2020 National ar
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Introduction:

Welcome to the 2020 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	þ
Catheter-associated urinary tract infections (CAUTI) by locations	þ
Hospital-onset *Clostridioides difficile* (CDI) by facility-wide reporting	þ
Hospital-onset methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia by facility-wide reporting	þ

nd 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 2020 SIRs to those from the prior year.

cilities (IRFs).

RF	
State	
þ	
þ	
þ	
þ	

2020 Annual National and State HAI Progress Report
Inpatient Rehabilitation Facilities: Full series of tables for all national and state-specific data

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

tion Facilities (IRFs):

\ bacteremia between 2019 and 2020 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

CHs).

HAI Type	Reporting Facilities	
	No. of Inpatient Rehabilitation Facilities Reporting[1]	Total Patient Days
CLABSI, all[4]	723	4,462,705
CAUTI, all[4]	1,146	8,746,692

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 th
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

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
379,812	106	194.613	0.545	0.448	0.656	27
650,597	1,102	1,117.780	0.986	0.929	1.045	395

tion (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 fa

2020. If a facility's predicted number of HAIs was <1.0, a facility-specific SIR was neither calculated nor included

predicted CLABSI and CAUTI are listed in Appendix A.

ection ratios (SIRs) and facility-specific summary SIRs using HAI data reported to NHSN during 2020:
bloodstream infections (CLABSIs) and catheter-associated urinary tract infections (CAUTIs)

Facility SIRs Compared to National SIR					5%	10%	15%	20%
No. Facilities with SIR Significantly > National SIR		**No. Facilities with SIR Significantly < National SIR**						
N	**%²**	**N**						
0	0%	0	0%		0.000	0.000	0.000	0.000
20	5%	4	1%		0.000	0.000	0.000	0.000

acilities had ≥ 1.0 predicted HAI in 2020.
in the distribution of facility-specific SIRs.

Percentile Distribution of Facility-specific SIRs[3]

25%	30%	35%	40%	45%	Median 50%	55%	60%	65%	70%
0.000	0.000	0.000	0.000	0.104	0.704	0.743	0.862	0.968	0.999
0.000	0.000	0.348	0.541	0.661	0.741	0.833	0.929	1.130	1.324

75%	80%	85%	90%	95%
1.178	1.425	1.477	1.666	1.873
1.556	1.692	1.955	2.330	2.750

HAI and Patient Population	Reporting Facilities	
		Total Admissions
Laboratory-identified *C. difficile*	1,130	496,508
Laboratory-identified MRSA bacteremia	953	529,068

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

s	Standardized Infection Ratio Data						
Total Patient Days	Observed Hospital-onset Events[2]	Predicted Hospital-onset Events[3]	SIR	Lower 95% Confidence Interval	Upper 95% Confidence Interval	No. Facilities with ≥1 Predicted Event
6,503,960	1,433	2,733.960	0.524	0.498	0.552	502
6,675,557	109	126.932	0.859	0.708	1.032	1

IRF) units within the acute care setting. LabID reporting is performed at facility wide for freestanding IRFs. For IRF-

ay (or later) after admission to the facility.

umber of predicted events are listed in Appendix B.

ss than the nominal value of the national SIR for the given HAI type. This is only calculated if at least 10 facilities h

) predicted HAI in 2020. If a facility's predicted number of events was <1.0, a facility-specific SIR was neither calc

tion ratios (SIRs) and facility-specific summary SIRs using HAI data reported to NHSN during 2020:
ides 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%**
35	7%	21	4%	0.000	0.000	0.000	0.000
.	.	.	.	.	.	.	.

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

ad ≥ 1.0 predicted HAI in 2020.
ulated 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	0.212	0.290	0.375	0.431	0.558	0.626	0.690

75%	80%	85%	90%	95%
0.789	0.878	0.976	1.206	1.510
.	.	.	.	.

Table 2. State-specific standardized infection rati
NHSN Inpatient Rehabilitation F
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	7	3	2.923	1.026	0.261
Alaska	No	No	2	.	.	.	.
Arizona			14	2	2.944	0.679	0.114
Arkansas			13	4	2.844	1.406	0.447
California	M	Yes	76	6	18.867	0.318	0.129
Colorado	M	No	18	2	5.017	0.399	0.067
Connecticut	No	No	4	.	.	.	.
D.C.	Yes	No	2	.	.	.	.
Delaware			3	.	.	.	.
Florida	No	Yes	25	3	11.938	0.251	0.064
Georgia	No	No	19	4	6.101	0.656	0.208
Guam			0	.	.	.	.
Hawaii	No	No	0	.	.	.	.
Idaho	No	No	2	.	.	.	.
Illinois	No	No	32	5	10.764	0.465	0.170
Indiana	M	No	29	6	8.904	0.674	0.273
Iowa	No	No	11	1	1.863	0.537	0.027
Kansas	No	No	9	2	2.279	0.878	0.147
Kentucky	No	No	7	0	1.971	0.000	.
Louisiana			23	2	3.858	0.518	0.087
Maine	Yes	No	4	.	.	.	.
Maryland	No	No	3	.	.	.	.
Massachusetts	No	No	6	0	1.341	0.000	.
Michigan	No	No	21	4	5.103	0.784	0.249
Minnesota	No	No	6	1	1.322	0.756	0.038
Mississippi	M	No	7	1	1.624	0.616	0.031
Missouri	No	No	16	1	3.552	0.282	0.014
Montana	No	No	3	.	.	.	.
Nebraska			7	0	1.057	0.000	.
Nevada	Yes	No	11	1	4.914	0.204	0.010
New Hampshire	No	No	3	.	.	.	.
New Jersey	No	No	5	1	1.276	0.784	0.039
New Mexico	No	No	3	.	.	.	.
New York	No	No	40	4	7.951	0.503	0.160
North Carolina			13	6	8.871	0.676	0.274
North Dakota	No	No	2	.	.	.	.
Ohio	No	No	28	6	6.523	0.920	0.373
Oklahoma	No	No	13	0	2.774	0.000	.
Oregon	No	No	6	0	0.603	.	.
Pennsylvania	Yes	Yes	70	21	26.109	0.804	0.511
Puerto Rico	No	No	1	.	.	.	.
Rhode Island	No	No	4	.	.	.	.

