2021 Nat
S

Introduction: Welcome to the 2021 National and State HAI Data Report using the 2015 baseline
by comparing the number of observed device days to the number of predicted dev
This report is created by CDC staff with the National Healthcare Safety Network (N

Scope of report:

Device Days Types
Central line days (CLDs) by locations
Urinary catheter days (UCDs) by locations
Ventilator days (VDs) by locations

tional and State HAI Progress Report
tandardized Utilization Ratios

Critical Access Hospitals

e and risk adjustment calculations. Standardized utilization ratios (SURs) are used to describe device util
ice days.
IHSN).

CAH	
National	**State**
☑	☑
☑	☑
☑	☑

izations

Development of the NHSN Standardized Utilization Ratio (SUR): Methodology

Rationale
Traditionally, NHSN has been providing a crude measure of device utilization rate to the healthcare facili
standardized to compare with a reference baseline population as well as over time. Accordingly, CDC ha

Development of SUR models
SUR models were developed for the following measures: central line days, urinary catheter days and ve
inpatient rehabilitation facilities (IRF), long-term acute care hospitals (LTACH) (and NICU for central line
Using the NHSN data (2021) in sync with rebaseline work, CDC has developed multivariable logistic regr
"Extra-binomial Variation in Logistic Linear Models," Applied Statistics, 31, 144–148.). Unit of analysis in

STEPS to compute SUR at the location level
1: First, calculate the logit scale value of p_hat, using parameter estimates of corresponding SUR model
Logit p_hat= intercept + x1 + X2 + X3 + ………
(Risk factors are provided in appendices for individual matrix of measure and healthcare setting)

2: Then, compute the probability of device use
p_hat = [e^logit(p_hat)] / [1+ e^logit(p_hat)]

3: Calculate predicted device days as follows:
Predicted Device Days = p-hat * In-patient days

4: Finally, derive SUR value at the location by dividing number of observed device days with number of p
SUR = Observed Device Days / Predicted Device Days

Note that SUR will not be calculated if Predicted Device Days is <1 due to minimum precision criteria of

STEPS to compute SUR at higher level above location
Do the same computation as in step 1, 2, 3 at location level.
Sum the observed device days and predicted device days up to the level of aggregation desired (e.g., fa
Then, derive SUR value at the desired aggregate level by dividing number of observed device days with

SUR Guide: https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sur-guide-508.pdf

ties. To monitor the progress of healthcare acquired infections (HAI) prevention efforts, device utilization in any
is developed statistical models to make SUR values available for different measures (e.g., central line days, urir

ntilator days. They were available for the healthcare setting of acute care hospitals (ACH), critical access hospita
days).
ession models that correct over dispersion by the Williams' method (Reference: Williams, D. A. (1982),
all the SUR models are at the location level.

.

predicted device days;

1.0.

cility-level).
number of predicted device days.

healthcare setting/location needs to be
iary catheter days) at various healthcare settings.

als (CAH),

2021 Annual National and State HAI Progress Report
<u>**Critical Access Hospitals:**</u> **Full series of tables for all national and state data**

ss hospitals (CAHs)

e-508.pdf

Table 1. National standardi

Population	No. of Facilities	No. of Device Days			95% CI	
	Reporting[1]	Observed	Predicted	SUR	Lower	
Central line days, all[4]	924	210,121	175,420.2999	1.1978	1.1927	
ICUs[5]	210	26,723	19,740.8665	1.3537	1.3375	
Wards[6]	909	183,398	155,679.4335	1.1780	1.1726	
Urinary catheter days, all[4]	1000	382,645	406,445.5259	0.9414	0.9385	
	211	50,025	55,633.3548	0.8992	0.8913	
Wards[6]	985	332,620	350,812.1711	0.9481	0.9449	
Ventilator days, all[4]	208	10,630	4,531.7800	2.3457	2.3014	
	124	8,399	4,209.5138	1.9952	1.9529	
	110	2,231	322.2662	6.9228	6.6401	

1. The number of reporting facilities included in the SUR calculation; SURs are not calculated when there are l
2. Percent of facilities with at least one predicted device day that had an SUR significantly greater than or less
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥1.0 predicted number of device d
4. Data from all ICUs, wards, and other non-critical care locations. Data contained in this table are reported fro
5. Data from all ICUs; excludes wards (and other non-critical care locations). Data contained in this table are re
6. Data from all wards (for this table, wards also include step-down, mixed acuity, and specialty care areas [inc

for SUR	Facility-specific SURs					
Upper	No. Facilities with ≥1 Predicted Device Days	No. Facilities with SUR Significantly > National SUR		No. Facilities with SUR Significantly < National SUR		5%
		N	%²	N		
1.2029	923	270	29%	512	55%	0.0000
1.3700	206	62	30%	92	45%	0.0000
1.1834	908	260	29%	500	55%	0.0000
0.9444	1000	336	34%	479	48%	0.1922
0.9071	211	86	41%	77	36%	0.1047
0.9514	985	326	33%	475	48%	0.2023
2.3906	177	39	22%	109	62%	0.0000
2.0383	120	30	25%	66	55%	0.0000
7.2144	81	11	14%	69	85%	0.0000

less than 5 reporting facilities. This may be different from those reported in the SIR tables due to exclusion
than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0 predict
ays in 2021. If a facility's predicted number of device days was <1.0, a facility-specific SUR was neither ca
m critical access hospitals; as such, data from ACHs, IRFs and LTACHs are excluded.
eported from critical access hospitals; as such, data from ACHs, IRFs and LTACHs are excluded.
:luding hematology/oncology, bone marrow transplant]). Data contained in this table are reported from criti

› NHSN during 2021 for critical access hospitals (CAHs), by device type and patient population
ne days (CLDs), urinary catheter days (UCDs), and ventilator days (VDs).

<u>**Percentile Distribution of Facility-specifi**</u>

Median

10%	15%	20%	25%	30%	35%	40%	45%	50%	55%
0.0330	0.1846	0.3174	0.4600	0.5400	0.6280	0.7224	0.8184	0.9180	1.0226
0.1577	0.3505	0.4801	0.5733	0.6595	0.7818	0.9045	0.9989	1.1180	1.2341
0.0312	0.1793	0.3099	0.4541	0.5250	0.6232	0.7200	0.8056	0.8940	0.9943
0.3500	0.4285	0.5163	0.5657	0.6319	0.6875	0.7439	0.7960	0.8535	0.9064
0.3016	0.3801	0.4758	0.5736	0.6341	0.6858	0.7434	0.7939	0.8721	0.9477
0.3616	0.4532	0.5225	0.5727	0.6355	0.6929	0.7473	0.7980	0.8558	0.9040
0.0000	0.0000	0.0000	0.1031	0.2469	0.3838	0.5468	0.5932	0.7338	1.0399
0.0317	0.1499	0.2740	0.3956	0.5059	0.5545	0.7042	0.8260	1.1376	1.3915
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ι and inclusion criteria. Refer to the technical appendix for details.
ted device days in 2021.
lculated nor included in the distribution of facility-specific SURs.

ical access hospitals; as such, data from ACHs, IRFs and LTACHs are excluded.

c SURs[3]

60%	65%	70%	75%	80%	85%	90%	95%
1.1079	1.2116	1.3391	1.4909	1.6659	1.8997	2.2595	2.7446
1.4102	1.5155	1.7302	1.9623	2.1709	2.6694	3.1588	3.5802
1.0951	1.1978	1.3055	1.4744	1.6350	1.8380	2.2776	2.8149
0.9759	1.0426	1.1225	1.2150	1.2923	1.4336	1.6116	1.9410
1.1065	1.1953	1.2967	1.4096	1.5361	1.6900	1.8197	2.0739
0.9752	1.0452	1.1275	1.2054	1.3000	1.4375	1.6467	2.0006
1.4252	1.6897	1.9856	2.5909	3.2819	5.1476	7.3668	18.7466
1.6095	1.8500	2.0753	2.9873	3.3728	4.3678	5.7630	7.9310
0.2469	0.4274	0.7075	1.4252	2.0581	3.0335	21.8636	39.4115

Table 2. State-specific standardized utilization ratios (SURs) and facility-specific summary
Table 2a. Central line days (CL

State	No. of Facilities Reporting[1]	No. of Device Days			95% CI
		Observed	Predicted	SUR	Lower
Alabama	5	803	876.9582	0.9157	0.8540
Alaska	4	.	.	.	.
Arizona	7	1,834	1,602.3639	1.1446	1.0931
Arkansas	14	2,819	2,095.5450	1.3452	1.2962
California	34	10,179	7,782.1134	1.3080	1.2828
Colorado	26	2,631	3,778.5908	0.6963	0.6701
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	7	1,047	1,589.4708	0.6587	0.6197
Georgia	21	7,164	5,735.5623	1.2490	1.2204
Guam	0	.	.	.	.
Hawaii	1	.	.	.	.
Idaho	18	2,886	2,670.6300	1.0806	1.0417
Illinois	38	9,652	7,408.1874	1.3029	1.2771
Indiana	35	10,994	7,960.2843	1.3811	1.3555
Iowa	64	9,347	8,285.3190	1.1281	1.1055
Kansas	63	10,560	8,249.4988	1.2801	1.2559
Kentucky	27	9,549	6,092.5536	1.5673	1.5361
Louisiana	7	3,132	1,838.1056	1.7039	1.6450
Maine	16	5,781	5,272.2803	1.0965	1.0685
Maryland	0	.	.	.	.
Massachusetts	3	.	.	.	.
Michigan	30	4,531	4,643.4077	0.9758	0.9477
Minnesota	42	9,686	6,357.9890	1.5234	1.4934
Mississippi	15	2,198	2,787.5778	0.7885	0.7561
Missouri	24	6,469	5,996.4184	1.0788	1.0528
Montana	11	2,700	2,677.6126	1.0084	0.9709
Nebraska	24	3,630	2,428.8289	1.4945	1.4465
Nevada	5	824	1,203.9014	0.6844	0.6389
New Hampshire	12	3,265	3,918.5416	0.8332	0.8050
New Jersey	0	.	.	.	.
New Mexico	9	1,996	2,005.1488	0.9954	0.9525
New York	7	1,401	1,669.3805	0.8392	0.7961
North Carolina	14	4,734	4,090.5011	1.1573	1.1247
North Dakota	17	1,618	1,640.2782	0.9864	0.9392
Ohio	28	8,126	6,974.0056	1.1652	1.1400
Oklahoma	14	2,477	1,501.6579	1.6495	1.5855
Oregon	24	7,782	6,055.9382	1.2850	1.2567
Pennsylvania	15	4,181	4,102.8035	1.0191	0.9885
Puerto Rico	0	.	.	.	.

