2022 National ar
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Introduction: Welcome to the 2022 National and State HAI Progress Report using the 2015 baseline a
are used to describe different HAI types by comparing the number of observed infections
This report is created by CDC staff with the National Healthcare Safety Network (NHSN).

This workbook includes national and state-specific SIR data for inpatient rehabilitation fac

Scope of report:

HAI Type	IR
	National
Central line-associated bloodstream infections (CLABSI) by locations	☑
Catheter-associated urinary tract infections (CAUTI) by locations	☑
Hospital-onset *Clostridioides difficile* (CDI) by facility-wide reporting	☑
Hospital-onset methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia by facility-wide reporting	☑

ıd State HAI Progress Report

t Rehabilitation Facilities

nd risk adjustment calculations. Standardized infection ratios (SIRs)
to the number of predicted infections. This year's report will compare 2022 SIRs to those from the prior year.

cilities (IRFs).

RF State
☑
☑
☑
☑

2022 Annual National and State HAI Progress Report
Inpatient Rehabilitation Facilities: Full series of tables for all national and state-specific data

Additional Resources
SIR Guide
Technical Appendix
HAI Progress Report Home Page

NOTE: Tables contain data from Inpatient Rehabilitation Facilities (IRFs); as such, they exclude dat

tion Facilities (IRFs):

A bacteremia between 2021 and 2022 from IRFs

ative binomial regression models from IRFs

regression models from IRFs

a from Long-term Acute Care Hospitals (LTACHs), Critical Access Hospitals (CAHs), and Acute Care Hospitals (AC

:Hs).

HAI Type	Reporting Facilities	
	No. of Inpatient Rehabilitation Facilities Reporting[1]	Total Patient Days
CLABSI, all[4]	744	4,895,988
CAUTI, all[4]	1,167	9,634,545

1. The number of reporting facilities included in the SIR calculation. Includes Inpatient Rehabilitat
2. Percent of facilities with at least one predicted infection that had an SIR significantly greater tha
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥1.0 predicted HAI in
4. Data from all IRF locations (or facilities). Risk factors used in the calculation of the number of

Table 1a. National standardized infe
Central line-associated b

s	Standardized Infection Ratio Data					
Total Device Days	Observed Events	Predicted Events	SIR	Lower 95% Confidence Interval	Upper 95% Confidence Interval	No. Facilities with ≥1 Predicted Infection
392,998	142	200.105	0.710	0.600	0.834	30
722,975	1,258	1,217.220	1.034	0.978	1.092	445

ion (IRF) units within the acute care setting.
an or less than the nominal value of the national SIR for the given HAI type. This is only calculated if at least 10 fac
2022. If a facility's predicted number of HAIs was <1.0, a facility-specific SIR was neither calculated nor included ir
predicted CLABSI and CAUTI are listed in Appendix A.

ection ratios (SIRs) and facility-specific summary SIRs using HAI data reported to NHSN during 2022: loodstream infections (CLABSIs) and catheter-associated urinary tract infections (CAUTIs)

Facility SIRs Compared to National SIR							
No. Facilities with SIR Significantly > National SIR		No. Facilities with SIR Significantly < National SIR					
N	%[2]	N		5%	10%	15%	20%
1	3%	1	3%	0.000	0.000	0.000	0.000
29	6%	16	4%	0.000	0.000	0.000	0.000

ilities had ≥ 1.0 predicted HAI in 2022.
the distribution of facility-specific SIRs.

Percentile Distribution of Facility-specific SIRs[3]

					Median				
25%	**30%**	**35%**	**40%**	**45%**	**50%**	**55%**	**60%**	**65%**	**70%**
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.745	0.928
0.000	0.000	0.508	0.623	0.745	0.854	0.922	1.025	1.179	1.325

75%	80%	85%	90%	95%
0.957	1.490	1.672	1.908	2.175
1.469	1.683	1.889	2.390	2.954

HAI and Patient Population	Reporting Facilities	Total Admissions
Laboratory-identified MRSA bacteremia	883	481,205
Laboratory-identified *C. difficile*	1,182	754,843

1. The number of reporting facilities included in the SIR calculation. Includes Inpatient Rehabilitation (I
2. Hospital-onset events are defined as those that were identified in an inpatient location on the 4th da
3. Calculated from a negative binomial regression model. Risk factors used in the calculation of the nu
4. Percent of facilities with at least one predicted event that had an SIR significantly greater than or les
5. Percentile distribution of facility-specific SIRs. This is only calculated if at least 20 facilities had ≥1.0

Table 1b. National standardized infect
Laboratory-identified *Clostridioi*

Total Patient Days	Standardized Infection Ratio Data					No. Facilities with ≥1 Predicted Event
	Observed Hospital-onset Events[2]	Predicted Hospital-onset Events[3]	SIR	Lower 95% Confidence Interval	Upper 95% Confidence Interval	
6,362,578	102	120.983	0.843	0.691	1.019	0
9,955,524	1,918	4,162.646	0.461	0.440	0.482	988

RF) units within the acute care setting. LabID reporting is performed at facility wide for freestanding IRFs. For IRF-u
y (or later) after admission to the facility.
umber of predicted events are listed in Appendix B.
s than the nominal value of the national SIR for the given HAI type. This is only calculated if at least 10 facilities ha
) predicted HAI in 2022. If a facility's predicted number of events was <1.0, a facility-specific SIR was neither calcul

ion ratios (SIRs) and facility-specific summary SIRs using HAI data reported to NHSN during 2022:
***des difficile* (*C. difficile*) and methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia**

Facility SIRs Compared to National SIR							
No. Facilities with SIR Significantly > National SIR		No. Facilities with SIR Significantly < National SIR					
N	%[4]	N		5%	10%	15%	20%
.	.	.	.	.	.	.	.
46	5%	16	2%	0.000	0.000	0.000	0.000

nits located within acute care hospitals, LabID reporting is performed at unit level.

d ≥ 1.0 predicted HAI in 2022.
ated nor included in the distribution of facility-specific SIRs.