South Carolina	Yes	Yes	22	1	5.170	0.193	0.010
South Dakota	No	No	3	.	.	.	.
Tennessee	Yes	No	16	0	3.426	0.000	.
Texas			65	14	15.312	0.914	0.520
Utah			4	.	.	.	.
Vermont	No	No	2	.	.	.	.
Virgin Islands			0	.	.	.	.
Virginia	No	No	13	1	4.035	0.248	0.012
Washington	M	No	12	1	1.588	0.630	0.032
West Virginia	No	No	2	.	.	.	.
Wisconsin	No	Yes	16	1	3.244	0.308	0.015
Wyoming	No	No	0	.	.	.	.
All US			**723**	**106**	**194.613**	**0.545**	**0.448**

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 2020.
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 2020 NHSN data prior to June 1, 2021, 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 2020 CLABSI data and are included in the SIR calculation. SIRs and accom
   from at least one location in 2020.
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 2020.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted CLABSI in 2020.
   nor included in the distribution of facility-specific SIRs.

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%	
2.793	1	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
2.244	0	.	.	.	.	.	.	.
3.393	0	.	.	.	.	.	.	.
0.661	3	.	.	.	.	.	.	.
1.317	0	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
0.684	2	.	.	.	.	.	.	.
1.582	0	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
1.030	2	.	.	.	.	.	.	.
1.402	0	.	.	.	.	.	.	.
2.648	0	.	.	.	.	.	.	.
2.900	0	.	.	.	.	.	.	.
1.520	1	.	.	.	.	.	.	.
1.713	0	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
2.233	0	.	.	.	.	.	.	.
1.891	1	.	.	.	.	.	.	.
3.730	0	.	.	.	.	.	.	.
3.036	0	.	.	.	.	.	.	.
1.389	0	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
2.833	0	.	.	.	.	.	.	.
1.004	1	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
3.865	0	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
1.214	1	.	.	.	.	.	.	.
1.407	3	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
1.913	1	.	.	.	.	.	.	.
1.080	1	.	.	.	.	.	.	.
.	0	.	.	.	.	.	.	.
1.209	8	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.

0.954	0	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.874	0	.	.	.	.	.	.
1.498	2	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.222	0	.	.	.	.	.	.
3.106	0	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.520	0	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.656	**27**	**0%**	**0%**	**0.000**	**0.000**	**0.704**	**1.178**

Also includes data from CMS-certified IRF units within a hospital.
2020. M indicates midyear implementation of a mandate.

state health department had access to 2021 NHSN data, state health department performed an
nd state health department contacted identified facilities.
21 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.
banying statistics are only calculated for states in which at least 5 IRFs reported CLABSI data

lue of the 2020 national IRF CLABSI SIR of 0.545. 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%

1.666

Table 3. State-specific standardized infection rati
NHSN Inpatient Rehabilitation F
Catheter-associated urinary tract i

| State | | | | No. of Events | | | 95% CI |
				Observed	Predicted	SIR	Lower
Alabama	No	No	18	25	27.667	0.904	0.598
Alaska	No	No	1	.	.	.	.
Arizona			27	30	28.716	1.045	0.718
Arkansas			25	17	19.888	0.855	0.515
California	No	No	76	46	69.018	0.666	0.494
Colorado	M	No	18	12	15.154	0.792	0.429
Connecticut	Yes	No	7	5	2.894	1.728	0.633
D.C.	No	No	2	.	.	.	.
Delaware			4	.	.	.	.
Florida	No	Yes	55	70	75.813	0.923	0.725
Georgia	Yes	No	28	22	25.681	0.857	0.551
Guam			0	.	.	.	.
Hawaii	No	No	1	.	.	.	.
Idaho	No	No	6	5	4.020	1.244	0.456
Illinois	No	No	40	56	42.914	1.305	0.995
Indiana	No	No	37	37	31.309	1.182	0.844
Iowa	No	No	17	15	10.101	1.485	0.863
Kansas	No	No	20	20	13.051	1.532	0.962
Kentucky	Yes	No	16	10	18.577	0.538	0.273
Louisiana			51	30	30.555	0.982	0.675
Maine	Yes	No	5	1	4.302	0.232	0.012
Maryland	No	No	4	.	.	.	.
Massachusetts	No	No	12	25	24.005	1.041	0.689
Michigan	No	No	39	38	27.424	1.386	0.995
Minnesota	No	No	11	17	10.319	1.647	0.992
Mississippi	Yes	No	11	6	7.356	0.816	0.331
Missouri	No	No	29	32	28.786	1.112	0.773
Montana	No	No	4	.	.	.	.
Nebraska			10	11	8.876	1.239	0.652
Nevada	No	No	13	8	16.738	0.478	0.222
New Hampshire	No	No	8	3	6.381	0.470	0.120
New Jersey	No	No	18	34	35.831	0.949	0.668
New Mexico	No	No	8	0	8.479	0.000	.
New York	No	No	48	40	33.291	1.202	0.870
North Carolina			24	28	23.232	1.205	0.817
North Dakota	No	No	4	.	.	.	.
Ohio	No	No	47	35	49.939	0.701	0.496
Oklahoma	No	No	23	16	15.835	1.010	0.598
Oregon	Yes	No	8	8	3.828	2.090	0.971
Pennsylvania	Yes	Yes	70	93	78.014	1.192	0.968
Puerto Rico	No	No	5	1	3.049	0.328	0.016
Rhode Island	No	No	5	3	3.485	0.861	0.219

