

# 2020 National and State HAI Data Report

**Introduction:**

Welcome to the 2020 National and State HAI Data Report using the 2015 baseline by comparing the number of observed device days to the number of predicted device days. This report is created by CDC staff with the National Healthcare Safety Network (NHSN).

**Scope of report:**

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

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# National and State HAI Progress Report

## Standardized Utilization Ratios

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### Critical Access Hospitals

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

CAH	
National	State
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## 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 facilities standardized to compare with a reference baseline population as well as over time. Accordingly, CDC has

### **Development of SUR models**

SUR models were developed for the following measures: central line days, urinary catheter days and ventilator inpatient rehabilitation facilities (IRF), long-term acute care hospitals (LTACH) (and NICU for central line). Using the NHSN data (2020) in sync with rebaseline work, CDC has developed multivariable logistic regression models (“Extra-binomial Variation in Logistic Linear Models,” Applied Statistics, 31, 144–148.). Unit of analysis is

### **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 +  $x_1$  +  $x_2$  +  $x_3$  + .....

(Risk factors are provided in appendices for individual matrix of measure and healthcare setting)

2: Then, compute the probability of device use

$$p_{hat} = \frac{e^{\text{logit}(p_{hat})}}{1 + e^{\text{logit}(p_{hat})}}$$

3: Calculate predicted device days as follows:

$$\text{Predicted Device Days} = p_{hat} * \text{In-patient days}$$

4: Finally, derive SUR value at the location by dividing number of observed device days with number of predicted device days

$$\text{SUR} = \frac{\text{Observed Device Days}}{\text{Predicted Device Days}}$$

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., facility).

Then, derive SUR value at the desired aggregate level by dividing number of observed device days with predicted device days.

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 l  
s developed statistical models to make SUR values available for different measures (e.g., central line days, urin

tilator days. They were available for the healthcare setting of acute care hospitals (ACH), critical access hospita  
days).

ression models that correct over dispersion by the Williams' method (Reference: Williams, D. A. (1982),  
all the SUR models are at the location level.

redicted device days;

1.0.

ility-level).

number of predicted device days.

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

als (CAH),

## 2020 Annual National and State HAI Progress Report

### Critical Access Hospitals: Full series of tables for all national and state data

**Table 1**                    **National standardized utilization ratios (SURs) and facility-specific summary**  
Central line days (CLDs)  
Urinary catheter days (UCDs)  
Ventilator days (VDs)

**Table 2**                    **State-specific SURs for CLDs from Critical access hospitals**  
2a. All locations combined  
2b. Critical care locations only  
2c. Ward (non-critical care) locations only

**Table 3**                    **State-specific SURs for UCDs from Critical access hospitals**  
3a. All locations combined  
3b. Critical care locations only  
3c. Ward (non-critical care) locations only

**Table 4**                    **State-specific SURs for VDs from Critical access hospitals**  
4a. All locations combined  
4b. Critical care locations only  
4c. Ward (non-critical care) locations only

**Table 5**                    **Changes in national SURs, 2020 compared to 2019**  
Central Line Days (CLDs)  
Urinary Catheter Days (UCDs)  
Ventilator days (VDs)

**Table 6**                    **Changes in state SURs, 2020 compared to 2019**  
6a. Central Line Days (CLDs)  
6b. Urinary Catheter Days (UCDs)  
6c. Ventilator Days (VDs)

**Appendix A**              Factors used in NHSN risk-adjusted SUR calculation of the device utilization in C

**Additional Resources**              Technical Appendix  
HAI Progress Report Home Page  
SUR Guide: <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/nh>

ry SURs

ritical access hospitals (CAHs)

isn-sur-guide-508.pdf



**Table 1. National standardiz**

Population	No. of Facilities Reporting <sup>1</sup>	No. of Device days			95% CI
		Observed	Predicted	SUR	Lower
<b>Central line days, all<sup>4</sup></b>	798	166,420	138,715.0372	1.1997	1.1940
<b>ICUs<sup>5</sup></b>	204	16,293	15,515.3378	1.0501	1.0341
<b>Wards<sup>6</sup></b>	782	150,127	123,199.6994	1.2186	1.2124
<b>Urinary catheter days, all<sup>4</sup></b>	891	290,205	324,000.9586	0.8957	0.8924
	208	34,283	42,100.6145	0.8143	0.8057
<b>Wards<sup>6</sup></b>	876	255,922	281,900.3441	0.9078	0.9043
<b>Ventilator days, all<sup>4</sup></b>	183	5,180	3,387.6517	1.5291	1.4879
	120	4,153	3,144.2337	1.3208	1.2811
	89	1,027	243.4179	4.2191	3.9669

1. The number of reporting facilities included in the SUR calculation; SURs are not calculated when there are
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  $\geq 1.0$  predicted number of device d
4. Data from all ICUs, wards (and other non-critical care locations). Data contained in this table are reported fr
5. Data from all ICUs; excludes wards (and other non-critical care locations). Data contained in this table are r
6. Data from all wards (for this table wards also include step-down, mixed acuity, and specialty care areas [inc

ed utilization ratios (SURs) and facility-specific summary SURs using device days data reported to  
**Table 1a. Central li**

for SUR	Facility-specific SURs						
	Upper	No. Facilities with ≥1 Predicted Device Days	No. Facilities with SUR		No. Facilities with SUR		5%
			Significantly > National SUR	Significantly < National SUR			
			N	% <sup>2</sup>	N	%	
1.2055	795	227	29%	424	53%	0.0000	
1.0664	200	56	28%	86	43%	0.0000	
1.2247	781	218	28%	426	55%	0.0000	
0.8990	889	301	34%	411	46%	0.1936	
0.8230	207	86	42%	68	33%	0.1349	
0.9114	874	290	33%	403	46%	0.2108	
1.5712	156	30	19%	97	62%	0.0000	
1.3615	114	27	24%	67	59%	0.0000	
4.4832	65	5	8%	57	88%	0.0000	

less than 5 reporting facilities. This may be different from those reported in the SIR tables due to exclusio  
; than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0 predi  
lays in 2020. If a facility's predicted number of device days was <1.0, a facility-specific SUR was neither c  
rom acute care 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.  
cluding hematology/oncology, bone marrow transplant]). Data contained in this table are reported from crit

› NHSN during 2020 for Critical access hospitals (CAHs), by device type and patient population  
 ine days (CLDs), urinary catheter days (UCDs), and ventilator days (VDs).

<b>Percentile Distribution of Facility-specific</b>									
									<b>Median</b>
<b>10%</b>	<b>15%</b>	<b>20%</b>	<b>25%</b>	<b>30%</b>	<b>35%</b>	<b>40%</b>	<b>45%</b>	<b>50%</b>	<b>55%</b>
0.0778	0.2441	0.3639	0.4973	0.5907	0.6664	0.7665	0.8673	0.9393	1.0345
0.1009	0.2693	0.3785	0.4545	0.5202	0.5951	0.6563	0.7355	0.8464	0.9552
0.0781	0.2369	0.3801	0.5071	0.5925	0.6735	0.7757	0.8828	0.9513	1.0141
0.3328	0.4153	0.4830	0.5315	0.5859	0.6565	0.7106	0.7705	0.8264	0.8869
0.2804	0.4337	0.5033	0.5538	0.6177	0.6610	0.7078	0.8019	0.8792	0.9341
0.3460	0.4244	0.4908	0.5405	0.6038	0.6712	0.7214	0.7772	0.8401	0.8978
0.0000	0.0000	0.0000	0.0000	0.0000	0.0637	0.1353	0.2040	0.2473	0.3674
0.0000	0.0000	0.0291	0.0764	0.1353	0.1905	0.2462	0.3462	0.3969	0.4875
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

in and inclusion criteria. Refer to the technical appendix for details.

icted device days in 2020.

alculated nor included in the distribution of facility-specific SURs.

