NHSN Acute Care Hos

specific SIRs with SIR > National SIR	No. Hosp with SIR Significantly < National SIR N		5%	10%	15%	20%	25%
7%	4	3%	0.000	0.000	0.000	0.273	0.413
7%	0	0%	0.000	0.000	0.000	0.000	0.000
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3%	0	0%	0.000	0.000	0.000	0.000	0.000
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3%	0	0%	0.000	0.000	0.000	0.000	0.000
8%	0	0%	.	.	.	.	.
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3%	0	0%	0.000	0.000	0.000	0.000	0.000
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2%	2	5%	0.000	0.000	0.000	0.000	0.400
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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 2022.
ct (SCIP). Specific NHSN procedures

ed in the distribution of facility-specific SIRs.

pitals during 2022 by surgical procedure.

				Median					
30%	**35%**	**40%**	**45%**	**50%**	**55%**	**60%**	**65%**	**70%**	**75%**
0.485	0.559	0.639	0.683	0.773	0.859	0.921	1.055	1.109	1.206
0.220	0.387	0.424	0.470	0.554	0.664	0.719	0.794	0.903	1.046
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0.000	0.000	0.379	0.403	0.447	0.484	0.535	0.730	0.778	0.894
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0.000	0.000	0.366	0.506	0.669	0.775	0.805	0.903	1.118	1.285
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0.373	0.558	0.667	0.723	0.859	0.903	0.977	1.082	1.246	1.549
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0.535	0.693	0.718	0.759	0.846	0.912	0.987	1.371	1.538	1.602
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sion to the same facility.

80%	85%	90%	95%
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1.081	1.213	1.699	2.032
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1.351	1.654	1.944	3.257
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1.657	2.237	2.668	3.124
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Table 3. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Acute Care Hospitals reporting during 2022

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

State	State NHSN Mandate[2]	Any Validation[3]	No. of Acute Care 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	83	506	488.915	1.035	0.948	1.128	37	22%	0%	0.329	0.574	0.907	1.359	2.051
Alaska	Yes	No	10	16	42.652	0.375	0.222	0.596	5	.	.	.	.	.	.	.
Arizona	No	No	74	450	592.622	0.759	0.692	0.832	50	6%	16%	0.000	0.193	0.660	0.981	1.478
Arkansas	Yes	Yes	51	242	296.416	0.816	0.718	0.924	27	11%	19%	0.000	0.338	0.742	1.288	2.031
California	Yes	YesA	337	2,373	2,840.544	0.835	0.802	0.870	276	12%	11%	0.000	0.434	0.814	1.316	1.855
Colorado	Yes	Yes	59	283	379.284	0.746	0.663	0.837	37	11%	11%	0.106	0.377	0.684	0.951	1.583
Connecticut	Yes	Yes	32	236	278.103	0.849	0.745	0.962	24	4%	13%	0.125	0.455	0.651	0.942	1.198
D.C.	Yes	No	9	160	175.290	0.913	0.779	1.063	8	.	.	.	.	.	.	.
Delaware	M	No	9	106	114.111	0.929	0.764	1.119	8	.	.	.	.	.	.	.
Florida	No	No	226	1,506	2,027.551	0.743	0.706	0.781	185	8%	16%	0.000	0.289	0.627	1.085	1.561
Georgia	Yes	YesA	107	733	899.610	0.815	0.757	0.875	73	12%	15%	0.044	0.430	0.748	1.047	1.660
Guam	No	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	Yes	15	74	108.043	0.685	0.542	0.855	12	8%	8%	.	.	.	.	.
Idaho	No	No	16	48	81.649	0.588	0.438	0.773	11	18%	27%	.	.	.	.	.
Illinois	Yes	Yes	132	930	1,069.456	0.870	0.815	0.927	101	9%	6%	0.017	0.432	0.750	1.135	1.653
Indiana	Yes	Yes	92	489	622.771	0.785	0.718	0.857	59	14%	15%	0.000	0.334	0.719	1.244	1.656
Iowa	No	Yes	39	188	210.250	0.894	0.773	1.029	22	9%	5%	0.422	0.550	0.814	1.426	1.889
Kansas	No	Yes	59	165	206.642	0.798	0.683	0.928	24	0%	4%	0.000	0.000	0.762	0.989	1.213
Kentucky	Yes	Yes	71	449	459.613	0.977	0.890	1.070	43	21%	5%	0.069	0.599	0.979	1.423	2.391
Louisiana	No	No	102	374	414.268	0.903	0.815	0.998	46	9%	2%	0.330	0.607	0.894	1.082	1.866
Maine	Yes	No	20	73	81.973	0.891	0.703	1.113	9	.	.	.	.	.	.	.
Maryland	Yes	Yes	48	434	458.618	0.946	0.860	1.039	44	11%	14%	0.000	0.363	0.803	1.139	1.450
Massachusetts	Yes	Yes	67	505	671.890	0.752	0.688	0.819	51	6%	8%	0.175	0.481	0.722	0.963	1.352
Michigan	No	Yes	98	715	771.444	0.927	0.861	0.997	63	11%	10%	0.039	0.610	0.967	1.356	1.665
Minnesota	Yes	Yes	49	296	415.414	0.713	0.635	0.797	25	4%	12%	0.257	0.493	0.680	0.802	1.039
Mississippi	Yes	No	60	264	254.281	1.038	0.919	1.169	27	15%	4%	0.000	0.551	0.866	1.375	1.983
Missouri	Yes	No	78	644	726.445	0.887	0.820	0.957	51	16%	8%	0.000	0.482	0.795	1.256	1.610
Montana	No	Yes	13	28	38.389	0.729	0.494	1.040	8	.	.	.	.	.	.	.
Nebraska	No	Yes	29	103	169.631	0.607	0.498	0.733	20	0%	10%	0.000	0.210	0.583	0.748	1.017
Nevada	Yes	No	30	295	293.828	1.004	0.894	1.124	20	20%	0%	0.000	0.495	0.747	1.119	1.618
New Hampshire	Yes	Yes	13	48	81.453	0.589	0.439	0.775	10	0%	10%	.	.	.	.	.
New Jersey	Yes	Yes	72	490	618.882	0.792	0.724	0.864	67	9%	10%	0.267	0.403	0.688	1.053	1.778
New Mexico	Yes	No	32	96	119.816	0.801	0.653	0.974	15	0%	0%	.	.	.	.	.
New York	Yes	YesA	175	1,636	1,745.419	0.937	0.893	0.984	141	16%	9%	0.007	0.484	0.841	1.267	1.714
North Carolina	Yes	YesA	104	1,051	955.234	1.100	1.035	1.168	70	19%	3%	0.000	0.653	1.011	1.425	2.053
North Dakota	No	No	10	34	63.593	0.535	0.376	0.739	7	.	.	.	.	.	.	.
Ohio	No	Yes	148	1,084	1,254.157	0.864	0.814	0.917	101	10%	4%	0.175	0.505	0.797	1.082	1.539
Oklahoma	No	Yes	80	378	374.752	1.009	0.911	1.114	34	12%	6%	0.000	0.428	0.943	1.323	1.742
Oregon	Yes	Yes	36	175	267.301	0.655	0.563	0.757	24	0%	13%	0.000	0.245	0.563	0.774	0.910
Pennsylvania	Yes	Yes	177	1,100	1,392.625	0.790	0.744	0.838	108	6%	10%	0.189	0.380	0.710	1.066	1.384
Puerto Rico	Yes	Yes	21	132	80.253	1.645	1.382	1.944	14	35%	7%	.	.	.	.	.
Rhode Island	No	No	11	66	73.630	0.896	0.699	1.133	10	0%	0%	.	.	.	.	.
South Carolina	Yes	Yes	63	314	386.967	0.811	0.725	0.905	39	8%	5%	0.000	0.394	0.716	1.143	1.492
South Dakota	No	Yes	19	56	56.041	0.999	0.762	1.288	5	.	.	.	.	.	.	.
Tennessee	Yes	Yes	96	521	730.469	0.713	0.654	0.777	59	2%	19%	0.000	0.156	0.683	1.047	1.746
Texas	Yes	YesA	338	1,887	2,516.522	0.750	0.717	0.784	211	5%	9%	0.123	0.429	0.732	1.017	1.417
Utah	Yes	No	37	140	174.040	0.804	0.679	0.946	16	6%	0%	.	.	.	.	.
Vermont	Yes	No	7	27	36.323	0.743	0.500	1.067	3	.	.	.	.	.	.	.
Virgin Islands			2	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	Yes	Yes	82	434	591.874	0.733	0.667	0.805	52	6%	10%	0.259	0.356	0.515	0.874	1.279
Washington	Yes	Yes	58	460	591.059	0.778	0.710	0.852	46	4%	15%	0.223	0.391	0.720	0.945	1.344
West Virginia	Yes	No	31	197	198.304	0.993	0.862	1.140	21	10%	5%	0.124	0.555	0.985	1.462	1.860
Wisconsin	No	Yes	87	358	476.328	0.752	0.677	0.833	52	4%	8%	0.000	0.253	0.647	1.054	1.380
Wyoming	No	No	12	15	12.477	1.202	0.699	1.938	2	.	.	.	.	.	.	.
All US			**3,728**	**23,389**	**27,993.688**	**0.836**	**0.825**	**0.846**	**2,475**	**10%**	**10%**	**0.000**	**0.409**	**0.756**	**1.147**	**1.688**

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 acute care hospitals; as such, they exclude data from LTACHs, IRFs, and CAHs.
2. Yes indicates the presence of a state mandate to report CLABSI data from any location to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate.
   No indicates that a state mandate did not exist during 2022. A blank field indicates data not available.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2022 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2022 NHSN data prior to June 1, 2023, 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, 2023 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 2022.
5. Percent of facilities with at least one predicted CLABSI that had an SIR significantly greater or less than the nominal value of the 2022 national overall CLABSI SIR of 0.836. This is only calculated if at least 10 facilities had ≥ 1.0 predicted CLABSI in 2022.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted CLABSI in 2022. 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 Acute Care Hospitals reporting during 2022

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

State		No. of Acute Care Hospitals Reporting[3]	No. of Infections: Observed	Predicted	SIR	95% CI for SIR: Lower	Upper	Facility-specific SIRs	% of hosp with SIR sig higher than national SIR[4]	% of hosp with SIR sig lower than national SIR[4]	Facility-specific SIRs at Key Percentiles[5]: 10%	25%		75%	90%
Alabama	Yes	67	241	210.248	1.146	1.008	1.298	31	16%	3%	0.279	0.554	0.898	1.294	1.995
Alaska	Yes	7	6	12.279	0.489	0.198	1.016	3	.	.	.	.	.	.	.
Arizona	No	53	215	219.372	0.980	0.855	1.118	39	10%	8%	0.000	0.000	0.695	1.386	1.748
Arkansas	Yes	41	115	119.929	0.959	0.795	1.147	22	9%	0%	0.000	0.188	0.725	1.223	1.723
California	Yes	312	1,015	1,021.369	0.994	0.934	1.056	201	8%	6%	0.000	0.406	0.869	1.487	2.188
Colorado	Yes	48	101	124.529	0.811	0.664	0.981	31	0%	6%	0.000	0.278	0.650	0.998	1.667
Connecticut	Yes	28	84	93.247	0.901	0.723	1.110	21	0%	0%	0.000	0.462	0.765	1.245	1.676
D.C.	Yes	8	57	61.554	0.926	0.708	1.191	7	.	.	.	.	.	.	.
Delaware	M	9	36	29.727	1.211	0.861	1.658	6	.	.	.	.	.	.	.
Florida	No	206	556	745.838	0.745	0.685	0.809	138	4%	12%	0.000	0.000	0.647	1.102	1.535
Georgia	Yes	93	338	370.895	0.911	0.818	1.012	58	9%	14%	0.185	0.393	0.779	1.390	1.887
Guam	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	14	37	32.758	1.129	0.807	1.540	10	0%	0%	.	.	.	.	.
Idaho	No	14	16	27.117	0.590	0.349	0.938	8	.	.	.	.	.	.	.
Illinois	Yes	119	418	368.338	1.135	1.030	1.248	70	11%	6%	0.000	0.337	0.977	1.572	2.213
Indiana	Yes	71	189	244.123	0.774	0.670	0.891	46	9%	15%	0.000	0.195	0.751	1.428	2.736
Iowa	No	33	71	67.019	1.059	0.834	1.328	12	17%	0%	.	.	.	.	.
Kansas	No	40	67	69.252	0.967	0.756	1.221	14	7%	0%	.	.	.	.	.
Kentucky	Yes	64	229	183.510	1.248	1.094	1.418	29	17%	7%	0.000	0.669	1.233	1.827	2.545
Louisiana	No	70	168	155.429	1.081	0.926	1.254	36	8%	6%	0.000	0.471	0.912	1.368	2.150
Maine	Yes	15	36	27.854	1.292	0.919	1.770	4	.	.	.	.	.	.	.
Maryland	Yes	45	189	145.950	1.295	1.120	1.490	32	16%	6%	0.000	0.450	0.870	1.472	2.150
Massachusetts	Yes	58	198	236.161	0.838	0.728	0.961	31	0%	3%	0.000	0.000	0.510	0.981	1.323
Michigan	No	80	316	296.626	1.065	0.953	1.188	55	11%	7%	0.000	0.387	1.028	1.464	2.248
Minnesota	Yes	31	111	133.480	0.832	0.687	0.998	16	6%	13%	.	.	.	.	.
Mississippi	Yes	44	96	93.359	1.028	0.838	1.250	18	17%	0%	.	.	.	.	.
Missouri	Yes	72	233	241.666	0.964	0.846	1.094	39	8%	8%	0.000	0.404	0.764	1.143	2.071
Montana	No	10	14	13.170	1.063	0.605	1.741	4	.	.	.	.	.	.	.
Nebraska	No	18	36	51.420	0.700	0.498	0.959	10	0%	10%	.	.	.	.	.
Nevada	Yes	21	112	113.409	0.988	0.817	1.184	16	13%	13%	.	.	.	.	.
New Hampshire	Yes	13	18	25.229	0.713	0.436	1.106	6	.	.	.	.	.	.	.
New Jersey	Yes	72	165	205.866	0.801	0.686	0.931	52	4%	4%	0.000	0.000	0.557	0.935	1.461
New Mexico	Yes	27	54	52.869	1.021	0.775	1.323	11	9%	0%	.	.	.	.	.
New York	Yes	160	545	586.611	0.929	0.853	1.010	103	9%	10%	0.000	0.160	0.777	1.357	1.910
North Carolina	Yes	86	432	317.218	1.362	1.238	1.495	41	22%	2%	0.000	0.914	1.268	1.854	2.619
North Dakota	No	7	16	18.979	0.843	0.499	1.340	6	.	.	.	.	.	.	.
Ohio	No	123	470	446.003	1.054	0.962	1.152	66	11%	5%	0.115	0.497	0.849	1.239	1.660
Oklahoma	No	50	196	153.891	1.274	1.104	1.462	20	30%	0%	0.312	0.758	1.123	2.025	2.646
Oregon	Yes	33	72	81.469	0.884	0.697	1.106	17	6%	0%	.	.	.	.	.
Pennsylvania	Yes	136	467	506.823	0.921	0.841	1.008	76	5%	7%	0.117	0.440	0.784	1.272	1.786
Puerto Rico	Yes	19	63	27.777	2.268	1.758	2.883	10	30%	0%	.	.	.	.	.
Rhode Island	No	10	32	27.323	1.171	0.815	1.634	4	.	.	.	.	.	.	.
South Carolina	Yes	54	138	141.588	0.975	0.822	1.148	21	10%	10%	0.037	0.440	0.940	1.441	1.781
South Dakota	No	11	31	12.882	2.406	1.664	3.374	3	.	.	.	.	.	.	.
Tennessee	Yes	81	190	271.223	0.701	0.606	0.806	45	4%	11%	0.000	0.189	0.684	0.976	1.884
Texas	Yes	253	767	952.247	0.805	0.750	0.864	168	3%	9%	0.000	0.340	0.745	1.086	1.551

Utah	Yes	30	59	73.707	0.800	0.615	1.025	11	9%	9%	.	.	.	.	.
Vermont	No	5	6	8.319	0.721	0.292	1.500	1	.	.	.	.	.	.	.
Virgin Islands		2	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	Yes	72	200	205.467	0.973	0.845	1.116	35	9%	0%	0.154	0.462	0.877	1.513	1.898
Washington	Yes	48	211	195.450	1.080	0.941	1.233	36	3%	6%	0.127	0.379	0.815	1.308	1.991
West Virginia	Yes	28	102	89.392	1.141	0.935	1.379	16	13%	6%	.	.	.	.	.
Wisconsin	No	66	122	157.097	0.777	0.648	0.924	34	0%	6%	0.000	0.149	0.623	0.853	1.441
Wyoming	No	11	8	4.002	1.999	0.928	3.796	2	.	.	.	.	.	.	.
All US		**3,090**	**9,666**	**10,074.210**	**0.959**	**0.940**	**0.979**	**1,792**	**8%**	**7%**	**0.000**	**0.369**	**0.807**	**1.341**	**2.009**

1. Data from all ICUs; excludes 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 acute care hospitals; as such, they exclude data from LTACHs, IRFs, and CAHs.
2. Yes indicates the presence of a state mandate to report CLABSI data from critical care units to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2022. A blank field indicates data not available. Note that almost all acute care 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 2022.
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 2022 national ICU CLABSI SIR of 0.959. This is only calculated if at least 10 facilities had at least one predicted ICU CLABSI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted ICU CLABSI in 2022. 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 Acute Care Hospitals reporting during 2022
3c. Central line-associated bloodstream infections (CLABSI), 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	No	81	250	236.743	1.056	0.931	1.193	32	16%	0%	0.256	0.449	0.861	1.748	3.006
Alaska	Yes	10	9	26.969	0.334	0.163	0.612	5	.	.	.	.	.	.	.
Arizona	No	74	221	340.884	0.648	0.567	0.738	40	3%	8%	0.000	0.000	0.509	0.768	1.317
Arkansas	Yes	49	103	148.226	0.695	0.570	0.839	21	5%	0%	0.000	0.245	0.465	0.814	1.563
California	Yes	334	1,248	1,649.137	0.757	0.716	0.800	229	5%	7%	0.000	0.276	0.676	1.138	1.656
Colorado	Yes	57	152	230.544	0.659	0.561	0.771	31	3%	0%	0.015	0.321	0.584	0.822	1.030
Connecticut	Yes	32	138	173.369	0.796	0.671	0.937	24	4%	13%	0.000	0.124	0.566	0.950	1.161
D.C.	No	9	95	96.872	0.981	0.798	1.193	7	.	.	.	.	.	.	.
Delaware	M	9	61	75.051	0.813	0.627	1.037	8	.	.	.	.	.	.	.
Florida	No	222	880	1,137.672	0.774	0.724	0.826	160	9%	8%	0.000	0.312	0.668	1.114	1.612
Georgia	Yes	106	340	450.842	0.754	0.677	0.838	64	13%	5%	0.000	0.370	0.611	0.966	1.405
Guam	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	15	28	60.845	0.460	0.312	0.656	11	0%	0%	.	.	.	.	.
Idaho	No	16	28	47.979	0.584	0.395	0.832	10	0%	10%	.	.	.	.	.
Illinois	No	131	453	637.440	0.711	0.647	0.778	84	5%	8%	0.000	0.271	0.601	0.921	1.317
Indiana	Yes	89	272	346.364	0.785	0.696	0.883	50	8%	6%	0.000	0.239	0.712	1.092	1.597
Iowa	No	38	103	124.189	0.829	0.680	1.002	16	6%	6%	.	.	.	.	.
Kansas	No	59	84	126.140	0.666	0.535	0.820	17	0%	6%	.	.	.	.	.
Kentucky	Yes	71	208	252.024	0.825	0.719	0.943	33	9%	3%	0.000	0.470	0.850	1.214	1.606
Louisiana	No	102	175	216.318	0.809	0.696	0.936	40	5%	0%	0.000	0.501	0.736	1.235	1.562
Maine	Yes	20	33	50.674	0.651	0.456	0.904	8	.	.	.	.	.	.	.
Maryland	Yes	48	227	287.783	0.789	0.691	0.897	41	7%	5%	0.000	0.216	0.553	0.949	1.381
Massachusetts	Yes	66	290	413.524	0.701	0.624	0.786	41	2%	5%	0.000	0.310	0.675	0.917	1.161
Michigan	No	98	356	421.100	0.845	0.761	0.937	56	16%	2%	0.000	0.398	0.763	1.421	2.157
Minnesota	Yes	49	176	265.367	0.663	0.571	0.767	23	4%	9%	0.164	0.416	0.602	0.759	0.949
Mississippi	Yes	60	145	137.622	1.054	0.892	1.236	17	12%	6%	.	.	.	.	.
Missouri	Yes	78	371	431.650	0.859	0.775	0.950	45	13%	2%	0.000	0.429	0.670	1.126	1.544
Montana	No	13	12	22.694	0.529	0.287	0.899	6	.	.	.	.	.	.	.
Nebraska	No	29	61	107.053	0.570	0.440	0.727	18	0%	11%	.	.	.	.	.
Nevada	Yes	30	176	156.611	1.124	0.967	1.299	17	18%	0%	.	.	.	.	.
New Hampshire	No	13	27	52.094	0.518	0.349	0.744	8	.	.	.	.	.	.	.
New Jersey	Yes	72	301	381.384	0.789	0.704	0.882	60	8%	8%	0.000	0.416	0.703	0.982	1.611
New Mexico	Yes	32	36	59.395	0.606	0.431	0.830	9	.	.	.	.	.	.	.
New York	Yes	174	1,022	1,056.056	0.968	0.910	1.028	126	12%	2%	0.000	0.444	0.809	1.196	1.729
North Carolina	Yes	104	562	575.092	0.977	0.899	1.061	58	16%	2%	0.000	0.374	0.786	1.315	1.708
North Dakota	No	10	17	39.976	0.425	0.256	0.667	7	.	.	.	.	.	.	.
Ohio	No	148	571	737.562	0.774	0.713	0.840	89	4%	6%	0.000	0.246	0.728	0.928	1.246
Oklahoma	No	80	168	190.329	0.883	0.757	1.024	24	4%	8%	0.000	0.090	0.786	0.978	1.194
Oregon	Yes	36	101	174.020	0.580	0.475	0.702	22	0%	5%	0.000	0.270	0.466	0.607	0.819
Pennsylvania	Yes	177	580	822.486	0.705	0.650	0.764	101	3%	5%	0.000	0.265	0.610	0.903	1.269
Puerto Rico	Yes	19	68	51.563	1.319	1.032	1.662	10	10%	0%	.	.	.	.	.
Rhode Island	No	11	29	40.972	0.708	0.483	1.003	6	.	.	.	.	.	.	.
South Carolina	Yes	63	168	222.553	0.755	0.647	0.876	32	6%	9%	0.000	0.265	0.794	1.122	1.414
South Dakota	No	19	25	38.069	0.657	0.434	0.955	4	.	.	.	.	.	.	.
Tennessee	Yes	96	299	391.552	0.764	0.681	0.854	45	4%	2%	0.000	0.051	0.620	1.021	1.366
Texas	Yes	333	953	1,330.878	0.716	0.672	0.763	178	4%	4%	0.000	0.425	0.720	1.013	1.628
Utah	Yes	37	59	82.756	0.713	0.548	0.913	9	.	.	.	.	.	.	.
Vermont	No	7	20	25.611	0.781	0.490	1.185	2	.	.	.	.	.	.	.
Virgin Islands		2	.	.	.	.	.	.	.	.	.	.	.	.	.