Rhode Island	0	.	.	.	.
South Carolina	4	.	.	.	.
South Dakota	32	2,947	2,747.4639	1.0726	1.0344
Tennessee	5	531	523.2631	1.0148	0.9312
Texas	61	11,120	7,975.6041	1.3943	1.3685
Utah	8	878	957.2611	0.9172	0.8580
Vermont	8	2,913	3,297.0215	0.8835	0.8519
Virgin Islands	0	.	.	.	.
Virginia	7	1,856	2,053.6478	0.9038	0.8633
Washington	32	10,168	7,273.7124	1.3979	1.3710
West Virginia	19	4,885	4,989.8997	0.9790	0.9518
Wisconsin	55	17,087	11,896.4906	1.4363	1.4149
Wyoming	12	1,191	1,853.8229	0.6425	0.6067
All US	**924**	**210,121**	**175,420.2999**	**1.1978**	**1.1927**

1. The number of reporting facilities included in the SUR calculation; SURs are not calculated when the
2. Percent of facilities with at least one predicted device day that had an SUR significantly greater than
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥1.0 predicted number of de
4. Data from all ICUs, wards, and other non-critical care locations. Data contained in this table are repo

SURs using device days data reported to NHSN during 2021 for critical access hospitals (CAHs), b
.Ds), all locations[4]

for SUR	Facility-specific SURs					Percenti
Upper	No. Facilities with ≥1 Predicted Device Days	No. Facilities with SUR Significantly > National SUR		No. Facilities with SUR Significantly < National SUR		10%
		N	%²	N		
0.9806	5	.	.	.		.
1.1978	7	.	.	.		.
1.3956	14	7	50%	5	36%	.
1.3336	34	12	35%	20	59%	0.0000
0.7233	26	1	4%	19	73%	0.0544
0.6995	7	.	.	.		.
1.2783	21	10	48%	9	43%	0.3068
1.1206	18	4	22%	11	61%	.
1.3291	38	13	34%	19	50%	0.0000
1.4071	35	12	34%	15	43%	0.5253
1.1512	64	16	25%	32	50%	0.2651
1.3047	63	19	30%	31	49%	0.0772
1.5990	27	10	37%	13	48%	0.4124
1.7644	6	.	.	.		.
1.1251	16	5	31%	11	69%	.
1.0045	30	4	13%	19	63%	0.0000
1.5540	42	18	43%	16	38%	0.4511
0.8220	15	2	13%	12	80%	.
1.1053	24	6	25%	13	54%	0.1549
1.0470	11	3	27%	8	73%	.
1.5438	24	12	50%	10	42%	0.0000
0.7324	5	.	.	.		.
0.8622	12	1	8%	8	67%	.
1.0398	9	.	.	.		.
0.8841	7	.	.	.		.
1.1906	14	6	43%	8	57%	.
1.0354	17	3	18%	11	65%	.
1.1907	28	9	32%	19	68%	0.1101
1.7154	14	6	43%	7	50%	.
1.3138	24	8	33%	12	50%	0.4863
1.0503	15	4	27%	11	73%	.

.	.	.	.	.	.	.
1.1119	32	8	25%	18	56%	0.0000
1.1039	5	.	.	.	.	.
1.4204	61	17	28%	38	62%	0.0000
0.9794	8	.	.	.	.	.
0.9160	8	.	.	.	.	.
.	.	.	.	.	.	.
0.9456	7	.	.	.	.	.
1.4253	32	13	41%	15	47%	0.0159
1.0067	19	2	11%	11	58%	.
1.4580	55	19	35%	25	45%	0.1382
0.6797	12	2	17%	10	83%	.
1.2029	**923**	**270**	**29%**	**512**	**55%**	**0.0330**

re are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to ex
or less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0
evice days in 2021. If a facility's predicted number of device days was <1.0, a facility-specific SUR was nei
rted from critical access hospitals.

y device type and patient population:

25%	Median 50%	75%	90%
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.2649	0.7231	1.6536	2.0795
0.2136	0.6897	1.0441	1.2107
.	.	.	.
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.	.	.	.
.	.	.	.
0.5555	1.1360	1.7302	2.4626
.	.	.	.
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.	.	.	.
0.4971	1.0471	1.7466	2.2595
0.7737	1.1360	1.4912	1.9579
0.6015	0.9791	1.3966	1.8071
0.5909	0.9285	1.8353	2.3021
0.5742	1.1079	1.5608	4.0005
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.	.	.	.
.	.	.	.
0.5261	0.8082	1.2298	1.4671
0.6833	1.1404	2.4938	2.7294
.	.	.	.
0.5627	0.9920	1.4046	1.6917
.	.	.	.
0.5342	1.3082	1.9885	3.2734
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0.5163	0.8660	1.6770	2.2776
.	.	.	.
0.8163	1.0805	1.5839	2.1615
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.	.	.	.
0.1051	0.8163	1.3606	1.8997
.	.	.	.
0.0894	0.6450	1.4795	2.6039
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0.4583	1.0594	1.6597	2.0287
.	.	.	.
0.5474	1.1216	1.6696	2.7501
.	.	.	.
0.4600	**0.9180**	**1.4909**	**2.2595**

clusion and inclusion criteria. Refer to the technical appendix for details.
 predicted device days in 2021.
ther calculated nor included in the distribution of facility-specific SURs.

State	No. of Facilities	No. of Device Days			95% CI
		Observed	**Predicted**	**SUR**	**Lower**
Alabama	1	.	.	.	.
Alaska	1	.	.	.	.
Arizona	3	.	.	.	.
Arkansas	2	.	.	.	.
California	17	3,849	1,602.8993	2.4013	2.3264
Colorado	4	.	.	.	.
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	1	.	.	.	.
Georgia	4	.	.	.	.
Guam	0	.	.	.	.
Hawaii	1	.	.	.	.
Idaho	3	.	.	.	.
Illinois	14	804	1,268.5100	0.6338	0.5911
Indiana	15	2,185	1,048.7718	2.0834	1.9975
Iowa	3	.	.	.	.
Kansas	4	.	.	.	.
Kentucky	5	556	476.3327	1.1673	1.0732
Louisiana	2	.	.	.	.
Maine	2	.	.	.	.
Maryland	0	.	.	.	.
Massachusetts	2	.	.	.	.
Michigan	5	385	300.4489	1.2814	1.1581
Minnesota	7	284	346.4026	0.8199	0.7286
Mississippi	1	.	.	.	.
Missouri	7	961	967.8279	0.9929	0.9317
Montana	3	.	.	.	.
Nebraska	4	.	.	.	.
Nevada	3	.	.	.	.
New Hampshire	6	321	417.6659	0.7686	0.6879
New Jersey	0	.	.	.	.
New Mexico	5	1,019	565.0911	1.8032	1.6951
New York	2	.	.	.	.
North Carolina	5	886	761.8525	1.1630	1.0883
North Dakota	3	.	.	.	.
Ohio	9	1,407	901.6965	1.5604	1.4804
Oklahoma	1	.	.	.	.
Oregon	13	1,763	1,363.4500	1.2930	1.2337
Pennsylvania	4	.	.	.	.
Puerto Rico	0	.	.	.	.
Rhode Island	0	.	.	.	.