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

**c SURs<sup>3</sup>**

<b>60%</b>	<b>65%</b>	<b>70%</b>	<b>75%</b>	<b>80%</b>	<b>85%</b>	<b>90%</b>	<b>95%</b>
1.1317	1.2190	1.3413	1.5066	1.6729	1.9192	2.2117	2.7496
1.0605	1.1949	1.3726	1.5202	1.6695	1.8893	2.3604	2.8039
1.1283	1.2277	1.3507	1.5066	1.7142	1.9321	2.2376	2.7496
0.9269	0.9954	1.0743	1.1775	1.2878	1.3896	1.5385	1.8224
1.0241	1.1121	1.1869	1.2500	1.3223	1.4742	1.5875	1.8384
0.9385	1.0076	1.0958	1.1791	1.2982	1.4150	1.5803	1.8776
0.4875	0.7978	1.3335	1.6890	2.0318	2.5983	3.8327	7.6231
0.6889	0.9680	1.3335	1.6862	2.0393	2.5349	3.3084	6.2093
0.0000	0.0000	0.0000	0.0000	0.6515	1.9109	3.3654	22.1265

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

State	No. of Facilities	No. of Device days			95% CI
	Reporting <sup>1</sup>	Observed	Predicted	SUR	Lower
Alabama	5	744	837.5771	0.8883	0.8261
Alaska	3	.	.	.	.
Arizona	3	.	.	.	.
Arkansas	14	2,387	1,821.4805	1.3105	1.2587
California	33	8,060	6,012.5114	1.3405	1.3115
Colorado	20	2,656	2,680.9355	0.9907	0.9535
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	8	1,047	1,457.4626	0.7184	0.6758
Georgia	14	5,012	3,927.2482	1.2762	1.2412
Guam	0	.	.	.	.
Hawaii	1	.	.	.	.
Idaho	12	2,276	1,521.8272	1.4956	1.4351
Illinois	39	8,603	6,839.2813	1.2579	1.2315
Indiana	35	8,780	6,898.8814	1.2727	1.2463
Iowa	51	8,184	6,924.6285	1.1819	1.1565
Kansas	53	8,277	6,469.5221	1.2794	1.2521
Kentucky	21	3,887	3,162.9575	1.2289	1.1907
Louisiana	6	2,164	1,255.1469	1.7241	1.6526
Maine	15	6,001	4,329.0558	1.3862	1.3515
Maryland	0	.	.	.	.
Massachusetts	3	.	.	.	.
Michigan	28	3,583	3,896.7999	0.9195	0.8897
Minnesota	41	7,643	5,256.7296	1.4539	1.4216
Mississippi	11	1,462	2,297.4732	0.6364	0.6043
Missouri	23	5,670	4,154.0452	1.3649	1.3298
Montana	10	1,619	2,071.5974	0.7815	0.7442
Nebraska	16	2,391	1,898.8352	1.2592	1.2095
Nevada	2	.	.	.	.
New Hampshire	13	3,104	3,430.1837	0.9049	0.8735
New Jersey	0	.	.	.	.
New Mexico	9	1,350	1,382.8848	0.9762	0.9252
New York	6	1,329	1,207.5328	1.1006	1.0426
North Carolina	12	2,854	3,336.1367	0.8555	0.8245
North Dakota	12	1,656	1,306.1572	1.2678	1.2079
Ohio	24	5,896	4,788.3873	1.2313	1.2002
Oklahoma	12	1,640	1,137.6599	1.4416	1.3731
Oregon	23	6,276	5,021.7646	1.2498	1.2191
Pennsylvania	15	3,948	3,460.5874	1.1408	1.1057
Puerto Rico	0	.	.	.	.

Rhode Island	0	.	.	.	.
South Carolina	3	.	.	.	.
South Dakota	21	1,935	1,804.6175	1.0722	1.0253
Tennessee	6	606	499.1290	1.2141	1.1203
Texas	36	7,440	5,413.6325	1.3743	1.3433
Utah	8	897	974.6123	0.9204	0.8616
Vermont	8	2,833	3,265.3645	0.8676	0.8361
Virgin Islands	0	.	.	.	.
Virginia	5	1,755	1,542.2358	1.1380	1.0856
Washington	35	10,058	7,285.9920	1.3805	1.3537
West Virginia	16	3,865	3,814.3241	1.0133	0.9817
Wisconsin	56	14,530	10,661.8071	1.3628	1.3407
Wyoming	11	1,102	1,367.1854	0.8060	0.7595
<b>All US</b>	<b>798</b>	<b>166,420</b>	<b>138,715.0372</b>	<b>1.1997</b>	<b>1.1940</b>

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  $\geq 1.0$  predicted number of d
4. Data from all ICUs and wards (and other non-critical care locations). Data contained in this table are

**SURs using device days data reported to NHSN during 2020 for critical access hospitals (CAHs), b  
.Ds), all locations<sup>4</sup>**

for SUR	Facility-specific SURs					Percenti
	Upper	No. Facilities with ≥1 Predicted Device Days	No. Facilities with SUR		No. Facilities with SUR	
			Significantly > National SUR	Significantly < National SUR		
0.9539	5	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
1.3639	14	3	21%	5	36%	.
1.3700	33	9	27%	19	58%	0.0000
1.0289	20	5	25%	13	65%	0.1062
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0.7629	8	.	.	.	.	.
1.3119	14	4	29%	9	64%	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
1.5580	12	4	33%	5	42%	.
1.2847	38	17	45%	16	42%	0.0000
1.2995	35	9	26%	17	49%	0.6043
1.2077	51	13	25%	20	39%	0.1223
1.3072	53	15	28%	27	51%	0.0076
1.2680	21	6	29%	12	57%	0.3362
1.7979	6	.	.	.	.	.
1.4216	15	7	47%	5	33%	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0.9499	28	3	11%	15	54%	0.2517
1.4869	40	14	35%	20	50%	0.2750
0.6696	11	1	9%	10	91%	.
1.4008	23	8	35%	8	35%	0.5659
0.8203	10	2	20%	6	60%	.
1.3104	16	5	31%	8	50%	.
.	.	.	.	.	.	.
0.9372	13	2	15%	7	54%	.
.	.	.	.	.	.	.
1.0293	9	.	.	.	.	.
1.1610	6	.	.	.	.	.
0.8873	12	2	17%	8	67%	.
1.3300	12	4	33%	5	42%	.
1.2631	24	6	25%	13	54%	0.2926
1.5126	12	4	33%	5	42%	.
1.2810	23	8	35%	13	57%	0.3541
1.1768	15	4	27%	11	73%	.
.	.	.	.	.	.	.

.	.	.	.	.	.	.
.	.	.	.	.	.	.
1.1208	21	6	29%	13	62%	0.0000
1.3137	6	.	.	.	.	.
1.4058	35	10	29%	21	60%	0.0000
0.9821	8	.	.	.	.	.
0.9000	8	.	.	.	.	.
.	.	.	.	.	.	.
1.1921	5	.	.	.	.	.
1.4076	35	12	34%	20	57%	0.0000
1.0456	16	5	31%	9	56%	.
1.3851	56	18	32%	31	55%	0.0914
0.8547	11	1	9%	8	73%	.
<b>1.2055</b>	<b>795</b>	<b>227</b>	<b>29%</b>	<b>424</b>	<b>53%</b>	<b>0.0778</b>

There are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to more or less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0 device days in 2020. If a facility's predicted number of device days was <1.0, a facility-specific SUR was not reported from critical access hospitals.



by device type and patient population:

<b>File Distribution of Facility-specific SURs<sup>3</sup></b>				
<b>Median</b>				
<b>25%</b>	<b>50%</b>	<b>75%</b>	<b>90%</b>	
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
0.1699	0.7171	1.6871	2.1362	
0.5132	0.6659	1.3681	1.9318	
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
0.5917	1.2826	1.8267	2.1601	
0.8956	1.0307	1.4243	1.8462	
0.6539	1.1120	1.4143	1.5884	
0.4952	0.8895	1.5915	2.9953	
0.6021	0.8818	1.4914	2.4932	
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
0.6322	0.8724	1.1280	1.8539	
0.5374	0.9570	1.7518	2.7281	
.	.	.	.	.
0.8731	1.2694	1.6088	2.1214	
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
0.6392	0.9401	1.5516	2.3842	
.	.	.	.	.
0.6922	1.0090	1.6086	2.4343	
.	.	.	.	.
.	.	.	.	.

.	.	.	.
0.0290	0.6682	1.5088	1.7849
0.1442	0.7933	1.5535	3.1330
.	.	.	.
.	.	.	.
0.3789	0.8001	1.9459	2.1271
0.5299	0.8907	1.7226	2.5864
.	.	.	.
<b>0.4973</b>	<b>0.9393</b>	<b>1.5066</b>	<b>2.2117</b>

exclusion and inclusion criteria. Refer to the technical appendix for details.

0 predicted device days in 2020.

either calculated nor included in the distribution of facility-specific SURs.