Virginia	Yes	82	214	347.550	0.616	0.537	0.702	46	0%	7%	0.000	0.225	0.389	0.808	1.204
Washington	Yes	58	222	367.604	0.604	0.528	0.687	40	3%	13%	0.145	0.330	0.559	0.720	0.825
West Virginia	Yes	30	85	100.103	0.849	0.682	1.045	17	12%	0%	.	.	.	.	.
Wisconsin	No	87	217	296.445	0.732	0.639	0.834	42	7%	7%	0.000	0.062	0.593	0.964	1.345
Wyoming	No	12	7	8.475	0.826	0.361	1.634	2	.	.	.	.	.	.	.
All US		**3,698**	**12,449**	**16,067.482**	**0.775**	**0.761**	**0.788**	**2,092**	**7%**	**5%**	**0.000**	**0.326**	**0.668**	**1.034**	**1.548**

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 acute care hospitals; as such, they exclude data from LTACHs, IRFs, and CAHs
2. Yes indicates the presence of a state mandate to report CLABSI data from ward locations to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2022. A blank field indicates data not available.
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 2022.
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 2022 national ward CLABSI SIR of 0.775. This is only calculated if at least 10 facilities had at least one predicted ward CLABSI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted ward CLABSI in 2022. 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 3. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Acute Care Hospitals reporting during 2022

3d. Central line-associated bloodstream infections (CLABSI), neonatal 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	15	15	41.923	0.358	0.208	0.577	6	.	.	.	.	.	.	.
Alaska	Yes	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Arizona	No	18	14	32.364	0.433	0.246	0.709	8	.	.	.	.	.	.	.
Arkansas	Yes	9	24	28.263	0.849	0.557	1.244	5	.	.	.	.	.	.	.
California	Yes	129	110	170.038	0.647	0.534	0.777	42	5%	7%	0.000	0.000	0.466	0.844	1.297
Colorado	Yes	23	30	24.210	1.239	0.851	1.747	6	.	.	.	.	.	.	.
Connecticut	Yes	13	14	11.488	1.219	0.694	1.996	2	.	.	.	.	.	.	.
D.C.	Yes	5	8	16.863	0.474	0.220	0.901	3	.	.	.	.	.	.	.
Delaware	M	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Florida	No	63	70	144.042	0.486	0.382	0.610	29	3%	14%	0.000	0.157	0.494	0.858	1.183
Georgia	Yes	36	55	77.873	0.706	0.537	0.912	22	5%	0%	0.000	0.000	0.465	0.975	1.545
Guam	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Idaho	No	10	4	6.551	0.611	0.194	1.473	2	.	.	.	.	.	.	.
Illinois	Yes	36	59	63.680	0.927	0.712	1.187	18	11%	0%	.	.	.	.	.
Indiana	Yes	28	28	32.287	0.867	0.588	1.237	6	.	.	.	.	.	.	.
Iowa	No	12	14	19.040	0.735	0.419	1.204	3	.	.	.	.	.	.	.
Kansas	No	9	14	11.248	1.245	0.708	2.039	4	.	.	.	.	.	.	.
Kentucky	Yes	16	12	24.081	0.498	0.270	0.847	5	.	.	.	.	.	.	.
Louisiana	No	27	31	42.521	0.729	0.504	1.022	8	.	.	.	.	.	.	.
Maine	Yes	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Maryland	Yes	16	18	24.885	0.723	0.442	1.121	5	.	.	.	.	.	.	.
Massachusetts	Yes	10	17	22.206	0.766	0.461	1.201	8	.	.	.	.	.	.	.
Michigan	No	20	43	53.716	0.801	0.587	1.068	14	0%	0%	.	.	.	.	.
Minnesota	Yes	11	9	16.568	0.543	0.265	0.997	3	.	.	.	.	.	.	.
Mississippi	Yes	14	23	23.303	0.987	0.641	1.458	2	.	.	.	.	.	.	.
Missouri	Yes	21	40	53.131	0.753	0.545	1.015	10	10%	10%	.	.	.	.	.
Montana	No	6	2	2.526	0.792	0.133	2.616	1	.	.	.	.	.	.	.
Nebraska	No	7	6	11.157	0.538	0.218	1.119	4	.	.	.	.	.	.	.
Nevada	Yes	10	7	23.808	0.294	0.129	0.582	10	0%	0%	.	.	.	.	.
New Hampshire	Yes	3	.	.	.	.	.	.	.	.	.	.	.	.	.
New Jersey	Yes	24	24	31.635	0.759	0.497	1.112	11	9%	0%	.	.	.	.	.
New Mexico	Yes	4	.	.	.	.	.	.	.	.	.	.	.	.	.
New York	Yes	53	69	102.750	0.672	0.527	0.845	24	4%	4%	0.000	0.000	0.484	0.905	1.414
North Carolina	Yes	25	57	62.922	0.906	0.693	1.165	11	18%	9%	.	.	.	.	.
North Dakota	No	6	1	4.637	0.216	0.011	1.064	2	.	.	.	.	.	.	.
Ohio	No	20	43	70.594	0.609	0.446	0.813	13	0%	15%	.	.	.	.	.
Oklahoma	No	7	14	30.533	0.459	0.261	0.751	6	.	.	.	.	.	.	.
Oregon	Yes	10	2	11.813	0.169	0.028	0.559	3	.	.	.	.	.	.	.
Pennsylvania	Yes	46	53	63.316	0.837	0.633	1.086	15	7%	0%	.	.	.	.	.
Puerto Rico	Yes	7	1	0.914	.	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
South Carolina	Yes	8	8	22.828	0.350	0.163	0.665	5	.	.	.	.	.	.	.
South Dakota	No	3	.	.	.	.	.	.	.	.	.	.	.	.	.
Tennessee	Yes	23	32	67.692	0.473	0.329	0.659	11	0%	18%	.	.	.	.	.
Texas	Yes	127	167	233.393	0.716	0.613	0.830	46	2%	2%	0.865	0.944	1.234	1.610	1.902
Utah	Yes	14	22	17.577	1.252	0.804	1.864	5	.	.	.	.	.	.	.
Vermont	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Virgin Islands		1	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	Yes	28	20	38.860	0.515	0.323	0.781	10	0%	10%	.	.	.	.	.
Washington	Yes	16	27	28.003	0.964	0.648	1.383	6	.	.	.	.	.	.	.
West Virginia	Yes	6	10	8.808	1.135	0.577	2.024	3	.	.	.	.	.	.	.
Wisconsin	No	18	19	22.790	0.834	0.517	1.278	9	.	.	.	.	.	.	.
Wyoming	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
All US		**1,023**	**1,274**	**1,852.002**	**0.688**	**0.651**	**0.726**	**420**	**5%**	**5%**	**0.000**	**0.100**	**0.589**	**0.971**	**1.539**

1. Data from all NICUs including Level II/III, Level III, and Level IV nurseries. Both umbilical line and central line-associated bloodstream infections are considered CLABSIs. CLABSIs identified as Mucosal Barrier Injury (MBI) are excluded from the SIRs. These tables contain data from acute care hospitals; as such, they exclude data from LTACHs, IRFs, and CAHs.
2. Yes indicates the presence of a state mandate to report CLABSI data from NICUs to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2022. A blank field indicates data not available. Note that almost all acute care hospitals are required to report CLABSI data from NICUs to NHSN for participation in parts of the Centers for Medicare and Medicaid Services (CMS) Hospital-Acquired Conditions Reduction Program (HACRP) and the Hospital Value-Based Purchasing (VBP) 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 NICU in 2022.
4. Percent of facilities with at least one predicted NICU CLABSI that had an SIR significantly greater or less than the nominal value of the 2022 national NICU CLABSI SIR of 0.688. This is only calculated if at least 10 facilities had at least one predicted NICU CLABSI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted NICU CLABSI in 2022. If a facility's predicted number of NICU 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 Acute Care Hospitals reporting during 2022

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	86	474	672.742	0.705	0.643	0.770	46	11%	7%	0.000	0.120	0.483	0.889	1.335
Alaska	Yes	No	10	40	36.891	1.084	0.785	1.462	6	.	.	.	.	.	.	.
Arizona	No	No	75	339	610.921	0.555	0.498	0.616	49	4%	12%	0.178	0.313	0.527	0.780	1.011
Arkansas	Yes	Yes	50	179	336.602	0.532	0.458	0.614	29	3%	17%	0.000	0.218	0.448	0.756	1.098
California	No	No	332	2,268	2,866.174	0.791	0.759	0.824	287	13%	5%	0.000	0.444	0.766	1.120	1.646
Colorado	Yes	Yes	56	218	390.925	0.558	0.487	0.635	37	11%	8%	0.000	0.256	0.470	0.810	1.303
Connecticut	Yes	Yes	32	139	287.453	0.484	0.408	0.569	25	4%	12%	0.116	0.281	0.534	0.818	1.520
D.C.	Yes	No	9	61	131.845	0.463	0.357	0.590	8	.	.	.	.	.	.	.
Delaware	M	No	10	67	88.507	0.757	0.591	0.955	8	.	.	.	.	.	.	.
Florida	No	No	226	1,089	2,019.294	0.539	0.508	0.572	190	2%	16%	0.000	0.224	0.487	0.782	1.167
Georgia	Yes	YesA	112	581	906.558	0.641	0.590	0.695	73	7%	11%	0.000	0.326	0.569	0.931	1.479
Guam	No	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	Yes	16	85	93.945	0.905	0.727	1.113	12	17%	0%	.	.	.	.	.
Idaho	No	No	18	76	93.638	0.812	0.644	1.010	13	8%	0%	.	.	.	.	.
Illinois	No	No	132	766	1,050.950	0.729	0.679	0.782	104	11%	7%	0.000	0.389	0.641	1.133	1.500
Indiana	Yes	Yes	92	408	623.393	0.654	0.593	0.720	64	8%	6%	0.135	0.367	0.578	1.095	1.745
Iowa	No	Yes	40	198	250.772	0.790	0.685	0.905	28	4%	7%	0.000	0.120	0.784	1.048	1.276
Kansas	No	Yes	60	147	202.676	0.725	0.615	0.850	26	8%	4%	0.000	0.341	0.588	0.893	1.189
Kentucky	Yes	Yes	71	402	563.461	0.713	0.646	0.786	51	12%	4%	0.000	0.248	0.606	0.952	1.231
Louisiana	No	No	107	285	477.389	0.597	0.531	0.669	56	7%	11%	0.000	0.324	0.647	1.102	1.790
Maine	Yes	No	20	80	85.554	0.935	0.746	1.158	12	8%	8%	.	.	.	.	.
Maryland	Yes	Yes	48	359	477.049	0.753	0.678	0.833	45	7%	4%	0.000	0.375	0.626	1.055	1.458
Massachusetts	Yes	Yes	67	605	642.914	0.941	0.868	1.018	53	26%	4%	0.248	0.565	0.935	1.460	2.510
Michigan	No	Yes	98	616	914.452	0.674	0.622	0.728	72	10%	17%	0.005	0.378	0.716	1.015	1.355
Minnesota	Yes	Yes	49	365	419.806	0.869	0.784	0.962	29	17%	0%	0.368	0.650	0.877	1.222	1.644
Mississippi	Yes	No	62	214	335.733	0.637	0.556	0.727	35	0%	6%	0.000	0.000	0.598	0.838	1.249
Missouri	Yes	No	76	499	682.089	0.732	0.669	0.798	56	11%	5%	0.000	0.187	0.665	1.073	1.552
Montana	No	Yes	13	43	70.892	0.607	0.444	0.809	9	.	.	.	.	.	.	.
Nebraska	No	Yes	28	129	142.905	0.903	0.757	1.069	17	12%	0%	.	.	.	.	.
Nevada	No	No	30	187	293.440	0.637	0.551	0.734	22	18%	23%	0.214	0.362	0.738	1.145	1.607
New Hampshire	Yes	Yes	13	77	100.930	0.763	0.606	0.948	13	15%	0%	.	.	.	.	.
New Jersey	Yes	Yes	72	471	647.582	0.727	0.664	0.795	70	10%	9%	0.000	0.245	0.683	1.033	1.501
New Mexico	No	No	33	169	170.693	0.990	0.849	1.148	17	29%	6%	.	.	.	.	.
New York	No	Yes	176	1,385	1,915.157	0.723	0.686	0.762	148	14%	11%	0.167	0.355	0.638	0.975	1.422
North Carolina	Yes	Yes	104	804	966.820	0.832	0.776	0.891	79	15%	6%	0.000	0.400	0.816	1.206	2.004
North Dakota	No	No	10	26	59.642	0.436	0.291	0.630	7	.	.	.	.	.	.	.
Ohio	No	Yes	151	785	1,304.806	0.602	0.561	0.645	104	7%	11%	0.000	0.320	0.567	0.895	1.482
Oklahoma	No	Yes	81	231	387.386	0.596	0.523	0.677	37	5%	11%	0.000	0.031	0.409	0.686	1.241
Oregon	Yes	Yes	36	240	271.324	0.885	0.778	1.002	26	19%	8%	0.000	0.290	0.790	1.051	1.752
Pennsylvania	Yes	Yes	186	1,177	1,524.331	0.772	0.729	0.817	119	12%	7%	0.202	0.444	0.752	0.998	1.417
Puerto Rico	Yes	No	22	136	148.290	0.917	0.772	1.081	19	32%	21%	.	.	.	.	.
Rhode Island	No	No	11	78	86.614	0.901	0.717	1.118	10	20%	0%	.	.	.	.	.
South Carolina	Yes	Yes	65	318	424.728	0.749	0.670	0.834	42	7%	5%	0.000	0.000	0.672	1.125	1.507
South Dakota	No	Yes	21	54	73.541	0.734	0.557	0.951	7	.	.	.	.	.	.	.
Tennessee	Yes	Yes	98	485	751.621	0.645	0.590	0.705	70	6%	9%	0.000	0.000	0.497	0.836	1.083
Texas	No	No	355	1,313	2,321.756	0.566	0.536	0.597	215	7%	11%	0.000	0.293	0.497	0.808	1.146
Utah	Yes	No	37	114	148.391	0.768	0.637	0.919	19	0%	5%	.	.	.	.	.

Vermont	No	No	7	41	42.306	0.969	0.705	1.302	6	.	.	.	.	.	.	.
Virgin Islands			2	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	Yes	Yes	82	398	611.824	0.651	0.589	0.717	54	6%	11%	0.000	0.378	0.572	0.854	1.357
Washington	Yes	Yes	59	480	584.072	0.822	0.751	0.898	45	11%	2%	0.268	0.531	0.674	1.058	1.223
West Virginia	Yes	No	32	175	264.978	0.660	0.568	0.764	22	9%	9%	0.000	0.334	0.545	0.883	1.223
Wisconsin	No	Yes	87	331	444.823	0.744	0.667	0.828	53	9%	6%	0.000	0.327	0.743	1.348	1.804
Wyoming	No	No	13	10	23.933	0.418	0.212	0.745	3	.	.	.	.	.	.	.
All US			**3,780**	**20,237**	**29,055.165**	**0.697**	**0.687**	**0.706**	**2,650**	**9%**	**9%**	**0.000**	**0.342**	**0.646**	**1.004**	**1.553**

1. Data from all ICUs and wards (and other non-critical care locations). This excludes NICUs. These tables contain data from acute care hospitals; as such, they exclude data from LTACHs, IRFs, and CAHs.
2. Yes indicates the presence of a state mandate to report CAUTI data from any location to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate.
   No indicates that a state mandate did not exist during 2022. A blank field indicates data not available.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2022 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2022 NHSN data prior to June 1, 2023, 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, 2023 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 2022.
5. Percent of facilities with at least one predicted CAUTI that had an SIR significantly greater or less than the nominal value of the 2022 national overall CAUTI SIR of 0.697. This is only calculated if at least 10 facilities had at least one predicted CAUTI in 2022.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted CAUTI in 2022. 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 Acute Care Hospitals reporting during 2022

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	69	223	376.528	0.592	0.518	0.674	36	11%	8%	0.000	0.191	0.467	0.835	1.654
Alaska	Yes	7	6	14.454	0.415	0.168	0.863	4	.	.	.	.	.	.	.
Arizona	No	53	136	279.736	0.486	0.409	0.573	42	5%	10%	0.000	0.000	0.359	0.903	1.404
Arkansas	Yes	41	78	167.643	0.465	0.370	0.578	26	4%	12%	0.000	0.109	0.459	0.618	0.987
California	No	312	926	1,220.386	0.759	0.711	0.809	215	10%	2%	0.000	0.381	0.716	1.075	1.614
Colorado	Yes	48	81	179.930	0.450	0.360	0.557	29	3%	7%	0.000	0.228	0.410	0.989	1.359
Connecticut	Yes	28	52	134.425	0.387	0.292	0.503	23	0%	9%	0.000	0.000	0.464	0.779	1.497
D.C.	Yes	8	19	71.820	0.265	0.164	0.405	8	.	.	.	.	.	.	.
Delaware	M	9	13	34.706	0.375	0.208	0.624	7	.	.	.	.	.	.	.
Florida	No	206	384	980.885	0.391	0.354	0.432	146	1%	10%	0.000	0.000	0.299	0.637	1.015
Georgia	Yes	94	218	456.918	0.477	0.417	0.544	58	2%	7%	0.000	0.178	0.412	0.682	0.882
Guam	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	14	30	38.450	0.780	0.536	1.100	11	9%	0%	.	.	.	.	.
Idaho	No	14	27	38.598	0.700	0.470	1.004	8	.	.	.	.	.	.	.
Illinois	No	119	276	450.493	0.613	0.544	0.688	81	5%	1%	0.000	0.042	0.561	0.944	1.445
Indiana	Yes	73	185	284.655	0.650	0.561	0.749	48	10%	2%	0.000	0.252	0.576	1.149	1.762
Iowa	No	33	61	96.962	0.629	0.485	0.803	14	7%	0%	.	.	.	.	.
Kansas	No	40	55	94.866	0.580	0.441	0.749	14	0%	7%	.	.	.	.	.
Kentucky	Yes	64	188	263.057	0.715	0.618	0.822	34	24%	6%	0.000	0.355	0.671	1.058	1.977
Louisiana	No	72	115	226.190	0.508	0.422	0.608	36	3%	8%	0.000	0.045	0.576	0.885	0.999
Maine	Yes	15	27	34.655	0.779	0.524	1.118	5	.	.	.	.	.	.	.
Maryland	Yes	45	146	197.621	0.739	0.626	0.866	34	12%	0%	0.000	0.100	0.610	1.100	1.688
Massachusetts	Yes	58	200	306.111	0.653	0.567	0.749	35	9%	9%	0.000	0.281	0.615	0.993	1.188
Michigan	No	80	225	427.381	0.526	0.461	0.599	58	10%	9%	0.000	0.167	0.478	0.936	1.239
Minnesota	Yes	31	129	174.802	0.738	0.619	0.874	16	13%	0%	.	.	.	.	.
Mississippi	Yes	45	81	151.395	0.535	0.428	0.662	22	14%	0%	0.000	0.000	0.357	0.878	1.342
Missouri	Yes	72	183	310.195	0.590	0.509	0.680	44	11%	2%	0.000	0.117	0.398	0.824	2.094
Montana	No	10	16	24.419	0.655	0.388	1.041	5	.	.	.	.	.	.	.
Nebraska	No	17	45	52.878	0.851	0.628	1.129	8	.	.	.	.	.	.	.
Nevada	No	21	80	140.594	0.569	0.454	0.704	16	13%	13%	.	.	.	.	.
New Hampshire	Yes	13	27	41.073	0.657	0.442	0.943	8	.	.	.	.	.	.	.
New Jersey	Yes	72	149	260.923	0.571	0.485	0.668	53	6%	4%	0.000	0.000	0.380	0.802	1.123
New Mexico	No	27	86	76.385	1.126	0.906	1.384	14	29%	0%	.	.	.	.	.
New York	No	159	474	835.982	0.567	0.518	0.620	119	8%	3%	0.000	0.000	0.473	0.928	1.567
North Carolina	Yes	86	309	449.407	0.688	0.614	0.768	48	10%	4%	0.000	0.238	0.676	1.016	1.736
North Dakota	No	7	6	22.310	0.269	0.109	0.559	6	.	.	.	.	.	.	.
Ohio	No	123	303	598.434	0.506	0.452	0.566	75	9%	3%	0.000	0.000	0.476	0.853	1.407
Oklahoma	No	51	100	186.429	0.536	0.439	0.650	24	8%	4%	0.000	0.000	0.340	0.869	1.201
Oregon	Yes	33	77	109.116	0.706	0.561	0.877	19	16%	5%	.	.	.	.	.
Pennsylvania	Yes	136	456	721.145	0.632	0.576	0.692	95	5%	3%	0.000	0.349	0.711	1.021	1.425
Puerto Rico	Yes	16	44	43.011	1.023	0.752	1.361	12	17%	0%	.	.	.	.	.
Rhode Island	No	10	33	39.277	0.840	0.588	1.166	5	.	.	.	.	.	.	.
South Carolina	Yes	54	117	196.614	0.595	0.494	0.711	26	0%	0%	0.000	0.000	0.454	0.769	1.015

South Dakota	No	11	14	26.428	0.530	0.302	0.868	3	.	.	.	.	.	.	.
Tennessee	Yes	81	199	372.085	0.535	0.464	0.613	45	7%	9%	0.000	0.000	0.360	0.767	1.158
Texas	No	254	555	1,165.243	0.476	0.438	0.517	167	2%	6%	0.000	0.000	0.372	0.736	1.093
Utah	Yes	30	59	89.268	0.661	0.508	0.847	12	8%	0%	.	.	.	.	.
Vermont	No	5	17	16.702	1.018	0.613	1.597	2	.	.	.	.	.	.	.
Virgin Islands		2	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	Yes	72	157	273.478	0.574	0.489	0.669	40	8%	8%	0.000	0.000	0.706	0.928	1.147
Washington	Yes	48	166	240.356	0.691	0.591	0.802	38	5%	5%	0.258	0.389	0.518	0.818	1.770
West Virginia	Yes	28	74	129.932	0.570	0.450	0.711	18	17%	0%	.	.	.	.	.
Wisconsin	No	66	145	186.906	0.776	0.657	0.910	36	19%	3%	0.000	0.000	0.000	1.022	1.634
Wyoming	No	11	4	5.133	0.779	0.248	1.880	2	.	.	.	.	.	.	.
All US		**3,095**	**7,784**	**13,320.800**	**0.584**	**0.571**	**0.597**	**1,952**	**7%**	**5%**	**0.000**	**0.000**	**0.458**	**0.824**	**1.225**

1. Data from all ICUs; excludes wards (and other non-critical care locations) and NICUs. These tables contain data from acute care hospitals; as such, they exclude data from LTACHs, IRFs, and CAHs.
2. Yes indicates the presence of a state mandate to report CAUTI data from critical care units to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate.
   No indicates that a state mandate did not exist during 2022. A blank field indicates data not available. Note that almost all acute care 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 2022
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 2022 national ICU CAUTI SIR of 0.584. This is only calculated if at least 10 facilities had at least one predicted ICU CAUTI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted ICU CAUTI in 2022. 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 Acute Care Hospitals reporting during 2022

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	86	251	296.214	0.847	0.747	0.957	36	8%	6%	0.000	0.398	0.717	1.082	1.263
Alaska	Yes	10	34	22.437	1.515	1.066	2.094	6	.	.	.	.	.	.	.
Arizona	No	75	203	331.186	0.613	0.533	0.702	45	0%	7%	0.000	0.358	0.513	0.787	1.059
Arkansas	Yes	50	101	168.959	0.598	0.489	0.723	25	4%	4%	0.000	0.177	0.378	0.684	1.086
California	No	332	1,342	1,645.788	0.815	0.773	0.860	256	8%	5%	0.000	0.379	0.726	1.141	1.583
Colorado	Yes	56	137	210.994	0.649	0.547	0.765	32	3%	6%	0.000	0.252	0.615	0.910	1.267
Connecticut	Yes	32	87	153.028	0.569	0.458	0.698	22	0%	9%	0.016	0.240	0.497	0.687	1.091
D.C.	No	9	42	60.025	0.700	0.511	0.937	8	.	.	.	.	.	.	.
Delaware	M	10	54	53.801	1.004	0.762	1.300	7	.	.	.	.	.	.	.
Florida	No	223	705	1,038.408	0.679	0.630	0.730	166	2%	7%	0.000	0.301	0.585	1.008	1.451
Georgia	Yes	111	363	449.640	0.807	0.727	0.894	64	11%	6%	0.000	0.374	0.585	1.063	1.860
Guam	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	16	55	55.495	0.991	0.754	1.280	10	0%	0%	.	.	.	.	.
Idaho	No	18	49	55.039	0.890	0.666	1.167	12	17%	0%	.	.	.	.	.
Illinois	No	131	490	600.456	0.816	0.746	0.891	95	7%	5%	0.000	0.303	0.723	1.095	1.626
Indiana	Yes	91	223	338.738	0.658	0.576	0.749	52	2%	6%	0.000	0.244	0.567	0.901	1.275
Iowa	No	39	137	153.810	0.891	0.751	1.050	26	8%	8%	0.000	0.000	0.773	1.250	1.537
Kansas	No	60	92	107.809	0.853	0.692	1.042	23	13%	0%	0.000	0.000	0.601	1.197	1.992
Kentucky	Yes	71	214	300.404	0.712	0.622	0.813	43	9%	5%	0.000	0.216	0.644	0.920	1.345
Louisiana	No	107	170	251.199	0.677	0.581	0.784	42	5%	7%	0.000	0.258	0.695	1.034	1.864
Maine	Yes	20	53	50.899	1.041	0.788	1.352	10	0%	10%	.	.	.	.	.
Maryland	Yes	48	213	279.428	0.762	0.665	0.870	42	5%	0%	0.000	0.385	0.604	1.005	1.395
Massachusetts	Yes	67	405	336.803	1.202	1.090	1.324	47	28%	2%	0.000	0.678	1.134	1.683	2.366
Michigan	No	98	391	487.071	0.803	0.726	0.885	65	5%	8%	0.000	0.388	0.854	1.135	1.491
Minnesota	Yes	49	236	245.004	0.963	0.846	1.092	26	12%	4%	0.323	0.711	0.875	1.342	1.600
Mississippi	Yes	62	133	184.338	0.722	0.606	0.852	24	4%	0%	0.000	0.000	0.657	0.919	1.184
Missouri	Yes	76	316	371.893	0.850	0.760	0.947	49	8%	6%	0.000	0.000	0.620	1.167	1.501
Montana	No	13	27	46.473	0.581	0.391	0.834	9	.	.	.	.	.	.	.
Nebraska	No	28	84	90.026	0.933	0.749	1.149	17	6%	0%	.	.	.	.	.
Nevada	No	30	107	152.847	0.700	0.577	0.843	22	9%	9%	0.276	0.397	0.713	0.988	1.600
New Hampshire	No	13	50	59.857	0.835	0.627	1.092	11	18%	0%	.	.	.	.	.
New Jersey	Yes	72	322	386.659	0.833	0.745	0.928	60	7%	5%	0.000	0.393	0.781	1.175	1.923
New Mexico	No	33	83	94.308	0.880	0.705	1.085	14	14%	7%	.	.	.	.	.
New York	No	175	911	1,079.175	0.844	0.791	0.900	133	11%	8%	0.209	0.413	0.697	1.086	1.608
North Carolina	Yes	104	495	517.413	0.957	0.875	1.044	68	19%	6%	0.000	0.486	0.843	1.258	2.371
North Dakota	No	10	20	37.332	0.536	0.336	0.813	7	.	.	.	.	.	.	.
Ohio	No	151	482	706.372	0.682	0.623	0.745	92	2%	5%	0.000	0.291	0.604	0.900	1.440
Oklahoma	No	81	131	200.957	0.652	0.547	0.771	33	6%	9%	0.000	0.000	0.498	0.741	1.738
Oregon	Yes	36	163	162.208	1.005	0.859	1.168	24	17%	8%	0.000	0.391	0.871	1.155	1.817
Pennsylvania	Yes	186	721	803.186	0.898	0.834	0.965	107	13%	3%	0.077	0.405	0.759	1.036	1.831
Puerto Rico	Yes	21	92	105.279	0.874	0.709	1.067	17	29%	24%	.	.	.	.	.
Rhode Island	No	11	45	47.338	0.951	0.702	1.261	7	.	.	.	.	.	.	.
South Carolina	Yes	65	201	228.114	0.881	0.765	1.009	35	9%	3%	0.000	0.421	0.863	1.249	1.703
South Dakota	No	21	40	47.114	0.849	0.615	1.145	5	.	.	.	.	.	.	.
Tennessee	Yes	98	286	379.537	0.754	0.670	0.845	52	4%	2%	0.000	0.258	0.724	0.966	1.183
Texas	No	352	758	1,156.513	0.655	0.610	0.703	185	6%	9%	0.000	0.232	0.611	0.891	1.394
Utah	Yes	37	55	59.123	0.930	0.708	1.202	10	20%	10%	.	.	.	.	.
Vermont	No	7	24	25.603	0.937	0.615	1.373	4	.	.	.	.	.	.	.
Virgin Islands		2	.	.	.	.	.	.	.	.	.	.	.	.	.

