2022 Nat

Introduction:

Welcome to the 2022 National and State HAI Progress Report using the 2015 bas 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
Standardized Utilization Ratios

Acute Care Hospitals

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

ACH	
National	**State**
☑	☑
☑	☑
☑	☑

utilization

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. To m
standardized to compare with a reference baseline population as well as over time. Accordingly, CDC has develop

Development of SUR models
SUR models were developed for the following measures: central line days, urinary catheter days and ventilator da
inpatient rehabilitation facilities (IRF), long-term acute care hospitals (LTACH) (and NICU for central line days).
Using the NHSN data (2022) in sync with rebaseline work, CDC has developed multivariable logistic regression m
"Extra-binomial Variation in Logistic Linear Models," Applied Statistics, 31, 144–148.). Unit of analysis in all the SU

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 predicted (
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 1.0.

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

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

nonitor the progress of healthcare acquired infections (HAI) prevention efforts, device utilization in any healthcar

ped statistical models to make SUR values available for different measures (e.g., central line days, urinary cathe

ys. They were available for the healthcare setting of acute care hospitals (ACH), critical access hospitals (CAH)

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

device days;

I).
of predicted device days.

e setting/location needs to be
eter days) at various healthcare settings.

,

2022 Annual National and State HAI Progress Report
<u>**Acute Care Hospitals:**</u> **Full series of tables for all national and state data**

ry SURs

acute care hospitals (ACHs)

sn-sur-guide-508.pdf

Device and Patient Population	No. of Facilities		No. of D
	Reporting[1]	Observed	
Central line days, all[4]	3,836	27,692,817	
ICUs[5]	3,104	9,210,858	
Wards[6]	3,807	17,145,079	
NICUs[7]	1,056	1,336,880	
Urinary catheter days, all[8]	3,835	25,182,831	
	3,098	9,713,389	
Wards[6]	3,821	15,469,442	
Ventilator days, all[8]	1,908	3,882,609	
	1,831	3,631,046	
	512	251,563	

1. The number of reporting facilities included in the SUR calculation; SURs are not calculated w
2. Percent of facilities with at least one predicted device day that had an SUR significantly grea
3. Facility-specific percentiles are only calculated if at least 20 facilities had ≥1.0 predicted num
4. Data from all ICUs, wards (and other non-critical care locations), and NICUs. Data contained
5. Data from all ICUs; excludes wards (and other non-critical care locations), and NICUs. Data
6. Data from all wards (for this table, wards also include step-down, mixed acuity, and specialty
7. Data from all NICU locations, including Level II/III and Level III and Level IV nurseries.
See the Location Chapter of the NHSN manual for detailed definitions of each nursery level:
8. Data from all ICUs, wards, and other non-critical care locations. This excludes NICUs. Data

Device Days		95% CI for SUR			Facility-specific SU	
Predicted	SUR	Lower	Upper	No. Facilities with ≥1	No. Facilities with SUR	
				Predicted Device Days	Significantly > National SUR	
					N	%[2]
31,949,426.6255	0.8668	0.8664	0.8671	3,832	1,648	43%
9,939,152.0991	0.9267	0.9261	0.9273	3,098	1,348	44%
20,472,326.9257	0.8375	0.8371	0.8379	3,803	1,647	43%
1,537,947.6007	0.8693	0.8678	0.8707	1,054	278	26%
31,541,256.2079	0.7984	0.7981	0.7987	3,833	1,818	47%
11,322,745.6101	0.8579	0.8573	0.8584	3,098	1,353	44%
20,218,510.5978	0.7651	0.7647	0.7655	3,819	1,884	49%
3,887,478.6147	0.9987	0.9977	0.9998	1,894	773	41%
3,630,467.6901	1.0002	0.9992	1.0012	1,822	779	43%
257,010.9246	0.9788	0.9750	0.9826	502	149	30%

when there are less than 5 reporting facilities. This may be different from those reported in the SIR tables due
ter than or less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥
ber of device days in 2022. If a facility's predicted number of device days was <1.0, a facility-specific SUR wa
in this table are reported from acute care hospitals; as such, data from CAHs, IRFs and LTACHs are exclude
contained in this table are reported from acute care hospitals; as such, data from CAHs, IRFs and LTACHs ar
care areas [including hematology/oncology, bone marrow transplant]). Data contained in this table are report

contained in this table are reported from acute care hospitals; as such, data from CAHs, IRFs and LTACHs ar

using device days data reported to NHSN during 2022 for acute care hospitals (ACHs), by device type an
CLDs), urinary catheter days (UCDs), and ventilator days (VDs).

JRs

No. Facilities with SUR								
Significantly < National SUR		5%	10%	15%	20%	25%	30%	35%
N								
1,837	48%	0.1798	0.4137	0.5045	0.5652	0.6174	0.6633	0.7144
1,400	45%	0.3727	0.5019	0.5756	0.6448	0.6932	0.7390	0.7845
1,786	47%	0.1632	0.3648	0.4503	0.5181	0.5788	0.6303	0.6772
650	62%	0.0625	0.1735	0.2796	0.3489	0.4129	0.4649	0.5127
1,687	44%	0.3459	0.4783	0.5511	0.5940	0.6363	0.6718	0.7042
1,337	43%	0.3991	0.5136	0.5792	0.6319	0.6831	0.7181	0.7557
1,593	42%	0.3190	0.4360	0.5061	0.5560	0.5977	0.6382	0.6781
904	48%	0.1190	0.3410	0.4741	0.5810	0.6672	0.7341	0.7957
825	45%	0.2449	0.4264	0.5342	0.6374	0.7233	0.7748	0.8269
319	64%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0086	0.0428

to exclusion and inclusion criteria. Refer to the technical appendix for details.
≥ 1.0 predicted device days in 2022.
s neither calculated nor included in the distribution of facility-specific SURs.
ed.
e excluded.
ed from acute care hospitals; as such, data from CAHs, IRFs and LTACHs are excluded.

e excluded.

d patient population:

Percentile Distribution of Facility-specific SURs[3]

		Median							
40%	45%	50%	55%	60%	65%	70%	75%	80%	85%
0.7518	0.7988	0.8416	0.8906	0.9361	0.9849	1.0400	1.1073	1.1896	1.2993
0.8334	0.8760	0.9139	0.9589	1.0066	1.0618	1.1144	1.1762	1.2512	1.3311
0.7266	0.7657	0.8166	0.8676	0.9273	0.9833	1.0403	1.1266	1.2301	1.3605
0.5637	0.6095	0.6589	0.7225	0.7741	0.8359	0.8904	0.9579	1.0440	1.1569
0.7416	0.7752	0.8107	0.8483	0.8875	0.9318	0.9823	1.0308	1.0993	1.1921
0.7905	0.8261	0.8611	0.8907	0.9219	0.9582	0.9932	1.0346	1.0742	1.1256
0.7149	0.7553	0.7961	0.8428	0.8939	0.9456	1.0127	1.0851	1.1735	1.2863
0.8448	0.9043	0.9562	1.0097	1.0689	1.1260	1.1966	1.2789	1.3765	1.5139
0.8828	0.9309	0.9822	1.0369	1.0879	1.1438	1.2067	1.2908	1.3962	1.5362
0.1220	0.2279	0.3557	0.4981	0.5883	0.8304	1.0290	1.4540	1.7678	2.4757