Percentile Distribution of Facility-specific SIRs[5]

25%	30%	35%	40%	45%	Median 50%	55%	60%	65%	70%
.	.	.	.	.	.	.	.	.	.
0.000	0.000	0.000	0.143	0.252	0.337	0.402	0.460	0.518	0.583

75%	80%	85%	90%	95%
.	.	.	.	.
0.688	0.785	0.918	1.076	1.412

Table 2. State-specific standardized infection rat
NHSN Inpatient Rehabilitation
Central line-associated bloodstream

State	State NHSN Mandate[2]	Any Validation[3]	No. of IRFs Reporting[4]	No. of Infections			95% CI
				Observed	Predicted	SIR	Lower
Alabama	No	No	8	1	2.639	0.379	0.019
Alaska	No	No	1	.	.	.	.
Arizona	No	No	8	0	1.556	0.000	.
Arkansas	No	No	12	3	2.666	1.125	0.286
California	Yes	YesA	71	10	19.247	0.520	0.264
Colorado	Yes	Yes	18	5	5.428	0.921	0.338
Connecticut	No	No	5	0	0.585	.	.
D.C.	Yes	No	2	.	.	.	.
Delaware	No	No	4	.	.	.	.
Florida	No	No	30	11	10.545	1.043	0.549
Georgia	Yes	YesA	19	1	4.928	0.203	0.010
Guam	No	No	0	.	.	.	.
Hawaii	No	No	0	.	.	.	.
Idaho	No	No	4	.	.	.	.
Illinois	No	No	30	6	11.016	0.545	0.221
Indiana	No	No	26	2	8.217	0.243	0.041
Iowa	No	No	13	2	2.705	0.739	0.124
Kansas	No	No	9	3	2.514	1.193	0.304
Kentucky	No	No	10	2	3.618	0.553	0.093
Louisiana	No	No	24	3	4.563	0.657	0.167
Maine	Yes	No	4	.	.	.	.
Maryland	No	No	3	.	.	.	.
Massachusetts	Yes	Yes	6	2	1.856	1.078	0.181
Michigan	No	Yes	22	9	6.671	1.349	0.658
Minnesota	No	No	5	1	1.489	0.672	0.034
Mississippi	No	No	8	1	1.447	0.691	0.035
Missouri	No	No	19	2	3.710	0.539	0.090
Montana	No	No	3	.	.	.	.
Nebraska	No	No	6	1	0.897	.	.
Nevada	No	No	7	3	3.761	0.798	0.203
New Hampshire	Yes	No	2	.	.	.	.
New Jersey	No	No	6	6	1.816	3.304	1.339
New Mexico	No	No	4	.	.	.	.
New York	No	No	38	7	8.240	0.850	0.372
North Carolina	No	No	14	8	7.744	1.033	0.480
North Dakota	No	No	2	.	.	.	.
Ohio	No	No	28	3	7.401	0.405	0.103
Oklahoma	No	No	13	2	3.155	0.634	0.106
Oregon	No	No	6	0	0.524	.	.
Pennsylvania	Yes	Yes	67	14	24.339	0.575	0.327
Puerto Rico	No	No	2	.	.	.	.
Rhode Island	No	No	2	.	.	.	.

South Carolina	Yes	Yes	25	2	7.822	0.256	0.043
South Dakota	No	No	3	.	.	.	.
Tennessee	No	No	18	1	3.535	0.283	0.014
Texas	No	No	73	18	17.494	1.029	0.629
Utah	No	No	5	1	1.032	0.969	0.048
Vermont	No	No	2	.	.	.	.
Virgin Islands			0	.	.	.	.
Virginia	No	No	13	3	4.227	0.710	0.181
Washington	No	No	12	2	2.190	0.913	0.153
West Virginia	No	No	3	.	.	.	.
Wisconsin	No	No	18	1	3.196	0.313	0.016
Wyoming	No	No	0	.	.	.	.
All US			**744**	**142**	**200.105**	**0.710**	**0.600**

1. Includes data reported from all locations (i.e., adult and pediatric rehabilitation wards) within free-standing IRFs.
2. Yes indicates the presence of a state mandate to report facility-wide CLABSI data to NHSN at the beginning of 2
   No indicates that a state mandate did not exist during 2022.
3. Yes indicates that the state health department reported the completion of all of the following validation activities:
   assessment of missing or implausible values on at least six months of 2022 NHSN data prior to June 1, 2023, a
   YesA indicates that the state also conducted an audit of facility medical or laboratory records prior to June 1, 20
   varies by state). Information on validation efforts was requested from all states, regardless of the presence of a
   reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntar
4. The number of IRFs that reported 2022 CLABSI data and are included in the SIR calculation. SIRs and accomp
   from at least one location in 2022.
5. Percent of facilities with ≥1.0 predicted CLABSI that had an SIR significantly greater or less than the nominal va
   ≥ 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.
   nor included in the distribution of facility-specific SIRs.

ios (SIRs) and facility-specific SIR summary measures,
Facilities (IRFs) reporting during 2022

infections (CLABSIs) in IRFs, all locations[1]

for SIR		Facility-specific SIRs			Facility-specific SIRs at Key Percen			
Upper	No. of facs with at least 1 predicted CLABSI	% of facs with SIR sig higher than national SIR[5]	% of facs with SIR sig lower than national SIR[5]	10%	25%	Median (50%)	75%
1.869	0	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.925	0	.	.	.	.	.	.
3.063	0	.	.	.	.	.	.
0.926	3	.	.	.	.	.	.
2.042	0	.	.	.	.	.	.
.	0	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.813	2	.	.	.	.	.	.
1.001	0	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.133	2	.	.	.	.	.	.
0.804	2	.	.	.	.	.	.
2.443	0	.	.	.	.	.	.
3.248	1	.	.	.	.	.	.
1.826	1	.	.	.	.	.	.
1.789	0	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
3.560	0	.	.	.	.	.	.
2.476	2	.	.	.	.	.	.
3.312	0	.	.	.	.	.	.
3.408	0	.	.	.	.	.	.
1.781	0	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	0	.	.	.	.	.	.
2.171	1	.	.	.	.	.	.
.	.	.	.	.	.	.	.
6.872	0	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.680	0	.	.	.	.	.	.
1.962	2	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.103	1	.	.	.	.	.	.
2.094	1	.	.	.	.	.	.
.	0	.	.	.	.	.	.
0.942	7	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.

0.845	1	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.395	0	.	.	.	.	.	.
1.595	3	.	.	.	.	.	.
4.779	0	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.932	0	.	.	.	.	.	.
3.017	0	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.543	0	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.834	**30**	**3%**	**3%**	**0.000**	**0.000**	**0.000**	**0.957**

Also includes data from CMS-certified IRF units within a hospital.
2022. M indicates midyear implementation of a mandate.