South Carolina	2	.	.	.	.
South Dakota	2	.	.	.	.
Tennessee	1	.	.	.	.
Texas	6	584	546.4297	1.0688	0.9847
Utah	0	.	.	.	.
Vermont	4	.	.	.	.
Virgin Islands	0	.	.	.	.
Virginia	3	.	.	.	.
Washington	8	1,856	920.5912	2.0161	1.9259
West Virginia	8	1,273	1,129.5991	1.1269	1.0663
Wisconsin	12	777	606.3795	1.2814	1.1936
Wyoming	2	.	.	.	.
All US	**210**	**26,723**	**19,740.8665**	**1.3537**	**1.3375**

1. The number of reporting facilities included in the SUR calculation; SURs are not calculated when the
2. Percent of facilities with at least one predicted device day that had an SUR significantly greater than
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥1.0 predicted number of de
4. Data from all ICUs; excludes wards (and other non-critical care locations). Data contained in this tabl

SURs using device days data reported to NHSN during 2021 for critical access hospitals (CAHs), b
critical care locations[4]

for SUR Upper	Facility-specific SURs					10%
	No. Facilities with ≥1 Predicted Device Days	No. Facilities with SUR Significantly > National SUR N		No. Facilities with SUR Significantly < National SUR N		
2.4781	17	9	53%	4	24%	
0.6788	12	1	8%	7	58%	
2.1721	15	7	47%	3	20%	
1.2674	5					
1.4144	4					
0.9195	7					
1.0572	7					
0.8562	6					
1.9166	5					
1.2415	5					
1.6435	9					
1.3545	13	2	15%	8	62%	

1.1582	6					
2.1094	8					
1.1901	8					
1.3739	12	2	17%	5	42%	
1.3700	**206**	**62**	**30%**	**92**	**45%**	**0.1577**

re are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to ex
or less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0
evice days in 2021. If a facility's predicted number of device days was <1.0, a facility-specific SUR was ne
e are reported from critical access hospitals.

y device type and patient population:

	Median			
25%	50%	75%	90%	
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.	.	.	.

| | 0.5733 | 1.1180 | 1.9623 | 3.1588 |
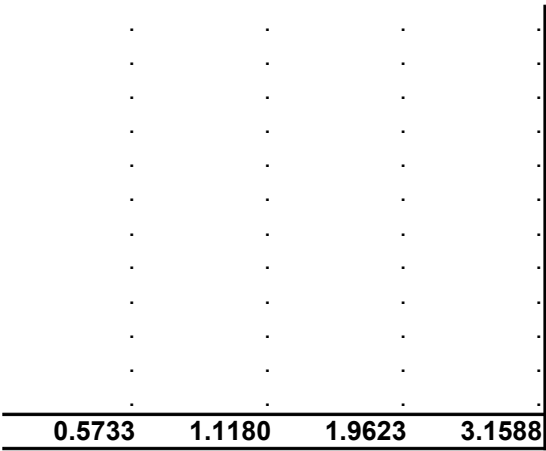
xclusion and inclusion criteria. Refer to the technical appendix for details
) predicted device days in 2021.
ither calculated nor included in the distribution of facility-specific SURs.

Table 2. State-specific standardized utilization ratios (SURs) and facility-specific summary

Table 2c. Central line days

State	No. of Facilities	No. of Device Days			95% CI
		Observed	Predicted	SUR	Lower
Alabama	5	665	758.5749	0.8766	0.8119
Alaska	4	.	.	.	.
Arizona	7	1,114	1,271.2403	0.8763	0.8260
Arkansas	14	2,661	1,946.8368	1.3668	1.3156
California	33	6,330	6,179.2141	1.0244	0.9994
Colorado	25	2,461	3,579.1469	0.6876	0.6608
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	7	1,041	1,549.4654	0.6718	0.6319
Georgia	20	5,558	5,120.7851	1.0854	1.0571
Guam	0	.	.	.	.
Hawaii	1	.	.	.	.
Idaho	17	2,116	2,273.6083	0.9307	0.8917
Illinois	35	8,848	6,139.6774	1.4411	1.4113
Indiana	35	8,809	6,911.5125	1.2745	1.2482
Iowa	64	9,327	8,273.7722	1.1273	1.1046
Kansas	63	10,220	7,964.0957	1.2833	1.2585
Kentucky	27	8,993	5,616.2208	1.6013	1.5684
Louisiana	7	2,843	1,737.4505	1.6363	1.5770
Maine	16	5,548	5,114.2414	1.0848	1.0565
Maryland	0	.	.	.	.
Massachusetts	2	.	.	.	.
Michigan	30	4,146	4,342.9588	0.9546	0.9259
Minnesota	42	9,402	6,011.5864	1.5640	1.5326
Mississippi	14	2,171	2,638.7530	0.8227	0.7887
Missouri	24	5,508	5,028.5905	1.0953	1.0667
Montana	11	2,526	2,457.8744	1.0277	0.9882
Nebraska	22	3,477	2,171.3013	1.6013	1.5488
Nevada	5	436	799.9983	0.5450	0.4956
New Hampshire	12	2,944	3,500.8757	0.8409	0.8110
New Jersey	0	.	.	.	.
New Mexico	9	977	1,440.0576	0.6784	0.6369
New York	7	1,348	1,587.7368	0.8490	0.8046
North Carolina	14	3,848	3,328.6486	1.1560	1.1200
North Dakota	17	1,532	1,472.3255	1.0405	0.9894
Ohio	28	6,719	6,072.3091	1.1065	1.0803
Oklahoma	14	2,477	1,494.0767	1.6579	1.5936
Oregon	24	6,019	4,692.4882	1.2827	1.2506
Pennsylvania	15	3,346	3,609.7921	0.9269	0.8959
Puerto Rico	0	.	.	.	.
Rhode Island	0	.	.	.	.
South Carolina	4	.	.	.	.

South Dakota	32	2,922	2,677.9501	1.0911	1.0521
Tennessee	5	530	509.9669	1.0393	0.9536
Texas	59	10,536	7,429.1744	1.4182	1.3913
Utah	8	878	957.2611	0.9172	0.8580
Vermont	6	2,218	1,970.3112	1.1257	1.0796
Virgin Islands	0	.	.	.	.
Virginia	7	1,512	1,750.9829	0.8635	0.8208
Washington	32	8,312	6,353.1212	1.3083	1.2804
West Virginia	19	3,612	3,860.3006	0.9357	0.9056
Wisconsin	55	16,310	11,290.1111	1.4446	1.4226
Wyoming	12	1,054	1,675.4897	0.6291	0.5920
All US	**909**	**183,398**	**155,679.4335**	**1.1780**	**1.1726**

1. The number of reporting facilities included in the SUR calculation; SURs are not calculated when the
2. Percent of facilities with at least one predicted device day that had an SUR significantly greater than
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥1.0 predicted number of de
4. Data from all wards (for this table, wards also include step-down, mixed acuity, and specialty care are

SURs using device days data reported to NHSN during 2021 for critical access hospitals (CAHs), b (CLDs), wards[4]

for SUR	Facility-specific SURs					
Upper	No. Facilities with ≥1 Predicted Device Days	No. Facilities with SUR Significantly > National SUR		No. Facilities with SUR Significantly < National SUR		10%
		N		N		
0.9452	5	.	.	.	.	.
.	.	.	.	.	.	.
0.9289	7	.	.	.	.	.
1.4195	14	7	50%	4	29%	.
1.0499	33	7	21%	21	64%	0.0000
0.7152	25	1	4%	18	72%	0.0544
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0.7136	7	.	.	.	.	.
1.1142	20	9	45%	10	50%	0.2189
.	.	.	.	.	.	.
0.9710	17	3	18%	11	65%	.
1.4714	35	13	37%	15	43%	0.0194
1.3014	35	10	29%	16	46%	0.5253
1.1503	64	18	28%	32	50%	0.2651
1.3083	63	20	32%	30	48%	0.0772
1.6346	27	10	37%	14	52%	0.4124
1.6973	6	.	.	.	.	.
1.1136	16	5	31%	9	56%	.
.	.	.	.	.	.	.
0.9840	30	4	13%	19	63%	0.0000
1.5958	42	18	43%	16	38%	0.4062
0.8579	14	2	14%	11	79%	.
1.1246	24	6	25%	13	54%	0.2487
1.0684	11	3	27%	8	73%	.
1.6552	22	11	50%	8	36%	0.0000
0.5980	5	.	.	.	.	.
0.8717	12	2	17%	8	67%	.
.	.	.	.	.	.	.
0.7220	9	.	.	.	.	.
0.8952	7	.	.	.	.	.
1.1930	14	4	29%	9	64%	.
1.0936	17	3	18%	11	65%	.
1.1332	28	8	29%	18	64%	0.1101
1.7242	14	6	43%	7	50%	.
1.3154	24	10	42%	9	38%	0.3280
0.9587	15	4	27%	10	67%	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.

1.1312	32	8	25%	18	56%	0.0000
1.1306	5	.	.	.	.	.
1.4455	59	15	25%	39	66%	0.0000
0.9794	8	.	.	.	.	.
1.1733	6	.	.	.	.	.
.	.	.	.	.	.	.
0.9079	7	.	.	.	.	.
1.3367	32	14	44%	14	44%	0.0159
0.9666	19	3	16%	11	58%	.
1.4669	55	19	35%	25	45%	0.1382
0.6679	12	2	17%	9	75%	.
1.1834	**908**	**260**	**29%**	**500**	**55%**	**0.0312**

re are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to ex
or less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0
evice days in 2021. If a facility's predicted number of device days was <1.0, a facility-specific SUR was ne
eas [including hematology/oncology, bone marrow transplant]). Data contained in this table are reported fr

y device type and patient population:

		Median		
	25%	50%	75%	90%
	.	.	.	.
	.	.	.	.
	.	.	.	.
	.	.	.	.
	0.2649	0.6445	1.2584	1.8528
	0.2136	0.5890	1.0441	1.2580
	.	.	.	.
	.	.	.	.
	.	.	.	.
	0.5024	0.9912	1.6884	2.4097
	.	.	.	.
	.	.	.	.
	.	.	.	.
	0.5304	1.0801	2.0939	2.2706
	0.7715	1.0806	1.4661	1.7455
	0.6015	0.9622	1.3966	1.8071
	0.5909	0.9285	1.8353	2.3021
	0.5742	0.9974	1.5587	4.0005
	.	.	.	.
	.	.	.	.
	.	.	.	.
	0.5052	0.8041	1.2266	1.4671
	0.6833	1.1404	2.4938	2.7294
	.	.	.	.
	0.5627	0.9248	1.3445	1.7810
	.	.	.	.
	0.5543	1.4334	2.1346	3.2734
	.	.	.	.
	.	.	.	.
	.	.	.	.
	.	.	.	.
	.	.	.	.
	.	.	.	.
	0.4893	0.8639	1.4608	2.2776
	.	.	.	.
	0.8357	1.2159	1.4623	2.1615
	.	.	.	.
	.	.	.	.
	.	.	.	.
	.	.	.	.