90%	95%
1.4954	1.9273
1.4810	1.7196
1.6006	2.0783
1.2796	1.5188
1.3246	1.5593
1.1878	1.2774
1.4828	1.8392
1.7270	2.1068
1.6932	2.0234
3.4439	7.0830

| State | No. of Facilities | No. of Device Days | | SUR | 95% CI |
		Observed	Predicted		Lower
Alabama	89	472,701	591,444.9272	0.7992	0.7970
Alaska	10	47,531	47,498.0755	1.0007	0.9917
Arizona	75	616,799	620,376.9049	0.9942	0.9918
Arkansas	52	282,148	336,010.9225	0.8397	0.8366
California	343	2,845,460	3,091,124.9715	0.9205	0.9194
Colorado	59	382,296	408,575.2165	0.9357	0.9327
Connecticut	33	277,665	352,764.4297	0.7871	0.7842
D.C.	10	111,244	136,262.7304	0.8164	0.8116
Delaware	9	153,244	185,456.7147	0.8263	0.8222
Florida	228	2,005,981	2,660,325.5064	0.7540	0.7530
Georgia	112	861,974	1,025,196.5129	0.8408	0.8390
Guam	2	.	.	.	.
Hawaii	16	115,865	104,939.6129	1.1041	1.0978
Idaho	18	84,808	94,417.8051	0.8982	0.8922
Illinois	134	1,046,975	1,215,682.6528	0.8612	0.8596
Indiana	95	634,798	649,345.8633	0.9776	0.9752
Iowa	39	208,269	223,651.8373	0.9312	0.9272
Kansas	62	218,314	228,249.1431	0.9565	0.9525
Kentucky	71	471,026	540,331.9225	0.8717	0.8693
Louisiana	108	416,969	471,573.2818	0.8842	0.8815
Maine	21	89,301	111,518.6059	0.8008	0.7955
Maryland	48	458,791	547,652.4660	0.8377	0.8353
Massachusetts	68	646,127	699,784.7606	0.9233	0.9211
Michigan	100	735,909	928,581.5818	0.7925	0.7907
Minnesota	49	413,360	396,091.1177	1.0436	1.0404
Mississippi	64	264,750	286,654.3110	0.9236	0.9201
Missouri	80	702,110	773,073.7719	0.9082	0.9061
Montana	13	42,152	67,519.4269	0.6243	0.6184
Nebraska	29	166,718	179,753.6835	0.9275	0.9231
Nevada	30	295,320	349,840.5016	0.8442	0.8411
New Hampshire	13	91,677	98,613.8416	0.9297	0.9236
New Jersey	72	622,355	842,255.0612	0.7389	0.7371
New Mexico	33	131,326	144,988.0168	0.9058	0.9009
New York	177	1,647,626	2,234,959.9743	0.7372	0.7361
North Carolina	104	951,994	1,010,328.6661	0.9423	0.9404
North Dakota	10	64,581	70,535.9428	0.9156	0.9085
Ohio	152	1,242,496	1,388,852.1114	0.8946	0.8931
Oklahoma	83	385,696	334,401.7066	1.1534	1.1498
Oregon	36	279,672	317,365.6366	0.8812	0.8780
Pennsylvania	188	1,318,346	1,582,280.9839	0.8332	0.8318
Puerto Rico	21	93,855	104,695.2390	0.8965	0.8907
Rhode Island	11	72,276	92,793.0994	0.7789	0.7732
South Carolina	65	389,736	514,861.3959	0.7570	0.7546

South Dakota	21	56,860	76,721.9360	0.7411	0.7350
Tennessee	98	716,267	802,807.1521	0.8922	0.8902
Texas	364	2,471,441	2,743,266.7457	0.9009	0.8998
Utah	38	162,232	192,907.8037	0.8410	0.8369
Vermont	7	36,588	41,176.9136	0.8886	0.8795
Virgin Islands	2	.	.	.	.
Virginia	83	596,591	721,411.4567	0.8270	0.8249
Washington	58	587,008	586,479.7290	1.0009	0.9984
West Virginia	32	204,723	207,705.8151	0.9856	0.9814
Wisconsin	88	475,985	490,717.5952	0.9700	0.9672
Wyoming	13	15,553	16,130.0293	0.9642	0.9491
All US	**3,836**	**27,692,817**	**31,949,426.6255**	**0.8668**	**0.8664**

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

y SURs using device days data reported to NHSN during 2022 for acute care hospitals (ACHs), by dev
ntral line days (CLDs), all 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%
0.8015	89	24	27%	55	62%	0.0734
1.0097	10	5	50%	4	40%	.
0.9967	75	40	53%	31	41%	0.1712
0.8428	52	23	44%	26	50%	0.3761
0.9216	342	185	54%	129	38%	0.5213
0.9386	59	28	47%	29	49%	0.5222
0.7900	33	11	33%	19	58%	0.4824
0.8212	10	5	50%	5	50%	.
0.8304	9	.	.	.	.	.
0.7551	228	52	23%	154	68%	0.4302
0.8426	112	47	42%	56	50%	0.3160
.	.	.	.	.	.	.
1.1105	16	11	69%	4	25%	.
0.9043	18	7	39%	8	44%	.
0.8629	134	71	53%	57	43%	0.5369
0.9800	95	55	58%	36	38%	0.4732
0.9352	39	18	46%	18	46%	0.4622
0.9605	62	27	44%	25	40%	0.1813
0.8742	71	34	48%	28	39%	0.4744
0.8869	107	44	41%	50	47%	0.2838
0.8061	21	7	33%	12	57%	0.5274
0.8402	48	24	50%	22	46%	0.4632
0.9256	68	28	41%	34	50%	0.5132
0.7943	100	24	24%	61	61%	0.4822
1.0468	49	26	53%	17	35%	0.5677
0.9271	64	33	52%	24	38%	0.1170
0.9103	79	38	48%	32	41%	0.4785
0.6303	13	1	8%	10	77%	.
0.9319	29	15	52%	13	45%	0.2599
0.8472	30	15	50%	12	40%	0.5048
0.9357	13	5	38%	7	54%	.
0.7407	72	18	25%	49	68%	0.4871
0.9107	33	15	45%	15	45%	0.2690
0.7384	177	55	31%	110	62%	0.3807
0.9441	104	54	52%	47	45%	0.5369
0.9226	10	5	50%	4	40%	.
0.8962	152	68	45%	71	47%	0.4870
1.1570	83	52	63%	19	23%	0.4719
0.8845	36	17	47%	16	44%	0.5827
0.8346	188	53	28%	115	61%	0.2355
0.9022	21	10	48%	9	43%	0.5992
0.7846	11	3	27%	8	73%	.
0.7594	65	22	34%	39	60%	0.3844

0.7472	21	8	38%	12	57%	0.2618
0.8942	98	41	42%	50	51%	0.4321
0.9020	363	162	45%	169	47%	0.2910
0.8451	38	16	42%	16	42%	0.2548
0.8977	7	.	.	.	.	.
.	.	.	.	.	.	.
0.8291	83	34	41%	41	49%	0.4873
1.0034	58	33	57%	16	28%	0.7150
0.9899	32	19	59%	8	25%	0.3562
0.9727	88	47	53%	31	35%	0.4188
0.9794	13	5	38%	5	38%	.
0.8671	**3,832**	**1,648**	**43%**	**1,837**	**48%**	**0.4137**

re less than 5 reporting facilities. This may be different from those reported in the SIR tables due to exclusio
ess than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0 predic
e days in 2022. If a facility's predicted number of device days was <1.0, a facility-specific SUR was neither ca
are reported from acute care hospitals.

	Median		
25%	50%	75%	90%
0.4752	0.7257	0.9530	1.2823
.	.	.	.
0.5016	0.9146	1.1373	1.7505
0.5148	0.8161	1.1254	1.6005
0.7222	0.9254	1.1879	1.5485
0.6507	0.8583	1.2963	1.7595
0.5673	0.6778	0.9734	1.1523
.	.	.	.
.	.	.	.
0.5580	0.6769	0.8802	1.1064
0.6192	0.8227	1.1290	1.3815
.	.	.	.
.	.	.	.
.	.	.	.
0.7005	0.9217	1.0622	1.3296
0.6797	0.9614	1.3453	1.8210
0.5983	0.8937	1.1985	1.5786
0.5930	0.8842	1.3395	2.4335
0.6440	0.9021	1.1292	1.4229
0.5709	0.8437	1.2600	1.7294
0.6590	0.7992	0.9348	1.8520
0.6101	0.8971	1.2131	1.5126
0.6250	0.8329	1.0369	1.2319
0.5562	0.7577	0.9135	1.1967
0.7188	0.9344	1.2217	1.8376
0.5653	0.9188	1.2563	1.6533
0.7066	0.9073	1.1192	1.3212
.	.	.	.
0.6342	0.9361	1.1698	1.9049
0.6533	0.8802	1.2301	2.4304
.	.	.	.
0.5776	0.7250	0.8899	1.1654
0.5744	0.8519	1.0197	1.5628
0.4966	0.6848	0.9657	1.1686
0.6868	0.9147	1.1236	1.6435
.	.	.	.
0.6671	0.8590	1.1440	1.6562
0.7348	1.1614	1.6856	2.4396
0.7060	0.8659	1.0248	1.3325
0.5863	0.7337	0.9763	1.2506
0.7567	0.8965	1.2153	1.4188
.	.	.	.
0.5365	0.7018	1.0152	1.4862

0.5286	0.6054	1.1199	1.5724
0.6415	0.8282	1.0374	1.3796
0.6076	0.8478	1.1399	1.5972
0.5369	0.9065	1.0318	1.2490
.	.	.	.
.	.	.	.
0.6375	0.8504	1.0240	1.4149
0.8208	1.0167	1.2404	1.7413
0.7429	0.9562	1.1338	1.7419
0.6840	0.9677	1.1895	1.6802
.	.	.	.
0.6174	**0.8416**	**1.1073**	**1.4954**

n and inclusion criteria. Refer to the technical appendix for details.
cted device days in 2022.
alculated nor included in the distribution of facility-specific SURs.