South Carolina	No	No	23	21	17.559	1.196	0.760
South Dakota	No	No	4	.	.	.	.
Tennessee	Yes	Yes	29	24	25.797	0.930	0.610
Texas			151	161	171.289	0.940	0.803
Utah			10	9	6.897	1.305	0.636
Vermont	No	No	2	.	.	.	.
Virgin Islands			0	.	.	.	.
Virginia	Yes	No	29	25	25.002	1.000	0.661
Washington	Yes	No	14	19	25.754	0.738	0.457
West Virginia	Yes	No	8	8	7.832	1.021	0.474
Wisconsin	No	Yes	19	17	12.083	1.407	0.847
Wyoming	No	No	2	.	.	.	.
All US			**1,146**	**1,102**	**1,117.780**	**0.986**	**0.929**

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 2020.
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 2020 NHSN data prior to June 1, 2021, 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 2020 CAUTI data and are included in the SIR calculation. SIRs and accompa from at least one location in 2020.
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 2020.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted CAUTI in 2020. If nor included in the distribution of facility-specific SIRs.

os (SIRs) and facility-specific SIR summary measures,
Facilities (IRFs) reporting during 2020
nfections (CAUTIs) in IRFs, all locations[1]

for SIR	Facility-specific SIRs						
Upper	No. of facs with at least 1 predicted CAUTI			10%	25%		75%
1.314	10	0%	0%	.	.	.	.
	.	.	.	.	.	.	.
1.473	14	7%	0%	.	.	.	.
1.341	6	.	.	.	.	.	.
0.881	24	0%	8%	0.000	0.000	0.000	1.236
1.346	6	.	.	.	.	.	.
3.830	0	.	.	.	.	.	.
	.	.	.	.	.	.	.
	.	.	.	.	.	.	.
1.160	36	6%	0%	0.000	0.000	0.613	1.442
1.276	11	0%	0%	.	.	.	.
	.	.	.	.	.	.	.
	.	.	.	.	.	.	.
2.757	0	.	.	.	.	.	.
1.682	14	7%	0%	.	.	.	.
1.612	12	8%	0%	.	.	.	.
2.394	2	.	.	.	.	.	.
2.325	4	.	.	.	.	.	.
0.960	6	.	.	.	.	.	.
1.384	10	10%	0%	.	.	.	.
1.146	1	.	.	.	.	.	.
	.	.	.	.	.	.	.
1.515	6	.	.	.	.	.	.
1.882	9	.	.	.	.	.	.
2.584	3	.	.	.	.	.	.
1.697	3	.	.	.	.	.	.
1.551	8	.	.	.	.	.	.
	.	.	.	.	.	.	.
2.154	3	.	.	.	.	.	.
0.908	7	.	.	.	.	.	.
1.280	2	.	.	.	.	.	.
1.311	12	0%	0%	.	.	.	.
0.353	3	.	.	.	.	.	.
1.620	12	8%	0%	.	.	.	.
1.719	7	.	.	.	.	.	.
	.	.	.	.	.	.	.
0.964	16	0%	0%	.	.	.	.
1.606	7	.	.	.	.	.	.
3.969	0	.	.	.	.	.	.
1.454	28	11%	0%	0.000	0.542	0.885	1.708
1.618	1	.	.	.	.	.	.
2.343	1	.	.	.	.	.	.

1.797	6	.	.	.	.	.	.
	.	.	.	.	.	.	.
1.363	11	0%	0%	.	.	.	.
1.094	63	6%	0%	0.000	0.000	0.550	1.007
2.395	2	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.454	10	0%	0%	.	.	.	.
1.131	7	.	.	.	.	.	.
1.940	3	.	.	.	.	.	.
2.207	4	.	.	.	.	.	.
	.	.	.	.	.	.	.
1.045	**395**	**5%**	**1%**	**0.000**	**0.000**	**0.741**	**1.556**

Also includes data from CMS-certified IRF units within a hospital.

)20. M indicates midyear implementation of a mandate.

: state health department had access to 2020 NHSN data, state health department performed an
nd state health department contacted identified facilities.
21 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

ie of the 2020 national IRF CAUTI SIR of 0.986. 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
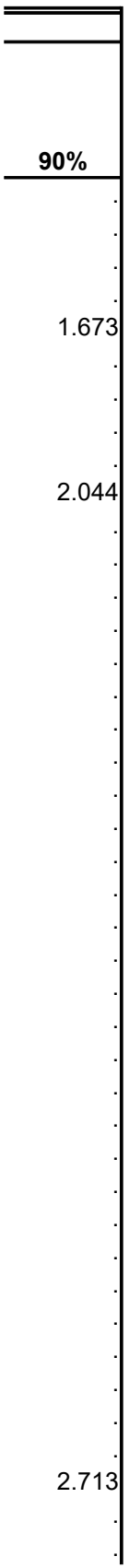
90%

