

2014 National and State HAI Progress Report

Full series of tables for all national and state-specific data

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m Acute Care Hospitals

Model

Complex Admission/Readmission Model

Table 1a

**Table 1. Characteristics of NHSN Acute Care Hospitals reporting to NHSN by State¹, 2013 and 2011
1a. Central line-associated bloodstream infections (CLABSI)²**

State	No. of Acute Care Hospitals in State ³	2013									
		State NHSN Mandate ⁴	Any Validation ⁵	No. of Acute Care Hospitals Reporting ⁶	Locations (n) ²						
					Total	ICU	Wards ²	NICU ⁷			
Alaska	26	No	No	10	32	10	20	2	No	No	
Alabama	108	Yes	Yes	75	244	133	97	14	Yes	Yes ^A	
Arkansas	87	Yes		48	133	66	59	8	Yes		
Arizona	92	No	No	56	241	89	137	15	No	No	
California	392	Yes	Yes	351	2,306	543	1,619	144	Yes		
Colorado	85	M		52	151	69	63	19	Yes		
Connecticut	41	Yes	Yes	30	66	48	6	12	Yes	Yes	
D.C.	12	Yes	Yes	8	45	20	19	6	Yes	Yes	
Delaware	11	Yes	Yes	8	30	14	14	2	Yes	Yes	
Florida	221	No	No	191	734	401	277	56	No	No	
Georgia	157	Yes	No	103	368	176	159	33	Yes	No	
Hawaii	26	Yes	Yes	15	38	23	13	2	Yes	Yes	
Iowa	124	No	Yes	50	94	51	31	12	No		
Idaho	48	No	No	16	41	19	14	8	No	No	
Illinois	201	Yes	Yes	148	541	225	270	46	Yes	Yes	
Indiana	147	Yes	No	104	320	146	144	30	Yes	Yes	
Kansas	146	No	Yes	49	130	62	58	10	No	Yes	
Kentucky	116	No	No	72	200	124	61	15	No	No	
Louisiana	160	No	Yes	80	256	116	111	29	No	Yes	
Massachusetts	85	Yes	Yes	71	204	124	70	10	Yes	Yes	
Maryland	62	Yes	Yes	47	233	81	134	18	Yes	Yes	
Maine	39	Yes	Yes	21	55	27	25	3	Yes	Yes	
Michigan	149	No	Yes	97	277	180	77	20	No	Yes	
Minnesota	143	Yes	No	48	163	73	80	10	Yes	No	
Missouri	136	No	No	75	209	124	65	20	No	No	
Mississippi	106	No	No	47	198	73	112	13	M		
Montana	63	No		15	46	14	27	5	No		

Table 1a

North Carolina	129	Yes	Yes	98	402	177	201	24	Yes	Yes
North Dakota	47	No	No	6	22	11	5	6	No	No
Nebraska	93	No	No	20	82	26	49	7	No	No
New Hampshire	28	Yes	Yes	24	48	27	18	3	Yes	Yes
New Jersey	81	Yes	Yes	72	250	142	84	24	Yes	Yes
New Mexico	49	Yes		36	78	37	36	5	Yes	Yes
Nevada	47	Yes	No	24	162	45	108	9	Yes	No
New York	217	Yes		172	881	357	471	53	Yes	
Ohio	186	No	No	138	427	262	139	26	No	No
Oklahoma	143	Yes	Yes	54	136	79	49	8	Yes	No
Oregon	63	Yes	Yes	51	142	69	66	7	Yes	Yes
Pennsylvania	206	Yes	Yes	173	1,375	288	1,041	46	Yes	Yes
Puerto Rico	57	No	No	18	81	34	42	5	No	No
Rhode Island	14	Yes	No	11	57	18	38	1	No	No
South Carolina	75	Yes		66	421	108	304	9	Yes	Yes
South Dakota	63	No		16	52	19	29	4	No	
Tennessee	131	Yes	Yes	95	349	169	156	24	Yes	Yes
Texas	477	Yes	Yes	281	868	419	330	119	Yes	
Utah	51	Yes	Yes	26	52	38	1	13	Yes	Yes
Virginia	106	Yes	Yes	81	277	143	110	24	Yes	Yes
Vermont	16	Yes	Yes	7	11	9	1	1	Yes	Yes
Washington	105	Yes		84	397	84	297	16	Yes	
Wisconsin	144	No	Yes	91	304	105	181	18	No	Yes
West Virginia	59	Yes	Yes	43	136	59	73	4	Yes	Yes
Wyoming	31	No	No	21	32	13	19	0	No	No
All US	5,601			3,595	14,397	5,769	7,610	1,018		

Table 1a

4:				
2014				
	Total	ICU		
11	34	12	20	2
70	308	134	160	14
47	176	66	101	9
60	304	91	198	15
359	2,308	543	1,623	142
53	212	70	122	20
31	122	47	63	12
8	62	19	37	6
8	39	15	22	2
194	860	397	408	55
108	523	178	314	31
16	39	23	14	2
61	161	52	97	12
15	45	19	18	8
150	614	218	352	44
101	374	138	208	28
48	160	61	89	10
70	233	114	104	15
81	303	112	164	27
71	200	123	67	10
48	242	79	146	17
21	54	24	28	2
98	386	186	180	20
48	176	77	89	10
77	360	129	211	20
49	205	76	116	13
16	57	14	38	5

Table 1a

98	442	172	247	23
8	24	11	7	6
27	101	28	66	7
24	47	27	17	3
72	302	141	137	24
34	78	36	37	5
24	160	44	107	9
168	914	349	513	52
138	531	258	243	30
59	192	78	104	10
51	180	63	109	8
177	1,375	281	1,050	44
16	85	32	49	4
11	85	18	66	1
68	423	105	309	9
13	45	18	24	3
105	595	170	401	24
289	1,037	423	494	120
27	63	38	12	13
83	297	142	130	25
7	23	9	13	1
88	413	84	312	17
96	366	105	241	20
43	165	59	102	4
22	37	13	24	0
3,667	16,537	5,721	9,803	1013

Table 1b

1b. Catheter-associated urinary tract infections (CAUTI) ²													
State		2013						2014					
					Total	ICU				Total	ICU		
Alaska	26	No	No	10	32	10	22	No	No	11	35	12	23
Alabama	108	Yes		86	379	134	245	Yes	Yes	86	427	138	289
Arkansas	87	Yes	Yes	49	122	67	55	Yes	Yes	49	175	67	108
Arizona	92	No	No	55	221	87	134	No	No	60	294	91	203
California	392	No	No	341	1,499	529	970	No	No	350	1,812	537	1,275
Colorado	85	No	No	51	137	68	69	No	No	52	195	69	126
Connecticut	41	Yes	Yes	31	53	48	5	Yes	Yes	31	110	47	63
D.C.	12	No	Yes	7	40	18	22	No	Yes	7	38	17	21
Delaware	11	Yes	Yes	8	45	14	31	Yes	Yes	8	52	15	37
Florida	221	No	No	190	672	398	274	No	No	192	813	392	421
Georgia	157	Yes	No	106	316	176	140	Yes	No	111	502	178	324
Hawaii	26	Yes	Yes	15	45	23	22	Yes	Yes	16	44	23	21
Iowa	124	No	Yes	68	125	53	72	No		81	187	53	134
Idaho	48	No		17	35	19	16	No	No	18	41	19	22
Illinois	201	No	No	149	512	224	288	No	No	150	605	216	389
Indiana	147	Yes	No	110	333	148	185	Yes	Yes	106	395	139	256
Kansas	146	No	Yes	53	139	63	76	No	Yes	52	176	63	113
Kentucky	116	No	No	73	212	125	87	No	No	71	234	115	119
Louisiana	160	No	Yes	81	235	114	121	No	Yes	79	285	112	173
Massachusetts	85	No	No	71	185	124	61	M	No	71	202	124	78
Maryland	62	No	No	39	197	63	134	Yes	Yes	48	232	79	153
Maine	39	No	Yes	21	50	27	23	No		21	50	23	27
Michigan	149	No	Yes	99	268	179	89	No	Yes	102	395	187	208
Minnesota	143	Yes	No	51	152	73	79	Yes	No	85	218	83	135
Missouri	136	No	No	76	203	126	77	No	No	79	336	132	204
Mississippi	106	No	No	48	180	73	107	M	No	49	198	76	122
Montana	63	No		15	47	13	34	No		17	58	14	44
North Carolina	129	Yes	Yes	98	383	177	206	Yes	Yes	99	437	173	264
North Dakota	47	No	No	6	16	11	5	No		9	20	11	9
Nebraska	93	No	No	20	83	25	58	No	No	27	102	28	74
New Hampshire	28	Yes	Yes	24	46	27	19	Yes	Yes	24	48	27	21
New Jersey	81	Yes	Yes	72	243	142	101	Yes	Yes	72	283	141	142
New Mexico	49	No	No	35	62	37	25	No	No	34	59	36	23
Nevada	47	No	No	25	148	45	103	No	No	24	144	44	100
New York	217	No	No	172	843	357	486	No	Yes	170	890	351	539
Ohio	186	No	No	137	411	260	151	No	No	137	532	255	277
Oklahoma	143	No	No	59	131	79	52	No	No	63	188	78	110

Table 1b

Oregon	63	No	No	52	129	69	60	Yes	Yes	52	196	65	131
Pennsylvania	206	Yes	Yes	184	1,414	289	1125	Yes	Yes	183	1,414	281	1,133
Puerto Rico	57	No	No	18	80	34	46	No	No	17	88	34	54
Rhode Island	14	No	No	10	57	18	39	No	No	11	85	18	67
South Carolina	75	No	No	64	256	102	154	No	No	65	297	103	194
South Dakota	63	No	No	18	49	18	31	No	Yes	18	50	18	32
Tennessee	131	Yes	Yes	95	275	169	106	Yes	Yes	107	588	170	418
Texas	477	No	Yes	291	764	416	348	Yes		298	943	422	521
Utah	51	Yes		26	44	38	6	Yes		28	46	38	8
Virginia	106	No	No	81	259	143	116	No	No	82	280	142	138
Vermont	16	No	No	5	7	7	0	No	No	5	21	7	14
Washington	105	No	No	70	342	84	258	No	No	80	391	85	306
Wisconsin	144	No	Yes	102	299	102	197	No	Yes	118	382	102	280
West Virginia	59	Yes	Yes	48	136	59	77	M	Yes	50	183	60	123
Wyoming	31	No	No	24	36	13	23	No	No	26	43	13	30
All US	5,601			3,656	12,947	5,717	7,230			3,801	15,819	5,723	10,096

Table 1. Characteristics of NHSN Acute Care Hospitals reporting to NHSN by State¹, 2013 and 2014:

1c. Surgical site infections⁸

State		2013				2014			
		State NHSN Mandate ⁴	Any Validation ⁵	No. of Procedures ⁶					
Alaska	26	No	No	9	3,483	No	No	10	3,696
Alabama	108	Yes	Yes	74	18,621	Yes	Yes	72	17,647
Arkansas	87	Yes	Yes	44	8,361	Yes	Yes	43	12,380
Arizona	92	No	No	56	31,850	No	No	61	32,268
California	392	Yes		345	741,573	Yes		348	746,158
Colorado	85	Yes	Yes	64	45,881	Yes		65	49,641
Connecticut	41	Yes	Yes	30	9,004	Yes	Yes	30	8,914
D.C.	12	No	No	7	3,060	No	Yes	8	2,365
Delaware	11	Yes	Yes	7	9,998	Yes	Yes	7	9,364
Florida	221	No	No	183	66,585	No	No	187	63,904
Georgia	157	Yes	No	99	38,881	Yes	No	98	44,180
Hawaii	26	Yes	Yes	15	4,232	Yes	Yes	16	3,386
Iowa	124	No	No	37	6,936	No	No	49	8,594
Idaho	48	No	No	20	5,098	No	No	18	5,731
Illinois	201	Yes	Yes	157	68,406	No	No	156	69,431
Indiana	147	Yes	No	111	32,835	Yes	Yes	110	33,222
Kansas	146	No	Yes	51	16,471	No	Yes	52	15,112
Kentucky	116	No	No	68	14,122	No	No	68	12,722
Louisiana	160	No	Yes	85	21,607	No	Yes	81	23,217
Massachusetts	85	Yes	Yes	66	48,887	Yes	Yes	66	50,391
Maryland	62	Yes	Yes	44	30,934	Yes	Yes	46	41,807
Maine	39	No	Yes	21	9,684	No		22	9,967
Michigan	149	No	Yes	93	50,894	No	Yes	93	49,284
Minnesota	143	Yes	No	54	30,916	Yes	No	51	30,814
Missouri	136	No	No	76	32,639	No	No	77	41,979
Mississippi	106	No	No	45	17,592	M	No	45	20,610
Montana	63	No	No	17	9,995	No	No	18	10,827
North Carolina	129	Yes	Yes	94	30,140	Yes	Yes	94	37,771
North Dakota	47	No	No	6	1,487	No	No	6	1,566
Nebraska	93	No	No	20	7,361	No	No	24	6,761
New Hampshire	28	Yes	Yes	25	10,260	Yes	Yes	25	10,779
New Jersey	81	Yes	Yes	72	43,440	Yes	Yes	72	42,503
New Mexico	49	No	No	29	3,767	No	No	27	4,310
Nevada	47	Yes	No	22	17,752	No	No	22	22,610
New York	217	Yes		175	96,547	Yes		171	106,443
Ohio	186	No	No	135	42,818	No	No	135	48,517
Oklahoma	143	No	No	67	13,429	No	No	68	14,523
Oregon	63	Yes	Yes	54	42,406	Yes	Yes	51	43,741
Pennsylvania	206	Yes	Yes	170	196,803	Yes	Yes	169	196,939
Puerto Rico	57	No	No	0	0	No	No	0	0
Rhode Island	14	No	No	11	7,421	No	No	11	7,077
South Carolina	75	Yes		63	35,302	Yes	Yes	63	38,658
South Dakota	63	No	No	16	2,086	No		17	2,412
Tennessee	131	Yes	Yes	99	36,501	Yes	Yes	96	52,374
Texas	477	Yes	Yes	346	178,429	Yes		355	182,198
Utah	51	Yes	Yes	32	4,743	Yes	Yes	34	5,014
Virginia	106	No	No	78	25,783	No	No	79	33,594
Vermont	16	Yes	Yes	12	3,372	Yes	Yes	12	3,835
Washington	105	Yes	Yes	77	72,227	Yes		75	71,418
Wisconsin	144	No	Yes	97	51,712	No	Yes	101	54,489
West Virginia	59	Yes	Yes	36	8,089	Yes	Yes	36	12,142
Wyoming	31	No	No	14	605	No	No	14	648
All US	5,601			3,628	2,311,025			3,654	2,417,933

**Table 1. Characteristics of NHSN Acute Care Hospitals reporting to NHSN by State¹, 2014:
1d. Hospital-onset methicillin-resistant *Staphylococcus aureus* bacteremia⁹**

State		2013			2014		
		Any Validation ⁵					
Alaska	26	No	No	11	No	No	11
Alabama	108	No	No	93	No	No	91
Arkansas	87	Yes	Yes	48	Yes	Yes	48
Arizona	92	No	No	63	No	No	68
California	392	Yes	Yes	359	Yes		369
Colorado	85	No	No	56	M	No	60
Connecticut	41	Yes		32	Yes	Yes	32
D.C.	12	Yes	Yes	9	Yes	Yes	8
Delaware	11	Yes	No	8	Yes		8
Florida	221	No	No	190	No	No	191
Georgia	157	Yes	No	111	Yes	No	111
Hawaii	26	Yes	Yes	13	Yes	Yes	15
Iowa	124	No	Yes	41	No		48
Idaho	48	No		22	No	No	21
Illinois	201	Yes	Yes	183	Yes	Yes	183
Indiana	147	No	No	102	No	No	107
Kansas	146	No	Yes	60	No	Yes	67
Kentucky	116	No	No	71	No	No	72
Louisiana	160	No	Yes	101	No	Yes	97
Massachusetts	85	No	No	71	M	No	73
Maryland	62	No	No	13	Yes		47
Maine	39	No	Yes	25	Yes		35
Michigan	149	No	Yes	104	No	Yes	102
Minnesota	143	Yes	No	53	Yes	No	54
Missouri	136	No	No	82	No	No	83
Mississippi	106	No	No	64	M	No	64
Montana	63	No	No	14	No	No	15
North Carolina	129	Yes	Yes	100	Yes	Yes	105
North Dakota	47	No	No	11	No		12
Nebraska	93	No	No	24	No	No	28
New Hampshire	28	No	No	22	No	No	21
New Jersey	81	Yes	No	72	Yes	No	72
New Mexico	49	No	No	37	No	No	37
Nevada	47	Yes	No	23	Yes	No	23
New York	217	No	No	179	No	Yes	179
Ohio	186	Yes	No	144	No	Yes	140
Oklahoma	143	No	No	91	No	No	91
Oregon	63	No	No	49	Yes	Yes	57
Pennsylvania	206	Yes	Yes	168	Yes	Yes	175
Puerto Rico	57	No	No	3	No	No	2
Rhode Island	14	No	No	11	No	No	11
South Carolina	75	Yes		66	Yes	No	68
South Dakota	63	No	No	23	No	Yes	23
Tennessee	131	Yes	Yes	115	Yes	Yes	114
Texas	477	No	No	362	No	No	374
Utah	51	Yes	Yes	37	Yes	Yes	37
Virginia	106	No	No	84	No	No	86
Vermont	16	No	No	13	No	No	10
Washington	105	No	No	59	No	No	65
Wisconsin	144	No	Yes	88	No	Yes	89
West Virginia	59	Yes	Yes	39	Yes	Yes	38
Wyoming	31	No	No	14	No	No	14
All US	5,601			3,833			3,951

1e. Hospital-onset *Clostridium difficile* Infection⁹

State		2013			2014		
Alaska	26	No	No	11	No	No	11
Alabama	108	No	No	92	No	No	89
Arkansas	87	Yes	Yes	47	Yes	Yes	50
Arizona	92	No	No	62	No	No	68
California	392	Yes	Yes	359	Yes		367
Colorado	85	No	No	55	M	Yes	61
Connecticut	41	Yes	Yes	32	Yes	Yes	32
D.C	12	No	Yes	7	No	Yes	7
Delaware	11	Yes	No	8	Yes		8
Florida	221	No	No	190	No	No	191
Georgia	157	Yes	No	111	Yes	No	112
Hawaii	26	Yes	Yes	13	Yes	Yes	14
Iowa	124	No	Yes	57	No		61
Idaho	48	No		21	No	No	19
Illinois	201	Yes	Yes	183	Yes	Yes	183
Indiana	147	No	No	102	No	No	108
Kansas	146	No	Yes	64	No	Yes	69
Kentucky	116	No		71	No	No	72
Louisiana	160	No	Yes	101	No	Yes	96
Massachusetts	85	No	No	71	M	No	73
Maryland	62	M		46	Yes		47
Maine	39	Yes	Yes	36	Yes		35
Michigan	149	No	Yes	104	No	Yes	102
Minnesota	143	Yes	No	55	Yes	No	54
Missouri	136	No	No	82	No	No	81
Mississippi	106	No	No	65	M	No	63
Montana	63	No	No	15	No	No	17
North Carolina	129	Yes	Yes	100	Yes	Yes	105
North Dakota	47	No	No	11	No		12
Nebraska	93	No	No	24	No	No	30
New Hampshire	28	No	No	22	No	No	21
New Jersey	81	No	No	72	No	No	72
New Mexico	49	Yes	Yes	39	Yes	Yes	39
Nevada	47	No	No	22	No	No	23
New York	217	Yes		180	Yes		182
Ohio	186	Yes	No	144	No	Yes	140
Oklahoma	143	No	No	91	No	No	91
Oregon	63	Yes	Yes	59	Yes	Yes	58
Pennsylvania	206	Yes	Yes	167	Yes	Yes	175
Puerto Rico	57	No	No	4	No	No	5
Rhode Island	14	Yes	No	11	No	No	11
South Carolina	75	No	No	64	No	No	66
South Dakota	63	No	No	23	No	Yes	23
Tennessee	131	Yes	Yes	115	Yes	Yes	114
Texas	477	No	No	362	No	No	372
Utah	51	Yes	Yes	35	Yes	Yes	37
Virginia	106	No	No	84	No	No	86
Vermont	16	No	No	13	No	No	11
Washington	105	No	No	61	M	No	92
Wisconsin	144	No	Yes	95	No	Yes	100
West Virginia	59	Yes	Yes	42	Yes	Yes	41
Wyoming	31	No	No	27	No	No	27

All US	5,601	3,927	4,023
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Footnotes for Tables 1a-1e:

1. United States, Washington, D.C., and Puerto Rico

2. Data included in this table are from 2013 and 2014 from acute care facility ICUs (critical care units), NICUs (CLABSI only, see footnote 7), and wards (for this report wards also include step-down and specialty care areas [hematology/oncology, bone marrow transplant]). Long-term acute care facilities and locations, inpatient rehabilitation facilities and locations, dialysis facilities and locations, and long term care facilities (skilled nursing facilities) are not included in Table 1.