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**Table 2. State-specific standardized utilization ratios (SURs) and facility-specific summary (Table 2b. Central line days (CLDs),**

State	No. of Facilities	No. of Device days			95% CI
		Observed	Predicted	SUR	Lower
Alabama	1	.	.	.	.
Alaska	1	.	.	.	.
Arizona	2	.	.	.	.
Arkansas	2	.	.	.	.
California	16	2,338	1,271.4259	1.8389	1.7655
Colorado	4	.	.	.	.
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	1	.	.	.	.
Georgia	3	.	.	.	.
Guam	0	.	.	.	.
Hawaii	1	.	.	.	.
Idaho	3	.	.	.	.
Illinois	15	603	1,201.4455	0.5019	0.4630
Indiana	15	1,478	868.6891	1.7014	1.6163
Iowa	3	.	.	.	.
Kansas	5	294	444.0252	0.6621	0.5896
Kentucky	4	.	.	.	.
Louisiana	2	.	.	.	.
Maine	2	.	.	.	.
Maryland	0	.	.	.	.
Massachusetts	2	.	.	.	.
Michigan	5	275	262.6595	1.0470	0.9286
Minnesota	6	167	273.6231	0.6103	0.5229
Mississippi	1	.	.	.	.
Missouri	7	675	355.6167	1.8981	1.7589
Montana	3	.	.	.	.
Nebraska	3	.	.	.	.
Nevada	1	.	.	.	.
New Hampshire	6	191	324.5921	0.5884	0.5093
New Jersey	0	.	.	.	.
New Mexico	5	471	355.7333	1.3240	1.2084
New York	2	.	.	.	.
North Carolina	4	.	.	.	.
North Dakota	3	.	.	.	.
Ohio	10	809	664.4632	1.2175	1.1358
Oklahoma	0	.	.	.	.
Oregon	13	1,259	1,015.1813	1.2402	1.1730
Pennsylvania	5	595	402.0370	1.4800	1.3646
Puerto Rico	0	.	.	.	.
Rhode Island	0	.	.	.	.

South Carolina	1	.	.	.	.
South Dakota	0	.	.	.	.
Tennessee	1	.	.	.	.
Texas	8	209	601.3643	0.3475	0.3028
Utah	0	.	.	.	.
Vermont	4	.	.	.	.
Virgin Islands	0	.	.	.	.
Virginia	3	.	.	.	.
Washington	8	1,472	862.8574	1.7060	1.6204
West Virginia	8	547	656.7654	0.8329	0.7652
Wisconsin	13	489	592.6167	0.8252	0.7544
Wyoming	2	.	.	.	.
<b>All US</b>	<b>204</b>	<b>16,293</b>	<b>15,515.3378</b>	<b>1.0501</b>	<b>1.0341</b>

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  $\geq 1.0$  predicted number of d
4. Data from all ICUs; excludes wards (and other non-critical care locations). Data contained in this tab



**SURs using device days data reported to NHSN during 2020 for critical access hospitals (CAHs), t  
critical care locations<sup>4</sup>**

for SUR	Facility-specific SURs					10%
	No. Facilities with ≥1 Predicted Device Days	No. Facilities with SUR Significantly > National SUR	No. Facilities with SUR Significantly < National SUR			
Upper		N		N		
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
1.9145	16	9	56%	3	19%	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0.5432	14	3	21%	6	43%	.
1.7898	15	6	40%	3	20%	.
.	.	.	.	.	.	.
0.7411	5	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
1.1764	5	.	.	.	.	.
0.7084	5	.	.	.	.	.
.	.	.	.	.	.	.
2.0454	7	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0.6765	6	.	.	.	.	.
.	.	.	.	.	.	.
1.4477	5	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
1.3036	10	2	20%	4	40%	.
.	.	.	.	.	.	.
1.3101	13	5	38%	6	46%	.
1.6025	5	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.

.	.	.	.	.	.	.
.	.	.	.	.	.	.
0.3971	7	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
1.7948	8	.	.	.	.	.
0.9049	8	.	.	.	.	.
0.9008	12	1	8%	8	67%	.
.	.	.	.	.	.	.
<b>1.0664</b>	<b>200</b>	<b>56</b>	<b>28%</b>	<b>86</b>	<b>43%</b>	<b>0.1009</b>

There are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to a facility's predicted number of device days being less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1 device days in 2020. If a facility's predicted number of device days was <1.0, a facility-specific SUR was not calculated. Data for facilities with fewer than 5 reporting facilities are reported from critical access hospitals.





**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	625	719.3103	0.8689	0.8028
Alaska	3	.	.	.	.
Arizona	3	.	.	.	.
Arkansas	14	2,365	1779.1425	1.3293	1.2765
California	32	5,722	4741.0855	1.2069	1.1759
Colorado	19	2,526	2517.7647	1.0033	0.9647
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	8	1,046	1387.4823	0.7539	0.7092
Georgia	13	4,252	3407.1777	1.2480	1.2108
Guam	0	.	.	.	.
Hawaii	1	.	.	.	.
Idaho	11	1,941	1337.8956	1.4508	1.3873
Illinois	36	8,000	5637.8358	1.4190	1.3881
Indiana	35	7,302	6030.1923	1.2109	1.1833
Iowa	51	8,170	6911.3323	1.1821	1.1567
Kansas	52	7,983	6025.4969	1.3249	1.2960
Kentucky	21	3,612	2803.9585	1.2882	1.2467
Louisiana	6	1,954	1184.8167	1.6492	1.5773
Maine	15	5,876	4231.2000	1.3887	1.3535
Maryland	0	.	.	.	.
Massachusetts	2	.	.	.	.
Michigan	28	3,308	3634.1404	0.9103	0.8796
Minnesota	41	7,476	4983.1065	1.5003	1.4666
Mississippi	10	1,462	2214.1966	0.6603	0.6271
Missouri	23	4,995	3798.4285	1.3150	1.2789
Montana	10	1,483	1873.9029	0.7914	0.7519
Nebraska	15	2,092	1518.4921	1.3777	1.3196
Nevada	2	.	.	.	.
New Hampshire	13	2,913	3105.5916	0.9380	0.9044
New Jersey	0	.	.	.	.
New Mexico	9	879	1027.1515	0.8558	0.8006
New York	6	1,291	1119.7075	1.1530	1.0913
North Carolina	12	2,407	2653.5953	0.9071	0.8714
North Dakota	12	1,463	1146.8353	1.2757	1.2116
Ohio	24	5,087	4123.9242	1.2335	1.2000
Oklahoma	12	1,640	1137.6599	1.4416	1.3731
Oregon	23	5,017	4006.5834	1.2522	1.2179
Pennsylvania	15	3,353	3058.5504	1.0963	1.0596
Puerto Rico	0	.	.	.	.
Rhode Island	0	.	.	.	.
South Carolina	3	.	.	.	.

South Dakota	21	1,935	1804.6175	1.0722	1.0253
Tennessee	6	593	485.9494	1.2203	1.1250
Texas	33	7,231	4812.2683	1.5026	1.4683
Utah	8	897	974.6123	0.9204	0.8616
Vermont	6	2,286	1970.3786	1.1602	1.1133
Virgin Islands	0	.	.	.	.
Virginia	5	1,579	1319.8150	1.1964	1.1384
Washington	35	8,586	6423.1346	1.3367	1.3087
West Virginia	16	3,318	3157.5587	1.0508	1.0155
Wisconsin	56	14,041	10069.1904	1.3945	1.3715
Wyoming	11	1,034	1279.9433	0.8078	0.7597
<b>All US</b>	<b>782</b>	<b>150,127</b>	<b>123199.6994</b>	<b>1.2186</b>	<b>1.2124</b>

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  $\geq 1.0$  predicted number of d
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 2020 for critical access hospitals (CAHs), long-term care facilities (CLDs), wards<sup>4</sup>**

for SUR	Facility-specific SURs					10%
	No. Facilities with ≥1 Predicted Device Days	No. Facilities with SUR Significantly > National SUR	No. Facilities with SUR Significantly < National SUR			
Upper		N		N		
0.9390	5	.	.	.	.	.
.	.	.	.	.	.	.
1.3837	14	3	21%	5	36%	.
1.2385	32	9	28%	21	66%	0.0000
1.0430	19	5	26%	11	58%	.
.	.	.	.	.	.	.
0.8006	8	.	.	.	.	.
1.2859	13	3	23%	9	69%	.
.	.	.	.	.	.	.
1.5164	11	4	36%	5	45%	.
1.4503	36	16	44%	15	42%	0.0000
1.2389	35	9	26%	18	51%	0.5761
1.2080	51	10	20%	20	39%	0.1223
1.3542	52	15	29%	26	50%	0.0076
1.3307	21	6	29%	12	57%	0.3994
1.7236	6	.	.	.	.	.
1.4246	15	7	47%	6	40%	.
.	.	.	.	.	.	.
0.9416	28	3	11%	15	54%	0.2517
1.5346	40	14	35%	20	50%	0.2750
0.6948	10	1	10%	9	90%	.
1.3519	23	7	30%	8	35%	0.5958
0.8325	10	1	10%	7	70%	.
1.4377	15	5	33%	7	47%	.
.	.	.	.	.	.	.
0.9725	13	2	15%	8	62%	.
.	.	.	.	.	.	.
0.9138	9	.	.	.	.	.
1.2171	6	.	.	.	.	.
0.9439	12	2	17%	8	67%	.
1.3423	12	4	33%	6	50%	.
1.2678	24	6	25%	14	58%	0.2926
1.5126	12	4	33%	5	42%	.
1.2872	23	8	35%	14	61%	0.2891
1.1339	15	3	20%	10	67%	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.