1.673

2.044

2.713

2.535

2.330

Laboratory-identified healthcare facility-o

State				No. of Events			95% CI
				Observed	Predicted	SIR	Lower
Alabama	No	No	18	32	70.041	0.457	0.318
Alaska	No	No	2	.	.	.	.
Arizona			27	44	70.718	0.622	0.458
Arkansas			25	24	60.912	0.394	0.258
California	M	Yes	72	60	126.495	0.474	0.365
Colorado	M	No	17	5	42.413	0.118	0.043
Connecticut	Yes	No	7	1	6.376	0.157	0.008
D.C.	Yes	No	2	.	.	.	.
Delaware			4	.	.	.	.
Florida	No	Yes	54	123	195.297	0.630	0.526
Georgia	Yes	No	28	23	51.807	0.444	0.288
Guam			0	.	.	.	.
Hawaii	No	No	1	.	.	.	.
Idaho	No	No	6	6	10.769	0.557	0.226
Illinois	Yes	No	39	51	107.725	0.473	0.356
Indiana	M	No	37	40	66.775	0.599	0.434
Iowa	No	No	18	6	11.951	0.502	0.203
Kansas	No	No	19	13	38.356	0.339	0.189
Kentucky	Yes	No	16	41	63.729	0.643	0.468
Louisiana			48	17	55.701	0.305	0.184
Maine	Yes	No	5	5	12.834	0.390	0.143
Maryland	No	No	4	.	.	.	.
Massachusetts	No	No	12	66	75.004	0.880	0.686
Michigan	No	No	39	18	52.182	0.345	0.211
Minnesota	No	No	11	10	9.912	1.009	0.512
Mississippi	Yes	No	11	3	20.166	0.149	0.038
Missouri	No	No	28	43	66.272	0.649	0.475
Montana	No	No	4	.	.	.	.
Nebraska			10	8	17.660	0.453	0.210
Nevada	No	No	13	41	52.615	0.779	0.567
New Hampshire	No	No	8	5	23.552	0.212	0.078
New Jersey	No	No	18	83	101.674	0.816	0.654
New Mexico	No	No	6	9	20.605	0.437	0.213
New York	No	No	47	14	65.718	0.213	0.121
North Carolina			25	20	65.412	0.306	0.192
North Dakota	No	No	4	.	.	.	.
Ohio	No	No	46	68	118.198	0.575	0.450
Oklahoma	No	No	22	16	36.521	0.438	0.259
Oregon	Yes	No	8	4	6.641	0.602	0.191
Pennsylvania	Yes	Yes	70	130	199.750	0.651	0.546
Puerto Rico	Yes	No	6	2	10.543	0.190	0.032
Rhode Island	No	No	5	4	3.782	1.058	0.336

South Carolina	Yes	Yes	23	20	65.030	0.308	0.193
South Dakota	No	No	4	.	.	.	.
Tennessee	Yes	Yes	29	38	80.634	0.471	0.338
Texas			148	228	428.937	0.532	0.466
Utah			10	5	11.960	0.418	0.153
Vermont	No	No	2	.	.	.	.
Virgin Islands			0	.	.	.	.
Virginia	Yes	No	29	41	66.726	0.614	0.447
Washington	Yes	Yes	14	4	21.027	0.190	0.060
West Virginia	Yes	No	8	15	35.229	0.426	0.247
Wisconsin	No	Yes	19	12	21.361	0.562	0.304
Wyoming	No	No	2	.	.	.	.
All US			**1,130**	**1,433**	**2,733.960**	**0.524**	**0.498**

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 2020
   No indicates that a state mandate did not exist during 2020.
3. Yes indicates that the state health department reported the completion of all of the following validation activities:
   assessment of missing or implausible values on at least six months of 2020 NHSN data prior to June 1, 2021, ar
   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 2020 CDI data and are included in the SIR calculation. SIRs and accompany
   data in 2020.
5. Percent of facilities with ≥1.0 predicted CDI that had an SIR significantly greater or less than the nominal value c
   ≥ 1.0 predicted CDI in 2020.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted CDI in 2020. If a f
   was neither calculated nor included in the distribution of facility-specific SIRs.

os (SIRs) and facility-specific SIR summary measures,
acilities (IRFs) reporting during 2020
nset *Clostridioides difficile* (CDI), facility-wide[1]

for SIR Upper	Facility-specific SIRs No. of facs with at least 1 predicted CDI			10%	25%		75%
0.637	12	8%	25%	.	.	.	.
.	.	.	.	.	.	.	.
0.828	15	7%	7%	.	.	.	.
0.577	10	0%	20%	.	.	.	.
0.606	28	4%	0%	0.000	0.000	0.000	0.674
0.261	10	0%	10%	.	.	.	.
0.774	1	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.749	40	10%	0%	0.000	0.000	0.449	0.789
0.656	11	9%	0%	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.159	3	.	.	.	.	.	.
0.618	15	0%	0%	.	.	.	.
0.808	11	0%	0%	.	.	.	.
1.044	4	.	.	.	.	.	.
0.565	7	.	.	.	.	.	.
0.864	6	.	.	.	.	.	.
0.479	17	6%	0%	.	.	.	.
0.864	2	.	.	.	.	.	.
.	.	.	.	.	.	.	.
1.112	7	.	.	.	.	.	.
0.535	11	9%	9%	.	.	.	.
1.798	4	.	.	.	.	.	.
0.405	3	.	.	.	.	.	.
0.866	8	.	.	.	.	.	.
.	.	.	.	.	.	.	.
0.860	3	.	.	.	.	.	.
1.047	9	.	.	.	.	.	.
0.471	5	.	.	.	.	.	.
1.007	13	15%	0%	.	.	.	.
0.802	3	.	.	.	.	.	.
0.349	13	8%	8%	.	.	.	.
0.464	14	0%	14%	.	.	.	.
.	.	.	.	.	.	.	.
0.725	14	0%	0%	.	.	.	.
0.696	7	.	.	.	.	.	.
1.453	1	.	.	.	.	.	.
0.770	31	16%	6%	0.000	0.137	0.596	0.967
0.627	3	.	.	.	.	.	.
2.551	2	.	.	.	.	.	.