3. The total number of acute care hospitals in a state was computed from the American Hospital Association (AHA) annual survey for fiscal year 2013, after excluding rehabilitation hospitals and long-term acute care hospitals (Available at <http://www.ahadataviewer.com/about/hospital-database/>). Because of this methodology, this count may differ slightly from counts provided by state regulatory authorities.

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

5. Yes indicates that the state health department reported the completion of all of the following validation activities for NHSN data during that year: state health department had access to NHSN data, state health department performed an assessment of missing or implausible values on at least six months of the year's data prior to the freeze date of July 1, 2014 for 2013 data and July 1, 2015 for 2014 data, and state health department contacted identified facilities. Yes^A indicates that the state also conducted an audit of facility medical or laboratory records prior to July 1, 2014 for 2013 data and July 1, 2015 for 2014 data to confirm proper case ascertainment (although intensity of auditing activities varies by state). On Table 1c, validation information applies to either colon surgery or abdominal hysterectomy data. Information on validation efforts was requested from all states, regardless of the presence of a legislative mandate for the particular HAI type. Some states without mandatory reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntarily shared with them by facilities in their jurisdiction.

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

7. NICU locations included are those classified by NHSN CDC location codes as Level II/III and Level III neonatal critical care areas. A Level II/III neonatal critical care area is defined by NHSN as a combined nursery housing both Level II and III newborns and infants. A Level III neonatal critical care area is defined by NHSN as a hospital NICU organized with personnel and equipment to provide continuous life support and comprehensive care for extremely high-risk newborn infants and those with complex and critical illness.

8. SSIs included are those classified as deep incisional or organ/space infections following inpatient procedures within any of the 39 NHSN-defined procedure categories, detected during the same admission as the surgical procedure or upon readmission to the same facility.

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

Facility Type, HAI, and Patient Population	No. of Facilities Reporting ¹	No. of Infections	
		Observed	Predicted
Acute Care Hospitals (ACHs)			
CLABSI, all⁴	3,655	17,758	35,872.961
ICUs⁵	3,308	8,247	18,328.250
Wards⁶	2,173	7,971	14,240.030
NICUs⁷	970	1,540	3,304.680
CAUTI, all⁸	3,791	35,760	35,761.590
	3,316	25,075	21,704.730
	2,354	10,685	14,056.870
Hospital-onset MRSA bacteremia, facility-wide⁹	3,949	9,230	10,636.257
Hospital-onset <i>C. difficile</i> infections, facility-wide⁹	3,994	101,074	109,443.460
Long-Term Acute Care Hospitals (LTACHs)			
CLABSI, all	501	2,928	3,222.692
CAUTI, all	501	4,467	5,001.310
Inpatient Rehabilitation Facilities (IRFs)¹⁰			
CAUTI, all	1,135	1,449	1,692.061

1. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be
2. Percent of facilities with at least one predicted infection that had an SIR significantly greater than or less than
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥ 1.0 predicted HAI in 2014. If a fa
4. Data from all ICUs, wards (and other non-critical care locations), and NICUs. This excludes LTAC location
5. Data from all ICUs; excludes wards (and other non-critical care locations), NICUs, LTAC locations (or facilit
6. Data from all wards (for this table wards also include step-down and specialty care areas [including hemato
7. Data from all NICU locations, including Level II/III and Level III nurseries. Both umbilical line and central lin
8. Data from all ICUs and wards (and other non-critical care locations). This excludes NICUs, LTAC locations
9. Hospital-onset is defined as event detected on the 4th day (or later) after admission to an inpatient location
10. Data from free-standing inpatient rehabilitation facilities and rehabilitation wards identified within an acute

**National standardized infection ratios (SIRs) and facility-specific sum
Central line-associated bloodstream infections (CLABSIs), catheter-associated urinary trac**

SIR	95% CI for SIR		Facility-specific SIRs			
	Lower	Upper	No. Facilities with ≥ 1 Predicted Infection	No. Facilities with SIR Significantly > National SIR N	% ²	No. Facilities Significantly < N
0.495	0.488	0.502	2,442	198	10%	203
0.450	0.440	0.460	2,165	144	9%	115
0.560	0.548	0.572	1,319	115	10%	113
0.466	0.443	0.490	585	27	7%	14
1.000	0.990	1.010	2,880	348	12%	494
1.155	1.141	1.170	2,462	272	11%	327
0.760	0.746	0.775	1,640	153	10%	190
0.868	0.850	0.886	2,042	163	8%	73
0.924	0.918	0.929	3,554	377	11%	823
0.909	0.876	0.942	478	63	13%	86
0.893	0.867	0.920	482	84	17%	131
0.856	0.813	0.901	567	38	8%	16

different from the numbers shown in Table 1. Refer to the Technical Appendix for information about exclusion of facilities from the national SIR for the given HAI type. This is only calculated if at least 10 facilities had a facility's predicted number of HAIs was < 1.0 , a facility-specific SIR was neither calculated nor included in the display (or facilities) and IRF locations (or facilities).

locations (or facilities), and IRF locations (or facilities).

ology/oncology, bone marrow transplant]). This excludes LTAC locations (or facilities) and IRF locations (or facilities) where central line-associated bloodstream infections are considered CLABSIs.

locations (or facilities) and IRF locations (or facilities).

within the facility. Risk factors used in the calculation of the number of predicted MRSA bacteremia and *C. difficile* infections are considered CLABSIs.

primary SIRs using HAI data reported to NHSN during 2014 by facility type, HAI, and patient population: CAUTI infections, methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia, and *Clostridium*

Facilities with SIR < National SIR	Percent							
	5%	10%	15%	20%	25%	30%	35%	40%
10%	0.000	0.000	0.000	0.000	0.132	0.200	0.249	0.301
7%	0.000	0.000	0.000	0.000	0.000	0.139	0.204	0.258
10%	0.000	0.000	0.000	0.000	0.072	0.177	0.236	0.298
3%	0.000	0.000	0.000	0.000	0.000	0.135	0.203	0.277
17%	0.000	0.000	0.000	0.179	0.298	0.390	0.477	0.556
13%	0.000	0.000	0.000	0.271	0.410	0.523	0.628	0.717
13%	0.000	0.000	0.000	0.000	0.147	0.242	0.313	0.377
4%	0.000	0.000	0.000	0.244	0.357	0.459	0.535	0.603
23%	0.000	0.000	0.217	0.334	0.436	0.527	0.592	0.656
18%	0.000	0.000	0.142	0.220	0.285	0.363	0.465	0.569
27%	0.000	0.077	0.159	0.262	0.321	0.384	0.465	0.537
3%	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.320

1 criteria.
 and ≥ 1.0 predicted HAI in 2014.
 distribution of facility-specific SIRs.

ilities).

difficile infections are listed in Appendix A.

um difficile infections.

ile Distribution of Facility-specific SIRs³

Median									
45%	50%	55%	60%	65%	70%	75%	80%	85%	90%
0.346	0.392	0.436	0.488	0.545	0.607	0.670	0.747	0.855	1.025
0.305	0.355	0.413	0.466	0.526	0.600	0.681	0.772	0.892	1.070
0.359	0.407	0.458	0.512	0.572	0.634	0.721	0.818	0.951	1.167
0.343	0.399	0.456	0.507	0.578	0.655	0.754	0.839	0.961	1.186
0.653	0.726	0.809	0.895	0.991	1.101	1.223	1.393	1.611	1.835
0.813	0.900	1.002	1.111	1.233	1.392	1.541	1.708	1.900	2.207
0.447	0.520	0.608	0.673	0.746	0.829	0.925	1.051	1.232	1.459
0.677	0.759	0.864	0.943	1.034	1.155	1.261	1.386	1.595	1.880
0.722	0.784	0.846	0.902	0.971	1.038	1.116	1.212	1.322	1.479
0.658	0.751	0.825	0.965	1.038	1.145	1.282	1.435	1.673	2.017
0.628	0.702	0.759	0.871	0.951	1.098	1.298	1.449	1.687	1.933
0.421	0.538	0.674	0.779	0.860	0.958	1.136	1.327	1.645	1.930

95%

1.379

1.408

1.613

1.605

2.272

2.611

1.835

2.387

1.729

2.405

2.291

2.763

Surgical Procedure	No. of Acute Care Hospitals Reporting ²	No. of Procedures
US, all NHSN procedures	3,654	2,417,933
US, SCIP procedures only⁵	3,618	1,528,822
AAA Abdominal aortic aneurysm repair ⁵	273	2,121
AMP Limb amputation	133	5,461
APPY Appendix surgery	412	51,057
AVSD Shunt for dialysis	92	1,849
BILI Bile duct, liver or pancreatic surgery	295	10,228
BRST Breast surgery	218	13,801
CARD Cardiac surgery ⁵	379	44,713
CABG- Coronary artery bypass graft ^{5,6}	755	117,972
CEA Carotid endarterectomy	274	9,831
CHOL Gallbladder surgery	442	65,079
COLO Colon surgery ⁵	3,377	300,526
CRAN Craniotomy	126	21,913
CSEC Cesarean section	437	211,468
FUSN Spinal fusion	506	110,975
FX Open reduction of fracture	410	47,698
GAST Gastric surgery	396	31,494
HER Herniorrhaphy	223	16,134
HPRO Hip arthroplasty ⁵	1,928	291,628
HTP Heart transplant	28	622
HYST Abdominal hysterectomy ⁵	3,225	307,648
KPRO Knee arthroplasty ⁵	1,907	417,937
KTP Kidney transplant	34	3,142
LAM Laminectomy	477	100,750
LTP Liver transplant	21	1,307
NECK Neck surgery	62	1,080
NEPH Kidney surgery	276	9,157
OVRY Ovarian surgery	371	32,082
PACE Pacemaker surgery	328	24,347
PRST Prostate surgery	86	2,384
PVBY Peripheral vascular bypass surgery ⁵	295	8,755
REC Rectal surgery ⁵	329	6,561
RFUSN Refusion of spine	300	5,740
SB Small bowel surgery	396	22,058
SPLE Spleen surgery	249	2,488
THOR Thoracic surgery	307	18,993
THYR Thyroid and/or parathyroid surgery	109	3,820
VHYS Vaginal hysterectomy ⁵	822	30,961
VSHN Ventricular shunt	105	7,399
XLAP Abdominal surgery	408	56,754

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

3. Risk factors used in the calculation of the number of predicted SSIs are listed in Appendix B.
4. Percent of facilities with at least one predicted infection that had an SIR significantly greater than 1.0 is reported in Appendix D.
5. These procedures were presented in previous versions of the HAI Progress Report and follow selected SCIP procedures and the corresponding SCIP procedures are listed in Appendix C.
6. Coronary artery bypass graft includes procedures with either chest only or chest and donor site incision.
7. Facility-specific percentiles are only calculated if at least 20 facilities had ≥ 1.0 predicted SSI in 2010.

National standardized infection ratios (SIRs) and facility-specific summary SI

No. of Infections		SIR	95% CI for SIR		No. Hosp with ≥1 Predicted Infection	Facility- No. Hosp Significantly > N
Observed	Predicted³		Lower	Upper		
20,916	28,153.716	0.743	0.733	0.753	2,657	262
15,927	19,248.610	0.827	0.815	0.840	2,580	214
12	43.382	0.277	0.150	0.470	8	.
33	34.950	0.944	0.661	1.311	6	.
474	392.362	1.208	1.103	1.321	125	15
4	17.552	0.228	0.072	0.550	1	.
328	1,127.082	0.291	0.261	0.324	144	10
148	85.071	1.740	1.476	2.038	18	0
144	341.453	0.422	0.357	0.495	100	3
796	1,442.120	0.552	0.515	0.591	485	19
3	10.814	0.277	0.071	0.755	0	.
272	282.084	0.964	0.855	1.084	122	4
8,952	9,172.197	0.976	0.956	0.996	2,051	158
319	422.292	0.755	0.676	0.842	62	8
329	1,241.485	0.265	0.238	0.295	247	11
793	1,179.156	0.673	0.627	0.721	295	17
275	628.785	0.437	0.388	0.491	179	3
228	410.716	0.555	0.486	0.631	112	4
140	206.746	0.677	0.572	0.797	60	1
2,006	2,565.012	0.782	0.748	0.817	759	36
10	18.784	0.532	0.270	0.949	5	.
2,020	2,447.611	0.825	0.790	0.862	794	45
1,547	2,603.528	0.594	0.565	0.624	813	19
35	55.974	0.625	0.442	0.860	18	1
361	679.155	0.532	0.479	0.589	185	7
64	175.478	0.365	0.283	0.463	20	1
18	26.610	0.676	0.414	1.048	6	.
38	119.041	0.319	0.229	0.434	26	0
26	22.457	1.158	0.772	1.672	0	.
51	48.694	1.047	0.788	1.366	2	.
9	11.443	0.786	0.384	1.443	1	.
198	283.081	0.699	0.607	0.802	95	5
112	187.860	0.596	0.493	0.715	34	0
85	138.516	0.614	0.493	0.755	36	0
453	749.546	0.604	0.551	0.662	153	5
10	38.813	0.258	0.131	0.459	6	.
59	114.165	0.517	0.397	0.662	26	1
1	3.438	0.291	0.015	1.435	0	.
140	162.366	0.862	0.728	1.014	28	0
143	250.997	0.570	0.482	0.669	44	6
280	412.899	0.678	0.602	0.761	127	7

procedures that occurred in 2014 with a primary skin closure technique, detected during the same admission may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information about

or less than the nominal value of the national SIR for the given procedure type. This is only calculated if at least one inpatient surgical procedure approximating procedures covered by the Surgical Care Improvement Project is included in the facility's data.

14. If a facility's predicted number of SSIs was < 1.0 , a facility-specific SIR was neither calculated nor included in the facility's SIR.

IRs using surgical site infection (SSI) data¹ reported to NHSN from NHSN Acute Care Hospitals dur

specific SIRs			5%	10%	15%	20%	25%
> National SIR	No. Hosp with SIR	< National SIR					
% ⁴	N						
10%	399	15%	0.000	0.000	0.075	0.270	0.350
8%	310	12%	0.000	0.000	0.000	0.284	0.366
.
.
12%	11	9%	0.000	0.000	0.000	0.177	0.277
.
7%	2	1%	0.000	0.000	0.000	0.000	0.000
0%	4	22%	.	.	.	.	.
3%	0	0%	0.000	0.000	0.000	0.000	0.000
4%	1	< 1%	0.000	0.000	0.000	0.000	0.000
.
3%	3	2%	0.000	0.000	0.000	0.000	0.000
8%	115	6%	0.000	0.000	0.000	0.229	0.368
13%	5	8%	0.000	0.000	0.000	0.000	0.169
4%	3	1%	0.000	0.000	0.000	0.000	0.000
6%	4	1%	0.000	0.000	0.000	0.000	0.000
2%	0	0%	0.000	0.000	0.000	0.000	0.000
4%	3	3%	0.000	0.000	0.000	0.000	0.000
2%	1	2%	0.000	0.000	0.000	0.000	0.000
5%	15	2%	0.000	0.000	0.000	0.000	0.000
.
6%	6	1%	0.000	0.000	0.000	0.000	0.000
2%	10	1%	0.000	0.000	0.000	0.000	0.000
6%	0	0%	.	.	.	.	.
4%	2	1%	0.000	0.000	0.000	0.000	0.000
5%	0	0%	0.000	0.000	0.060	0.123	0.136
.
0%	0	0%	0.000	0.000	0.000	0.000	0.000
.
.
5%	0	0%	0.000	0.000	0.000	0.000	0.000
0%	2	6%	0.000	0.000	0.000	0.000	0.000
0%	0	0%	0.000	0.000	0.000	0.000	0.000
3%	7	5%	0.000	0.000	0.000	0.000	0.000
.
4%	0	0%	0.000	0.000	0.000	0.000	0.000
.
0%	0	0%	0.000	0.000	0.000	0.000	0.000
14%	7	16%	0.000	0.000	0.000	0.000	0.088
6%	2	2%	0.000	0.000	0.000	0.000	0.000

¹ as the surgical procedure or upon readmission to the same facility.
⁴ t exclusion criteria.

at least 10 facilities had ≥ 1.0 predicted SSI in 2014.
Specific NHSN procedures

and in the distribution of facility-specific SIRs.

ing 2014 by surgical procedure.

Percentile Distribution of Facility-specific SIRs⁷									
Median									
30%	35%	40%	45%	50%	55%	60%	65%	70%	75%
0.424	0.497	0.560	0.626	0.677	0.744	0.819	0.898	1.003	1.108
0.448	0.523	0.588	0.659	0.725	0.796	0.870	0.952	1.045	1.157
.
.
0.460	0.559	0.625	0.748	0.924	0.976	1.155	1.389	1.520	1.986
.
0.000	0.000	0.000	0.000	0.000	0.116	0.158	0.200	0.260	0.323
.
0.000	0.000	0.000	0.000	0.238	0.326	0.408	0.465	0.549	0.655
0.000	0.000	0.210	0.317	0.396	0.464	0.538	0.618	0.706	0.784
.
0.000	0.423	0.617	0.680	0.728	0.835	0.880	0.944	1.209	1.374
0.471	0.564	0.656	0.737	0.817	0.908	0.994	1.121	1.246	1.385
0.290	0.362	0.424	0.544	0.649	0.776	0.956	1.084	1.268	1.359
0.000	0.000	0.000	0.000	0.000	0.129	0.187	0.251	0.324	0.397
0.202	0.324	0.381	0.449	0.510	0.593	0.678	0.805	0.902	0.976
0.000	0.000	0.000	0.000	0.198	0.358	0.394	0.456	0.580	0.625
0.000	0.000	0.000	0.242	0.331	0.357	0.441	0.516	0.685	0.784
0.000	0.000	0.239	0.319	0.411	0.554	0.619	0.695	0.795	0.890
0.257	0.377	0.460	0.561	0.653	0.731	0.811	0.882	0.946	1.107
.
0.211	0.383	0.494	0.585	0.681	0.758	0.844	0.909	0.995	1.214
0.000	0.207	0.343	0.420	0.497	0.575	0.631	0.700	0.767	0.868
.
0.000	0.000	0.154	0.297	0.386	0.450	0.519	0.575	0.708	0.801
0.146	0.163	0.196	0.220	0.231	0.243	0.260	0.346	0.441	0.469
.
0.000	0.281	0.303	0.345	0.506	0.553	0.557	0.651	0.754	0.762
.
.
0.225	0.331	0.382	0.517	0.624	0.679	0.735	0.844	0.935	0.977
0.000	0.000	0.159	0.181	0.211	0.252	0.356	0.409	0.461	0.607
0.000	0.184	0.494	0.518	0.600	0.613	0.681	0.704	0.753	0.773
0.096	0.221	0.309	0.406	0.481	0.541	0.628	0.668	0.737	0.774
.
0.000	0.000	0.000	0.000	0.349	0.566	0.704	0.725	0.897	1.068
.
0.000	0.000	0.000	0.464	0.590	0.722	0.777	0.861	0.932	1.140
0.199	0.219	0.292	0.387	0.544	0.611	0.776	0.912	0.938	1.247
0.000	0.000	0.000	0.314	0.394	0.472	0.643	0.725	0.887	0.960

80%	85%	90%	95%
1.235	1.380	1.629	1.982
1.263	1.423	1.663	2.054
.	.	.	.
.	.	.	.
2.367	2.853	3.318	3.985
.	.	.	.
0.370	0.525	0.637	0.886
.	.	.	.
0.761	0.933	1.028	1.380
0.904	1.053	1.374	1.783
.	.	.	.
1.552	1.767	1.920	2.297
1.529	1.733	2.035	2.539
1.482	1.629	1.971	2.721
0.517	0.715	0.845	1.100
1.108	1.337	1.683	2.335
0.748	0.900	1.043	1.396
0.814	0.954	1.443	1.730
0.940	1.072	1.223	1.401
1.272	1.489	1.804	2.392
.	.	.	.
1.470	1.657	1.930	2.599
0.983	1.207	1.486	1.897
.	.	.	.
0.958	1.403	1.658	2.299
0.542	0.660	0.758	1.143
.	.	.	.
0.762	0.999	1.411	1.451
.	.	.	.
.	.	.	.
.	.	.	.
1.286	1.560	1.986	3.311
0.818	0.900	1.273	1.792
0.973	1.024	1.740	1.865
0.928	1.146	1.364	1.677
.	.	.	.
1.150	1.678	1.894	2.675
.	.	.	.
1.659	1.686	1.946	2.627
2.128	2.494	3.002	3.816
1.203	1.607	1.844	2.535