: state health department had access to 2022 NHSN data, state health department performed an
nd state health department contacted identified facilities.
23 to confirm proper case ascertainment (although intensity of auditing activities
legislative mandate for the particular HAI type. Some states without mandatory
ily shared with them by facilities in their jurisdiction.
panying statistics are only calculated for states in which at least 5 IRFs reported CLABSI data

lue of the 2022 national IRF CLABSI SIR of 0.710. This is only calculated if at least 10 facilities had

If a facility's predicted number of CLABSI was <1.0, a facility-specific SIR was neither calculated

tiles[6]

90%

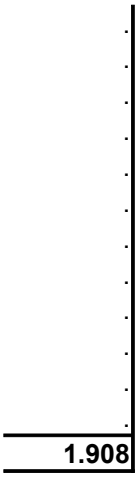

1.908

Table 3. State-specific standardized infection rat
NHSN Inpatient Rehabilitation
Catheter-associated urinary tract

State				No. of Events			95% CI
				Observed	Predicted	SIR	Lower
Alabama	No	No	18	25	30.025	0.833	0.551
Alaska	No	No	2	.	.	.	.
Arizona	No	No	22	30	30.316	0.990	0.680
Arkansas	Yes	Yes	26	24	23.381	1.026	0.673
California	No	No	74	70	73.051	0.958	0.753
Colorado	Yes	Yes	20	21	18.029	1.165	0.740
Connecticut	Yes	Yes	7	6	4.801	1.250	0.507
D.C.	Yes	No	2	.	.	.	.
Delaware	No	No	4	.	.	.	.
Florida	No	No	69	64	80.609	0.794	0.617
Georgia	Yes	YesA	30	15	25.958	0.578	0.336
Guam	No	No	0	.	.	.	.
Hawaii	No	No	1	.	.	.	.
Idaho	No	No	6	6	5.938	1.010	0.410
Illinois	No	No	41	73	46.140	1.582	1.249
Indiana	Yes	No	36	33	33.882	0.974	0.682
Iowa	No	No	18	15	11.671	1.285	0.747
Kansas	No	No	19	13	14.267	0.911	0.507
Kentucky	Yes	Yes	16	10	19.588	0.511	0.259
Louisiana	No	No	57	21	34.695	0.605	0.385
Maine	Yes	No	5	1	3.591	0.278	0.014
Maryland	No	No	4	.	.	.	.
Massachusetts	Yes	Yes	12	19	26.763	0.710	0.440
Michigan	No	Yes	39	41	40.034	1.024	0.745
Minnesota	No	No	11	28	11.287	2.481	1.681
Mississippi	Yes	No	10	3	7.157	0.419	0.107
Missouri	No	No	31	38	29.781	1.276	0.916
Montana	No	No	4	.	.	.	.
Nebraska	No	Yes	9	9	8.840	1.018	0.497
Nevada	No	No	10	12	17.902	0.670	0.363
New Hampshire	Yes	No	7	8	4.618	1.732	0.805
New Jersey	No	No	17	35	33.868	1.033	0.731
New Mexico	No	No	9	7	9.354	0.748	0.327
New York	No	No	44	41	44.095	0.930	0.676
North Carolina	Yes	Yes	25	29	29.666	0.978	0.667
North Dakota	No	No	5	1	2.249	0.445	0.022
Ohio	No	No	52	64	51.045	1.254	0.974
Oklahoma	No	Yes	23	28	18.214	1.537	1.042
Oregon	Yes	Yes	8	6	4.642	1.293	0.524
Pennsylvania	M	Yes	68	86	83.493	1.030	0.829
Puerto Rico	No	No	4	.	.	.	.
Rhode Island	No	No	4	.	.	.	.

South Carolina	Yes	Yes	26	26	21.621	1.203	0.802
South Dakota	No	No	4	.	.	.	.
Tennessee	Yes	No	30	32	25.557	1.252	0.871
Texas	No	No	155	197	182.083	1.082	0.939
Utah	Yes	No	11	13	7.681	1.692	0.941
Vermont	No	No	2	.	.	.	.
Virgin Islands			0	.	.	.	.
Virginia	Yes	No	26	17	24.619	0.691	0.416
Washington	Yes	Yes	14	31	23.523	1.318	0.911
West Virginia	Yes	No	8	6	9.993	0.600	0.243
Wisconsin	No	Yes	20	14	13.379	1.046	0.596
Wyoming	No	No	2	.	.	.	.
All US			**1,167**	**1,258**	**1,217.220**	**1.034**	**0.978**

1. Includes data reported from all locations (i.e., adult and pediatric rehabilitation wards) within free-standing IRFs.
2. Yes indicates the presence of a state mandate to report facility-wide CAUTI data to NHSN at the beginning of 2(No indicates that a state mandate did not exist during 2022.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: assessment of missing or implausible values on at least six months of 2022 NHSN data prior to June 1, 2023, a YesA indicates that the state also conducted an audit of facility medical or laboratory records prior to June 1, 20 varies by state). Information on validation efforts was requested from all states, regardless of the presence of a reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntar
4. The number of IRFs that reported 2022 CAUTI data and are included in the SIR calculation. SIRs and accompa from at least one location in 2022.
5. Percent of facilities with ≥1.0 predicted CAUTI that had an SIR significantly greater or less than the nominal valu ≥ 1.0 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 nor included in the distribution of facility-specific SIRs.

ios (SIRs) and facility-specific SIR summary measures,
Facilities (IRFs) reporting during 2022

infections (CAUTIs) in IRFs, all locations[1]

for SIR		Facility-specific SIRs					
Upper	No. of facs with at least 1 predicted CAUTI			10%	25%		75%
1.211	12	8%	17%	.	.	.	.
.	.	.	.	.	.	.	.
1.395	14	0%	0%	.	.	.	.
1.504	8	.	.	.	.	.	.
1.203	29	3%	3%	0.000	0.000	0.863	1.216
1.750	7	.	.	.	.	.	.
2.599	2	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.007	32	3%	3%	0.000	0.000	0.598	1.189
0.932	11	0%	0%	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
2.102	2	.	.	.	.	.	.
1.978	17	18%	0%	.	.	.	.
1.352	15	7%	0%	.	.	.	.
2.072	3	.	.	.	.	.	.
1.519	5	.	.	.	.	.	.
0.910	6	.	.	.	.	.	.
0.909	11	9%	9%	.	.	.	.
1.373	1	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.088	8	.	.	.	.	.	.
1.376	17	6%	6%	.	.	.	.
3.537	4	.	.	.	.	.	.
1.141	4	.	.	.	.	.	.
1.733	8	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.868	2	.	.	.	.	.	.
1.140	9	.	.	.	.	.	.
3.290	1	.	.	.	.	.	.
1.421	13	8%	0%	.	.	.	.
1.480	3	.	.	.	.	.	.
1.249	14	7%	0%	.	.	.	.
1.386	9	.	.	.	.	.	.
2.193	0	.	.	.	.	.	.
1.591	21	10%	5%	0.000	0.613	1.419	1.930
2.192	5	.	.	.	.	.	.
2.688	1	.	.	.	.	.	.
1.266	28	0%	0%	0.000	0.476	0.810	1.284
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.