0.1051	0.8163	1.3803	1.8997
.	.	.	.
0.0000	0.5782	1.4661	3.3640
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.4583	1.0594	1.6589	1.9477
.	.	.	.
0.5618	1.1127	1.6744	2.7501
.	.	.	.
0.4541	**0.8940**	**1.4744**	**2.2776**

xclusion and inclusion criteria. Refer to the technical appendix for details
) predicted device days in 2021.
ither calculated nor included in the distribution of facility-specific SURs.
om critical access hospitals.

Table 3. State-specific standardized utilization ratios (SURs) and facility-specific s

Table 3a. Urinary catheter days (

| State | No. of Facilities | No. of Device Days | | SUR | 95% CI |
		Observed	Predicted		Lower
Alabama	5	1,290	1,899.8433	0.6790	0.6427
Alaska	4	.	.	.	.
Arizona	7	3,601	3,558.6777	1.0119	0.9793
Arkansas	14	6,061	4,562.7740	1.3284	1.2952
California	33	20,956	17,908.6191	1.1702	1.1544
Colorado	29	6,451	8,973.8805	0.7189	0.7015
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	6	3,222	3,278.3785	0.9828	0.9493
Georgia	21	11,512	12,304.2430	0.9356	0.9186
Guam	0	.	.	.	.
Hawaii	1	.	.	.	.
Idaho	19	5,691	6,164.7455	0.9232	0.8994
Illinois	40	13,359	16,944.5979	0.7884	0.7751
Indiana	35	16,112	17,739.1421	0.9083	0.8943
Iowa	71	18,636	19,759.5540	0.9431	0.9297
Kansas	72	21,205	21,227.1860	0.9990	0.9856
Kentucky	27	18,205	13,031.7885	1.3970	1.3768
Louisiana	7	4,100	3,660.3837	1.1201	1.0862
Maine	16	8,536	11,259.6358	0.7581	0.7421
Maryland	0	.	.	.	.
Massachusetts	3	.	.	.	.
Michigan	32	8,621	10,049.2569	0.8579	0.8399
Minnesota	65	20,735	20,861.2970	0.9939	0.9805
Mississippi	22	9,273	9,532.1925	0.9728	0.9531
Missouri	25	9,224	13,526.6109	0.6819	0.6681
Montana	11	5,680	6,307.0217	0.9006	0.8774
Nebraska	37	5,971	7,912.4756	0.7546	0.7357
Nevada	5	2,122	2,791.7017	0.7601	0.7283
New Hampshire	12	9,126	8,528.5190	1.0701	1.0483
New Jersey	0	.	.	.	.
New Mexico	9	6,281	4,809.9286	1.3058	1.2738
New York	8	1,901	3,694.3442	0.5146	0.4918
North Carolina	14	7,896	9,314.3288	0.8477	0.8292
North Dakota	19	4,741	4,122.7192	1.1500	1.1176
Ohio	28	14,738	15,257.4561	0.9660	0.9504
Oklahoma	14	3,039	3,145.3148	0.9662	0.9323
Oregon	25	14,045	14,178.9075	0.9906	0.9743
Pennsylvania	15	8,411	8,735.3748	0.9629	0.9424
Puerto Rico	0	.	.	.	.
Rhode Island	0	.	.	.	.
South Carolina	4	.	.	.	.

South Dakota	37	5,380	7,662.6710	0.7021	0.6835
Tennessee	5	1,172	1,089.9913	1.0752	1.0150
Texas	62	17,111	17,285.9764	0.9899	0.9752
Utah	8	2,028	2,035.9605	0.9961	0.9535
Vermont	4	.	.	.	.
Virgin Islands	0	.	.	.	.
Virginia	7	3,586	4,468.3687	0.8025	0.7766
Washington	32	18,590	16,444.7081	1.1305	1.1143
West Virginia	21	11,102	12,156.9302	0.9132	0.8964
Wisconsin	56	21,065	26,063.8983	0.8082	0.7973
Wyoming	13	3,577	3,977.7199	0.8993	0.8702
All US	**1,000**	**382,645**	**406,445.5259**	**0.9414**	**0.9385**

1. The number of reporting facilities included in the SUR calculation; SURs are not calculated when there
2. Percent of facilities with at least one predicted device day that had an SUR significantly greater than or
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥1.0 predicted number of dev
4. Data from all ICUs and wards (and other non-critical care locations). Data contained in this table are re

for SUR		Facility-specific SURs				
Upper	No. Facilities with ≥1 Predicted Device Days	No. Facilities with SUR Significantly > National SUR N		No. Facilities with SUR Significantly < National SUR N		10%
0.7168	5	.		.		.
	.	.		.		.
1.0454	7	.		.		.
1.3621	14	9	64%	3	21%	.
1.1861	33	20	61%	10	30%	0.5073
0.7366	29	8	28%	17	59%	0.1879
	.	.		.		.
	.	.		.		.
	.	.		.		.
1.0172	6	.		.		.
0.9528	21	7	33%	9	43%	0.5588
	.	.		.		.
	.	.		.		.
0.9474	19	5	26%	8	42%	.
0.8019	40	15	38%	18	45%	0.3010
0.9224	35	10	29%	21	60%	0.3997
0.9567	71	29	41%	26	37%	0.5342
1.0125	72	28	39%	27	38%	0.4082
1.4174	27	17	63%	9	33%	0.4814
1.1548	7	.		.		.
0.7743	16	2	13%	9	56%	.
	.	.		.		.
	.	.		.		.
0.8762	32	8	25%	22	69%	0.1941
1.0075	65	18	28%	33	51%	0.3037
0.9927	22	7	32%	11	50%	0.4746
0.6959	25	7	28%	16	64%	0.3924
0.9242	11	4	36%	4	36%	.
0.7740	37	7	19%	25	68%	0.1217
0.7930	5	.		.		.
1.0922	12	7	58%	2	17%	.
	.	.		.		.
1.3385	9	.		.		.
0.5381	8	.		.		.
0.8666	14	3	21%	6	43%	.
1.1831	19	7	37%	8	42%	.
0.9816	28	8	29%	17	61%	0.4945
1.0010	14	6	43%	6	43%	.
1.0071	25	10	40%	9	36%	0.6120
0.9836	15	7	47%	5	33%	.
	.	.		.		.
	.	.		.		.

0.7211	37	4	11%	23	62%	0.3163
1.1382	5	.	.	.	.	.
1.0048	62	24	39%	24	39%	0.1613
1.0402	8	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0.8291	7	.	.	.	.	.
1.1468	32	14	44%	12	38%	0.3223
0.9303	21	6	29%	13	62%	0.4491
0.8192	56	11	20%	33	59%	0.4510
0.9291	13	3	23%	7	54%	.
0.9444	**1000**	**336**	**34%**	**479**	**48%**	**0.3500**

are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to exclu
less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0 pr
ice days in 2021. If a facility's predicted number of device days was <1.0, a facility-specific SUR was neithe
ported from critical access hospitals.

	Median		
25%	50%	75%	90%
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.7795	1.1318	1.3923	1.5832
0.5605	0.7098	1.1036	1.2261
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.7326	0.8866	1.2321	1.6700
.	.	.	.
.	.	.	.
.	.	.	.
0.5035	0.9352	1.2531	1.4691
0.5577	0.7705	1.1290	1.7390
0.6870	0.9997	1.2639	1.6078
0.6740	0.9196	1.3072	2.0221
0.5880	1.3599	1.9267	2.2134
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.3400	0.6057	1.0287	1.2261
0.5404	0.8440	1.1081	1.6815
0.6582	0.7726	1.2794	2.4052
0.5266	0.6510	1.0355	1.3453
.	.	.	.
0.3801	0.6832	0.8855	1.2681
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.6550	0.7694	1.0729	1.5074
.	.	.	.
0.7246	0.9201	1.2496	1.3162
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

0.4407	0.6853	0.9205	1.1315
.	.	.	.
0.5509	0.8912	1.3266	1.8958
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.7676	0.9736	1.2786	1.7411
0.5418	0.8202	1.4621	1.5669
0.5999	0.7882	0.9658	1.3406
.	.	.	.
0.5657	**0.8535**	**1.2150**	**1.6116**

usion and inclusion criteria. Refer to the technical appendix for details.
edicted device days in 2021.
er calculated nor included in the distribution of facility-specific SURs.