**Table 3. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures,
NHSN Acute Care Hospitals reporting during 2014
3a. Central line-associated bloodstream infections (CLABSI), all locations¹**

State	State NHSN Mandate ²	Any Validation ³	No. of Acute Care Hospitals Reporting ⁴	No. of Infections		95% CI for SIR			Facility-specific SIRs			Facility-specific SIRs at Key Percentiles ⁵					
				Observed	Predicted	SIR	Lower	Upper	No. of hosp with at least 1 predicted CLABSI	% of hosp with SIR sig higher than national SIR ⁵	% of hosp with SIR sig lower than national SIR ⁵	10%	25%	Median (50%)	75%	90%	
Alaska	No	No	11	30	46.250	0.649	0.446	0.914	6
Alabama	Yes		70	472	664.780	0.710	0.648	0.776	39	21%	6%	0.000	0.177	0.451	0.837	1.170	
Arkansas	Yes		47	240	432.203	0.555	0.488	0.629	24	9%	5%	0.085	0.309	0.574	0.776	1.078	
Arizona	No	No	60	385	730.051	0.527	0.477	0.582	46	7%	14%	0.000	0.087	0.355	0.584	0.950	
California	Yes		358	2,412	4,720.640	0.511	0.491	0.532	291	13%	11%	0.000	0.180	0.383	0.673	1.062	
Colorado	Yes		53	201	486.483	0.413	0.359	0.473	33	0%	14%	0.000	0.000	0.275	0.508	0.655	
Connecticut	Yes	Yes	31	126	282.772	0.446	0.373	0.529	26	0%	6%	0.000	0.000	0.334	0.501	0.762	
D.C.	Yes	Yes	8	114	189.030	0.603	0.500	0.722	8
Delaware	Yes	Yes	8	64	115.503	0.554	0.430	0.703	8
Florida	No	No	194	1,213	2,389.975	0.508	0.480	0.537	171	11%	11%	0.000	0.196	0.418	0.735	0.980	
Georgia	Yes	No	108	709	1,109.127	0.639	0.593	0.688	70	24%	6%	0.000	0.236	0.481	0.821	1.197	
Hawaii	Yes	Yes	16	23	100.654	0.229	0.148	0.337	13	0%	20%
Iowa	No		61	99	214.909	0.461	0.376	0.558	20	6%	6%	0.000	0.000	0.274	0.492	0.796	
Idaho	No	No	15	28	80.397	0.348	0.236	0.497	8
Illinois	Yes	Yes	150	562	1,318.809	0.426	0.392	0.462	104	9%	15%	0.000	0.091	0.375	0.700	1.310	
Indiana	Yes	Yes	101	480	790.268	0.607	0.555	0.664	59	7%	4%	0.000	0.000	0.353	0.621	0.902	
Kansas	No	Yes	48	188	306.745	0.613	0.530	0.705	21	11%	11%	0.000	0.000	0.413	0.638	0.923	
Kentucky	No	No	70	245	444.905	0.551	0.485	0.623	39	13%	3%	0.000	0.202	0.464	0.823	1.347	
Louisiana	No	Yes	80	342	569.292	0.601	0.540	0.667	49	17%	6%	0.000	0.182	0.553	0.809	1.371	
Massachusetts	Yes	Yes	69	310	617.509	0.502	0.448	0.560	45	12%	8%	0.000	0.000	0.297	0.503	0.864	
Maryland	Yes	Yes	48	273	517.116	0.528	0.468	0.593	38	9%	0%	0.000	0.119	0.398	0.578	0.779	
Maine	Yes	Yes	21	81	93.376	0.867	0.693	1.073	7
Michigan	No	Yes	98	395	977.035	0.404	0.366	0.446	61	9%	19%	0.000	0.137	0.317	0.577	0.829	
Minnesota	Yes	No	48	207	459.531	0.450	0.392	0.515	20	6%	17%	0.000	0.000	0.348	0.452	0.690	
Missouri	No	No	76	404	839.655	0.481	0.436	0.530	50	7%	10%	0.000	0.177	0.322	0.759	1.003	
Mississippi	M		49	287	379.119	0.757	0.673	0.849	29	26%	4%	0.000	0.023	0.471	1.041	1.279	
Montana	No		16	46	81.973	0.561	0.416	0.742	9
North Carolina	Yes	Yes	98	392	938.636	0.418	0.378	0.461	59	6%	10%	0.000	0.000	0.280	0.606	0.892	
North Dakota	No	No	8	25	63.773	0.392	0.259	0.570	6
Nebraska	No	No	27	178	246.848	0.721	0.621	0.833	17	7%	7%
New Hampshire	Yes	Yes	24	28	50.822	0.551	0.373	0.786	9
New Jersey	Yes	Yes	72	409	693.811	0.589	0.534	0.649	70	15%	3%	0.000	0.239	0.464	0.796	1.271	
New Mexico	Yes	Yes	34	83	150.289	0.552	0.443	0.681	15	18%	0%
Nevada	Yes	No	24	314	537.570	0.584	0.522	0.651	19	22%	22%
New York	Yes		168	1,022	2,059.721	0.496	0.466	0.527	139	12%	10%	0.000	0.198	0.454	0.723	1.135	
Ohio	No	No	137	542	1,351.152	0.401	0.368	0.436	91	6%	13%	0.000	0.138	0.348	0.636	0.897	
Oklahoma	Yes	No	58	213	495.915	0.430	0.375	0.490	27	11%	16%	0.000	0.000	0.312	0.645	0.951	
Oregon	Yes	Yes	50	156	325.294	0.480	0.409	0.559	25	6%	0%	0.000	0.000	0.237	0.483	0.670	
Pennsylvania	Yes	Yes	176	952	2,332.321	0.408	0.383	0.435	127	4%	15%	0.000	0.144	0.409	0.605	0.802	
Puerto Rico	No	No	16	71	121.178	0.586	0.461	0.735	12	20%	10%
Rhode Island	No	No	11	72	117.510	0.613	0.483	0.767	11	0%	0%
South Carolina	Yes	Yes	67	358	728.561	0.491	0.442	0.544	44	6%	6%	0.000	0.000	0.305	0.588	0.814	
South Dakota	No		13	18	71.212	0.253	0.155	0.392	7
Tennessee	Yes	Yes	105	587	1,231.390	0.477	0.439	0.516	64	7%	16%	0.000	0.000	0.379	0.638	0.952	
Texas	Yes		289	1,286	2,742.988	0.469	0.444	0.495	207	6%	7%	0.000	0.177	0.405	0.662	1.015	
Utah	Yes	Yes	27	69	152.553	0.452	0.355	0.569	14	0%	9%
Virginia	Yes	Yes	83	292	747.698	0.391	0.348	0.437	55	0%	19%	0.000	0.000	0.110	0.544	0.760	

Vermont	Yes	Yes	7	19	42.252	0.450	0.279	0.689	2	.	.	.	.	.	.	.
Washington	Yes		86	414	810.231	0.511	0.464	0.562	51	7%	2%	0.000	0.213	0.418	0.655	1.197
Wisconsin	No	Yes	96	205	590.674	0.347	0.302	0.397	51	3%	13%	0.000	0.000	0.276	0.552	0.858
West Virginia	Yes	Yes	43	111	296.262	0.375	0.310	0.449	23	0%	17%	0.000	0.000	0.168	0.486	0.690
Wyoming	No	No	22	6	16.199	0.370	0.150	0.770	3	.	.	.	.	.	.	.
All US			3,655	17,758	35,872.961	0.495	0.488	0.502	2,442	10%	10%	0.000	0.132	0.392	0.670	1.025

1. Data from all ICUs, wards (and other non-critical care locations), and NICUs. This excludes LTAC locations (or facilities) and IRF locations (or facilities).
2. Yes indicates the presence of a state mandate to report CLABSI data from any location to NHSN at the beginning of 2014. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2014.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2014 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2014 NHSN data prior to July 1, 2015, and state health department contacted identified facilities. Yes^A indicates that the state also conducted an audit of facility medical or laboratory records prior to July 1, 2015 to confirm proper case ascertainment (although intensity of auditing activities varies by state). Information on validation efforts was requested from all states, regardless of the presence of a legislative mandate for the particular HAI type. Some states without mandatory reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntarily shared with them by facilities in their jurisdiction.
4. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information about exclusion criteria.
5. Percent of facilities with at least one predicted CLABSI that had an SIR significantly greater or less than the nominal value of the 2014 national overall CLABSI SIR of 0.495. This is only calculated if at least 10 facilities had ≥ 1.0 predicted CLABSI in 2014.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥ 1.0 predicted CLABSI in 2014. If a facility's predicted number of CLABSI was < 1.0 , a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

**Table 3. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures,
NHSN Acute Care Hospitals reporting during 2014**

3b. Central line-associated bloodstream infections (CLABSI), critical care locations¹

State	No. of Acute Care Hospitals Reporting ³	No. of Infections		95% CI for SIR			Facility-specific SIRs			Facility-specific SIRs at Key Percentiles ⁵					
		Observed	Predicted	SIR	Lower	Upper	% of hosp with SIR sig higher than national SIR ⁴	% of hosp with SIR sig lower than national SIR ⁴	10%	25%	75%	90%			
Alaska	No	9	7	14.176	0.494	0.216	0.977	4	.	.	.	.	.	.
Alabama	Yes	69	214	371.595	0.576	0.503	0.657	35	0%	4%	0.000	0.201	0.453	0.684	0.869
Arkansas	Yes	42	122	213.223	0.572	0.477	0.681	24	15%	5%	0.000	0.170	0.440	0.726	1.203
Arizona	No	55	153	372.602	0.411	0.349	0.480	45	12%	12%	0.000	0.013	0.343	0.651	0.898
California	Yes	323	849	1,842.765	0.461	0.430	0.493	253	12%	8%	0.000	0.000	0.327	0.679	1.173
Colorado	Yes	50	91	221.484	0.411	0.333	0.502	28	9%	9%	0.000	0.000	0.305	0.415	0.714
Connecticut	Yes	30	76	176.628	0.430	0.341	0.536	26	6%	0%	0.000	0.000	0.236	0.507	0.762
D.C.	Yes	8	64	121.239	0.528	0.410	0.670	8	.	.	.	.	.	.	.
Delaware	Yes	8	23	66.967	0.343	0.223	0.507	8	.	.	.	.	.	.	.
Florida	No	187	743	1,477.739	0.503	0.468	0.540	163	12%	7%	0.000	0.116	0.406	0.709	1.124
Georgia	Yes	96	305	574.707	0.531	0.474	0.593	60	17%	6%	0.000	0.169	0.397	0.692	0.937
Hawaii	Yes	16	14	65.527	0.214	0.122	0.350	11	0%	0%	.	.	.	.	.
Iowa	No	38	50	111.270	0.449	0.337	0.588	18	11%	0%	.	.	.	.	.
Idaho	No	12	13	50.030	0.260	0.145	0.433	8	.	.	.	.	.	.	.
Illinois	No	140	268	631.309	0.425	0.376	0.478	95	9%	9%	0.000	0.000	0.377	0.813	1.361
Indiana	Yes	87	212	399.030	0.531	0.463	0.607	49	9%	3%	0.000	0.000	0.306	0.634	0.960
Kansas	No	41	61	146.159	0.417	0.322	0.532	17	8%	15%	.	.	.	.	.
Kentucky	No	68	159	303.643	0.524	0.447	0.610	36	15%	0%	0.000	0.231	0.474	0.873	1.316
Louisiana	No	70	188	309.285	0.608	0.525	0.700	40	16%	3%	0.000	0.220	0.560	0.919	1.256
Massachusetts	Yes	66	166	410.560	0.404	0.346	0.469	44	9%	14%	0.000	0.000	0.294	0.560	0.821
Maryland	Yes	46	155	311.316	0.498	0.424	0.581	37	3%	0%	0.000	0.000	0.305	0.629	0.855
Maine	Yes	18	32	40.181	0.796	0.554	1.111	5	.	.	.	.	.	.	.
Michigan	No	94	240	643.904	0.373	0.328	0.422	54	4%	10%	0.000	0.089	0.306	0.486	0.815
Minnesota	No	45	77	216.709	0.355	0.282	0.442	20	0%	13%	0.000	0.000	0.292	0.413	0.510
Missouri	No	74	156	433.965	0.359	0.306	0.419	47	0%	6%	0.000	0.129	0.303	0.703	0.939
Mississippi	M	47	132	173.443	0.761	0.639	0.900	25	22%	6%	0.000	0.000	0.442	0.953	1.250
Montana	No	11	21	26.576	0.790	0.502	1.187	8	.	.	.	.	.	.	.
North Carolina	Yes	90	214	538.376	0.397	0.347	0.453	55	6%	9%	0.000	0.000	0.296	0.697	0.940
North Dakota	No	6	15	44.181	0.340	0.197	0.547	6	.	.	.	.	.	.	.
Nebraska	No	20	52	92.736	0.561	0.423	0.730	13	11%	0%	.	.	.	.	.
New Hampshire	Yes	23	21	40.084	0.524	0.333	0.787	9	.	.	.	.	.	.	.
New Jersey	Yes	72	273	472.032	0.578	0.513	0.650	68	17%	2%	0.000	0.245	0.466	0.853	1.359
New Mexico	Yes	29	53	86.114	0.615	0.466	0.799	10	22%	0%	.	.	.	.	.
Nevada	Yes	21	110	235.289	0.468	0.386	0.561	17	.	.	.	.	.	.	.
New York	Yes	163	468	1,111.301	0.421	0.384	0.461	121	8%	8%	0.000	0.027	0.388	0.622	1.066
Ohio	No	132	303	832.807	0.364	0.325	0.407	87	4%	10%	0.000	0.100	0.294	0.541	0.917
Oklahoma	Yes	48	109	273.797	0.398	0.328	0.478	25	13%	19%	0.000	0.000	0.237	0.697	1.130
Oregon	Yes	45	42	149.744	0.280	0.205	0.376	23	0%	7%	0.000	0.000	0.195	0.398	0.592
Pennsylvania	Yes	151	370	994.507	0.372	0.336	0.411	106	4%	12%	0.000	0.000	0.329	0.612	0.987
Puerto Rico	No	16	34	64.077	0.531	0.373	0.733	11	14%	14%	.	.	.	.	.
Rhode Island	No	10	26	51.005	0.510	0.340	0.736	7	.	.	.	.	.	.	.
South Carolina	Yes	58	129	269.068	0.479	0.402	0.568	26	15%	5%	0.000	0.233	0.369	0.636	0.953
South Dakota	No	11	7	27.694	0.253	0.111	0.500	4	.	.	.	.	.	.	.
Tennessee	Yes	89	247	522.977	0.472	0.416	0.534	49	10%	12%	0.000	0.000	0.376	0.722	0.910
Texas	Yes	267	724	1,575.195	0.460	0.427	0.494	193	6%	3%	0.000	0.145	0.397	0.705	1.081
Utah	Yes	27	38	97.204	0.391	0.281	0.531	14	0%	11%	.	.	.	.	.

Virginia	Yes	82	146	401.074	0.364	0.308	0.427	52	3%	14%	0.000	0.000	0.103	0.602	0.909
Vermont	Yes	7	4	18.066	0.221	0.070	0.534	2	.	.	.	.	.	.	.
Washington	Yes	64	116	269.978	0.430	0.357	0.513	39	3%	3%	0.000	0.000	0.379	0.632	0.914
Wisconsin	No	77	83	269.386	0.308	0.247	0.380	39	0%	16%	0.000	0.000	0.255	0.500	0.653
West Virginia	Yes	37	68	157.965	0.430	0.337	0.542	19	0%	8%	.	.	.	.	.
Wyoming	No	13	4	7.565	0.529	0.168	1.275	2	.	.	.	.	.	.	.
All US		3,308	8,247	18,328.250	0.450	0.440	0.460	2,165	9%	7%	0.000	0.000	0.355	0.681	1.070

1. Data from all ICUs; excludes wards (and other non-critical care locations), NICUs, LTAC locations (or facilities), and IRF locations (or facilities).
2. Yes indicates the presence of a state mandate to report CLABSI data from critical care units to NHSN at the beginning of 2014. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2014. Note that almost all acute care hospitals are required to report CLABSI data from ICUs to NHSN for participation in the Centers for Medicare and Medicaid Services' Hospital Inpatient Quality Reporting Program.
3. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information about exclusion criteria.
4. Percent of facilities with at least one predicted ICU CLABSI that had an SIR significantly greater or less than the nominal value of the 2014 national ICU CLABSI SIR of 0.450. This is only calculated if at least 10 facilities had at least one predicted ICU CLABSI in 2014.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥ 1.0 predicted ICU CLABSI in 2014. If a facility's predicted number of ICU CLABSI was < 1.0 , a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

**Table 3. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures,
NHSN Acute Care Hospitals reporting during 2014**

3c. Central line-associated bloodstream infections (CLABSI), ward (non-critical care) locations¹

State		No. of Infections	95% CI for SIR			Facility-specific SIRs									
			Observed	Predicted	SIR	Lower	Upper	10%	25%	75%	90%				
Alaska	No	8	17	25.584	0.664	0.400	1.042	4	.	.	.	.	.	.
Alabama	No	28	189	211.930	0.892	0.771	1.026	17	31%	8%	.	.	.	.	.
Arkansas	No	29	105	167.218	0.628	0.516	0.757	12	0%	0%	.	.	.	.	.
Arizona	No	34	195	301.799	0.646	0.560	0.742	27	17%	22%	0.000	0.000	0.401	0.991	1.224
California	Yes	350	1,422	2,501.010	0.569	0.540	0.599	245	10%	8%	0.000	0.204	0.438	0.738	1.218
Colorado	Yes	27	94	221.473	0.424	0.345	0.517	15	0%	8%	.	.	.	.	.
Connecticut	No	5	42	82.984	0.506	0.369	0.678	4	.	.	.	.	.	.	.
D.C. ⁶	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.
Delaware	No	5	33	35.479	0.930	0.651	1.291	5	.	.	.	.	.	.	.
Florida	No	76	379	716.864	0.529	0.477	0.584	60	11%	11%	0.000	0.203	0.423	0.787	1.274
Georgia	No	73	326	427.093	0.763	0.684	0.850	48	23%	3%	0.000	0.178	0.481	0.944	1.511
Hawaii	Yes	6	3	14.494	0.207	0.053	0.563	4	.	.	.	.	.	.	.
Iowa	No	43	41	68.984	0.594	0.432	0.799	13	9%	0%	.	.	.	.	.
Idaho	No	6	13	22.147	0.587	0.326	0.979	3	.	.	.	.	.	.	.
Illinois	No	63	226	554.377	0.408	0.357	0.463	42	8%	18%	0.000	0.000	0.286	0.399	0.754
Indiana	No	51	223	330.863	0.674	0.590	0.767	23	10%	5%	0.000	0.000	0.310	0.519	0.804
Kansas	No	27	114	137.410	0.830	0.688	0.993	12	11%	0%	.	.	.	.	.
Kentucky	No	25	75	109.152	0.687	0.544	0.856	12	29%	0%	.	.	.	.	.
Louisiana	No	42	115	187.370	0.614	0.509	0.734	19	19%	13%	.	.	.	.	.
Massachusetts	No	13	126	168.094	0.750	0.627	0.889	6	.	.	.	.	.	.	.
Maryland	No	23	89	151.480	0.588	0.475	0.720	18	6%	12%	.	.	.	.	.
Maine	No	9	41	46.014	0.891	0.648	1.197	4	.	.	.	.	.	.	.
Michigan	No	52	130	238.375	0.545	0.457	0.645	24	20%	15%	0.000	0.000	0.299	0.596	1.350
Minnesota	No	12	115	218.939	0.525	0.436	0.628	6	.	.	.	.	.	.	.
Missouri	No	37	221	315.482	0.701	0.613	0.798	31	15%	22%	0.000	0.000	0.205	0.593	1.288
Mississippi	No	23	127	169.467	0.749	0.627	0.889	14	22%	0%	.	.	.	.	.
Montana	No	14	24	50.397	0.476	0.312	0.698	7	.	.	.	.	.	.	.
North Carolina	No	47	145	293.566	0.494	0.418	0.579	27	0%	17%	0.000	0.000	0.292	0.636	0.890
North Dakota ⁵	No	3	.	.	.	.	.	1	.	.	.	.	.	.	.
Nebraska	No	21	119	142.727	0.834	0.694	0.994	11	13%	0%	.	.	.	.	.
New Hampshire	No	7	1	6.547	0.153	0.008	0.753	2	.	.	.	.	.	.	.
New Jersey	No	23	95	149.376	0.636	0.517	0.774	21	16%	0%	0.000	0.136	0.414	0.614	1.146
New Mexico	Yes	18	19	50.862	0.374	0.232	0.573	6	.	.	.	.	.	.	.
Nevada	Yes	22	180	252.330	0.713	0.615	0.823	19	18%	24%	.	.	.	.	.
New York	No	97	461	752.844	0.612	0.558	0.670	82	17%	9%	0.000	0.000	0.523	0.908	1.609
Ohio	No	53	186	385.739	0.482	0.417	0.555	33	4%	11%	0.000	0.000	0.356	0.672	0.893
Oklahoma	No	27	85	168.194	0.505	0.406	0.622	11	10%	10%	.	.	.	.	.
Oregon	No	31	102	155.533	0.656	0.537	0.793	11	10%	0%	.	.	.	.	.
Pennsylvania	Yes	175	504	1,212.790	0.416	0.380	0.453	118	4%	16%	0.000	0.000	0.282	0.579	0.847
Puerto Rico	No	11	33	52.869	0.624	0.437	0.866	7	.	.	.	.	.	.	.
Rhode Island	No	8	42	57.130	0.735	0.537	0.984	5	.	.	.	.	.	.	.
South Carolina	Yes	66	203	411.812	0.493	0.429	0.564	36	3%	10%	0.000	0.000	0.285	0.572	0.848
South Dakota	No	11	8	33.228	0.241	0.112	0.457	5	.	.	.	.	.	.	.
Tennessee	M	100	308	614.297	0.501	0.448	0.560	55	4%	16%	0.000	0.000	0.364	0.676	0.909
Texas	No	129	382	776.210	0.492	0.445	0.543	74	8%	8%	0.000	0.142	0.445	0.696	1.088
Utah	No	5	18	20.608	0.873	0.534	1.354	1	.	.	.	.	.	.	.