Virginia	Yes	82	241	338.346	0.712	0.627	0.807	48	6%	10%	0.000	0.169	0.569	0.916	1.476
Washington	Yes	59	314	343.716	0.914	0.817	1.019	44	14%	2%	0.095	0.498	0.793	1.242	1.832
West Virginia	Yes	31	101	135.046	0.748	0.612	0.905	20	5%	10%	0.000	0.300	0.583	0.873	1.373
Wisconsin	No	87	186	257.918	0.721	0.623	0.831	43	5%	14%	0.000	0.275	0.770	1.181	1.370
Wyoming	No	13	6	18.800	0.319	0.129	0.664	2	.	.	.	.	.	.	.
All US		**3,766**	**12,453**	**15,734.390**	**0.791**	**0.778**	**0.805**	**2,304**	**8%**	**7%**	**0.000**	**0.243**	**0.615**	**0.983**	**1.397**

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 acute care hospitals; as such, they exclude data from LTACHs, IRFs, and CAHs.
2. Yes indicates the presence of a state mandate to report CAUTI data from ward locations to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2022. A blank field indicates data not available.
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 2022.
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 2022 national ward CAUTI SIR of 0.791. This is only calculated if at least 10 facilities had at least one predicted ward CAUTI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted ward CAUTI in 2022. 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 Acute Care Hospitals reporting during 2022

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

				No. of Events			95% CI for SIR		Facility-specific SIRs							
State				Observed	Predicted	SIR	Lower	Upper	No. of hosp with at least 1 predicted VAE			10%	25%		75%	90%
Alabama	No	No	44	442	459.071	0.963	0.876	1.056	33	24%	33%	0.000	0.000	0.184	0.899	2.688
Alaska	No	No	6	90	39.242	2.293	1.855	2.806	3	.	.	.	.	.	.	.
Arizona	No	No	25	309	409.071	0.755	0.675	0.843	19	21%	42%	.	.	.	.	.
Arkansas	No	No	24	495	250.130	1.979	1.810	2.159	18	39%	0%	.	.	.	.	.
California	No	No	163	3,207	2,670.473	1.201	1.160	1.243	146	29%	32%	0.000	0.000	0.951	1.805	2.753
Colorado	No	No	39	674	487.023	1.384	1.282	1.491	31	58%	19%	0.000	0.000	1.829	2.659	3.591
Connecticut	No	No	16	296	316.628	0.935	0.833	1.046	14	29%	36%	.	.	.	.	.
D.C.	No	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Delaware	No	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.
Florida	No	No	145	3,677	2,246.121	1.637	1.585	1.691	130	43%	16%	0.000	0.747	1.887	2.595	3.534
Georgia	Yes	YesA	67	1,440	1,633.696	0.881	0.837	0.928	54	31%	28%	0.298	0.686	1.346	2.276	2.763
Guam	No	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	No	9	80	91.876	0.871	0.695	1.078	9	.	.	.	.	.	.	.
Idaho	No	No	6	122	49.057	2.487	2.074	2.959	5	.	.	.	.	.	.	.
Illinois	No	No	42	619	488.785	1.266	1.170	1.369	35	26%	31%	0.000	0.000	1.048	1.958	2.619
Indiana	No	No	53	665	493.492	1.348	1.248	1.453	43	14%	12%	0.393	0.739	1.463	2.143	2.475
Iowa	No	Yes	11	70	47.920	1.461	1.147	1.835	7	.	.	.	.	.	.	.
Kansas	No	Yes	30	181	185.064	0.978	0.843	1.129	17	24%	35%	.	.	.	.	.
Kentucky	No	No	37	422	423.626	0.996	0.904	1.095	25	28%	24%	0.000	0.000	0.922	1.991	3.144
Louisiana	No	No	37	502	351.805	1.427	1.306	1.556	23	35%	22%	0.000	0.000	1.378	2.424	3.752
Maine	No	No	16	127	128.247	0.990	0.829	1.174	10	30%	10%	.	.	.	.	.
Maryland	No	No	22	294	219.226	1.341	1.194	1.501	22	27%	36%	0.000	0.000	1.001	2.084	2.455
Massachusetts	No	No	19	190	175.302	1.084	0.938	1.246	18	6%	28%	.	.	.	.	.
Michigan	No	Yes	55	1,297	886.333	1.463	1.385	1.545	36	31%	11%	0.693	1.051	1.545	1.957	2.555
Minnesota	No	No	13	458	351.099	1.304	1.189	1.428	10	20%	40%	.	.	.	.	.
Mississippi	No	No	23	283	229.702	1.232	1.095	1.382	20	20%	35%	0.000	0.000	0.425	1.682	2.764
Missouri	No	No	38	824	714.592	1.153	1.076	1.234	30	47%	33%	0.000	0.155	1.553	2.586	3.401
Montana	No	No	6	106	67.771	1.564	1.287	1.884	4	.	.	.	.	.	.	.
Nebraska	No	No	7	178	93.860	1.896	1.633	2.191	6	.	.	.	.	.	.	.
Nevada	No	No	19	801	576.520	1.389	1.296	1.488	17	47%	24%	.	.	.	.	.
New Hampshire	No	No	10	88	65.982	1.334	1.076	1.635	8	.	.	.	.	.	.	.
New Jersey	No	No	52	936	1,001.377	0.935	0.876	0.996	50	22%	44%	0.000	0.098	0.736	1.667	2.579
New Mexico	No	No	16	127	81.736	1.554	1.301	1.842	11	18%	9%	.	.	.	.	.
New York	No	No	102	2,183	2,176.397	1.003	0.962	1.046	89	21%	27%	0.000	0.220	1.038	1.730	2.435
North Carolina	No	No	41	746	523.595	1.425	1.325	1.530	33	27%	15%	0.000	0.804	1.577	2.142	2.968
North Dakota	No	No	3	.	.	.	.	.	.	.	.	.	.	.	.	.
Ohio	No	Yes	71	992	1,151.779	0.861	0.809	0.916	57	25%	30%	0.000	0.000	1.043	2.204	3.367
Oklahoma	No	No	33	409	404.746	1.011	0.916	1.112	22	23%	27%	0.000	0.000	0.783	1.447	3.202
Oregon	No	No	20	177	136.874	1.293	1.113	1.495	15	13%	13%	.	.	.	.	.
Pennsylvania	Yes	Yes	128	2,681	2,347.979	1.142	1.099	1.186	108	32%	18%	0.417	0.862	1.439	2.273	3.320
Puerto Rico	Yes	Yes	14	77	92.776	0.830	0.660	1.032	13	8%	31%	.	.	.	.	.
Rhode Island	No	No	9	206	113.075	1.822	1.585	2.084	8	.	.	.	.	.	.	.
South Carolina	Yes	Yes	54	869	781.558	1.112	1.040	1.188	40	18%	10%	0.665	1.190	1.459	2.404	3.284
South Dakota	No	No	7	45	50.231	0.896	0.661	1.188	3	.	.	.	.	.	.	.
Tennessee	No	No	47	562	634.174	0.886	0.815	0.962	34	12%	38%	0.000	0.128	0.762	1.448	2.777
Texas	No	No	143	2,660	1,991.106	1.336	1.286	1.387	119	32%	33%	0.000	0.217	1.362	2.319	3.047
Utah	M	No	9	193	102.074	1.891	1.638	2.172	6	.	.	.	.	.	.	.

Vermont	No	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Virgin Islands			2	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	No	No	53	856	789.305	1.084	1.014	1.159	42	36%	26%	0.000	0.168	1.315	2.282	2.615
Washington	No	Yes	25	427	267.031	1.599	1.453	1.756	19	26%	21%	.	.	.	.	.
West Virginia	No	No	14	95	187.987	0.505	0.411	0.615	11	36%	55%	.	.	.	.	.
Wisconsin	No	No	33	228	245.036	0.930	0.815	1.057	21	14%	29%	0.000	0.237	1.307	1.789	2.664
Wyoming	No	No	7	0	1.705	0.000	.	1.757	0	.	.	.	.	.	.	.
All US			**1,874**	**32,631**	**27,472.921**	**1.188**	**1.175**	**1.201**	**1,507**	**29%**	**26%**	**0.000**	**0.332**	**1.260**	**2.146**	**2.980**

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 acute care hospitals; as such, they exclude data from LTACHs, IRFs, and CAHs.
2. Yes indicates the presence of a state mandate to report VAE data from any location to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2022. A blank field indicates data not available.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2022 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2022 NHSN data prior to June 1, 2023, 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, 2023 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 2022.
5. Percent of facilities with at least one predicted VAE that had an SIR significantly greater or less than the nominal value of the 2022 national overall VAE SIR of 1.188. This is only calculated if at least 10 facilities had at least one predicted VAE in 2022.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted VAE in 2022. 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 Acute Care Hospitals reporting during 2022

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

			No. of Events			95% CI for SIR		Facility-specific SIRs							
State			Observed	Predicted	SIR	Lower	Upper				10%	25%		75%	90%
Alabama	No	44	442	457.663	0.966	0.879	1.059	33	24%	33%	0.000	0.000	0.184	0.899	2.688
Alaska	No	5	89	38.415	2.317	1.872	2.837	3	.	.	.	.	.	.	.
Arizona	No	24	309	408.333	0.757	0.676	0.845	19	16%	42%	.	.	.	.	.
Arkansas	No	24	495	249.837	1.981	1.812	2.162	18	39%	0%	.	.	.	.	.
California	No	158	3,158	2,576.686	1.226	1.183	1.269	143	29%	31%	0.000	0.000	0.980	1.844	2.753
Colorado	No	38	641	460.533	1.392	1.287	1.503	30	60%	20%	0.000	0.000	1.905	2.614	3.925
Connecticut	No	16	273	311.596	0.876	0.777	0.985	14	29%	36%	.	.	.	.	.
D.C.	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Delaware	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.
Florida	No	138	3,403	2,082.511	1.634	1.580	1.690	126	43%	17%	0.000	0.699	1.888	2.676	3.539
Georgia	Yes	66	1,395	1,511.201	0.923	0.876	0.973	54	30%	28%	0.298	0.686	1.302	2.268	2.864
Guam	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	9	76	89.319	0.851	0.675	1.059	9	.	.	.	.	.	.	.
Idaho	No	6	122	49.057	2.487	2.074	2.959	5	.	.	.	.	.	.	.
Illinois	No	40	598	466.952	1.281	1.181	1.386	35	29%	31%	0.000	0.000	1.048	1.983	2.659
Indiana	No	52	639	474.289	1.347	1.246	1.455	43	14%	12%	0.393	0.725	1.463	2.143	2.475
Iowa	No	11	70	47.920	1.461	1.147	1.835	7	.	.	.	.	.	.	.
Kansas	No	29	181	182.209	0.993	0.856	1.146	17	24%	29%	.	.	.	.	.
Kentucky	No	37	422	422.307	0.999	0.907	1.098	25	28%	28%	0.000	0.000	0.922	1.991	3.144
Louisiana	No	34	454	319.983	1.419	1.293	1.554	22	32%	23%	0.000	0.000	1.363	2.394	2.912
Maine	No	13	111	120.239	0.923	0.763	1.107	8	.	.	.	.	.	.	.
Maryland	No	22	279	198.185	1.408	1.250	1.580	22	23%	36%	0.000	0.000	1.110	2.185	2.343
Massachusetts	No	19	190	171.888	1.105	0.956	1.271	18	6%	28%	.	.	.	.	.
Michigan	No	49	1,192	819.775	1.454	1.373	1.538	32	31%	13%	0.692	1.044	1.545	1.968	2.555
Minnesota	No	10	442	340.349	1.299	1.182	1.424	9	.	.	.	.	.	.	.
Mississippi	No	23	283	229.702	1.232	1.095	1.382	20	15%	35%	0.000	0.000	0.425	1.682	2.764
Missouri	No	38	793	693.156	1.144	1.066	1.226	30	47%	30%	0.000	0.155	1.597	2.586	3.401
Montana	No	5	106	67.644	1.567	1.289	1.888	4	.	.	.	.	.	.	.
Nebraska	No	5	168	86.439	1.944	1.666	2.255	4	.	.	.	.	.	.	.
Nevada	No	18	725	507.877	1.428	1.326	1.534	16	50%	25%	.	.	.	.	.
New Hampshire	No	10	88	65.982	1.334	1.076	1.635	8	.	.	.	.	.	.	.
New Jersey	No	52	823	920.801	0.894	0.834	0.956	50	20%	42%	0.000	0.110	0.761	1.618	2.529
New Mexico	No	16	124	80.906	1.533	1.280	1.821	11	9%	9%	.	.	.	.	.
New York	No	99	2,024	1,995.722	1.014	0.971	1.059	88	22%	28%	0.000	0.153	1.081	1.944	2.435
North Carolina	No	38	707	491.872	1.437	1.334	1.546	31	29%	16%	0.000	0.703	1.591	2.225	2.968
North Dakota	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Ohio	No	67	919	982.034	0.936	0.877	0.998	54	22%	26%	0.000	0.000	1.087	2.142	3.102
Oklahoma	No	32	407	398.930	1.020	0.925	1.123	22	23%	27%	0.000	0.000	0.783	1.447	3.202
Oregon	No	19	172	124.215	1.385	1.189	1.604	14	7%	7%	.	.	.	.	.
Pennsylvania	Yes	125	2,617	2,276.867	1.149	1.106	1.194	107	32%	16%	0.417	0.868	1.440	2.311	3.320
Puerto Rico	Yes	13	67	82.262	0.814	0.636	1.028	12	8%	25%	.	.	.	.	.
Rhode Island	No	9	206	112.424	1.832	1.595	2.096	8	.	.	.	.	.	.	.
South Carolina	Yes	52	835	761.341	1.097	1.024	1.173	39	18%	10%	0.657	1.184	1.476	2.444	3.567
South Dakota	No	6	39	45.865	0.850	0.613	1.151	2	.	.	.	.	.	.	.
Tennessee	No	46	562	618.290	0.909	0.836	0.987	34	12%	35%	0.000	0.128	0.762	1.448	2.777
Texas	No	140	2,582	1,911.197	1.351	1.300	1.404	118	32%	33%	0.000	0.234	1.385	2.321	3.071
Utah	No	8	188	99.428	1.891	1.635	2.176	5	.	.	.	.	.	.	.
Vermont	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Virgin Islands		2	.	.	.	.	.	.	.	.	.	.	.	.	.

Virginia	No	50	833	763.822	1.091	1.018	1.167	40	38%	25%	0.000	0.397	1.398	2.299	2.707
Washington	No	24	424	264.236	1.605	1.457	1.763	19	26%	21%	.	.	.	.	.
West Virginia	No	14	95	187.813	0.506	0.412	0.616	11	36%	55%	.	.	.	.	.
Wisconsin	No	31	214	205.288	1.042	0.910	1.189	21	14%	29%	0.000	0.237	1.357	1.789	2.664
Wyoming	No	7	0	1.699	0.000	.	1.763	0	.	.	.	.	.	.	.
All US		**1,804**	**31,186**	**25,980.375**	**1.200**	**1.187**	**1.214**	**1,472**	**29%**	**26%**	**0.000**	**0.353**	**1.269**	**2.148**	**3.009**

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 acute care hospitals; as such, they exclude data from LTACHs, IRFs, and CAHs.
2. Yes indicates the presence of a state mandate to report VAE data from critical care units to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2022.
   A blank field indicates data not available.
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 2022.
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 2022 national ICU VAE SIR of 1.200. This is only calculated
   if at least 10 facilities had at least one predicted ICU VAE in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted ICU VAE in 2022. 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.

Table 5. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Acute Care Hospitals reporting during 2022

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	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Alaska	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Arizona	No	3	.	.	.	.	.	.	.	.	.	.	.	.	.
Arkansas	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
California	No	46	49	93.787	0.522	0.391	0.685	27	4%	19%	0.000	0.000	0.000	0.764	1.815
Colorado	No	9	33	26.491	1.246	0.872	1.729	6	.	.	.	.	.	.	.
Connecticut	No	3	.	.	.	.	.	.	.	.	.	.	.	.	.
D.C.	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
Delaware	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Florida	No	29	274	163.610	1.675	1.485	1.882	16	44%	6%	.	.	.	.	.
Georgia	Yes	18	45	122.495	0.367	0.271	0.487	7	.	.	.	.	.	.	.
Guam	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Idaho	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
Illinois	No	12	21	21.833	0.962	0.611	1.445	4	.	.	.	.	.	.	.
Indiana	No	7	26	19.203	1.354	0.903	1.956	3	.	.	.	.	.	.	.
Iowa	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
Kansas	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.
Kentucky	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.
Louisiana	No	9	48	31.823	1.508	1.125	1.983	4	.	.	.	.	.	.	.
Maine	No	5	16	8.008	1.998	1.183	3.176	3	.	.	.	.	.	.	.
Maryland	No	9	15	21.041	0.713	0.414	1.149	7	.	.	.	.	.	.	.
Massachusetts	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Michigan	No	18	105	66.558	1.578	1.297	1.902	9	.	.	.	.	.	.	.
Minnesota	No	6	16	10.749	1.488	0.881	2.366	3	.	.	.	.	.	.	.
Mississippi	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
Missouri	No	8	31	21.436	1.446	1.000	2.028	6	.	.	.	.	.	.	.
Montana	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Nebraska	No	3	.	.	.	.	.	.	.	.	.	.	.	.	.
Nevada	No	11	76	68.644	1.107	0.878	1.378	10	20%	0%	.	.	.	.	.
New Hampshire	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
New Jersey	No	15	113	80.576	1.402	1.161	1.680	11	18%	18%	.	.	.	.	.
New Mexico	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
New York	No	40	159	180.675	0.880	0.751	1.025	26	23%	15%	0.000	0.000	0.856	1.876	2.749
North Carolina	No	8	39	31.723	1.229	0.886	1.664	4	.	.	.	.	.	.	.
North Dakota	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Ohio	No	27	73	169.745	0.430	0.340	0.538	15	7%	60%	.	.	.	.	.
Oklahoma	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.
Oregon	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.
Pennsylvania	Yes	34	64	71.111	0.900	0.699	1.142	14	7%	14%	.	.	.	.	.
Puerto Rico	Yes	11	10	10.513	0.951	0.483	1.695	5	.	.	.	.	.	.	.
Rhode Island	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
South Carolina	Yes	14	34	20.217	1.682	1.183	2.323	3	.	.	.	.	.	.	.
South Dakota	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.
Tennessee	No	8	0	15.885	0.000	.	0.189	5	.	.	.	.	.	.	.
Texas	No	28	78	79.909	0.976	0.777	1.212	10	0%	10%	.	.	.	.	.
Utah	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.

Vermont	No	0	.	.	.	.	.	.	.	.	.	.	.	.	.
Virgin Islands		1	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	No	11	23	25.483	0.903	0.586	1.333	4	.	.	.	.	.	.	.
Washington	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.
West Virginia	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Wisconsin	No	7	14	39.747	0.352	0.200	0.577	2	.	.	.	.	.	.	.
Wyoming	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
All US		**443**	**1,445**	**1,492.546**	**0.968**	**0.919**	**1.019**	**226**	**18%**	**18%**	**0.000**	**0.000**	**0.825**	**1.625**	**2.523**

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 acute care hospitals; as such, they exclude data from LTACHs, IRFs, and CAHs.
2. Yes indicates the presence of a state mandate to report VAE data from ward locations to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2022. A blank field indicates data not available.
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 2022.
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 2022 national ward VAE SIR of 0.968. This is only calculated if at least 10 facilities had at least one predicted ward VAE in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted ward VAE in 2022. 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 Acute Care Hospitals reporting during 2022

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

State			No. of Acute Care 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	63	6,037	106	151.323	0.700	0.576	0.844	27	0%	7%	0.000	0.154	0.558	1.250	1.400
Alaska	Yes	No	8	575	17	16.553	1.027	0.618	1.611	5	.	.	.	.	.	.	.
Arizona	No	No	55	6,811	123	179.662	0.685	0.571	0.814	35	6%	9%	0.000	0.000	0.524	0.847	1.428
Arkansas	Yes	Yes	37	3,284	76	79.869	0.952	0.755	1.184	17	12%	0%	.	.	.	.	.
California	Yes	YesA	300	29,250	725	785.241	0.923	0.858	0.992	187	9%	4%	0.000	0.322	0.850	1.496	1.989
Colorado	Yes	Yes	51	5,433	127	135.292	0.939	0.786	1.113	33	6%	6%	0.368	0.545	0.980	1.598	2.114
Connecticut	Yes	Yes	26	3,590	71	96.648	0.735	0.578	0.921	20	10%	10%	0.000	0.274	0.400	1.339	2.099
D.C.	Yes	No	7	984	34	36.691	0.927	0.652	1.280	5	.	.	.	.	.	.	.
Delaware	M	No	7	1,032	20	27.040	0.740	0.464	1.122	5	.	.	.	.	.	.	.
Florida	No	No	197	25,133	479	632.541	0.757	0.692	0.827	146	3%	4%	0.000	0.303	0.642	0.979	1.438
Georgia	No	YesA	86	10,379	239	284.705	0.839	0.738	0.951	50	6%	4%	0.295	0.564	0.811	1.205	1.692
Guam	No	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	Yes	13	990	27	26.075	1.035	0.696	1.486	8	.	.	.	.	.	.	.
Idaho	No	No	16	1,468	47	34.644	1.357	1.008	1.789	10	10%	0%	.	.	.	.	.
Illinois	No	No	116	11,206	268	308.205	0.870	0.770	0.978	72	7%	3%	0.000	0.000	0.590	1.193	1.926
Indiana	Yes	Yes	77	6,700	157	167.176	0.939	0.801	1.095	39	5%	3%	0.000	0.601	1.103	1.601	2.187
Iowa	No	Yes	34	2,832	38	74.263	0.512	0.367	0.695	17	0%	6%	.	.	.	.	.
Kansas	No	Yes	40	2,860	61	68.965	0.885	0.682	1.129	15	0%	0%	.	.	.	.	.
Kentucky	Yes	Yes	58	5,290	121	141.271	0.857	0.714	1.020	29	7%	7%	0.000	0.375	0.833	1.315	2.613
Louisiana	No	No	72	5,273	120	140.494	0.854	0.711	1.018	34	3%	0%	0.000	0.345	0.775	1.317	1.626
Maine	No	No	17	1,496	30	34.853	0.861	0.591	1.213	8	.	.	.	.	.	.	.
Maryland	No	Yes	41	5,383	134	152.468	0.879	0.739	1.038	32	9%	0%	0.000	0.300	0.750	0.998	1.628
Massachusetts	Yes	Yes	55	6,908	184	194.151	0.948	0.818	1.092	35	9%	3%	0.000	0.000	0.943	1.448	1.656
Michigan	No	Yes	86	10,115	298	266.935	1.116	0.995	1.249	54	19%	2%	0.000	0.546	0.964	1.605	2.255
Minnesota	Yes	Yes	47	5,445	119	168.388	0.707	0.588	0.843	22	9%	14%	0.143	0.492	0.663	1.405	1.888
Mississippi	Yes	No	41	3,286	103	83.478	1.234	1.012	1.490	17	12%	0%	.	.	.	.	.
Missouri	Yes	No	66	7,681	180	197.092	0.913	0.787	1.054	39	15%	5%	0.000	0.365	0.665	1.605	2.294
Montana	No	No	11	856	23	21.337	1.078	0.700	1.592	6	.	.	.	.	.	.	.
Nebraska	No	Yes	23	2,065	49	53.348	0.918	0.687	1.204	10	0%	0%	.	.	.	.	.
Nevada	No	No	21	2,805	66	65.705	1.004	0.783	1.270	16	19%	0%	.	.	.	.	.
New Hampshire	Yes	Yes	13	1,324	21	36.028	0.583	0.370	0.876	10	0%	0%	.	.	.	.	.
New Jersey	Yes	Yes	69	7,798	172	211.523	0.813	0.698	0.942	43	5%	2%	0.244	0.510	0.762	1.154	1.691
New Mexico	No	No	24	1,598	30	43.124	0.696	0.478	0.981	9	.	.	.	.	.	.	.
New York	Yes	YesA	154	18,243	409	535.714	0.763	0.692	0.840	103	5%	6%	0.000	0.303	0.753	1.193	1.631
North Carolina	Yes	Yes	87	11,004	276	298.172	0.926	0.821	1.040	50	4%	4%	0.000	0.559	0.760	1.165	1.546
North Dakota	No	No	7	935	22	21.013	1.047	0.673	1.559	7	.	.	.	.	.	.	.
Ohio	No	Yes	127	14,299	383	408.000	0.939	0.848	1.036	77	10%	1%	0.000	0.526	0.813	1.443	2.089
Oklahoma	No	Yes	50	4,208	153	98.798	1.549	1.317	1.809	19	21%	0%	.	.	.	.	.
Oregon	Yes	Yes	33	3,949	82	106.155	0.772	0.618	0.954	25	4%	12%	0.000	0.000	0.621	0.941	1.544
Pennsylvania	Yes	Yes	133	14,794	339	412.645	0.822	0.737	0.913	80	4%	3%	0.000	0.430	0.704	1.008	1.482
Puerto Rico	M	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	No	10	964	18	25.081	0.718	0.439	1.112	5	.	.	.	.	.	.	.
South Carolina	Yes	Yes	57	5,452	90	138.592	0.649	0.525	0.794	29	3%	10%	0.000	0.339	0.676	1.083	1.791
South Dakota	No	Yes	12	1,005	19	24.560	0.774	0.480	1.186	4	.	.	.	.	.	.	.
Tennessee	Yes	Yes	77	8,066	151	212.738	0.710	0.603	0.830	38	3%	11%	0.101	0.381	0.654	1.269	1.672
Texas	Yes	YesA	261	26,167	602	716.504	0.840	0.775	0.909	149	5%	3%	0.000	0.398	0.756	1.109	1.844
Utah	Yes	No	34	2,325	49	57.867	0.847	0.633	1.110	10	0%	0%	.	.	.	.	.
Vermont	No	No	6	585	21	15.271	1.375	0.874	2.066	2	.	.	.	.	.	.	.
Virgin Islands			1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	Yes	Yes	71	7,843	149	207.576	0.718	0.609	0.840	41	0%	10%	0.000	0.251	0.650	0.920	1.540
Washington	Yes	Yes	48	6,231	125	164.895	0.758	0.634	0.900	36	6%	3%	0.000	0.000	0.646	1.125	1.820
West Virginia	Yes	No	23	1,907	56	48.616	1.152	0.878	1.485	13	15%	8%	.	.	.	.	.
Wisconsin	No	Yes	71	5,889	143	158.762	0.901	0.762	1.058	35	9%	6%	0.000	0.269	0.705	1.152	1.582
Wyoming	No	No	10	302	2	6.407	0.312	0.052	1.031	2	.	.	.	.	.	.	.
All US			**3,052**	**320,128**	**7,355**	**8,574.092**	**0.858**	**0.838**	**0.878**	**1,780**	**7%**	**4%**	**0.000**	**0.376**	**0.756**	**1.254**	**1.848**

1. Note that almost all acute care hospitals are 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 2022 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 2022. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2022. A blank field indicates data not available.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2022 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2022 NHSN data prior to June 1, 2023, 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, 2023 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 2022.
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 2022 national colon surgery SIR of 0.858. This is only calculated if at least 10 facilities had at least one predicted colon surgery SSI in 2022.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted colon surgery SSI in 2022. 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 Acute Care Hospitals reporting during 2022