1.1208	21	5	24%	14	67%	0.0000
1.3215	6	.	.	.	.	.
1.5376	33	10	30%	19	58%	0.0000
0.9821	8	.	.	.	.	.
1.2085	6	.	.	.	.	.
.	.	.	.	.	.	.
1.2565	5	.	.	.	.	.
1.3652	35	12	34%	21	60%	0.0000
1.0870	16	5	31%	10	63%	.
1.4177	56	18	32%	31	55%	0.0914
0.8583	11	1	9%	8	73%	.
<b>1.2247</b>	<b>781</b>	<b>218</b>	<b>28%</b>	<b>426</b>	<b>55%</b>	<b>0.0781</b>

are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to  $\epsilon$  or less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had  $\geq 1$  device days in 2020. If a facility's predicted number of device days was  $< 1.0$ , a facility-specific SUR was not calculated (including hematology/oncology, bone marrow transplant). Data contained in this table are reported for



by device type and patient population:

<b>Median</b>			
<b>25%</b>	<b>50%</b>	<b>75%</b>	<b>90%</b>
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.1692	0.7424	1.6931	2.1164
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.6808	1.2247	1.8450	2.1601
0.8298	1.0132	1.4173	1.8599
0.6539	1.1120	1.4143	1.5884
0.4711	0.9620	1.6142	2.9953
0.6021	0.9154	1.6590	2.4932
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.6322	0.8926	1.1280	1.8975
0.5374	0.9793	1.7581	2.7281
.	.	.	.
0.8731	1.2630	1.6088	2.0564
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.7167	0.9669	1.4328	2.3842
.	.	.	.
0.5593	0.9909	1.5248	2.4343
.	.	.	.
.	.	.	.
.	.	.	.

0.0290	0.6682	1.5088	1.7849
.	.	.	.
0.1024	0.7933	1.5535	3.1330
.	.	.	.
.	.	.	.
.	.	.	.
0.3789	0.8001	1.8445	2.1826
.	.	.	.
0.5299	0.9257	1.8688	2.5864
.	.	.	.
<b>0.5071</b>	<b>0.9513</b>	<b>1.5066</b>	<b>2.2376</b>

exclusion and inclusion criteria. Refer to the technical appendix for details on predicted device days in 2020. These values were either calculated or included in the distribution of facility-specific SURs from critical access hospitals.

**Table 3. State-specific standardized utilization ratios (SURs) and facility-specific su**  
**Table 3a. Urinary catheter days (l**

State	No. of Facilities	No. of Device days			95% CI
		Observed	Predicted	SUR	Lower
Alabama	5	1,465	1,983.4695	0.7386	0.7015
Alaska	3	.	.	.	.
Arizona	3	.	.	.	.
Arkansas	14	4,217	3,765.1988	1.1200	1.0866
California	32	14,373	13,648.4870	1.0531	1.0360
Colorado	26	6,436	7,188.1463	0.8954	0.8737
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	8	3,185	3,061.0444	1.0405	1.0048
Georgia	14	6,528	8,499.7710	0.7680	0.7495
Guam	0	.	.	.	.
Hawaii	1	.	.	.	.
Idaho	14	3,635	3,401.1074	1.0688	1.0344
Illinois	40	11,874	15,521.6150	0.7650	0.7513
Indiana	35	13,957	15,404.1479	0.9061	0.8911
Iowa	63	16,192	17,845.2093	0.9074	0.8935
Kansas	57	13,485	14,904.2822	0.9048	0.8896
Kentucky	21	7,759	6,918.3595	1.1215	1.0968
Louisiana	6	2,573	2,655.2537	0.9690	0.9321
Maine	15	6,792	9,290.9529	0.7310	0.7138
Maryland	0	.	.	.	.
Massachusetts	3	.	.	.	.
Michigan	30	7,183	8,335.7123	0.8617	0.8419
Minnesota	70	16,259	19,177.2822	0.8478	0.8349
Mississippi	14	4,544	6,402.5556	0.7097	0.6893
Missouri	24	7,038	8,938.1784	0.7874	0.7692
Montana	10	3,998	4,583.1942	0.8723	0.8456
Nebraska	25	4,544	5,977.0999	0.7602	0.7384
Nevada	2	.	.	.	.
New Hampshire	13	7,496	7,427.3663	1.0092	0.9866
New Jersey	0	.	.	.	.
New Mexico	9	3,577	3,298.4844	1.0844	1.0493
New York	7	1,940	2,748.6092	0.7058	0.6749
North Carolina	12	5,989	7,886.1455	0.7594	0.7404
North Dakota	13	4,736	3,445.7726	1.3744	1.3357
Ohio	24	10,506	10,630.2611	0.9883	0.9696
Oklahoma	13	1,839	2,422.0453	0.7593	0.7252
Oregon	25	11,377	11,726.5817	0.9702	0.9525
Pennsylvania	15	6,128	7,355.7673	0.8331	0.8124
Puerto Rico	0	.	.	.	.
Rhode Island	0	.	.	.	.
South Carolina	3	.	.	.	.

South Dakota	34	6,451	7,882.6605	0.8184	0.7986
Tennessee	7	1,118	1,051.0951	1.0637	1.0027
Texas	41	10,775	12,182.5455	0.8845	0.8679
Utah	8	2,025	2,067.5657	0.9794	0.9374
Vermont	4	.	.	.	.
Virgin Islands	0	.	.	.	.
Virginia	5	2,930	3,351.9225	0.8741	0.8429
Washington	35	17,323	16,412.3921	1.0555	1.0398
West Virginia	19	8,702	8,871.2086	0.9809	0.9604
Wisconsin	57	18,807	23,152.4293	0.8123	0.8008
Wyoming	12	2,969	2,974.6033	0.9981	0.9627
<b>All US</b>	<b>891</b>	<b>290,205</b>	<b>324,000.9586</b>	<b>0.8957</b>	<b>0.8924</b>

1. The number of reporting facilities included in the SUR calculation; SURs are not calculated when there are no predicted device days.
2. Percent of facilities with at least one predicted device day that had an SUR significantly greater than 0.8.
3. Facility-specific percentiles are only calculated if at least 20 facilities had  $\geq 1.0$  predicted number of device days.
4. Data from all ICUs and wards (and other non-critical care locations). Data contained in this table are rounded to the nearest integer or decimal place.

Summary SURs using device days data reported to NHSN during 2020 for critical access hospitals (CAHs), all locations<sup>4</sup>

for SUR	Facility-specific SURs					10%
	Upper	No. Facilities with $\geq 1$ Predicted Device Days	No. Facilities with SUR		No. Facilities with SUR	
			Significantly > National SUR	Significantly < National SUR		
		N	N			
0.7772	5	.	.	.	.	
.	.	.	.	.	.	
.	.	.	.	.	.	
1.1542	14	8	57%	1	7%	
1.0704	32	15	47%	11	34%	
0.9174	26	7	27%	13	50%	
.	.	.	.	.	.	
.	.	.	.	.	.	
1.0771	8	.	.	.	.	
0.7868	14	5	36%	9	64%	
.	.	.	.	.	.	
.	.	.	.	.	.	
1.1039	13	5	38%	4	31%	
0.7788	40	12	30%	14	35%	
0.9212	35	10	29%	17	49%	
0.9214	63	22	35%	23	37%	
0.9201	57	24	42%	26	46%	
1.1467	21	13	62%	4	19%	
1.0070	6	.	.	.	.	
0.7486	15	2	13%	9	60%	
.	.	.	.	.	.	
.	.	.	.	.	.	
0.8818	30	6	20%	16	53%	
0.8609	69	17	25%	36	52%	
0.7306	14	6	43%	7	50%	
0.8060	24	6	25%	16	67%	
0.8997	10	3	30%	4	40%	
0.7826	25	8	32%	15	60%	
.	.	.	.	.	.	
1.0323	13	8	62%	3	23%	
.	.	.	.	.	.	
1.1204	9	.	.	.	.	
0.7377	7	.	.	.	.	
0.7788	12	2	17%	7	58%	
1.4140	13	5	38%	6	46%	
1.0073	24	8	33%	13	54%	
0.7946	13	4	31%	6	46%	
0.9881	25	9	36%	10	40%	
0.8542	15	7	47%	6	40%	
.	.	.	.	.	.	
.	.	.	.	.	.	
.	.	.	.	.	.	