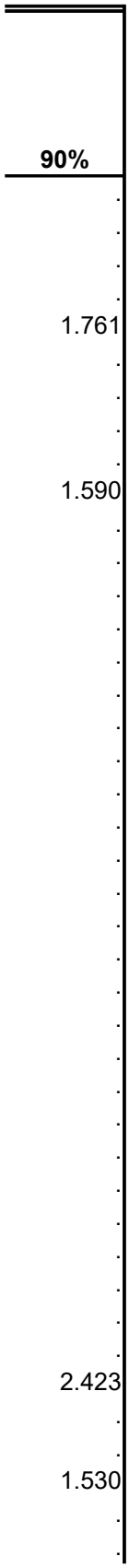
1.737	8	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.746	12	0%	0%	.	.	.	.
1.241	66	8%	6%	0.000	0.000	0.796	1.403
2.822	2	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.083	8	.	.	.	.	.	.
1.848	6	.	.	.	.	.	.
1.249	4	.	.	.	.	.	.
1.714	6	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.092	**445**	**6%**	**4%**	**0.000**	**0.000**	**0.854**	**1.469**

Also includes data from CMS-certified IRF units within a hospital.
022. M indicates midyear implementation of a mandate.

state health department had access to 2022 NHSN data, state health department performed an
nd state health department contacted identified facilities.
23 to confirm proper case ascertainment (although intensity of auditing activities
legislative mandate for the particular HAI type. Some states without mandatory
ily shared with them by facilities in their jurisdiction.
anying statistics are only calculated for states in which at least 5 IRFs reported CAUTI data

ue of the 2022 national IRF CAUTI SIR of 1.034. This is only calculated if at least 10 facilities had

a facility's predicted number of CAUTI was <1.0, a facility-specific SIR was neither calculated


90%
1.761
1.590
2.423
1.530

2.393

2.390

Table 4. State-specific standardized infection ratios (SIRs) and facility-specific S
NHSN Inpatient Rehabilitation Facilities (IRFs) reporting durin
Laboratory-identified healthcare facility-onset methicillin-resistant *Staphylococcus aureu*

State				No. of Events		95% CI for SIR			Fa
				Observed	Predicted	SIR	Lower	Upper	No. of facs with at least 1 predicted MRSA
Alabama	No	No	10	2	1.350	1.481	0.248	4.895	0
Alaska	No	No	1	.	.	.	.	.	.
Arizona	No	No	8	0	1.289	0.000	.	2.324	0
Arkansas	No	No	20	2	2.260	0.885	0.148	2.924	0
California	Yes	YesA	71	7	9.698	0.722	0.316	1.428	0
Colorado	Yes	No	13	1	2.213	0.452	0.023	2.229	0
Connecticut	No	No	6	0	0.592	.	.	.	0
D.C.	Yes	No	2	.	.	.	.	.	.
Delaware	No	No	2	.	.	.	.	.	.
Florida	No	No	32	5	6.324	0.791	0.290	1.752	0
Georgia	Yes	YesA	24	4	3.020	1.325	0.421	3.195	0
Guam	No	No	0	.	.	.	.	.	.
Hawaii	No	No	0	.	.	.	.	.	.
Idaho	No	No	4	.	.	.	.	.	.
Illinois	Yes	Yes	38	4	5.190	0.771	0.245	1.859	0
Indiana	No	No	29	4	3.269	1.224	0.389	2.952	0
Iowa	No	No	16	2	1.192	1.678	0.281	5.543	0
Kansas	No	No	13	0	1.119	0.000	.	2.677	0
Kentucky	No	No	14	3	2.675	1.121	0.285	3.052	0
Louisiana	No	No	43	3	3.565	0.842	0.214	2.290	0
Maine	Yes	No	5	0	0.645	.	.	.	0
Maryland	No	No	4	.	.	.	.	.	.
Massachusetts	Yes	Yes	6	0	1.242	0.000	.	2.412	0
Michigan	No	Yes	38	9	5.510	1.633	0.797	2.997	0
Minnesota	No	No	11	2	1.226	1.631	0.273	5.390	0
Mississippi	No	No	10	1	0.954	.	.	.	0
Missouri	No	No	22	2	2.300	0.870	0.146	2.873	0
Montana	No	No	2	.	.	.	.	.	.
Nebraska	No	No	8	0	0.534	.	.	.	0

Nevada	No	No	7	5	2.050	2.439	0.894	5.406	0
New Hampshire	No	No	7	1	1.159	0.863	0.043	4.255	0
New Jersey	No	No	11	1	3.634	0.275	0.014	1.357	0
New Mexico	No	No	6	1	1.056	0.947	0.047	4.670	0
New York	No	No	45	6	6.661	0.901	0.365	1.874	0
North Carolina	Yes	Yes	22	4	4.085	0.979	0.311	2.362	0
North Dakota	No	No	2	.	.	.	.	.	.
Ohio	No	No	32	0	3.231	0.000	.	0.927	0
Oklahoma	No	Yes	16	2	1.344	1.488	0.249	4.916	0
Oregon	Yes	Yes	6	0	0.572	.	.	.	0
Pennsylvania	Yes	No	65	7	11.399	0.614	0.269	1.215	0
Puerto Rico	Yes	No	4	.	.	.	.	.	.
Rhode Island	No	No	2	.	.	.	.	.	.
South Carolina	Yes	Yes	24	2	3.790	0.528	0.088	1.743	0
South Dakota	No	No	3	.	.	.	.	.	.
Tennessee	Yes	No	28	5	4.253	1.176	0.431	2.606	0
Texas	No	No	88	12	10.758	1.115	0.604	1.896	0
Utah	No	No	8	2	0.802	.	.	.	0
Vermont	No	No	2	.	.	.	.	.	.
Virgin Islands			0	.	.	.	.	.	.
Virginia	No	No	19	0	2.795	0.000	.	1.072	0
Washington	No	No	9	2	0.838	.	.	.	0
West Virginia	No	No	6	0	0.895	.	.	.	0
Wisconsin	No	No	18	0	1.436	0.000	.	2.086	0
Wyoming	No	No	1	.	.	.	.	.	.
All US			**883**	**102**	**120.983**	**0.843**	**0.691**	**1.019**	**0**

1. Includes data reported from all locations (i.e., adult and pediatric rehabilitation wards) within free-standing IRFs. Also includes data from CMS-ce
   Healthcare facility-onset is defined as event detected on the 4th day (or later) after admission to a free-standing inpatient rehabilitation facility.
   Alternatively, this measure includes events detected on the 4th day (or later) after transfer to an IRF unit within a hospital.
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 midy
   No indicates that a state mandate did not exist during 2022.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had acc
   assessment of missing or implausible values on at least six months of 2022 NHSN data prior to June 1, 2023, and state health department conta
   YesA indicates that the state also conducted an audit of facility medical or laboratory records prior to June 1, 2023 to confirm proper case ascerta
   varies by state). Information on validation efforts was requested from all states, regardless of the presence of a legislative mandate for the partic
   reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntarily shared with them by facilities i

4. The number of IRFs that reported 2022 MRSA bacteremia data and are included in the SIR calculation. SIRs and accompanying statistics are o
bacteremia data from at least one location in 2022.
5. Percent of facilities with ≥1.0 predicted MRSA bacteremia that had an SIR significantly greater or less than the nominal value of the 2022 nationa
≥ 1.0 predicted MRSA bacteremia in 2022.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted MRSA bacteremia in 2022. If a facility's predicted
was neither calculated nor included in the distribution of facility-specific SIRs.