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

State			No. of Acute Care 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	48	7,019	46	41.766	1.101	0.816	1.456	12	0%	0%	.	.	.	.	.
Alaska	Yes	No	8	268	4	1.774	2.255	0.716	5.439	0	.	.	.	.	.	.	.
Arizona	No	No	51	4,997	22	30.492	0.721	0.464	1.074	11	0%	0%	.	.	.	.	.
Arkansas	Yes	Yes	34	2,672	14	16.721	0.837	0.477	1.371	5	.	.	.	.	.	.	.
California	Yes	YesA	271	18,767	108	145.130	0.744	0.613	0.895	47	0%	4%	0.000	0.000	0.549	0.869	1.607
Colorado	Yes	Yes	46	4,467	32	28.002	1.143	0.795	1.594	7	.	.	.	.	.	.	.
Connecticut	Yes	Yes	26	2,882	10	21.594	0.463	0.235	0.825	7	.	.	.	.	.	.	.
D.C.	Yes	No	6	827	11	7.069	1.556	0.818	2.705	3	.	.	.	.	.	.	.
Delaware	M	No	7	401	3	4.076	0.736	0.187	2.003	1	.	.	.	.	.	.	.
Florida	No	No	175	19,390	122	124.029	0.984	0.820	1.170	38	11%	0%	0.000	0.588	0.799	1.587	3.143
Georgia	No	YesA	82	11,836	100	82.130	1.218	0.996	1.474	26	8%	0%	0.000	0.618	0.926	1.506	2.312
Guam	No	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	Yes	11	546	1	4.018	0.249	0.012	1.227	2	.	.	.	.	.	.	.
Idaho	No	No	14	972	9	5.596	1.608	0.784	2.951	2	.	.	.	.	.	.	.
Illinois	No	No	103	9,296	62	71.585	0.866	0.670	1.103	24	8%	4%	0.000	0.000	0.646	0.858	1.945
Indiana	Yes	Yes	75	6,104	39	39.382	0.990	0.714	1.340	9	.	.	.	.	.	.	.
Iowa	No	Yes	32	2,123	7	13.215	0.530	0.232	1.048	2	.	.	.	.	.	.	.
Kansas	No	Yes	32	2,659	11	17.239	0.638	0.336	1.109	5	.	.	.	.	.	.	.
Kentucky	Yes	Yes	50	4,330	27	31.906	0.846	0.569	1.214	10	10%	10%	.	.	.	.	.
Louisiana	No	No	67	4,334	30	30.113	0.996	0.684	1.404	8	.	.	.	.	.	.	.
Maine	No	No	15	654	4	4.942	0.809	0.257	1.952	1	.	.	.	.	.	.	.
Maryland	Yes	Yes	38	4,047	35	29.532	1.185	0.838	1.630	10	10%	0%	.	.	.	.	.
Massachusetts	Yes	Yes	47	3,331	13	29.216	0.445	0.247	0.742	8	.	.	.	.	.	.	.
Michigan	No	Yes	77	6,968	68	55.904	1.216	0.952	1.533	20	10%	0%	0.126	0.486	0.880	1.877	2.804
Minnesota	Yes	Yes	43	3,094	23	26.704	0.861	0.559	1.272	9	.	.	.	.	.	.	.
Mississippi	Yes	No	38	3,151	27	20.743	1.302	0.875	1.868	6	.	.	.	.	.	.	.
Missouri	Yes	No	61	5,742	31	42.325	0.732	0.506	1.027	12	0%	17%	.	.	.	.	.
Montana	No	No	10	586	2	3.715	0.538	0.090	1.779	1	.	.	.	.	.	.	.
Nebraska	No	Yes	22	1,754	15	11.549	1.299	0.755	2.094	5	.	.	.	.	.	.	.
Nevada	No	No	17	1,701	9	10.956	0.821	0.401	1.507	3	.	.	.	.	.	.	.
New Hampshire	Yes	Yes	13	668	3	4.944	0.607	0.154	1.651	2	.	.	.	.	.	.	.
New Jersey	Yes	Yes	59	6,722	49	52.458	0.934	0.699	1.225	17	0%	6%	.	.	.	.	.
New Mexico	No	No	21	1,229	12	8.429	1.424	0.771	2.420	3	.	.	.	.	.	.	.
New York	Yes	YesA	146	12,545	78	101.963	0.765	0.609	0.950	38	0%	0%	0.000	0.275	0.725	0.912	1.655
North Carolina	Yes	Yes	86	7,853	51	60.762	0.839	0.632	1.095	15	7%	7%	.	.	.	.	.
North Dakota	No	No	7	255	2	1.538	1.300	0.218	4.296	0	.	.	.	.	.	.	.
Ohio	No	Yes	114	9,736	66	73.687	0.896	0.698	1.132	21	14%	5%	0.000	0.262	0.541	1.420	2.351
Oklahoma	No	Yes	50	5,967	45	37.224	1.209	0.892	1.603	9	.	.	.	.	.	.	.
Oregon	Yes	Yes	32	2,431	10	16.725	0.598	0.304	1.066	6	.	.	.	.	.	.	.
Pennsylvania	Yes	Yes	127	8,288	68	68.507	0.993	0.777	1.251	18	6%	0%	.	.	.	.	.
Puerto Rico	M	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	No	9	525	2	3.891	0.514	0.086	1.698	1	.	.	.	.	.	.	.
South Carolina	Yes	Yes	47	4,989	24	32.933	0.729	0.478	1.068	7	.	.	.	.	.	.	.
South Dakota	No	Yes	15	1,143	5	6.476	0.772	0.283	1.711	2	.	.	.	.	.	.	.
Tennessee	Yes	Yes	68	5,587	41	38.878	1.055	0.767	1.417	11	9%	9%	.	.	.	.	.
Texas	Yes	No	245	27,405	198	184.556	1.073	0.931	1.230	60	8%	2%	0.000	0.371	0.911	1.915	2.744
Utah	Yes	No	34	2,690	14	15.708	0.891	0.507	1.460	5	.	.	.	.	.	.	.
Vermont	Yes	No	6	349	3	2.560	1.172	0.298	3.189	1	.	.	.	.	.	.	.
Virgin Islands			1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	Yes	Yes	62	7,162	56	47.861	1.170	0.892	1.508	10	0%	0%	.	.	.	.	.
Washington	Yes	Yes	44	4,080	35	28.479	1.229	0.869	1.690	10	0%	10%	.	.	.	.	.
West Virginia	Yes	No	20	1,780	16	11.404	1.403	0.831	2.230	3	.	.	.	.	.	.	.
Wisconsin	No	Yes	64	3,843	30	29.180	1.028	0.706	1.449	7	.	.	.	.	.	.	.
Wyoming	No	No	10	233	0	1.231	0.000	.	2.434	0	.	.	.	.	.	.	.
All US			**2,789**	**250,602**	**1,695**	**1,782.006**	**0.951**	**0.907**	**0.997**	**540**	**5%**	**3%**	**0.000**	**0.262**	**0.759**	**1.444**	**2.259**

1. Note that almost all acute care hospitals are 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 2022 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 2022. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2022. A blank field indicates data not available.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2022 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2022 NHSN data prior to June 1, 2023, 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, 2023 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 2022.
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 2022 national abdominal hysterectomy SIR of 0.951. This is only calculated if at least 10 facilities had at least one predicted abdominal hysterectomy SSI in 2022.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted abdominal hysterectomy SSI in 2022. 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 6. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Acute Care Hospitals reporting during 2022

6c. Surgical site infections (SSI) following hip arthroplasty[1] in adults, ≥ 18years

State		No. of Acute Care Hospitals Reporting[3]	No. of Procedures	No. of Infections			95% CI for SIR		Facility-specific SIRs							
				Observed	Predicted	SIR	Lower	Upper				10%	25%		75%	90%
Alabama	No	17	2,637	22	17.999	1.222	0.785	1.820	7	.	.	.	.	.	.	.
Alaska	No	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Arizona	No	41	8,263	70	64.579	1.084	0.851	1.361	23	9%	0%	0.000	0.486	0.812	1.298	2.169
Arkansas	No	18	2,704	25	19.699	1.269	0.840	1.846	8	.	.	.	.	.	.	.
California	Yes	285	37,578	236	247.714	0.953	0.837	1.080	83	5%	4%	0.000	0.000	0.728	1.245	2.018
Colorado	Yes	54	9,373	69	56.741	1.216	0.953	1.530	26	8%	0%	0.000	0.462	0.798	2.228	3.157
Connecticut	No	13	2,854	13	15.764	0.825	0.459	1.375	7	.	.	.	.	.	.	.
D.C.	No	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Delaware	No	5	954	8	7.654	1.045	0.485	1.985	3	.	.	.	.	.	.	.
Florida	No	77	13,810	86	97.773	0.880	0.708	1.081	33	3%	0%	0.000	0.000	0.724	1.383	1.716
Georgia	No	65	7,336	74	59.723	1.239	0.980	1.547	23	9%	4%	0.000	0.347	1.021	1.573	2.581
Guam	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	5	658	6	5.710	1.051	0.426	2.186	1	.	.	.	.	.	.	.
Idaho	No	8	1,153	6	6.848	0.876	0.355	1.822	3	.	.	.	.	.	.	.
Illinois	No	71	9,847	72	70.462	1.022	0.805	1.279	25	0%	4%	0.000	0.450	1.001	1.678	2.749
Indiana	No	45	6,977	54	48.683	1.109	0.842	1.436	16	0%	0%	.	.	.	.	.
Iowa	No	23	3,837	18	22.581	0.797	0.487	1.235	9	.	.	.	.	.	.	.
Kansas	No	32	4,253	31	26.840	1.155	0.799	1.619	8	.	.	.	.	.	.	.
Kentucky	No	25	2,735	45	24.069	1.870	1.380	2.480	8	.	.	.	.	.	.	.
Louisiana	No	32	3,455	23	27.283	0.843	0.547	1.245	10	0%	0%	.	.	.	.	.
Maine	No	17	2,122	8	13.686	0.585	0.271	1.110	5	.	.	.	.	.	.	.
Maryland	Yes	40	7,302	46	53.631	0.858	0.635	1.134	19	0%	0%	.	.	.	.	.
Massachusetts	Yes	54	12,938	75	84.334	0.889	0.704	1.109	28	4%	0%	0.000	0.000	0.725	1.182	1.599
Michigan	No	66	10,746	79	82.480	0.958	0.763	1.187	30	3%	0%	0.000	0.573	0.906	1.192	2.152
Minnesota	No	36	8,103	72	61.996	1.161	0.915	1.454	16	6%	0%	.	.	.	.	.
Mississippi	No	20	2,789	16	25.091	0.638	0.377	1.013	8	.	.	.	.	.	.	.
Missouri	No	62	12,411	81	93.204	0.869	0.695	1.075	26	8%	8%	0.000	0.213	0.645	0.884	1.959
Montana	No	7	1,601	16	10.207	1.568	0.928	2.491	5	.	.	.	.	.	.	.
Nebraska	No	9	1,726	18	13.308	1.353	0.827	2.096	4	.	.	.	.	.	.	.
Nevada	Yes	20	3,808	22	23.980	0.917	0.590	1.366	11	0%	0%	.	.	.	.	.
New Hampshire	No	10	1,757	15	10.090	1.487	0.864	2.397	5	.	.	.	.	.	.	.
New Jersey	No	32	6,032	36	40.370	0.892	0.634	1.221	13	0%	0%	.	.	.	.	.
New Mexico	No	12	1,762	18	9.318	1.932	1.181	2.994	2	.	.	.	.	.	.	.
New York	Yes	153	28,991	190	191.868	0.990	0.857	1.139	58	2%	0%	0.000	0.305	0.886	1.399	1.938
North Carolina	No	51	11,137	97	73.854	1.313	1.071	1.595	24	8%	0%	0.000	0.510	1.169	1.970	2.485
North Dakota	No	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ohio	No	57	7,754	69	61.152	1.128	0.885	1.419	25	12%	0%	0.000	0.487	0.941	1.473	3.663
Oklahoma	No	29	4,554	59	34.950	1.688	1.297	2.162	9	.	.	.	.	.	.	.
Oregon	Yes	33	6,112	42	40.771	1.030	0.752	1.379	14	0%	0%	.	.	.	.	.
Pennsylvania	Yes	144	26,267	184	183.486	1.003	0.866	1.156	54	6%	0%	0.000	0.390	0.857	1.457	2.073
Puerto Rico	No	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	6	955	10	5.612	1.782	0.905	3.176	2	.	.	.	.	.	.	.
South Carolina	Yes	53	8,612	46	60.325	0.763	0.565	1.008	20	0%	10%	0.000	0.000	0.605	1.114	1.365
South Dakota	No	9	1,571	12	13.535	0.887	0.480	1.507	4	.	.	.	.	.	.	.
Tennessee	No	43	7,563	60	61.257	0.979	0.754	1.252	16	0%	6%	.	.	.	.	.
Texas	No	198	22,502	143	164.221	0.871	0.737	1.023	57	7%	2%	0.000	0.000	0.572	1.515	2.554
Utah	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Vermont	Yes	6	909	4	5.880	0.680	0.216	1.641	1	.	.	.	.	.	.	.
Virgin Islands		0	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Virginia	No	41	7,696	48	53.628	0.895	0.667	1.177	17	12%	0%	.	.	.	.	.
Washington	No	33	7,150	60	46.519	1.290	0.993	1.649	19	5%	0%	.	.	.	.	.
West Virginia	No	10	1,384	17	11.361	1.496	0.901	2.347	3	.	.	.	.	.	.	.
Wisconsin	No	60	10,429	57	67.561	0.844	0.645	1.085	23	4%	4%	0.000	0.247	0.784	1.327	2.280
Wyoming	No	5	330	4	1.709	2.340	0.744	5.645	.	.	.	.	.	.	.	.
All US		**2,149**	**347,614**	**2,487**	**2,439.432**	**1.019**	**0.980**	**1.060**	**819**	**6%**	**2%**	**0.000**	**0.304**	**0.820**	**1.459**	**2.298**

1. SSIs included are those classified as deep incisional or organ/space infections following NHSN-defined inpatient hip arthroplasty procedures that occurred in 2022 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.
2. Yes indicates the presence of a state mandate to report SSIs following hip arthroplasty surgery to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2022. A blank field indicates data not available.
3. The number of reporting facilities included in the SIR calculation. 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 hip arthroplasty in 2022.
4. Percent of facilities with at least one predicted hip arthroplasty SSI that had an SIR significantly greater or less than the nominal value of the 2022 national hip arthroplasty SIR of 1.019. This is only calculated if at least 10 facilities had at least one predicted hip arthroplasty SSI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted hip arthroplasty SSI in 2022. If a facility's predicted number of hip arthroplasty 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 Acute Care Hospitals reporting during 2022

6d. Surgical site infections (SSI) following knee arthroplasty[1] in adults, ≥ 18years

State			No. of Procedures	No. of Infections Observed	Predicted	SIR	95% CI for SIR Lower	Upper	Facility-specific SIRs			10%	25%		75%	90%
Alabama	No	17	3,781	21	15.411	1.363	0.866	2.048	5	.	.	.	.	.	.	.
Alaska	No	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Arizona	No	41	8,651	43	35.258	1.220	0.894	1.628	12	0%	0%	.	.	.	.	.
Arkansas	No	19	4,093	14	17.952	0.780	0.444	1.277	7	.	.	.	.	.	.	.
California	Yes	273	42,013	162	165.029	0.982	0.839	1.142	51	2%	2%	0.000	0.000	0.783	1.527	1.875
Colorado	Yes	53	12,146	54	43.279	1.248	0.947	1.616	15	0%	0%	.	.	.	.	.
Connecticut	No	13	3,380	15	12.896	1.163	0.676	1.875	4	.	.	.	.	.	.	.
D.C.	No	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Delaware	No	5	1,081	6	4.278	1.403	0.569	2.917	1	.	.	.	.	.	.	.
Florida	No	73	14,851	75	63.245	1.186	0.939	1.478	23	4%	0%	0.000	0.000	0.861	2.121	2.457
Georgia	No	64	7,910	63	34.708	1.815	1.407	2.307	13	8%	0%	.	.	.	.	.
Guam	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	5	596	2	3.066	0.652	0.109	2.155	1	.	.	.	.	.	.	.
Idaho	No	8	1,100	1	4.371	0.229	0.011	1.128	2	.	.	.	.	.	.	.
Illinois	Yes	103	21,571	74	83.361	0.888	0.702	1.108	32	0%	6%	0.000	0.000	0.876	1.604	2.158
Indiana	No	45	10,502	31	37.193	0.833	0.576	1.169	14	7%	0%	.	.	.	.	.
Iowa	No	21	5,142	16	15.152	1.056	0.625	1.678	6	.	.	.	.	.	.	.
Kansas	No	30	6,146	22	20.100	1.095	0.703	1.630	8	.	.	.	.	.	.	.
Kentucky	No	25	3,843	17	17.700	0.960	0.578	1.507	5	.	.	.	.	.	.	.
Louisiana	No	32	4,942	24	21.786	1.102	0.722	1.614	8	.	.	.	.	.	.	.
Maine	No	16	2,065	3	6.372	0.471	0.120	1.281	1	.	.	.	.	.	.	.
Maryland	Yes	42	8,401	37	37.294	0.992	0.709	1.353	11	9%	0%	.	.	.	.	.
Massachusetts	Yes	54	14,971	54	53.234	1.014	0.770	1.314	20	5%	0%	0.000	0.000	0.671	1.328	2.369
Michigan	No	64	11,206	62	47.525	1.305	1.009	1.661	18	17%	0%	.	.	.	.	.
Minnesota	No	37	10,105	51	39.948	1.277	0.961	1.665	12	17%	0%	.	.	.	.	.
Mississippi	No	20	3,108	23	16.306	1.411	0.916	2.083	5	.	.	.	.	.	.	.
Missouri	No	50	14,493	40	52.326	0.764	0.554	1.031	18	6%	11%	.	.	.	.	.
Montana	No	7	1,959	10	7.349	1.361	0.691	2.425	3	.	.	.	.	.	.	.
Nebraska	No	10	2,133	11	8.385	1.312	0.690	2.280	2	.	.	.	.	.	.	.
Nevada	Yes	20	4,168	22	15.543	1.415	0.910	2.108	6	.	.	.	.	.	.	.
New Hampshire	Yes	12	2,449	11	10.317	1.066	0.561	1.853	3	.	.	.	.	.	.	.
New Jersey	Yes	63	15,714	53	56.154	0.944	0.714	1.225	22	5%	0%	0.000	0.534	0.884	1.334	2.169
New Mexico	No	11	2,140	6	6.751	0.889	0.360	1.849	2	.	.	.	.	.	.	.
New York	No	51	20,666	82	74.590	1.099	0.880	1.357	18	6%	6%	.	.	.	.	.
North Carolina	No	50	14,498	70	51.280	1.365	1.072	1.714	18	11%	6%	.	.	.	.	.
North Dakota	No	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ohio	No	57	9,355	45	37.794	1.191	0.879	1.579	11	0%	0%	.	.	.	.	.
Oklahoma	No	30	6,312	24	22.149	1.084	0.710	1.588	7	.	.	.	.	.	.	.
Oregon	Yes	33	5,905	21	20.885	1.006	0.639	1.511	9	.	.	.	.	.	.	.
Pennsylvania	Yes	144	36,059	130	127.180	1.022	0.857	1.210	38	8%	0%	0.000	0.000	0.803	1.252	2.179
Puerto Rico	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	6	1,070	4	4.157	0.962	0.306	2.321	2	.	.	.	.	.	.	.
South Carolina	Yes	56	10,931	50	39.775	1.257	0.943	1.644	14	7%	0%	.	.	.	.	.
South Dakota	No	9	2,290	7	8.511	0.822	0.360	1.627	3	.	.	.	.	.	.	.
Tennessee	No	38	9,197	43	38.518	1.116	0.818	1.490	9	.	.	.	.	.	.	.
Texas	No	192	34,201	139	124.332	1.118	0.943	1.316	41	7%	0%	0.000	0.593	0.933	1.494	2.177
Utah	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Vermont	Yes	6	1,007	4	3.537	1.131	0.359	2.728	.	.	.	.	.	.	.	.
Virgin Islands		0	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Virginia	No	40	9,580	34	36.599	0.929	0.654	1.283	12	0%	0%	.	.	.	.	.
Washington	No	33	6,534	19	24.828	0.765	0.474	1.173	10	0%	0%	.	.	.	.	.
West Virginia	No	12	2,031	7	8.653	0.809	0.354	1.600	3	.	.	.	.	.	.	.
Wisconsin	No	60	12,780	36	44.222	0.814	0.579	1.115	17	6%	0%	.	.	.	.	.
Wyoming	No	5	436	2	1.221	1.638	0.275	5.411	0	.	.	.	.	.	.	.
All US		**2,073**	**429,887**	**1,753**	**1,632.761**	**1.074**	**1.024**	**1.125**	**547**	**5%**	**1%**	**0.000**	**0.000**	**0.875**	**1.596**	**2.257**

1. SSIs included are those classified as deep incisional or organ/space infections following NHSN-defined inpatient knee arthroplasty procedures that occurred in 2022 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.
2. Yes indicates the presence of a state mandate to report SSIs following knee arthroplasty surgery to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2022. A blank field indicates data not available.
3. The number of reporting facilities included in the SIR calculation. 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 knee arthroplasty in 2022.
4. Percent of facilities with at least one predicted knee arthroplasty SSI that had an SIR significantly greater or less than the nominal value of the 2022 national knee arthroplasty SIR of 1.074. This is only calculated if at least 10 facilities had at least one predicted knee arthroplasty SSI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted knee arthroplasty SSI in 2022. If a facility's predicted number of knee arthroplasty SSI was <1.0, a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

Table 6. State-specific standardi
NHSN
6e. Surgical site int

State			No. of Procedures	No. of Infections Observed	No. of Infections Predicted
Alabama	No	0	.	.	.
Alaska	No	0	.	.	.
Arizona	No	1	.	.	.
Arkansas	No	2	.	.	.
California	Yes	264	6,329	35	110.789
Colorado	No	4	.	.	.
Connecticut	No	0	.	.	.
D.C.	No	0	.	.	.
Delaware	No	0	.	.	.
Florida	No	7	107	0	2.201
Georgia	No	0	.	.	.
Guam	No	0	.	.	.
Hawaii	No	0	.	.	.
Idaho	No	0	.	.	.
Illinois	No	4	.	.	.
Indiana	No	9	171	0	1.864
Iowa	No	0	.	.	.
Kansas	No	0	.	.	.
Kentucky	No	1	.	.	.
Louisiana	No	7	232	2	4.458
Maine	No	0	.	.	.
Maryland	No	0	.	.	.
Massachusetts	No	3	.	.	.
Michigan	No	1	.	.	.
Minnesota	No	6	212	2	5.294
Mississippi	No	0	.	.	.
Missouri	No	2	.	.	.
Montana	No	2	.	.	.
Nebraska	No	0	.	.	.
Nevada	No	1	.	.	.
New Hampshire	No	0	.	.	.
New Jersey	No	0	.	.	.
New Mexico	No	0	.	.	.
New York	No	1	.	.	.
North Carolina	No	2	.	.	.
North Dakota	No	0	.	.	.
Ohio	No	16	282	0	3.931
Oklahoma	No	1	.	.	.
Oregon	No	5	138	2	2.994
Pennsylvania	Yes	49	1366	6	26.958

Puerto Rico	No	0	.	.	.
Rhode Island	No	0	.	.	.
South Carolina	No	3	.	.	.
South Dakota	No	2	.	.	.
Tennessee	No	1	.	.	.
Texas	No	4	.	.	.
Utah	No	0	.	.	.
Vermont	No	0	.	.	.
Virgin Islands		0	.	.	.
Virginia	No	9	280	1	4.769
Washington	No	5	154	0	1.215
West Virginia	No	2	.	.	.
Wisconsin	No	3	.	.	.
Wyoming	No	0	.	.	.
All US		**417**	**10,479**	**62**	**190.189**

1. SSIs included are those classified as deep incisional or organ/space infections following NHSN-de
   detected during the same admission as the surgical procedure or upon readmission to the same fa
2. Yes indicates the presence of a state mandate to report SSIs following rectal surgery to NHSN at
   No indicates that a state mandate did not exist during 2022. A blank field indicates data not availab
3. The number of reporting facilities included in the SIR calculation. Refer to the Technical Appendix
   statistics are only calculated for states in which at least 5 facilities reported SSI data following recta
4. Percent of facilities with at least one predicted rectal surgery SSI that had an SIR significantly grea
   at least 10 facilities had at least one predicted rectal surgery SSI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted recta
   SIR was neither calculated nor included in the distribution of facility-specific SIRs.

zed infection ratios (SIRs) and facility-specific SIR summary measures,
l Acute Care Hospitals reporting during 2022

fections (SSI) following rectal surgery[1] in adults, ≥ 18years

	95% CI for SIR		Facility-specific SIRs				
SIR	Lower	Upper				10%	25%
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0.316	0.223	0.435	29	3%	0%	0.000	0.000
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0.449	0.075	1.482	1	.	.	.	.
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0.378	0.063	1.248	2	.	.	.	.
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0.000	.	0.762	1	.	.	.	.
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0.668	0.112	2.207	1	.	.	.	.
0.223	0.090	0.463	10	0%	0%	.	.