Virginia	No	23	123	266.477	0.462	0.385	0.549	16	0%	33%	.	.	.	.	.
Vermont ⁶	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Washington	Yes	85	284	491.835	0.577	0.513	0.648	48	8%	3%	0.000	0.303	0.500	0.755	1.488
Wisconsin	No	76	97	277.037	0.350	0.285	0.425	34	8%	8%	0.000	0.000	0.145	0.402	0.780
West Virginia	No	30	31	121.371	0.255	0.177	0.358	14	0%	17%	.	.	.	.	.
Wyoming	No	19	2	8.635	0.232	0.039	0.765	2	.	.	.	.	.	.	.
All US		2,173	7,971	14,240.030	0.560	0.548	0.572	1,319	10%	10%	0.000	0.072	0.407	0.721	1.167

1. Data from all wards (for this table wards also include step-down and specialty care areas [including hematology/oncology, bone marrow transplant]). This excludes LTAC locations (or facilities) and IRF locations (or facilities).
2. Yes indicates the presence of a state mandate to report CLABSI data from ward locations to NHSN at the beginning of 2014. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2014.
3. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information about exclusion criteria.
4. Percent of facilities with at least one predicted ward CLABSI that had an SIR significantly greater or less than the nominal value of the 2014 national ward CLABSI SIR of 0.560. This is only calculated if at least 10 facilities had at least one predicted ward CLABSI in 2014.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥ 1.0 predicted ward CLABSI in 2014. If a facility's predicted number of ward CLABSI was < 1.0 , a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.
6. An SIR is only displayed for states in which at least 5 facilities reported CLABSI data from at least one ward in 2014.

Table 3. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Acute Care Hospitals reporting during 2014

3d. Central line-associated bloodstream infections (CLABSI), neonatal critical care locations¹

State		No. of Infections	95% CI for SIR			Facility-specific SIRs			10%	25%	75%	90%			
			Observed	Predicted	SIR	Lower	Upper								
Alaska ⁶	No	2	.	.	.	.	.	.	.	.	.	.
Alabama	Yes	13	69	81.255	0.849	0.666	1.068	10	25%	0%	.	.	.	.
Arkansas	Yes	9	13	51.763	0.251	0.140	0.419	5	.	.	.	.	.	.
Arizona	No	15	37	55.650	0.665	0.475	0.907	10	14%	0%	.	.	.	.
California	Yes	137	141	376.865	0.374	0.316	0.440	76	2%	4%	0.000	0.000	0.273	0.571	0.841
Colorado	Yes	19	16	43.526	0.368	0.218	0.584	9	.	.	.	.	.	.	.
Connecticut	Yes	11	8	23.160	0.345	0.160	0.656	3	.	.	.	.	.	.	.
D.C.	Yes	6	6	32.088	0.187	0.076	0.389	5	.	.	.	.	.	.	.
Delaware ⁶	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Florida	No	51	91	195.373	0.466	0.377	0.569	26	11%	5%	0.000	0.000	0.344	0.591	0.769
Georgia	Yes	28	78	107.327	0.727	0.578	0.902	22	13%	0%	0.000	0.258	0.739	1.223	1.315
Hawaii ⁶	Yes	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Iowa	No	10	8	34.655	0.231	0.107	0.438	5	.	.	.	.	.	.	.
Idaho	No	8	2	8.220	0.243	0.041	0.804	3	.	.	.	.	.	.	.
Illinois	No	42	68	133.122	0.511	0.400	0.644	23	5%	0%	0.000	0.239	0.398	0.809	1.028
Indiana	No	26	45	60.375	0.745	0.550	0.988	12	0%	0%	.	.	.	.	.
Kansas	No	10	13	23.176	0.561	0.312	0.935	5	.	.	.	.	.	.	.
Kentucky	No	14	11	32.111	0.343	0.180	0.595	4	.	.	.	.	.	.	.
Louisiana	No	27	39	72.637	0.537	0.387	0.727	17	25%	13%	.	.	.	.	.
Massachusetts	Yes	10	18	38.855	0.463	0.283	0.718	8	.	.	.	.	.	.	.
Maryland	Yes	17	29	54.320	0.534	0.364	0.757	13	0%	0%	.	.	.	.	.
Maine ⁶	Yes	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Michigan	No	20	25	94.756	0.264	0.175	0.384	16	0%	8%	.	.	.	.	.
Minnesota	No	10	15	23.884	0.628	0.365	1.013	5	.	.	.	.	.	.	.
Missouri	No	19	27	90.208	0.299	0.201	0.429	10	0%	13%	.	.	.	.	.
Mississippi	M	13	28	36.209	0.773	0.524	1.103	7	.	.	.	.	.	.	.
Montana	No	5	1	5.000	0.200	0.010	0.986	3	.	.	.	.	.	.	.
North Carolina	Yes	23	33	106.695	0.309	0.216	0.429	14	8%	8%	.	.	.	.	.
North Dakota	No	6	8	12.675	0.631	0.293	1.199	3	.	.	.	.	.	.	.
Nebraska	No	6	7	11.385	0.615	0.269	1.216	5	.	.	.	.	.	.	.
New Hampshire ⁶	Yes	3	.	.	.	.	.	.	.	.	.	.	.	.	.
New Jersey	Yes	24	41	72.404	0.566	0.412	0.761	15	0%	0%	.	.	.	.	.
New Mexico	Yes	5	11	13.314	0.826	0.434	1.436	3	.	.	.	.	.	.	.
Nevada	Yes	9	24	49.951	0.480	0.315	0.704	7	.	.	.	.	.	.	.
New York	Yes	52	93	195.576	0.476	0.386	0.580	43	4%	0%	0.000	0.000	0.395	0.884	1.459
Ohio	No	21	53	132.606	0.400	0.302	0.519	17	0%	0%	.	.	.	.	.
Oklahoma	Yes	10	19	53.924	0.352	0.218	0.540	7	.	.	.	.	.	.	.
Oregon	Yes	8	12	20.017	0.599	0.325	1.019	4	.	.	.	.	.	.	.
Pennsylvania	Yes	41	78	125.023	0.624	0.496	0.774	25	12%	0%	0.000	0.327	0.495	0.722	1.010
Puerto Rico ⁶	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.
Rhode Island ⁶	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
South Carolina	Yes	9	26	47.681	0.545	0.364	0.788	7	.	.	.	.	.	.	.
South Dakota ⁶	No	3	.	.	.	.	.	.	.	.	.	.	.	.	.
Tennessee	Yes	24	32	94.116	0.340	0.237	0.474	13	9%	9%	.	.	.	.	.
Texas	Yes	116	180	391.584	0.460	0.396	0.531	62	6%	4%	0.000	0.000	0.345	0.690	0.962
Utah	Yes	13	13	34.741	0.374	0.208	0.624	6	.	.	.	.	.	.	.
Virginia	No	24	23	80.147	0.287	0.186	0.424	14	0%	10%	.	.	.	.	.
Washington	Yes	16	14	48.418	0.289	0.165	0.474	10	0%	17%	.	.	.	.	.
Wisconsin	No	19	25	44.252	0.565	0.374	0.822	13	13%	0%	.	.	.	.	.

West Virginia ⁵	Yes	4													
Wyoming ⁶	No	0													
All US		970	1,540	3,304.680	0.466	0.443	0.490	585	7%	3%	0.000	0.000	0.399	0.754	1.186

1. Data from all NICUs including Level II/III and Level III nurseries. Both umbilical line and central line-associated bloodstream infections are considered CLABSIs.
2. Yes indicates the presence of a state mandate to report CLABSI data from NICUs to NHSN at the beginning of 2014. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2014. Note that almost all acute care hospitals are required to report CLABSI data from NICUs to NHSN for participation in the Centers for Medicare and Medicaid Services' Hospital Inpatient Quality Reporting Program.
3. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information about exclusion criteria.
4. Percent of facilities with at least one predicted NICU CLABSI that had an SIR significantly greater or less than the nominal value of the 2014 national NICU CLABSI SIR of 0.466. This is only calculated if at least 10 facilities had at least one predicted NICU CLABSI in 2014.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥ 1.0 predicted NICU CLABSI in 2014. If a facility's predicted number of NICU CLABSI was < 1.0 , a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.
6. An SIR is only displayed for states in which at least 5 facilities reported CLABSI data from at least one NICU in 2014.

**Table 4. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures,
NHSN Acute Care Hospitals reporting during 2014
4a. Catheter-associated urinary tract infections (CAUTI), all locations¹**

State			No. of Infections		95% CI for SIR			Facility-specific SIRs								
	Observed	Predicted	SIR	Lower	Upper	No. of hosp with at least 1 predicted CAUTI	10%	25%	75%	90%						
Alaska	No	No	11	40	44.692	0.895	0.648	1.207	6							
Alabama	Yes	Yes	86	858	984.406	0.872	0.815	0.931	65	6%	25%	0.000	0.016	0.462	1.086	1.399
Arkansas	Yes	Yes	49	343	410.767	0.835	0.750	0.927	39	5%	18%	0.000	0.000	0.432	0.856	1.262
Arizona	No	No	60	613	622.215	0.985	0.910	1.066	48	13%	21%	0.000	0.260	0.717	0.975	1.678
California	No	No	349	3,770	4,103.875	0.919	0.890	0.948	308	14%	25%	0.000	0.260	0.734	1.197	1.826
Colorado	No	No	52	333	486.758	0.684	0.614	0.761	35	6%	23%	0.181	0.405	0.661	0.837	1.485
Connecticut	Yes	Yes	31	479	305.541	1.568	1.432	1.713	27	26%	4%	0.000	0.647	1.294	1.776	2.375
D.C.	No	Yes	7	129	132.094	0.977	0.819	1.156	7							
Delaware	Yes	Yes	8	124	99.348	1.248	1.043	1.483	8							
Florida	No	No	192	2,197	2,331.227	0.942	0.904	0.982	178	12%	24%	0.000	0.311	0.633	1.160	1.849
Georgia	Yes	No	111	1,412	1,241.073	1.138	1.080	1.198	84	13%	14%	0.000	0.367	0.768	1.363	1.916
Hawaii	Yes	Yes	16	68	89.329	0.761	0.596	0.959	13	0%	15%					
Iowa	No	No	81	211	255.910	0.825	0.719	0.942	31	3%	6%	0.000	0.000	0.524	0.910	1.131
Idaho	No	No	18	76	104.709	0.726	0.576	0.903	10	0%	20%					
Illinois	No	No	150	1,084	1,253.530	0.865	0.814	0.917	116	6%	16%	0.000	0.380	0.690	1.121	1.568
Indiana	Yes	Yes	106	782	760.273	1.029	0.958	1.103	70	6%	13%	0.000	0.081	0.677	0.974	1.584
Kansas	No	Yes	52	315	313.021	1.006	0.900	1.122	31	6%	16%	0.000	0.322	0.661	1.235	1.676
Kentucky	No	No	71	475	492.160	0.965	0.881	1.055	55	7%	15%	0.000	0.155	0.671	1.011	1.384
Louisiana	No	Yes	79	566	708.126	0.799	0.735	0.867	57	7%	21%	0.000	0.239	0.554	1.076	1.692
Massachusetts	M	No	69	822	640.379	1.284	1.198	1.374	57	19%	2%	0.000	0.051	0.880	1.704	2.483
Maryland	Yes	Yes	48	757	559.240	1.354	1.260	1.453	41	12%	17%	0.082	0.422	1.113	1.616	2.481
Maine	No	No	21	119	77.383	1.538	1.280	1.833	12	17%	0%					
Michigan	No	Yes	102	1,207	1,045.999	1.154	1.090	1.220	77	21%	14%	0.000	0.344	0.873	1.411	1.873
Minnesota	Yes	No	85	447	359.890	1.242	1.131	1.361	28	25%	0%	0.000	0.000	0.961	1.600	2.420
Missouri	No	No	79	866	774.466	1.118	1.046	1.195	56	20%	7%	0.455	0.656	0.941	1.377	2.180
Mississippi	M	No	49	438	408.097	1.073	0.976	1.177	35	17%	6%	0.000	0.000	0.527	1.246	1.607
Montana	No	No	17	79	94.964	0.832	0.663	1.031	10	0%	10%					
North Carolina	Yes	Yes	99	1,252	1,029.909	1.216	1.150	1.284	79	15%	9%	0.000	0.365	0.851	1.311	1.897
North Dakota	No	No	9	45	60.781	0.740	0.547	0.982	6							
Nebraska	No	No	27	221	207.094	1.067	0.933	1.215	20	10%	30%	0.000	0.000	0.494	1.037	1.836
New Hampshire	Yes	Yes	24	83	80.421	1.032	0.827	1.273	16	13%	0%					
New Jersey	Yes	Yes	72	891	825.981	1.079	1.010	1.151	72	19%	18%	0.093	0.449	0.864	1.658	2.217
New Mexico	No	No	34	149	121.878	1.223	1.038	1.431	19	21%	16%					
Nevada	No	No	24	469	460.709	1.018	0.929	1.113	23	26%	22%	0.000	0.112	0.913	1.563	1.945
New York	No	Yes	170	2,519	2,187.293	1.152	1.107	1.197	149	16%	11%	0.176	0.594	0.931	1.586	2.027
Ohio	No	No	136	1,325	1,521.645	0.871	0.825	0.919	110	10%	24%	0.000	0.173	0.726	1.064	1.612
Oklahoma	No	No	62	375	443.698	0.845	0.763	0.934	37	5%	11%	0.000	0.000	0.539	1.009	1.238
Oregon	Yes	Yes	51	300	316.106	0.949	0.846	1.061	37	8%	11%	0.000	0.352	0.665	0.951	1.831
Pennsylvania	Yes	Yes	183	2,368	2,433.798	0.973	0.934	1.013	151	10%	23%	0.000	0.309	0.677	1.057	1.452
Puerto Rico	No	No	17	106	203.984	0.520	0.428	0.626	17	0%	47%					
Rhode Island	No	No	11	164	120.058	1.366	1.169	1.588	10	30%	0%					
South Carolina	No	No	65	654	613.635	1.066	0.986	1.150	52	12%	8%	0.000	0.383	0.735	1.167	1.641
South Dakota	No	Yes	18	71	84.241	0.843	0.663	1.057	12	0%	0%					
Tennessee	Yes	Yes	106	1,312	1,300.172	1.009	0.956	1.065	84	7%	20%	0.000	0.000	0.624	0.967	1.373
Texas	Yes	No	297	2,486	2,394.877	1.038	0.998	1.079	235	16%	17%	0.000	0.270	0.766	1.389	2.034
Utah	Yes	No	28	191	122.923	1.554	1.345	1.786	18	11%	0%					
Virginia	No	No	82	699	722.540	0.967	0.898	1.041	67	12%	13%	0.000	0.338	0.802	1.343	2.197

Vermont	No	No	5	65	48.270	1.347	1.048	1.705	3	.	.	.	.	.	.
Washington	No	No	78	678	758.079	0.894	0.829	0.964	61	5%	20%	0.000	0.273	0.720	1.100	1.369
Wisconsin	No	Yes	118	476	605.486	0.786	0.718	0.859	62	3%	18%	0.000	0.000	0.529	0.934	1.355
West Virginia	M	Yes	50	236	368.312	0.641	0.563	0.727	28	4%	36%	0.000	0.000	0.404	0.846	1.434
Wyoming	No	No	26	15	30.234	0.496	0.288	0.800	8	.	.	.	.	.	.	.
All US			3,791	35,760	35,761.590	1.000	0.990	1.010	2,880	12%	17%	0.000	0.298	0.726	1.223	1.835

1. Data from all ICUs and wards (and other non-critical care locations). This excludes NICUs, LTAC locations (or facilities), and IRF locations (or facilities).
2. Yes indicates the presence of a state mandate to report CAUTI data from any location to NHSN at the beginning of 2014. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2014.
3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2014 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2014 NHSN data prior to July 1, 2015, and state health department contacted identified facilities. Yes^A indicates that the state also conducted an audit of facility medical or laboratory records prior to July 1, 2015 to confirm proper case ascertainment (although intensity of auditing activities varies by state). Information on validation efforts was requested from all states, regardless of the presence of a legislative mandate for the particular HAI type. Some states without mandatory reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntarily shared with them by facilities in their jurisdiction.
4. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information about exclusion criteria.
5. Percent of facilities with at least one predicted CAUTI that had an SIR significantly greater or less than the nominal value of the 2014 national overall CAUTI SIR of 1.000. This is only calculated if at least 10 facilities had at least one predicted CAUTI in 2014.
6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥ 1.0 predicted CAUTI in 2014. If a facility's predicted number of CAUTI was < 1.0 , a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

**Table 4. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures,
NHSN Acute Care Hospitals reporting during 2014**

4b. Catheter-associated urinary tract infections (CAUTI), critical care locations¹