0.8386	34	11	32%	17	50%	0.2886
1.1274	7	.	.	.	.	.
0.9013	41	13	32%	21	51%	0.0879
1.0228	8	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0.9062	5	.	.	.	.	.
1.0713	35	16	46%	13	37%	0.2545
1.0017	19	7	37%	6	32%	.
0.8240	57	11	19%	32	56%	0.4292
1.0345	12	5	42%	5	42%	.
<b>0.8990</b>	<b>889</b>	<b>301</b>	<b>34%</b>	<b>411</b>	<b>46%</b>	<b>0.3328</b>

There are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to exclusion of facilities with a SUR less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had  $\geq 1.0$  device days in 2020. If a facility's predicted number of device days was  $<1.0$ , a facility-specific SUR was not reported from critical access hospitals.

CAHs), by device type and patient population:

<b>Median</b>			
<b>25%</b>	<b>50%</b>	<b>75%</b>	<b>90%</b>
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.7140	0.9819	1.3770	1.5078
0.5786	0.8003	0.9713	2.0020
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.5925	0.8429	1.1345	1.3708
0.6248	0.8219	1.0667	1.5744
0.6270	0.9010	1.1412	1.4131
0.4971	0.8076	1.2982	1.8776
0.8793	1.2199	1.6086	1.9883
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.5028	0.7499	0.9368	1.3694
0.4482	0.7376	1.0189	1.3427
.	.	.	.
0.5160	0.7068	1.1163	1.2554
.	.	.	.
0.3659	0.6817	1.0086	1.2174
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.6419	0.7466	1.3089	1.4806
.	.	.	.
0.6318	0.8826	1.3469	1.7301
.	.	.	.
.	.	.	.
.	.	.	.

0.5786	0.8005	1.2055	1.3814
.	.	.	.
0.3875	0.7097	1.1024	1.9097
.	.	.	.
.	.	.	.
.	.	.	.
0.5020	0.9197	1.3766	1.7333
.	.	.	.
0.5169	0.7740	0.9729	1.2469
.	.	.	.
<b>0.5315</b>	<b>0.8264</b>	<b>1.1775</b>	<b>1.5385</b>

clusion and inclusion criteria. Refer to the technical appendix for details.  
 predicted device days in 2020.  
 her calculated nor included in the distribution of facility-specific SURs.



**Table 3. State-specific standardized utilization ratios (SURs) and facility-specific summary**  
**Table 3b. Urinary catheter days (UCDs)**

State	No. of Facilities	No. of Device days			95% CI
		Observed	Predicted	SUR	Lower
Alabama	1	.	.	.	.
Alaska	1	.	.	.	.
Arizona	2	.	.	.	.
Arkansas	2	.	.	.	.
California	16	4,197	3,590.7894	1.1688	1.1339
Colorado	4	.	.	.	.
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	1	.	.	.	.
Georgia	3	.	.	.	.
Guam	0	.	.	.	.
Hawaii	1	.	.	.	.
Idaho	3	.	.	.	.
Illinois	15	1,148	3,393.1494	0.3383	0.3192
Indiana	15	2,734	2,453.3712	1.1144	1.0732
Iowa	3	.	.	.	.
Kansas	4	.	.	.	.
Kentucky	4	.	.	.	.
Louisiana	2	.	.	.	.
Maine	2	.	.	.	.
Maryland	0	.	.	.	.
Massachusetts	2	.	.	.	.
Michigan	5	612	741.8088	0.8250	0.7615
Minnesota	10	728	1,216.4742	0.5985	0.5562
Mississippi	1	.	.	.	.
Missouri	7	879	849.1932	1.0351	0.9683
Montana	3	.	.	.	.
Nebraska	4	.	.	.	.
Nevada	1	.	.	.	.
New Hampshire	6	803	916.7202	0.8759	0.8169
New Jersey	0	.	.	.	.
New Mexico	5	1,141	1,004.6700	1.1357	1.0712
New York	2	.	.	.	.
North Carolina	4	.	.	.	.
North Dakota	3	.	.	.	.
Ohio	10	1,647	1,876.5918	0.8777	0.8360
Oklahoma	0	.	.	.	.
Oregon	13	2,725	2,867.0976	0.9504	0.9153
Pennsylvania	5	961	1,135.4418	0.8464	0.7941
Puerto Rico	0	.	.	.	.
Rhode Island	0	.	.	.	.

South Carolina	1	.	.	.	.
South Dakota	2	.	.	.	.
Tennessee	1	.	.	.	.
Texas	8	645	1,698.3864	0.3798	0.3513
Utah	0	.	.	.	.
Vermont	2	.	.	.	.
Virgin Islands	0	.	.	.	.
Virginia	3	.	.	.	.
Washington	8	2,705	2,436.9012	1.1100	1.0688
West Virginia	8	1,431	1,854.8514	0.7715	0.7323
Wisconsin	13	1,242	1,673.6814	0.7421	0.7017
Wyoming	2	.	.	.	.
<b>All US</b>	<b>208</b>	<b>34,283</b>	<b>42,100.6145</b>	<b>0.8143</b>	<b>0.8057</b>

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  $\geq 1.0$  predicted number of d
4. Data from all ICUs; excludes wards (and other non-critical care locations). Data contained in this tab

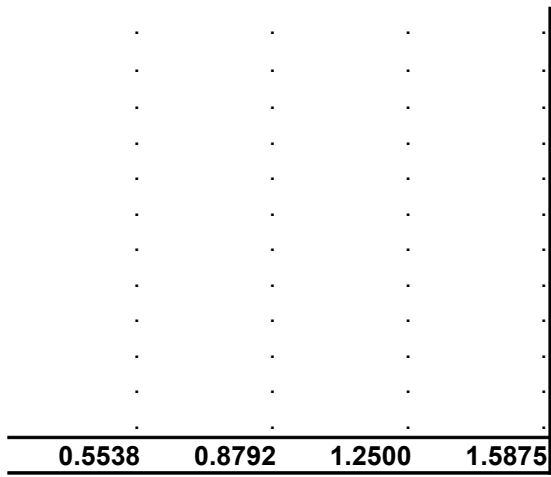
**SURs using device days data reported to NHSN during 2020 for critical access hospitals (CAHs), t  
s), critical care locations<sup>4</sup>**

for SUR	Facility-specific SURs					
	Upper	No. Facilities with $\geq 1$ Predicted Device Days	No. Facilities with SUR Significantly > National SUR N	No. Facilities with SUR Significantly < National SUR N		
		.	.	.	.	.
		.	.	.	.	.
		.	.	.	.	.
	1.2046	16	11	69%	3	19%
		.	.	.	.	.
		.	.	.	.	.
		.	.	.	.	.
		.	.	.	.	.
		.	.	.	.	.
	0.3583	15	4	27%	5	33%
	1.1568	15	8	53%	2	13%
		.	.	.	.	.
		.	.	.	.	.
		.	.	.	.	.
		.	.	.	.	.
	0.8924	5	.	.	.	.
	0.6431	9	.	.	.	.
		.	.	.	.	.
	1.1053	7	.	.	.	.
		.	.	.	.	.
		.	.	.	.	.
	0.9381	6	.	.	.	.
		.	.	.	.	.
	1.2031	5	.	.	.	.
		.	.	.	.	.
		.	.	.	.	.
	0.9208	10	2	20%	5	50%
		.	.	.	.	.
	0.9866	13	5	38%	5	38%
	0.9012	5	.	.	.	.
		.	.	.	.	.
		.	.	.	.	.

	.	.	.	.	.	.
	.	.	.	.	.	.
0.4099	8	.	.	.	.	.
	.	.	.	.	.	.
	.	.	.	.	.	.
1.1524	8	.	.	.	.	.
0.8122	8	.	.	.	.	.
0.7842	13	3	23%	5	38%	.
	.	.	.	.	.	.
<b>0.8230</b>	<b>207</b>	<b>86</b>	<b>42%</b>	<b>68</b>	<b>33%</b>	<b>0.2804</b>

There are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to error or less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1 device days in 2020. If a facility's predicted number of device days was <1.0, a facility-specific SUR was not reported from critical access hospitals.