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0.210	0.010	1.034	1	.	.	.	.
0.000	.	2.465	.	.	.	.	.
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0.326	**0.252**	**0.415**	**53**	**6%**	**0%**	**0.000**	**0.000**

fined inpatient rectal surgery procedures that occurred in 2022 with a primary or other than primary skin closı
ıcility.
the beginning of 2022. M indicates midyear implementation of a mandate.
ɔle.
for information about exclusion criteria. SIRs and accompanying
ıl surgery in 2022.
ter or less than the nominal value of the 2022 national rectal surgery SIR of 0.326. This is only calculated if

ıl surgery SSI in 2022. If a facility's predicted number of rectal surgery SSI was <1.0, a facility-specific

	75%	90%
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0.000	0.239	0.900
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0.000	**0.610**	**0.898**

ure technique,

Table 6. State-specific standardi
NHSN

6f. Surgical site infecti

State			No. of Procedures	No. of Infections Observed	No. of Infections Predicted
Alabama	No	1	.	.	.
Alaska	No	1	.	.	.
Arizona	No	1	.	.	.
Arkansas	No	3	.	.	.
California	Yes	208	2,236	22	12.514
Colorado	No	12	42	1	0.244
Connecticut	No	0	.	.	.
D.C.	No	0	.	.	.
Delaware	No	0	.	.	.
Florida	No	7	85	0	0.395
Georgia	No	2	.	.	.
Guam	No	1	.	.	.
Hawaii	No	0	.	.	.
Idaho	No	1	.	.	.
Illinois	No	4	.	.	.
Indiana	No	11	119	1	0.701
Iowa	No	2	.	.	.
Kansas	No	2	.	.	.
Kentucky	No	0	.	.	.
Louisiana	No	2	.	.	.
Maine	No	0	.	.	.
Maryland	No	2	.	.	.
Massachusetts	Yes	34	286	1	1.905
Michigan	No	2	.	.	.
Minnesota	No	5	21	0	0.139
Mississippi	No	3	.	.	.
Missouri	No	4	.	.	.
Montana	No	2	.	.	.
Nebraska	No	2	.	.	.
Nevada	No	0	.	.	.
New Hampshire	No	1	.	.	.
New Jersey	No	0	.	.	.
New Mexico	No	7	51	0	0.227
New York	No	5	17	0	0.107
North Carolina	No	3	.	.	.
North Dakota	No	0	.	.	.
Ohio	No	16	278	1	1.353
Oklahoma	No	3	.	.	.
Oregon	No	4	.	.	.
Pennsylvania	Yes	40	540	0	3.762

Puerto Rico	No	0	.	.	.
Rhode Island	No	0	.	.	.
South Carolina	No	3	.	.	.
South Dakota	No	1	.	.	.
Tennessee	No	3	.	.	.
Texas	No	97	1,285	3	7.298
Utah	No	0	.	.	.
Vermont	No	0	.	.	.
Virgin Islands		0	.	.	.
Virginia	No	9	79	2	0.485
Washington	No	12	122	0	0.634
West Virginia	No	1	.	.	.
Wisconsin	No	3	.	.	.
Wyoming	No	0	.	.	.
All US		**520**	**5,970**	**36**	**34.818**

1. SSIs included are those classified as deep incisional or organ/space infections following NHSN-de
   detected during the same admission as the surgical procedure or upon readmission to the same fa
2. Yes indicates the presence of a state mandate to report SSIs following vaginal hysterectomy surge
   No indicates that a state mandate did not exist during 2022. A blank field indicates data not availab
3. The number of reporting facilities included in the SIR calculation. Refer to the Technical Appendix
   statistics are only calculated for states in which at least 5 facilities reported SSI data following vagi
4. Percent of facilities with at least one predicted vaginal hysterectomy SSI that had an SIR significan
   at least 10 facilities had at least one predicted vaginal hysterectomy SSI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted vagi
   SIR was neither calculated nor included in the distribution of facility-specific SIRs.

zed infection ratios (SIRs) and facility-specific SIR summary measures,
ı Acute Care Hospitals reporting during 2022

ons (SSI) following vaginal hysterectomy[1] in adults, ≥ 18years

	95% CI for SIR		Facility-specific SIRs				
SIR	Lower	Upper				10%	25%
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1.758	1.130	2.618	0	.	.	.	.
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0.525	0.026	2.589	0	.	.	.	.
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0.739	0.037	3.645	0	.	.	.	.
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0.000	.	0.796	0	.	.	.	.

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0.411	0.105	1.119	0	.	.	.	.
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1.034	**0.735**	**1.416**	**0**	**.**	**.**	**.**	**.**

fined inpatient vaginal hysterectomy procedures that occurred in 2022 with a primary or other than primary sk
ıcility.
ery to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate.
ole.
for information about exclusion criteria. SIRs and accompanying
nal hysterectomy in 2022.
ıtly greater or less than the nominal value of the 2022 national vaginal hysterectomy SIR of 1.034. This is onl

nal hysterectomy SSI in 2022. If a facility's predicted number of vaginal hysterectomy SSI was <1.0, a facility-

	75%	90%
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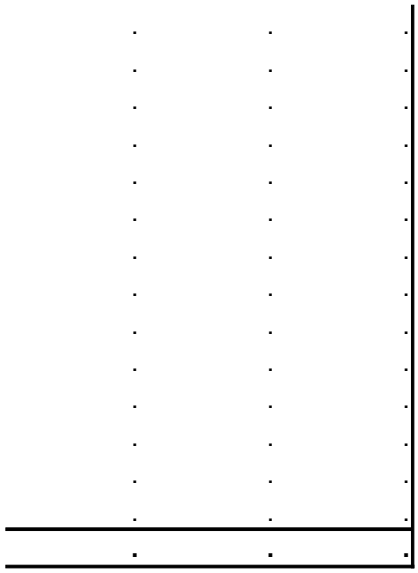

‹in closure technique,

y calculated if

specific

Table 6. State-specific standardi
NHSI

6g. Surgical site infection

State			No. of Procedures	No. of Infections Observed	No. of Infections Predicted
Alabama	No	4	.	.	.
Alaska	No	1	.	.	.
Arizona	No	12	1,985	11	13.046
Arkansas	No	7	1,119	12	10.508
California	Yes	122	14,643	74	115.984
Colorado	No	10	998	5	6.567
Connecticut	No	1	.	.	.
D.C.	No	2	.	.	.
Delaware	No	1	.	.	.
Florida	No	13	2,789	10	20.336
Georgia	No	10	2,677	12	24.744
Guam	No	0	.	.	.
Hawaii	No	1	.	.	.
Idaho	No	2	.	.	.
Illinois	Yes	51	6,150	34	52.290
Indiana	No	10	1,858	7	14.070
Iowa	No	2	.	.	.
Kansas	No	3	.	.	.
Kentucky	No	4	.	.	.
Louisiana	No	8	1,262	12	10.279
Maine	No	2	.	.	.
Maryland	Yes	11	2,533	15	20.420
Massachusetts	Yes	13	3,728	36	31.439
Michigan	No	7	1,180	8	10.067
Minnesota	No	5	1,271	12	11.53
Mississippi	No	12	1,649	8	13.349
Missouri	No	25	4,076	22	35.305
Montana	No	5	744	10	5.166
Nebraska	No	3	.	.	.
Nevada	Yes	13	1,478	14	10.747
New Hampshire	Yes	4	.	.	.
New Jersey	Yes	18	4,291	28	33.939
New Mexico	No	1	.	.	.
New York	Yes	35	9,380	56	87.172
North Carolina	No	5	1,382	7	13.823
North Dakota	No	2	.	.	.
Ohio	No	21	2,546	19	20.016
Oklahoma	No	4	.	.	.
Oregon	Yes	11	2,017	10	12.931
Pennsylvania	Yes	51	8,094	58	65.551

Puerto Rico	Yes	0	.	.	.
Rhode Island	No	1	.	.	.
South Carolina	Yes	17	3,472	27	28.911
South Dakota	No	1	.	.	.
Tennessee	Yes	19	5,923	46	47.074
Texas	No	77	9,649	55	76.226
Utah	No	1	.	.	.
Vermont	No	1	.	.	.
Virgin Islands		0	.	.	.
Virginia	No	9	1,919	14	17.213
Washington	No	10	2,276	20	17.012
West Virginia	No	2	.	.	.
Wisconsin	No	15	3,168	22	23.952
Wyoming	No	1	.	.	.
All US		**666**	**112,944**	**728**	**922.965**

1. SSIs included are those classified as deep incisional or organ/space infections following NHSN-de
   detected during the same admission as the surgical procedure or upon readmission to the same fa
2. Yes indicates the presence of a state mandate to report SSIs following coronary artery bypass graf
   No indicates that a state mandate did not exist during 2022. A blank field indicates data not availab
3. The number of reporting facilities included in the SIR calculation. Refer to the Technical Appendix
   statistics are only calculated for states in which at least 5 facilities reported SSI data following coro
4. Percent of facilities with at least one predicted coronary artery bypass graft SSI that had an SIR sig
   at least 10 facilities had at least one predicted coronary artery bypass graft SSI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted coro
   SIR was neither calculated nor included in the distribution of facility-specific SIRs.

ized infection ratios (SIRs) and facility-specific SIR summary measures,
N Acute Care Hospitals reporting during 2022

s (SSI) following coronary artery bypass graft[1] in adults, ≥ 18years

	95% CI for SIR		Facility-specific SIRs				
SIR	Lower	Upper				10%	25%
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.843	0.443	1.466	9	.	.	.	.
1.142	0.619	1.941	3	.	.	.	.
0.638	0.505	0.796	34	3%	3%	0.000	0.000
0.761	0.279	1.688	2	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.492	0.250	0.877	5	.	.	.	.
0.485	0.263	0.824	8	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.650	0.458	0.898	18	0%	6%	.	.
0.498	0.218	0.984	6	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.167	0.633	1.985	2	.	.	.	.
.	.	.	.	.	.	.	.
0.735	0.427	1.184	9	.	.	.	.
1.145	0.814	1.568	9	.	.	.	.
0.795	0.369	1.509	5	.	.	.	.
1.041	0.564	1.769	4	.	.	.	.
0.599	0.278	1.138	6	.	.	.	.
0.623	0.400	0.928	12	0%	0%	.	.
1.936	0.983	3.450	3	.	.	.	.
.	.	.	.	.	.	.	.
1.303	0.742	2.134	5	.	.	.	.
.	.	.	.	.	.	.	.
0.825	0.559	1.176	12	8%	0%	.	.
.	.	.	.	.	.	.	.
0.642	0.490	0.828	27	0%	0%	0.000	0.209
0.506	0.221	1.002	3	.	.	.	.
.	.	.	.	.	.	.	.
0.949	0.588	1.455	6	.	.	.	.
.	.	.	.	.	.	.	.
0.773	0.393	1.378	6	.	.	.	.
0.885	0.678	1.136	23	4%	0%	0.000	0.000

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0.934	0.628	1.340	11	0%	0%	.	.
.	.	.	.	.	.	.	.
0.977	0.724	1.292	14	21%	0%	.	.
0.722	0.549	0.932	25	8%	0%	0.000	0.000
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.813	0.463	1.332	6	.	.	.	.
1.176	0.738	1.784	7	.	.	.	.
.	.	.	.	.	.	.	.
0.918	0.590	1.368	8	.	.	.	.
.	.	.	.	.	.	.	.
0.789	**0.733**	**0.848**	**314**	**5%**	**1%**	**0.000**	**0.000**

fined inpatient coronary artery bypass graft procedures that occurred in 2022 with a primary or other than prim
ıcility.
ft surgery to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate.
ɔle.
for information about exclusion criteria. SIRs and accompanying
nary artery bypass graft in 2022.
gnificantly greater or less than the nominal value of the 2022 national coronary artery bypass graft SIR of 0.789

nary artery bypass graft SSI in 2022. If a facility's predicted number of coronary artery bypass graft SSI was <1

	75%	90%
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0.374	0.899	2.229
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0.569	0.843	1.276
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0.630	1.361	1.794

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0.661	0.921	2.240
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0.623	**1.063**	**1.945**

ıary skin closure technique,

ɔ. This is only calculated if

I.0, a facility-specific

Table 6. State-specific standardi
NHSI
6h. Surgical site infect

State			No. of Procedures	No. of Infections Observed	No. of Infections Predicted
Alabama	No	0	.	.	.
Alaska	No	1	.	.	.
Arizona	No	6	690	1	3.156
Arkansas	No	5	626	4	3.232
California	Yes	166	14,035	48	58.057
Colorado	No	3	.	.	.
Connecticut	No	1	.	.	.
D.C.	No	1	.	.	.
Delaware	No	1	.	.	.
Florida	No	8	872	2	3.551
Georgia	No	4	.	.	.
Guam	No	0	.	.	.
Hawaii	No	0	.	.	.
Idaho	No	1	.	.	.
Illinois	No	6	420	1	1.902
Indiana	No	4	.	.	.
Iowa	No	2	.	.	.
Kansas	No	2	.	.	.
Kentucky	No	5	676	4	4.734
Louisiana	No	6	569	1	2.245
Maine	No	1	.	.	.
Maryland	No	1	.	.	.
Massachusetts	No	4	.	.	.
Michigan	No	3	.	.	.
Minnesota	No	5	1,911	11	7.966
Mississippi	No	3	.	.	.
Missouri	No	8	713	0	3.474
Montana	No	5	542	2	2.301
Nebraska	No	2	.	.	.
Nevada	No	2	.	.	.
New Hampshire	No	0	.	.	.
New Jersey	No	5	969	3	3.727
New Mexico	No	0	.	.	.
New York	No	8	1,368	3	5.959
North Carolina	No	1	.	.	.
North Dakota	No	0	.	.	.
Ohio	No	13	1,174	8	5.144
Oklahoma	No	2	.	.	.
Oregon	No	3	.	.	.
Pennsylvania	Yes	59	7,425	26	32.106

Puerto Rico	Yes	0	.	.	.
Rhode Island	No	1	.	.	.
South Carolina	No	4	.	.	.
South Dakota	No	1	.	.	.
Tennessee	No	3	.	.	.
Texas	No	17	1,841	3	7.102
Utah	No	0	.	.	.
Vermont	No	0	.	.	.
Virgin Islands		0	.	.	.
Virginia	No	6	561	2	2.297
Washington	No	12	1,758	7	8.187
West Virginia	No	1	.	.	.
Wisconsin	No	9	1,425	3	6.437
Wyoming	No	0	.	.	.
All US		**401**	**45,425**	**157**	**195.437**

1. SSIs included are those classified as deep incisional or organ/space infections following NHSN-de
   detected during the same admission as the surgical procedure or upon readmission to the same fa
2. Yes indicates the presence of a state mandate to report SSIs following other cardiac surgery to NH
   No indicates that a state mandate did not exist during 2022. A blank field indicates data not availab
3. The number of reporting facilities included in the SIR calculation. Refer to the Technical Appendix
   statistics are only calculated for states in which at least 5 facilities reported SSI data following othe
4. Percent of facilities with at least one predicted other cardiac surgery SSI that had an SIR significan
   at least 10 facilities had at least one predicted other cardiac surgery SSI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted othe
   SIR was neither calculated nor included in the distribution of facility-specific SIRs.

ized infection ratios (SIRs) and facility-specific SIR summary measures,
N Acute Care Hospitals reporting during 2022

tions (SSI) following other cardiac surgery[1] in adults, ≥ 18years

	95% CI for SIR		Facility-specific SIRs				
SIR	Lower	Upper				10%	25%
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.317	0.016	1.562	1	.	.	.	.
1.238	0.393	2.985	1	.	.	.	.
0.827	0.616	1.087	21	10%	0%	0.000	0.000
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0.563	0.094	1.861	1	.	.	.	.
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0.526	0.026	2.593	0	.	.	.	.
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0.845	0.268	2.038	2	.	.	.	.
0.445	0.022	2.197	1	.	.	.	.
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1.381	0.726	2.400	2	.	.	.	.
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0.000	.	0.862	1	.	.	.	.
0.869	0.146	2.872	0	.	.	.	.
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0.805	0.205	2.191	3	.	.	.	.
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0.503	0.128	1.370	2	.	.	.	.
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1.555	0.722	2.954	2	.	.	.	.
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0.810	0.540	1.170	14	0%	0%	.	.

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0.871	0.146	2.877	1	.	.	.	.
0.855	0.374	1.691	2	.	.	.	.
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0.466	0.119	1.268	4	.	.	.	.
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0.803	**0.685**	**0.937**	**72**	**4%**	**0%**	**0.000**	**0.000**

fined inpatient other cardiac surgery procedures that occurred in 2022 with a primary or other than primary ski
cility.
HSN at the beginning of 2022. M indicates midyear implementation of a mandate.
ole.
for information about exclusion criteria. SIRs and accompanying
r cardiac surgery in 2022.
ıtly greater or less than the nominal value of the 2022 national other cardiac surgery SIR of 0.803. This is only

r cardiac surgery SSI in 2022. If a facility's predicted number of other cardiac surgery SSI was <1.0, a facility-s

	75%	90%
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0.290	1.042	2.447
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0.459	**1.178**	**2.319**

n closure technique,

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Table 6. State-specific standardi
NHSN

6i. Surgical site infections (SS

State			No. of Procedures	No. of Infections: Observed	No. of Infections: Predicted
Alabama	No	0	.	.	.
Alaska	No	0	.	.	.
Arizona	No	0	.	.	.
Arkansas	No	2	.	.	.
California	No	31	541	7	12.125
Colorado	No	5	119	1	2.317
Connecticut	No	0	.	.	.
D.C.	No	0	.	.	.
Delaware	No	0	.	.	.
Florida	No	10	235	1	4.767
Georgia	No	0	.	.	.
Guam	No	0	.	.	.
Hawaii	No	0	.	.	.
Idaho	No	0	.	.	.
Illinois	No	4	.	.	.
Indiana	No	5	261	3	3.459
Iowa	No	1	.	.	.
Kansas	No	0	.	.	.
Kentucky	No	2	.	.	.
Louisiana	No	5	315	6	6.773
Maine	No	2	.	.	.
Maryland	No	1	.	.	.
Massachusetts	No	3	.	.	.
Michigan	No	4	.	.	.
Minnesota	No	5	245	5	6.110
Mississippi	No	3	.	.	.
Missouri	No	5	536	8	11.825
Montana	No	2	.	.	.
Nebraska	No	0	.	.	.
Nevada	No	1	.	.	.
New Hampshire	No	0	.	.	.
New Jersey	No	1	.	.	.
New Mexico	No	0	.	.	.
New York	No	12	453	19	8.846
North Carolina	No	2	.	.	.
North Dakota	No	0	.	.	.
Ohio	No	14	459	11	8.013
Oklahoma	No	0	.	.	.
Oregon	No	7	250	4	5.333
Pennsylvania	Yes	50	1668	30	35.778

Puerto Rico	No	0	.	.	.
Rhode Island	No	0	.	.	.
South Carolina	No	2	.	.	.
South Dakota	No	1	.	.	.
Tennessee	No	0	.	.	.
Texas	No	75	2,476	34	46.223
Utah	No	0	.	.	.
Vermont	No	0	.	.	.
Virgin Islands		0	.	.	.
Virginia	No	9	481	3	10.115
Washington	No	2	.	.	.
West Virginia	No	1	.	.	.
Wisconsin	No	3	.	.	.
Wyoming	No	0	.	.	.
All US		**270**	**9,656**	**178**	**194.816**

1. SSIs included are those classified as deep incisional or organ/space infections following NHSN-de
   detected during the same admission as the surgical procedure or upon readmission to the same fa
2. Yes indicates the presence of a state mandate to report SSIs following peripheral vascular bypass
   No indicates that a state mandate did not exist during 2022. A blank field indicates data not availab
3. The number of reporting facilities included in the SIR calculation. Refer to the Technical Appendix
   statistics are only calculated for states in which at least 5 facilities reported SSI data following perip
4 Percent of facilities with at least one predicted peripheral vascular bypass surgery SSI that had an
   at least 10 facilities had at least one predicted peripheral vascular bypass surgery SSI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted perip
   SIR was neither calculated nor included in the distribution of facility-specific SIRs.

zed infection ratios (SIRs) and facility-specific SIR summary measures,
ı Acute Care Hospitals reporting during 2022

SI) following peripheral vascular bypass surgery[1] in adults, ≥ 18years

	95% CI for SIR		Facility-specific SIRs				
SIR	Lower	Upper				10%	25%
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.577	0.252	1.142	2	.	.	.	.
0.432	0.022	2.128	1	.	.	.	.
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0.210	0.010	1.035	1	.	.	.	.
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0.867	0.221	2.361	1	.	.	.	.
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0.886	0.359	1.842	1	.	.	.	.
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0.818	0.300	1.814	3	.	.	.	.
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0.677	0.314	1.285	4	.	.	.	.
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2.148	1.332	3.292	4	.	.	.	.
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.	.	.	.	.	.	.	.
1.373	0.722	2.386	3	.	.	.	.
.	.	.	.	.	.	.	.
0.750	0.238	1.809	3	.	.	.	.
0.839	0.576	1.182	14	0%	0%	.	.

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0.736	0.518	1.016	17	0%	0%	.	.
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0.914	**0.787**	**1.056**	**70**	**4%**	**1%**	**0.000**	**0.000**

fined inpatient peripheral vascular bypass surgery procedures that occurred in 2022 with a primary or other tl
ıcility.
 surgery to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate.
ɔle.
for information about exclusion criteria. SIRs and accompanying
ɔheral vascular bypass surgery in 2022.
SIR significantly greater or less than the nominal value of the 2022 national peripheral vascular bypass surgeı

ɔheral vascular bypass surgery SSI in 2022. If a facility’s predicted number of peripheral vascular bypass surg

	75%	90%
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0.731	**1.188**	**1.771**

han primary skin closure technique,

ry SIR of 0.914. This is only calculated if

jery SSI was <1.0, a facility-specific

Table 6. State-specific standardi
NHSI

6j. Surgical site infections (S

State			No. of Procedures	No. of Infections: Observed	No. of Infections: Predicted
Alabama	No	0	.	.	.
Alaska	No	0	.	.	.
Arizona	No	0	.	.	.
Arkansas	No	1	.	.	.
California	Yes	80	238	0	1.618
Colorado	No	1	.	.	.
Connecticut	No	0	.	.	.
D.C.	No	0	.	.	.
Delaware	No	0	.	.	.
Florida	No	2	.	.	.
Georgia	No	0	.	.	.
Guam	No	0	.	.	.
Hawaii	No	0	.	.	.
Idaho	No	0	.	.	.
Illinois	No	2	.	.	.
Indiana	No	3	.	.	.
Iowa	No	0	.	.	.
Kansas	No	0	.	.	.
Kentucky	No	0	.	.	.
Louisiana	No	2	.	.	.
Maine	No	0	.	.	.
Maryland	No	0	.	.	.
Massachusetts	No	2	.	.	.
Michigan	No	0	.	.	.
Minnesota	No	3	.	.	.
Mississippi	No	0	.	.	.
Missouri	No	0	.	.	.
Montana	No	0	.	.	.
Nebraska	No	0	.	.	.
Nevada	No	0	.	.	.
New Hampshire	No	0	.	.	.
New Jersey	No	0	.	.	.
New Mexico	No	0	.	.	.
New York	No	0	.	.	.
North Carolina	No	1	.	.	.
North Dakota	No	0	.	.	.
Ohio	No	7	18	0	0.122
Oklahoma	No	0	.	.	.
Oregon	No	1	.	.	.
Pennsylvania	Yes	19	78	1	0.530

Puerto Rico	No	0	.	.	.
Rhode Island	No	0	.	.	.
South Carolina	No	0	.	.	.
South Dakota	No	1	.	.	.
Tennessee	No	0	.	.	.
Texas	No	34	123	1	0.836
Utah	No	0	.	.	.
Vermont	No	0	.	.	.
Virgin Islands		0	.	.	.
Virginia	No	3	.	.	.
Washington	No	0	.	.	.
West Virginia	No	0	.	.	.
Wisconsin	No	2	.	.	.
Wyoming	No	0	.	.	.
All US		**164**	**526**	**3**	**3.577**

1. SSIs included are those classified as deep incisional or organ/space infections following NHSN-de
   detected during the same admission as the surgical procedure or upon readmission to the same fa
2. Yes indicates the presence of a state mandate to report SSIs following abdominal aortic aneurysm
   No indicates that a state mandate did not exist during 2022. A blank field indicates data not availab
3. The number of reporting facilities included in the SIR calculation. Refer to the Technical Appendix
   statistics are only calculated for states in which at least 5 facilities reported SSI data following abdo
4. Percent of facilities with at least one predicted abdominal aortic aneurysm repair SSI that had an S
   at least 10 facilities had at least one predicted abdominal aortic aneurysm repair SSI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted abdo
   SIR was neither calculated nor included in the distribution of facility-specific SIRs.

ized infection ratios (SIRs) and facility-specific SIR summary measures,
N Acute Care Hospitals reporting during 2022

SSI) following abdominal aortic aneurysm repair[1] in adults, ≥ 18years

	95% CI for SIR		Facility-specific SIRs				
SIR	Lower	Upper				10%	25%
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0.839	**0.213**	**2.283**	**0**	**.**	**.**	**.**	**.**

fined inpatient abdominal aortic aneurysm repair procedures that occurred in 2022 with a primary or other tha
ıcility.
repair surgery to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate.
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for information about exclusion criteria. SIRs and accompanying
ominal aortic aneurysm repair in 2022.
IR significantly greater or less than the nominal value of the 2022 national abdominal aortic aneurysm repair S

ominal aortic aneurysm repair SSI in 2022. If a facility's predicted number of abdominal aortic aneurysm repair

	75%	90%
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n primary skin closure technique,

SIR of 0.839. This is only calculated if

SSI was <1.0, a facility-specific

Table 6. State-specific standardi
NHSI
6k. Surgical site infectio

State			No. of Procedures	No. of Infections Observed	No. of Infections Predicted
Alabama	No	1	.	.	.
Alaska	No	1	.	.	.
Arizona	No	3	.	.	.
Arkansas	No	1	.	.	.
California	Yes	215	116,560	191	231.816
Colorado	No	20	7,601	12	12.502
Connecticut	No	0	.	.	.
D.C.	No	1	.	.	.
Delaware	No	2	.	.	.
Florida	No	17	14,138	29	25.002
Georgia	No	13	6,463	28	12.761
Guam	No	0	.	.	.
Hawaii	No	2	.	.	.
Idaho	No	4	.	.	.
Illinois	No	19	6,194	18	13.094
Indiana	No	17	6,472	12	11.757
Iowa	No	3	.	.	.
Kansas	No	2	.	.	.
Kentucky	No	3	.	.	.
Louisiana	No	8	3,075	6	5.071
Maine	No	3	.	.	.
Maryland	No	4	.	.	.
Massachusetts	No	4	.	.	.
Michigan	No	8	6,570	18	16.203
Minnesota	No	8	5,276	10	9.259
Mississippi	No	6	1,691	4	2.493
Missouri	No	13	8,224	14	17.803
Montana	No	5	1,137	1	2.026
Nebraska	No	5	3,087	9	3.509
Nevada	No	10	6,114	13	10.419
New Hampshire	No	1	.	.	.
New Jersey	No	4	.	.	.
New Mexico	No	8	2,103	11	3.552
New York	No	8	3,837	12	6.418
North Carolina	No	8	3,384	4	9.702
North Dakota	No	1	.	.	.
Ohio	No	31	13,548	22	21.151
Oklahoma	No	9	3,225	6	3.169
Oregon	No	5	1,473	0	2.397
Pennsylvania	Yes	44	23,342	59	59.579

Puerto Rico	No	0	.	.	.
Rhode Island	No	2	.	.	.
South Carolina	No	8	4,288	16	8.587
South Dakota	No	4	.	.	.
Tennessee	No	7	4,292	11	8.118
Texas	No	47	29,302	98	66.083
Utah	No	1	.	.	.
Vermont	No	0	.	.	.
Virgin Islands		1	.	.	.
Virginia	No	11	5,064	11	9.491
Washington	No	23	11,205	32	18.533
West Virginia	No	3	.	.	.
Wisconsin	No	20	6,737	17	14.286
Wyoming	No	0	.	.	.
All US		**644**	**332,614**	**771**	**669.828**

1. SSIs included are those classified as deep incisional or organ/space infections following NHSN-de
   detected during the same admission as the surgical procedure or upon readmission to the same fa
2. Yes indicates the presence of a state mandate to report SSIs following cesarean section surgery
   No indicates that a state mandate did not exist during 2022. A blank field indicates data not availab
3. The number of reporting facilities included in the SIR calculation. Refer to the Technical Appendix
   statistics are only calculated for states in which at least 5 facilities reported SSI data following cesa
4. Percent of facilities with at least one predicted cesarean section surgery SSI that had an SIR signi
   at least 10 facilities had at least one predicted cesarean section surgery SSI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted cesa
   SIR was neither calculated nor included in the distribution of facility-specific SIRs.

ized infection ratios (SIRs) and facility-specific SIR summary measures,
N Acute Care Hospitals reporting during 2022

ns (SSI) following cesarean section surgery[1] in adults, ≥ 18years

	95% CI for SIR		Facility-specific SIRs				
SIR	Lower	Upper				10%	25%
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.824	0.713	0.947	76	3%	9%	0.000	0.000
0.960	0.520	1.632	3	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.160	0.792	1.644	6	.	.	.	.
2.194	1.487	3.129	4	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.375	0.840	2.130	4	.	.	.	.
1.021	0.553	1.735	3	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.183	0.480	2.461	2	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.111	0.679	1.722	4	.	.	.	.
1.080	0.549	1.925	4	.	.	.	.
1.604	0.510	3.870	1	.	.	.	.
0.786	0.448	1.288	6	.	.	.	.
0.494	0.025	2.434	0	.	.	.	.
2.565	1.251	4.707	2	.	.	.	.
1.248	0.694	2.080	4	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
3.097	1.628	5.382	1	.	.	.	.
1.870	1.013	3.178	2	.	.	.	.
0.412	0.131	0.994	1	.	.	.	.
.	.	.	.	.	.	.	.
1.040	0.668	1.549	6	.	.	.	.
1.893	0.767	3.938	1	.	.	.	.
0.000	.	1.250	1	.	.	.	.
0.990	0.761	1.268	13	15%	15%	.	.