0.467	12	0%	0%	.	.	.	.
	.	.	.	.	.	.	.
0.640	15	7%	7%	.	.	.	.
0.604	84	8%	5%	0.000	0.000	0.399	0.684
0.927	4	.	.	.	.	.	.
	.	.	.	.	.	.	.
	.	.	.	.	.	.	.
0.826	16	6%	0%	.	.	.	.
0.459	4	.	.	.	.	.	.
0.687	5	.	.	.	.	.	.
0.955	6	.	.	.	.	.	.
	.	.	.	.	.	.	.
0.552	**502**	**7%**	**4%**	**0.000**	**0.000**	**0.375**	**0.789**

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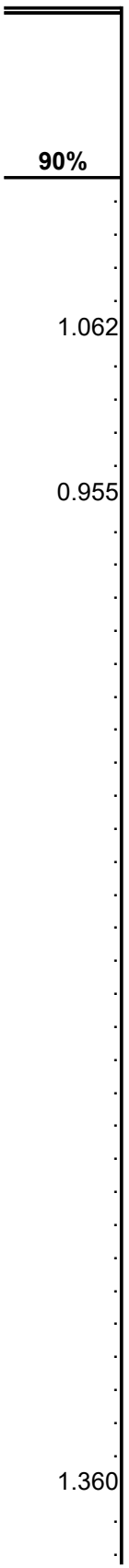 hospital.
). M indicates midyear implementation of a mandate.

 state health department had access to 2020 NHSN data, state health department performed an
nd state health department contacted identified facilities.
21 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 2020 national IRF CDI SIR of 0.524. This is only calculated if at least 10 facilities had

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

90%

1.062

0.955

1.360

1.225

1.206

State				No. of Events			95% CI for SIR		Fac
				Observed	Predicted	SIR	Lower	Upper	No. of facs with at least 1 predicted MRSA
Alabama	No	No	11	2	1.656	1.208	0.202	3.990	0
Alaska	No	No	2		.	.	.	.	.
Arizona			17	2	2.253	0.888	0.149	2.933	0
Arkansas			21	2	2.354	0.850	0.142	2.807	0
California	M	Yes	74	5	10.170	0.492	0.180	1.090	0
Colorado	No	No	15	2	2.836	0.705	0.118	2.330	1
Connecticut		No	6	0	0.496	.	.	.	0
D.C.	Yes	No	2		.	.	.	.	.
Delaware			2		.	.	.	.	.
Florida	No	Yes	35	9	7.748	1.162	0.566	2.132	0
Georgia	No	No	26	2	3.227	0.620	0.104	2.048	0
Guam			0		.	.	.	.	.
Hawaii	No	No	0		.	.	.	.	.
Idaho	No	No	3		.	.	.	.	.
Illinois	Yes	No	37	7	4.761	1.470	0.643	2.908	0
Indiana	M	No	32	3	3.509	0.855	0.217	2.327	0
Iowa	No	No	14	0	1.126	0.000	.	2.661	0
Kansas	No	No	16	0	1.093	0.000	.	2.741	0
Kentucky	No	No	14	0	2.580	0.000	.	1.161	0
Louisiana			43	3	3.375	0.889	0.226	2.419	0
Maine	Yes	No	5	0	0.739	.	.	.	0
Maryland	No	No	4		.	.	.	.	.
Massachusetts	No	No	6	0	1.068	0.000	.	2.805	0
Michigan	No	No	39	10	4.733	2.113	1.073	3.766	0
Minnesota	No	No	11	0	1.195	0.000	.	2.507	0
Mississippi	No	No	10	3	1.042	2.879	0.732	7.836	0
Missouri	No	No	24	1	2.573	0.389	0.019	1.917	0
Montana	No	No	2		.	.	.	.	.
Nebraska			8	0	0.583	.	.	.	0

Nevada	Yes	No	12	0	2.396	0.000	.	1.250	0
New Hampshire	No	No	7	2	0.997	.	.	.	0
New Jersey	No	No	12	3	3.064	0.979	0.249	2.665	0
New Mexico	No	No	6	0	0.851	.	.	.	0
New York	No	No	47	4	5.583	0.716	0.228	1.728	0
North Carolina			24	3	4.437	0.676	0.172	1.840	0
North Dakota	No	No	3	.	.	.	.	.	.
Ohio	No	No	35	3	3.324	0.903	0.230	2.456	0
Oklahoma	No	No	18	2	1.663	1.203	0.202	3.973	0
Oregon	Yes	No	6	0	0.563	.	.	.	0
Pennsylvania	Yes	Yes	71	11	11.784	0.933	0.491	1.622	0
Puerto Rico	No	No	5	0	0.583	.	.	.	0
Rhode Island	No	No	4	.	.	.	.	.	.
South Carolina	Yes	Yes	23	1	3.737	0.268	0.013	1.320	0
South Dakota	No	No	3	.	.	.	.	.	.
Tennessee	Yes	Yes	29	4	4.656	0.859	0.273	2.072	0
Texas			96	13	12.411	1.047	0.583	1.746	0
Utah			8	1	0.845	.	.	.	0
Vermont	No	No	2	.	.	.	.	.	.
Virgin Islands			0	.	.	.	.	.	.
Virginia	No	No	25	4	3.235	1.236	0.393	2.983	0
Washington	No	No	11	2	1.158	1.727	0.290	5.706	0
West Virginia	Yes	No	8	0	1.690	0.000	.	1.773	0
Wisconsin	No	Yes	18	2	1.591	1.257	0.211	4.153	0
Wyoming	No	No	1	.	.	.	.	.	.
All US			**953**	**109**	**126.932**	**0.859**	**0.708**	**1.032**	**1**

