

2017 National and State HAI Progress Report

Inpatient Rehabilitation Facilities

Introduction:

Welcome to the 2017 National and State HAI Progress Report using the 2015 baseline data. The data are used to describe different HAI types by comparing the number of observed infections to the expected number. 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 facilities.

Scope of report:

HAI Type	IR
	National
Central line-associated bloodstream infections (CLABSI) by locations	<input checked="" type="checkbox"/>
Catheter-associated urinary tract infections (CAUTI) by locations	<input checked="" type="checkbox"/>
Hospital-onset <i>Clostridioides difficile</i> (CDI) by facility-wide reporting	<input checked="" type="checkbox"/>
Hospital-onset methicillin-resistant <i>Staphylococcus aureus</i> (MRSA) bacteremia by facility-wide reporting	<input checked="" type="checkbox"/>

Mid State HAI Progress Report

Intensive Care Unit Rehabilitation Facilities

Standardized infection ratios (SIRs) are calculated based on risk adjustment calculations. Standardized infection ratios (SIRs) are calculated based on the number of predicted infections. This year's report will compare 2017 SIRs to those from the prior year.

Infection Rates (IRFs).

IRF
State
<input checked="" type="checkbox"/>
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2017 Annual National and State HAI Progress Report

Inpatient Rehabilitation Facilities: Full series of tables for all national and state-specific data

Table 1 National standardized infection ratios (SIRs) for the following HAIs from Inpatient Rehabilitation Facilities (IRFs):
1a. Central line-associated bloodstream infections (CLABSI)
1a. Catheter-associated urinary tract infections (CAUTI)
1b. Hospital-onset *Clostridioides difficile* (CDI)
1b. Hospital-onset methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia

Table 2 State-specific SIRs for CLABSI from IRFs, all locations combined

Table 3 State-specific SIRs for CAUTI from IRFs, all locations combined

Table 4 State-specific SIRs for hospital-onset CDI from IRFs

Table 5 State-specific SIRs for hospital-onset MRSA bacteremia from IRFs

Table 6 Changes in national SIRs for CLABSI, CAUTI, hospital-onset CDI, and hospital-onset MRSA bacteremia from IRFs

Table 7 Changes in state-specific SIRs between 2016 and 2017 from IRFs
7a. CLABSI, all locations combined
7b. CAUTI, all locations combined
7c. Hospital-onset CDI
7d. Hospital-onset MRSA bacteremia

Appendix A Factors used in NHSN risk adjustment of the device-associated HAIs (CLABSI, CAUTI) negative binomial

Appendix B Factors used in NHSN risk adjustment of the CDI and MRSA Bacteremia negative binomial

Additional Resources [SIR Guide](#)
[Technical Appendix](#)
[HAI Progress Report Home Page](#)

NOTE: Tables contain data from Inpatient Rehabilitation Facilities (IRFs); as such, they exclude data from other types of facilities.

tion Facilities (IRFs):

A bacteremia between 2016 and 2017 from IRFs

ative binomial regression models from IRFs

regression models from IRFs

ta from Long-term Acute Care Hospitals (LTACHs), Critical Access Hospitals (CAHs), and Acute Care Hospitals (A

CHs).

<u>HAI Type</u>	<u>Reporting Facilities</u>	
	No. of Inpatient Rehabilitation Hospitals Reporting¹	Total Patient Days
CLABSI, all⁴	690	4,089,968
CAUTI, all⁴	1,153	8,691,078

1. The number of reporting facilities included in the SIR calculation.
2. Percent of facilities with at least one predicted infection that had an SIR significantly greater than the expected SIR.
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥ 1.0 predicted HAI in the facility.
4. Data from all IRF locations (or facilities). Risk factors used in the calculation of the number of predicted HAIs are based on the IRF's risk factors.

Table 1a. National standardized infection ratio (SIR) for central line-associated bloodstream infections (CLABSI) by facility type, 2017

Total Device Days	<u>Standardized Infection Ratio Data</u>					No. Facilities with ≥ 1 Predicted Infection
	Observed Events	Predicted Events	SIR	Lower 95% Confidence Interval	Upper 95% Confidence Interval	
343,885	155	166.348	0.932	0.794	1.087	17
604,785	1,249	1,087.470	1.149	1.086	1.214	374

an or less than the nominal value of the national SIR for the given HAI type. This is only calculated if at least 10 facilities reported the HAI type in 2017. If a facility's predicted number of HAIs was < 1.0 , a facility-specific SIR was neither calculated nor included in the table. Predicted CLABSI and CAUTI are listed in Appendix A.

**infection ratios (SIRs) and facility-specific summary SIRs using HAI data reported to NHSN during 2017:
bloodstream 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%
0	0%	0	0%	.	.	.	.
19	5%	6	2%	0.000	0.000	0.000	0.000

ilities had ≥ 1.0 predicted HAI in 2017.
n the distribution of facility-specific SIRs.

Percentile Distribution of Facility-specific SIRs³

Median									
25%	30%	35%	40%	45%	50%	55%	60%	65%	70%
0.348	0.570	0.679	0.792	0.881	0.930	1.000	1.193	1.358	1.495

75%	80%	85%	90%	95%
1.696	1.890	2.193	2.492	3.032

<u>HAI and Patient Population</u>	<u>Reporting Facilities</u>	
	Total Admissions	
Laboratory-identified <i>C. difficile</i>, facility-wide	1,145	710,035
Laboratory-identified MRSA bacteremia, facility-wide	1,148	709,872

1. The number of reporting facilities included in the SIR calculation.
2. Hospital-onset events are defined as those that were identified in an inpatient location on the 4th day of admission.
3. Calculated from a negative binomial regression model. Risk factors used in the calculation of the number of events include patient age, gender, race, ethnicity, insurance status, and facility type.
4. Percent of facilities with at least one predicted event that had an SIR significantly greater than or less than the expected SIR.
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	
8,964,292	3,184	4,021.094	0.792	0.765	0.820	956
8,964,135	156	170.540	0.915	0.780	1.068	1

ly (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 2017. If a facility's predicted number of events was <1.0, a facility-specific SIR was neither calcu

ion ratios (SIRs) and facility-specific summary SIRs using HAI data reported to NHSN during 2017:
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%
61	6%	43	4%	0.000	0.000	0.000	0.000
.

ad ≥ 1.0 predicted HAI in 2017.
 lated nor included in the distribution of facility-specific SIRs.