.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.863	1.103	2.961	2	.	.	.	.
.	.	.	.	.	.	.	.
1.355	0.713	2.355	2	.	.	.	.
1.483	1.210	1.799	19	26%	5%	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.159	0.609	2.015	4	.	.	.	.
1.727	1.201	2.408	5	.	.	.	.
.	.	.	.	.	.	.	.
1.190	0.716	1.867	3	.	.	.	.
.	.	.	.	.	.	.	.
1.151	**1.072**	**1.234**	**198**	**9%**	**7%**	**0.000**	**0.222**

fined inpatient cesarean section surgery procedures that occurred in 2022 with a primary or other than primai
ıcility.
to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate.
ɔle.
for information about exclusion criteria. SIRs and accompanying
ırean section surgery in 2022.
ficantly greater or less than the nominal value of the 2022 national cesarean section surgery SIR of 1.151. TI

arean section surgery SSI in 2022. If a facility's predicted number of cesarean section surgery SSI was <1.0, a

	75%	90%
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.	.	.
0.650	1.133	1.843
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0.851	**1.545**	**2.548**

ry skin closure technique,

nis is only calculated if

a facility-specific

Table 6. State-specific standard
NHS

6I. Surgical site infect

State			No. of Procedures	No. of Infections Observed	Predicted
Alabama	No	5	2,105	40	13.208
Alaska	No	1	.	.	.
Arizona	No	6	2,492	16	24.350
Arkansas	No	8	1,966	10	12.927
California	Yes	212	40,343	341	330.212
Colorado	No	32	8,918	73	56.558
Connecticut	No	8	2,549	19	13.897
D.C.	No	3	.	.	.
Delaware	No	1	.	.	.
Florida	No	20	6,112	47	51.428
Georgia	No	18	6,196	63	45.244
Guam	No	1	.	.	.
Hawaii	No	1	.	.	.
Idaho	No	8	2,125	8	12.426
Illinois	No	9	1,808	23	14.854
Indiana	No	19	6,058	35	34.499
Iowa	No	5	2,024	16	19.662
Kansas	No	6	722	6	3.805
Kentucky	No	6	2,548	33	23.962
Louisiana	No	10	1,995	17	13.485
Maine	No	2	.	.	.
Maryland	No	6	1,889	17	12.300
Massachusetts	No	7	2,732	8	17.137
Michigan	No	12	4,433	45	31.342
Minnesota	No	16	6,666	92	72.593
Mississippi	No	11	2,300	22	19.851
Missouri	No	30	7,969	79	76.387
Montana	No	7	2,104	13	11.645
Nebraska	No	3	.	.	.
Nevada	No	17	3,911	33	22.870
New Hampshire	No	2	.	.	.
New Jersey	No	7	1,158	8	9.733
New Mexico	No	0	.	.	.
New York	Yes	111	25,081	230	209.604
North Carolina	No	16	5,471	65	48.906
North Dakota	No	1	.	.	.
Ohio	No	34	8,459	69	63.143
Oklahoma	No	10	2,765	26	22.403
Oregon	No	11	2,120	19	15.048
Pennsylvania	Yes	57	14,487	178	129.398

Puerto Rico	No	0	.	.	.
Rhode Island	No	2	.	.	.
South Carolina	No	6	1,757	18	15.378
South Dakota	No	1	.	.	.
Tennessee	No	12	5,672	101	65.500
Texas	No	77	15,369	122	116.582
Utah	No	3	.	.	.
Vermont	No	1	.	.	.
Virgin Islands		0	.	.	.
Virginia	No	15	5,656	49	45.457
Washington	No	21	5,571	38	37.579
West Virginia	No	0	.	.	.
Wisconsin	No	15	2,718	22	19.526
Wyoming	No	1	.	.	.
All US		**893**	**225,907**	**2,125**	**1,821.591**

1. SSIs included are those classified as deep incisional or organ/space infections following NHSN-de
   detected during the same admission as the surgical procedure or upon readmission to the same fa
2. Yes indicates the presence of a state mandate to report SSIs following fusion surgery to NHSN at
   No indicates that a state mandate did not exist during 2022. A blank field indicates data not availab
3. The number of reporting facilities included in the SIR calculation. Refer to the Technical Appendix
   statistics are only calculated for states in which at least 5 facilities reported SSI data following spina
4. Percent of facilities with at least one predicted fusion surgery SSI that had an SIR significantly grea
   at least 10 facilities had at least one predicted fusion surgery SSI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted fusio
   SIR was neither calculated nor included in the distribution of facility-specific SIRs.

ized infection ratios (SIRs) and facility-specific SIR summary measures,
N Acute Care Hospitals reporting during 2022

ions (SSI) following spinal fusion surgery[1] in adults, ≥ 18years

	95% CI for SIR		Facility-specific SIRs				
SIR	Lower	Upper				10%	25%
3.029	2.193	4.084	3	.	.	.	.
.	.	.	.	.	.	.	.
0.657	0.389	1.044	3	.	.	.	.
0.774	0.393	1.379	5	.	.	.	.
1.033	0.927	1.147	89	10%	7%	0.000	0.252
1.291	1.019	1.614	15	13%	0%	.	.
1.367	0.848	2.096	5	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.914	0.679	1.205	11	0%	9%	.	.
1.392	1.079	1.770	10	10%	10%	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.644	0.299	1.223	4	.	.	.	.
1.548	1.005	2.287	2	.	.	.	.
1.015	0.718	1.395	11	9%	0%	.	.
0.814	0.482	1.293	3	.	.	.	.
1.577	0.639	3.280	2	.	.	.	.
1.377	0.964	1.912	2	.	.	.	.
1.261	0.759	1.977	6	.	.	.	.
.	.	.	.	.	.	.	.
1.382	0.832	2.168	4	.	.	.	.
0.467	0.217	0.886	5	.	.	.	.
1.436	1.060	1.904	8	.	.	.	.
1.267	1.028	1.547	10	10%	0%	.	.
1.108	0.712	1.650	6	.	.	.	.
1.034	0.824	1.282	15	0%	13%	.	.
1.116	0.621	1.861	4	.	.	.	.
.	.	.	.	.	.	.	.
1.443	1.010	2.003	9	.	.	.	.
.	.	.	.	.	.	.	.
0.822	0.382	1.561	3	.	.	.	.
.	.	.	.	.	.	.	.
1.097	0.962	1.246	47	11%	2%	0.000	0.432
1.329	1.034	1.683	9	.	.	.	.
.	.	.	.	.	.	.	.
1.093	0.857	1.375	17	0%	0%	.	.
1.161	0.774	1.676	6	.	.	.	.
1.263	0.783	1.935	6	.	.	.	.
1.376	1.184	1.589	27	7%	4%	0.000	0.532

.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.171	0.716	1.814	3	.	.	.	.
.	.	.	.	.	.	.	.
1.542	1.262	1.866	9	.	.	.	.
1.046	0.873	1.245	29	14%	10%	0.000	0.196
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.078	0.806	1.413	10	10%	10%	.	.
1.011	0.726	1.374	13	8%	0%	.	.
.	.	.	.	.	.	.	.
1.127	0.724	1.678	6	.	.	.	.
.	.	.	.	.	.	.	.
1.167	**1.118**	**1.217**	**430**	**9%**	**6%**	**0.000**	**0.431**

fined inpatient fusion surgery procedures that occurred in 2022 with a primary or other than primary skin closu
ıcility.
the beginning of 2022. M indicates midyear implementation of a mandate.
ɔle.
for information about exclusion criteria. SIRs and accompanying
al fusion surgery in 2022.
ater or less than the nominal value of the 2022 national fusion surgery SIR of 1.167. This is only calculated if

ɔn surgery SSI in 2022. If a facility's predicted number of fusion surgery SSI was <1.0, a facility-specific

	75%	90%
.	.	.
.	.	.
.	.	.
.	.	.
0.780	1.446	2.358
.	.	.
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0.834	1.478	2.484
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1.042	2.216	2.623

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1.072	1.815	3.160
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0.935	**1.621**	**2.458**

re technique,

Table 6. State-specific standardi
NHSN
6m. Surgical site infect

State			No. of Procedures	No. of Infections Observed	No. of Infections Predicted
Alabama	No	4	.	.	.
Alaska	No	1	.	.	.
Arizona	No	4	.	.	.
Arkansas	No	4	.	.	.
California	Yes	217	34,187	72	122.287
Colorado	No	19	3,923	6	13.616
Connecticut	No	8	2,046	3	6.657
D.C.	No	2	.	.	.
Delaware	No	0	.	.	.
Florida	No	12	3,603	8	14.072
Georgia	No	16	4,276	15	17.178
Guam	No	0	.	.	.
Hawaii	No	0	.	.	.
Idaho	No	2	.	.	.
Illinois	No	7	1,267	8	5.222
Indiana	No	17	2,890	6	11.115
Iowa	No	5	1,209	0	5.144
Kansas	No	2	.	.	.
Kentucky	No	2	.	.	.
Louisiana	No	8	1,111	10	4.436
Maine	No	3	.	.	.
Maryland	No	5	413	1	1.347
Massachusetts	No	6	1,893	3	6.636
Michigan	No	9	2,461	5	9.581
Minnesota	No	13	6,379	23	24.894
Mississippi	No	12	1,863	19	8.340
Missouri	No	14	3,284	12	13.966
Montana	No	6	1,339	4	4.349
Nebraska	No	2	.	.	.
Nevada	Yes	18	4,098	9	14.659
New Hampshire	No	2	.	.	.
New Jersey	No	9	982	4	3.762
New Mexico	No	0	.	.	.
New York	No	29	6,877	17	24.920
North Carolina	No	5	1,041	1	4.402
North Dakota	No	0	.	.	.
Ohio	No	25	4,198	12	17.138
Oklahoma	No	1	.	.	.
Oregon	No	20	4,046	10	15.312
Pennsylvania	Yes	56	12,656	39	50.718

Puerto Rico	No	0	.	.	.
Rhode Island	No	2	.	.	.
South Carolina	No	3	.	.	.
South Dakota	No	1	.	.	.
Tennessee	No	6	1,478	8	7.552
Texas	No	53	7,321	17	28.230
Utah	No	0	.	.	.
Vermont	No	0	.	.	.
Virgin Islands		0	.	.	.
Virginia	No	16	4,615	19	17.993
Washington	No	14	2,910	7	9.682
West Virginia	No	1	.	.	.
Wisconsin	No	13	1,884	6	6.794
Wyoming	No	0	.	.	.
All US		**674**	**134,399**	**383**	**509.559**

1. SSIs included are those classified as deep incisional or organ/space infections following NHSN-de
   detected during the same admission as the surgical procedure or upon readmission to the same fa
2. Yes indicates the presence of a state mandate to report SSIs following laminectomy surgery to NH
   No indicates that a state mandate did not exist during 2022. A blank field indicates data not availab
3. The number of reporting facilities included in the SIR calculation. Refer to the Technical Appendix
   statistics are only calculated for states in which at least 5 facilities reported SSI data following lamin
4. Percent of facilities with at least one predicted laminectomy surgery SSI that had an SIR significan
   at least 10 facilities had at least one predicted laminectomy surgery SSI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted lamin
   SIR was neither calculated nor included in the distribution of facility-specific SIRs.

zed infection ratios (SIRs) and facility-specific SIR summary measures,
N Acute Care Hospitals reporting during 2022

tions (SSI) following laminectomy surgery[1] in adults, ≥ 18years

	95% CI for SIR		Facility-specific SIRs				
SIR	Lower	Upper				10%	25%
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.589	0.464	0.737	35	0%	0%	0.000	0.000
0.441	0.179	0.917	3	.	.	.	.
0.451	0.115	1.226	3	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.569	0.264	1.080	4	.	.	.	.
0.873	0.507	1.408	7	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.532	0.712	2.909	1	.	.	.	.
0.540	0.219	1.123	3	.	.	.	.
0.000	.	0.582	2	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
2.254	1.145	4.018	1	.	.	.	.
.	.	.	.	.	.	.	.
0.742	0.037	3.661	0	.	.	.	.
0.452	0.115	1.230	4	.	.	.	.
0.522	0.191	1.157	4	.	.	.	.
0.924	0.600	1.364	7	.	.	.	.
2.278	1.412	3.492	4	.	.	.	.
0.859	0.466	1.461	6	.	.	.	.
0.920	0.292	2.219	1	.	.	.	.
.	.	.	.	.	.	.	.
0.614	0.299	1.127	4	.	.	.	.
.	.	.	.	.	.	.	.
1.063	0.338	2.565	1	.	.	.	.
.	.	.	.	.	.	.	.
0.682	0.411	1.070	10	0%	0%	.	.
0.227	0.011	1.120	1	.	.	.	.
.	.	.	.	.	.	.	.
0.700	0.379	1.190	7	.	.	.	.
.	.	.	.	.	.	.	.
0.653	0.332	1.164	6	.	.	.	.
0.769	0.554	1.041	16	0%	6%	.	.

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1.059	0.492	2.012	3	.	.	.	.
0.602	0.363	0.945	9	.	.	.	.
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1.056	0.655	1.618	6	.	.	.	.
0.723	0.316	1.430	3	.	.	.	.
.	.	.	.	.	.	.	.
0.883	0.358	1.837	3	.	.	.	.
.	.	.	.	.	.	.	.
0.752	**0.679**	**0.830**	**168**	**3%**	**1%**	**0.000**	**0.000**

fined inpatient laminectomy surgery procedures that occurred in 2022 with a primary or other than primary sk
ıcility.
HSN at the beginning of 2022. M indicates midyear implementation of a mandate.
ɔle.
for information about exclusion criteria. SIRs and accompanying
nectomy surgery in 2022.
tly greater or less than the nominal value of the 2022 national laminectomy surgery SIR of 0.752. This is only

nectomy surgery SSI in 2022. If a facility's predicted number of laminectomy surgery SSI was <1.0, a facility-s

	75%	90%
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0.451	0.969	1.244
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0.565	**1.053**	**1.795**

:in closure technique,

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Table 6. State-specific standardi
NHSN
6n. Surgical site infec

State			No. of Procedures	No. of Infections Observed	No. of Infections Predicted
Alabama	No	0	.	.	.
Alaska	No	1	.	.	.
Arizona	No	3	.	.	.
Arkansas	No	2	.	.	.
California	Yes	299	48,682	191	192.185
Colorado	No	5	510	1	1.837
Connecticut	No	0	.	.	.
D.C.	No	0	.	.	.
Delaware	No	1	.	.	.
Florida	No	10	664	0	2.028
Georgia	No	3	.	.	.
Guam	No	0	.	.	.
Hawaii	No	0	.	.	.
Idaho	No	1	.	.	.
Illinois	No	3	.	.	.
Indiana	No	14	1,022	8	4.096
Iowa	No	0	.	.	.
Kansas	No	0	.	.	.
Kentucky	No	1	.	.	.
Louisiana	No	7	445	3	1.780
Maine	No	0	.	.	.
Maryland	No	0	.	.	.
Massachusetts	No	2	.	.	.
Michigan	No	3	.	.	.
Minnesota	No	7	1,020	6	4.573
Mississippi	No	0	.	.	.
Missouri	No	3	.	.	.
Montana	No	2	.	.	.
Nebraska	No	2	.	.	.
Nevada	No	4	.	.	.
New Hampshire	No	0	.	.	.
New Jersey	No	1	.	.	.
New Mexico	No	2	.	.	.
New York	No	1	.	.	.
North Carolina	No	2	.	.	.
North Dakota	No	0	.	.	.
Ohio	No	18	1,898	14	6.895
Oklahoma	No	2	.	.	.
Oregon	No	5	663	1	2.386
Pennsylvania	Yes	68	8,151	66	43.618

Puerto Rico	M	0	.	.	.
Rhode Island	No	0	.	.	.
South Carolina	No	3	.	.	.
South Dakota	No	2	.	.	.
Tennessee	No	0	.	.	.
Texas	No	10	819	5	3.402
Utah	No	0	.	.	.
Vermont	No	0	.	.	.
Virgin Islands		0	.	.	.
Virginia	No	10	1,463	8	6.034
Washington	No	5	779	2	2.442
West Virginia	No	2	.	.	.
Wisconsin	No	4	.	.	.
Wyoming	No	0	.	.	.
All US		**508**	**71,328**	**328**	**293.539**

1. SSIs included are those classified as deep incisional or organ/space infections following NHSN-de
   detected during the same admission as the surgical procedure or upon readmission to the same fa
2. Yes indicates the presence of a state mandate to report SSIs following gallbladder surgery to NHS
   No indicates that a state mandate did not exist during 2022. A blank field indicates data not availab
3. The number of reporting facilities included in the SIR calculation. Refer to the Technical gallbladde
   statistics are only calculated for states in which at least 5 facilities reported SSI data following gallb
4. Percent of facilities with at least one predicted gallbladder surgery SSI that had an SIR significantly
   at least 10 facilities had at least one predicted gallbladder surgery SSI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted gallb
   SIR was neither calculated nor included in the distribution of facility-specific SIRs.

zed infection ratios (SIRs) and facility-specific SIR summary measures,
N Acute Care Hospitals reporting during 2022

tions (SSI) following Gallbladder surgery[1] in adults, ≥ 18years

	95% CI for SIR		Facility-specific SIRs				
SIR	Lower	Upper				10%	25%
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0.994	0.860	1.143	68	3%	0%	0.000	0.424
0.544	0.027	2.685	1	.	.	.	.
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1.953	0.907	3.709	1	.	.	.	.
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1.685	0.429	4.586	0	.	.	.	.
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1.312	0.532	2.729	3	.	.	.	.
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2.030	1.156	3.326	0	.	.	.	.
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0.419	0.021	2.067	0	.	.	.	.
1.513	1.180	1.913	17	6%	0%	.	.

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1.470	0.539	3.258	1	.	.	.	.
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1.326	0.616	2.518	3	.	.	.	.
0.819	0.137	2.706	0	.	.	.	.
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1.117	**1.001**	**1.243**	**100**	**4%**	**0%**	**0.000**	**0.424**

fined inpatient gallbladder surgery procedures that occurred in 2022 with a primary or other than primary skin
ıcility.
SN at the beginning of 2022. M indicates midyear implementation of a mandate.
ole.
r for information about exclusion criteria. SIRs and accompanying
ladder surgery in 2022.
/ greater or less than the nominal value of the 2022 national gallbladder surgery SIR of 1.117. This is only calc

ladder surgery SSI in 2022. If a facility's predicted number of gallbladder surgery SSI was <1.0, a facility-spec

	75%	90%
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0.893	1.509	2.227
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0.931	**1.736**	**2.377**

closure technique,

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Table 6. State-specific standardi
NHSN
6o. Surgical site infectio

State			No. of Procedures	No. of Infections Observed	No. of Infections Predicted
Alabama	No	2	.	.	.
Alaska	No	1	.	.	.
Arizona	No	2	.	.	.
Arkansas	No	3	.	.	.
California	Yes	300	45,315	263	272.830
Colorado	No	5	334	3	2.266
Connecticut	No	0	.	.	.
D.C.	No	0	.	.	.
Delaware	No	1	.	.	.
Florida	No	10	797	2	5.009
Georgia	No	0	.	.	.
Guam	No	0	.	.	.
Hawaii	No	0	.	.	.
Idaho	No	1	.	.	.
Illinois	No	3	.	.	.
Indiana	No	10	942	9	5.051
Iowa	No	0	.	.	.
Kansas	No	0	.	.	.
Kentucky	No	1	.	.	.
Louisiana	No	6	397	2	2.192
Maine	No	0	.	.	.
Maryland	No	0	.	.	.
Massachusetts	No	2	.	.	.
Michigan	No	1	.	.	.
Minnesota	No	7	1,473	18	7.915
Mississippi	No	0	.	.	.
Missouri	No	4	.	.	.
Montana	No	2	.	.	.
Nebraska	No	2	.	.	.
Nevada	No	1	.	.	.
New Hampshire	Yes	0	.	.	.
New Jersey	No	0	.	.	.
New Mexico	No	1	.	.	.
New York	No	1	.	.	.
North Carolina	No	2	.	.	.
North Dakota	No	0	.	.	.
Ohio	No	18	2,063	20	13.561
Oklahoma	No	1	.	.	.
Oregon	No	5	719	4	3.672
Pennsylvania	Yes	68	11,157	92	73.992

Puerto Rico	No	1	.	.	.
Rhode Island	No	0	.	.	.
South Carolina	No	2	.	.	.
South Dakota	No	2	.	.	.
Tennessee	No	0	.	.	.
Texas	No	11	833	5	4.922
Utah	No	0	.	.	.
Vermont	No	0	.	.	.
Virgin Islands		0	.	.	.
Virginia	No	10	1,490	8	6.549
Washington	No	5	609	7	2.633
West Virginia	No	2	.	.	.
Wisconsin	No	4	.	.	.
Wyoming	No	0	.	.	.
All US		**497**	**71,885**	**472**	**434.847**

1. SSIs included are those classified as deep incisional or organ/space infections following NHSN-de
   detected during the same admission as the surgical procedure or upon readmission to the same fa
2. Yes indicates the presence of a state mandate to report SSIs following exploratory laparotomy surg
   No indicates that a state mandate did not exist during 2022. A blank field indicates data not availa
3. The number of reporting facilities included in the SIR calculation. Refer to the Technical Appendix
   statistics are only calculated for states in which at least 5 facilities reported SSI data following expl
4. Percent of facilities with at least one predicted exploratory laparotomy surgery SSI that had an SIR
   at least 10 facilities had at least one predicted exploratory laparotomy surgery SSI in 2022.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted expl
   SIR was neither calculated nor included in the distribution of facility-specific SIRs.

zed infection ratios (SIRs) and facility-specific SIR summary measures,
l Acute Care Hospitals reporting during 2022

ons (SSI) following exploratory laparotomy[1] in adults, ≥ 18years

	95% CI for SIR		Facility-specific SIRs				
SIR	Lower	Upper				10%	25%
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.964	0.853	1.086	81	5%	5%	0.000	0.000
1.324	0.337	3.604	1	.	.	.	.
.	.	.	.	.	.	.	.
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0.399	0.067	1.319	1	.	.	.	.
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1.782	0.869	3.270	2	.	.	.	.
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0.913	0.153	3.015	1	.	.	.	.
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2.274	1.390	3.524	2	.	.	.	.
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1.475	0.926	2.237	5	.	.	.	.
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1.089	0.346	2.628	2	.	.	.	.
1.243	1.008	1.518	24	4%	4%	0.00	0.15

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1.016	0.372	2.252	2	.	.	.	.
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1.222	0.567	2.32	2	.	.	.	.
2.658	1.163	5.259	1	.	.	.	.
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1.085	**0.991**	**1.187**	**135**	**5%**	**4%**	**0.000**	**0.354**

fined inpatient exploratory laparotomy surgery procedures that occurred in 2022 with a primary or other than
ıcility.
gery to NHSN at the beginning of 2022. M indicates midyear implementation of a mandate.
ble.
for information about exclusion criteria. SIRs and accompanying
ɔratory laparotomy surgery in 2022.
. significantly greater or less than the nominal value of the 2022 national exploratory laparotomy surgery SIR

ɔratory laparotomy surgery SSI in 2022. If a facility's predicted number of exploratory laparotomy surgery SSI

	75%	90%
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0.753	1.648	2.315
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0.847	**1.784**	**2.514**

primary skin closure technique,

of 1.085. This is only calculated if

was <1.0, a facility-specific

Table 7. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Acute Care Hospitals reporting during 2022