State	No. of Facilities	No. of Device Days			95% CI
		Observed	**Predicted**	**SUR**	**Lower**
Alabama	1	.	.	.	.
Alaska	1	.	.	.	.
Arizona	3	.	.	.	.
Arkansas	2	.	.	.	.
California	17	6,164	4,526.9442	1.3616	1.3280
Colorado	4	.	.	.	.
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	1	.	.	.	.
Georgia	4	.	.	.	.
Guam	0	.	.	.	.
Hawaii	1	.	.	.	.
Idaho	3	.	.	.	.
Illinois	14	1,155	3,582.5544	0.3224	0.3042
Indiana	15	3,411	2,961.9648	1.1516	1.1135
Iowa	3	.	.	.	.
Kansas	4	.	.	.	.
Kentucky	5	1,797	1,339.6698	1.3414	1.2805
Louisiana	2	.	.	.	.
Maine	2	.	.	.	.
Maryland	0	.	.	.	.
Massachusetts	2	.	.	.	.
Michigan	5	653	848.5344	0.7696	0.7122
Minnesota	9	1,162	1,497.4524	0.7760	0.7323
Mississippi	1	.	.	.	.
Missouri	7	1,364	2,733.3612	0.4990	0.4730
Montana	3	.	.	.	.
Nebraska	5	878	1,564.9794	0.5610	0.5248
Nevada	3	.	.	.	.
New Hampshire	6	1,116	1,179.5814	0.9461	0.8918
New Jersey	0	.	.	.	.
New Mexico	5	1,999	1,595.9430	1.2526	1.1985
New York	2	.	.	.	.
North Carolina	5	1,677	2,151.6408	0.7794	0.7428
North Dakota	3	.	.	.	.
Ohio	9	2,651	2,546.5914	1.0410	1.0020
Oklahoma	1	.	.	.	.
Oregon	13	3,554	3,850.6860	0.9230	0.8930
Pennsylvania	4	.	.	.	.
Puerto Rico	0	.	.	.	.
Rhode Island	0	.	.	.	.

South Carolina	2	.	.	.	.
South Dakota	2	.	.	.	.
Tennessee	1	.	.	.	.
Texas	6	1,406	1,543.2390	0.9111	0.8644
Utah	0	.	.	.	.
Vermont	2	.	.	.	.
Virgin Islands	0	.	.	.	.
Virginia	3	.	.	.	.
Washington	8	3,011	2,599.9542	1.1581	1.1173
West Virginia	8	2,675	3,190.2390	0.8385	0.8072
Wisconsin	12	1,367	1,712.5506	0.7982	0.7567
Wyoming	2	.	.	.	.
All US	**211**	**50,025**	**55,633.3548**	**0.8992**	**0.8913**

1. The number of reporting facilities included in the SUR calculation; SURs are not calculated when the
2. Percent of facilities with at least one predicted device day that had an SUR significantly greater than
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥1.0 predicted number of de
4. Data from all ICUs; excludes wards (and other non-critical care locations). Data contained in this tabl

for SUR	Facility-specific SURs					
Upper	No. Facilities with ≥1 Predicted Device Days	No. Facilities with SUR Significantly > National SUR N		No. Facilities with SUR Significantly < National SUR N		10%
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
1.3960	17	11	65%	4	24%	.
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.	.	.	.	.	.	.
0.3414	14	3	21%	5	36%	.
1.1907	15	9	60%	3	20%	.
.	.	.	.	.	.	.
1.4045	5	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0.8303	5	.	.	.	.	.
0.8216	9	.	.	.	.	.
0.5260	7	.	.	.	.	.
0.5991	5	.	.	.	.	.
1.0028	6	.	.	.	.	.
1.3084	5	.	.	.	.	.
0.8174	5	.	.	.	.	.
1.0812	9	.	.	.	.	.
0.9537	13	3	23%	7	54%	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.

0.9597	6					
1.2000	8					
0.8707	8					
0.8414	12	2	17%	3	25%	
0.9071	**211**	**86**	**41%**	**77**	**36%**	**0.3016**

re are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to ex
or less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0
evice days in 2021. If a facility's predicted number of device days was <1.0, a facility-specific SUR was nei
e are reported from critical access hospitals.
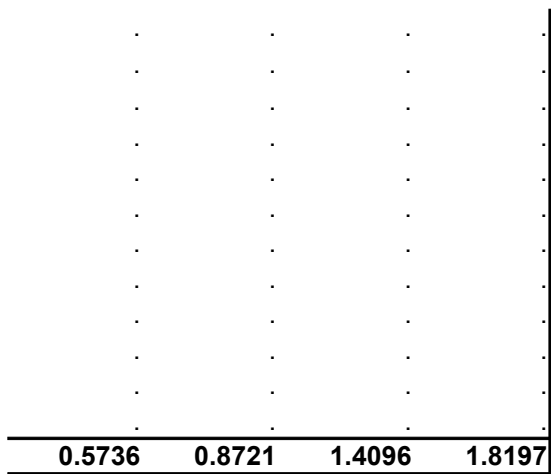
y device type and patient population:

	Median			
25%	50%	75%	90%	
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.	.	.	.
0.5736	0.8721	1.4096	1.8197

clusion and inclusion criteria. Refer to the technical appendix for details
 predicted device days in 2021.
ither calculated nor included in the distribution of facility-specific SURs.

Table 3. State-specific standardized utilization ratios (SURs) and facility-specific summary

Table 3c. Urinary catheter day

State	No. of Facilities	No. of Device Days			95% CI
		Observed	Predicted	SUR	Lower
Alabama	5	964	1,565.5022	0.6158	0.5778
Alaska	4	.	.	.	.
Arizona	7	2,226	2,623.5111	0.8485	0.8138
Arkansas	14	5,402	4,142.7890	1.3040	1.2695
California	32	14,792	13,381.6749	1.1054	1.0877
Colorado	28	6,012	8,410.6065	0.7148	0.6969
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	6	3,215	3,165.3943	1.0157	0.9810
Georgia	20	9,302	10,567.9756	0.8802	0.8625
Guam	0	.	.	.	.
Hawaii	1	.	.	.	.
Idaho	18	4,441	5,043.4679	0.8805	0.8549
Illinois	37	12,204	13,362.0434	0.9133	0.8972
Indiana	35	12,701	14,777.1773	0.8595	0.8447
Iowa	71	18,616	19,726.9434	0.9437	0.9302
Kansas	72	20,500	20,421.1442	1.0039	0.9902
Kentucky	27	16,408	11,692.1187	1.4033	1.3820
Louisiana	7	3,565	3,376.1115	1.0559	1.0217
Maine	16	8,152	10,813.2988	0.7539	0.7377
Maryland	0	.	.	.	.
Massachusetts	2	.	.	.	.
Michigan	32	7,968	9,200.7225	0.8660	0.8472
Minnesota	64	19,573	19,363.8446	1.0108	0.9967
Mississippi	21	9,229	9,111.8781	1.0129	0.9924
Missouri	25	7,860	10,793.2497	0.7282	0.7123
Montana	11	5,185	5,686.4321	0.9118	0.8873
Nebraska	35	5,093	6,347.4962	0.8024	0.7806
Nevada	5	1,452	1,650.9895	0.8795	0.8351
New Hampshire	12	8,010	7,348.9376	1.0900	1.0663
New Jersey	0	.	.	.	.
New Mexico	9	4,282	3,213.9856	1.3323	1.2928
New York	8	1,734	3,463.7642	0.5006	0.4775
North Carolina	14	6,219	7,162.6879	0.8682	0.8468
North Dakota	19	4,403	3,648.3832	1.2068	1.1716
Ohio	28	12,087	12,710.8647	0.9509	0.9341
Oklahoma	14	3,039	3,123.9038	0.9728	0.9387
Oregon	25	10,491	10,328.2215	1.0158	0.9965
Pennsylvania	15	7,080	7,343.0010	0.9642	0.9419
Puerto Rico	0	.	.	.	.
Rhode Island	0	.	.	.	.

South Carolina	4	.		.	.	.
South Dakota	37	5,311	7,466.3486	0.7113	0.6924
Tennessee	5	1,108	1,052.4397	1.0528	0.9921
Texas	60	15,705	15,742.7374	0.9976	0.9821
Utah	8	2,028	2,035.9605	0.9961	0.9535
Vermont	3	.		.	.	.
Virgin Islands	0	.		.	.	.
Virginia	7	2,957	3,613.5757	0.8183	0.7892
Washington	32	15,579	13,844.7539	1.1253	1.1077
West Virginia	21	8,427	8,966.6912	0.9398	0.9199
Wisconsin	56	19,698	24,351.3476	0.8089	0.7976
Wyoming	13	3,195	3,474.0672	0.9197	0.8882
All US	**985**	**332,620**	**350,812.1711**	**0.9481**	**0.9449**

1. The number of reporting facilities included in the SUR calculation; SURs are not calculated when the
2. Percent of facilities with at least one predicted device day that had an SUR significantly greater than
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥1.0 predicted number of de
4. Data from all wards (for this table, wards also include step-down, mixed acuity, and specialty care are

for SUR	Facility-specific SURs					
Upper	No. Facilities with ≥1 Predicted Device Days	No. Facilities with SUR Significantly > National SUR N		No. Facilities with SUR Significantly < National SUR N		10%
0.6556	5	.	.	.	.	.
.	.	.	.	.	.	.
0.8843	7	.	.	.	.	.
1.3391	14	9	64%	3	21%	.
1.1233	32	17	53%	12	38%	0.6152
0.7331	28	8	29%	17	61%	0.1879
.	.	.	.	.	.	.
.	.	.	.	.	.	.
1.0512	6	.	.	.	.	.
0.8982	20	6	30%	8	40%	0.5452
.	.	.	.	.	.	.
0.9067	18	4	22%	8	44%	.
0.9296	37	15	41%	15	41%	0.3677
0.8746	35	9	26%	22	63%	0.4232
0.9573	71	29	41%	27	38%	0.5342
1.0177	72	29	40%	27	38%	0.4082
1.4250	27	16	59%	10	37%	0.5431
1.0911	7	.	.	.	.	.
0.7704	16	2	13%	10	63%	.
.	.	.	.	.	.	.
0.8852	32	9	28%	22	69%	0.1941
1.0250	64	18	28%	34	53%	0.3074
1.0337	21	7	33%	10	48%	0.5574
0.7445	25	5	20%	17	68%	0.3924
0.9369	11	4	36%	5	45%	.
0.8246	35	7	20%	23	66%	0.1217
0.9256	5	.	.	.	.	.
1.1140	12	9	75%	2	17%	.
.	.	.	.	.	.	.
1.3727	9	.	.	.	.	.
0.5246	8	.	.	.	.	.
0.8900	14	3	21%	8	57%	.
1.2429	19	6	32%	8	42%	.
0.9680	28	8	29%	16	57%	0.4945
1.0079	14	6	43%	6	43%	.
1.0354	25	11	44%	9	36%	0.6120
0.9869	15	6	40%	5	33%	.
.	.	.	.	.	.	.