75%	80%	85%	90%	95%
1.177	1.297	1.475	1.752	2.210

**Table 2. State-specific standardized infection rate
NHSN Inpatient Rehabilitation I
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
Alaska	No	No	2	.	.	.	.
Alabama	No	No	5	4	2.527	1.583	0.503
Arkansas			13	3	2.501	1.199	0.305
Arizona	No	No	14	2	2.547	0.785	0.132
California	Yes	Yes	74	12	14.681	0.817	0.443
Colorado	Yes	No	19	1	3.919	0.255	0.013
Connecticut	No	No	4	.	.	.	.
D.C.	Yes	No	2	.	.	.	.
Delaware			3	.	.	.	.
Florida	No	Yes	25	3	11.384	0.264	0.067
Georgia	No	No	19	4	4.882	0.819	0.260
Guam	No	No	0	.	.	.	.
Hawaii	No	No	0	.	.	.	.
Iowa	No	No	0	.	.	.	.
Idaho	No	No	2	.	.	.	.
Illinois	M	No	32	3	9.513	0.315	0.080
Indiana	No	No	21	5	5.098	0.981	0.359
Kansas	No	No	10	2	1.532	1.306	0.219
Kentucky	M	No	7	1	1.050	0.952	0.048
Louisiana	No	No	21	10	3.662	2.731	1.387
Massachusetts	No	No	3	.	.	.	.
Maryland	No	No	2	.	.	.	.
Maine	No	Yes	4	.	.	.	.
Michigan	No	No	17	2	3.609	0.554	0.093
Minnesota	No	No	5	4	1.132	3.532	1.122
Missouri			16	2	2.807	0.713	0.119
Mississippi	No	No	9	1	1.204	0.830	0.042
Montana	No	No	4	.	.	.	.
North Carolina	No	No	12	7	5.851	1.196	0.523
North Dakota	No	No	3	.	.	.	.
Nebraska	Yes	No	6	1	1.177	0.850	0.043
New Hampshire	No	No	1	.	.	.	.
New Jersey	No	No	5	0	1.667	0.000	.
New Mexico	No	No	5	0	0.709	.	.
Nevada	Yes	Yes	11	2	3.972	0.503	0.084
New York			45	16	9.146	1.749	1.036
Ohio	No	Yes	26	9	7.042	1.278	0.623
Oklahoma			10	0	2.248	0.000	.
Oregon	No	No	6	0	0.398	.	.
Pennsylvania	Yes	No	80	24	22.293	1.077	0.706
Puerto Rico			0	.	.	.	.
Rhode Island	No	No	5	0	0.923	.	.

South Carolina	Yes	Yes ^a	18	7	4.963	1.411	0.617
South Dakota	No	No	3	.	.	.	.
Tennessee	No	No	14	9	3.384	2.660	1.297
Texas	No	No	47	7	11.232	0.623	0.273
Utah	Yes	No	3	.	.	.	.
Virginia	No	No	11	7	4.610	1.518	0.664
Virgin Islands	No	No	0	.	.	.	.
Vermont	No	No	2	.	.	.	.
Washington	Yes	Yes	12	2	2.286	0.875	0.147
Wisconsin	No	Yes	18	1	3.623	0.276	0.014
West Virginia	No	No	2	.	.	.	.
Wyoming	No	No	0	.	.	.	.
All US			690	155	166.348	0.932	0.794

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 2017. No indicates that a state mandate did not exist during 2017.
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 2017 NHSN data prior to July 2, 2018, an audit of facility medical or laboratory records prior to July 2, 2018, and a review of facility reporting of a given HAI to the state health department (Yes^A indicates that the state also conducted an audit of facility medical or laboratory records prior to July 2, 2018; 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 voluntary.
4. The number of IRFs that reported 2017 CLABSI data and are included in the SIR calculation. SIRs and accompanying data were reported from at least one location in 2017.
5. Percent of facilities with ≥ 1.0 predicted CLABSI that had an SIR significantly greater or less than the nominal value of ≥ 1.0 predicted CLABSI in 2017.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥ 1.0 predicted CLABSI in 2017. Facilities that did not meet this criterion were not included in the distribution of facility-specific SIRs.

ios (SIRs) and facility-specific SIR summary measures,
 Facilities (IRFs) reporting during 2017
 infections (CLABSIs) in IRFs, all locations¹

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%
.
3.818	1	.	.	.	.	.	.	.
3.264	0	.	.	.	.	.	.	.
2.594	0	.	.	.	.	.	.	.
1.390	2	.	.	.	.	.	.	.
1.258	0	.	.	.	.	.	.	.
.
.
.
0.717	2	.	.	.	.	.	.	.
1.976	0	.	.	.	.	.	.	.
.
.
.
0.858	1	.	.	.	.	.	.	.
2.174	0	.	.	.	.	.	.	.
4.313	1	.	.	.	.	.	.	.
4.697	0	.	.	.	.	.	.	.
4.867	0	.	.	.	.	.	.	.
.
.
1.831	0	.	.	.	.	.	.	.
8.520	0	.	.	.	.	.	.	.
2.354	0	.	.	.	.	.	.	.
4.096	0	.	.	.	.	.	.	.
.
2.366	1	.	.	.	.	.	.	.
.
4.190	0	.	.	.	.	.	.	.
.
1.797	0	.	.	.	.	.	.	.
.	0	.	.	.	.	.	.	.
1.663	0	.	.	.	.	.	.	.
2.780	0	.	.	.	.	.	.	.
2.345	1	.	.	.	.	.	.	.
1.333	1	.	.	.	.	.	.	.
.	0	.	.	.	.	.	.	.
1.577	4	.	.	.	.	.	.	.
.
.	0	.	.	.	.	.	.	.

2.790	0	.	.	.	.	.	.
4.881	0	.	.	.	.	.	.
1.233	1	.	.	.	.	.	.
3.003	0	.	.	.	.	.	.
2.891	0	.	.	.	.	.	.
1.361	1	.	.	.	.	.	.
1.087	17	0%	0%	.	.	.	.

Also includes data from CMS-certified IRF units within a hospital.
 2017. M indicates midyear implementation of a mandate.

state health department had access to 2017 NHSN data, state health department performed an
 and state health department contacted identified facilities.