Hospital-onset methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia, 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 MRSA bacteremia			10%	25%		75%	90%
Alabama	No	No	88	292	223.567	1.306	1.163	1.463	37	14%	0%	0.000	0.451	0.983	1.790	2.200
Alaska	Yes	No	8	18	21.648	0.831	0.508	1.289	4	.	.	.	.	.	.	.
Arizona	No	No	72	178	192.673	0.924	0.795	1.067	35	6%	6%	0.000	0.339	0.722	1.537	2.296
Arkansas	Yes	Yes	50	138	113.189	1.219	1.028	1.436	20	20%	5%	0.000	0.527	1.017	1.239	2.407
California	Yes	YesA	336	839	934.242	0.898	0.839	0.960	212	7%	4%	0.000	0.408	0.769	1.388	1.867
Colorado	Yes	No	56	102	139.699	0.730	0.598	0.883	27	4%	15%	0.000	0.000	0.586	1.162	1.502
Connecticut	Yes	Yes	32	84	102.854	0.817	0.656	1.006	21	5%	0%	0.000	0.061	0.547	0.974	1.312
D.C.	Yes	No	8	44	58.566	0.751	0.553	0.999	7	.	.	.	.	.	.	.
Delaware	Yes	No	9	38	46.773	0.812	0.583	1.104	7	.	.	.	.	.	.	.
Florida	No	No	221	814	870.517	0.935	0.872	1.001	162	7%	5%	0.000	0.486	0.851	1.407	1.784
Georgia	Yes	YesA	111	391	376.398	1.039	0.940	1.146	58	9%	3%	0.272	0.623	0.974	1.452	1.941
Guam	No		2	.	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	Yes	17	25	39.738	0.629	0.416	0.915	13	0%	8%	.	.	.	.	.
Idaho	No	No	17	15	31.167	0.481	0.280	0.776	9	.	.	.	.	.	.	.
Illinois	Yes	Yes	131	278	371.359	0.749	0.664	0.841	83	0%	4%	0.000	0.282	0.613	0.900	1.338
Indiana	Yes	Yes	94	172	197.054	0.873	0.750	1.011	47	9%	0%	0.000	0.286	0.727	1.180	1.783
Iowa	No	Yes	39	91	94.322	0.965	0.781	1.179	20	5%	5%	0.000	0.558	0.896	1.342	1.432
Kansas	No	Yes	62	42	77.500	0.542	0.396	0.726	14	0%	14%	.	.	.	.	.
Kentucky	Yes	Yes	68	221	205.669	1.075	0.940	1.223	34	6%	3%	0.000	0.409	0.706	1.156	1.864
Louisiana	No	No	102	214	176.279	1.214	1.059	1.385	37	16%	0%	0.000	0.621	1.153	1.847	2.041
Maine	Yes	No	19	33	43.476	0.759	0.531	1.054	7	.	.	.	.	.	.	.
Maryland	Yes	Yes	47	158	205.967	0.767	0.654	0.894	36	0%	8%	0.000	0.468	0.743	1.024	1.409
Massachusetts	Yes	Yes	69	177	268.699	0.659	0.567	0.761	43	2%	9%	0.000	0.289	0.727	1.032	1.393
Michigan	No	Yes	99	324	339.457	0.954	0.855	1.063	57	9%	4%	0.276	0.561	0.889	1.388	1.851
Minnesota	Yes	Yes	51	74	140.814	0.526	0.416	0.656	20	0%	20%	0.000	0.000	0.437	0.682	0.875
Mississippi	Yes	No	63	143	112.435	1.272	1.076	1.494	19	11%	5%	.	.	.	.	.
Missouri	No	No	75	234	251.518	0.930	0.817	1.055	43	14%	2%	0.439	0.614	0.847	1.436	2.128
Montana	No	No	12	10	22.823	0.438	0.223	0.781	6	.	.	.	.	.	.	.
Nebraska	No	Yes	28	34	59.160	0.575	0.404	0.794	13	0%	8%	.	.	.	.	.
Nevada	Yes	No	28	102	106.402	0.959	0.786	1.159	16	6%	0%	.	.	.	.	.
New Hampshire	No	No	13	17	37.110	0.458	0.276	0.719	9	.	.	.	.	.	.	.
New Jersey	Yes	Yes	71	282	282.915	0.997	0.885	1.118	63	8%	2%	0.000	0.537	0.859	1.232	2.161
New Mexico	No	No	32	39	48.994	0.796	0.574	1.077	10	0%	10%	.	.	.	.	.
New York	No	Yes	170	741	748.382	0.990	0.921	1.063	123	12%	4%	0.205	0.579	0.928	1.484	1.931
North Carolina	Yes	Yes	102	372	419.295	0.887	0.800	0.981	61	5%	5%	0.000	0.389	0.834	1.221	2.172
North Dakota	No	No	9	11	23.425	0.470	0.247	0.816	7	.	.	.	.	.	.	.
Ohio	No	Yes	146	442	465.242	0.950	0.865	1.042	81	10%	2%	0.000	0.448	0.849	1.385	1.959
Oklahoma	No	Yes	85	146	133.462	1.094	0.927	1.283	17	18%	6%	.	.	.	.	.
Oregon	Yes	Yes	35	93	109.601	0.849	0.689	1.035	19	0%	0%	.	.	.	.	.
Pennsylvania	Yes	No	180	429	508.353	0.844	0.767	0.927	96	3%	3%	0.000	0.487	0.837	1.188	1.545
Puerto Rico	Yes	Yes	8	4	17.638	0.227	0.072	0.547	5	.	.	.	.	.	.	.
Rhode Island	No	No	10	25	35.243	0.709	0.469	1.032	8	.	.	.	.	.	.	.
South Carolina	Yes	Yes	63	221	206.078	1.072	0.938	1.221	30	7%	3%	0.000	0.526	0.940	1.283	1.575
South Dakota	No	No	19	21	33.052	0.635	0.404	0.955	3	.	.	.	.	.	.	.
Tennessee	Yes	Yes	101	353	307.662	1.147	1.032	1.272	51	12%	0%	0.000	0.434	0.968	1.223	1.703
Texas	Yes	No	362	727	906.683	0.802	0.745	0.862	164	3%	5%	0.000	0.414	0.702	1.023	1.699
Utah	Yes	No	38	33	61.314	0.538	0.377	0.747	10	0%	0%	.	.	.	.	.
Vermont	No	No	6	7	19.533	0.358	0.157	0.709	2	.	.	.	.	.	.	.
Virgin Islands			1	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	Yes	Yes	77	222	240.593	0.923	0.807	1.050	42	5%	0%	0.235	0.513	0.918	1.314	2.065

Washington	Yes	Yes	56	162	201.337	0.805	0.688	0.936	35	3%	6%	0.000	0.286	0.688	1.125	1.461
West Virginia	Yes	No	28	112	90.163	1.242	1.028	1.489	17	12%	0%	.	.	.	.	.
Wisconsin	No	Yes	86	81	148.866	0.544	0.435	0.673	35	0%	9%	0.000	0.000	0.581	0.910	1.126
Wyoming	No	No	11	5	5.226	0.957	0.351	2.121	2	.	.	.	.	.	.	.
All US			**3,723**	**9,830**	**10,878.368**	**0.904**	**0.886**	**0.922**	**1,999**	**6%**	**4%**	**0.000**	**0.435**	**0.793**	**1.265**	**1.863**

1. Note that almost all acute care hospitals are 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 2022. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2022. A blank field indicates data not available.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2022 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2022 NHSN data prior to June 1, 2023 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, 2023 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 2022.
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 2022 national hospital-onset MRSA bacteremia SIR of 0.904. This is only calculated if at least 10 facilities had at least one predicted hospital-onset MRSA bacteremia in 2022.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted hospital-onset MRSA bacteremia in 2022. 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 Acute Care Hospitals reporting during 2022
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	88	863	1,661.126	0.520	0.486	0.555	68	12%	12%	0.000	0.050	0.334	0.606	0.870
Alaska	Yes	No	9	27	109.271	0.247	0.166	0.355	8	.	.	.	.	.	.	.
Arizona	No	No	72	910	1,727.404	0.527	0.493	0.562	58	19%	14%	0.108	0.279	0.442	0.697	0.886
Arkansas	Yes	Yes	50	293	742.800	0.394	0.351	0.442	36	6%	14%	0.000	0.100	0.367	0.543	0.681
California	Yes	YesA	330	4,226	8,140.001	0.519	0.504	0.535	312	16%	15%	0.074	0.244	0.471	0.674	0.958
Colorado	Yes	Yes	56	488	1,117.501	0.437	0.399	0.477	46	4%	9%	0.064	0.229	0.328	0.582	0.737
Connecticut	Yes	Yes	32	520	880.900	0.590	0.541	0.643	29	14%	3%	0.000	0.241	0.347	0.579	0.800
D.C	Yes	No	8	234	466.030	0.502	0.441	0.570	7	.	.	.	.	.	.	.
Delaware	M	No	9	123	274.239	0.449	0.374	0.533	8	.	.	.	.	.	.	.
Florida	No	No	221	2,647	7,532.754	0.351	0.338	0.365	210	8%	38%	0.000	0.149	0.271	0.477	0.726
Georgia	Yes	YesA	111	1,299	2,823.776	0.460	0.436	0.486	93	15%	19%	0.000	0.144	0.324	0.647	1.137
Guam	No		2	.	.	.	.	.	.	.	.	.	.	.	.	.
Hawaii	No	Yes	17	221	371.338	0.595	0.520	0.678	16	25%	13%	.	.	.	.	.
Idaho	No	No	17	195	381.500	0.511	0.443	0.587	14	14%	7%	.	.	.	.	.
Illinois	Yes	Yes	131	1,808	3,625.602	0.499	0.476	0.522	118	13%	11%	0.127	0.319	0.453	0.683	1.008
Indiana	Yes	Yes	94	852	1,844.066	0.462	0.432	0.494	83	13%	18%	0.000	0.186	0.489	0.662	0.999
Iowa	No	Yes	39	314	597.149	0.526	0.470	0.586	33	15%	6%	0.093	0.347	0.518	0.767	1.001
Kansas	No	Yes	62	410	651.672	0.629	0.570	0.692	37	11%	5%	0.000	0.258	0.408	0.802	1.187
Kentucky	Yes	Yes	68	762	1,439.435	0.529	0.493	0.568	61	13%	11%	0.146	0.279	0.500	0.865	1.175
Louisiana	No	No	103	564	1,277.114	0.442	0.406	0.479	70	6%	14%	0.000	0.140	0.355	0.593	0.838
Maine	Yes	No	19	227	352.437	0.644	0.564	0.732	17	29%	6%	.	.	.	.	.
Maryland	Yes	Yes	47	946	1,658.442	0.570	0.535	0.608	46	26%	13%	0.132	0.393	0.491	0.751	0.974
Massachusetts	Yes	Yes	69	1,422	2,192.291	0.649	0.616	0.683	63	24%	5%	0.183	0.366	0.576	0.741	1.045
Michigan	No	Yes	99	1,333	2,667.226	0.500	0.473	0.527	85	12%	15%	0.000	0.243	0.450	0.647	0.897
Minnesota	Yes	Yes	51	776	1,425.688	0.544	0.507	0.584	48	8%	6%	0.106	0.302	0.547	0.769	1.235
Mississippi	Yes	No	63	337	797.977	0.422	0.379	0.469	45	11%	13%	0.000	0.000	0.237	0.560	0.944
Missouri	No	No	75	1,205	2,039.722	0.591	0.558	0.625	67	19%	15%	0.000	0.259	0.384	0.748	1.085
Montana	No	Yes	12	100	185.643	0.539	0.441	0.652	11	18%	9%	.	.	.	.	.
Nebraska	No	Yes	28	227	455.070	0.499	0.437	0.567	22	5%	14%	0.029	0.235	0.415	0.581	0.740
Nevada	No	No	28	266	874.482	0.304	0.269	0.342	22	9%	36%	0.046	0.130	0.347	0.622	0.800
New Hampshire	Yes	No	13	162	302.364	0.536	0.458	0.623	13	8%	8%	.	.	.	.	.
New Jersey	Yes	Yes	71	1,139	2,492.937	0.457	0.431	0.484	71	13%	28%	0.076	0.218	0.363	0.601	0.771
New Mexico	Yes	No	32	357	464.960	0.768	0.691	0.851	26	27%	0%	0.000	0.354	0.697	0.904	0.994
New York	Yes	YesA	171	3,376	6,410.156	0.527	0.509	0.545	158	22%	20%	0.139	0.279	0.452	0.721	0.978
North Carolina	Yes	Yes	103	1,236	3,097.760	0.399	0.377	0.422	97	9%	23%	0.000	0.181	0.342	0.545	0.875
North Dakota	No	No	9	130	214.347	0.606	0.509	0.718	8	.	.	.	.	.	.	.
Ohio	No	Yes	147	2,019	3,779.778	0.534	0.511	0.558	127	17%	13%	0.146	0.286	0.467	0.736	0.961
Oklahoma	No	Yes	85	450	1,136.791	0.396	0.361	0.434	53	11%	15%	0.000	0.160	0.259	0.631	1.058
Oregon	Yes	Yes	35	494	822.325	0.601	0.550	0.656	34	18%	9%	0.251	0.406	0.570	0.844	1.092
Pennsylvania	Yes	No	179	2,186	3,745.002	0.584	0.560	0.609	146	17%	6%	0.000	0.305	0.520	0.737	0.986
Puerto Rico	Yes	Yes	8	39	139.257	0.280	0.202	0.379	8	.	.	.	.	.	.	.
Rhode Island	No	No	10	63	216.967	0.290	0.225	0.369	10	10%	30%	.	.	.	.	.
South Carolina	Yes	Yes	63	487	1,311.127	0.371	0.340	0.406	57	7%	23%	0.000	0.104	0.340	0.515	0.907
South Dakota	No	Yes	19	125	241.284	0.518	0.433	0.615	11	9%	0%	.	.	.	.	.
Tennessee	Yes	Yes	101	688	1,870.945	0.368	0.341	0.396	85	5%	28%	0.000	0.092	0.222	0.464	0.755
Texas	Yes	No	362	2,870	7,382.521	0.389	0.375	0.403	263	8%	26%	0.000	0.148	0.294	0.524	0.855
Utah	Yes	No	38	296	522.454	0.567	0.505	0.634	30	20%	7%	0.000	0.000	0.411	0.761	1.271
Vermont	Yes	No	6	90	135.321	0.665	0.538	0.814	6	.	.	.	.	.	.	.
Virgin Islands			1	.	.	.	.	.	.	.	.	.	.	.	.	.
Virginia	Yes	Yes	78	682	2,024.789	0.337	0.312	0.363	73	1%	26%	0.000	0.046	0.251	0.431	0.531
Washington	Yes	Yes	56	829	1,422.721	0.583	0.544	0.623	50	16%	12%	0.145	0.286	0.451	0.717	1.039
West Virginia	Yes	No	28	451	643.607	0.701	0.638	0.768	25	44%	4%	0.106	0.303	0.652	1.015	1.343
Wisconsin	No	Yes	86	761	1,286.121	0.592	0.551	0.635	70	10%	0%	0.181	0.334	0.536	0.722	1.092
Wyoming	No	No	11	40	67.078	0.596	0.432	0.804	9	.	.	.	.	.	.	.
All US			**3,722**	**42,601**	**88,078.899**	**0.484**	**0.479**	**0.488**	**3,166**	**13%**	**17%**	**0.000**	**0.213**	**0.417**	**0.673**	**0.981**

1. Note that almost all acute care hospitals are 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 2022. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2022. A blank field indicates data not available.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2022 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2022 NHSN data prior to June 1, 2023 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, 2023 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 2022.
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 2022 national hospital-onset CDI SIR of 0.484. This is only calculated if at least 10 facilities had at least one predicted hospital-onset CDI in 2022.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted hospital-onset CDI in 2022. 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 acu
Central line-associated bloodstream infections (CLABSIs), catheter-associated urinary tract infections (CAUTIs), ventilator-as
***Clostridioides difficile* infections, and surgical site infections (SSIs) following Surgical Care Impr**

	2021				
	No. of Acute Care Hospitals Reporting	Observed	Predicted	SIR	
CLABSI, all locations[1]	3,710	27,021	29,335.399	0.921	3,728
CLABSI, ICU[2]	3,109	14,003	11,580.132	1.209	3,090
CLABSI, Ward[3]	3,683	11,863	15,887.854	0.747	3,698
CLABSI, NICU[4]	1,007	1,155	1,867.400	0.619	1,023
CAUTI, all locations[5]	3,774	24,710	31,077.110	0.795	3,780
CAUTI, ICU[2]	3,117	12,208	15,306.710	0.798	3,095
CAUTI, Ward[3]	3,759	12,502	15,770.460	0.793	3,766
	1,911	50,050	34,261.474	1.461	1,874
ICUs[5]	1,848	47,254	32,440.442	1.457	1,804
Wards[6]	499	2,796	1,821.031	1.535	443
Hospital-onset MRSA bacteremia, facility-wide[6]	3,681	11,605	10,850.791	1.070	3,723
Hospital-onset *C. difficile* infections, facility-wide[6]	3,680	44,948	89,798.105	0.501	3,722
SSI, combined SCIP procedures[7]	3,261	13,975	15,840.406	0.865	3,249
SSI, Abdominal aortic aneurysm repair	164	2	4.352	0.460	164
SSI, Coronary artery bypass graft[8]	694	749	917.375	0.816	666
SSI, Other cardiac surgery	403	145	181.397	0.799	401
SSI, Colon surgery	3,062	7,094	8,531.864	0.831	3,052
SSI, Hip arthroplasty	2,119	2,204	2,340.717	0.942	2,149
SSI, Abdominal hysterectomy	2,845	1871	1,883.860	0.993	2,789
SSI, Knee arthroplasty	2,059	1,605	1,559.146	1.029	2,073

SSI, Peripheral vascular bypass surgery	270	205	193.776	1.058	270
SSI, Rectal surgery	373	66	189.877	0.348	417
SSI, Vaginal hysterectomy	535	34	38.042	0.894	520

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

1. Data from all ICUs, wards (and other non-critical care locations), and NICUs in acute care hospitals. This excludes LTAC locations (or facilitie
2. Data from all ICUs in acute care hospitals; excludes wards (and other non-critical care locations), NICUs, LTAC locations (or facilities), and IF
3. Data from all wards (for this table wards also include step-down, mixed acuity and specialty care areas [including hematology/oncology, bone
4. Data from all NICU locations, including Level II/III and Level III nurseries. Both umbilical line and central line-associated bloodstream infectior
5. Data from all ICUs and wards (and other non-critical care locations). This excludes NICUs, LTAC locations (or facilities) and IRF locations (o
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 prin
   using NHSN surgical procedure categorizations. Includes SSIs that were classified as deep incisional or organ/space, and were detected upc
8. Coronary artery bypass graft includes procedures with either chest only or chest and donor site incisions.

ute care hospitals reporting during 2022 by HAI and patient population:
sociated events (VAEs), methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia,
rovement Project (SCIP) procedures, 2021 compared to 2022

2022					
Observed	Predicted	SIR	Percent Change	Direction of Change, Based on Statistical Significance	p-value
23,389	27,993.688	0.836	9%	Decrease	0.0000
9,666	10,074.210	0.959	21%	Decrease	0.0000
12,449	16,067.482	0.775	4%	Increase	0.0040
1,274	1,852.002	0.688	11%	Increase	0.0088
20,237	29,055.165	0.697	12%	Decrease	0.0000
7,784	13,320.791	0.584	27%	Decrease	0.0000
12,453	15,734.375	0.791	0%	No change	0.8972
32,631	27,472.921	1.188	19%	Decrease	0.0000
31,186	25,980.375	1.200	18%	Decrease	0.0000
1,445	1,492.546	0.968	37%	Decrease	0.0000
9,830	10,878.368	0.904	16%	Decrease	0.0000
42,601	88,078.899	0.484	3%	Decrease	0.0000
14,454	15,970.094	0.905	3%	Increase	0.0313
3	3.577	0.839	82%	No change	0.5413
728	922.965	0.789	3%	No change	0.5074
157	195.437	0.803	1%	No change	0.9663
7,355	8,574.092	0.858	3%	No change	0.0609
2,487	2,439.432	1.019	8%	Increase	0.0066
1,695	1,782.006	0.951	4%	No change	0.1976
1,753	1,632.761	1.074	4%	No change	0.2233

	178	194.816	0.914	14%	No change	0.1526
	62	190.189	0.326	6%	No change	0.7179
	36	34.818	1.034	16%	No change	0.5444

tude.

es) and IRF locations (or facilities).

RF locations (or facilities).

e marrow transplant] in acute care hospitals. This excludes LTAC locations (or facilities) and IRF locations (or facilities).

ns are considered CLABSIs.

r facilities).

nary skin closure technique approximating the procedures covered by SCIP,

on admission 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 2021 and 2022 from NHSN Acute Care Hospitals

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

	All Acute Care Hospitals Reporting to NHSN				
State[2]	2021 SIR	2022 SIR	Percent Change[3]	Direction of Change, Based on Statistical Significance	p-value
Alabama	1.043	1.035	1%	No change	0.9028
Alaska	0.865	0.375	57%	Decrease	0.0038
Arizona	0.991	0.759	23%	Decrease	0.0000
Arkansas	1.144	0.816	29%	Decrease	0.0000
California	0.910	0.835	8%	Decrease	0.0025
Colorado	0.828	0.746	10%	No change	0.1965
Connecticut	0.884	0.849	4%	No change	0.6542
D.C.	0.808	0.913	13%	No change	0.2917
Delaware	0.661	0.929	41%	Increase	0.0243
Florida	0.879	0.743	15%	Decrease	0.0000
Georgia	0.989	0.815	18%	Decrease	0.0001
Guam	.	.	.	.	.
Hawaii	0.573	0.685	20%	No change	0.3005
Idaho	0.856	0.588	31%	Decrease	0.0390
Illinois	0.778	0.870	12%	Increase	0.0192
Indiana	0.794	0.785	1%	No change	0.8537
Iowa	1.017	0.894	12%	No change	0.1867
Kansas	0.822	0.798	3%	No change	0.7902
Kentucky	1.034	0.977	6%	No change	0.3853
Louisiana	1.235	0.903	27%	Decrease	0.0000
Maine	0.779	0.891	14%	No change	0.4240
Maryland	1.023	0.946	8%	No change	0.2369
Massachusetts	0.737	0.752	2%	No change	0.7555
Michigan	0.995	0.927	7%	No change	0.1710
Minnesota	0.864	0.713	17%	Decrease	0.0137
Mississippi	1.195	1.038	13%	No change	0.0865
Missouri	0.915	0.887	3%	No change	0.5683
Montana	0.842	0.729	13%	No change	0.5774
Nebraska	0.837	0.607	27%	Decrease	0.0121
Nevada	0.951	1.004	6%	No change	0.5125
New Hampshire	0.642	0.589	8%	No change	0.6725
New Jersey	0.867	0.792	9%	No change	0.1447
New Mexico	1.255	0.801	36%	Decrease	0.0004
New York	0.974	0.937	4%	No change	0.2664
North Carolina	1.036	1.100	6%	No change	0.1723
North Dakota	0.571	0.535	6%	No change	0.7800
Ohio	0.898	0.864	4%	No change	0.3565
Oklahoma	1.287	1.009	22%	Decrease	0.0003
Oregon	0.589	0.655	11%	No change	0.3393
Pennsylvania	0.931	0.790	15%	Decrease	0.0001
Puerto Rico	0.926	1.645	78%	Increase	0.0001
Rhode Island	0.686	0.896	31%	No change	0.1398
South Carolina	0.913	0.811	11%	No change	0.1171
South Dakota	1.135	0.999	12%	No change	0.4704
Tennessee	0.821	0.713	13%	Decrease	0.0166
Texas	0.956	0.750	22%	Decrease	0.0000
Utah	0.890	0.804	10%	No change	0.3819
Vermont	0.792	0.743	6%	No change	0.8164
Virgin Islands	.	.	.	.	.
Virginia	0.799	0.733	8%	No change	0.1875
Washington	0.753	0.778	3%	No change	0.6198
West Virginia	1.200	0.993	17%	Decrease	0.0463
Wisconsin	0.800	0.752	6%	No change	0.4005
Wyoming	1.132	1.202	6%	No change	0.8548
All US	**0.921**	**0.836**	**9%**	**Decrease**	**0.0000**

* 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), and NICUs. This excludes LTAC locations (or facilities) and IRF locations (or facilities).
2. States without SIR either in 2021 and/or 2022 and therefore subsequent data not calculated
3.For states with >>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 numerator and/or denominator of percent change = 0.

Table 10. Changes in state-specific standardized infection ratios (SIRs) between 2021 and 2022 from NHSN Acute Care Hospitals

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

	All Acute Care Hospitals Reporting to NHSN				
	2021 SIR	2022 SIR		Direction of Change, Based on Statistical Significance	p-value
Alabama	0.846	0.705	17%	Decrease	0.0027
Alaska	1.176	1.084	8%	No change	0.7112
Arizona	0.618	0.555	10%	No change	0.1311
Arkansas	0.694	0.532	23%	Decrease	0.0056
California	0.884	0.791	11%	Decrease	0.0001
Colorado	0.686	0.558	19%	Decrease	0.0194
Connecticut	0.583	0.484	17%	No change	0.1035
D.C.	0.547	0.463	15%	No change	0.3315
Delaware	0.803	0.757	6%	No change	0.7336
Florida	0.677	0.539	20%	Decrease	0.0000
Georgia	0.793	0.641	19%	Decrease	0.0001
Guam	.	.	.	.	.
Hawaii	0.941	0.905	4%	No change	0.7966
Idaho	0.793	0.812	2%	No change	0.8842
Illinois	0.730	0.729	0%	No change	0.9696
Indiana	0.740	0.654	12%	No change	0.0642
Iowa	0.826	0.790	4%	No change	0.6424
Kansas	0.855	0.725	15%	No change	0.1383
Kentucky	0.767	0.713	7%	No change	0.2890
Louisiana	0.587	0.597	2%	No change	0.8382
Maine	1.205	0.935	22%	No change	0.0861
Maryland	0.920	0.753	18%	Decrease	0.0041
Massachusetts	0.928	0.941	1%	No change	0.8090
Michigan	0.701	0.674	4%	No change	0.4882
Minnesota	0.897	0.869	3%	No change	0.6761
Mississippi	0.746	0.637	15%	No change	0.0832
Missouri	0.751	0.732	3%	No change	0.6799
Montana	0.623	0.607	3%	No change	0.8985
Nebraska	0.904	0.903	0%	No change	0.9878
Nevada	0.645	0.637	1%	No change	0.9027
New Hampshire	0.989	0.763	23%	No change	0.0871
New Jersey	0.803	0.727	9%	No change	0.1168
New Mexico	1.250	0.990	21%	Decrease	0.0212
New York	0.835	0.723	13%	Decrease	0.0001
North Carolina	0.894	0.832	7%	No change	0.1339
North Dakota	0.498	0.436	12%	No change	0.6092
Ohio	0.782	0.602	23%	Decrease	0.0000
Oklahoma	0.769	0.596	22%	Decrease	0.0028
Oregon	1.159	0.885	24%	Decrease	0.0016
Pennsylvania	0.891	0.772	13%	Decrease	0.0003
Puerto Rico	0.420	0.917	118%	Increase	0.0000
Rhode Island	0.901	0.901	0%	No change	0.9990
South Carolina	0.954	0.749	21%	Decrease	0.0008
South Dakota	0.876	0.734	16%	No change	0.3307
Tennessee	0.758	0.645	15%	Decrease	0.0077
Texas	0.720	0.566	21%	Decrease	0.0000
Utah	0.866	0.768	11%	No change	0.3402
Vermont	1.796	0.969	46%	Decrease	0.0014
Virgin Islands	.	.	.	.	.
Virginia	0.708	0.651	8%	No change	0.2102
Washington	0.999	0.822	18%	Decrease	0.0018
West Virginia	0.659	0.660	0%	No change	0.9844
Wisconsin	0.840	0.744	11%	No change	0.1071
Wyoming	0.635	0.418	34%	No change	0.2941
All US	**0.795**	**0.697**	**12%**	**Decrease**	**0.0000**

*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), and NICUs. This excludes LTAC locations (or facilities) and IRF locations (or facilities).
2. States without SIR either in 2021 and/or 2022 and therefore subsequent data not calculated
3.For states with >>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 numerator and/or denominator of percent change = 0.