.	.	.	.	.	.	.
0.7307	37	4	11%	23	62%	0.3163
1.1162	5	.	.	.	.	.
1.0133	60	21	35%	24	40%	0.1590
1.0402	8	.	.	.	.	.
.	.	.	.	.	.	.
0.8482	7	.	.	.	.	.
1.1430	32	14	44%	11	34%	0.3223
0.9600	21	7	33%	11	52%	0.4491
0.8203	56	10	18%	32	57%	0.4510
0.9520	13	4	31%	7	54%	.
0.9514	**985**	**326**	**33%**	**475**	**48%**	**0.3616**

re are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to ex
or less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0
evice days in 2021. If a facility's predicted number of device days was <1.0, a facility-specific SUR was nei
eas [including hematology/oncology, bone marrow transplant]). Data contained in this table are reported fr

y device type and patient population:

	Median		
25%	50%	75%	90%
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.7831	1.1314	1.4257	1.5832
0.5583	0.7018	1.1116	1.2054
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.6857	0.8963	1.2711	1.5276
.	.	.	.
.	.	.	.
.	.	.	.
0.5908	0.9794	1.2540	1.6095
0.5577	0.7443	1.0777	1.7390
0.6870	0.9997	1.2639	1.6078
0.6740	0.9321	1.3072	2.0221
0.5880	1.3599	1.9267	2.5171
.	.	.	.
.	.	.	.
.	.	.	.
0.3400	0.6057	1.1092	1.2261
0.5470	0.8446	1.1337	1.6815
0.6653	0.8180	1.2794	2.4052
0.5084	0.6521	0.9706	1.3453
.	.	.	.
0.3687	0.6955	0.9482	1.2714
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.6214	0.7733	1.0749	1.4051
.	.	.	.
0.7318	0.9285	1.2496	1.6362
.	.	.	.
.	.	.	.
.	.	.	.

.	.	.	.
0.4834	0.6853	0.9205	1.1315
.	.	.	.
0.5168	0.8912	1.3254	1.6777
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.7676	0.9736	1.2786	1.8526
0.5418	0.8451	1.3317	1.6136
0.5999	0.7992	0.9654	1.3406
.	.	.	.
0.5727	**0.8558**	**1.2054**	**1.6467**

:clusion and inclusion criteria. Refer to the technical appendix for details
 predicted device days in 2021.
ther calculated nor included in the distribution of facility-specific SURs.
om critical access hospitals.

Table 4. State-specific standardized utilization ratios (SURs) and facility-specific summary

Table 4a. Ventilator days (VD

State	No. of Facilities	No. of Device Days			95% CI
		Observed	Predicted	SUR	Lower
Alabama	0	.	.	.	.
Alaska	3	.	.	.	.
Arizona	2	.	.	.	.
Arkansas	5	94	63.1832	1.4877	1.2090
California	15	1,575	448.8329	3.5091	3.3390
Colorado	4	.	.	.	.
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	3	.	.	.	.
Georgia	1	.	.	.	.
Guam	0	.	.	.	.
Hawaii	0	.	.	.	.
Idaho	3	.	.	.	.
Illinois	5	15	33.4809	0.4480	0.2603
Indiana	18	978	416.9229	2.3458	2.2021
Iowa	1	.	.	.	.
Kansas	7	47	107.4982	0.4372	0.3249
Kentucky	6	50	108.5715	0.4605	0.3455
Louisiana	2	.	.	.	.
Maine	5	112	78.9110	1.4193	1.1741
Maryland	0	.	.	.	.
Massachusetts	1	.	.	.	.
Michigan	7	294	120.1114	2.4477	2.1797
Minnesota	4	.	.	.	.
Mississippi	2	.	.	.	.
Missouri	4	.	.	.	.
Montana	3	.	.	.	.
Nebraska	1	.	.	.	.
Nevada	3	.	.	.	.
New Hampshire	5	264	159.3123	1.6571	1.4661
New Jersey	0	.	.	.	.
New Mexico	3	.	.	.	.
New York	3	.	.	.	.
North Carolina	6	424	260.4404	1.6280	1.4785
North Dakota	4	.	.	.	.
Ohio	11	833	283.6612	2.9366	2.7422
Oklahoma	1	.	.	.	.
Oregon	7	201	221.0906	0.9091	0.7898
Pennsylvania	10	614	206.9191	2.9673	2.7396
Puerto Rico	0	.	.	.	.
Rhode Island	0	.	.	.	.
South Carolina	3	.	.	.	.

South Dakota	2	.	.	.	.
Tennessee	2	.	.	.	.
Texas	13	427	46.8280	9.1185	8.2840
Utah	1	.	.	.	.
Vermont	0	.	.	.	.
Virgin Islands	0	.	.	.	.
Virginia	2	.	.	.	.
Washington	6	888	321.6226	2.7610	2.5838
West Virginia	8	447	432.6377	1.0332	0.9407
Wisconsin	12	261	200.8576	1.2994	1.1488
Wyoming	4	.	.	.	.
All US	**208**	**10,630**	**4,531.7800**	**2.3457**	**2.3014**

1. The number of reporting facilities included in the SUR calculation; SURs are not calculated when the
2. Percent of facilities with at least one predicted device day that had an SUR significantly greater than
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥1.0 predicted number of de
4. Data from all ICUs, wards, and other non-critical care locations. Data contained in this table are repor

SURs using device days data reported to NHSN during 2021 for critical access hospitals (CAHs), b
s), all locations[4]

for SUR	Facility-specific SURs					10%
Upper	No. Facilities with ≥1 Predicted Device Days	No. Facilities with SUR Significantly > National SUR N		No. Facilities with SUR Significantly < National SUR N		10%
1.8124	4					
3.6856	13	5	38%	4	31%	
0.7224	5					
2.4962	17	4	24%	9	53%	
0.5764	4					
0.6022	6					
1.7012	5					
2.7398	4					
1.8663	5					
1.7886	5					
3.1412	10	3.00	30%	6.00	60%	
1.0416	7					
3.2092	10	2	20%	6	60%	

10.0146	9	.	.	.	.	.
2.9472	6	.	.	.	.	.
1.1324	8	.	.	.	.	.
1.4645	12	1	8%	9	75%	.
2.3906	**177**	**39**	**22%**	**109**	**62%**	**0.0000**

re are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to ex
or less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0
evice days in 2021. If a facility's predicted number of device days was <1.0, a facility-specific SUR was ne
rted from critical access hospitals.

y device type and patient population:

	Median		
25%	50%	75%	90%

0.1031	0.7338	2.5909	7.3668

xclusion and inclusion criteria. Refer to the technical appendix for details
 predicted device days in 2021.
ither calculated nor included in the distribution of facility-specific SURs.

Table 4. State-specific standardized utilization ratios (SURs) and facility-specific summary

Table 4b. Ventilator days (VDs), c

State	No. of Facilities	No. of Device Days			95% CI
		Observed	Predicted	SUR	Lower
Alabama	0	.	.	.	.
Alaska	0	.	.	.	.
Arizona	2	.	.	.	.
Arkansas	1	.	.	.	.
California	12	1,574	443.2928	3.5507	3.3785
Colorado	2	.	.	.	.
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	1	.	.	.	.
Georgia	1	.	.	.	.
Guam	0	.	.	.	.
Hawaii	0	.	.	.	.
Idaho	2	.	.	.	.
Illinois	4	.	.	.	.
Indiana	15	970	399.3997	2.4286	2.2794
Iowa	0	.	.	.	.
Kansas	2	.	.	.	.
Kentucky	4	.	.	.	.
Louisiana	1	.	.	.	.
Maine	2	.	.	.	.
Maryland	0	.	.	.	.
Massachusetts	1	.	.	.	.
Michigan	4	.	.	.	.
Minnesota	2	.	.	.	.
Mississippi	0	.	.	.	.
Missouri	4	.	.	.	.
Montana	1	.	.	.	.
Nebraska	0	.	.	.	.
Nevada	2	.	.	.	.
New Hampshire	5	254	149.6773	1.6970	1.4978
New Jersey	0	.	.	.	.
New Mexico	2	.	.	.	.
New York	2	.	.	.	.
North Carolina	3	.	.	.	.
North Dakota	2	.	.	.	.
Ohio	7	642	267.4449	2.4005	2.2201
Oklahoma	0	.	.	.	.
Oregon	5	195	200.9165	0.9706	0.8413
Pennsylvania	4	.	.	.	.
Puerto Rico	0	.	.	.	.
Rhode Island	0	.	.	.	.