8 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.

many statistics are only calculated for states in which at least 5 IRFs reported CLABSI data

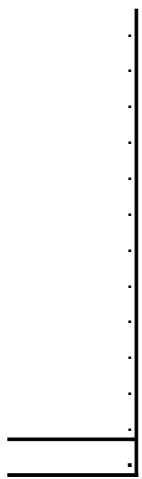
value of the 2017 national IRF CLABSI SIR of 0.932. This is only calculated if at least 10 facilities had

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

tiles⁶

90%





**Table 3. State-specific standardized infection rate
NHSN Inpatient Rehabilitation I
Catheter-associated urinary tract i**

State				No. of Events		95% CI	
				Observed	Predicted	SIR	Lower
Alaska	No	No	2	.	.	.	.
Alabama	No	No	16	20	19.753	1.013	0.636
Arkansas			24	12	19.150	0.627	0.340
Arizona	No	No	25	27	25.158	1.073	0.722
California	No	No	75	69	68.112	1.013	0.794
Colorado	No	No	19	19	14.751	1.288	0.798
Connecticut	Yes	No	6	11	3.985	2.760	1.452
D.C.	No	No	2	.	.	.	.
Delaware			3	.	.	.	.
Florida	No	No	52	76	75.075	1.012	0.803
Georgia	No	Yes	28	16	25.932	0.617	0.365
Guam	No	No	.	.	.	.	.
Hawaii	Yes	No	1	.	.	.	.
Iowa	No	No	15	7	7.384	0.948	0.415
Idaho	No	No	6	6	5.364	1.119	0.453
Illinois	Yes	No	48	68	49.148	1.384	1.083
Indiana	No	No	37	36	28.540	1.261	0.897
Kansas	No	Yes	20	19	12.467	1.524	0.945
Kentucky	Yes	No	16	22	16.198	1.358	0.873
Louisiana	No	Yes	47	34	29.725	1.144	0.805
Massachusetts	No	No	10	28	21.738	1.288	0.873
Maryland	Yes	No	3	.	.	.	.
Maine	No	Yes	5	7	3.889	1.800	0.787
Michigan	No	No	37	52	31.267	1.663	1.255
Minnesota	No	No	13	18	11.222	1.604	0.981
Missouri			30	35	27.928	1.253	0.887
Mississippi	Yes	No	12	7	6.723	1.041	0.455
Montana	No	No	4	.	.	.	.
North Carolina	No	No	26	38	21.611	1.758	1.262
North Dakota	No	No	5	5	2.374	2.106	0.772
Nebraska	Yes	No	10	15	10.246	1.464	0.851
New Hampshire	No	No	8	6	5.712	1.050	0.426
New Jersey	No	No	17	44	40.007	1.100	0.809
New Mexico	No	No	8	9	7.361	1.223	0.596
Nevada	No	No	12	14	17.569	0.797	0.454
New York			56	38	44.113	0.861	0.618
Ohio	No	Yes	52	50	49.244	1.015	0.762
Oklahoma			22	13	16.394	0.793	0.441
Oregon	Yes	Yes	8	7	4.050	1.728	0.756
Pennsylvania	Yes	Yes	81	105	76.446	1.374	1.129
Puerto Rico			5	6	3	2	1
Rhode Island	No	No	6	2	2.551	0.784	0.131

South Carolina	No	No	18	18	12.944	1.391	0.850
South Dakota	No	No	3	.	.	.	.
Tennessee	Yes	No	33	30	25.771	1.164	0.800
Texas	No	No	139	147	142.348	1.033	0.876
Utah	No	No	11	8	6.914	1.157	0.537
Virginia	No	No	26	35	28.847	1.213	0.858
Virgin Islands	No	No	.	.	.	.	.
Vermont	No	No	2	.	.	.	.
Washington	No	No	16	33	25.227	1.308	0.915
Wisconsin	No	Yes	21	12	14.428	0.832	0.451
West Virginia	Yes	No	8	5	7.313	0.684	0.251
Wyoming	No	No	4	.	.	.	.
All US			1,153	1,249	1,087.470	1.149	1.086

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 2017. No indicates that a state mandate did not exist during 2017.
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 2017 NHSN data prior to July 2, 2018, an assessment of the accuracy of reported CAUTI data (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 voluntary.
4. The number of IRFs that reported 2017 CAUTI data and are included in the SIR calculation. SIRs and accompanying CAUTI rates were calculated for facilities from at least one location in 2017.
5. Percent of facilities with ≥ 1.0 predicted CAUTI that had an SIR significantly greater or less than the nominal value of ≥ 1.0 predicted CAUTI in 2017.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥ 1.0 predicted CAUTI in 2017. If not, they were not included in the distribution of facility-specific SIRs.

ios (SIRs) and facility-specific SIR summary measures,
Facilities (IRFs) reporting during 2017

infections (CAUTIs) in IRFs, all locations¹

for SIR	Facility-specific SIRs				10%	25%	75%
	Upper	No. of facs with at least 1 predicted CAUTI					
.
1.536	10	10%	10%	.	.	.	.
1.065	6	.	.	.	.	.	.
1.540	12	8%	0%	.	.	.	.
1.274	23	4%	0%	0.000	0.185	0.835	1.967
1.974	5	.	.	.	.	.	.
4.798	1	.	.	.	.	.	.
.
1.260	34	0%	0%	0.000	0.000	0.969	1.468
0.981	10	0%	0%	.	.	.	.
.
.
1.875	3	.	.	.	.	.	.
2.327	3	.	.	.	.	.	.
1.743	16	0%	0%	.	.	.	.
1.727	8	.	.	.	.	.	.
2.336	4	.	.	.	.	.	.
2.023	5	.	.	.	.	.	.
1.580	6	.	.	.	.	.	.
1.837	6	.	.	.	.	.	.
.
3.560	2	.	.	.	.	.	.
2.164	10	0%	0%	.	.	.	.
2.486	5	.	.	.	.	.	.
1.724	8	.	.	.	.	.	.
2.060	3	.	.	.	.	.	.
.
2.389	7	.	.	.	.	.	.
4.668	1	.	.	.	.	.	.
2.360	3	.	.	.	.	.	.
2.185	1	.	.	.	.	.	.
1.463	14	7%	0%	.	.	.	.
2.244	3	.	.	.	.	.	.
1.305	8	.	.	.	.	.	.
1.170	17	0%	0%	.	.	.	.
1.328	15	13%	0%	.	.	.	.
1.322	4	.	.	.	.	.	.
3.419	0	.	.	.	.	.	.
1.656	24	8%	0%	0.000	0.844	1.284	2.062
4	1	.	.	.	.	.	.
2.590	0	.	.	.	.	.	.