State	No. of Facilities	No. of Device Days			95% CI
		Observed	Predicted	SUR	Lower
Alabama	69	193,825	229,358.3291	0.8451	0.8413
Alaska	7	12,248	16,797.1382	0.7292	0.7163
Arizona	54	205,493	207,852.4219	0.9886	0.9844
Arkansas	41	107,355	124,555.7353	0.8619	0.8567
California	314	942,997	913,710.0285	1.0321	1.0299
Colorado	48	121,616	130,692.9743	0.9305	0.9253
Connecticut	28	85,387	95,094.7774	0.8979	0.8919
D.C.	9	25,797	32,253.9156	0.7998	0.7901
Delaware	8	49,212	57,707.0628	0.8528	0.8453
Florida	206	685,366	806,943.1195	0.8493	0.8473
Georgia	94	319,551	351,519.9085	0.9091	0.9059
Guam	2	.	.	.	.
Hawaii	14	32,066	29,130.1448	1.1008	1.0888
Idaho	14	25,980	28,259.5035	0.9193	0.9082
Illinois	119	333,422	382,812.3498	0.8710	0.8680
Indiana	73	228,097	215,132.8422	1.0603	1.0559
Iowa	34	62,125	62,920.4268	0.9874	0.9796
Kansas	40	67,276	78,423.4122	0.8579	0.8514
Kentucky	65	167,963	179,040.2220	0.9381	0.9337
Louisiana	72	145,475	165,057.4018	0.8814	0.8768
Maine	15	27,514	31,533.4677	0.8725	0.8623
Maryland	45	134,146	159,761.1090	0.8397	0.8352
Massachusetts	58	209,065	197,972.7194	1.0560	1.0515
Michigan	80	264,570	288,362.1724	0.9175	0.9140
Minnesota	31	121,149	110,771.6382	1.0937	1.0875
Mississippi	45	93,189	96,004.9028	0.9707	0.9644
Missouri	72	215,686	230,042.5570	0.9376	0.9336
Montana	10	13,167	17,854.4316	0.7375	0.7250
Nebraska	18	45,758	50,720.9880	0.9022	0.8939
Nevada	21	102,025	117,454.7496	0.8686	0.8633
New Hampshire	13	25,934	27,410.3106	0.9461	0.9347
New Jersey	72	193,274	224,551.5150	0.8607	0.8569
New Mexico	27	53,161	50,301.1655	1.0569	1.0479
New York	160	517,994	613,448.8078	0.8444	0.8421
North Carolina	86	292,869	305,969.2344	0.9572	0.9537
North Dakota	7	17,658	15,919.3447	1.1092	1.0929
Ohio	123	410,822	438,000.8314	0.9379	0.9351
Oklahoma	51	146,259	121,123.0745	1.2075	1.2013
Oregon	33	80,551	89,603.2880	0.8990	0.8928
Pennsylvania	135	436,572	494,794.1971	0.8823	0.8797

Puerto Rico	19	30,270	30,729.8106	0.9850	0.9740
Rhode Island	10	24,850	24,446.1759	1.0165	1.0040
South Carolina	54	131,937	160,161.2103	0.8238	0.8193
South Dakota	11	11,444	18,403.2162	0.6218	0.6105
Tennessee	81	251,674	280,069.9329	0.8986	0.8951
Texas	254	876,084	914,237.5665	0.9583	0.9563
Utah	30	61,958	73,433.2813	0.8437	0.8371
Vermont	5	7,999	10947.6132	0.7307	0.7148
Virgin Islands	2	.	.	.	.
Virginia	72	190,625	221,814.5689	0.8594	0.8555
Washington	48	174,725	176,678.6590	0.9889	0.9843
West Virginia	28	84,087	79,411.0551	1.0589	1.0517
Wisconsin	66	143,867	150,574.1931	0.9555	0.9505
Wyoming	11	4,486	4,744.5918	0.9455	0.9181
All US	**3,104**	**9,210,858**	**9,939,152.0991**	**0.9267**	**0.9261**

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 devi
4. Data from all ICUs; excludes wards (and other non-critical care locations), and NICUs. Data contained i

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%**
0.8488	69	17	25%	42	61%	0.2289
0.7422	7	.	.	.	.	.
0.9929	53	29	55%	20	38%	0.4996
0.8671	41	20	49%	20	49%	0.2802
1.0342	313	187	60%	89	28%	0.6550
0.9358	48	23	48%	20	42%	0.4471
0.9039	28	8	29%	15	54%	0.3507
0.8096	9	.	.	.	.	.
0.8604	8	.	.	.	.	.
0.8513	206	63	31%	124	60%	0.4490
0.9122	94	41	44%	46	49%	0.4475
.	.	.	.	.	.	.
1.1129	14	12	86%	1	7%	.
0.9306	14	6	43%	6	43%	.
0.8739	119	44	37%	58	49%	0.5099
1.0646	73	44	60%	24	33%	0.6289
0.9951	33	8	24%	16	48%	0.1696
0.8644	40	14	35%	19	48%	0.3107
0.9426	65	30	46%	28	43%	0.3053
0.8859	71	32	45%	25	35%	0.5652
0.8829	15	6	40%	7	47%	.
0.8442	45	17	38%	24	53%	0.5777
1.0606	58	35	60%	17	29%	0.6183
0.9210	80	28	35%	43	54%	0.5741
1.0999	31	15	48%	16	52%	0.5224
0.9769	44	22	50%	18	41%	0.4574
0.9416	72	31	43%	31	43%	0.3630
0.7502	10	1	10%	7	70%	.
0.9104	18	8	44%	7	39%	.
0.8740	21	6	29%	11	52%	0.5350
0.9577	13	5	38%	3	23%	.
0.8645	72	29	40%	37	51%	0.5695
1.0658	27	13	48%	7	26%	0.3949
0.8467	160	53	33%	96	60%	0.5243
0.9607	86	36	42%	36	42%	0.5212
1.1257	7	.	.	.	.	.
0.9408	123	54	44%	55	45%	0.5869
1.2137	51	38	75%	9	18%	0.7658
0.9052	33	12	36%	17	52%	0.5309
0.8849	134	46	34%	69	51%	0.5020

0.9962	19	11	58%	5	26%	.
1.0292	10	5	50%	5	50%	.
0.8282	54	16	30%	32	59%	0.4465
0.6333	11	1	9%	9	82%	.
0.9021	81	30	37%	40	49%	0.4820
0.9603	254	133	52%	107	42%	0.6002
0.8504	30	10	33%	19	63%	0.1907
0.7468	5	.	.	.	.	.
.	.	.	.	.	.	.
0.8633	72	20	28%	42	58%	0.3653
0.9936	48	24	50%	14	29%	0.6789
1.0661	28	17	61%	8	29%	0.3727
0.9604	66	27	41%	29	44%	0.5821
0.9735	11	4	36%	7	64%	.
0.9273	**3,098**	**1,348**	**44%**	**1,400**	**45%**	**0.5019**

are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to exclus
less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0 pred
ce days in 2022. If a facility's predicted number of device days was <1.0, a facility-specific SUR was neither
n this table are reported from acute care hospitals.