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 2020. M indicates mid
   No indicates that a state mandate did not exist during 2020.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had ac
   assessment of missing or implausible values on at least six months of 2020 NHSN data prior to June 1, 2021, and state health department conta
   YesA indicates that the state also conducted an audit of facility medical or laboratory records prior to June 1, 2021 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 2020 MRSA bacteremia data and are included in the SIR calculation. SIRs and accompanying statistics are o bacteremia data from at least one location in 2020.
5. Percent of facilities with ≥1.0 predicted MRSA bacteremia that had an SIR significantly greater or less than the nominal value of the 2020 nationa ≥ 1.0 predicted MRSA bacteremia in 2020.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥1.0 predicted MRSA bacteremia in 2020. If a facility's predicted was neither calculated nor included in the distribution of facility-specific SIRs.

s (MRSA) bacteremia, facility-wide[1]

cility-specific SIRs

		10%	25%			75%	90%
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
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.	.	.	.	.	.	.	.
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.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
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.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.

ertified IRF units within a hospital.

year implementation of a mandate.

cess to 2020 NHSN data, state health department performed an
cted identified facilities.
ainment (although intensity of auditing activities
cular HAI type. Some states without mandatory
in their jurisdiction.

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

al IRF MRSA SIR of 0.859. This is only calculated if at least 10 facilities had

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

Table 6. Changes in national standardized infection
Central line-associated bloodstream infections (CLABSI

HAI Type[1]	2019 SIR	2020 SIR
CLABSI, all locations	0.719	0.545
CAUTI, all locations	1.147	0.986
Laboratory-identified MRSA bacteremia	0.816	0.859
Laboratory-identified *C. difficile* infections	0.585	0.524

* Statistically significant, p < 0.0500. Statistical significance based on two-tailed p-value < 0.05, reflec
1. Includes data reported from all locations (i.e., adult and pediatric rehabilitation wards) within free-s
LabID reporting is performed at facility wide for freestanding IRFs. For IRF-units located within acute

ratios (SIRs) using HAI data reported from all NHSN Inpatient Rehabilitation Facilities reporting during s), catheter-associated urinary tract infections (CAUTIs), methicillin-resistant _Staphylococcus aureus_ (M and Clostridioides difficile infections, 2019 compared to 2020

Percent Change	Direction of Change, Based on Statistical Significance	p-value
-24%	Decrease	0.0333
-14%	Decrease	0.0003
5%	No change	0.7043
-10%	Decrease	0.0025

ted in the relative percent change in magnitude.
tanding IRFs. Also includes data from CMS-certified IRF units within a hospital.
care hospitals, LabID reporting is performed at unit level.

2020 by HAI:

MRSA) bacteremia,

Table 7. Changes in state-specific standardized infection ratios (SIRs) between 2019 and 2020 from NHSN Inpatient Rehabilitation Facilities

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

State[2]	All Inpatient Rehabilitation Facilities Reporting to NHSN				
	2019 SIR	2020 SIR	Percent Change[3]	Direction of Change, Based on Statistical Significance	p-value
Alabama	1.516	1.026	32%	No change	0.6184
Alaska	.	.	.		.
Arizona	1.066	0.679	36%	No change	0.6528
Arkansas	0.453	1.406	210%	No change	0.3330
California	0.673	0.318	53%	No change	0.1412
Colorado	0.230	0.399	73%	No change	0.7074
Connecticut	.	.	.		.
D.C.	.	.	.		.
Delaware	.	.	.		.
Florida	0.981	0.251	-74%	Decrease	0.0297
Georgia	1.104	0.656	41%	No change	0.4365
Guam	.	.	.		.
Hawaii	.	.	.		.
Idaho	.		.		.
Illinois	0.758	0.465	39%	No change	0.4038
Indiana	0.683	0.674	1%	No change	0.9679
Iowa	0.492	0.537	9%	No change	0.9564
Kansas	0.478	0.878	84%	No change	0.6735
Kentucky	0.497	0.000	>>100%	.	Inestimable
Louisiana	1.489	0.518	65%	No change	0.2165
Maine	.	.	.		.
Maryland	.	.	.		.
Massachusetts	.	0.000	.		.
Michigan	0.174	0.784	351%	No change	0.1759
Minnesota	0.000	0.756	>>100%	.	Inestimable
Mississippi	0.807	0.616	24%	No change	0.8655
Missouri	0.553	0.282	49%	No change	0.6349
Montana	.	.	.		.
Nebraska	.	0.000	.		.
Nevada	0.506	0.204	60%	No change	0.5074
New Hampshire	.	.	.		.
New Jersey	1.605	0.784	51%	No change	0.5901
New Mexico	.	.	.		.
New York	1.005	0.503	50%	No change	0.2566
North Carolina	0.622	0.676	9%	No change	0.8996
North Dakota	.	.	.		.
Ohio	0.599	0.920	54%	No change	0.5253
Oklahoma	0.663	0.000	>>100%	.	Inestimable
Oregon	.	.	.		.
Pennsylvania	0.686	0.804	17%	No change	0.6381
Puerto Rico	.	.	.		.
Rhode Island	.	.	.		.

South Carolina	0.531	0.193	64%	No change	0.4206
South Dakota	.	.	.		.
Tennessee	0.562	0.000	>>100%	.	Inestimable
Texas	1.157	0.914	21%	.	0.5312
Utah	.	0.895	.	.	.
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	0.222	0.248	12%	No change	0.9440
Washington	0.000	0.630	>>100%	.	Inestimable
West Virginia	.	.	.	.	.
Wisconsin	0.000	0.308	.	No change	0.4852
Wyoming	.	.	.	.	.
All US	**0.719**	**0.545**	**-24%**	**Decrease**	**0.0333**

* Statistically significant, p < 0.0500. Statistical significance based on two-tailed p-value < 0.05, reflected in th

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

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

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

The p-value is indicated as inestimable when the denominator of percent change (2019 SIR) = 0.

e relative percent change in magnitude.