SIR summary measures,
ıg 2022

<u>*ıs* (MRSA) bacteremia, facility-wide[1]</u>
<u>cility-specific SIRs</u>

		10%	25%		75%	90%
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year implementation of a mandate.

cess to 2022 NHSN data, state health department performed an
cted identified facilities.
ainment (although intensity of auditing activities
cular HAI type. Some states without mandatory
n their jurisdiction.

nly calculated for states in which at least 5 IRFs reported MRSA

al IRF MRSA SIR of 0.843. This is only calculated if at least 10 facilities had

number of MRSA bacteremia was <1.0, a facility-specific SIR

Table 5. State-specific standardized infection rat
NHSN Inpatient Rehabilitation
Laboratory-identified healthcare facility-

State				No. of Events			95% CI
				Observed	Predicted	SIR	Lower
Alabama	No	No	18	33	97.762	0.338	0.236
Alaska	No	No	2	.	.	.	.
Arizona	No	No	24	62	97.013	0.639	0.494
Arkansas	Yes	Yes	26	40	85.620	0.467	0.338
California	Yes	YesA	76	97	248.496	0.390	0.318
Colorado	Yes	Yes	20	26	67.053	0.388	0.259
Connecticut	Yes	Yes	7	6	16.416	0.365	0.148
D.C.	Yes	No	2	.	.	.	.
Delaware	No	No	4	.	.	.	.
Florida	No	No	68	154	334.863	0.460	0.391
Georgia	Yes	YesA	29	36	91.551	0.393	0.280
Guam	No	No	0	.	.	.	.
Hawaii	No	No	1	.	.	.	.
Idaho	No	No	6	11	14.041	0.783	0.412
Illinois	Yes	Yes	42	80	157.934	0.507	0.404
Indiana	Yes	No	36	39	110.041	0.354	0.256
Iowa	No	No	18	23	30.666	0.750	0.487
Kansas	No	No	20	21	50.733	0.414	0.263
Kentucky	Yes	Yes	16	46	85.035	0.541	0.401
Louisiana	No	No	58	43	105.846	0.406	0.298
Maine	Yes	No	5	7	13.428	0.521	0.228
Maryland	No	No	4	.	.	.	.
Massachusetts	Yes	Yes	12	67	94.826	0.707	0.552
Michigan	No	Yes	39	64	133.808	0.478	0.371
Minnesota	No	No	11	16	30.165	0.530	0.314
Mississippi	Yes	No	11	11	29.371	0.375	0.197
Missouri	No	No	31	63	95.825	0.657	0.509
Montana	No	No	4	.	.	.	.
Nebraska	No	Yes	10	11	26.721	0.412	0.216
Nevada	No	No	10	68	66.165	1.028	0.804
New Hampshire	Yes	No	8	11	28.315	0.388	0.204
New Jersey	No	No	18	74	111.833	0.662	0.523
New Mexico	No	No	8	11	26.914	0.409	0.215
New York	No	No	48	47	154.695	0.304	0.226
North Carolina	Yes	Yes	24	29	104.228	0.278	0.190
North Dakota	No	No	5	4	11.543	0.347	0.110
Ohio	No	No	51	54	162.161	0.333	0.253
Oklahoma	No	Yes	23	31	66.701	0.465	0.321
Oregon	Yes	Yes	8	4	20.584	0.194	0.062
Pennsylvania	Yes	No	71	156	274.904	0.567	0.484
Puerto Rico	Yes	No	5	0	12.083	0.000	.
Rhode Island	No	No	4	.	.	.	.

South Carolina	Yes	Yes	26	47	105.125	0.447	0.332
South Dakota	No	No	4	.	.	.	.
Tennessee	Yes	No	30	29	94.993	0.305	0.208
Texas	No	No	155	268	579.400	0.463	0.410
Utah	Yes	No	11	8	27.547	0.290	0.135
Vermont	No	No	2	.	.	.	.
Virgin Islands			0	.	.	.	.
Virginia	Yes	No	26	40	98.719	0.405	0.293
Washington	Yes	Yes	14	11	35.755	0.308	0.162
West Virginia	Yes	No	8	18	34.652	0.519	0.318
Wisconsin	No	Yes	20	20	32.123	0.623	0.391
Wyoming	No	No	3	.	.	.	.
All US			**1,182**	**1,918**	**4,162.646**	**0.461**	**0.440**

1. Includes data reported from all locations (i.e., adult and pediatric rehabilitation wards) within free-standing IRFs. Healthcare facility-onset is defined as event detected on the 4th day (or later) after admission to a free-standing Alternatively, this measure includes events detected on the 4th day (or later) after transfer to an IRF unit within a
2. Yes indicates the presence of a state mandate to report facility-wide CDI data to NHSN at the beginning of 2022 No indicates that a state mandate did not exist during 2022.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: assessment of missing or implausible values on at least six months of 2022 NHSN data prior to June 1, 2023, a YesA indicates that the state also conducted an audit of facility medical or laboratory records prior to June 1, 20 varies by state). Information on validation efforts was requested from all states, regardless of the presence of a reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntar
4. The number of IRFs that reported 2022 CDI data and are included in the SIR calculation. SIRs and accompany data in 2022.
5. Percent of facilities with ≥1.0 predicted CDI that had an SIR significantly greater or less than the nominal value ≥ 1.0 predicted CDI in 2022.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted CDI in 2022. If a was neither calculated nor included in the distribution of facility-specific SIRs.

ios (SIRs) and facility-specific SIR summary measures,
Facilities (IRFs) reporting during 2022