State		No. of Infections	95% CI for SIR			Facility-specific SIRs				10%	25%	75%	90%		
			Observed	Predicted	SIR	Lower	Upper								
Alaska	No	9	19	16.736	1.135	0.704	1.740	3	.	.	.	.	.
Alabama	Yes	71	514	558.150	0.921	0.844	1.003	50	2%	26%	0.000	0.000	0.645	0.964	1.506
Arkansas	Yes	43	243	245.436	0.990	0.871	1.121	26	8%	23%	0.000	0.234	0.684	1.191	1.894
Arizona	No	55	466	399.664	1.166	1.064	1.276	45	9%	16%	0.000	0.551	0.805	1.303	2.108
California	No	319	2,412	1,992.754	1.210	1.163	1.259	271	15%	13%	0.000	0.394	1.024	1.692	2.336
Colorado	No	49	226	276.119	0.818	0.717	0.931	32	0%	13%	0.289	0.461	0.953	1.312	1.923
Connecticut	Yes	30	396	235.292	1.683	1.523	1.855	27	26%	7%	0.000	0.563	1.294	1.942	2.423
D.C.	No	7	93	104.228	0.892	0.724	1.088	7	.	.	.	.	.	.	.
Delaware	Yes	8	68	56.198	1.210	0.947	1.525	8	.	.	.	.	.	.	.
Florida	No	185	1,756	1,716.960	1.023	0.976	1.071	173	11%	24%	0.000	0.303	0.690	1.358	2.146
Georgia	Yes	97	917	699.584	1.311	1.228	1.398	72	21%	11%	0.000	0.400	1.003	1.661	2.862
Hawaii	Yes	16	44	61.929	0.710	0.523	0.945	12	0%	8%	.	.	.	.	.
Iowa	No	38	137	132.826	1.031	0.869	1.215	22	5%	9%	0.000	0.000	0.681	1.392	1.839
Idaho	No	12	59	61.889	0.953	0.732	1.221	9	.	.	.	.	.	.	.
Illinois	No	138	778	726.648	1.071	0.997	1.148	103	5%	10%	0.000	0.455	0.808	1.354	1.757
Indiana	Yes	87	552	451.626	1.222	1.123	1.327	51	10%	6%	0.016	0.464	0.872	1.518	1.789
Kansas	No	43	201	188.993	1.064	0.924	1.218	20	5%	20%	0.000	0.000	0.689	1.350	1.700
Kentucky	No	69	405	378.127	1.071	0.970	1.179	47	6%	13%	0.000	0.155	0.754	1.106	1.915
Louisiana	No	70	393	416.481	0.944	0.854	1.040	48	8%	15%	0.000	0.335	0.833	1.071	1.765
Massachusetts	M	67	724	496.758	1.457	1.354	1.567	55	15%	9%	0.000	0.000	1.031	1.720	2.487
Maryland	Yes	46	611	375.371	1.628	1.502	1.761	39	21%	8%	0.000	0.582	1.321	2.086	2.481
Maine	No	17	79	51.168	1.544	1.231	1.914	7	.	.	.	.	.	.	.
Michigan	No	95	1,002	805.589	1.244	1.169	1.323	62	16%	13%	0.000	0.542	1.001	1.541	1.909
Minnesota	No	51	343	241.777	1.419	1.274	1.575	24	25%	4%	0.000	0.672	1.120	1.983	2.577
Missouri	No	76	628	505.524	1.242	1.148	1.342	53	13%	8%	0.407	0.683	1.170	1.750	2.540
Mississippi	M	47	264	237.676	1.111	0.983	1.251	30	7%	17%	0.000	0.000	0.884	1.561	2.232
Montana	No	11	27	28.730	0.940	0.632	1.348	8	.	.	.	.	.	.	.
North Carolina	Yes	90	863	680.424	1.268	1.186	1.355	71	13%	6%	0.000	0.531	0.878	1.660	2.068
North Dakota	No	6	42	47.193	0.890	0.650	1.192	6	.	.	.	.	.	.	.
Nebraska	No	20	126	84.035	1.499	1.254	1.779	15	13%	0%	.	.	.	.	.
New Hampshire	Yes	23	68	53.777	1.264	0.990	1.593	12	25%	0%	.	.	.	.	.
New Jersey	Yes	72	751	600.547	1.251	1.163	1.342	71	14%	15%	0.202	0.458	1.081	1.774	2.301
New Mexico	No	30	137	100.968	1.357	1.144	1.599	15	20%	7%	.	.	.	.	.
Nevada	No	21	258	236.979	1.089	0.962	1.228	17	18%	24%	.	.	.	.	.
New York	No	164	1,685	1,419.455	1.187	1.131	1.245	137	13%	15%	0.000	0.555	1.087	1.649	2.264
Ohio	No	130	1,056	1,063.771	0.993	0.934	1.054	98	7%	20%	0.000	0.210	0.777	1.119	1.641
Oklahoma	No	48	265	292.378	0.906	0.802	1.021	34	0%	12%	0.000	0.000	0.587	1.084	1.435
Oregon	Yes	47	183	171.722	1.066	0.919	1.229	24	0%	13%	0.000	0.330	0.818	1.405	1.908
Pennsylvania	Yes	152	1,314	1,123.708	1.169	1.107	1.234	116	8%	9%	0.000	0.490	0.948	1.394	1.828
Puerto Rico	No	17	51	96.618	0.528	0.397	0.689	15	0%	27%	.	.	.	.	.
Rhode Island	No	10	86	60.266	1.427	1.148	1.754	10	20%	0%	.	.	.	.	.
South Carolina	No	58	435	333.579	1.304	1.186	1.431	44	11%	7%	0.000	0.355	1.056	1.730	2.123
South Dakota	No	11	48	31.317	1.533	1.143	2.015	5	.	.	.	.	.	.	.
Tennessee	Yes	89	816	665.680	1.226	1.144	1.312	69	10%	12%	0.000	0.234	0.742	1.235	2.035
Texas	Yes	267	1,969	1,772.102	1.111	1.063	1.161	209	11%	14%	0.000	0.365	0.965	1.642	2.127
Utah	Yes	27	183	116.016	1.577	1.361	1.819	17	12%	0%	.	.	.	.	.
Virginia	No	82	541	495.482	1.092	1.003	1.187	59	7%	12%	0.000	0.445	0.960	1.352	2.196

Vermont	No	5	25	25.203	0.992	0.656	1.443	3	.	.	.	.	.	.	.
Washington	No	64	346	276.659	1.251	1.124	1.388	43	16%	14%	0.000	0.453	0.917	1.791	2.496
Wisconsin	No	76	301	279.426	1.077	0.961	1.204	44	7%	11%	0.000	0.470	0.882	1.537	1.828
West Virginia	Yes	38	162	206.765	0.783	0.670	0.911	22	9%	32%	0.000	0.084	0.475	1.043	2.069
Wyoming	No	13	7	8.428	0.831	0.363	1.643	2	.	.	.	.	.	.	.
All US		3,316	25,075	21,704.730	1.155	1.141	1.170	2,462	11%	13%	0.000	0.410	0.900	1.541	2.207

1. Data from all ICUs; excludes wards (and other non-critical care locations), NICUs, LTAC locations (or facilities), and IRF locations (or facilities).
2. Yes indicates the presence of a state mandate to report CAUTI data from critical care units to NHSN at the beginning of 2014. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2014. Note that almost all acute care hospitals are required to report CAUTI data from ICUs to NHSN for participation in the Centers for Medicare and Medicaid Services' Hospital Inpatient Quality Reporting Program.
3. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information about exclusion criteria.
4. Percent of facilities with at least one predicted ICU CAUTI that had an SIR significantly greater or less than the nominal value of the 2014 national ICU CAUTI SIR of 1.155. This is only calculated if at least 10 facilities had at least one predicted ICU CAUTI in 2014.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥ 1.0 predicted ICU CAUTI in 2014. If a facility's predicted number of ICU CAUTI was < 1.0 , a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

**Table 4. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures,
NHSN Acute Care Hospitals reporting during 2014**

4c. Catheter-associated urinary tract infections (CAUTI), ward (non-critical care) locations¹

State		No. of Infections	95% CI for SIR			Facility-specific SIRs									
			Observed	Predicted	SIR	Lower	Upper		10%	25%	75%	90%			
Alaska	No	8	21	27.956	0.751	0.477	1.129	4	.	.	.	.	.	.
Alabama	Yes	85	344	426.256	0.807	0.725	0.896	55	14%	12%	0.000	0.068	0.499	0.925	1.470
Arkansas	No	33	100	165.331	0.605	0.495	0.732	20	5%	21%	0.000	0.000	0.148	0.611	1.109
Arizona	No	36	147	222.552	0.661	0.560	0.774	29	7%	21%	0.000	0.000	0.383	0.838	1.388
California	No	263	1,358	2,111.121	0.643	0.610	0.678	216	11%	20%	0.000	0.118	0.413	0.836	1.248
Colorado	No	30	107	210.639	0.508	0.418	0.611	20	12%	47%	0.000	0.241	0.467	0.820	0.969
Connecticut	No	5	83	70.249	1.182	0.947	1.457	4	.	.	.	.	.	.	.
	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.
Delaware	No	8	56	43.150	1.298	0.990	1.673	6	.	.	.	.	.	.	.
Florida	No	73	441	614.267	0.718	0.653	0.787	66	11%	11%	0.000	0.198	0.429	0.963	1.621
Georgia	No	76	495	541.489	0.914	0.836	0.997	59	14%	7%	0.000	0.235	0.625	1.087	1.522
Hawaii	Yes	7	24	27.401	0.876	0.574	1.283	6	.	.	.	.	.	.	.
Iowa	No	68	74	123.084	0.601	0.475	0.751	23	0%	0%	0.000	0.000	0.284	0.689	0.962
Idaho	No	10	17	42.821	0.397	0.239	0.623	4	.	.	.	.	.	.	.
Illinois	No	70	306	526.882	0.581	0.518	0.649	54	4%	17%	0.000	0.252	0.526	0.876	1.352
Indiana	No	65	230	308.647	0.745	0.653	0.846	37	6%	13%	0.000	0.000	0.415	0.825	1.249
Kansas	No	36	114	124.028	0.919	0.762	1.100	22	5%	0%	0.000	0.000	0.556	0.764	1.194
Kentucky	No	31	70	114.033	0.614	0.482	0.771	24	0%	0%	0.000	0.000	0.248	0.719	1.141
Louisiana	No	42	173	291.645	0.593	0.510	0.687	29	4%	12%	0.000	0.000	0.407	0.678	0.995
Massachusetts	No	12	98	143.622	0.682	0.557	0.828	8	.	.	.	.	.	.	.
Maryland	No	24	146	183.869	0.794	0.673	0.931	20	5%	16%	0.000	0.143	0.448	0.779	0.999
Maine	No	10	40	26.215	1.526	1.105	2.057	6	.	.	.	.	.	.	.
Michigan	No	64	205	240.411	0.853	0.742	0.976	41	8%	3%	0.000	0.224	0.579	1.018	1.598
Minnesota	No	48	104	118.113	0.881	0.723	1.062	8	.	.	.	.	.	.	.
Missouri	No	38	238	268.941	0.885	0.778	1.003	28	18%	4%	0.209	0.514	0.704	1.117	1.744
Mississippi	No	26	174	170.421	1.021	0.878	1.181	19	22%	0%	.	.	.	.	.
Montana	No	16	52	66.234	0.785	0.592	1.022	8	.	.	.	.	.	.	.
North Carolina	No	52	389	349.485	1.113	1.006	1.228	40	13%	3%	0.000	0.465	0.734	1.120	1.281
	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.
Nebraska	No	26	95	123.059	0.772	0.628	0.939	18	12%	6%	.	.	.	.	.
New Hampshire	No	8	15	26.645	0.563	0.327	0.908	6	.	.	.	.	.	.	.
New Jersey	No	25	140	225.435	0.621	0.524	0.731	25	8%	17%	0.000	0.076	0.394	0.832	1.251
New Mexico	No	17	12	20.910	0.574	0.311	0.976	7	.	.	.	.	.	.	.
Nevada	No	21	211	223.730	0.943	0.822	1.077	19	25%	19%	.	.	.	.	.
New York	No	102	834	767.838	1.086	1.014	1.162	93	16%	3%	0.000	0.385	0.711	1.318	2.108
Ohio	No	59	269	457.875	0.587	0.520	0.661	42	8%	29%	0.000	0.198	0.487	0.884	1.238
Oklahoma	No	32	110	151.320	0.727	0.600	0.873	17	7%	14%	.	.	.	.	.
Oregon	No	37	117	144.384	0.810	0.673	0.968	19	13%	7%	.	.	.	.	.
Pennsylvania	Yes	182	1,054	1,310.091	0.805	0.757	0.854	143	11%	13%	0.000	0.143	0.623	0.879	1.411
Puerto Rico	No	12	55	107.366	0.512	0.390	0.662	11	0%	27%	.	.	.	.	.
Rhode Island	No	8	78	59.792	1.305	1.038	1.619	6	.	.	.	.	.	.	.
South Carolina	No	50	219	280.056	0.782	0.683	0.891	37	6%	6%	0.000	0.280	0.562	0.792	1.162
South Dakota	No	16	23	52.923	0.435	0.282	0.642	10	0%	0%	.	.	.	.	.
Tennessee	M	100	496	634.493	0.782	0.715	0.853	75	9%	12%	0.000	0.000	0.468	0.806	1.295
Texas	No	148	517	622.774	0.830	0.761	0.904	98	14%	5%	0.000	0.034	0.491	0.991	1.615
Utah	M	5	8	6.907	1.158	0.538	2.199	3	.	.	.	.	.	.	.
Virginia	No	25	158	227.059	0.696	0.594	0.811	20	10%	20%	0.000	0.284	0.465	0.862	1.337

	No	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Washington	No	76	332	481.420	0.690	0.618	0.767	53	4%	15%	0.000	0.277	0.602	0.882	1.427
Wisconsin	No	100	175	326.060	0.537	0.462	0.621	47	0%	16%	0.000	0.000	0.279	0.629	0.879
West Virginia	No	37	74	161.547	0.458	0.362	0.572	23	0%	32%	0.000	0.000	0.160	0.740	1.400
Wyoming	No	23	8	21.806	0.367	0.170	0.697	6	.	.	.	.	.	.	.
All US		2,354	10,685	14,056.870	0.760	0.746	0.775	1,640	10%	13%	0.000	0.147	0.520	0.925	1.459

1. Data from all wards (for this table wards also include stepdown and specialty care areas [including hematology/oncology, bone marrow transplant]). This excludes NICU, LTAC locations (or facilities), and IRF locations (or facilities).
2. Yes indicates the presence of a state mandate to report CAUTI data from ward locations to NHSN at the beginning of 2014. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2014.
3. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information about exclusion criteria.
4. Percent of facilities with at least one predicted ward CAUTI that had an SIR significantly greater or less than the nominal value of the 2014 national ward CAUTI SIR of 0.760. This is only calculated if at least 10 facilities had at least one predicted ward CAUTI in 2014.
5. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥ 1.0 predicted ward CAUTI in 2014. If a facility's predicted number of ward CAUTI was < 1.0 , a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.
6. An SIR is only displayed for states in which at least 5 facilities reported CAUTI data from at least one ward in 2014.

**Table 5. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures,
NHSN Acute Care Hospitals reporting during 2014
5a. Surgical site infections (SSI) following colon surgery¹**

State	No. of Acute Care Hospitals Reporting [†]		No. of Procedures		No. of Infections		95% CI for SIR		Facility-specific SIRs		No. of hosp with at least 1 predicted SSI						
	Yes	No	Observed	Predicted	SIR	Lower	Upper	10%	25%	75%	90%						
Alaska	No	No	9	617	17	18.029	0.943	0.568	1.479	5							
Alabama	Yes	Yes	70	5,695	136	174.993	0.777	0.655	0.916	35	3%	6%	0.000	0.000	0.618	0.980	1.426
Arkansas	Yes	Yes	41	3,004	74	88.349	0.838	0.662	1.046	23	0%	9%	0.000	0.000	0.772	1.410	1.704
Arizona	No	No	56	6,183	206	187.218	1.100	0.958	1.259	39	15%	0%	0.000	0.311	0.923	1.320	2.749
California	Yes		326	27,251	913	860.619	1.061	0.994	1.131	210	10%	5%	0.000	0.402	0.911	1.545	2.252
Colorado	Yes		57	4,725	105	135.408	0.775	0.637	0.935	33	3%	6%	0.000	0.390	0.841	1.063	1.353
Connecticut	Yes	Yes	30	3,747	153	109.020	1.403	1.194	1.640	23	30%	0%	0.280	0.778	1.277	2.230	2.919
D.C.	No	Yes	7	858	29	30.740	0.943	0.644	1.337	6							
Delaware	Yes	Yes	7	1,099	50	32.310	1.548	1.161	2.024	6							
Florida	No	No	184	21,867	481	650.948	0.739	0.675	0.807	150	3%	10%	0.000	0.212	0.606	0.926	1.507
Georgia	Yes	No	96	9,010	226	274.921	0.822	0.720	0.935	58	2%	5%	0.000	0.356	0.707	1.259	1.461
Hawaii	Yes	Yes	14	926	35	26.494	1.321	0.935	1.817	8							
Iowa	No	No	42	3,112	87	81.788	1.064	0.857	1.306	22	9%	5%	0.000	0.000	0.735	1.745	1.827
Idaho	No	No	16	1,380	49	41.894	1.170	0.875	1.534	8							
Illinois	No	No	137	11,065	306	344.711	0.888	0.792	0.991	89	10%	12%	0.000	0.212	0.789	1.307	2.275
Indiana	Yes	Yes	101	6,626	216	204.578	1.056	0.922	1.204	50	6%	4%	0.000	0.321	0.732	1.397	2.285
Kansas	No	Yes	44	2,695	115	81.042	1.419	1.177	1.697	18	22%	0%					
Kentucky	No	No	66	5,138	166	156.943	1.058	0.906	1.228	36	14%	6%	0.000	0.546	1.051	1.625	2.017
Louisiana	No	Yes	74	4,736	131	138.164	0.948	0.796	1.121	36	3%	3%	0.000	0.200	0.798	1.166	1.572
Massachusetts	M	No	62	7,027	250	211.619	1.181	1.042	1.335	42	14%	5%	0.000	0.568	0.963	1.889	2.506
Maryland	Yes	Yes	45	5,196	166	172.566	0.962	0.824	1.117	34	3%	6%	0.000	0.117	0.681	1.358	1.611
Maine	No		22	1,469	55	41.981	1.310	0.997	1.693	10	10%	0%					
Michigan	No	Yes	93	10,573	380	310.930	1.222	1.104	1.350	57	18%	2%	0.000	0.485	0.969	1.501	2.446
Minnesota	Yes	No	49	5,263	171	164.874	1.037	0.890	1.202	26	8%	0%	0.387	0.550	0.939	1.194	2.442
Missouri	No	No	72	7,365	190	221.148	0.859	0.743	0.988	44	2%	9%	0.000	0.428	0.792	1.288	1.894
Mississippi	M	No	43	2,937	55	88.748	0.620	0.471	0.801	21	0%	14%	0.000	0.000	0.468	0.931	1.540
Montana	No	No	16	900	20	24.468	0.817	0.513	1.240	7							
North Carolina	Yes	Yes	94	9,825	252	301.391	0.836	0.738	0.944	55	2%	9%	0.000	0.252	0.719	1.052	1.369
North Dakota	No	No	6	751	22	20.980	1.049	0.674	1.562	6							
Nebraska	No	No	21	1,766	64	53.564	1.195	0.928	1.516	12	0%	0%					
New Hampshire	Yes	Yes	25	1,361	37	42.179	0.877	0.627	1.196	12	0%	8%					
New Jersey	Yes	Yes	71	8,048	189	244.222	0.774	0.669	0.890	53	8%	17%	0.000	0.297	0.710	1.100	1.807
New Mexico	No	No	26	1,254	53	35.873	1.477	1.118	1.918	9							
Nevada	No	No	22	2,367	93	66.372	1.401	1.137	1.709	15	20%	7%					
New York	Yes		166	18,142	707	572.084	1.236	1.147	1.330	119	12%	1%	0.000	0.619	1.116	1.730	2.176
Ohio	No	No	129	13,821	359	444.851	0.807	0.727	0.894	92	3%	4%	0.000	0.428	0.777	1.237	1.633
Oklahoma	No	No	57	4,041	97	113.518	0.854	0.697	1.038	29	3%	7%	0.000	0.556	0.797	1.071	1.870
Oregon	Yes	Yes	48	3,965	102	121.551	0.839	0.688	1.014	24	4%	4%	0.107	0.647	0.838	1.215	1.647
Pennsylvania	Yes	Yes	158	15,585	451	490.319	0.920	0.838	1.008	105	8%	4%	0.000	0.368	0.714	1.375	2.056
Puerto Rico	No	No	0														
Rhode Island	No	No	11	1,135	37	32.359	1.143	0.817	1.559	8							
South Carolina	Yes	Yes	56	4,770	160	145.139	1.102	0.941	1.283	31	16%	3%	0.000	0.490	0.814	1.904	2.838
South Dakota	No		16	951	36	25.500	1.412	1.004	1.933	5							
Tennessee	Yes	Yes	92	7,512	212	232.608	0.911	0.795	1.041	51	6%	12%	0.000	0.000	0.677	1.353	1.850
Texas	Yes		280	20,950	552	648.034	0.852	0.783	0.925	164	3%	6%	0.000	0.165	0.717	1.334	1.745
Utah	Yes	Yes	32	2,057	84	62.255	1.349	1.083	1.662	12	17%	0%					
Virginia	No	No	77	7,224	221	216.626	1.020	0.892	1.162	47	0%	2%	0.222	0.514	0.978	1.365	1.778
Vermont	No	No	6	484	26	13.765	1.889	1.260	2.728	2							
Washington	Yes		67	5,721	164	173.741	0.944	0.808	1.097	39	10%	8%	0.000	0.424	0.926	1.435	1.736
Wisconsin	No	Yes	90	5,992	165	173.278	0.952	0.815	1.106	45	4%	4%	0.000	0.369	0.852	1.225	1.750
West Virginia	Yes	Yes	35	2,025	78	59.026	1.321	1.052	1.640	18	22%	0%					
Wyoming	No	No	13	315	9	8.462	1.064	0.519	1.952	2							