IRFs. Also includes data from CMS-certified IRF units within a hospital.

sparse data reported within the facility type.

Table 7. Changes in state-specific standardized infection ratios (SIRs) between 2019 and 2020 from NHSN Inpatient Rehabilitation Facilities

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

	All Inpatient Rehabilitation Facilities Reporting to NHSN				
	2019 SIR	**2020 SIR**	**Direction of Change, Based on Statistical Significance**		**p-value**
Alabama	1.269	0.904	29%	No change	0.2084
Alaska	.	.	.		.
Arizona	1.448	1.045	28%	No change	0.1772
Arkansas	0.866	0.855	1%	No change	0.9678
California	0.707	0.666	6%	No change	0.7797
Colorado	1.278	0.792	38%	No change	0.2146
Connecticut	1.457	1.728	19%	No change	0.7773
D.C.	.	.	.		.
Delaware	.	.	.		.
Florida	0.950	0.923	3%	No change	0.8682
Georgia	0.987	0.857	13%	No change	0.6327
Guam	.	.	.		.
Hawaii	.	.	.		.
Idaho	1.289	1.244	3%	No change	0.9602
Illinois	1.565	1.305	17%	No change	0.3187
Indiana	0.923	1.182	28%	No change	0.3361
Iowa	2.048	1.485	27%	No change	0.3514
Kansas	1.226	1.532	25%	No change	0.5292
Kentucky	0.722	0.538	25%	No change	0.4925
Louisiana	1.128	0.982	13%	No change	0.5891
Maine	1.781	0.232	-87%	Decrease	0.0252
Maryland	.	.	.		.
Massachusetts	1.088	1.041	4%	No change	0.8787
Michigan	1.338	1.386	4%	No change	0.8758
Minnesota	1.114	1.647	48%	No change	0.3043
Mississippi	0.600	0.816	36%	No change	0.6540
Missouri	1.179	1.112	6%	No change	0.8145
Montana	0.518	0.000	100%	No change	0.5443
Nebraska	1.548	1.239	20%	No change	0.5835
Nevada	1.190	0.478	-60%	Decrease	0.0327
New Hampshire	1.679	0.470	72%	No change	0.0544
New Jersey	1.308	0.949	27%	No change	0.1586
New Mexico	1.107	0.000	-100%	Decrease	0.0020
New York	1.425	1.202	16%	No change	0.4193
North Carolina	2.044	1.205	-41%	Decrease	0.0315
North Dakota	0.000	0.000	0%		Inestimable
Ohio	0.622	0.701	13%	No change	0.6298
Oklahoma	0.846	1.010	19%	No change	0.6490
Oregon	1.840	2.090	14%	No change	0.8125
Pennsylvania	1.051	1.192	13%	No change	0.4190
Puerto Rico	0.334	0.328	2%	No change	0.9906
Rhode Island	1.559	0.861	45%	No change	0.4588

South Carolina	1.509	1.196	21%	No change	0.4603
South Dakota	.	.	.	.	.
Tennessee	0.978	0.930	5%	No change	0.8659
Texas	1.205	0.940	-22%	Decrease	0.0239
Utah	1.006	1.305	30%	No change	0.6170
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	1.230	1.000	19%	No change	0.4581
Washington	0.711	0.738	4%	No change	0.9219
West Virginia	1.973	1.021	48%	No change	0.1146
Wisconsin	0.640	1.407	120%	No change	0.0742
Wyoming	0.000	0.522	>>100%	.	Inestimable
All US	**1.147**	**0.986**	**-14%**	**Decrease**	**0.0003**

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

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

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

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

The p-value is indicated as inestimable when the denominator of percent change (2019 SIR) = 0.

relative percent change in magnitude.
RFs. Also includes data from CMS-certified IRF units within a hospital.

parse data reported within the facility type.

Table 7. Changes in state-specific standardized infection ratios (SIRs) between 2019 and 2020 from NHSN Inpatient Rehabilitation Facilities

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

| | All Inpatient Rehabilitation Facilities Reporting to NHSN | | | | |
	2019 SIR	2020 SIR	Direction of Change, Based on Statistical Significance		p-value
Alabama	0.530	0.457	14%	No change	0.5440
Alaska	.	.	.	.	.
Arizona	0.639	0.622	3%	No change	0.8984
Arkansas	0.401	0.394	2%	No change	0.9546
California	0.451	0.474	5%	No change	0.7814
Colorado	0.632	0.118	-81%	Decrease	0.0003
Connecticut	0.302	0.157	48%	No change	0.6290
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	0.530	0.630	19%	No change	0.1813
Georgia	0.441	0.444	1%	No change	0.9774
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Idaho	0.265	0.557	110%	No change	0.3862
Illinois	0.364	0.473	30%	No change	0.2168
Indiana	0.572	0.599	5%	No change	0.8375
Iowa	1.007	0.502	50%	No change	0.1825
Kansas	0.410	0.339	17%	No change	0.6131
Kentucky	0.785	0.643	18%	No change	0.3427
Louisiana	0.351	0.305	13%	No change	0.6710
Maine	0.545	0.390	28%	No change	0.5927
Maryland	.	.	.	.	.
Massachusetts	0.698	0.880	26%	No change	0.2046
Michigan	0.436	0.345	21%	No change	0.4512
Minnesota	0.585	1.009	72%	No change	0.3006
Mississippi	0.241	0.149	38%	No change	0.5486
Missouri	0.496	0.649	31%	No change	0.2416
Montana	.	.	.	.	.
Nebraska	0.531	0.453	15%	No change	0.7499
Nevada	1.103	0.779	29%	No change	0.0921
New Hampshire	0.775	0.212	-73%	Decrease	0.0055
New Jersey	0.779	0.816	5%	No change	0.7536
New Mexico	0.589	0.437	26%	No change	0.4937
New York	0.429	0.213	-50%	Decrease	0.0257
North Carolina	0.454	0.306	33%	No change	0.1689
North Dakota	.	.	.	.	.
Ohio	0.526	0.575	9%	No change	0.6143
Oklahoma	0.470	0.438	7%	No change	0.8416
Oregon	0.000	0.602	>>100%	.	inestimable
Pennsylvania	0.685	0.651	5%	No change	0.6741
Puerto Rico	0.172	0.190	10%	No change	0.9273
Rhode Island	1.017	1.058	4%	No change	0.9569