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

for SIR	Facility-specific SIRs						
Upper	No. of facs with at least 1 predicted CDI			10%	25%		75%
0.469	17	0%	12%	.	.	.	.
.	.	.	.	.	.	.	.
0.814	19	11%	5%	.	.	.	.
0.630	21	10%	5%	0.000	0.000	0.000	0.665
0.474	68	1%	1%	0.000	0.000	0.234	0.535
0.560	20	5%	5%	0.000	0.000	0.365	0.509
0.760	7	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.537	66	6%	0%	0.000	0.000	0.336	0.567
0.539	26	0%	4%	0.000	0.000	0.400	0.740
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.362	4	.	.	.	.	.	.
0.627	35	6%	3%	0.000	0.000	0.435	0.860
0.480	31	0%	3%	0.000	0.000	0.312	0.576
1.108	12	8%	0%	.	.	.	.
0.622	12	0%	0%	.	.	.	.
0.715	13	0%	0%	.	.	.	.
0.542	40	5%	0%	0.000	0.000	0.000	0.660
1.031	4	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.892	11	9%	0%	.	.	.	.
0.607	34	3%	3%	0.000	0.000	0.459	0.808
0.843	10	0%	0%	.	.	.	.
0.651	8	.	.	.	.	.	.
0.836	27	4%	0%	0.000	0.000	0.421	0.850
.	.	.	.	.	.	.	.
0.716	8	.	.	.	.	.	.
1.295	9	.	.	.	.	.	.
0.675	6	.	.	.	.	.	.
0.826	17	24%	6%	.	.	.	.
0.710	7	.	.	.	.	.	.
0.401	40	3%	0%	0.000	0.000	0.000	0.433
0.394	22	0%	9%	0.000	0.000	0.213	0.453
0.836	3	.	.	.	.	.	.
0.431	39	3%	3%	0.000	0.000	0.202	0.511
0.652	18	6%	0%	.	.	.	.
0.469	6	.	.	.	.	.	.
0.662	57	7%	2%	0.000	0.214	0.507	0.920
0.248	5	.	.	.	.	.	.
.	.	.	.	.	.	.	.

0.589	23	9%	0%	0.000	0.000	0.388	0.597
.	.	.	.	.	.	.	.
0.433	23	4%	0%	0.000	0.000	0.182	0.438
0.520	135	5%	1%	0.000	0.000	0.323	0.694
0.551	10	0%	0%	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.546	21	5%	0%	0.000	0.000	0.000	0.545
0.535	9	.	.	.	.	.	.
0.805	7	.	.	.	.	.	.
0.945	12	0%	0%	.	.	.	.
.	.	.	.	.	.	.	.
0.482	**988**	**5%**	**2%**	**0.000**	**0.000**	**0.337**	**0.688**

Also includes data from CMS-certified IRF units within a hospital.
inpatient rehabilitation facility.
hospital.
2. M indicates midyear implementation of a mandate.

state health department had access to 2022 NHSN data, state health department performed an
nd state health department contacted identified facilities.
23 to confirm proper case ascertainment (although intensity of auditing activities
legislative mandate for the particular HAI type. Some states without mandatory
ily shared with them by facilities in their jurisdiction.
ing statistics are only calculated for states in which at least 5 IRFs reported CDI

of the 2022 national IRF CDI SIR of 0.461. This is only calculated if at least 10 facilities had

facility's predicted number of CDI was <1.0, a facility-specific SIR

90%
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1.029
0.927
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Table 6. Changes in national standardized infection ratios (SIRs
Central line-associated bloodstream infections
***Staphylococcus aureus* (MRSA) I**

		20
HAI Type[1]	**No. of IRFs Reporting**	**Observed**
CLABSI, all locations	731	143
CAUTI, all locations	1,152	1,316
Laboratory-identified MRSA bacteremia	905	104
Laboratory-identified *C. difficile* infections	1,149	1,503

* Statistically significant, p < 0.0500

1. Includes data reported from all locations (i.e., adult and pediatric rehabilitation wards) within free-sta
LabID reporting is performed at facility-wide for freestanding IRFs. For IRF-units located within acute c

s) using HAI data reported from all NHSN Inpatient Rehabilitation Facilities reporting during 2022 by HA
s (CLABSIs), catheter-associated urinary tract infections (CAUTIs), methicillin-resistant
bacteremia, and *Clostridioides difficile* infections, 2021 compared to 2022

21			2022			
Predicted	SIR		Observed	Predicted	SIR	Percent Change
204.918	0.698	744	142	200.105	0.710	2%
1,211.150	1.087	1,167	1,258	1,217.220	1.034	5%
127.846	0.813	883	102	120.983	0.843	4%
2,959.041	0.508	1,182	1,918	4,162.646	0.461	9%

anding IRFs. Also includes data from CMS-certified IRF units within a hospital.
are hospitals, LabID reporting is performed at unit level.

ıl:

Direction of Change, Based on Statistical Significance	p-value
No change	0.8876
No change	0.2042
No change	0.7976
Decrease	0.0047

Table 7. Changes in state-specific standardized infection ratios (SIRs) between 2021 and 2022 from NHSN Inpatient Rehabilitation Facilities

7a. Central line-associated bloodstream infections (CLABSI), all locations[1]

	All Inpatient Rehabilitation Facilities Reporting to NHSN				
State[2]	2021 SIR	2022 SIR	Percent Change[3]	Direction of Change, Based on Statistical Significance	p-value
Alabama	1.347	0.379	72%	No change	0.2682
Alaska	.	.	.	.	.
Arizona	0.000	0.000	0%	.	Inestimable
Arkansas	0.929	1.125	21%	No change	0.8220
California	0.547	0.520	5%	No change	0.9096
Colorado	0.225	0.921	309%	No change	0.1906
Connecticut	.	.	.	.	.
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	0.606	1.043	72%	No change	0.2685
Georgia	0.537	0.203	62%	No change	0.4406
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Idaho	.	.	.	.	.
Illinois	0.166	0.545	228%	No change	0.1436
Indiana	0.527	0.243	54%	No change	0.3793
Iowa	0.380	0.739	94%	No change	0.6411
Kansas	1.285	1.193	7%	No change	0.9424
Kentucky	0.658	0.553	16%	No change	0.8704
Louisiana	0.418	0.657	57%	No change	0.6504
Maine	.	.	.	.	.
Maryland	.	.	.	.	.
Massachusetts	0.460	1.078	134%	No change	0.5386
Michigan	0.984	1.349	37%	No change	0.5631
Minnesota	1.161	0.672	42%	No change	0.7089
Mississippi	0.639	0.691	8%	No change	0.9611
Missouri	0.307	0.539	76%	No change	0.7001
Montana	.	.	.	.	.
Nebraska	.	.	.	.	.
Nevada	1.793	0.798	55%	No change	0.2642
New Hampshire	.	.	.	.	.
New Jersey	1.148	3.304	188%	No change	0.1986
New Mexico	.	.	.	.	.
New York	1.135	0.850	25%	No change	0.5627
North Carolina	0.652	1.033	58%	No change	0.4342
North Dakota	.	.	.	.	.
Ohio	0.888	0.405	54%	No change	0.2657
Oklahoma	0.000	0.634	>>100%	.	Inestimable
Oregon	.	.	.	.	.
Pennsylvania	0.779	0.575	26%	No change	0.3905
Puerto Rico	.	.	.	.	.
Rhode Island	.	.	.	.	.