South Carolina	2	.	.	.	.
South Dakota	0	.	.	.	.
Tennessee	1	.	.	.	.
Texas	3	.	.	.	.
Utah	0	.	.	.	.
Vermont	0	.	.	.	.
Virgin Islands	0	.	.	.	.
Virginia	2	.	.	.	.
Washington	6	888	321.6226	2.7610	2.5838
West Virginia	7	447	410.6484	1.0885	0.9910
Wisconsin	9	245	179.8423	1.3623	1.1996
Wyoming	1	.	.	.	.
All US	**124**	**8,399**	**4,209.5138**	**1.9952**	**1.9529**

1. The number of reporting facilities included in the SUR calculation; SURs are not calculated when the
2. Percent of facilities with at least one predicted device day that had an SUR significantly greater than
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥1.0 predicted number of de
4. Data from all ICUs; excludes wards (and other non-critical care locations). Data contained in this tabl

SURs using device days data reported to NHSN during 2021 for critical access hospitals (CAHs), b
ritical care locations[4]

for SUR	Facility-specific SURs						
Upper	No. Facilities with ≥1 Predicted Device Days	No. Facilities with SUR Significantly > National SUR N		No. Facilities with SUR Significantly < National SUR N		10%	
.	.	.	.	.	.		.
.	.	.	.	.	.		.
.	.	.	.	.	.		.
3.7293	12	6	50%	2	17%		.
.	.	.	.	.	.		.
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.	.	.	.	.	.		.
.	.	.	.	.	.		.
2.5851	14	4	29%	7	50%		.
.	.	.	.	.	.		.
.	.	.	.	.	.		.
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1.9156	5	.	.	.	.		.
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2.5917	7	.	.	.	.		.
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1.1142	5	.	.	.	.		.
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2.9472	6	.	.	.	.	.
1.1930	7	.	.	.	.	.
1.5411	9	.	.	.	.	.
2.0383	**120**	**30**	**25%**	**66**	**55%**	**0.0317**

re are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to ex
or less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0
evice days in 2021. If a facility's predicted number of device days was <1.0, a facility-specific SUR was ne
e are reported from critical access hospitals.

y device type and patient population:

	Median			
25%	**50%**	**75%**	**90%**	
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0.3956	1.1376	2.9873	5.7630

‹clusion and inclusion criteria. Refer to the technical appendix for details
 predicted device days in 2021.
ither calculated nor included in the distribution of facility-specific SURs.

State	No. of Facilities	No. of Device Days			95% CI
		Observed	Predicted	SUR	Lower
Alabama	0	.	.	.	.
Alaska	3	.	.	.	.
Arizona	0	.	.	.	.
Arkansas	5	59	13.5969	4.3392	3.3331
California	4	.	.	.	.
Colorado	3	.	.	.	.
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	3	.	.	.	.
Georgia	1	.	.	.	.
Guam	0	.	.	.	.
Hawaii	0	.	.	.	.
Idaho	1	.	.	.	.
Illinois	2	.	.	.	.
Indiana	5	8	17.5232	0.4565	0.2120
Iowa	1	.	.	.	.
Kansas	5	0	7.7745	0.0000	.
Kentucky	5	0	15.4135	0.0000	.
Louisiana	1	.	.	.	.
Maine	3	.	.	.	.
Maryland	0	.	.	.	.
Massachusetts	0	.	.	.	.
Michigan	3	.	.	.	.
Minnesota	2	.	.	.	.
Mississippi	2	.	.	.	.
Missouri	0	.	.	.	.
Montana	2	.	.	.	.
Nebraska	1	.	.	.	.
Nevada	1	.	.	.	.
New Hampshire	2	.	.	.	.
New Jersey	0	.	.	.	.
New Mexico	1	.	.	.	.
New York	2	.	.	.	.
North Carolina	3	.	.	.	.
North Dakota	2	.	.	.	.
Ohio	6	191	16.2163	11.7783	10.1948
Oklahoma	1	.	.	.	.
Oregon	5	6	20.1741	0.2974	0.1205
Pennsylvania	6	178	30.1529	5.9032	5.0828
Puerto Rico	0	.	.	.	.
Rhode Island	0	.	.	.	.
South Carolina	1	.	.	.	.

South Dakota	2	.	.	.	.
Tennessee	1	.	.	.	.
Texas	11	126	16.3875	7.6888	6.4314
Utah	1	.	.	.	.
Vermont	0	.	.	.	.
Virgin Islands	0	.	.	.	.
Virginia	0	.	.	.	.
Washington	0	.	.	.	.
West Virginia	4	.	.	.	.
Wisconsin	5	16	21.0152	0.7614	0.4507
Wyoming	4	.	.	.	.
All US	**110**	**2,231**	**322.2662**	**6.9228**	**6.6401**

1. The number of reporting facilities included in the SUR calculation; SURs are not calculated when the
2. Percent of facilities with at least one predicted device day that had an SUR significantly greater than
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥1.0 predicted number of de
4. Data from all wards (for this table, wards also include step-down, mixed acuity, and specialty care are

SURs using device days data reported to NHSN during 2021 for critical access hospitals (CAHs), b
[VDs), wards[4]

for SUR	Facility-specific SURs				
Upper	No. Facilities with ≥1 Predicted Device Days	No. Facilities with SUR Significantly > National SUR N		No. Facilities with SUR Significantly < National SUR N	10%
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5.5583	4	.	.	.	.
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0.8669	4	.	.	.	.
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0.3853	2	.	.	.	.
0.1944	5	.	.	.	.
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13.5405	5	.	.	.	.
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0.6186	5	.	.	.	.
6.8199	6	.	.	.	.
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9.1228	7	.	.	.	.	.
1.2100	5	.	.	.	.	.
7.2144	**81**	**11**	**14%**	**69**	**85%**	**0.0000**

re are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to ex
or less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0
evice days in 2021. If a facility's predicted number of device days was <1.0, a facility-specific SUR was ne
eas [including hematology/oncology, bone marrow transplant]). Data contained in this table are reported fr

y device type and patient population:

	Median		
25%	50%	75%	90%

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0.0000	**0.0000**	**1.4252**	**21.8636**

xclusion and inclusion criteria. Refer to the technical appendix for details
) predicted device days in 2021.
ither calculated nor included in the distribution of facility-specific SURs.
om critical access hospitals.

Table 5. Changes in national standardized utilization ratios (SURs) using HAI data reported from all NHSN critical access hospitals reporting during 2021 by HAI and patient population: Central line days (CLDs), urinary catheter days (UCDs), and ventilator days (VDs), 2021 compared to 2020

	2020 SUR	2021 SUR	Percent Change	Direction of Change, Based on Statistical Significance	p-value
CLDs, all locations[1]	1.1997	1.1978	0%	No Change	0.6271
ICU[2]	1.0501	1.3537	29%	Increase	<0.0001
Ward[3]	1.2186	1.1780	-3%	Decrease	<0.0001
UCDs, all locations[1]	0.8957	0.9414	5%	Increase	<0.0001
	0.8143	0.8992	10%	Increase	<0.0001
	0.9078	0.9481	4%	Increase	<0.0001
VDs, all[1]	1.5291	2.3457	53%	Increase	<0.0001
ICUs[2]	1.3208	1.9952	51%	Increase	<0.0001
Wards[3]	4.2191	6.9228	64%	Increase	<0.0001

* Statistically significant, p < 0.0500

1. Data from all ICUs, wards, and other non-critical care locations.

2. Data from all ICUs; excludes wards (and other non-critical care locations).

3. Data from all wards (for this table, wards also include step-down and specialty care areas [including hematology/oncology, bone ma

arrow transplant]).

Table 6. Changes in state-specific standardized utilization ratios (SURs) between 2020 and 2021 from NHSN Critical Access Hospitals

6a. Central line days (CLDs), all locations[1]