2.155	5	.	.	.	.	.	.	.
1.641	8	.	.	.	.	.	.	.
1.210	53	2%	2%	0.000	0.000	0.837	1.173	.
2.197	2	.	.	.	.	.	.	.
1.669	11	9%	0%	.	.	.	.	.
.
1.816	4	.	.	.	.	.	.	.
1.414	3	.	.	.	.	.	.	.
1.515	4	.	.	.	.	.	.	.
.
1.214	374	5%	2%	0.000	0.348	0.930	1.696	.

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

017. M indicates midyear implementation of a mandate.

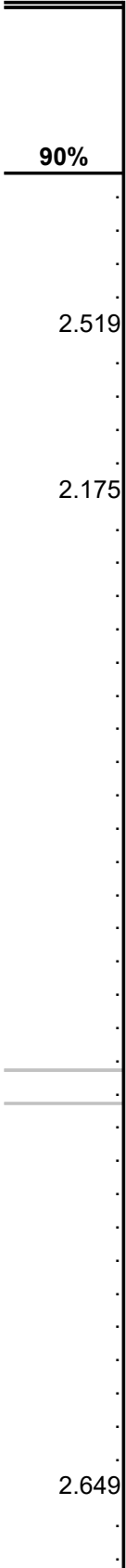
state health department had access to 2017 NHSN data, state health department performed an audit and state health department contacted identified facilities.

legislative mandate for the particular HAI type. Some states without mandatory reporting have voluntarily shared with them by facilities in their jurisdiction.

Reporting statistics are only calculated for states in which at least 5 IRFs reported CAUTI data.

Rate of the 2017 national IRF CAUTI SIR of 1.149. This is only calculated if at least 10 facilities had reported data.

If a facility's predicted number of CAUTI was <1.0, a facility-specific SIR was neither calculated nor reported.



1.845

2.492

**Table 4. State-specific standardized infection ratio
NHSN Inpatient Rehabilitation I
Laboratory-identified healthcare facility-**

State				No. of Events		95% CI	
				Observed	Predicted	SIR	Lower
Alaska	No	No	2	.	.	.	.
Alabama	No	No	16	69	92.892	0.743	0.582
Arkansas			23	37	74.128	0.499	0.357
Arizona	No	No	24	82	95.131	0.862	0.690
California	Yes	Yes	74	194	232.705	0.834	0.722
Colorado	Yes	No	19	32	45.989	0.696	0.484
Connecticut	Yes	No	6	5	15.259	0.328	0.120
D.C.	No	No	2	.	.	.	.
Delaware			3	.	.	.	.
Florida	No	Yes	51	230	277.324	0.829	0.727
Georgia	Yes	Yes	28	61	86.238	0.707	0.546
Guam	No	No	0	.	.	.	.
Hawaii	Yes	No	1	.	.	.	.
Iowa	No	No	15	30	23.969	1.252	0.860
Idaho	No	No	6	12	13.522	0.887	0.481
Illinois	Yes	No	46	151	206.125	0.733	0.623
Indiana	No	No	37	68	103.299	0.658	0.515
Kansas	No	Yes	20	35	57.955	0.604	0.427
Kentucky	Yes	No	16	62	87.674	0.707	0.547
Louisiana	No	Yes	46	55	82.601	0.666	0.506
Massachusetts	No	No	10	79	77.639	1.018	0.811
Maryland	No	No	3	.	.	.	.
Maine	No	Yes	5	11	19.436	0.566	0.298
Michigan	No	Yes	38	108	141.499	0.763	0.629
Minnesota	No	No	13	28	33.787	0.829	0.562
Missouri			30	97	93.627	1.036	0.845
Mississippi	Yes	No	12	25	28.143	0.888	0.588
Montana	No	No	4	.	.	.	.
North Carolina	No	Yes	25	78	108.160	0.721	0.574
North Dakota	No	No	5	5	5.820	0.859	0.315
Nebraska	Yes	No	10	28	30.969	0.904	0.613
New Hampshire	No	No	8	24	33.811	0.710	0.465
New Jersey	No	No	17	129	125.077	1.031	0.865
New Mexico	No	No	7	34	30.177	1.127	0.793
Nevada	No	No	12	96	59.428	1.615	1.316
New York			57	123	200.327	0.614	0.512
Ohio	No	Yes	52	104	162.703	0.639	0.525
Oklahoma			22	37	45.358	0.816	0.583
Oregon	M	No	8	5	16.263	0.307	0.113
Pennsylvania	Yes	No	81	263	302.289	0.870	0.770
Puerto Rico			4	.	.	.	.
Rhode Island	No	No	6	11	10.386	1.059	0.557

South Carolina	Yes		19	47	72.035	0.652	0.485
South Dakota	No	No	3	.	.	.	.
Tennessee	Yes	No	33	76	105.487	0.720	0.572
Texas	No	No	138	384	491.487	0.781	0.706
Utah	Yes	No	11	36	24.921	1.445	1.027
Virginia	No	No	25	86	100.072	0.859	0.692
Virgin Islands	No	No	0	.	.	.	.
Vermont	No	Yes	2	.	.	.	.
Washington	Yes	Yes	16	20	41.015	0.488	0.306
Wisconsin	No	Yes	22	51	44.376	1.149	0.865
West Virginia	Yes	No	8	24	31.639	0.759	0.497
Wyoming	No	No	4	.	.	.	.
All US			1,145	3,184	4,021.094	0.792	0.765

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 IRF. Alternatively, this measure includes events detected on the 4th day (or later) after transfer to an IRF unit within a free-standing IRF.
2. Yes indicates the presence of a state mandate to report facility-wide CDI data to NHSN at the beginning of 2017. No indicates that a state mandate did not exist during 2017.
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 2017 NHSN data prior to July 2, 2018, an assessment of the accuracy of reported CDI data (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 voluntary.
4. The number of IRFs that reported 2017 CDI data and are included in the SIR calculation. SIRs and accompany data in 2017.
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 2017.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥ 1.0 predicted CDI in 2017. If a facility was neither calculated nor included in the distribution of facility-specific SIRs.