All US	3,377	300,526	8,952	9,172.197	0.976	0.956	0.996	2,051	8%	6%	0.000	0.368	0.817	1.385	2.035
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- Note that almost all acute care hospitals are required to report SSIs following inpatient colon procedures to NHSN for participation in the Centers for Medicare and Medicaid Services' (CMS) Hospital Inpatient Quality Reporting Program. SSIs included in this table are those classified as deep incisional or organ/space infections following NHSN-defined inpatient colon procedures that occurred in 2014 with a primary skin closure technique, detected during the same admission as the surgical procedure or upon readmission to the same facility. The colon surgery SSI data published in this report use different risk adjustment methodology and a different subset of data than that which are used for public reporting by CMS.
- Yes indicates the presence of a state mandate to report SSIs following colon surgery to NHSN at the beginning of 2014. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2014.
- Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2014 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2014 NHSN data prior to July 1, 2015, and state health department contacted identified facilities.

varies by state). Information on validation efforts was requested from all states, regardless of the presence of a legislative mandate for the particular HAI type. Some states without mandatory reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntarily shared with them by facilities in their jurisdiction.
- The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information about exclusion criteria.
- Percent of facilities with at least one predicted colon surgery SSI that had an SIR significantly greater or less than the nominal value of the 2014 national colon surgery SIR of 0.976. This is only calculated if at least 10 facilities had at least one predicted colon surgery SSI in 2014.
- Facility-specific key percentiles were only calculated if at least 20 facilities had ≥ 1.0 predicted colon surgery SSI in 2014. If a facility's predicted number of colon surgery SSI was < 1.0 , a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

Table 5. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Acute Care Hospitals reporting during 2014
5b. Surgical site infections (SSI) following abdominal hysterectomy surgery¹

State			No. of Acute Care Hospitals Reporting ¹		No. of Procedures		No. of Infections		95% CI for SIR			Facility-specific SIRs					
	No. of Acute Care Hospitals Reporting ¹	No. of Procedures	Observed	Predicted	SIR	Lower	Upper	10%	25%	75%	90%						
Alaska	No	No	9	474	3	4.690	0.640	0.163	1.741	2	.	.	.	.	.
Alabama	Yes	Yes	58	6,668	28	50.787	0.551	0.374	0.786	13	0%	0%	.	.	.		
Arkansas	Yes	Yes	37	3,831	26	29.457	0.883	0.589	1.275	8	.	.	.	.	.
Arizona	No	No	53	6,716	47	54.185	0.867	0.645	1.144	19	0%	5%	.	.	.		
California	Yes	Yes	314	25,914	169	211.357	0.800	0.686	0.927	79	4%	0%	0.000	0.000	0.745	1.316	2.085
Colorado	Yes	Yes	57	3,691	30	30.539	0.982	0.675	1.385	9	.	.	.	.	.
Connecticut	Yes	Yes	29	3,979	27	31.782	0.850	0.571	1.219	11	0%	0%	.	.	.		
D.C.	No	Yes	7	718	6	6.678	0.898	0.364	1.869	4	.	.	.	.	.
Delaware	Yes	Yes	7	1,111	8	8.024	0.997	0.463	1.893	3	.	.	.	.	.
Florida	No	No	167	19,735	108	147.293	0.733	0.604	0.882	49	4%	0%	0.000	0.000	0.649	1.064	1.886
Georgia	Yes	No	91	11,922	81	87.047	0.931	0.744	1.151	32	13%	0%	0.000	0.182	0.849	1.588	2.721
Hawaii	Yes	Yes	13	813	5	6.106	0.819	0.300	1.815	3	.	.	.	.	.
Iowa	No	No	40	2,640	17	18.917	0.899	0.541	1.410	5	.	.	.	.	.
Idaho	No	No	14	810	6	5.738	1.046	0.424	2.175	2	.	.	.	.	.
Illinois	No	No	134	11,523	73	96.136	0.759	0.600	0.949	37	0%	0%	0.000	0.000	0.519	0.904	1.735
Indiana	Yes	Yes	98	6,558	39	55.827	0.699	0.504	0.945	20	5%	0%	0.000	0.000	0.673	1.023	1.805
Kansas	No	Yes	43	2,762	18	20.933	0.860	0.526	1.333	5	.	.	.	.	.
Kentucky	No	No	59	5,806	48	50.778	0.945	0.705	1.243	15	13%	0%	.	.	.		
Louisiana	No	Yes	73	5,777	33	44.305	0.745	0.521	1.034	13	8%	8%	.	.	.		
Massachusetts	Yes	Yes	58	5,126	44	39.491	1.114	0.820	1.482	11	0%	0%	.	.	.		
Maryland	Yes	Yes	41	5,722	57	48.217	1.182	0.904	1.521	12	25%	0%	.	.	.		
Maine	No		19	876	5	5.873	0.851	0.312	1.887	2	.	.	.	.	.
Michigan	No	Yes	86	9,215	83	76.726	1.082	0.867	1.334	27	15%	0%	0.000	0.482	0.719	1.979	2.884
Minnesota	Yes	No	50	4,189	39	33.929	1.149	0.829	1.556	9	.	.	.	.	.
Missouri	No	No	70	7,419	40	55.971	0.715	0.517	0.964	16	6%	6%	.	.	.		
Mississippi	M	No	43	4,417	17	32.040	0.531	0.319	0.832	13	0%	0%	.	.	.		
Montana	No	No	15	849	3	6.668	0.450	0.114	1.224	2	.	.	.	.	.
North Carolina	Yes	Yes	88	9,732	71	77.711	0.914	0.719	1.146	26	8%	0%	0.000	0.000	0.720	1.554	2.706
North Dakota	No	No	6	815	8	6.104	1.311	0.609	2.489	3	.	.	.	.	.
Nebraska	No	No	21	1,832	9	14.731	0.611	0.298	1.121	5	.	.	.	.	.
New Hampshire	Yes	Yes	23	1,029	3	8.645	0.347	0.088	0.944	1	.	.	.	.	.
New Jersey	Yes	Yes	66	7,761	60	57.694	1.040	0.801	1.329	20	10%	0%	0.000	0.469	0.805	1.795	2.318
New Mexico	No	No	26	1,619	14	11.806	1.186	0.675	1.943	3	.	.	.	.	.
Nevada	No	No	20	2,251	13	16.697	0.779	0.433	1.298	6	.	.	.	.	.
New York	Yes		152	19,012	153	157.159	0.974	0.828	1.137	49	4%	0%	0.000	0.477	0.833	1.416	1.924
Ohio	No	No	128	13,399	70	112.658	0.621	0.488	0.780	36	11%	0%	0.000	0.000	0.391	0.777	2.040
Oklahoma	No	No	63	4,278	17	31.711	0.536	0.323	0.841	9	.	.	.	.	.
Oregon	Yes	Yes	44	3,329	25	27.589	0.906	0.599	1.318	8	.	.	.	.	.
Pennsylvania	Yes	Yes	143	14,227	111	120.043	0.925	0.764	1.109	39	8%	3%	0.000	0.000	0.758	1.418	2.606
Puerto Rico	No	No	0	.	.	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	No	11	1,293	8	9.758	0.820	0.381	1.557	1	.	.	.	.	.
South Carolina	Yes	Yes	52	5,772	46	44.438	1.035	0.767	1.369	15	7%	0%	.	.	.		
South Dakota	No		15	917	5	7.200	0.694	0.254	1.539	2	.	.	.	.	.
Tennessee	Yes	Yes	84	8,732	52	64.981	0.800	0.604	1.041	17	6%	0%	.	.	.		
Texas	Yes		288	28,212	143	225.278	0.635	0.537	0.745	72	4%	3%	0.000	0.000	0.540	0.934	1.513
Utah	Yes	Yes	32	2,862	13	22.274	0.584	0.325	0.973	8	.	.	.	.	.
Virginia	No	No	71	8,228	54	66.619	0.811	0.615	1.050	19	0%	0%	.	.	.		
Vermont	Yes	Yes	12	509	6	4.622	1.298	0.526	2.700	1	.	.	.	.	.
Washington	Yes		68	5,148	30	38.293	0.783	0.538	1.104	11	0%	0%	.	.	.		
Wisconsin	No	Yes	81	5,374	32	44.176	0.724	0.504	1.010	16	6%	0%	.	.	.		
West Virginia	Yes	Yes	33	1,809	17	16.032	1.060	0.638	1.663	6	.	.	.	.	.

Wyoming	No	No	13	247	0	1,899	0.000	1.577	0								
All US			3,225	307,648	2,020	2,447.611	0.825	0.790	0.862	794	6%	1%	0.000	0.000	0.681	1.214	1.930

- Note that almost all acute care hospitals are required to report SSIs following inpatient abdominal hysterectomy procedures to NHSN for participation in the Centers for Medicare and Medicaid Services' (CMS) Hospital Inpatient Quality Reporting Program. SSIs included are those classified as deep incisional or organ/space infections following NHSN-defined inpatient abdominal hysterectomy procedures that occurred in 2014 with a primary skin closure technique, detected during the same admission as the surgical procedure or upon readmission to the same facility. The abdominal hysterectomy SSI data published in this report use different risk adjustment methodology and a different subset of data than that which are used for public reporting by CMS.
- Yes indicates the presence of a state mandate to report SSIs following abdominal hysterectomy surgery to NHSN at the beginning of 2014. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2014.
- Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2014 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2014 NHSN data prior to July 1, 2015, and state health department contacted identified facilities.

varies by state). Information on validation efforts was requested from all states, regardless of the presence of a legislative mandate for the particular HAI type. Some states without mandatory reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntarily shared with them by facilities in their jurisdiction.
- The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information about exclusion criteria.
- Percent of facilities with at least one predicted abdominal hysterectomy SSI that had an SIR significantly greater or less than the nominal value of the 2014 national abdominal hysterectomy SIR of 0.825. This is only calculated if at least 10 facilities had at least one predicted abdominal hysterectomy SSI in 2014.
- Facility-specific key percentiles were only calculated if at least 20 facilities had ≥ 1.0 predicted abdominal hysterectomy SSI in 2014. If a facility's predicted number of abdominal hysterectomy SSI was < 1.0 , a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

Table 6. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Acute Care Hospitals reporting during 2014
Hospital-onset methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia, facility-wide¹

State			No. of Infections		95% CI for SIR			Facility-specific SIRs								
	Observed	Predicted	SIR	Lower	Upper	No. of hosp with at least 1 predicted HO MRSA bacteremia	10%	25%	75%	90%						
Alaska	No	No	11	3	10.299	0.291	0.074	0.793	3	.	.	.	.	.	.
Alabama	No	No	91	240	208.428	1.151	1.013	1.304	35	14%	0%	0.582	0.945	1.191	1.718	2.097
Arkansas	Yes	Yes	48	101	90.246	1.119	0.916	1.354	24	8%	0%	0.000	0.251	0.734	1.281	1.956
Arizona	No	No	68	190	192.349	0.988	0.855	1.136	34	12%	3%	0.420	0.672	0.919	1.333	2.070
California	Yes		369	720	930.399	0.774	0.719	0.832	224	4%	1%	0.000	0.322	0.664	1.097	1.691
Colorado	M	No	60	50	101.667	0.492	0.369	0.643	25	0%	12%	0.000	0.000	0.366	1.023	1.322
Connecticut	Yes	Yes	32	87	134.917	0.645	0.520	0.792	23	4%	0%	0.000	0.203	0.450	0.707	1.470
D.C.	Yes	Yes	8	54	57.103	0.946	0.717	1.225	8	.	.	.	.	.	.	.
Delaware	Yes		8	36	35.656	1.010	0.718	1.383	7	.	.	.	.	.	.	.
Florida	No	No	191	843	810.492	1.040	0.972	1.112	152	13%	3%	0.000	0.534	0.969	1.451	2.248
Georgia	Yes	No	111	325	310.584	1.046	0.937	1.165	55	18%	4%	0.000	0.571	0.956	1.370	2.218
Hawaii	Yes	Yes	15	25	35.367	0.707	0.468	1.028	8	.	.	.	.	.	.	.
Iowa	No		48	61	83.501	0.731	0.564	0.932	18	6%	0%	.	.	.	.	.
Idaho	No	No	21	9	25.467	0.353	0.172	0.649	6	.	.	.	.	.	.	.
Illinois	Yes	Yes	183	296	418.936	0.707	0.629	0.791	93	3%	3%	0.000	0.355	0.597	1.034	1.783
Indiana	No	No	107	159	207.083	0.768	0.655	0.894	45	7%	4%	0.000	0.038	0.637	1.336	1.562
Kansas	No	Yes	67	53	95.930	0.552	0.418	0.717	14	0%	0%	.	.	.	.	.
Kentucky	No	No	72	203	162.563	1.249	1.086	1.430	34	18%	0%	0.000	0.319	0.883	1.885	2.236
Louisiana	No	Yes	97	217	200.597	1.082	0.945	1.233	39	26%	0%	0.000	0.614	0.991	1.432	2.829
Massachusetts	M	No	73	126	244.468	0.515	0.431	0.612	49	2%	12%	0.000	0.000	0.421	0.788	1.138
Maryland	Yes		47	250	205.318	1.218	1.074	1.376	39	18%	0%	0.289	0.636	1.126	1.700	1.994
Maine	Yes		35	22	36.748	0.599	0.385	0.892	7	.	.	.	.	.	.	.
Michigan	No	Yes	102	385	398.589	0.966	0.873	1.066	55	16%	5%	0.324	0.578	0.972	1.427	2.010
Minnesota	Yes	No	54	53	144.490	0.367	0.278	0.476	23	0%	17%	0.000	0.000	0.272	0.496	0.600
Missouri	No	No	83	178	237.159	0.751	0.646	0.867	43	5%	7%	0.000	0.335	0.643	1.313	1.694
Mississippi	M	No	64	119	142.691	0.834	0.694	0.994	24	13%	4%	0.000	0.000	0.835	1.082	2.026
Montana	No	No	15	14	17.449	0.802	0.457	1.314	7	.	.	.	.	.	.	.
North Carolina	Yes	Yes	105	337	391.832	0.860	0.772	0.956	62	5%	3%	0.000	0.210	0.860	1.113	1.543
North Dakota	No		12	17	24.590	0.691	0.416	1.084	6	.	.	.	.	.	.	.
Nebraska	No	No	28	31	61.143	0.507	0.351	0.711	12	0%	17%	.	.	.	.	.
New Hampshire	No	No	21	17	30.726	0.553	0.333	0.868	8	.	.	.	.	.	.	.
New Jersey	Yes	No	72	350	329.284	1.063	0.956	1.179	62	13%	2%	0.048	0.461	0.864	1.540	2.145
New Mexico	No	No	37	22	52.862	0.416	0.267	0.620	8	.	.	.	.	.	.	.
Nevada	Yes	No	23	82	76.266	1.075	0.861	1.328	17	18%	0%	.	.	.	.	.
New York	No	Yes	179	855	915.284	0.934	0.873	0.998	130	11%	5%	0.000	0.450	0.810	1.301	1.770
Ohio	No	Yes	140	414	460.312	0.899	0.816	0.989	89	7%	2%	0.000	0.363	0.753	1.316	1.859
Oklahoma	No	No	91	150	139.324	1.077	0.914	1.260	19	16%	0%	.	.	.	.	.
Oregon	Yes	Yes	57	58	89.679	0.647	0.496	0.830	21	0%	5%	0.000	0.000	0.561	0.891	1.433
Pennsylvania	Yes	Yes	175	413	523.721	0.789	0.715	0.867	101	5%	5%	0.000	0.340	0.655	1.049	1.567
Puerto Rico ⁷	No	No	2	.	.	.	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	No	11	24	37.054	0.648	0.425	0.949	9	.	.	.	.	.	.	.
South Carolina	Yes	No	68	171	173.631	0.985	0.845	1.141	33	9%	0%	0.000	0.521	0.887	1.496	1.889
South Dakota	No	Yes	23	14	26.376	0.531	0.302	0.869	3	.	.	.	.	.	.	.
Tennessee	Yes	Yes	114	313	309.390	1.012	0.904	1.129	54	9%	0%	0.000	0.458	0.838	1.362	2.044
Texas	No	No	372	634	760.335	0.834	0.771	0.901	163	7%	3%	0.000	0.246	0.793	1.278	1.873
Utah	Yes	Yes	37	36	57.570	0.625	0.445	0.856	10	0%	10%	.	.	.	.	.
Virginia	No	No	86	200	238.006	0.840	0.730	0.963	49	4%	2%	0.000	0.451	0.740	1.181	1.957

Vermont	No	No	10	3	14.605	0.205	0.052	0.559	2	.	.	.	.	.	.	.
Washington	No	No	65	126	149.392	0.843	0.705	1.001	34	3%	0%	0.098	0.453	0.865	1.189	1.674
Wisconsin	No	Yes	89	62	126.251	0.491	0.380	0.625	33	0%	3%	0.000	0.000	0.414	0.976	1.301
West Virginia	Yes	Yes	38	75	88.998	0.843	0.668	1.050	19	11%	5%	.	.	.	.	.
Wyoming	No	No	14	2	5.588	0.358	0.060	1.183	2	.	.	.	.	.	.	.
All US			3,949	9,230	10,636.257	0.868	0.850	0.886	2,042	8%	4%	0.000	0.357	0.759	1.261	1.880

1. Note that almost all acute care hospitals are required to report facility-wide MRSA bacteremia data to NHSN for participation in the Centers for Medicare and Medicaid Services' (CMS) Hospital Inpatient Quality Reporting Program. Hospital-onset is defined as event detected on the 4th day (or later) after admission to an inpatient location within the facility.

2. Yes indicates the presence of a state mandate to report facility-wide MRSA bacteremia data to NHSN at the beginning of 2014. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2014.

3. Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2014 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2014 NHSN data prior to July 1, 2015, and state health department contacted identified facilities.

varies by state). Information on validation efforts was requested from all states, regardless of the presence of a legislative mandate for the particular HAI type. Some states without mandatory reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntarily shared with them by facilities in their jurisdiction.

4. The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information about exclusion criteria.

5. Percent of facilities with at least one predicted hospital-onset MRSA bacteremia that had an SIR significantly greater or less than the nominal value of the 2014 national hospital-onset MRSA bacteremia SIR of 0.868. This is only calculated if at least 10 facilities had at least one predicted hospital-onset MRSA bacteremia in 2014.

6. Facility-specific key percentiles were only calculated if at least 20 facilities had ≥ 1.0 predicted hospital-onset MRSA bacteremia in 2014. If a facility's predicted number of hospital-onset MRSA bacteremia was < 1.0 , a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.