exclusion and inclusion criteria. Refer to the technical appendix for detail  
.0 predicted device days in 2020.  
either 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	1,149	1,649.4579	0.6966	0.6572
Alaska	3	.	.	.	.
Arizona	3	.	.	.	.
Arkansas	14	4,051	3,645.6266	1.1112	1.0774
California	31	10,176	10,057.6976	1.0118	0.9923
Colorado	25	6,012	6,727.3157	0.8937	0.8713
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	8	3,158	2,863.4044	1.1029	1.0649
Georgia	13	5,395	7,030.9763	0.7673	0.7471
Guam	0	.	.	.	.
Hawaii	1	.	.	.	.
Idaho	13	3,083	2,881.6435	1.0699	1.0326
Illinois	37	10,726	12,128.4655	0.8844	0.8677
Indiana	35	11,223	12,950.7767	0.8666	0.8507
Iowa	63	16,152	17,807.6577	0.9070	0.8931
Kansas	57	13,022	14,166.0967	0.9192	0.9035
Kentucky	21	6,426	5,904.4663	1.0883	1.0620
Louisiana	6	2,206	2,456.6255	0.8980	0.8611
Maine	15	6,553	9,014.5863	0.7269	0.7095
Maryland	0	.	.	.	.
Massachusetts	2	.	.	.	.
Michigan	30	6,571	7,593.9035	0.8653	0.8446
Minnesota	69	15,531	17,960.8080	0.8647	0.8512
Mississippi	13	4,486	6,167.3640	0.7274	0.7063
Missouri	24	6,159	8,088.9852	0.7614	0.7425
Montana	10	3,646	4,024.8612	0.9059	0.8768
Nebraska	24	3,908	5,005.0405	0.7808	0.7566
Nevada	2	.	.	.	.
New Hampshire	13	6,693	6,510.6461	1.0280	1.0036
New Jersey	0	.	.	.	.
New Mexico	9	2,436	2,293.8144	1.0620	1.0204
New York	7	1,702	2,500.5710	0.6806	0.6489
North Carolina	12	4,726	5,958.4967	0.7932	0.7708
North Dakota	13	4,173	2,995.8122	1.3929	1.3512
Ohio	24	8,859	8,753.6693	1.0120	0.9911
Oklahoma	13	1,839	2,422.0453	0.7593	0.7252
Oregon	25	8,652	8,859.4841	0.9766	0.9561
Pennsylvania	15	5,167	6,220.3255	0.8307	0.8082
Puerto Rico	0	.	.	.	.
Rhode Island	0	.	.	.	.

South Carolina	3	.	.	.	.
South Dakota	34	6,405	7,787.1345	0.8225	0.8025
Tennessee	7	1,052	1,013.8729	1.0376	0.9763
Texas	38	10,130	10,484.1591	0.9662	0.9475
Utah	8	2,025	2,067.5657	0.9794	0.9374
Vermont	3	.	.	.	.
Virgin Islands	0	.	.	.	.
Virginia	5	2,444	2,723.7567	0.8973	0.8622
Washington	35	14,618	13,975.4909	1.0460	1.0291
West Virginia	19	7,271	7,016.3572	1.0363	1.0127
Wisconsin	57	17,565	21,478.7479	0.8178	0.8058
Wyoming	12	2,833	2,728.2121	1.0384	1.0007
<b>All US</b>	<b>876</b>	<b>255,922</b>	<b>281,900.3441</b>	<b>0.9078</b>	<b>0.9043</b>

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  $\geq 1.0$  predicted number of d
4. Data from all wards (for this table wards also include step-down, mixed acuity, and specialty care are





0.8428	34	11	32%	16	47%	0.2886
1.1017	7	.	.	.	.	.
0.9852	38	12	32%	19	50%	0.1960
1.0228	8	.	.	.	.	.
.	.	.	.	.	.	.
0.9334	5	.	.	.	.	.
1.0630	35	14	40%	13	37%	0.2545
1.0603	19	9	47%	5	26%	.
0.8299	57	9	16%	32	56%	0.4292
1.0772	12	5	42%	5	42%	.
<b>0.9114</b>	<b>874</b>	<b>290</b>	<b>33%</b>	<b>403</b>	<b>46%</b>	<b>0.3460</b>

are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to be or less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1. device days in 2020. If a facility's predicted number of device days was <1.0, a facility-specific SUR was not calculated. Data are reported for facilities [including hematology/oncology, bone marrow transplant]. Data contained in this table are reported for

by device type and patient population:

<b>Median</b>				
<b>25%</b>	<b>50%</b>	<b>75%</b>	<b>90%</b>	
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
0.6404	1.0191	1.4365	1.5709	
0.5786	0.8105	0.9643	2.0020	
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
0.6713	0.8763	1.2785	1.4252	
0.6224	0.7544	1.1036	1.5744	
0.6073	0.9010	1.1412	1.4131	
0.4971	0.7702	1.2982	1.8776	
0.8162	1.1521	1.6016	1.9883	
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
0.5028	0.7383	0.9368	1.3731	
0.4543	0.7413	1.0280	1.3520	
.	.	.	.	.
0.5095	0.7242	1.0551	1.2554	
.	.	.	.	.
0.3635	0.6880	1.0338	1.2391	
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
0.6445	0.7743	1.3186	1.5475	
.	.	.	.	.
0.6124	0.9044	1.3862	1.7914	
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.

0.5786	0.8011	1.2055	1.3814
0.4104	0.7426	1.1840	2.1260
0.5020	0.9389	1.3135	2.0018
0.5169	0.7987	0.9752	1.2469
<b>0.5405</b>	<b>0.8401</b>	<b>1.1791</b>	<b>1.5803</b>

exclusion and inclusion criteria. Refer to the technical appendix for detail.  
.0 predicted device days in 2020.  
either 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	2	.	.	.	.
Arizona	1	.	.	.	.
Arkansas	6	3	20.1950	0.1486	0.0378
California	11	790	336.0758	2.3507	2.1910
Colorado	2	.	.	.	.
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	3	.	.	.	.
Georgia	1	.	.	.	.
Guam	0	.	.	.	.
Hawaii	0	.	.	.	.
Idaho	3	.	.	.	.
Illinois	8	11	49.8778	0.2205	0.1160
Indiana	18	525	360.3408	1.4570	1.3363
Iowa	1	.	.	.	.
Kansas	3	.	.	.	.
Kentucky	4	.	.	.	.
Louisiana	2	.	.	.	.
Maine	5	7	52.9566	0.1322	0.0578
Maryland	0	.	.	.	.
Massachusetts	1	.	.	.	.
Michigan	9	160	102.3269	1.5636	1.3350
Minnesota	5	129	48.1212	2.6807	2.2472
Mississippi	1	.	.	.	.
Missouri	4	.	.	.	.
Montana	2	.	.	.	.
Nebraska	0	.	.	.	.
Nevada	1	.	.	.	.
New Hampshire	5	74	119.9887	0.6167	0.4877
New Jersey	0	.	.	.	.
New Mexico	3	.	.	.	.
New York	2	.	.	.	.
North Carolina	4	.	.	.	.
North Dakota	3	.	.	.	.
Ohio	11	804	224.0915	3.5878	3.3461
Oklahoma	0	.	.	.	.
Oregon	7	179	177.7719	1.0069	0.8673
Pennsylvania	10	498	182.6032	2.7272	2.4955
Puerto Rico	0	.	.	.	.
Rhode Island	0	.	.	.	.
South Carolina	2	.	.	.	.

South Dakota	0	.	.	.	.
Tennessee	2	.	.	.	.
Texas	7	69	20.6485	3.3416	2.6200
Utah	1	.	.	.	.
Vermont	0	.	.	.	.
Virgin Islands	0	.	.	.	.
Virginia	2	.	.	.	.
Washington	6	657	315.5620	2.0820	1.9273
West Virginia	6	49	172.1125	0.2847	0.2129
Wisconsin	15	83	201.2987	0.4123	0.3305
Wyoming	4	.	.	.	.
<b>All US</b>	<b>183</b>	<b>5,180</b>	<b>3,387.6517</b>	<b>1.5291</b>	<b>1.4879</b>

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  $\geq 1.0$  predicted number of d
4. Data from all ICUs and wards (and other non-critical care locations). Data contained in this table are



.	.	.	.	.	.	.
4.2036	2	.	.	.	.	.
.	.	.	.	.	.	.
2.2458	6	.	.	.	.	.
0.3733	6	.	.	.	.	.
0.5085	13	1	8%	11	85%	.
.	.	.	.	.	.	.
<b>1.5712</b>	<b>156</b>	<b>30</b>	<b>19%</b>	<b>97</b>	<b>62%</b>	<b>0.0000</b>

There are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to more or less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1 device days in 2020. If a facility's predicted number of device days was <1.0, a facility-specific SUR was not reported from critical access hospitals.