State[2]	2020 SUR	2021 SUR	Percent Change[3]	Direction of Change, Based on Statistical Significance	p-value
Alabama	0.8883	0.9157	3%	No Change	0.5509
Alaska	.	.	.		.
Arizona	1.2339	1.1446	7%	No Change	0.0732
Arkansas	1.3105	1.3452	3%	No Change	0.3466
California	1.3405	1.3080	2%	No Change	0.0995
Colorado	0.9907	0.6963	-30%	Decrease	<0.0001
Connecticut	.	.	.		.
D.C.	.	.	.		.
Delaware	.	.	.		.
Florida	0.7184	0.6587	-8%	Decrease	0.0473
Georgia	1.2762	1.2490	2%	No Change	0.2428
Guam	.	.	.		.
Hawaii	.	.	.		.
Idaho	1.4956	1.0806	-28%	Decrease	<0.0001
Illinois	1.2579	1.3029	4%	Increase	0.0177
Indiana	1.2727	1.3811	9%	Increase	<0.0001
Iowa	1.1819	1.1281	-5%	Decrease	0.0021
Kansas	1.2794	1.2801	0%	No Change	0.9708
Kentucky	1.2289	1.5673	28%	Increase	<0.0001
Louisiana	1.7241	1.7039	1%	No Change	0.6732
Maine	1.3862	1.0965	-21%	Decrease	<0.0001
Maryland	.	.	.		.
Massachusetts	.	.	.		.
Michigan	0.9195	0.9758	6%	Increase	0.0078
Minnesota	1.4539	1.5234	5%	Increase	0.0023
Mississippi	0.6364	0.7885	24%	Increase	<0.0001
Missouri	1.3649	1.0788	-21%	Decrease	<0.0001
Montana	0.7815	1.0084	29%	Increase	<0.0001
Nebraska	1.2592	1.4945	19%	Increase	<0.0001
Nevada	0.7640	0.6844	10%	No Change	0.0561
New Hampshire	0.9049	0.8332	-8%	Decrease	0.0010
New Jersey	.	.	.		.
New Mexico	0.9762	0.9954	2%	No Change	0.5807
New York	1.1006	0.8392	-24%	Decrease	<0.0001
North Carolina	0.8555	1.1573	35%	Increase	<0.0001
North Dakota	1.2678	0.9864	-22%	Decrease	<0.0001
Ohio	1.2313	1.1652	-5%	Decrease	0.0013
Oklahoma	1.4416	1.6495	14%	Increase	<0.0001
Oregon	1.2498	1.2850	3%	No Change	0.1009
Pennsylvania	1.1408	1.0191	-11%	Decrease	<0.0001
Puerto Rico	.	.	.		.
Rhode Island	.	.	.		.
South Carolina	.	.	.		.
South Dakota	1.0722	1.0726	0%	No Change	0.9912
Tennessee	1.2141	1.0148	-16%	Decrease	0.0025
Texas	1.3743	1.3943	1%	No Change	0.3361
Utah	0.9204	0.9172	0%	No Change	0.9422
Vermont	0.8676	0.8835	2%	No Change	0.4904
Virgin Islands	.	.	.		.
Virginia	1.1380	0.9038	-21%	Decrease	<0.0001
Washington	1.3805	1.3979	1%	No Change	0.3717
West Virginia	1.0133	0.9790	3%	No Change	0.1098
Wisconsin	1.3628	1.4363	5%	Increase	<0.0001
Wyoming	0.8060	0.6425	-20%	Decrease	<0.0001
All US	**1.1997**	**1.1978**	**0%**	**No Change**	**0.6271**

* Statistically significant, p < 0.0500

1. Data from all ICUs, wards, and other non-critical care locations.

2. Percent change and subsequent calculations are not calculated for states without SUR in either 2020 and/or 2021.

3.For states with >>100% value in the percent change field, the p-value cannot be estimated due to sparse data reported within the facility type.

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

Table 6. Changes in state-specific standardized utilization ratios (SURs) between 2020 and 2021 from NHSN Critical Access Hospitals

6b. Urinary catheter days (UCDs), all locations[1]

	All Critical Access Hospitals Reporting to NHSN				
	2020 SUR	2021 SUR	Percent Change	Direction of Change, Based on Statistical Significance	p-value
Alabama	0.7386	0.6790	-8%	Decrease	0.0275
Alaska	.	.	.	.	.
Arizona	.	1.0119	.	.	.
Arkansas	1.1200	1.3284	19%	Increase	<0.0001
California	1.0531	1.1702	11%	Increase	<0.0001
Colorado	0.8954	0.7189	-20%	Decrease	<0.0001
Connecticut	.	.	.	.	.
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	1.0405	0.9828	-6%	Decrease	0.0225
Georgia	0.7680	0.9356	22%	Increase	<0.0001
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Idaho	1.0688	0.9232	-14%	Decrease	<0.0001
Illinois	0.7650	0.7884	3%	Increase	0.0169
Indiana	0.9061	0.9083	0%	No Change	0.8326
Iowa	0.9074	0.9431	4%	Increase	0.0003
Kansas	0.9048	0.9990	10%	Increase	<0.0001
Kentucky	1.1215	1.3970	25%	Increase	<0.0001
Louisiana	0.9690	1.1201	16%	Increase	<0.0001
Maine	0.7310	0.7581	4%	Increase	0.0252
Maryland	.	.	.	.	.
Massachusetts	.	.	.	.	.
Michigan	0.8617	0.8579	0%	No Change	0.7797
Minnesota	0.8478	0.9939	17%	Increase	<0.0001
Mississippi	0.7097	0.9728	37%	Increase	<0.0001
Missouri	0.7874	0.6819	-13%	Decrease	<0.0001
Montana	0.8723	0.9006	3%	No Change	0.1222
Nebraska	0.7602	0.7546	1%	No Change	0.7068
Nevada	.	0.7601	.	.	.
New Hampshire	1.0092	1.0701	6%	Increase	0.0002
New Jersey	.	.	.	.	.
New Mexico	1.0844	1.3058	20%	Increase	<0.0001
New York	0.7058	0.5146	-27%	Decrease	<0.0001
North Carolina	0.7594	0.8477	12%	Increase	<0.0001
North Dakota	1.3744	1.1500	-16%	Decrease	<0.0001
Ohio	0.9883	0.9660	2%	No Change	0.0733
Oklahoma	0.7593	0.9662	27%	Increase	<0.0001
Oregon	0.9702	0.9906	2%	No Change	0.0995
Pennsylvania	0.8331	0.9629	16%	Increase	<0.0001
Puerto Rico	.	.	.	.	.
Rhode Island	.	.	.	.	.
South Carolina	.	.	.	.	.
South Dakota	0.8184	0.7021	-14%	Decrease	<0.0001
Tennessee	1.0637	1.0752	1%	No Change	0.7957
Texas	0.8845	0.9899	12%	Increase	<0.0001
Utah	0.9794	0.9961	2%	No Change	0.5910
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	0.8741	0.8025	-8%	Decrease	0.0006
Washington	1.0555	1.1305	7%	Increase	<0.0001
West Virginia	0.9809	0.9132	-7%	Decrease	<0.0001
Wisconsin	0.8123	0.8082	1%	No Change	0.6134
Wyoming	0.9981	0.8993	-10%	Decrease	<0.0001
All US	**0.8957**	**0.9414**	**5%**	**Increase**	**<0.0001**

* Statistically significant, p < 0.0500

1. Data from all ICUs, wards, and other non-critical care locations.

2. Percent change and subsequent calculations are not calculated for states without SUR in either 2020 and/or 2021.

Table 6. Changes in state-specific standardized utilization ratios (SURs) between 2020 and 2021 from NHSN Critical Access Hospitals 6c. Ventilator days (VDs), all locations[1]					
	All Critical Access Hospitals Reporting to NHSN				
	2020 SUR	**2021 SUR**	**Percent Change**	**Direction of Change, Based on Statistical Significance**	**p-value**
Alabama	.	.	.	.	.
Alaska	.	.	.	.	.
Arizona	.	.	.	.	.
Arkansas	0.1486	1.4877	>>100%	Increase	<0.0001
California	2.3507	3.5091	49%	Increase	<0.0001
Colorado	.	.	.	.	.
Connecticut	.	.	.	.	.
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	.	.	.	.	.
Georgia	.	.	.	.	.
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Idaho	.	.	.	.	.
Illinois	0.2205	0.4480	>>100%	No Change	0.0762
Indiana	1.4570	2.3458	61%	Increase	<0.0001
Iowa	.	.	.	.	.
Kansas	0.3290	0.4372	33%	No Change	0.2199
Kentucky	0.5753	0.4605	20%	No Change	0.2115
Louisiana	.	.	.	.	.
Maine	0.1322	1.4193	>>100%	Increase	<0.0001
Maryland	.	.	.	.	.
Massachusetts	.	.	.	.	.
Michigan	1.5636	2.4477	57%	Increase	<0.0001
Minnesota	2.6807	.	.	.	.
Mississippi	.	.	.	.	.
Missouri	.	.	.	.	.
Montana	.	.	.	.	.
Nebraska	.	.	.	.	.
Nevada	.	.	.	.	.
New Hampshire	0.6167	1.6571	>>100%	Increase	<0.0001
New Jersey	.	.	.	.	.
New Mexico	.	.	.	.	.
New York	.	.	.	.	.
North Carolina	0.1956	1.6280	>>100%	Increase	<0.0001
North Dakota	.	.	.	.	.
Ohio	3.5878	2.9366	-18%	Decrease	0.0001
Oklahoma	.	.	.	.	.
Oregon	1.0069	0.9091	10%	No Change	0.3206
Pennsylvania	2.7272	2.9673	9%	No Change	0.1616
Puerto Rico	.	.	.	.	.
Rhode Island	.	.	.	.	.
South Carolina	.	.	.	.	.
South Dakota	.	.	.	.	.
Tennessee	.	.	.	.	.
Texas	3.3416	9.1185	>>100%	Increase	<0.0001
Utah	.	.	.	.	.
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	.	.	.	.	.
Washington	2.0820	2.7610	33%	Increase	<0.0001
West Virginia	0.2847	1.0332	>>100%	Increase	<0.0001
Wisconsin	0.4123	1.2994	>>100%	Increase	<0.0001
Wyoming	.	.	.	.	.
All US	**1.5291**	**2.3457**	**53%**	**Increase**	**<0.0001**

* Statistically significant, p < 0.0500

1. Data from all ICUs, wards, and other non-critical care locations.

2. Percent change and subsequent calculations are not calculated for states without SUR in either 2020 and/or 2021.

Appendix A. Factors used in NHSN risk adjusted standard utilization ratios (SUR) calculation of the device utilization in Critical Access Hospitals (CAHs).

SUR Type	Validated Parameters for Risk Model
CLDs	Intercept Location type
UCDs	Intercept Location type
VDs	Intercept Location type

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

The new SUR Guide: https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nhsn-sur-guide-508.pdf

ound at the above website.