ios (SIRs) and facility-specific SIR summary measures,
Facilities (IRFs) reporting during 2017

onset *Clostridioides difficile* (CDI), facility-wide¹

Upper for SIR	Facility-specific SIRs				10%	25%	75%
	No. of facs with at least 1 predicted CDI						
.
0.934	16	6%	19%	.	.	.	.
0.681	19	0%	5%	.	.	.	.
1.064	23	13%	0%	0.377	0.554	0.851	1.299
0.957	64	6%	5%	0.000	0.000	0.797	1.191
0.971	18	6%	0%	.	.	.	.
0.726	6	.	.	.	.	.	.
.
.
0.942	51	8%	12%	0.000	0.276	0.551	1.230
0.902	26	8%	0%	0.000	0.226	0.487	0.771
.
.
1.764	9	.	.	.	.	.	.
1.509	5	.	.	.	.	.	.
0.857	39	3%	3%	0.000	0.367	0.755	0.965
0.829	33	3%	3%	0.000	0.000	0.579	1.057
0.831	15	0%	7%	.	.	.	.
0.901	13	0%	0%	.	.	.	.
0.860	33	12%	3%	0.000	0.000	0.000	0.767
1.261	10	10%	0%	.	.	.	.
.
0.984	4	.	.	.	.	.	.
0.918	32	3%	3%	0.000	0.202	0.695	1.251
1.182	11	0%	0%	.	.	.	.
1.258	24	13%	0%	0.000	0.362	0.770	1.320
1.292	10	0%	0%	.	.	.	.
.
0.895	21	0%	5%	0.000	0.376	0.585	0.911
1.904	3	.	.	.	.	.	.
1.289	9	.	.	.	.	.	.
1.040	8	.	.	.	.	.	.
1.221	16	13%	6%	.	.	.	.
1.557	5	.	.	.	.	.	.
1.964	11	18%	0%	.	.	.	.
0.730	44	2%	14%	0.000	0.000	0.399	0.863
0.771	41	5%	2%	0.000	0.208	0.568	1.002
1.113	14	7%	7%	.	.	.	.
0.681	6	.	.	.	.	.	.
0.980	59	5%	3%	0.000	0.540	0.867	1.269
.
1.841	6	.	.	.	.	.	.

0.860	16	6%	6%	.	.	.	.
.
0.897	25	4%	0%	0.000	0.329	0.642	0.848
0.862	126	7%	4%	0.000	0.285	0.654	1.103
1.978	8	.	.	.	.	.	.
1.056	21	10%	5%	0.000	0.367	0.650	1.141
.
.
0.740	13	8%	8%	.	.	.	.
1.499	15	7%	0%	.	.	.	.
1.111	5	.	.	.	.	.	.
.
0.820	956	6%	4%	0.000	0.236	0.664	1.177

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

7. M indicates midyear implementation of a mandate.

: state health department had access to 2017 NHSN data, state health department performed an
id state health department contacted identified facilities.

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 2017 national IRF CDI SIR of 0.792. This is only calculated if at least 10 facilities had

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

90%

1.675

1.566

1.587

1.470

1.257

1.618

1.744

1.520

2.345

1.400

1.547

1.711

1.906

1.687

1.752

1.578

1.752

Table 5. State-specific standardized infection ratios (SIRs) and facility-specific NHSN Inpatient Rehabilitation Facilities (IRFs) reporting during 2012-2013. Laboratory-identified healthcare facility-onset methicillin-resistant *Staphylococcus aureus* (MRSA) events.

State	IRF	Facility	No. of Events	No. of Events		SIR	95% CI for SIR		No. of facs with at least 1 predicted MRSA
				Observed	Predicted		Lower	Upper	
Alaska	No	No	2	.	.	.	.	.	.
Alabama	No	No	16	6	3.8715	1.550	0.628	3.223	.
Arkansas			24	3	3.3401	0.898	0.228	2.444	.
Arizona	No	No	24	4	4.5211	0.885	0.281	2.134	.
California	Yes	Yes	74	3	9.6677	0.310	0.079	0.845	.
Colorado	No	No	19	1	2.0607	0.485	0.024	2.393	.
Connecticut	Yes	No	6	0	0.6435	.	.	.	.
D.C.	No	No	2	.	.	.	.	.	.
Delaware			3	.	.	.	.	.	.
Florida	No	No	52	14	12.9214	1.083	0.617	1.775	.
Georgia	Yes	Yes	28	6	3.5618	1.685	0.683	3.504	.
Guam	No	No	.	.	.	.	.	.	.
Hawaii	Yes	No	1	.	.	.	.	.	.
Iowa	No	No	15	2	0.8912	.	.	.	.
Idaho	No	No	6	0	0.5621	.	.	.	.
Illinois	Yes	No	48	6	7.4141	0.809	0.328	1.683	1
Indiana	No	No	37	4	4.184	0.956	0.304	2.306	.
Kansas	No	Yes	20	2	2.3581	0.848	0.142	2.802	.
Kentucky	Yes	No	16	3	3.0842	0.973	0.247	2.647	.
Louisiana	No	Yes	45	1	3.8717	0.258	0.013	1.274	.
Massachusetts	No	No	10	3	3.7311	0.804	0.205	2.188	.
Maryland	No	No	3	.	.	.	.	.	.
Maine	No	Yes	5	0	0.7995	.	.	.	.
Michigan	No	Yes	38	6	5.1466	1.166	0.473	2.425	.
Minnesota	No	No	13	0	1.2762	0.000	.	2.347	.
Missouri			30	3	4.2847	0.700	0.178	1.906	.
Mississippi	Yes	No	12	2	1.3265	1.508	0.253	4.981	.
Montana	No	No	4	.	.	.	.	.	.
North Carolina	No	No	25	4	4.1548	0.963	0.306	2.322	.