**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	1	.	.	.	.
Arkansas	1	.	.	.	.
California	10	790	333.1468	2.3713	2.2103
Colorado	2	.	.	.	.
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	1	.	.	.	.
Georgia	1	.	.	.	.
Guam	0	.	.	.	.
Hawaii	0	.	.	.	.
Idaho	2	.	.	.	.
Illinois	5	8	26.2624	0.3046	0.1415
Indiana	15	519	341.7326	1.5187	1.3922
Iowa	0	.	.	.	.
Kansas	2	.	.	.	.
Kentucky	4	.	.	.	.
Louisiana	1	.	.	.	.
Maine	2	.	.	.	.
Maryland	0	.	.	.	.
Massachusetts	1	.	.	.	.
Michigan	4	.	.	.	.
Minnesota	1	.	.	.	.
Mississippi	0	.	.	.	.
Missouri	4	.	.	.	.
Montana	1	.	.	.	.
Nebraska	0	.	.	.	.
Nevada	1	.	.	.	.
New Hampshire	5	72	115.5637	0.6230	0.4911
New Jersey	0	.	.	.	.
New Mexico	2	.	.	.	.
New York	2	.	.	.	.
North Carolina	2	.	.	.	.
North Dakota	2	.	.	.	.
Ohio	8	697	210.4206	3.3124	3.0733
Oklahoma	0	.	.	.	.
Oregon	5	173	160.9720	1.0747	0.9233
Pennsylvania	5	290	158.2631	1.8324	1.6304
Puerto Rico	0	.	.	.	.
Rhode Island	0	.	.	.	.

South Carolina	1	.	.	.	.
South Dakota	0	.	.	.	.
Tennessee	1	.	.	.	.
Texas	4	.	.	.	.
Utah	0	.	.	.	.
Vermont	0	.	.	.	.
Virgin Islands	0	.	.	.	.
Virginia	2	.	.	.	.
Washington	6	657	315.5620	2.0820	1.9273
West Virginia	5	47	151.1465	0.3110	0.2311
Wisconsin	10	74	179.8423	0.4115	0.3254
Wyoming	1	.	.	.	.
<b>All US</b>	<b>120</b>	<b>4,153</b>	<b>3,144.2337</b>	<b>1.3208</b>	<b>1.2811</b>

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  $\geq 1.0$  predicted number of d
4. Data from all ICUs; excludes wards (and other non-critical care locations). Data contained in this tab

**SURs using device days data reported to NHSN during 2020 for critical access hospitals (CAHs), t  
ritical care locations<sup>4</sup>**

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%
2.5411	10	7	70%	1	10%	
0.5784	4					
1.6537	15	4	27%	8	53%	
0.7800	5					
3.5653	7					
1.2441	5					
2.0526	5					

.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
2.2458	6	.	.	.	.	.
0.4100	5	.	.	.	.	.
0.5136	9	.	.	.	.	.
.	.	.	.	.	.	.
<b>1.3615</b>	<b>114</b>	<b>27</b>	<b>24%</b>	<b>67</b>	<b>59%</b>	<b>0.0000</b>

There are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to error or less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1 device days in 2020. If a facility's predicted number of device days was <1.0, a facility-specific SUR was not reported from critical access hospitals.







**Table 4. State-specific standardized utilization ratios (SURs) and facility-specific summary (Table 4c. Ventilator days (**

State	No. of Facilities	No. of Device days			95% CI
		Observed	Predicted	SUR	Lower
Alabama	0	.	.	.	.
Alaska	2	.	.	.	.
Arizona	0	.	.	.	.
Arkansas	6	0	14.4559	0.0000	.
California	2	.	.	.	.
Colorado	1	.	.	.	.
Connecticut	0	.	.	.	.
D.C.	0	.	.	.	.
Delaware	0	.	.	.	.
Florida	2	.	.	.	.
Georgia	1	.	.	.	.
Guam	0	.	.	.	.
Hawaii	0	.	.	.	.
Idaho	1	.	.	.	.
Illinois	4	.	.	.	.
Indiana	5	6	18.6082	0.3224	0.1307
Iowa	1	.	.	.	.
Kansas	2	.	.	.	.
Kentucky	2	.	.	.	.
Louisiana	1	.	.	.	.
Maine	3	.	.	.	.
Maryland	0	.	.	.	.
Massachusetts	0	.	.	.	.
Michigan	5	116	1.9604	59.1710	49.1147
Minnesota	4	.	.	.	.
Mississippi	1	.	.	.	.
Missouri	0	.	.	.	.
Montana	1	.	.	.	.
Nebraska	0	.	.	.	.
Nevada	0	.	.	.	.
New Hampshire	1	.	.	.	.
New Jersey	0	.	.	.	.
New Mexico	2	.	.	.	.
New York	0	.	.	.	.
North Carolina	2	.	.	.	.
North Dakota	1	.	.	.	.
Ohio	6	107	13.6709	7.8269	6.4459
Oklahoma	0	.	.	.	.
Oregon	5	6	16.7999	0.3571	0.1448
Pennsylvania	6	208	24.3401	8.5456	7.4422
Puerto Rico	0	.	.	.	.
Rhode Island	0	.	.	.	.
South Carolina	1	.	.	.	.

South Dakota	0	.	.	.	.
Tennessee	1	.	.	.	.
Texas	4	.	.	.	.
Utah	1	.	.	.	.
Vermont	0	.	.	.	.
Virgin Islands	0	.	.	.	.
Virginia	0	.	.	.	.
Washington	0	.	.	.	.
West Virginia	4	.	.	.	.
Wisconsin	7	9	21.4564	0.4195	0.2046
Wyoming	4	.	.	.	.
<b>All US</b>	<b>89</b>	<b>1,027</b>	<b>243.4179</b>	<b>4.2191</b>	<b>3.9669</b>

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  $\geq 1.0$  predicted number of d
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 2020 for critical access hospitals (CAHs), t (VDs), wards<sup>4</sup>

for SUR	Facility-specific SURs			10%
	No. Facilities with $\geq 1$ Predicted Device Days	No. Facilities with SUR Significantly > National SUR N	No. Facilities with SUR Significantly < National SUR N	
0.2072	5	.	.	.
0.6706	5	.	.	.
70.7052	.	.	.	.
9.4199	5	.	.	.
0.7428	5	.	.	.
9.7677	5	.	.	.

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	.	.	.	.	.	.
0.7698	6	.	.	.	.	.
<b>4.4832</b>	<b>65</b>	<b>5</b>	<b>8%</b>	<b>57</b>	<b>88%</b>	<b>0.0000</b>

There are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to a facility's predicted number of device days being less than or less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1 device days in 2020. If a facility's predicted number of device days was <1.0, a facility-specific SUR was not calculated (including hematology/oncology, bone marrow transplant). Data contained in this table are reported for facilities with a predicted number of device days ≥ 1.0.





**Table 5. Changes in national standardized utilization ratios (SURs) using HAI data reported from all NHSN critical access hospitals reporting during 2020 by HAI and patient population: Central line days (CLDs), urinary catheter days (UCDs), and ventilator days (VDs), 2020 compared to 2019**

	2019 SUR	2020 SUR	Percent Change	Direction of Change, Based on Statistical Significance	p-value
<b>CLDs, all locations<sup>1</sup></b>	1.1670	1.1997	3%	Increase	0.0000
ICU <sup>2</sup>	0.8563	1.0501	23%	Increase	0.0000
Ward <sup>3</sup>	1.2062	1.2186	1%	Increase	0.0044
<b>UCDs, all locations<sup>1</sup></b>	0.8347	0.8957	7%	Increase	0.0000
	0.7283	0.8143	12%	Increase	0.0000
	0.8505	0.9078	7%	Increase	0.0000
<b>VDs, all<sup>1</sup></b>	1.0606	1.5291	44%	Increase	0.0000
ICUs <sup>2</sup>	0.8892	1.3208	49%	Increase	0.0000
Wards <sup>3</sup>	3.3839	4.2191	25%	Increase	0.0000

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

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 mar

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je in magnitude.

arrow transplant].



**Table 6. Changes in state-specific standardized utilization ratios (SURs) between 2019 and 2020 from NHSN Critical Access Hospitals**  
**6a. Central line days (CLDs), all locations<sup>1</sup>**