	Median		
25%	50%	75%	90%
0.5421	0.8228	0.9714	1.1868
.	.	.	
0.7341	1.0057	1.3038	1.7219
0.4613	1.0055	1.1990	1.3749
0.8578	1.0923	1.3256	1.6218
0.7057	0.9654	1.2636	1.4846
0.6718	0.8643	1.0135	1.0742
.	.	.	.
.	.	.	.
0.6060	0.8135	1.0097	1.2217
0.6345	0.9156	1.1967	1.4674
.	.	.	.
.	.	.	.
.	.	.	.
0.6798	0.8918	1.0772	1.2945
0.7729	1.0239	1.3251	1.7675
0.4501	0.8675	0.9532	1.3509
0.5995	0.8827	1.1565	2.0605
0.6761	0.9530	1.2380	1.5231
0.7226	0.9507	1.2244	1.7161
.	.	.	.
0.6778	0.8371	1.1032	1.5695
0.8108	1.0456	1.2350	1.6082
0.7071	0.8528	1.0694	1.3698
0.5960	0.8587	1.2367	1.3719
0.6807	0.9686	1.2752	1.7904
0.6558	0.9055	1.2170	1.3095
.	.	.	.
.	.	.	.
0.7543	0.8931	0.9570	1.1687
.	.	.	.
0.6843	0.8746	1.1521	1.3587
0.8200	0.9687	1.2238	1.5657
0.6521	0.7832	1.1235	1.3618
0.7354	0.9125	1.2317	1.5812
.	.	.	.
0.7129	0.9256	1.1762	1.4220
1.0646	1.2847	1.5822	1.9863
0.6540	0.8874	1.0231	1.2617
0.6758	0.8721	1.0372	1.1790

.	.	.	.
.	.	.	.
0.6029	0.7671	1.0567	1.3066
.	.	.	.
0.7003	0.8894	1.1266	1.3328
0.7314	0.9853	1.2562	1.5751
0.5318	0.8198	1.0462	1.2958
.	.	.	.
.	.	.	.
0.6308	0.7765	0.9719	1.1381
0.8427	0.9663	1.2242	1.4243
0.8628	1.0644	1.3126	1.8041
0.7858	0.9298	1.1025	1.2747
.	.	.	.
0.6932	**0.9139**	**1.1762**	**1.4810**

ion and inclusion criteria. Refer to the technical appendix for details.
dicted device days in 2022.
calculated nor included in the distribution of facility-specific SURs.

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

Table 2c. Ce

| State | No. of Facilities | No. of Device Days | | SUR | 95% CI |
		Observed	Predicted		Lower
Alabama	87	250,516	330,384.3624	0.7583	0.7553
Alaska	10	32,551	27,432.8109	1.1866	1.1738
Arizona	75	387,198	388,728.4981	0.9961	0.9929
Arkansas	51	153,887	191,156.7155	0.8050	0.8010
California	340	1,769,847	2,034,616.2835	0.8699	0.8686
Colorado	57	243,012	249,714.6553	0.9732	0.9693
Connecticut	33	183,875	244,317.6829	0.7526	0.7492
D.C.	10	79,029	97,014.6233	0.8146	0.8089
Delaware	9	92,227	116,148.9409	0.7940	0.7889
Florida	224	1,223,422	1,743,190.4674	0.7018	0.7006
Georgia	111	492,966	613,610.2897	0.8034	0.8012
Guam	1	.	.	.	.
Hawaii	16	71,934	68,128.1533	1.0559	1.0481
Idaho	18	53,568	59,979.6361	0.8931	0.8855
Illinois	133	666,075	780,783.4790	0.8531	0.8510
Indiana	93	383,215	397,186.3100	0.9648	0.9618
Iowa	38	131,906	146,281.2437	0.9017	0.8969
Kansas	62	143,319	138,443.9856	1.0352	1.0299
Kentucky	71	284,199	336,908.2030	0.8436	0.8404
Louisiana	108	242,907	275,115.2412	0.8829	0.8794
Maine	21	59,072	76,757.1449	0.7696	0.7634
Maryland	48	307,229	366,965.7799	0.8372	0.8342
Massachusetts	67	420,318	480,024.6141	0.8756	0.8730
Michigan	100	432,607	595,087.4877	0.7270	0.7248
Minnesota	49	280,238	271,145.5078	1.0335	1.0297
Mississippi	64	156,166	175,514.3509	0.8898	0.8854
Missouri	80	447,200	494,656.9903	0.9041	0.9014
Montana	13	26,689	46,228.3207	0.5773	0.5704
Nebraska	29	113,019	117,919.8421	0.9584	0.9529
Nevada	30	175,115	217,668.0334	0.8045	0.8008
New Hampshire	13	62,348	68,495.7500	0.9102	0.9031
New Jersey	72	408,254	587,933.9872	0.6944	0.6923
New Mexico	33	72,540	90,299.6013	0.8033	0.7975
New York	176	1,055,827	1,541,220.6540	0.6851	0.6837
North Carolina	104	616,699	657,643.2675	0.9377	0.9354
North Dakota	10	42,867	50,255.0751	0.8530	0.8450
Ohio	152	780,160	877,138.6366	0.8894	0.8875
Oklahoma	83	216,259	194,585.2232	1.1114	1.1067
Oregon	36	190,207	216,404.5811	0.8789	0.8750
Pennsylvania	188	834,807	1,021,774.8552	0.8170	0.8152
Puerto Rico	19	62,797	73,105.6078	0.8590	0.8523

Rhode Island	11	43,739	62,418.4143	0.7007	0.6942
South Carolina	65	242,274	331,226.1442	0.7314	0.7285
South Dakota	21	41,140	53,324.5341	0.7715	0.7641
Tennessee	98	418,411	476,459.6437	0.8782	0.8755
Texas	358	1,424,868	1,649,865.2760	0.8636	0.8622
Utah	38	86,986	101,446.5265	0.8575	0.8518
Vermont	7	27,128	29,004.7426	0.9353	0.9242
Virgin Islands	2	.	.	.	.
Virginia	83	376,964	467,770.9788	0.8059	0.8033
Washington	58	391,193	385,029.0520	1.0160	1.0128
West Virginia	31	114,467	120,576.5896	0.9493	0.9438
Wisconsin	88	315,722	319,054.6940	0.9896	0.9861
Wyoming	13	11,067	11,385.4374	0.9720	0.9540
All US	**3,807**	**17,145,079**	**20,472,326.9257**	**0.8375**	**0.8371**

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 ≥1.0 predicted number of device c
4. Data from all wards (for this table, wards also include step-down, mixed acuity, and specialty care areas [in

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		
0.7613	87	25	29%	52	60%	0.0682
1.1995	10	6	60%	3	30%	.
0.9992	75	38	51%	32	43%	0.1712
0.8091	51	17	33%	29	57%	0.3116
0.8712	339	171	50%	146	43%	0.4466
0.9771	57	32	56%	20	35%	0.5533
0.7560	33	12	36%	19	58%	0.4954
0.8203	10	5	50%	5	50%	.
0.7992	9	.	.	.	.	.
0.7031	224	50	22%	159	71%	0.3789
0.8056	111	49	44%	52	47%	0.2142
.	.	.	.	.	.	.
1.0636	16	9	56%	6	38%	.
0.9007	18	8	44%	7	39%	.
0.8551	133	69	52%	54	41%	0.4506
0.9679	93	53	57%	32	34%	0.4732
0.9066	38	18	47%	18	47%	0.4902
1.0406	62	31	50%	22	35%	0.1813
0.8467	71	34	48%	32	45%	0.4283
0.8865	107	50	47%	43	40%	0.3257
0.7758	21	8	38%	10	48%	0.5274
0.8402	48	24	50%	23	48%	0.4602
0.8783	67	22	33%	42	63%	0.4460
0.7291	100	27	27%	64	64%	0.3441
1.0374	49	30	61%	14	29%	0.5286
0.8942	64	33	52%	22	34%	0.0696
0.9067	79	42	53%	30	38%	0.4576
0.5843	13	3	23%	9	69%	.
0.9641	29	16	55%	9	31%	0.0656
0.8083	30	16	53%	12	40%	0.4235
0.9174	13	5	38%	7	54%	.
0.6965	72	16	22%	52	72%	0.4101
0.8092	33	12	36%	18	55%	0.2219
0.6864	176	54	31%	107	61%	0.3277
0.9401	104	54	52%	41	39%	0.5147
0.8611	10	5	50%	5	50%	.
0.8914	152	72	47%	67	44%	0.4659
1.1160	83	50	60%	21	25%	0.4098
0.8829	36	17	47%	13	36%	0.5787
0.8188	188	54	29%	108	57%	0.2330
0.8657	19	8	42%	8	42%	.