North Dakota	No	No	5	0	0.2151	.	.	.	.
Nebraska	Yes	No	10	1	1.1264	0.888	0.044	4.378	.
New Hampshire	No	No	8	2	1.463	1.367	0.229	4.517	.
New Jersey	No	No	17	1	5.41	0.185	0.009	0.912	.
New Mexico	No	No	7	0	1.1554	0.000	.	2.593	.
Nevada	Yes	No	12	3	2.5674	1.168	0.297	3.180	.
New York			57	7	7.7895	0.899	0.393	1.778	.
Ohio	No	Yes	52	6	6.6843	0.898	0.364	1.867	.
Oklahoma			22	0	2.2468	0.000	.	1.333	.
Oregon	M	No	8	0	0.6262	.	.	.	.
Pennsylvania	Yes	Yes	81	6	12.7462	0.471	0.191	0.979	.
Puerto Rico			4	.	.	.	.	.	.
Rhode Island	No	No	6	0	0.4323	.	.	.	.
South Carolina	Yes		19	4	3.3421	1.197	0.380	2.887	.
South Dakota	No	No	3	.	.	.	.	.	.
Tennessee	Yes	No	33	14	4.6465	3.013	1.715	4.935	.
Texas	No	No	138	26	21.8848	1.188	0.793	1.716	.
Utah	Yes	No	11	0	1.0579	0.000	.	2.832	.
Virginia	No	No	25	10	4.0522	2.468	1.253	4.399	.
Virgin Islands	No	No	.	.	.	.	.	.	.
Vermont	No	Yes	2	.	.	.	.	.	.
Washington	No	No	16	1	1.6482	0.607	0.030	2.992	.
Wisconsin	No	Yes	22	0	1.7297	0.000	.	1.732	.
West Virginia	Yes	No	8	0	1.5051	0.000	.	1.990	.
Wyoming	No	No	4	.	.	.	.	.	.
All US			1,148	156	170.540	0.915	0.780	1.068	1

1. Includes data reported from all locations (i.e., adult and pediatric rehabilitation wards) within free-standing IRFs. Also includes data from CMS-certified inpatient rehabilitation facilities. 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 2017. M indicates mid-year mandate. No indicates that a state mandate did not exist during 2017.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to and assessed missing or implausible values on at least six months of 2017 NHSN data prior to July 2, 2018, and state health department contacted facilities to confirm proper case ascertainment (YesA indicates that the state also conducted an audit of facility medical or laboratory records prior to July 2, 2018 to confirm proper case ascertainment varies by state). Information on validation efforts was requested from all states, regardless of the presence of a legislative mandate for the periodic 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 2017 MRSA bacteremia data and are included in the SIR calculation. SIRs and accompanying statistics are on bacteremia data from at least one location in 2017.
5. Percent of facilities with ≥ 1.0 predicted MRSA bacteremia that had an SIR significantly greater or less than the nominal value of the 2017 national ≥ 1.0 predicted MRSA bacteremia in 2017.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥ 1.0 predicted MRSA bacteremia in 2017. If a facility's predicted was neither calculated nor included in the distribution of facility-specific SIRs.

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

al IRF MRSA SIR of 0.915. 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 ratios (SIRs)
Central line-associated bloodstream infections (CLABSIs)**

HAI Type ¹	2016 SIR	2017 SIR
CLABSI, all locations	0.911	0.932
CAUTI, all locations	1.067	1.149
Laboratory-identified MRSA bacteremia, facility-wide	1.169	0.915
Laboratory-identified <i>C. difficile</i> infections, facility-wide	0.956	0.792

* Statistically significant, $p < 0.0500$

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

s) using HAI data reported from all NHSN Inpatient Rehabilitation Facilities reporting during 2017 by HAIs, catheter-associated urinary tract infections (CAUTIs), methicillin-resistant *Staphylococcus aureus* (MRSA) and *Clostridioides difficile* infections, 2016 compared to 2017

Percent Change	Direction of Change, Based on Statistical Significance	p-value
2%	No change	0.8416
8%	No change	0.0657
25%	No Change	0.0943
-17%	Decrease	0.0000

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

I and patient population:
(MRSA) bacteremia,

Table 7. Changes in state-specific standardized infection ratios (SIRs) between 2016 and 2017 from NHSN Inpatient Rehabilitation Facilities

7a. Central line-associated bloodstream infections (CLABSI), all locations¹

State ²	All Inpatient Rehabilitation Facilities Reporting to NHSN				
	2016 SIR	2017 SIR	Percent Change ³	Direction of Change, Based on Statistical Significance	p-value
Alaska	.	.	.	.	.
Alabama	2.231	1.583	29%	No change	0.6147
Arkansas	0.801	1.199	50%	No change	0.6891
Arizona	0.899	0.785	13%	No change	0.8989
California	1.041	0.817	22%	No change	0.5340
Colorado	0.225	0.255	13%	No change	0.9370
Connecticut	.	.	.	.	.
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	0.897	0.264	71%	No change	0.0650
Georgia	0.414	0.819	98%	No change	0.4611
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Iowa	1.764	1.517	14%	No change	0.8877
Idaho	.	.	.	.	.
Illinois	0.219	0.315	44%	No change	0.7186
Indiana	2.182	0.981	55%	No change	0.1248
Kansas	0.000	1.306	>100%	No change	0.2356
Kentucky	0.573	0.952	66%	No change	0.7511
Louisiana	1.207	2.731	126%	No change	0.1674
Massachusetts	.	.	.	.	.
Maryland	.	.	.	.	.
Maine	.	.	.	.	.
Michigan	1.497	0.554	63%	No change	0.2298
Minnesota	.	3.532	.	.	.
Missouri	1.430	0.713	50%	No change	0.4509
Mississippi	0.626	0.830	33%	No change	0.8594
Montana	.	.	.	.	.
North Carolina	0.672	1.196	78%	No change	0.3726
North Dakota	.	.	.	.	.
Nebraska	.	0.850	.	.	.
New Hampshire	.	.	.	.	.
New Jersey	1.264	0.000	<100%	No change	0.2371
New Mexico	.	.	.	.	.
Nevada	1.676	0.503	70%	No change	0.1263
New York	1.092	1.749	60%	No change	0.2622
Ohio	0.185	1.278	591%	Increase	0.0324
Oklahoma	1.132	0.000	<100%	No change	0.1584
Oregon	.	.	.	.	.
Pennsylvania	1.132	1.077	5%	No change	0.8625
Puerto Rico	.	.	.	.	.
Rhode Island	.	.	.	.	.