South Carolina	0.802	0.256	68%	No change	0.1776
South Dakota	.	.	.	.	.
Tennessee	0.277	0.283	2%	No change	0.9903
Texas	0.590	1.029	74%	No change	0.1469
Utah	.	0.969	.	.	.
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	0.790	0.710	10%	No change	0.8995
Washington	0.979	0.913	7%	No change	0.9479
West Virginia	.	.	.	.	.
Wisconsin	1.797	0.313	83%	No change	0.0791
Wyoming	.	.	.	.	.
All US	**0.698**	**0.710**	**2%**	**No change**	**0.8876**

* Statistically significant, p < 0.0500

1. Includes data reported from all locations (i.e., adult and pediatric rehabilitation wards) within free-standing IF

2. Percent change and supporting statistics are not calculated for states if the 2021 or 2022 SIRs is not calcula

3. For states with >>100% value in the percent change field, the p-value cannot be estimated due to sparse d

The p-value is indicated as inestimable when the numerator and/or denominator of percent change = 0.

RFs. Also includes data from CMS-certified IRF units within a hospital.
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ata reported within the facility type.

Table 7. Changes in state-specific standardized infection ratios (SIRs) between 2021 and 2022 from NHSN Inpatient Rehabilitation Facilities

7b. Catheter-associated urinary tract infections (CAUTI), all locations[1]

	All Inpatient Rehabilitation Facilities Reporting to NHSN				
	2021 SIR	2022 SIR		Direction of Change, Based on Statistical Significance	p-value
Alabama	0.751	0.833	11%	No change	0.7233
Alaska	.	.	.	.	.
Arizona	1.202	0.990	18%	No change	0.4394
Arkansas	1.056	1.026	3%	No change	0.9226
California	0.831	0.958	15%	No change	0.4199
Colorado	1.034	1.165	13%	No change	0.7146
Connecticut	0.473	1.250	164%	No change	0.2416
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	0.969	0.794	18%	No change	0.2393
Georgia	1.136	0.578	49%	Decrease	0.0288
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Idaho	1.561	1.010	35%	No change	0.4213
Illinois	1.549	1.582	2%	No change	0.9015
Indiana	0.677	0.974	44%	No change	0.1874
Iowa	1.760	1.285	27%	No change	0.3625
Kansas	1.050	0.911	13%	No change	0.7079
Kentucky	0.308	0.511	66%	No change	0.3132
Louisiana	1.291	0.605	53%	Decrease	0.0037
Maine	0.850	0.278	67%	No change	0.3666
Maryland	.	.	.	.	.
Massachusetts	0.896	0.710	21%	No change	0.4532
Michigan	1.160	1.024	12%	No change	0.5689
Minnesota	0.843	2.481	194%	Increase	0.0021
Mississippi	0.950	0.419	56%	No change	0.2440
Missouri	1.350	1.276	5%	No change	0.8050
Montana	.	.	.	.	.
Nebraska	1.575	1.018	35%	No change	0.3215
Nevada	1.596	0.670	58%	Decrease	0.0108
New Hampshire	0.714	1.732	143%	No change	0.1923
New Jersey	1.218	1.033	15%	No change	0.4690
New Mexico	0.842	0.748	11%	No change	0.8270
New York	1.022	0.930	9%	No change	0.6622
North Carolina	1.052	0.978	7%	No change	0.7784
North Dakota	.	0.445	.	.	.
Ohio	1.480	1.254	15%	No change	0.3241
Oklahoma	1.176	1.537	31%	No change	0.3573
Oregon	1.434	1.293	10%	No change	0.8593
Pennsylvania	1.165	1.030	12%	No change	0.4013
Puerto Rico	0.591	.	.	.	.
Rhode Island	.	.	.	.	.

South Carolina	1.309	1.203	8%	No change	0.7652
South Dakota	.	.	.	.	.
Tennessee	0.807	1.252	55%	No change	0.1232
Texas	1.155	1.082	6%	No change	0.5079
Utah	1.049	1.692	61%	No change	0.2934
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	1.181	0.691	41%	No change	0.0773
Washington	0.663	1.318	99%	Increase	0.0233
West Virginia	0.325	0.600	85%	No change	0.4050
Wisconsin	1.534	1.046	32%	No change	0.2713
Wyoming	.	.	.	.	.
All US	**1.087**	**1.034**	**5%**	**No change**	**0.2042**

* Statistically significant, p < 0.0500

1. Includes data reported from all locations (i.e., adult and pediatric rehabilitation wards) within free-standing IR

2. Percent change and supporting statistics are not calculated for states if the 2021 or 2022 SIRs is not calculat

3. For states with >>100% value in the percent change field, the p-value cannot be estimated due to sparse da
The p-value is indicated as inestimable when the numerator and/or denominator of percent change = 0.

RFs. Also includes data from CMS-certified IRF units within a hospital.
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ta reported within the facility type.

Table 7. Changes in state-specific standardized infection ratios (SIRs) between 2021 and 2022 from NHSN Inpatient Rehabilitation Facilities

7c. Laboratory-identified methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia[1]

	All Inpatient Rehabilitation Facilities Reporting to NHSN				
	2021 SIR	2022 SIR		Direction of Change, Based on Statistical Significance	p-value
Alabama	1.432	1.481	3%	No change	0.9743
Alaska	.	.	.	.	.
Arizona	0.677	0.000	100%	No change	0.5340
Arkansas	1.979	0.885	55%	No change	0.3578
California	0.381	0.722	90%	No change	0.3211
Colorado	0.730	0.452	38%	No change	0.7488
Connecticut	.	.	.	.	.
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	0.710	0.791	11%	No change	0.8674
Georgia	1.475	1.325	10%	No change	0.8842
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Idaho	.	.	.	.	.
Illinois	0.552	0.771	40%	No change	0.6824
Indiana	1.188	1.224	3%	No change	0.9674
Iowa	2.423	1.678	31%	No change	0.7173
Kansas	1.678	0.000	100%	No change	0.2660
Kentucky	0.707	1.121	59%	No change	0.6443
Louisiana	0.841	0.842	0%	No change	0.9995
Maine	.	.	.	.	.
Maryland	.	.	.	.	.
Massachusetts	0.000	0.000	0%	.	Inestimable
Michigan	0.913	1.633	79%	No change	0.3066
Minnesota	0.000	1.631	>>100%	.	Inestimable
Mississippi	2.655	.	.	.	.
Missouri	0.391	0.870	123%	No change	0.5668
Montana	.	.	.	.	.
Nebraska	.	.	.	.	.
Nevada	0.996	2.439	145%	No change	0.3011
New Hampshire	.	0.863	.	.	.
New Jersey	0.285	0.275	4%	No change	0.9828
New Mexico	.	0.947	.	.	.
New York	0.147	0.901	513%	No change	0.0665
North Carolina	2.688	0.979	64%	No change	0.0774
North Dakota	.	.	.	.	.
Ohio	1.029	0.000	100%	Decrease	0.0889
Oklahoma	0.714	1.488	108%	No change	0.6022
Oregon	.	.	.	.	.
Pennsylvania	0.943	0.614	35%	No change	0.3853
Puerto Rico	.	.	.	.	.
Rhode Island	.	.	.	.	.