State <sup>2</sup>	All Critical Access Hospitals Reporting to NHSN				
	2019 SUR	2020 SUR	Percent Change <sup>3</sup>	Direction of Change, Based on Statistical Significance	p-value
Alabama	.	.	.	.	.
Alaska	.	.	.	.	.
Arizona	.	.	.	.	.
Arkansas	1.0936	1.3105	20%	Increase	0.0000
California	1.1536	1.3405	16%	Increase	0.0000
Colorado	0.9281	0.9907	7%	Increase	0.0224
Connecticut	.	.	.	.	.
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	0.5547	0.7184	30%	Increase	0.0000
Georgia	1.2771	1.2762	0%	No change	0.9712
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Idaho	1.0439	1.4956	43%	Increase	0.0000
Illinois	1.3739	1.2579	-8%	Decrease	0.0000
Indiana	1.1678	1.2727	9%	Increase	0.0000
Iowa	1.2320	1.1819	-4%	Decrease	0.0081
Kansas	1.3286	1.2794	-4%	Decrease	0.0109
Kentucky	1.6423	1.2289	-25%	Decrease	0.0000
Louisiana	.	.	.	.	.
Maine	1.1705	1.3862	18%	Increase	0.0000
Maryland	.	.	.	.	.
Massachusetts	.	.	.	.	.
Michigan	0.8142	0.9195	13%	Increase	0.0000
Minnesota	1.4769	1.4539	2%	No change	0.3223
Mississippi	0.9679	0.6364	-34%	Decrease	0.0000
Missouri	1.2036	1.3649	13%	Increase	0.0000
Montana	0.8798	0.7815	-11%	Decrease	0.0004
Nebraska	1.4985	1.2592	-16%	Decrease	0.0000
Nevada	.	.	.	.	.
New Hampshire	0.9256	0.9049	2%	No change	0.3624
New Jersey	.	.	.	.	.
New Mexico	1.0279	0.9762	5%	No change	0.1528
New York	0.7148	1.1006	54%	Increase	0.0000
North Carolina	0.8759	0.8555	2%	No change	0.3675
North Dakota	1.1690	1.2678	8%	Increase	0.0195
Ohio	1.0297	1.2313	20%	Increase	0.0000
Oklahoma	1.2363	1.4416	17%	Increase	0.0000
Oregon	1.2655	1.2498	1%	No change	0.4752
Pennsylvania	1.1555	1.1408	1%	No change	0.5503
Puerto Rico	.	.	.	.	.
Rhode Island	.	.	.	.	.
South Carolina	.	.	.	.	.
South Dakota	0.9403	1.0722	14%	Increase	0.0001
Tennessee	1.3532	1.2141	-10%	Decrease	0.0336
Texas	1.3684	1.3743	0%	No change	0.7981
Utah	0.6539	0.9204	41%	Increase	0.0000
Vermont	0.6921	0.8676	25%	Increase	0.0000
Virgin Islands	.	.	.	.	.
Virginia	1.1907	1.1380	4%	No change	0.1663
Washington	1.1977	1.3805	15%	Increase	0.0000
West Virginia	0.9430	1.0133	7%	Increase	0.0019
Wisconsin	1.4118	1.3628	-3%	Decrease	0.0026
Wyoming	0.6787	0.8060	19%	Increase	0.0000
<b>All US</b>	<b>1.1670</b>	<b>1.1997</b>	<b>3%</b>	<b>Increase</b>	<b>0.0000</b>

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

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

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

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

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

**Table 6. Changes in state-specific standardized utilization ratios (SURs) between 2019 and 2020 from NHSN Critical Access Hospitals**  
**6b. Urinary catheter days (UCDs), all locations<sup>1</sup>**

	All Critical Access Hospitals Reporting to NHSN				
	2019 SUR	2020 SUR	Direction of Change, Based on Statistical Significance		p-value
Alabama	0.5959	0.7386	24%	Increase	0.0000
Alaska	.	.	.	.	.
Arizona	.	.	.	.	.
Arkansas	1.0931	1.1200	2%	No change	0.2316
California	0.8868	1.0531	19%	Increase	0.0000
Colorado	0.6933	0.8954	29%	Increase	0.0000
Connecticut	.	.	.	.	.
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	0.8595	1.0405	21%	Increase	0.0000
Georgia	0.5835	0.7680	32%	Increase	0.0000
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Idaho	1.0392	1.0688	3%	No change	0.2089
Illinois	0.7626	0.7650	0%	No change	0.8143
Indiana	0.8564	0.9061	6%	Increase	0.0000
Iowa	0.7926	0.9074	14%	Increase	0.0000
Kansas	0.8568	0.9048	6%	Increase	0.0000
Kentucky	1.0279	1.1215	9%	Increase	0.0000
Louisiana	.	.	.	.	.
Maine	0.7384	0.7310	1%	No change	0.5494
Maryland	.	.	.	.	.
Massachusetts	.	.	.	.	.
Michigan	0.7343	0.8617	17%	Increase	0.0000
Minnesota	0.8528	0.8478	1%	No change	0.5917
Mississippi	0.8264	0.7097	-14%	Decrease	0.0000
Missouri	0.6980	0.7874	13%	Increase	0.0000
Montana	0.8096	0.8723	8%	Increase	0.0007
Nebraska	0.6231	0.7602	22%	Increase	0.0000
Nevada	.	.	.	.	.
New Hampshire	0.9159	1.0092	10%	Increase	0.0000
New Jersey	.	.	.	.	.
New Mexico	1.0005	1.0844	8%	Increase	0.0005
New York	0.6190	0.7058	14%	Increase	0.0000
North Carolina	0.7712	0.7594	2%	No change	0.3933
North Dakota	1.2537	1.3744	10%	Increase	0.0000
Ohio	0.8708	0.9883	13%	Increase	0.0000
Oklahoma	0.8311	0.7593	-9%	Decrease	0.0026
Oregon	0.9882	0.9702	2%	No change	0.1580
Pennsylvania	0.8333	0.8331	0%	No change	0.9863
Puerto Rico	.	.	.	.	.
Rhode Island	.	.	.	.	.
South Carolina	.	.	.	.	.
South Dakota	0.7954	0.8184	3%	No change	0.1095
Tennessee	0.8611	1.0637	24%	Increase	0.0000
Texas	0.8213	0.8845	8%	Increase	0.0000
Utah	0.7917	0.9794	24%	Increase	0.0000
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	0.7264	0.8741	20%	Increase	0.0000
Washington	0.9712	1.0555	9%	Increase	0.0000
West Virginia	0.9261	0.9809	6%	Increase	0.0002
Wisconsin	0.8570	0.8123	-5%	Decrease	0.0000
Wyoming	0.9001	0.9981	11%	Increase	0.0000
<b>All US</b>	<b>0.8347</b>	<b>0.8957</b>	<b>7%</b>	<b>Increase</b>	<b>0.0000</b>

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

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

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

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

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

**Table 6. Changes in state-specific standardized utilization ratios (SURs) between 2019 and 2020 from NHSN Critical Access Hospitals**  
**6c. Ventilator days (VDs), all locations<sup>1</sup>**

	All Critical Access Hospitals Reporting to NHSN				
	2019 SUR	2020 SUR	Direction of Change, Based on Statistical Significance		p-value
Alabama	.	.	.	.	.
Alaska	.	.	.	.	.
Arizona	.	.	.	.	.
Arkansas	0.3565	0.1486	58%	No change	0.1415
California	1.7254	2.3507	36%	Increase	0.0000
Colorado	.	.	.	.	.
Connecticut	.	.	.	.	.
D.C.	.	.	.	.	.
Delaware	.	.	.	.	.
Florida	.	.	.	.	.
Georgia	.	.	.	.	.
Guam	.	.	.	.	.
Hawaii	.	.	.	.	.
Idaho	.	.	.	.	.
Illinois	0.0665	0.2205	231%	Increase	0.0339
Indiana	0.4580	1.4570	218%	Increase	0.0000
Iowa	.	.	.	.	.
Kansas	.	.	.	.	.
Kentucky	.	.	.	.	.
Louisiana	.	.	.	.	.
Maine	0.7935	0.1322	-83%	Decrease	0.0000
Maryland	.	.	.	.	.
Massachusetts	.	.	.	.	.
Michigan	1.0078	1.5636	55%	Increase	0.0000
Minnesota	.	.	.	.	.
Mississippi	.	.	.	.	.
Missouri	.	.	.	.	.
Montana	.	.	.	.	.
Nebraska	.	.	.	.	.
Nevada	.	.	.	.	.
New Hampshire	1.0876	0.6167	-43%	Decrease	0.0001
New Jersey	.	.	.	.	.
New Mexico	.	.	.	.	.
New York	.	.	.	.	.
North Carolina	.	.	.	.	.
North Dakota	.	.	.	.	.
Ohio	1.3701	3.5878	162%	Increase	0.0000
Oklahoma	.	.	.	.	.
Oregon	0.7084	1.0069	42%	Increase	0.0015
Pennsylvania	2.6249	2.7272	4%	No change	0.5376
Puerto Rico	.	.	.	.	.
Rhode Island	.	.	.	.	.
South Carolina	.	.	.	.	.
South Dakota	.	.	.	.	.
Tennessee	.	.	.	.	.
Texas	1.1863	3.3416	182%	Increase	0.0000
Utah	.	.	.	.	.
Vermont	.	.	.	.	.
Virgin Islands	.	.	.	.	.
Virginia	.	.	.	.	.
Washington	1.7307	2.0820	20%	Increase	0.0012
West Virginia	0.7164	0.2847	-60%	Decrease	0.0000
Wisconsin	0.4861	0.4123	15%	No change	0.2928
Wyoming	.	.	.	.	.
<b>All US</b>	<b>1.0606</b>	<b>1.5291</b>	<b>44%</b>	<b>Increase</b>	<b>0.0000</b>

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

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

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

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

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

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

<b>SUR Type</b>	<b>Validated Parameters for Risk Model</b>
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>

und at the above website.