South Carolina	0.000	1.411	>100%	Increase	0.0056
South Dakota	.	.	.	.	.
Tennessee	0.000	2.660	>100%	Increase	0.0068
Texas	0.373	0.623	67%	No change	0.4310
Utah	.	.	.	.	.
Virginia	1.111	1.518	37%	No change	0.6403
Virgin Islands	.	.	.	.	.
Vermont	.	.	.	.	.
Washington	0.384	0.875	128%	No change	0.5539
Wisconsin	1.093	0.276	75%	No change	0.2227
West Virginia	.	.	.	.	.
Wyoming	.	.	.	.	.
All US	0.911	0.932	2%	No change	0.8416

* Statistically significant, $p < 0.0500$

1. Includes data reported from all locations (i.e., adult and pediatric rehabilitation wards) within free-standing I
2. States without SIR either in 2016 and/or 2017 and therefore subsequent data not calculated
3. For states with <100% or >100% value in the percent change field, the percent change is not calculated due

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

: to sparse data reported within the facility type

Table 7. Changes in state-specific standardized infection ratios (SIRs) between 2016 and 2017 from NHSN Inpatient Rehabilitation Facilities

7b. Catheter-associated urinary tract infections (CAUTI), all locations¹

	All Inpatient Rehabilitation Facilities Reporting to NHSN				
	2016 SIR	2017 SIR	Direction of Change, Based on Statistical Significance		p-value
Alaska	.	.	.	.	.
Alabama	1.138	1.013	11%	No change	0.7118
Arkansas	0.807	0.627	22%	No change	0.5110
Arizona	0.701	1.073	53%	No change	0.1620
California	0.686	1.013	48%	Increase	0.0350
Colorado	0.896	1.288	44%	No change	0.2975
Connecticut	1.117	2.760	147%	No change	0.1163
D.C.	.	0.700	.	.	.
Delaware	.	.	.	.	.
Florida	0.772	1.012	31%	No change	0.1083
Georgia	0.950	0.617	35%	No change	0.1717
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Iowa	1.731	0.948	45%	No change	0.1953
Idaho	1.654	1.119	32%	No change	0.4712
Illinois	1.614	1.384	14%	No change	0.3492
Indiana	0.853	1.261	48%	No change	0.1180
Kansas	1.263	1.524	21%	No change	0.5782
Kentucky	1.716	1.358	21%	No change	0.4234
Louisiana	1.132	1.144	1%	No change	0.9631
Massachusetts	0.846	1.288	52%	No change	0.1587
Maryland	.	1.625	.	.	.
Maine	0.443	1.800	306%	No change	0.0697
Michigan	1.621	1.663	3%	No change	0.8935
Minnesota	1.554	1.604	3%	No change	0.9246
Missouri	1.196	1.253	5%	No change	0.8453
Mississippi	0.442	1.041	136%	No change	0.1783
Montana	0.000	0.000	.	.	.
North Carolina	1.716	1.758	2%	No change	0.9077
North Dakota	2.653	2.106	21%	No change	0.7152
Nebraska	1.528	1.464	4%	No change	0.9074
New Hampshire	3.096	1.050	-66%	Decrease	0.0134
New Jersey	1.114	1.100	1%	No change	0.9526
New Mexico	0.700	1.223	75%	No change	0.2993
Nevada	0.824	0.797	3%	No change	0.9292
New York	1.239	0.861	31%	No change	0.0735
Ohio	0.751	1.015	35%	No change	0.1646
Oklahoma	1.678	0.793	-53%	Decrease	0.0226
Oregon	1.207	1.728	43%	No change	0.5104
Pennsylvania	1.281	1.374	7%	No change	0.6171
Puerto Rico	.	1.905	.	.	.
Rhode Island	1.014	0.784	23%	No change	0.8040

South Carolina	0.828	1.391	68%	No change	0.1774
South Dakota	.	.	.	.	.
Tennessee	1.169	1.164	0%	No change	0.9872
Texas	0.915	1.033	13%	No change	0.3043
Utah	1.602	1.157	28%	No change	0.4943
Virginia	0.803	1.213	51%	No change	0.1238
Virgin Islands	.	.	.	.	.
Vermont	.	0.273	.	.	.
Washington	1.053	1.308	24%	No change	0.4014
Wisconsin	0.826	0.832	1%	No change	0.9848
West Virginia	1.169	0.684	41%	No change	0.3594
Wyoming	.	1.423	.	.	.
All US	1.067	1.149	8%	No change	0.0657

* Statistically significant, $p < 0.0500$

1. Includes data reported from all locations (i.e., adult and pediatric rehabilitation wards) within free-standing IF
2. States without SIR either in 2016 and/or 2017 and therefore subsequent data not calculated
3. For states with <100% or >100% value in the percent change field, the percent change is not calculated due

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

to sparse data reported within the facility type

Table 7. Changes in state-specific standardized infection ratios (SIRs) between 2016 and 2017 from NHSN Inpatient Rehabilitation Facilities

7c. Laboratory-identified *Clostridioides difficile* infection (CDI), facility-wide¹