South Carolina	1.294	0.528	59%	No change	0.3005
South Dakota	.	.	.	.	.
Tennessee	0.849	1.176	39%	No change	0.6434
Texas	0.526	1.115	112%	No change	0.1331
Utah	.	.	.	.	.
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	0.695	0.000	100%	No change	0.2573
Washington	.	.	.	.	.
West Virginia	0.000	.	.	.	.
Wisconsin	0.687	0.000	100%	No change	0.5033
Wyoming	.	.	.	.	.
All US	**0.813**	**0.843**	**4%**	**No change**	**0.7976**

* Statistically significant, p < 0.0500

1. Includes data reported from all locations (i.e., adult and pediatric rehabilitation wards) within free-standing

2. Percent change and supporting statistics are not calculated for states if the 2021 or 2022 SIRs is not calcul

3. For states with >>100% value in the percent change field, the p-value cannot be estimated due to sparse d
The p-value is indicated as inestimable when the numerator and/or denominator of percent change = 0.

IRFs. Also includes data from CMS-certified IRF units within a hospital.
lated
data reported within the facility type.

Table 7. Changes in state-specific standardized infection ratios (SIRs) between 2021 and 2022 from NHSN Inpatient Rehabilitation Facilities

7d. Laboratory-identified *Clostridioides difficile* infection (CDI)[1]

	All Inpatient Rehabilitation Facilities Reporting to NHSN				
	2021 SIR	2022 SIR		Direction of Change, Based on Statistical Significance	p-value
Alabama	0.418	0.338	19%	No change	0.3937
Alaska	.	.	.	.	.
Arizona	0.842	0.639	24%	No change	0.1140
Arkansas	0.459	0.467	2%	No change	0.9434
California	0.443	0.390	12%	No change	0.4431
Colorado	0.307	0.388	26%	No change	0.4900
Connecticut	0.328	0.365	11%	No change	0.9078
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	0.497	0.460	7%	No change	0.5246
Georgia	0.257	0.393	53%	No change	0.1757
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Idaho	0.156	0.783	402%	Increase	0.0197
Illinois	0.408	0.507	24%	No change	0.2357
Indiana	0.549	0.354	36%	No change	0.0515
Iowa	0.505	0.750	49%	No change	0.3422
Kansas	0.339	0.414	22%	No change	0.5639
Kentucky	0.608	0.541	11%	No change	0.5935
Louisiana	0.440	0.406	8%	No change	0.7373
Maine	0.589	0.521	12%	No change	0.8237
Maryland	.	.	.	.	.
Massachusetts	0.740	0.707	4%	No change	0.7951
Michigan	0.431	0.478	11%	No change	0.6525
Minnesota	0.868	0.530	39%	No change	0.2477
Mississippi	0.149	0.375	152%	No change	0.1491
Missouri	0.596	0.657	10%	No change	0.6193
Montana	.	.	.	.	.
Nebraska	0.420	0.412	2%	No change	0.9576
Nevada	1.161	1.028	11%	No change	0.4961
New Hampshire	0.579	0.388	33%	No change	0.3466
New Jersey	0.723	0.662	8%	No change	0.5818
New Mexico	0.315	0.409	30%	No change	0.5858
New York	0.661	0.304	54%	Decrease	0.0003
North Carolina	0.256	0.278	9%	No change	0.8027
North Dakota	.	0.347	.	.	.
Ohio	0.579	0.333	42%	Decrease	0.0019
Oklahoma	0.413	0.465	13%	No change	0.7091
Oregon	0.000	0.194	>>100%	.	Inestimable
Pennsylvania	0.642	0.567	12%	No change	0.3000
Puerto Rico	0.166	0.000	100%	No change	0.2492
Rhode Island	.	.	.	.	.

South Carolina	0.203	0.447	120%	Increase	0.0055
South Dakota	.	.	.	.	.
Tennessee	0.289	0.305	6%	No change	0.8444
Texas	0.535	0.463	13%	No change	0.1015
Utah	0.294	0.290	1%	No change	0.9595
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	0.449	0.405	10%	No change	0.6593
Washington	0.338	0.308	9%	No change	0.8340
West Virginia	0.529	0.519	2%	No change	0.9551
Wisconsin	0.641	0.623	3%	No change	0.9258
Wyoming	.	.	.	.	.
All US	**0.508**	**0.461**	**9%**	**Decrease**	**0.0047**

* Statistically significant, p < 0.0500

1. Includes data reported from all locations (i.e., adult and pediatric rehabilitation wards) within free-standing IR

2. Percent change and supporting statistics are not calculated for states if the 2021 or 2022 SIRs is not calculate

3. For states with >>100% value in the percent change field, the p-value cannot be estimated due to sparse dat
The p-value is indicated as inestimable when the numerator and/or denominator of percent change = 0.

Fs. Also includes data from CMS-certified IRF units within a hospital.
ed
:a reported within the facility type.

Appendix A. Factors used in NHSN risk adjustment of the device-associated HAIs (CLABSI, CAUTI) negative binomial regression models[1] from Inpatient Rehabilitation Facilities

HAI Type	Validated Parameters for Risk Model
CLABSI	Intercept*
CAUTI	Intercept Setting‡ Proportion of Admissions- Traumatic and Non-Traumatic Spinal Cord Dysfunction combined** Proportion of Admissions- Stroke**

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

***** None of the variables investigated were statistically significantly associated with CLABSI in IRFs. Free-standing IRFs and CMS-certified IRF units within a hospital will have the predicted number of events calculated using the 2022 national IRF CLABSI pooled mean (i.e., intercept-only model).

** Proportion of annual admissions with primary diagnoses are taken from the Annual IRF Survey and

‡IRF Setting is taken from the Annual IRF Survey and NHSN enrollment/location mapping data.

Appendix B. Factors used
regression models[1] from

HAI Type
CDI
MRSA bacteremia

* None of the variables inve
units within a hospital will

d in NHSN risk adjustment of the CDI and MRSA Bacteremia negative binomial
Inpatient Rehabilitation Facilities

Validated Parameters for Risk Model	
Intercept	CDI Test
Type	Type of IRF (free-standing or unit)
Community Onset CDI events	
Percentage of Admissions- Orthopedic Conditions	
Percentage of Admissions- Stroke	
Percentage of Admissions- Traumatic and Non-Traumatic Spinal Cord Dysfunction	
Intercept*	

estigated were statistically significantly associated with hospital-onset MRSA bacteremia in IRFs. Free-standing
have the predicted number of events calculated using the 2022 national IRF MRSA bacteremia incidence rate (i

IRFs and CMS-certified IRF
.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 Executive Summary and previous reports, can be found at the above wel

ɔsite.