Table 10. Changes in state-specific standardized infection ratios (SIRs) between 2021 and 2022 from NHSN Acute Care Hospitals

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

	All Acute Care Hospitals Reporting to NHSN				
	2021 SIR	2022 SIR		Direction of Change, Based on Statistical Significance	p-value
Alabama	1.012	0.963	5%	No change	0.4290
Alaska	2.716	2.293	16%	No change	0.2472
Arizona	0.903	0.755	16%	Decrease	0.0144
Arkansas	2.055	1.979	4%	No change	0.5294
California	1.309	1.201	8%	Decrease	0.0002
Colorado	1.849	1.384	25%	Decrease	0.0000
Connecticut	1.110	0.935	16%	Decrease	0.0269
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	1.914	1.637	14%	Decrease	0.0000
Georgia	1.441	0.881	39%	Decrease	0.0000
Guam	.	.	.	.	.
Hawaii	0.619	0.871	41%	No change	0.1587
Idaho	2.430	2.487	2%	No change	0.8368
Illinois	1.461	1.266	13%	Decrease	0.0057
Indiana	1.759	1.348	23%	Decrease	0.0000
Iowa	1.783	1.461	18%	No change	0.1806
Kansas	1.659	0.978	41%	Decrease	0.0000
Kentucky	1.540	0.996	35%	Decrease	0.0000
Louisiana	1.631	1.427	13%	Decrease	0.0170
Maine	1.379	0.990	28%	Decrease	0.0024
Maryland	1.595	1.341	16%	Decrease	0.0228
Massachusetts	1.290	1.084	16%	No change	0.0630
Michigan	1.770	1.463	17%	Decrease	0.0000
Minnesota	0.950	1.304	37%	Increase	0.0000
Mississippi	1.395	1.232	12%	No change	0.0980
Missouri	1.299	1.153	11%	Decrease	0.0083
Montana	1.720	1.564	9%	No change	0.4931
Nebraska	1.917	1.896	1%	No change	0.9155
Nevada	1.857	1.389	25%	Decrease	0.0000
New Hampshire	1.276	1.334	5%	No change	0.7607
New Jersey	1.057	0.935	12%	Decrease	0.0048
New Mexico	1.874	1.554	17%	No change	0.0885
New York	1.118	1.003	10%	Decrease	0.0001
North Carolina	1.388	1.425	3%	No change	0.6024
North Dakota	.	.	.	.	.
Ohio	1.027	0.861	16%	Decrease	0.0000
Oklahoma	1.313	1.011	23%	Decrease	0.0000
Oregon	1.636	1.293	21%	Decrease	0.0182
Pennsylvania	1.422	1.142	20%	Decrease	0.0000
Puerto Rico	0.667	0.830	24%	No change	0.2437
Rhode Island	2.088	1.822	13%	No change	0.1351
South Carolina	1.621	1.112	31%	Decrease	0.0000
South Dakota	1.277	0.896	30%	No change	0.0590
Tennessee	1.370	0.886	35%	Decrease	0.0000
Texas	1.832	1.336	27%	Decrease	0.0000
Utah	2.282	1.891	17%	Decrease	0.0392
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	1.444	1.084	25%	Decrease	0.0000
Washington	1.639	1.599	2%	No change	0.7175
West Virginia	0.947	0.505	47%	Decrease	0.0000
Wisconsin	0.820	0.930	13%	No change	0.1705
Wyoming	1.461	0.000	100%	No change	0.0916
All US	**1.461**	**1.188**	**19%**	**Decrease**	**0.0000**

* 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), and NICUs. This excludes LTAC locations (or facilities) and IRF locations (or facilities).

2. States without SIR either in 2021 and/or 2022 and therefore subsequent data not calculated

3.For states with >>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 numerator and/or denominator of percent change = 0.

Table 10. Changes in state-specific standardized infection ratios (SIRs) between 2021 and 2022 from NHSN Acute Care Hospitals

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

	All Acute Care Hospitals Reporting to NHSN				
	2021 SIR	2022 SIR		Direction of Change, Based on Statistical Significance	p-value
Alabama	0.577	0.700	21%	No change	0.1804
Alaska	1.128	1.027	9%	No change	0.7818
Arizona	0.725	0.685	6%	No change	0.6466
Arkansas	0.942	0.952	1%	No change	0.9527
California	0.868	0.923	6%	No change	0.2454
Colorado	0.925	0.939	2%	No change	0.9041
Connecticut	0.890	0.735	17%	No change	0.2305
D. C.	0.818	0.927	13%	No change	0.6211
Delaware	0.858	0.740	14%	No change	0.6344
Florida	0.789	0.757	4%	No change	0.5256
Georgia	0.820	0.839	2%	No change	0.8018
Guam	.	.	.	.	.
Hawaii	1.026	1.035	1%	No change	0.9758
Idaho	0.747	1.357	82%	Increase	0.0145
Illinois	0.687	0.870	27%	Increase	0.0100
Indiana	0.827	0.939	14%	No change	0.2692
Iowa	0.513	0.512	0%	No change	0.9931
Kansas	0.857	0.885	3%	No change	0.8582
Kentucky	0.865	0.857	1%	No change	0.9392
Louisiana	0.895	0.854	5%	No change	0.7165
Maine	0.910	0.861	5%	No change	0.8238
Maryland	0.760	0.879	16%	No change	0.2512
Massachusetts	0.859	0.948	10%	No change	0.3541
Michigan	1.037	1.116	8%	No change	0.3796
Minnesota	0.676	0.707	5%	No change	0.7385
Mississippi	1.137	1.234	9%	No change	0.5705
Missouri	0.967	0.913	6%	No change	0.5850
Montana	0.796	1.078	35%	No change	0.3324
Nebraska	1.291	0.918	29%	No change	0.0649
Nevada	1.249	1.004	20%	No change	0.1969
New Hampshire	0.623	0.583	6%	No change	0.8308
New Jersey	0.654	0.813	24%	No change	0.0545
New Mexico	0.902	0.696	23%	No change	0.2934
New York	0.855	0.763	11%	No change	0.0977
North Carolina	0.748	0.926	24%	Increase	0.0178
North Dakota	1.095	1.047	4%	No change	0.8814
Ohio	0.865	0.939	9%	No change	0.2699
Oklahoma	1.066	1.549	45%	Increase	0.0028
Oregon	0.724	0.772	7%	No change	0.6800
Pennsylvania	0.845	0.822	3%	No change	0.7150
Puerto Rico	.	.	.	.	.
Rhode Island	1.110	0.718	35%	No change	0.1529
South Carolina	0.764	0.649	15%	No change	0.2633
South Dakota	1.004	0.774	23%	No change	0.3965
Tennessee	0.644	0.710	10%	No change	0.4046
Texas	0.871	0.840	4%	No change	0.5371
Utah	0.833	0.847	2%	No change	0.9369
Vermont	1.143	1.375	20%	No change	0.5842
Virgin Islands	.	.	.	.	.
Virginia	0.709	0.718	1%	No change	0.9180
Washington	0.757	0.758	0%	No change	0.9888
West Virginia	1.168	1.152	1%	No change	0.9402
Wisconsin	0.821	0.901	10%	No change	0.4451
Wyoming	0.183	0.312	70%	No change	0.7169
All US	**0.831**	**0.858**	**3%**	**No change**	**0.0609**

* 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 2021 and/or 2022 and therefore subsequent data not calculated
3.For states with >>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 numerator and/or denominator of percent change = 0.

ıd other than primary skin closure technique,

Table 10. Changes in state-specific standardized infection ratios (SIRs) between 2021 and 2022 from NHSN Acute Care Hospitals

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

	All Acute Care Hospitals Reporting to NHSN				
	2021 SIR	2022 SIR		Direction of Change, Based on Statistical Significance	p-value
Alabama	1.236	1.101	11%	No change	0.5743
Alaska	1.498	2.255	51%	No change	0.6140
Arizona	1.289	0.721	44%	Decrease	0.0240
Arkansas	0.886	0.837	6%	No change	0.8801
California	0.772	0.744	4%	No change	0.7855
Colorado	1.338	1.143	15%	No change	0.5090
Connecticut	0.990	0.463	53%	Decrease	0.0469
D. C.	1.123	1.556	39%	No change	0.4934
Delaware	0.000	0.736	>>100%	.	Inestimable
Florida	0.960	0.984	3%	No change	0.8520
Georgia	1.316	1.218	7%	No change	0.5766
Guam	.	.	.	.	.
Hawaii	0.701	0.249	64%	No change	0.4073
Idaho	0.683	1.608	135%	No change	0.1551
Illinois	0.815	0.866	6%	No change	0.7360
Indiana	1.027	0.990	4%	No change	0.8692
Iowa	0.510	0.530	4%	No change	0.9373
Kansas	0.629	0.638	1%	No change	0.9698
Kentucky	1.168	0.846	28%	No change	0.2017
Louisiana	1.355	0.996	26%	No change	0.2020
Maine	0.375	0.809	116%	No change	0.4015
Maryland	1.368	1.185	13%	No change	0.5265
Massachusetts	1.173	0.445	62%	Decrease	0.0017
Michigan	1.333	1.216	9%	No change	0.5772
Minnesota	1.261	0.861	32%	No change	0.1534
Mississippi	1.104	1.302	18%	No change	0.5759
Missouri	1.228	0.732	40%	Decrease	0.0195
Montana	0.765	0.538	30%	No change	0.7230
Nebraska	1.581	1.299	18%	No change	0.5757
Nevada	1.722	0.821	52%	No change	0.0672
New Hampshire	0.770	0.607	21%	No change	0.7746
New Jersey	0.601	0.934	55%	No change	0.0531
New Mexico	1.182	1.424	20%	No change	0.6618
New York	0.996	0.765	23%	No change	0.0742
North Carolina	0.956	0.839	12%	No change	0.4866
North Dakota	1.617	1.300	20%	No change	0.8383
Ohio	0.942	0.896	5%	No change	0.7676
Oklahoma	0.721	1.209	68%	Increase	0.0362
Oregon	1.025	0.598	42%	No change	0.1724
Pennsylvania	0.812	0.993	22%	No change	0.2536
Puerto Rico	.	.	.	.	.
Rhode Island	0.325	0.514	58%	No change	0.6670
South Carolina	1.197	0.729	39%	Decrease	0.0493
South Dakota	0.749	0.772	3%	No change	0.9628
Tennessee	0.857	1.055	23%	No change	0.3569
Texas	1.055	1.073	2%	No change	0.8698
Utah	0.554	0.891	61%	No change	0.2565
Vermont	1.234	1.172	5%	No change	0.9512
Virgin Islands	.	.	.	.	.
Virginia	0.832	1.170	41%	No change	0.0951
Washington	0.823	1.229	49%	No change	0.1265
West Virginia	0.656	1.403	114%	No change	0.0767
Wisconsin	0.780	1.028	32%	No change	0.3105
Wyoming	1.715	0.000	100%	No change	0.2367
All US	**0.993**	**0.951**	**4%**	**No change**	**0.1976**

* 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 2021 and/or 2022 and therefore subsequent data not calculated. For any state with a referent SIR of 0.000, the percent cha

3.For states with >>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 numerator and/or denominator of percent change = 0.

ith a primary or other than primary skin closure technique,

nge was reflected as greater than 100 percent.

Table 10. Changes in state-specific standardized infection ratios (SIRs) between 2021 and 2022 from NHSN Acute Care Hospitals

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

	All Acute Care Hospitals Reporting to NHSN				
	2021 SIR	2022 SIR		Direction of Change, Based on Statistical Significance	p-value
Alabama	1.508	1.306	13%	No change	0.0724
Alaska	1.227	0.831	32%	No change	0.2067
Arizona	0.941	0.924	2%	No change	0.8543
Arkansas	1.574	1.219	23%	Decrease	0.0241
California	1.003	0.898	10%	Decrease	0.0209
Colorado	0.785	0.730	7%	No change	0.6013
Connecticut	0.875	0.817	7%	No change	0.6514
D.C.	0.963	0.751	22%	No change	0.2180
Delaware	0.802	0.812	1%	No change	0.9540
Florida	1.180	0.935	21%	Decrease	0.0000
Georgia	1.310	1.039	21%	Decrease	0.0006
Guam	.	.	.	.	.
Hawaii	0.440	0.629	43%	No change	0.2662
Idaho	1.004	0.481	52%	Decrease	0.0180
Illinois	0.755	0.749	1%	No change	0.9198
Indiana	0.893	0.873	2%	No change	0.8278
Iowa	0.851	0.965	13%	No change	0.4121
Kansas	0.941	0.542	42%	Decrease	0.0039
Kentucky	1.403	1.075	23%	Decrease	0.0026
Louisiana	1.832	1.214	34%	Decrease	0.0000
Maine	0.551	0.759	38%	No change	0.2462
Maryland	0.941	0.767	18%	No change	0.0566
Massachusetts	0.848	0.659	22%	Decrease	0.0123
Michigan	1.204	0.954	21%	Decrease	0.0017
Minnesota	0.605	0.526	13%	No change	0.3837
Mississippi	1.534	1.272	17%	No change	0.0938
Missouri	1.060	0.930	12%	No change	0.1463
Montana	0.682	0.438	36%	No change	0.2718
Nebraska	0.945	0.575	39%	Decrease	0.0240
Nevada	1.080	0.959	11%	No change	0.3812
New Hampshire	0.690	0.458	34%	No change	0.1978
New Jersey	1.034	0.997	4%	No change	0.6601
New Mexico	1.134	0.796	30%	No change	0.0935
New York	0.975	0.990	2%	No change	0.7658
North Carolina	1.089	0.887	19%	Decrease	0.0031
North Dakota	0.559	0.470	16%	No change	0.6695
Ohio	1.226	0.950	23%	Decrease	0.0001
Oklahoma	1.188	1.094	8%	No change	0.4713
Oregon	0.800	0.849	6%	No change	0.6996
Pennsylvania	0.941	0.844	10%	No change	0.1002
Puerto Rico	.	0.227	.	.	.
Rhode Island	0.855	0.709	17%	No change	0.5014
South Carolina	1.433	1.072	25%	Decrease	0.0011
South Dakota	0.866	0.635	27%	No change	0.2816
Tennessee	1.485	1.147	23%	Decrease	0.0003
Texas	1.069	0.802	25%	Decrease	0.0000
Utah	0.796	0.538	32%	No change	0.0828
Vermont	0.435	0.358	18%	No change	0.7210
Virgin Islands	.	.	.	.	.
Virginia	0.927	0.923	0%	No change	0.9567
Washington	0.669	0.805	20%	No change	0.1177
West Virginia	1.595	1.242	22%	Decrease	0.0456
Wisconsin	0.537	0.544	1%	No change	0.9383
Wyoming	0.364	0.957	163%	No change	0.2608
All US	**1.070**	**0.904**	**16%**	**Decrease**	**0.0000**

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

1. 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 2021 and/or 2022 and therefore subsequent data not calculated
3.For states with >>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 numerator and/or denominator of percent change = 0.

Table 10: Changes in state-specific standardized infection ratios (SIRs) between 2021 and 2022 from NHSN Acute Care Hospitals

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

	All Acute Care Hospitals Reporting to NHSN				
	2021 SIR	2022 SIR		Direction of Change, Based on Statistical Significance	p-value
Alabama	0.543	0.520	4%	No change	0.3419
Alaska	0.308	0.247	20%	No change	0.3995
Arizona	0.563	0.527	6%	No change	0.1374
Arkansas	0.374	0.394	5%	No change	0.5127
California	0.548	0.519	5%	Decrease	0.0137
Colorado	0.521	0.437	16%	Decrease	0.0036
Connecticut	0.567	0.590	4%	No change	0.5133
D.C.	0.628	0.502	20%	Decrease	0.0127
Delaware	0.534	0.449	16%	No change	0.1496
Florida	0.358	0.351	2%	No change	0.4909
Georgia	0.439	0.460	5%	No change	0.2517
Guam	.	.	.	.	.
Hawaii	0.493	0.595	21%	No change	0.0670
Idaho	0.541	0.511	6%	No change	0.5856
Illinois	0.545	0.499	8%	Decrease	0.0062
Indiana	0.515	0.462	10%	Decrease	0.0210
Iowa	0.513	0.526	3%	No change	0.7618
Kansas	0.596	0.629	6%	No change	0.4495
Kentucky	0.480	0.529	10%	No change	0.0600
Louisiana	0.415	0.442	7%	No change	0.3117
Maine	0.549	0.644	17%	No change	0.1026
Maryland	0.645	0.570	12%	Decrease	0.0056
Massachusetts	0.662	0.649	2%	No change	0.5883
Michigan	0.582	0.500	14%	Decrease	0.0000
Minnesota	0.567	0.544	4%	No change	0.4221
Mississippi	0.448	0.422	6%	No change	0.4243
Missouri	0.555	0.591	6%	No change	0.1295
Montana	0.474	0.539	14%	No change	0.3747
Nebraska	0.540	0.499	8%	No change	0.3903
Nevada	0.394	0.304	23%	Decrease	0.0014
New Hampshire	0.724	0.536	26%	Decrease	0.0033
New Jersey	0.521	0.457	12%	Decrease	0.0012
New Mexico	0.655	0.768	17%	Increase	0.0479
New York	0.558	0.527	6%	Decrease	0.0163
North Carolina	0.431	0.399	7%	Decrease	0.0456
North Dakota	0.612	0.606	1%	No change	0.9429
Ohio	0.543	0.534	2%	No change	0.5806
Oklahoma	0.394	0.396	1%	No change	0.9434
Oregon	0.457	0.601	32%	Increase	0.0001
Pennsylvania	0.576	0.584	1%	No change	0.6530
Puerto Rico	0.110	0.280	155%	Increase	0.0028
Rhode Island	0.511	0.290	43%	Decrease	0.0001
South Carolina	0.395	0.371	6%	No change	0.3294
South Dakota	0.463	0.518	12%	No change	0.3740
Tennessee	0.327	0.368	13%	Increase	0.0329
Texas	0.408	0.389	5%	No change	0.0641
Utah	0.566	0.567	0%	No change	0.9931
Vermont	0.696	0.665	4%	No change	0.7583
Virgin Islands	.	.	.	.	.
Virginia	0.331	0.337	2%	No change	0.7258
Washington	0.539	0.583	8%	No change	0.1168
West Virginia	0.732	0.701	4%	No change	0.5026
Wisconsin	0.698	0.592	15%	Decrease	0.0009
Wyoming	0.516	0.596	16%	No change	0.5501
All US	**0.501**	**0.484**	**3%**	**Decrease**	**0.0000**

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

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 2021 and/or 2022 and therefore subsequent data not calculated
3.For states with >>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 numerator and/or denominator of percent change = 0.

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Appendix A. Factors used in NHSN risk adjustment of the device-associated HAIs Negative Binomial Regression Models[1] in Acute Care 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.

** CDC Location Code and Location Description described in table below
https://www.cdc.gov/nhsn/pdfs/pscmanual/15locationsdescriptions_current.pdf

CDC Location Code	Location Description
IN:ACUTE:CC:B	Burn Critical Care
IN:ACUTE:CC:T	Trauma Critical Care
IN:ACUTE:CC:C	Medical Cardiac Critical Care
IN:ACUTE:CC:CT	Surgical Cardiothoracic Critical Care
IN:ACUTE:CC:M	Medical Critical Care
IN:ACUTE:CC:MS	Medical-Surgical Critical Care
IN:ACUTE:CC:N	Neurologic Critical Care
IN:ACUTE:CC:NS	Neurosurgical Critical Care
IN:ACUTE:CC:PNATL	Prenatal Critical Care
IN:ACUTE:CC:R	Respiratory Critical Care
IN:ACUTE:CC:S	Surgical Critical Care'
IN:ACUTE:CC:ONC_M	Oncology Medical Critical Care
IN:ACUTE:CC:ONC_S	Oncology Surgical Critical Care
IN:ACUTE:CC:ONC_MS	Oncology Medical-Surgical Critical Care
IN:ACUTE:CC:ONC_PED	Oncology Pediatric Critical Care
IN:ACUTE:CC:B_PED	Pediatric Burn Critical Care
IN:ACUTE:CC:CT_PED	Pediatric Surgical Cardiothoracic Critical Care
IN:ACUTE:CC:M_PED	Pediatric Medical Critical Care
IN:ACUTE:CC:MS_PED	Pediatric Medical-Surgical Critical Care
IN:ACUTE:CC:NS_PED	Pediatric Neurosurgical Critical Care
IN:ACUTE:CC:S_PED	Pediatric Surgical Critical Care

IN:ACUTE:CC:T_PED	Pediatric Trauma Critical Care
IN:ACUTE:WARD:NURS	Well Newborn-- Nursery (Level I)
IN:ACUTE:STEP:NURS	Special Care Nursery (Level II)
IN:ACUTE:SCA:DIAL	Dialysis Specialty Care Area
IN:ACUTE:SCA:SOTP_PED	Pediatric Solid Organ Transplant Specialty Care Area
IN:ACUTE:SCA:SOTP	Solid Organ Transplant Specialty Care Area
IN:ACUTE:MIXED:ALL_ADULT	Adult Mixed Acuity Unit
IN:ACUTE:MIXED:ALL_PEDS	Pediatric Mixed Acuity Unit
IN:ACUTE:MIXED:ALL	Mixed Age Mixed Acuity Unit
IN:ACUTE:MIXED:ONC	Oncology Mixed Acuity Unit (all ages)
IN:ACUTE:STEP	Adult Step Down Unit
IN:ACUTE:STEP:ONC	Oncology Step Down Unit
IN:ACUTE:STEP:PED	Pediatric Step Down Unit
IN:ACUTE:WARD:ANTENAT	Antenatal Care Ward
IN:ACUTE:WARD:BHV	Behavioral Health/Psych Ward
IN:ACUTE:WARD:B	Burn Ward
IN:ACUTE:WARD:ENT	Ear, Nose, Throat Ward
IN:ACUTE:WARD:GI	Gastrointestinal Ward
IN:ACUTE:WARD:GU	Genitourinary Ward
IN:ACUTE:WARD:GNT	Gerontology Ward
IN:ACUTE:WARD:GYN	Gynecology Ward
IN:ACUTE:WARD:JAL	Jail Unit
IN:ACUTE:WARD:LD	Labor and Delivery Ward
IN:ACUTE:WARD:LD_PP	Labor, Delivery, Recovery, Postpartum Suite
IN:ACUTE:WARD:M	Medical Ward
IN:ACUTE:WARD:MS	Medical-Surgical Ward
IN:ACUTE:WARD:N	Neurology Ward
IN:ACUTE:WARD:NS	Neurosurgical Ward
IN:ACUTE:WARD:ONC_LEUK	Oncology Leukemia Ward
IN:ACUTE:WARD:ONC_LYMPH	Oncology Lymphoma Ward
IN:ACUTE:WARD:ONC_LL	Oncology Leukemia/Lymphoma Ward
IN:ACUTE:WARD:ONC_ST	Oncology Solid Tumor Ward
IN:ACUTE:WARD:ONC_HSCT	Oncology Hematopoietic Stem Cell Transplant Ward
IN:ACUTE:WARD:ONC_HONC	Oncology General Hematology-Oncology Ward
IN:ACUTE:WARD:T_ORT	Orthopedic Trauma Ward
IN:ACUTE:WARD:ORT	Orthopedic Ward
IN:ACUTE:WARD:PLS	Plastic Surgery Ward
IN:ACUTE:WARD:PP	Postpartum Ward
IN:ACUTE:WARD:PULM	Pulmonary Ward
IN:ACUTE:WARD:REHAB	Rehabilitation Ward (within Hospital)
IN:ACUTE:WARD:STRK	Stroke (Acute) Ward
IN:ACUTE:WARD:S	Surgical Ward
IN:ACUTE:WARD:TEL	Telemetry Ward
IN:ACUTE:WARD:VS	Vascular Surgery Ward
IN:ACUTE:WARD:BHV_ADOL	Adolescent Behavioral Health Ward
IN:ACUTE:WARD:ONC_HSCT_PED	Oncology Pediatric Hematopoietic Stem Cell Transplant Ward
IN:ACUTE:WARD:ONC_HONC_PED	Oncology Pediatric General Hematology/Oncology Ward
IN:ACUTE:WARD:BHV_PED	Pediatric Behavioral Health Ward
IN:ACUTE:WARD:B_PED	Pediatric Burn Ward
IN:ACUTE:WARD:M_PED	Pediatric Medical Ward
IN:ACUTE:WARD:MS_PED	Pediatric Medical-Surgical Ward
IN:ACUTE:WARD:N_PED	Pediatric Neurology Ward
IN:ACUTE:WARD:NS_PED	Pediatric Neurosurgical Ward

IN:ACUTE:WARD:ORT_PED	Pediatric Orthopedic Ward
IN:ACUTE:WARD:REHAB_PED	Pediatric Rehabilitation Ward
IN:ACUTE:WARD:S_PED	Pediatric Surgical Ward
IN:NONACUTE:LTC:HSP	Inpatient Hospice

Appendix B. Factors used in NHSN risk adjustment of the MRSA Bacteremia and *C. difficile* Negative Binomial Regression Models[1] in Acute Care Hospitals

HAI Type	Validated Parameters for Risk Model
MRSA bacteremia	Intercept Inpatient CO admission prevalence rate* Average length of stay** Medical school affiliation‡ Facility type Number of ICU beds‡ Outpatient CO prevalence rate
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 c 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
LAM	Laminectomy
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
diabetes, ASA, hospital bed size*, BMI
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

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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, ≥ 18 years of age

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 (2022 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

COVID Papers
https://www.cdc.gov/library/researchguides/2021novelcoronavirus/databasesjournals.html

website.