0.7073	11	4	36%	6	55%	.
0.7344	65	23	35%	35	54%	0.3834
0.7790	21	8	38%	11	52%	0.2573
0.8808	98	41	42%	44	45%	0.3400
0.8650	357	148	41%	172	48%	0.2212
0.8632	38	16	42%	12	32%	0.3435
0.9465	7	.	.	.	.	.
.	.	.	.	.	.	.
0.8085	83	41	49%	35	42%	0.4728
1.0192	58	37	64%	16	28%	0.6586
0.9548	31	18	58%	8	26%	0.4794
0.9930	88	50	57%	24	27%	0.4070
0.9903	13	8	62%	2	15%	.
0.8379	**3,803**	**1,647**	**43%**	**1,786**	**47%**	**0.3648**

less than 5 reporting facilities. This may be different from those reported in the SIR tables due to exclusior
s than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0 predic
days in 2022. If a facility's predicted number of device days was <1.0, a facility-specific SUR was neither ca
cluding hematology/oncology, bone marrow transplant]). Data contained in this table are reported from acu

| | Median | | |
25%	50%	75%	90%
0.4154	0.7195	0.9657	1.3344
.	.	.	.
0.5961	0.9061	1.1449	1.7630
0.4907	0.7346	1.0317	1.5933
0.6283	0.8759	1.1697	1.5438
0.6814	0.8882	1.3348	2.1449
0.5424	0.6877	0.9825	1.2421
.	.	.	.
.	.	.	.
0.4758	0.6471	0.8535	1.1058
0.5626	0.7981	1.1055	1.5030
.	.	.	.
.	.	.	.
.	.	.	.
0.7015	0.8934	1.0686	1.4628
0.6703	0.9571	1.3285	1.9748
0.6359	0.8409	1.1753	2.2511
0.5589	0.9456	1.6020	2.5521
0.5970	0.9061	1.1681	1.4173
0.5532	0.9077	1.4029	1.8174
0.6718	0.8106	1.2702	1.7080
0.5868	0.8701	1.1640	1.4894
0.5650	0.7557	0.9874	1.2319
0.5077	0.6934	0.9191	1.1962
0.7566	0.9856	1.3142	1.8376
0.5740	0.9509	1.2925	1.8180
0.6527	0.8966	1.1251	1.4459
.	.	.	.
0.7217	0.9833	1.3587	1.9049
0.5600	0.8881	1.2841	2.4304
.	.	.	.
0.5113	0.6628	0.8478	1.0694
0.5282	0.7748	1.1220	1.5160
0.4072	0.6255	0.9334	1.2868
0.6436	0.8950	1.1866	1.6435
.	.	.	.
0.6642	0.8532	1.1390	1.7539
0.7285	1.1302	1.7765	2.5156
0.7415	0.8624	1.2072	1.3912
0.5210	0.7108	0.9607	1.3064
.	.	.	.

.	.	.	.
0.5045	0.7155	1.0529	1.4024
0.5526	0.7327	1.3607	1.5724
0.6152	0.7943	1.0423	1.3788
0.5697	0.7978	1.1303	1.6634
0.5229	0.8641	1.1041	1.5680
.	.	.	.
.	.	.	.
0.6334	0.8756	1.1026	1.4597
0.7635	0.9920	1.3444	2.1364
0.7624	0.9616	1.2241	2.0766
0.7190	1.0045	1.3054	1.8015
.	.	.	.
0.5788	**0.8166**	**1.1266**	**1.6006**

1 and inclusion criteria. Refer to the technical appendix for details.
ted device days in 2022.
1lculated nor included in the distribution of facility-specific SURs.
1te care hospitals.

State	No. of Facilities	No. of Device Days			95% CI
		Observed	Predicted	SUR	Lower
Alabama	15	28,360	31,702.2357	0.8946	0.8842
Alaska	2	.	.	.	.
Arizona	20	24,108	23,795.9850	1.0131	1.0004
Arkansas	10	20,906	20,298.4717	1.0299	1.0160
California	136	132,616	142,798.6595	0.9287	0.9237
Colorado	23	17,668	28,167.5869	0.6272	0.6181
Connecticut	13	8,403	13,351.9694	0.6293	0.6160
D.C.	2	.	.	.	.
Delaware	5	11,805	11,600.7110	1.0176	0.9994
Florida	64	97,193	110,191.9195	0.8820	0.8765
Georgia	37	49,457	60,066.3147	0.8234	0.8162
Guam	0	.	.	.	.
Hawaii	2	.	.	.	.
Idaho	11	5,260	6,178.6655	0.8513	0.8285
Illinois	37	47,478	52,086.8241	0.9115	0.9034
Indiana	28	23,486	37,026.7112	0.6343	0.6262
Iowa	12	14,238	14,450.1669	0.9853	0.9693
Kansas	10	7,719	11,381.7453	0.6782	0.6632
Kentucky	17	18,864	24,383.4974	0.7736	0.7626
Louisiana	29	28,587	31,400.6388	0.9104	0.8999
Maine	3	.	.	.	.
Maryland	16	17,416	20,925.5771	0.8323	0.8200
Massachusetts	10	16,744	21,787.4272	0.7685	0.7569
Michigan	20	38,732	45,131.9217	0.8582	0.8497
Minnesota	11	11,973	14,173.9716	0.8447	0.8297
Mississippi	15	15,395	15,135.0573	1.0172	1.0012
Missouri	24	39,224	48,374.2247	0.8108	0.8029
Montana	7	2,296	3,436.6745	0.6681	0.6412
Nebraska	8	7,941	11,112.8534	0.7146	0.6990
Nevada	11	18,180	14,717.7186	1.2352	1.2174
New Hampshire	3	.	.	.	.
New Jersey	24	20,827	29,769.5590	0.6996	0.6902
New Mexico	5	5,625	4,387.2500	1.2821	1.2489
New York	54	73,805	80,290.5126	0.9192	0.9126
North Carolina	25	42,426	46,716.1643	0.9082	0.8996
North Dakota	6	4,056	4,361.5230	0.9300	0.9016
Ohio	20	51,514	73,712.6434	0.6988	0.6929
Oklahoma	8	23,178	18,693.4090	1.2399	1.2241
Oregon	10	8,914	11,357.7675	0.7848	0.7687
Pennsylvania	46	46,967	65,711.9316	0.7147	0.7083
Puerto Rico	8	788	859.8206	0.9165	0.8541

Rhode Island	1	.	.	.	.
South Carolina	9	15,525	23,474.0414	0.6614	0.6510
South Dakota	3	.	.	.	.
Tennessee	24	46,182	46,277.5755	0.9979	0.9889
Texas	128	170,489	179,163.9033	0.9516	0.9471
Utah	14	13,288	18,027.9959	0.7371	0.7246
Vermont	1	.	.	.	.
Virgin Islands	1	.	.	.	.
Virginia	28	29,002	31,825.9090	0.9113	0.9008
Washington	16	21,090	24,772.0180	0.8514	0.8399
West Virginia	6	6,169	7,718.1704	0.7993	0.7795
Wisconsin	18	16,396	21,088.7081	0.7775	0.7656
Wyoming	0	.	.	.	.
All US	**1,056**	**1,336,880**	**1,537,947.6007**	**0.8693**	**0.8678**

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 NICU locations, including Level II/III and Level III nurseries.

| 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		
0.9050	15	3	20%	11	73%	.
.	.	.	.	.	.	.
1.0259	20	7	35%	12	60%	0.0142
1.0439	10	4	40%	4	40%	.
0.9337	136	34	25%	83	61%	0.1192
0.6366	23	1	4%	21	91%	0.1058
0.6429	13	0	0%	13	100%	.
1.0361	5	.	.	.	.	.
0.8876	64	24	38%	32	50%	0.2052
0.8306	37	10	27%	24	65%	0.2796
0.8746	11	3	27%	7	64%	.
0.9197	37	11	30%	21	57%	0.1367
0.6424	28	3	11%	21	75%	0.2716
1.0016	12	5	42%	5	42%	.
0.6935	10	1	10%	7	70%	.
0.7847	16	3	19%	8	50%	.
0.9210	29	6	21%	20	69%	0.0362
0.8447	16	2	13%	13	81%	.
0.7802	10	3	30%	7	70%	.
0.8668	20	7	35%	11	55%	0.3378
0.8600	11	2	18%	9	82%	.
1.0334	15	3	20%	10	67%	.
0.8189	24	4	17%	16	67%	0.0000
0.6958	7	.	.	.	.	.
0.7304	8	.	.	.	.	.
1.2533	10	9	90%	0	0%	.
0.7092	24	4	17%	18	75%	0.3389
1.3159	5	.	.	.	.	.
0.9259	54	17	31%	31	57%	0.1319
0.9168	25	6	24%	17	68%	0.1042
0.9589	6	.	.	.	.	.
0.7049	20	5	25%	15	75%	0.2160
1.2559	8	.	.	.	.	.
0.8013	10	2	20%	8	80%	.
0.7212	46	7	15%	34	74%	0.0869
0.9822	8	.	.	.	.	.