South Carolina	0.673	0.308	-54%	Decrease	0.0034
South Dakota	.	.	.	.	.
Tennessee	0.400	0.471	18%	No change	0.4981
Texas	0.727	0.532	-27%	Decrease	0.0003
Utah	1.109	0.418	62%	No change	0.0578
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	0.679	0.614	10%	No change	0.6395
Washington	0.492	0.190	61%	No change	0.0979
West Virginia	0.616	0.426	31%	No change	0.2391
Wisconsin	0.572	0.562	2%	No change	0.9619
Wyoming	.	.	.	.	.
All US	**0.585**	**0.524**	**-10%**	**Decrease**	**0.0025**

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

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

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

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

The p-value is indicated as inestimable when the denominator of percent change (2019 SIR) = 0.

relative percent change in magnitude.

RFs. Also includes data from CMS-certified IRF units within a hospital.

parse data reported within the facility type.

Table 7. Changes in state-specific standardized infection ratios (SIRs) between 2019 and 2020 from NHSN Inpatient Rehabilitation Facilities

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

	All Inpatient Rehabilitation Facilities Reporting to NHSN				
	2019 SIR	**2020 SIR**	**Direction of Change, Based on Statistical Significance**		**p-value**
Alabama	1.331	1.208	9%	No change	0.9387
Alaska	.	.	.		.
Arizona	0.000	0.888	>>100%	.	inestimable
Arkansas	0.841	0.850	1%	No change	0.9927
California	0.367	0.492	34%	No change	0.6799
Colorado	0.572	0.705	23%	No change	0.9115
Connecticut	.	.	.		.
D.C.	.	.	.		.
Delaware	.	.	.		.
Florida	1.407	1.162	17%	No change	0.6701
Georgia	0.906	0.620	32%	No change	0.7074
Guam	.	.	.		.
Hawaii	.	.	.		.
Idaho	.	.	.		.
Illinois	1.055	1.470	39%	No change	0.5625
Indiana	0.277	0.855	209%	No change	0.3618
Iowa	0.000	0.000	0%	.	inestimable
Kansas	1.877	0.000	100%	No change	0.2094
Kentucky	0.737	0.000	100%	No change	0.2629
Louisiana	1.622	0.889	45%	No change	0.4157
Maine	.	.	.		.
Maryland	.	.	.		.
Massachusetts	0.835	0.000	100%	No change	0.5285
Michigan	1.439	2.113	47%	No change	0.4469
Minnesota	0.867	0.000	100%	No change	0.4911
Mississippi	0.706	2.879	308%	No change	0.2399
Missouri	0.694	0.389	44%	No change	0.6897
Montana	.	.	.		.
Nebraska	.	.	.		.
Nevada	0.384	0.000	100%	No change	0.5206
New Hampshire	0.000	.	.		.
New Jersey	0.787	0.979	24%	No change	0.7725
New Mexico	.	.	.		.
New York	0.804	0.716	11%	No change	0.8761
North Carolina	2.083	0.676	68%	No change	0.0840
North Dakota	.	.	.		.
Ohio	0.488	0.903	85%	No change	0.4735
Oklahoma	1.086	1.203	11%	No change	0.9235
Oregon	.	.	.		.
Pennsylvania	0.659	0.933	42%	No change	0.4638
Puerto Rico	.	.	.		.
Rhode Island	.	.	.		.

State	2019 SIR	2020 SIR	Percent change	Significance	p-value
South Carolina	0.534	0.268	50%	No change	0.6259
South Dakota	.	.	.	.	.
Tennessee	0.633	0.859	36%	No change	0.7097
Texas	0.727	1.047	44%	No change	0.3919
Utah	.	.	.	.	.
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	0.996	1.236	24%	No change	0.7666
Washington	0.000	1.727	>>100%	.	inestimable
West Virginia	0.831	0.000	100%	No change	0.3452
Wisconsin	1.526	1.257	18%	No change	0.8557
Wyoming	.	.	.	.	.
All US	**0.816**	**0.859**	**5%**	**No change**	**0.7043**

* Statistically significant, p < 0.0500. Statistical significance based on two-tailed p-value < 0.05, reflected in th

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

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

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

he relative percent change in magnitude.

IRFs. Also includes data from CMS-certified IRF units within a hospital.

sparse data 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 2020 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 use
regression models[1] from

HAI Type

CDI

MRSA bacteremia

* None of the variables inv
  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 2020 national IRF MRSA bacteremia incidence rate (i

IRFs and CMS-certified IRF
.e., intercept-only model).

Additional Resources

<u>Additional Resources</u>

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

Technical Appendix (2020 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 web

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