7. An SIR is only displayed for states in which at least 5 facilities reported MRSA bacteremia data in 2014.

Table 7. State-specific standardized infection ratios (SIRs) and facility-specific SIR summary measures, NHSN Acute Care Hospitals reporting during 2014

Hospital-onset *Clostridium difficile* infection (CDI), facility-wide¹

State			No. of Infections			95% CI for SIR		Facility-specific SIRs								
	Observed	Predicted	SIR	Lower	Upper	No. of hosp with at least 1 predicted HO CDI	10%	25%	75%	90%						
Alaska	No	No	11	110	129.080	0.852	0.704	1.023	10	20%	20%	.	.	.	.
Alabama	No	No	89	1,356	2,038.920	0.665	0.630	0.701	74	1%	27%	0.000	0.000	0.677	0.876	1.455
Arkansas	Yes	Yes	50	626	929.950	0.673	0.622	0.727	47	0%	23%	0.314	0.589	0.867	1.106	1.336
Arizona	No	No	68	2,018	2,174.700	0.928	0.888	0.969	57	12%	18%	0.000	0.172	0.466	0.804	1.066
California	Yes		365	10,660	9,828.950	1.085	1.064	1.105	334	25%	12%	0.245	0.649	1.012	1.373	1.705
Colorado	M	Yes	58	1,306	1,172.740	1.114	1.054	1.175	49	18%	10%	0.117	0.561	0.962	1.243	1.785
Connecticut	Yes	Yes	32	1,515	1,406.910	1.077	1.024	1.132	32	28%	16%	0.392	0.591	1.010	1.362	1.637
D.C	No	Yes	7	442	496.960	0.889	0.809	0.975	7	.	.	.	.	.	.	.
Delaware	Yes		8	405	381.850	1.061	0.961	1.168	8	.	.	.	.	.	.	.
Florida	No	No	191	7,359	8,333.310	0.883	0.863	0.903	185	19%	26%	0.403	0.613	0.850	1.123	1.455
Georgia	Yes	No	112	2,776	3,030.120	0.916	0.883	0.951	106	9%	14%	0.000	0.437	0.716	0.971	1.312
Hawaii	Yes	Yes	14	269	390.280	0.689	0.611	0.775	14	0%	29%	.	.	.	.	.
Iowa	No		59	880	925.080	0.951	0.890	1.016	44	7%	20%	0.000	0.363	0.703	1.168	1.437
Idaho	No	No	19	215	303.730	0.708	0.618	0.807	14	0%	29%	.	.	.	.	.
Illinois	Yes	Yes	183	4,638	4,659.940	0.995	0.967	1.024	160	16%	14%	0.000	0.000	0.325	0.766	1.032
Indiana	No	No	104	2,182	2,310.650	0.944	0.905	0.985	94	11%	17%	0.000	0.589	0.897	1.255	1.805
Kansas	No	Yes	66	818	887.740	0.921	0.860	0.986	49	8%	12%	0.000	0.142	0.590	0.943	1.498
Kentucky	No	No	72	1,634	1,775.110	0.921	0.877	0.966	69	14%	20%	0.000	0.243	0.683	1.051	1.378
Louisiana	No	Yes	96	1,100	1,627.760	0.676	0.637	0.717	75	1%	31%	0.000	0.245	0.507	0.827	1.048
Massachusetts	M	No	72	2,523	2,634.600	0.958	0.921	0.996	70	21%	13%	0.000	0.213	0.499	0.711	0.965
Maryland	Yes		47	2,599	2,163.770	1.201	1.156	1.248	46	48%	7%	0.486	0.844	1.171	1.539	1.760
Maine	Yes		35	260	442.370	0.588	0.519	0.663	35	0%	17%	0.279	0.645	0.942	1.130	1.656
Michigan	No	Yes	101	3,685	4,030.930	0.914	0.885	0.944	95	11%	22%	0.000	0.318	0.727	0.980	1.172
Minnesota	Yes	No	54	1,354	1,672.440	0.810	0.767	0.854	50	12%	30%	0.118	0.312	0.623	1.085	1.293
Missouri	No	No	81	2,121	2,412.620	0.879	0.842	0.917	76	12%	26%	0.000	0.067	0.398	0.821	1.221
Mississippi	M	No	63	796	1,135.920	0.701	0.653	0.751	55	4%	35%	0.084	0.374	0.683	1.026	1.318
Montana	No	No	16	217	259.250	0.837	0.731	0.954	14	21%	14%	.	.	.	.	.
North Carolina	Yes	Yes	104	3,130	3,577.130	0.875	0.845	0.906	98	9%	20%	0.471	0.725	0.912	1.537	1.913
North Dakota	No		11	239	264.890	0.902	0.793	1.022	8	.	.	.	.	.	.	.
Nebraska	No	No	30	392	560.920	0.699	0.632	0.771	25	8%	20%	0.000	0.458	0.803	1.152	1.370
New Hampshire	No	No	21	348	350.100	0.994	0.894	1.103	20	5%	0%	0.000	0.038	0.611	0.772	1.127
New Jersey	No	No	72	3,027	3,126.460	0.968	0.934	1.003	72	21%	10%	0.000	0.393	0.893	1.164	1.310
New Mexico	Yes	Yes	39	646	568.160	1.137	1.052	1.227	32	16%	3%	0.572	0.725	0.961	1.208	1.617
Nevada	No	No	23	875	814.260	1.075	1.005	1.148	22	32%	9%	0.000	0.631	0.763	0.940	1.098
New York	Yes		182	8,819	9,896.860	0.891	0.873	0.910	176	15%	27%	0.032	0.309	0.911	1.321	1.655
Ohio	No	Yes	139	4,357	4,715.330	0.924	0.897	0.952	131	15%	20%	0.007	0.557	0.826	1.107	1.577
Oklahoma	No	No	90	1,203	1,277.930	0.941	0.889	0.996	68	15%	18%	0.000	0.000	0.585	0.986	1.741
Oregon	Yes	Yes	58	710	978.890	0.725	0.673	0.780	50	8%	26%	0.000	0.339	0.580	0.921	1.620
Pennsylvania	Yes	Yes	174	4,948	5,364.730	0.922	0.897	0.948	163	15%	20%	0.205	0.469	0.747	1.119	1.528
Rhode Island	No	No	4	.	.	.	.	.	.	.	.	.	.	.	.	.
Rhode Island	No	No	11	556	475.240	1.170	1.076	1.270	11	27%	9%	.	.	.	.	.
South Carolina	No	No	66	1,431	1,694.330	0.845	0.802	0.889	62	6%	21%	0.000	0.259	0.640	0.995	1.207
South Dakota	No	Yes	23	295	284.510	1.037	0.924	1.160	16	13%	0%	.	.	.	.	.
Tennessee	Yes	Yes	114	2,166	2,783.520	0.778	0.746	0.811	108	8%	28%	0.000	0.295	0.602	0.938	1.241
Texas	No	No	371	6,875	7,440.080	0.924	0.902	0.946	296	11%	19%	0.000	0.320	0.738	1.068	1.358
Utah	Yes	Yes	37	502	606.290	0.828	0.758	0.903	31	3%	13%	0.000	0.287	0.696	1.030	1.289
Virginia	No	No	86	2,425	2,446.250	0.991	0.952	1.031	82	18%	13%	0.000	0.000	0.504	0.806	0.947
Vermont	No	No	9	76	137.800	0.552	0.438	0.687	8	.	.	.	.	.	.	.
Washington	M	No	91	1,760	1,756.320	1.002	0.956	1.050	67	13%	15%	0.000	0.426	0.782	1.062	1.406
Wisconsin	No	Yes	99	1,499	1,672.640	0.896	0.852	0.942	83	8%	12%	0.106	0.546	0.866	1.023	1.602

West Virginia	Yes	Yes	41	823	857.850	0.959	0.895	1.027	36	8%	14%	0.000	0.374	0.718	0.985	1.242
Wyoming	No	No	26	58	87.190	0.665	0.510	0.854	17	6%	12%	.	.	.	.	.
All US			3,994	101,074	109,443.460	0.924	0.918	0.929	3,554	11%	23%	0.000	0.436	0.784	1.116	1.479

- Note that almost all acute care hospitals are required to report facility-wide CDI data to NHSN for participation in the Centers for Medicare and Medicaid Services' (CMS) Hospital Inpatient Quality Reporting Program. Hospital-onset is defined as event detected on the 4th day (or later) after admission to an inpatient location within the facility.
- Yes indicates the presence of a state mandate to report facility-wide CDI data to NHSN at the beginning of 2014. M indicates midyear implementation of a mandate. No indicates that a state mandate did not exist during 2014.
- Yes indicates that the state health department reported the completion of all of the following validation activities: state health department had access to 2014 NHSN data, state health department performed an assessment of missing or implausible values on at least six months of 2014 NHSN data prior to July 1, 2015, and state health department contacted identified facilities.

varies by state). Information on validation efforts was requested from all states, regardless of the presence of a legislative mandate for the particular HAI type. Some states without mandatory reporting of a given HAI to the state health department have performed validation on NHSN data that is voluntarily shared with them by facilities in their jurisdiction.

- The number of reporting facilities included in the SIR calculation. Due to SIR exclusion criteria, this may be different from the numbers shown in Table 1. Refer to the Technical Appendix for information about exclusion criteria.
- Percent of facilities with at least one predicted hospital-onset CDI that had an SIR significantly greater or less than the nominal value of the 2014 national hospital-onset CDI SIR of 0.924. This is only calculated if at least 10 facilities had at least one predicted hospital-onset CDI in 2014.
- Facility-specific key percentiles were only calculated if at least 20 facilities had ≥ 1.0 predicted hospital-onset CDI in 2014. If a facility's predicted number of hospital-onset CDI was < 1.0 , a facility-specific SIR was neither calculated nor included in the distribution of facility-specific SIRs.
- An SIR is only displayed for states in which at least 5 facilities reported CDI data in 2014.

Table 8. Changes in national standardized infection ratios (SIRs) using HAI data reported from all NHSI Central line-associated bloodstream infections (CLABSIs), catheter-associated urinary tract infections *Clostridium difficile* infections, and surgical site infections (SSIs) following Surgical Care I

	2013 SIR	2014 SIR	Percent Change	Direction of Change	p-value
CLABSI, all locations¹	0.536	0.495	8%	Decrease*	0.0000
CLABSI, ICU ²	0.497	0.450	9%	Decrease*	0.0000
CLABSI, Ward ³	0.606	0.560	8%	Decrease*	0.0000
CLABSI, NICU ⁴	0.500	0.466	7%	Decrease*	0.0470
CAUTI, all locations⁵	1.050	1.000	5%	Decrease*	0.0000
CAUTI, ICU ²	1.171	1.155	1%	Decrease*	0.0139
CAUTI, Ward ³	0.798	0.760	5%	Decrease*	0.0007
Hospital-onset MRSA bacteremia, facility-wide⁶	0.903	0.868	4%	Decrease*	0.0069
Hospital-onset <i>C. difficile</i> infections, facility-wide⁶	0.888 ⁷	0.924	4% ⁷	Increase*	0.0000
SSI, combined SCIP procedures⁸	0.814	0.827	2%	Increase	0.1576
SSI, Hip arthroplasty	0.748	0.782	5%	Increase	0.1777
SSI, Knee arthroplasty	0.606	0.594	2%	Decrease	0.5815
SSI, Coronary artery bypass graft ⁹	0.603	0.552	8%	Decrease	0.0707
SSI, Cardiac surgery	0.563	0.422	25%	Decrease*	0.0090
SSI, Peripheral vascular bypass surgery	0.576	0.699	21%	Increase	0.0657
SSI, Abdominal aortic aneurysm repair	0.297	0.277	7%	Decrease	0.8597
SSI, Colon surgery	0.926	0.976	5%	Increase*	0.0005
SSI, Rectal surgery	0.809	0.596	26%	Decrease*	0.0151
SSI, Abdominal hysterectomy	0.868	0.825	5%	Decrease	0.1038
SSI, Vaginal hysterectomy	0.813	0.862	6%	Increase	0.6175

* Statistically significant, p < 0.0500

1. Data from all ICUs, wards (and other non-critical care locations), and NICUs. This excludes LTAC locations (or facilities) and IRF locations (
2. Data from all ICUs; excludes wards (and other non-critical care locations), NICUs, LTAC locations (or facilities), and IRF locations (or facilities)
3. Data from all wards (for this table wards also include step-down and specialty care areas [including hematology/oncology, bone marrow tran

4. Data from all NICU locations, including Level II/III and Level III nurseries. Both umbilical line and central line-associated bloodstream infections.
5. Data from all ICUs and wards (and other non-critical care locations). This excludes NICUs, LTAC locations (or facilities) and IRF locations (or facilities).
6. Hospital-onset is defined as event detected on the 4th day (or later) after admission to an inpatient location within the facility.
7. The 2013 SIRs in this table are re-calculated based on the most recent data in NHSN. Many hospitals retroactively updated their *C. difficile* SIRs. The national 2013 SIR as reported in this table compared to the 2013 *C. difficile* SIR that was published in last year's HAI Progress Report (0.0001) results in a 2% statistically significant increase in 2014.
8. These procedures were presented in previous versions of the HAI Progress Report and follow select inpatient surgical procedures with a primary diagnosis of infection using NHSN surgical procedure categorizations. Includes SSIs that were classified as deep incisional or organ/space, and were detected up to 30 days after surgery.
9. Coronary artery bypass graft includes procedures with either chest only or chest and donor site incisions.

**N acute care hospitals reporting during 2014 by HAI and patient population:
(CAUTIs), methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia,
improvement Project (SCIP) procedures, 2013 compared to 2014**

(or facilities).

es).

splant]. This excludes LTAC locations [or facilities] and IRF locations [or facilities]).

ns are considered CLABSIs.
or facilities).

laboratory test type as indicated on their annual NHSN facility survey, which effectively lowered
.904). Comparing the 2014 SIR to the 2013 SIR reported in last year's HAI Progress Report

mary skin closure technique approximating the procedures covered by SCIP,
on admission or readmission. Specific NHSN procedures and the corresponding SCIP procedures are listed in Appendix C.

Table 9. Changes in state-specific standardized infection ratios (SIRs) between 2013 and 2014 from NHSN Acute Care Hospitals
9a. Central line-associated bloodstream infections (CLABSI), all locations¹

State	All Acute Care Hospitals Reporting to NHSN				
	2013 SIR	2014 SIR	Percent Change	Direction of Change	p-value
Alaska	0.283	0.649	129%	Increase*	0.0102
Alabama	0.667	0.710	6%	Increase	0.3632
Arkansas	0.547	0.555	1%	Increase	0.8819
Arizona	0.641	0.527	18%	Decrease*	0.0056
California	0.514	0.511	1%	Decrease	0.8426
Colorado	0.492	0.413	16%	Decrease	0.0797
Connecticut	0.559	0.446	20%	Decrease	0.0651
D.C.	0.710	0.603	15%	Decrease	0.2110
Delaware	0.718	0.554	23%	Decrease	0.1355
Florida	0.589	0.508	14%	Decrease*	0.0002
Georgia	0.703	0.639	9%	Decrease	0.0759
Hawaii	0.250	0.229	8%	Decrease	0.7516
Iowa	0.537	0.461	14%	Decrease	0.2975
Idaho	0.260	0.348	34%	Increase	0.3427
Illinois	0.469	0.426	9%	Decrease	0.1081
Indiana	0.693	0.607	12%	Decrease*	0.0370
Kansas	0.576	0.613	6%	Increase	0.5694
Kentucky	0.653	0.551	16%	Decrease	0.0504
Louisiana	0.680	0.601	12%	Decrease	0.1031
Massachusetts	0.513	0.502	2%	Decrease	0.7849
Maryland	0.518	0.528	2%	Increase	0.8307
Maine	0.652	0.867	33%	Increase	0.0969
Michigan	0.432	0.404	6%	Decrease	0.3469
Minnesota	0.436	0.450	3%	Increase	0.7385
Missouri	0.422	0.481	14%	Increase	0.1086
Mississippi	0.775	0.757	2%	Decrease	0.7866
Montana	0.652	0.561	14%	Decrease	0.4760
North Carolina	0.532	0.418	21%	Decrease*	0.0004
North Dakota	0.382	0.392	3%	Increase	0.9309
Nebraska	0.716	0.721	1%	Increase	0.9509
New Hampshire	0.345	0.551	60%	Increase	0.1223
New Jersey	0.611	0.589	4%	Decrease	0.6059
New Mexico	0.493	0.552	12%	Increase	0.4844
Nevada	0.627	0.584	7%	Decrease	0.3692
New York	0.566	0.496	12%	Decrease*	0.0021
Ohio	0.417	0.401	4%	Decrease	0.5417
Oklahoma	0.370	0.430	16%	Increase	0.1682
Oregon	0.344	0.480	40%	Increase*	0.0111
Pennsylvania	0.491	0.408	17%	Decrease*	0.0000
Puerto Rico	0.780	0.586	25%	Decrease	0.0597
Rhode Island	0.670	0.613	9%	Decrease	0.5907
South Carolina	0.570	0.491	14%	Decrease*	0.0386
South Dakota	0.194	0.253	30%	Increase	0.4643
Tennessee	0.477	0.477	0%	No change	0.9875
Texas	0.515	0.469	9%	Decrease*	0.0178
Utah	0.660	0.452	32%	Decrease*	0.0188
Virginia	0.500	0.391	22%	Decrease*	0.0018
Vermont	0.252	0.450	79%	Increase	0.2145
Washington	0.536	0.511	5%	Decrease	0.5098
Wisconsin	0.480	0.347	28%	Decrease*	0.0005
West Virginia	0.353	0.375	6%	Increase	0.6755
Wyoming	0.529	0.370	30%	Decrease	0.5460
All US	0.536	0.495	8%	Decrease*	0.0000

* Statistically significant, p < 0.0500

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

Table 9. Changes in state-specific standardized infection ratios (SIRs) between 2013 and 2014 from NHSN Acute Care Hospitals

9b. Catheter-associated urinary tract infections (CAUTI), all locations¹

State	All Acute Care Hospitals Reporting to NHSN				
	2013 SIR	2014 SIR	Percent Change	Direction of Change	p-value
Alaska	1.038	0.895	14%	Decrease	0.4907
Alabama	0.933	0.872	7%	Decrease	0.1502
Arkansas	1.040	0.835	20%	Decrease*	0.0040
Arizona	1.013	0.985	3%	Decrease	0.6314
California	0.901	0.919	2%	Increase	0.4179
Colorado	0.852	0.684	20%	Decrease*	0.0050
Connecticut	1.653	1.568	5%	Decrease	0.4281
D.C.	1.314	0.977	26%	Decrease*	0.0102
Delaware	1.134	1.248	10%	Increase	0.4526
Florida	0.927	0.942	2%	Increase	0.5822
Georgia	1.313	1.138	13%	Decrease*	0.0002
Hawaii	0.637	0.761	19%	Increase	0.3070
Iowa	0.885	0.825	7%	Decrease	0.4872
Idaho	0.854	0.726	15%	Decrease	0.3289
Illinois	0.965	0.865	10%	Decrease*	0.0085
Indiana	1.226	1.029	16%	Decrease*	0.0003
Kansas	1.121	1.006	10%	Decrease	0.1723
Kentucky	1.172	0.965	18%	Decrease*	0.0015
Louisiana	0.800	0.799	< 1%	Decrease	0.9932
Massachusetts	1.571	1.284	18%	Decrease*	0.0000
Maryland	1.379	1.354	2%	Decrease	0.7307
Maine	1.718	1.538	10%	Decrease	0.3783
Michigan	1.234	1.154	6%	Decrease	0.0997
Minnesota	1.254	1.242	1%	Decrease	0.8860
Missouri	1.051	1.118	6%	Increase	0.2344
Mississippi	1.084	1.073	1%	Decrease	0.8851
Montana	0.688	0.832	21%	Increase	0.2631
North Carolina	1.141	1.216	7%	Increase	0.1265
North Dakota	0.741	0.740	< 1%	Decrease	0.9991
Nebraska	0.945	1.067	13%	Increase	0.2212
New Hampshire	0.917	1.032	13%	Increase	0.4635
New Jersey	1.016	1.079	6%	Increase	0.2114
New Mexico	0.829	1.223	48%	Increase*	0.0025
Nevada	1.070	1.018	5%	Decrease	0.4380
New York	1.252	1.152	8%	Decrease*	0.0025
Ohio	0.915	0.871	5%	Decrease	0.2106
Oklahoma	0.766	0.845	10%	Increase	0.2132
Oregon	1.142	0.949	17%	Decrease*	0.0241
Pennsylvania	1.006	0.973	3%	Decrease	0.2424
Puerto Rico	0.790	0.520	34%	Decrease*	0.0006
Rhode Island	1.269	1.366	8%	Increase	0.5099
South Carolina	1.278	1.066	17%	Decrease*	0.0007
South Dakota	0.726	0.843	16%	Increase	0.3970
Tennessee	1.215	1.009	17%	Decrease*	0.0000
Texas	1.023	1.038	1%	Increase	0.6059
Utah	1.643	1.554	5%	Decrease	0.5800
Virginia	1.045	0.967	7%	Decrease	0.1464
Vermont	0.865	1.347	56%	Increase	0.0630
Washington	1.006	0.894	11%	Decrease*	0.0386
Wisconsin	0.810	0.786	3%	Decrease	0.6521
West Virginia	0.591	0.641	8%	Increase	0.4145
Wyoming	0.530	0.496	6%	Decrease	0.8595
All US	1.050	1.000	5%	Decrease*	0.0000

* Statistically significant, p < 0.0500

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

Table 9. Changes in state-specific standardized infection ratios (SIRs) between 2013 and 2014 from NHSN Acute Care Hospitals					
9c. Surgical site infections (SSI) following colon surgery¹					
State	All Acute Care Hospitals Reporting to NHSN				
	2013 SIR	2014 SIR	Percent Change	Direction of Change	p-value
Alaska	0.860	0.943	10%	Increase	0.7988
Alabama	0.476	0.777	63%	Increase*	0.0004
Arkansas	0.773	0.838	8%	Increase	0.6313
Arizona	1.107	1.100	1%	Decrease	0.9490
California	0.830	1.061	28%	Increase*	0.0000
Colorado	0.859	0.775	10%	Decrease	0.4544
Connecticut	1.129	1.403	24%	Increase	0.0758
D.C.	0.705	0.943	34%	Increase	0.2935
Delaware	0.815	1.548	90%	Increase*	0.0064
Florida	0.791	0.739	7%	Decrease	0.2848
Georgia	0.871	0.822	6%	Decrease	0.5312
Hawaii	1.020	1.321	30%	Increase	0.3107
Iowa	1.163	1.064	9%	Decrease	0.5506
Idaho	0.833	1.170	40%	Increase	0.1469
Illinois	0.816	0.888	9%	Increase	0.3006
Indiana	1.065	1.056	1%	Decrease	0.9265
Kansas	1.379	1.419	3%	Increase	0.8299
Kentucky	0.777	1.058	36%	Increase*	0.0091
Louisiana	1.087	0.948	13%	Decrease	0.2578
Massachusetts	1.201	1.181	2%	Decrease	0.8528
Maryland	0.836	0.962	15%	Increase	0.3665
Maine	1.191	1.310	10%	Increase	0.6319
Michigan	1.051	1.222	16%	Increase*	0.0462
Minnesota	0.984	1.037	5%	Increase	0.6319
Missouri	0.696	0.859	23%	Increase	0.0508
Mississippi	0.804	0.620	23%	Decrease	0.1542
Montana	0.887	0.817	8%	Decrease	0.7949
North Carolina	0.912	0.836	8%	Decrease	0.3275
North Dakota	1.250	1.049	16%	Decrease	0.5547
Nebraska	1.291	1.195	7%	Decrease	0.6592
New Hampshire	0.698	0.877	26%	Increase	0.3551
New Jersey	0.860	0.774	10%	Decrease	0.2895
New Mexico	0.742	1.477	99%	Increase*	0.0027
Nevada	1.066	1.401	31%	Increase	0.0980
New York	1.349	1.236	8%	Decrease	0.0950
Ohio	0.912	0.807	12%	Decrease	0.0936
Oklahoma	1.174	0.854	27%	Decrease*	0.0182
Oregon	0.764	0.839	10%	Increase	0.5134
Pennsylvania	0.890	0.920	3%	Increase	0.6169
Puerto Rico	.	.	.	.	.
Rhode Island	1.335	1.143	14%	Decrease	0.5039
South Carolina	0.954	1.102	16%	Increase	0.2229
South Dakota	0.953	1.412	48%	Increase	0.1312
Tennessee	0.927	0.911	2%	Decrease	0.8655
Texas	0.775	0.852	10%	Increase	0.1276
Utah	1.161	1.349	16%	Increase	0.3473
Virginia	0.908	1.020	12%	Increase	0.2346
Vermont	2.240	1.889	16%	Decrease	0.5404
Washington	0.919	0.944	3%	Increase	0.8104
Wisconsin	0.932	0.952	2%	Increase	0.8487
West Virginia	0.952	1.321	39%	Increase	0.0563
Wyoming	0.385	1.064	176%	Increase	0.1219
All US	0.926	0.976	5%	Increase*	0.0005

* Statistically significant, p < 0.0500

1. SSIs included are those classified as deep incisional or organ/space infections following NHSN-defined inpatient colon procedures with a primary detected during the same admission as the surgical procedure or upon readmission to the same facility.