.	.	.	.	.	.	.
0.6718	9	.	.	.	.	.
.	.	.	.	.	.	.
1.0070	24	6	25%	15	63%	0.0421
0.9561	128	44	34%	67	52%	0.3383
0.7497	14	1	7%	11	79%	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0.9218	28	10	36%	14	50%	0.2939
0.8629	16	4	25%	11	69%	.
0.8194	6	.	.	.	.	.
0.7895	18	2	11%	13	72%	.
.	.	.	.	.	.	.
0.8707	**1,054**	**278**	**26%**	**650**	**62%**	**0.1735**

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 p
ice days in 2022. If a facility's predicted number of device days was <1.0, a facility-specific SUR was neith

evice type and patient population:

	Median		
25%	50%	75%	90%
.	.	.	.
.	.	.	.
0.3163	0.6974	1.0786	1.4581
.	.	.	.
0.3874	0.6521	0.9445	1.3076
0.1965	0.3330	0.4902	0.7424
.	.	.	.
.	.	.	.
.	.	.	.
0.4023	0.8030	1.0704	1.3305
0.4620	0.6319	0.9855	1.4890
.	.	.	.
.	.	.	.
.	.	.	.
0.4668	0.7738	0.9645	1.3677
0.4076	0.6111	0.7974	0.9453
.	.	.	.
.	.	.	.
.	.	.	.
0.4685	0.6914	0.8905	1.3958
.	.	.	.
.	.	.	.
.	.	.	.
0.3964	0.7874	1.1790	1.4233
.	.	.	.
.	.	.	.
0.3425	0.6555	0.8695	1.0113
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.3899	0.5341	0.8275	1.1656
.	.	.	.
0.4795	0.6758	1.0081	1.2920
0.2987	0.5897	0.9269	1.1687
.	.	.	.
0.4743	0.6065	0.8819	1.2899
.	.	.	.
.	.	.	.
0.2899	0.5088	0.7641	1.0521
.	.	.	.

.	.	.	.
.	.	.	.
.	.	.	.
0.2137	0.5688	0.9103	1.1776
0.5118	0.7565	1.0536	1.3648
.	.	.	.
.	.	.	.
.	.	.	.
0.4920	0.7852	0.9985	1.3054
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.4129	**0.6589**	**0.9579**	**1.2796**

usion and inclusion criteria. Refer to the technical appendix for details.
redicted device days in 2022.
er calculated nor included in the distribution of facility-specific SURs.

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

State	No. of Facilities	No. of Device Days			95% CI
		Observed	Predicted	SUR	Lower
Alabama	90	555,860	587,715.3113	0.9458	0.9433
Alaska	10	40,337	62,334.3369	0.6471	0.6408
Arizona	75	564,880	634,463.9070	0.8903	0.8880
Arkansas	51	296,819	320,901.5115	0.9250	0.9216
California	336	2,634,323	3,087,298.2652	0.8533	0.8523
Colorado	58	338,667	424,863.3283	0.7971	0.7944
Connecticut	33	234,341	324,264.7810	0.7227	0.7198
D.C	10	71,477	127,376.8093	0.5611	0.5570
Delaware	9	99,438	136,173.0429	0.7302	0.7257
Florida	227	1,699,999	2,672,027.7233	0.6362	0.6353
Georgia	113	743,763	998,707.9213	0.7447	0.7430
Guam	2	.	.	.	.
Hawaii	16	93,787	114,740.7939	0.8174	0.8121
Idaho	18	90,277	102,036.5534	0.8848	0.8790
Illinois	134	909,308	1,189,727.9686	0.7643	0.7627
Indiana	94	544,747	671,707.2603	0.8110	0.8088
Iowa	40	233,972	226,477.0819	1.0331	1.0289
Kansas	63	193,244	252,877.5356	0.7642	0.7608
Kentucky	71	488,408	585,567.3008	0.8341	0.8318
Louisiana	108	435,876	475,897.4616	0.9159	0.9132
Maine	21	89,740	119,656.6767	0.7500	0.7451
Maryland	48	403,776	541,578.5911	0.7456	0.7433
Massachusetts	68	522,848	654,224.8320	0.7992	0.7970
Michigan	100	733,883	879,918.4715	0.8340	0.8321
Minnesota	49	344,146	384,698.9310	0.8946	0.8916
Mississippi	64	322,472	304,282.1474	1.0598	1.0561
Missouri	79	580,882	719,679.3967	0.8071	0.8051
Montana	13	67,589	75,607.0254	0.8940	0.8873
Nebraska	28	125,217	165,647.1922	0.7559	0.7518
Nevada	30	246,140	349,518.8028	0.7042	0.7015
New Hampshire	13	99,673	116,675.3491	0.8543	0.8490
New Jersey	72	546,702	821,604.9868	0.6654	0.6636
New Mexico	33	160,217	173,493.5972	0.9235	0.9190
New York	176	1,563,104	1,960,778.1475	0.7972	0.7959
North Carolina	104	817,123	1,038,171.2337	0.7871	0.7854
North Dakota	10	53,858	62,790.7310	0.8577	0.8505
Ohio	152	1,132,159	1,343,743.1740	0.8425	0.8410
Oklahoma	83	361,353	370,025.7415	0.9766	0.9734
Oregon	36	263,583	333,853.2021	0.7895	0.7865
Pennsylvania	195	1,240,093	1,478,951.4142	0.8385	0.8370
Puerto Rico	22	160,897	121,527.5305	1.3240	1.3175
Rhode Island	11	67,115	87,531.8561	0.7667	0.7610
South Carolina	65	375,683	545,408.2964	0.6888	0.6866

South Dakota	21	65,192	73,172.6159	0.8909	0.8841
Tennessee	99	660,935	819,019.5464	0.8070	0.8050
Texas	363	2,023,958	2,655,933.9898	0.7621	0.7610
Utah	38	130,497	171,929.3932	0.7590	0.7549
Vermont	7	39,623	43,123.0196	0.9188	0.9098
Virgin Islands	2	.	.	.	.
Virginia	83	528,831	765,068.0805	0.6912	0.6893
Washington	59	507,283	602,345.7805	0.8422	0.8398
West Virginia	32	234,400	234,072.0598	1.0014	0.9973
Wisconsin	88	402,774	491,065.3554	0.8202	0.8177
Wyoming	13	26,323	25,321.7539	1.0395	1.0271
All US	**3,835**	**25,182,831**	**31,541,256.2079**	**0.7984**	**0.7981**

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

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		
0.9483	90	57	63%	26	29%	0.4606
0.6535	10	4	40%	6	60%	.
0.8926	75	39	52%	29	39%	0.4421
0.9283	51	35	69%	12	24%	0.4998
0.8543	336	198	59%	116	35%	0.6001
0.7998	58	26	45%	27	47%	0.4961
0.7256	33	5	15%	25	76%	0.4277
0.5653	10	1	10%	9	90%	.
0.7348	9	.	.	.	.	.
0.6372	227	39	17%	174	77%	0.3778
0.7464	113	50	44%	50	44%	0.4657
.	.	.	.	.	.	.
0.8226	16	9	56%	6	38%	.
0.8905	18	8	44%	2	11%	.
0.7659	134	59	44%	65	49%	0.5666
0.8131	94	49	52%	40	43%	0.5059
1.0373	40	32	80%	5	13%	0.7240
0.7676	63	26	41%	32	51%	0.1482
0.8364	71	44	62%	24	34%	0.5911
0.9186	108	69	64%	26	24%	0.5316
0.7549	21	10	48%	9	43%	0.5500
0.7479	48	19	40%	25	52%	0.5062
0.8014	68	27	40%	36	53%	0.4220
0.8359	100	52	52%	38	38%	0.5545
0.8976	49	31	63%	13	27%	0.5925
1.0634	64	44	69%	11	17%	0.4442
0.8092	78	32	41%	38	49%	0.5064
0.9007	13	8	62%	3	23%	.
0.7601	28	10	36%	16	57%	0.3761
0.7070	30	6	20%	22	73%	0.1954
0.8596	13	6	46%	6	46%	.
0.6672	72	15	21%	52	72%	0.4423
0.9280	33	20	61%	10	30%	0.5716
0.7984	176	84	48%	80	45%	0.5155
0.7888	104	40	38%	54	52%	0.5066
0.8650	10	7	70%	3	30%	.
0.8441	152	83	55%	51	34%	0.5561
0.9798	83	60	72%	17	20%	0.4439
0.7925	36	12	33%	20	56%	0.6181
0.8400	195	92	47%	89	46%	0.3679
1.3304	22	22	100%	0	0%	0.9759
0.7726	11	4	36%	7	64%	.
0.6910	65	18	28%	44	68%	0.4212