	All Inpatient Rehabilitation Facilities Reporting to NHSN				
	2016 SIR	2017 SIR	Direction of Change, Based on Statistical Significance		p-value
Alaska	.	.	.	.	.
Alabama	1.212	0.743	-39%	Decrease	0.0015
Arkansas	0.827	0.499	-40%	Decrease	0.0170
Arizona	1.514	0.862	-43%	Decrease	0.0001
California	0.945	0.834	12%	No change	0.2042
Colorado	0.722	0.696	4%	No change	0.8807
Connecticut	0.492	0.328	33%	No change	0.5030
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	0.962	0.829	14%	No change	0.0999
Georgia	0.981	0.707	-28%	Decrease	0.0470
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Iowa	1.107	1.252	13%	No change	0.6495
Idaho	1.126	0.887	21%	No change	0.5577
Illinois	0.818	0.733	10%	No change	0.3373
Indiana	0.809	0.658	19%	No change	0.2021
Kansas	0.551	0.604	10%	No change	0.7080
Kentucky	0.931	0.707	24%	No change	0.1289
Louisiana	0.878	0.666	24%	No change	0.1232
Massachusetts	0.721	1.018	41%	Increase	0.0480
Maryland	.	.	.	.	.
Maine	1.180	0.566	-52%	Decrease	0.0459
Michigan	0.772	0.763	1%	No change	0.9317
Minnesota	0.799	0.829	4%	No change	0.8969
Missouri	0.900	1.036	15%	No change	0.3455
Mississippi	0.794	0.888	12%	No change	0.7009
Montana	1.005	.	.	.	.
North Carolina	0.847	0.721	15%	No change	0.2970
North Dakota	1.705	0.859	50%	No change	0.2155
Nebraska	1.066	0.904	15%	No change	0.5457
New Hampshire	1.089	0.710	35%	No change	0.1162
New Jersey	0.965	1.031	7%	No change	0.6037
New Mexico	2.302	1.127	-51%	Decrease	0.0006
Nevada	2.225	1.615	-27%	Decrease	0.0132
New York	0.982	0.614	-37%	Decrease	0.0000
Ohio	0.920	0.639	-31%	Decrease	0.0051
Oklahoma	0.908	0.816	10%	No change	0.6400
Oregon	0.190	0.307	62%	No change	0.5333
Pennsylvania	0.896	0.870	3%	No change	0.7299
Puerto Rico	.	.	.	.	.
Rhode Island	1.094	1.059	3%	No change	0.9412

South Carolina	0.698	0.652	7%	No change	0.7429
South Dakota	.	.	.	.	.
Tennessee	0.617	0.720	17%	No change	0.3629
Texas	0.986	0.781	-21%	Decrease	0.0007
Utah	1.216	1.445	19%	No change	0.4849
Virginia	0.993	0.859	13%	No change	0.3339
Virgin Islands	.	.	.	.	.
Vermont	.	.	.	.	.
Washington	0.836	0.488	42%	No change	0.0657
Wisconsin	0.994	1.149	16%	No change	0.4838
West Virginia	1.589	0.759	-52%	Decrease	0.0032
Wyoming	.	.	.	.	.
All US	0.956	0.792	-17%	Decrease	0.0000

* Statistically significant, $p < 0.0500$

1. Includes data reported from all locations (i.e., adult and pediatric rehabilitation wards) within free-standing IR
2. States without SIR either in 2016 and/or 2017 and therefore subsequent data not calculated
3. For states with <100% or >100% value in the percent change field, the percent change is not calculated due to

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

to sparse data reported within the facility type

Table 7. Changes in state-specific standardized infection ratios (SIRs) between 2016 and 2017 from NHSN Inpatient Rehabilitation Facilities

7d. Laboratory-identified methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia, facility-wide¹

	All Inpatient Rehabilitation Facilities Reporting to NHSN				
	2016 SIR	2017 SIR	Direction of Change, Based on Statistical Significance		p-value
Alaska	.	.	.	.	.
Alabama	1.065	1.550	46%	No change	0.5800
Arkansas	0.626	0.898	43%	No change	0.7231
Arizona	1.043	0.885	15%	No change	0.8214
California	0.849	0.310	63%	No change	0.1352
Colorado	0.000	0.485	>100%	No change	0.4958
Connecticut	.	.	.	.	.
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	1.351	1.083	20%	No change	0.5466
Georgia	1.606	1.685	5%	No change	0.9354
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Iowa	.	.	.	.	.
Idaho	.	.	.	.	.
Illinois	1.365	0.809	41%	No change	0.32091
Indiana	1.606	0.956	40%	No change	0.4248
Kansas	0.843	0.848	1%	No change	0.9958
Kentucky	1.732	0.973	44%	No change	0.4515
Louisiana	1.846	0.258	-86%	Decrease	0.0365
Massachusetts	0.531	0.804	51%	No change	0.6797
Maryland	.	.	.	.	.
Maine	.	.	.	.	.
Michigan	1.592	1.166	27%	No change	0.5773
Minnesota	3.317	0.000	100%	No change	0.0557
Missouri	1.159	0.700	40%	No change	0.5135
Mississippi	0.717	1.508	110%	No change	0.5972
Montana	.	.	.	.	.
North Carolina	2.122	0.963	55%	No change	0.1915
North Dakota	.	.	.	.	.
Nebraska	1.000	0.888	11%	No change	0.9406
New Hampshire	0.000	1.367	>100%	No change	0.2758
New Jersey	0.000	0.185	>100%	No change	0.49006
New Mexico	0.878	0.000	100%	No change	0.4964
Nevada	1.520	1.168	23%	No change	0.7502
New York	1.394	0.899	36%	No change	0.37387
Ohio	0.611	0.898	47%	No change	0.5696
Oklahoma	2.892	0.000	-100%	Decrease	0.0123
Oregon	.	.	.	.	.
Pennsylvania	0.833	0.471	43%	No change	0.2677
Puerto Rico	.	.	.	.	.

Rhode Island	.	.	.	.	.
South Carolina	1.791	1.197	33%	No change	0.5513
South Dakota	.	.	.	.	.
Tennessee	2.257	3.013	33%	No change	0.4942
Texas	1.345	1.188	12%	No change	0.6489
Utah	0.000	0.000	.	.	.
Virginia	1.217	2.468	103%	No change	0.2008
Virgin Islands	.	.	.	.	.
Vermont	.	.	.	.	.
Washington	0.000	0.607	>100%	No change	0.5593
Wisconsin	1.125	0.000	100%	No change	0.2570
West Virginia	0.000	0.000	.	.	.
Wyoming	.	.	.	.	.
All US	1.169	0.915	25%	No Change	0.0943

* Statistically significant, $p < 0.0500$

1. Includes data reported from all locations (i.e., adult and pediatric rehabilitation wards) within free-standing
2. States without SIR either in 2016 and/or 2017 and therefore subsequent data not calculated
3. For states with <100% or >100% value in the percent change field, the percent change is not calculated du

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

ie to 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 models¹ 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 2017 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 in regression models¹ from

HAI Type

CDI

MRSA bacteremia

* None of the variables investigated in this study were measured at the unit level. Therefore, none of the variables investigated in this study will vary between units within a hospital.

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

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

Parameters investigated were statistically significantly associated with hospital-onset MRSA bacteremia in IRFs. Free-standing IRFs have the predicted number of events calculated using the 2017 national IRF MRSA bacteremia incidence rate (i

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

Additional Resources

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

Technical Appendix (2017 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

site.