Table 9. Changes in state-specific standardized infection ratios (SIRs) between 2013 and 2014 from NHSN Acute Care Hospitals
9d. Surgical site infections (SSI) following abdominal hysterectomy surgery¹

State	All Acute Care Hospitals Reporting to NHSN				
	2013 SIR	2014 SIR	Percent Change	Direction of Change	p-value
Alaska	0.451	0.640	42%	Increase	0.7315
Alabama	0.632	0.551	13%	Decrease	0.6002
Arkansas	0.929	0.883	5%	Decrease	0.8579
Arizona	1.156	0.867	25%	Decrease	0.1404
California	0.730	0.800	10%	Increase	0.4119
Colorado	0.929	0.982	6%	Increase	0.8379
Connecticut	1.055	0.850	19%	Decrease	0.4066
D.C.	1.153	0.898	22%	Decrease	0.6512
Delaware	1.146	0.997	13%	Decrease	0.7783
Florida	0.901	0.733	19%	Decrease	0.1183
Georgia	0.975	0.931	5%	Decrease	0.7658
Hawaii	0.000	0.819	> 100% ²	Increase*	0.0275
Iowa	0.936	0.899	4%	Decrease	0.9063
Idaho	1.275	1.046	18%	Decrease	0.7307
Illinois	0.592	0.759	28%	Increase	0.1589
Indiana	0.839	0.699	17%	Decrease	0.4001
Kansas	0.415	0.860	107%	Increase	0.0831
Kentucky	0.913	0.945	4%	Increase	0.8685
Louisiana	0.877	0.745	15%	Decrease	0.4940
Massachusetts	0.988	1.114	13%	Increase	0.5734
Maryland	1.197	1.182	1%	Decrease	0.9440
Maine	0.874	0.851	3%	Decrease	0.9671
Michigan	1.213	1.082	11%	Decrease	0.4561
Minnesota	1.018	1.149	13%	Increase	0.5987
Missouri	0.691	0.715	3%	Increase	0.8796
Mississippi	0.892	0.531	40%	Decrease	0.0902
Montana	0.998	0.450	55%	Decrease	0.2923
North Carolina	1.029	0.914	11%	Decrease	0.4710
North Dakota	1.576	1.311	17%	Decrease	0.7119
Nebraska	0.632	0.611	3%	Decrease	0.9458
New Hampshire	0.759	0.347	54%	Decrease	0.2818
New Jersey	0.874	1.040	19%	Increase	0.3513
New Mexico	0.764	1.186	55%	Increase	0.3284
Nevada	0.776	0.779	< 1%	Increase	0.9923
New York	1.276	0.974	24%	Decrease*	0.0116
Ohio	0.637	0.621	3%	Decrease	0.8851
Oklahoma	0.500	0.536	7%	Increase	0.8490
Oregon	1.128	0.906	20%	Decrease	0.4296
Pennsylvania	0.932	0.925	1%	Decrease	0.9531
Puerto Rico	.	.	.	.	.
Rhode Island	0.678	0.820	21%	Increase	0.7217
South Carolina	0.827	1.035	25%	Increase	0.3111
South Dakota	1.595	0.694	56%	Decrease	0.1297
Tennessee	0.883	0.800	9%	Decrease	0.6110
Texas	0.732	0.635	13%	Decrease	0.2150
Utah	1.084	0.584	46%	Decrease	0.0790
Virginia	0.808	0.811	< 1%	Increase	0.9876
Vermont	0.644	1.298	102%	Increase	0.3377
Washington	0.810	0.783	3%	Decrease	0.8954
Wisconsin	0.628	0.724	15%	Increase	0.5837
West Virginia	0.770	1.060	38%	Increase	0.3716
Wyoming	1.281	0.000	100%	Decrease	0.1684
All US	0.868	0.825	5%	Decrease	0.1038

* Statistically significant, p < 0.0500

1. SSIs included are those classified as deep incisional or organ/space infections following NHSN-defined inpatient abdominal hysterectomy procedure detected during the same admission as the surgical procedure or upon readmission to the same facility.
2. For any state with a referent SIR of 0.000, the percent change was reflected as greater than 100 percent.

ures with a primary skin closure technique,

Table 9. Changes in state-specific standardized infection ratios (SIRs) between 2013 and 2014 from NHSN Acute Care Hospitals
9e. Hospital-onset methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia, facility-wide¹

State	All Acute Care Hospitals Reporting to NHSN				
	2013 SIR	2014 SIR	Percent Change	Direction of Change	p-value
Alaska	0.203	0.291	43%	Increase	0.7218
Alabama	1.415	1.151	19%	Decrease*	0.0176
Arkansas	1.180	1.119	5%	Decrease	0.7064
Arizona	0.983	0.988	1%	Increase	0.9600
California	0.744	0.774	4%	Increase	0.4632
Colorado	0.732	0.492	33%	Decrease*	0.0305
Connecticut	0.744	0.645	13%	Decrease	0.3200
D.C.	1.616	0.946	41%	Decrease*	0.0016
Delaware	1.202	1.010	16%	Decrease	0.4416
Florida	1.099	1.040	5%	Decrease	0.2579
Georgia	1.046	1.046	0%	No change	1.0000
Hawaii	0.586	0.707	21%	Increase	0.5382
Iowa	0.440	0.731	66%	Increase*	0.0127
Idaho	0.410	0.353	14%	Decrease	0.7512
Illinois	0.705	0.707	< 1%	Increase	0.9800
Indiana	0.819	0.768	6%	Decrease	0.5590
Kansas	0.480	0.552	15%	Increase	0.4955
Kentucky	1.240	1.249	1%	Increase	0.9420
Louisiana	1.207	1.082	10%	Decrease	0.2436
Massachusetts	0.598	0.515	14%	Decrease	0.2191
Maryland	0.822	1.218	48%	Increase	0.0613
Maine	0.719	0.599	17%	Decrease	0.5395
Michigan	0.963	0.966	< 1%	Increase	0.9610
Minnesota	0.439	0.367	16%	Decrease	0.3374
Missouri	0.802	0.751	6%	Decrease	0.5225
Mississippi	1.129	0.834	26%	Decrease*	0.0157
Montana	0.536	0.802	49%	Increase	0.3536
North Carolina	0.951	0.860	10%	Decrease	0.1926
North Dakota	1.193	0.691	42%	Decrease	0.0749
Nebraska	0.632	0.507	20%	Decrease	0.3665
New Hampshire	0.501	0.553	10%	Increase	0.7829
New Jersey	1.119	1.063	5%	Decrease	0.4905
New Mexico	0.307	0.416	35%	Increase	0.3692
Nevada	0.752	1.075	43%	Increase*	0.0411
New York	0.999	0.934	6%	Decrease	0.1583
Ohio	0.837	0.899	7%	Increase	0.3092
Oklahoma	1.057	1.077	2%	Increase	0.8746
Oregon	0.594	0.647	9%	Increase	0.6618
Pennsylvania	0.902	0.789	13%	Decrease*	0.0442
Puerto Rico	.	.	.	.	.
Rhode Island	0.905	0.648	28%	Decrease	0.2139
South Carolina	0.932	0.985	6%	Increase	0.6127
South Dakota	0.730	0.531	27%	Decrease	0.3760
Tennessee	1.096	1.012	8%	Decrease	0.3041
Texas	0.867	0.834	4%	Decrease	0.4859
Utah	0.602	0.625	4%	Increase	0.8748
Virginia	0.885	0.840	5%	Decrease	0.5996
Vermont	0.268	0.205	23%	Decrease	0.7477
Washington	0.790	0.843	7%	Increase	0.6211
Wisconsin	0.528	0.491	7%	Decrease	0.6845
West Virginia	0.932	0.843	10%	Decrease	0.5302
Wyoming	0.704	0.358	49%	Decrease	0.4651
All US	0.903	0.868	4%	Decrease*	0.0069

* Statistically significant, $p < 0.0500$

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

Table 9. Changes in state-specific standardized infection ratios (SIRs) between 2013 and 2014 from NHSN Acute Care Hospitals					
9f. Hospital-onset <i>Clostridium difficile</i> infection (CDI), facility-wide¹					
State	All Acute Care Hospitals Reporting to NHSN				
	2013 SIR²	2014 SIR	Percent Change	Direction of Change	p-value
Alaska	0.652	0.852	31%	Increase	0.0505
Alabama	0.642	0.665	4%	Increase	0.3703
Arkansas	0.619	0.673	9%	Increase	0.1430
Arizona	0.996	0.928	7%	Decrease*	0.0220
California	1.016	1.085	7%	Increase*	0.0000
Colorado	1.008	1.114	11%	Increase*	0.0128
Connecticut	1.023	1.077	5%	Increase	0.1617
D.C	0.870	0.889	2%	Increase	0.7479
Delaware	1.029	1.061	3%	Increase	0.6741
Florida	0.863	0.883	2%	Increase	0.1642
Georgia	0.818	0.916	12%	Increase*	0.0000
Hawaii	0.666	0.689	3%	Increase	0.6932
Iowa	0.807	0.951	18%	Increase*	0.0007
Idaho	0.615	0.708	15%	Increase	0.1551
Illinois	0.900	0.995	11%	Increase*	0.0000
Indiana	0.903	0.944	5%	Increase	0.1391
Kansas	0.910	0.921	1%	Increase	0.7966
Kentucky	0.932	0.921	1%	Decrease	0.7277
Louisiana	0.614	0.676	10%	Increase*	0.0268
Massachusetts	0.969	0.958	1%	Decrease	0.6673
Maryland	1.130	1.201	6%	Increase*	0.0461
Maine	0.540	0.588	9%	Increase	0.3442
Michigan	0.899	0.914	2%	Increase	0.4644
Minnesota	0.831	0.810	3%	Decrease	0.4983
Missouri	0.846	0.879	4%	Increase	0.2089
Mississippi	0.567	0.701	24%	Increase*	0.0001
Montana	0.846	0.837	1%	Decrease	0.9096
North Carolina	0.803	0.875	9%	Increase*	0.0009
North Dakota	0.834	0.902	8%	Increase	0.3957
Nebraska	0.632	0.699	11%	Increase	0.1801
New Hampshire	0.817	0.994	22%	Increase*	0.0128
New Jersey	1.003	0.968	3%	Decrease	0.1548
New Mexico	1.028	1.137	11%	Increase	0.0786
Nevada	1.130	1.075	5%	Decrease	0.2980
New York	0.943	0.891	6%	Decrease*	0.0001
Ohio	0.924	0.924	0%	No change	0.9838
Oklahoma	0.905	0.941	4%	Increase	0.3369
Oregon	0.755	0.725	4%	Decrease	0.4412
Pennsylvania	0.909	0.922	1%	Increase	0.4693
Puerto Rico	.	.	.	.	.
Rhode Island	1.187	1.170	1%	Decrease	0.8053
South Carolina	0.743	0.845	14%	Increase*	0.0008
South Dakota	0.720	1.037	44%	Increase*	0.0000
Tennessee	0.753	0.778	3%	Increase	0.2921
Texas	0.797	0.924	16%	Increase*	0.0000
Utah	0.755	0.828	10%	Increase	0.1537
Virginia	0.976	0.991	2%	Increase	0.5841
Vermont	0.556	0.552	1%	Decrease	0.9642
Washington	0.962	1.002	4%	Increase	0.2330
Wisconsin	0.869	0.896	3%	Increase	0.4015
West Virginia	0.983	0.959	2%	Decrease	0.6155
Wyoming	0.800	0.665	17%	Decrease	0.2956
All US	0.888	0.924	4%	Increase*	0.0000

* Statistically significant, p < 0.0500

1. Hospital-onset is defined as event detected on the 4th day (or later) after admission to an inpatient location within the facility.
2. The 2013 SIRs in this table are re-calculated based on the most recent data in NHSN. Many hospitals retroactively updated their *C. difficile* labora the national and some state 2013 SIRs as reported in this table compared to the 2013 *C. difficile* SIRs that were published in last year's HAI Progr

itory test type as indicated on their annual NHSN facility survey, which effectively lowered
ess Report.

Appendix A. Factors used in NHSN risk adjustment of the MRSA Bacteremia and *C. difficile* negative binomial regression models¹

HAI Type	Validated Parameters for Risk Model
MRSA bacteremia	Admission prevalence rate, bed size, medical school affiliation
<i>C. difficile</i> infections	CDI test type, CO admission prevalence rate, bed size, medical school affiliation

1. MRSA bacteremia and CDI risk adjustment methodology: <http://www.cdc.gov/nhsn/pdfs/mrsa-cdi/riskad>

ljustment-mrsa-cdi.pdf

**Appendix B. List of NHSN procedures included in this report
Complex Admission/Re-admission Model¹**

NHSN Procedure Code	NHSN Procedure
AAA	Abdominal aortic aneurysm
AMP	Limb amputation
APPY	Appendectomy
AVSD	Arteriovenous shunt for dialysis
BILI	Bile duct, liver or pancreatic surgery
BRST	Breast surgery
CABG	Coronary artery bypass graft
CARD	Cardiac surgery
CEA	Carotid endarterectomy
CHOL	Cholecystectomy
COLO	Colon surgery
CRAN	Craniotomy
CSEC	Cesarean delivery
FUSN	Spinal fusion
FX	Open reduction of long bone fracture
GAST	Gastric surgery
HER	Herniorrhaphy
HPRO	Hip arthroplasty
HTP	Heart transplant
HYST	Abdominal hysterectomy
KPRO	Knee arthroplasty
KTP	Kidney transplant
LAM	Laminectomy

LTP	Liver transplant
NECK	Neck surgery
NEPH	Kidney surgery
OVRY	Ovarian surgery
PACE	Pacemaker surgery
PRST	Prostate surgery
PVBY	Peripheral vascular bypass surgery
REC	Rectal surgery
RFUSN	Refusion of spine
SB	Small-bowel surgery
SPLE	Spleen surgery
THOR	Thoracic surgery
THYR	Thyroid and/or parathyroid surgery
VHYS	Vaginal hysterectomy
VSHN	Ventricular shunt
XLAP	Exploratory Laparotomy

1. SSI risk adjustment methodology: <http://www.cdc.gov/nhsn/P>

* These risk factors are collected on NHSN's Patient Safety Anr

** During the SIR baseline time period (2006-2008), there were
thus overall incidence is used in the SIR calculations: AMP, C

rt with factors used in NHSN risk adjustment of the SSI

Validated Parameters for Risk Model
duration, wound class
N/A**
emergency, gender, hospital bed size*, wound class
age
ASA score, duration, hospital bed size*
ASA score, duration, hospital bed size*
age, ASA score, duration, gender, medical school affiliation*, age-gender (interaction)
age, duration, emergency
N/A**
age, ASA score, duration, hospital bed size*
age, ASA score, duration, endoscope, medical school affiliation*, hospital bed size*, wound class
age, duration, hospital bed size*
age, anesthesia, ASA score, BMI, duration, labor, hospital bed size*, wound class
approach, ASA score, diabetes, duration, medical school affiliation*, spinal level
age, duration, hospital bed size*
age, duration
age, ASA score, duration, gender, hospital bed size*
age, anesthesia, ASA score, duration, total/partial/revision, medical school affiliation*, hospital bed size*, trauma
N/A**
age, ASA score, duration, hospital bed size*
age, ASA score, duration, gender, revision, medical school affiliation*, hospital bed size*, trauma
ASA score, duration
ASA score, duration, medical school affiliation*, hospital bed size*

age, duration
duration
N/A**
N/A**
N/A**
N/A**
age, ASA score, duration, medical school affiliation*
duration, gender, hospital bed size*
duration
duration, hospital bed size*
N/A**
duration
N/A**
age, duration, medical school affiliation*
age, medical school affiliation*, hospital bed size*, wound class
duration

DFs/pscManual/SSI_ModelPaper.pdf

ual Facility Survey.

insufficient data for the following procedures in order to detect significant differences in risk,
 DEEA, HTP, NEPH, OVRY, PACE, PRST, SPLE, THYR.

Appendix C. List of NHSN procedures and corresponding SCIP procedures included in this report with factors used in the NHSN risk adjustment of the Complex Admission/Readmission Model¹

SCIP Procedure	NHSN Procedure	Validated Parameters for Risk Model
Vascular	Abdominal aortic aneurysm repair	Duration of procedure, wound class
	Peripheral vascular bypass surgery	Age, ASA, duration of procedure, medical school affiliation
Coronary artery bypass graft	Coronary artery bypass graft with both chest and donor site incisions	Age, ASA, duration of procedure, gender, medical school affiliation, age gender (interaction)
	Coronary artery bypass graft with chest incision only	
Other cardiac	Cardiac surgery	Age, duration of procedure, emergency
Colon surgery	Colon surgery	Age, ASA, duration, endoscope, medical school affiliation, hospital bed size, wound class
	Rectal surgery	Duration of procedure, gender, hospital bed size
Hip arthroplasty	Hip arthroplasty	Total/partial/revision, age, anesthesia, ASA, duration of procedure, medical school affiliation, hospital bed size, trauma
Abdominal hysterectomy	Abdominal hysterectomy	Age, ASA, duration of procedure, hospital bed size
Knee arthroplasty	Knee arthroplasty	Age, ASA, duration of procedure, gender, medical school affiliation, hospital bed size, trauma, revision
Vaginal hysterectomy	Vaginal hysterectomy	Age, duration of procedure, medical school affiliation

1. SSI risk adjustment methodology: http://www.cdc.gov/nhsn/PDFs/pscManual/SSI_ModelPaper.pdf

Additional Resources

Technical Appendix: <http://www.cdc.gov/hai/pdfs/progress-report/tech-appendix.pdf>

Explains the methodology used to procedure the HAI Progress Report.

HAI Progress Report Home Page: <http://www.cdc.gov/hai/progress-report/index.html>

The complete HAI Progress Report, including state-specific fact sheets and the Executive Summary, can be fo

und at the above website.