0.8978	21	12	57%	6	29%	0.5614
0.8089	99	53	54%	40	40%	0.4708
0.7631	362	159	44%	167	46%	0.4594
0.7631	38	12	32%	22	58%	0.3240
0.9279	7	.	.	.	.	.
.	.	.	.	.	.	.
0.6931	83	24	29%	54	65%	0.4879
0.8445	59	31	53%	21	36%	0.6208
1.0055	32	22	69%	4	13%	0.6894
0.8227	88	36	41%	40	45%	0.3832
1.0522	13	8	62%	4	31%	.
0.7987	**3,833**	**1,818**	**47%**	**1,687**	**44%**	**0.4783**

are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to exclus
ess than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0 pre
e days in 2022. If a facility's predicted number of device days was <1.0, a facility-specific SUR was neither
this table are reported from acute care hospitals.

vice type and patient population:

	Median		
25%	50%	75%	90%
0.6975	0.9565	1.1657	1.3652
.	.	.	.
0.6521	0.8301	1.0548	1.2393
0.7729	0.9155	1.1585	1.4777
0.7173	0.8658	1.0495	1.2708
0.6803	0.7887	0.9070	1.0777
0.5573	0.6384	0.7382	1.0000
.	.	.	.
.	.	.	.
0.5012	0.6358	0.7670	0.9216
0.5874	0.8122	0.9998	1.2203
.	.	.	.
.	.	.	.
.	.	.	.
0.6574	0.7837	1.0115	1.3396
0.6287	0.8774	1.0565	1.2745
0.8704	1.0120	1.2229	1.4488
0.5662	0.7536	1.0706	1.5415
0.7161	0.9235	1.2664	1.5233
0.7739	1.0560	1.4522	2.1265
0.6592	0.8798	1.0731	1.2302
0.6297	0.7682	0.9794	1.2220
0.5440	0.7573	0.9023	1.0691
0.6700	0.8416	1.0127	1.2369
0.7432	0.9087	1.0367	1.3129
0.7852	1.0535	1.3003	1.5012
0.6065	0.7757	0.9924	1.2126
.	.	.	.
0.6087	0.6591	1.0383	1.3853
0.5218	0.6485	0.7864	0.9617
.	.	.	.
0.5536	0.6580	0.7941	0.9066
0.6940	0.9019	1.1262	1.4980
0.6263	0.8126	1.0083	1.2209
0.6532	0.7575	0.9876	1.1490
.	.	.	.
0.7299	0.8499	0.9959	1.2266
0.8071	1.0182	1.3312	1.6678
0.6703	0.7657	0.9027	1.1432
0.5843	0.7966	1.0234	1.2908
1.1926	1.3635	1.9561	2.1943
.	.	.	.
0.5511	0.6685	0.8725	1.1933

0.6568	0.9314	1.2468	1.4383
0.6507	0.8731	1.1213	1.3671
0.6316	0.7950	1.0683	1.5103
0.6177	0.7319	0.8811	1.0790
.	.	.	.
.	.	.	.
0.5709	0.6742	0.8806	1.0785
0.6868	0.8236	0.9657	1.2272
0.8024	0.9176	1.3031	1.4810
0.5944	0.7906	0.9320	1.1050
.	.	.	.
0.6363	**0.8107**	**1.0308**	**1.3246**

sion and inclusion criteria. Refer to the technical appendix for details.
dicted device days in 2022.
r calculated nor included in the distribution of facility-specific SURs.

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

Table 3b. Uri

State	No. of Facilities	No. of Device Days			95% CI
		Observed	Predicted	SUR	Lower
Alabama	69	262,516	266,940.4809	0.9834	0.9797
Alaska	7	13,773	22,253.2597	0.6189	0.6086
Arizona	54	217,036	239,990.7249	0.9044	0.9005
Arkansas	41	129,070	141,356.3393	0.9131	0.9081
California	314	933,938	1,051,348.3909	0.8883	0.8865
Colorado	48	127,632	159,475.9438	0.8003	0.7959
Connecticut	28	95,309	107,639.3957	0.8854	0.8798
D.C	9	22,274	33,492.3422	0.6650	0.6563
Delaware	8	45,126	53,171.4380	0.8487	0.8409
Florida	206	700,125	917,499.6485	0.7631	0.7613
Georgia	94	309,569	395,866.7407	0.7820	0.7793
Guam	2	.	.	.	.
Hawaii	14	30,994	36,839.6483	0.8413	0.8320
Idaho	14	32,933	34,255.1758	0.9614	0.9511
Illinois	119	334,342	431,965.2249	0.7740	0.7714
Indiana	73	218,203	253,092.6931	0.8621	0.8586
Iowa	34	77,991	76,125.6272	1.0245	1.0173
Kansas	40	74,400	95,700.3886	0.7774	0.7718
Kentucky	64	195,783	208,289.3147	0.9400	0.9358
Louisiana	72	168,012	191,678.0009	0.8765	0.8723
Maine	15	31,575	39,101.9308	0.8075	0.7986
Maryland	45	139,779	182,457.2503	0.7661	0.7621
Massachusetts	58	208,804	213,939.7998	0.9760	0.9718
Michigan	80	296,800	316,627.0480	0.9374	0.9340
Minnesota	31	122,175	125,677.4940	0.9721	0.9667
Mississippi	45	125,399	121,731.0546	1.0301	1.0245
Missouri	72	219,920	252,834.1513	0.8698	0.8662
Montana	10	21,539	23,151.8408	0.9303	0.9180
Nebraska	17	37,175	51,869.1347	0.7167	0.7094
Nevada	21	100,492	131,539.4721	0.7640	0.7593
New Hampshire	13	33,832	35,238.2707	0.9601	0.9499
New Jersey	72	190,236	253,226.5541	0.7512	0.7479
New Mexico	27	62,108	63,482.3975	0.9783	0.9707
New York	159	570,755	663,379.5856	0.8604	0.8581
North Carolina	86	314,114	352,762.9988	0.8904	0.8873
North Dakota	7	18,363	18,086.2103	1.0153	1.0007
Ohio	123	438,484	489,080.4402	0.8965	0.8939
Oklahoma	51	148,325	144,512.6138	1.0264	1.0212
Oregon	33	90,471	107,604.6917	0.8408	0.8353
Pennsylvania	135	481,319	536,349.5918	0.8974	0.8949
Puerto Rico	16	41,828	35,492.7598	1.1785	1.1672
Rhode Island	10	24,726	27,177.3953	0.9098	0.8985
South Carolina	54	147,820	190,635.8309	0.7754	0.7715

South Dakota	11	17,601	20,372.8377	0.8639	0.8512
Tennessee	81	279,389	331,432.5732	0.8430	0.8399
Texas	254	853,619	1,033,692.4824	0.8258	0.8241
Utah	30	64,931	82,116.9650	0.7907	0.7846
Vermont	5	12,577	14,324.6704	0.8780	0.8627
Virgin Islands	2	.	.	.	.
Virginia	72	200,227	259,305.5499	0.7722	0.7688
Washington	48	173,343	201,592.2143	0.8599	0.8558
West Virginia	28	98,144	95,368.2721	1.0291	1.0227
Wisconsin	66	146,615	176,278.9913	0.8317	0.8274
Wyoming	11	6,219	8,063.0857	0.7713	0.7523
All US	**3,098**	**9,713,389**	**11,322,745.6101**	**0.8579**	**0.8573**

1. The number of reporting facilities included in the SUR calculation; SURs are not calculated when th

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

4. Data from all ICUs; excludes wards (and other non-critical care locations), and NICUs. Data contain

for SUR Upper	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		
		N		N		
0.9872	69	41	59%	18	26%	0.4932
0.6293	7	.	.	.	.	.
0.9081	54	28	52%	18	33%	0.5582
0.9181	41	24	59%	11	27%	0.5215
0.8901	314	163	52%	106	34%	0.5957
0.8047	48	13	27%	29	60%	0.4129
0.8911	28	10	36%	15	54%	0.3988
0.6738	9	.	.	.	.	.
0.8565	8	.	.	.	.	.
0.7649	206	59	29%	119	58%	0.3994
0.7848	94	34	36%	47	50%	0.4488
.	.	.	.	.	.	.
0.8507	14	9	64%	4	29%	.
0.9718	14	9	64%	4	29%	.
0.7766	119	39	33%	59	50%	0.5009
0.8658	73	38	52%	29	40%	0.5451
1.0317	34	18	53%	11	32%	0.3907
0.7830	40	12	30%	23	58%	0.3078
0.9441	64	36	56%	21	33%	0.6061
0.8807	72	41	57%	23	32%	0.5703
0.8164	15	6	40%	7	47%	.
0.7701	45	18	40%	25	56%	0.4279
0.9802	58	33	57%	17	29%	0.5933
0.9407	80	51	64%	23	29%	0.6164
0.9776	31	15	48%	13	42%	0.4671
1.0358	45	29	64%	12	27%	0.6453
0.8735	72	32	44%	31	43%	0.3948
0.9428	10	3	30%	5	50%	.
0.7240	17	2	12%	12	71%	.
0.7687	21	6	29%	11	52%	0.4701
0.9703	13	8	62%	4	31%	.
0.7546	72	22	31%	43	60%	0.4642
0.9861	27	13	48%	7	26%	0.5472
0.8626	159	73	46%	67	42%	0.5758
0.8936	86	39	45%	39	45%	0.4876
1.0301	7	.	.	.	.	.
0.8992	123	57	46%	42	34%	0.5727
1.0316	51	33	65%	11	22%	0.7092
0.8463	33	10	30%	18	55%	0.5221
0.9000	135	65	48%	49	36%	0.6190
1.1898	16	14	88%	1	6%	.
0.9212	10	3	30%	7	70%	.
0.7794	54	13	24%	34	63%	0.4640

0.8768	11	3	27%	7	64%	.
0.8461	81	35	43%	33	41%	0.5246
0.8275	254	97	38%	127	50%	0.5539
0.7968	30	6	20%	22	73%	0.2654
0.8934	5	.	.	.	.	.
.	.	.	.	.	.	.
0.7755	72	18	25%	43	60%	0.4317
0.8639	48	19	40%	22	46%	0.5553
1.0356	28	19	68%	7	25%	0.5350
0.8360	66	18	27%	32	48%	0.4680
0.7907	11	2	18%	7	64%	.
0.8584	**3,098**	**1,353**	**44%**	**1,337**	**43%**	**0.5136**

ere are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to e:
n or less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.(
device days in 2022. If a facility's predicted number of device days was <1.0, a facility-specific SUR was ne
led in this table are reported from acute care hospitals.

device type and patient population:

	Median		
25%	**50%**	**75%**	**90%**
0.7728	0.9708	1.0956	1.2310
.	.	.	.
0.7700	0.9017	1.1075	1.1701
0.7627	0.9949	1.0729	1.3248
0.7415	0.9144	1.0660	1.2001
0.6077	0.7239	0.9053	0.9922
0.6272	0.8050	0.9686	1.1442
.	.	.	.
.	.	.	.
0.5653	0.7736	0.9083	1.0451
0.5856	0.8230	0.9746	1.0926
.	.	.	.
.	.	.	.
.	.	.	.
0.6636	0.8040	1.0027	1.1698
0.7163	0.8976	1.0781	1.1711
0.6626	0.9418	1.0421	1.1389
0.5564	0.7606	0.9855	1.0684
0.7704	0.9413	1.1696	1.3324
0.7604	0.9669	1.1542	1.2773
.	.	.	.
0.7118	0.8153	0.9891	1.1668
0.7805	0.9432	1.0722	1.2370
0.7679	0.9630	1.0751	1.2054
0.6693	0.8916	1.0781	1.1710
0.7778	1.0208	1.2255	1.3229
0.5810	0.8512	1.0216	1.1330
.	.	.	.
.	.	.	.
0.6273	0.8279	0.9051	0.9953
.	.	.	.
0.5937	0.7698	0.9569	1.0875
0.6880	0.9285	1.0210	1.1342
0.7130	0.8802	1.0580	1.2006
0.6999	0.8554	1.0357	1.1562
.	.	.	.
0.7292	0.8829	1.0366	1.1019
0.8242	1.0131	1.1609	1.2930
0.6252	0.8105	0.9398	1.0862
0.7328	0.8889	1.0806	1.2304
.	.	.	.
.	.	.	.
0.6173	0.7570	0.9024	1.0250

.	.	.	.
0.6897	0.8465	1.0723	1.1917
0.6835	0.8238	0.9711	1.1837
0.4936	0.7093	0.8917	1.1086
.	.	.	.
.	.	.	.
0.5851	0.7715	0.9025	1.0858
0.6867	0.8491	0.9917	1.1927
0.8441	1.0288	1.1790	1.3113
0.6219	0.7999	0.9254	1.1418
.	.	.	.
0.6831	**0.8611**	**1.0346**	**1.1878**

xclusion and inclusion criteria. Refer to the technical appendix for details
) predicted device days in 2022.
either 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	90	293,344	320,774.8304	0.9145	0.9112
Alaska	10	26,564	40,081.0771	0.6628	0.6548
Arizona	75	347,844	394,473.1821	0.8818	0.8789
Arkansas	51	167,749	179,545.1722	0.9343	0.9298
California	336	1,700,385	2,035,949.8743	0.8352	0.8339
Colorado	58	211,035	265,387.3845	0.7952	0.7918
Connecticut	33	139,032	216,625.3853	0.6418	0.6384
D.C	10	49,203	93,884.4671	0.5241	0.5195
Delaware	9	54,312	83,001.6049	0.6543	0.6489
Florida	224	999,874	1,754,528.0747	0.5699	0.5688
Georgia	112	434,194	602,841.1806	0.7202	0.7181
Guam	1	.	.	.	.
Hawaii	16	62,793	77,901.1456	0.8061	0.7998
Idaho	18	57,344	67,781.3776	0.8460	0.8391
Illinois	133	574,966	757,762.7437	0.7588	0.7568
Indiana	93	326,544	418,614.5672	0.7801	0.7774
Iowa	39	155,981	150,351.4547	1.0374	1.0323
Kansas	63	118,844	157,177.1470	0.7561	0.7518
Kentucky	71	292,625	377,277.9860	0.7756	0.7728
Louisiana	108	267,864	284,219.4607	0.9425	0.9389
Maine	21	58,165	80,554.7459	0.7221	0.7162
Maryland	48	263,997	359,121.3408	0.7351	0.7323
Massachusetts	68	314,044	440,285.0322	0.7133	0.7108
Michigan	100	437,083	563,291.4235	0.7759	0.7737
Minnesota	49	221,971	259,021.4371	0.8570	0.8534
Mississippi	64	197,073	182,551.0928	1.0795	1.0748
Missouri	79	360,962	466,845.2455	0.7732	0.7707
Montana	13	46,050	52,455.1847	0.8779	0.8699
Nebraska	28	88,042	113,778.0575	0.7738	0.7687
Nevada	30	145,648	217,979.3308	0.6682	0.6647
New Hampshire	13	65,841	81,437.0783	0.8085	0.8023
New Jersey	72	356,466	568,378.4327	0.6272	0.6251
New Mexico	33	98,109	110,011.1997	0.8918	0.8863
New York	175	992,349	1,297,398.5619	0.7649	0.7634
North Carolina	104	503,009	685,408.2350	0.7339	0.7318
North Dakota	10	35,495	44,704.5207	0.7940	0.7857
Ohio	152	693,675	854,662.7338	0.8116	0.8097
Oklahoma	83	213,028	225,513.1278	0.9446	0.9406
Oregon	36	173,112	226,248.5104	0.7651	0.7615
Pennsylvania	195	758,774	942,601.8224	0.8050	0.8032
Puerto Rico	21	119,069	86,034.7708	1.3840	1.3761
Rhode Island	11	42,389	60,354.4608	0.7023	0.6957
South Carolina	65	227,863	354,772.4655	0.6423	0.6396

South Dakota	21	47,591	52,799.7782	0.9013	0.8933
Tennessee	99	381,546	487,586.9733	0.7825	0.7800
Texas	360	1,170,339	1,622,241.5074	0.7214	0.7201
Utah	38	65,566	89,812.4283	0.7300	0.7245
Vermont	7	27,046	28,798.3492	0.9392	0.9280
Virgin Islands	2	.	.	.	.
Virginia	83	328,604	505,762.5306	0.6497	0.6475
Washington	59	333,940	400,753.5662	0.8333	0.8305
West Virginia	31	136,256	138,703.7877	0.9824	0.9771
Wisconsin	88	256,159	314,786.3641	0.8138	0.8106
Wyoming	13	20,104	17,258.6682	1.1649	1.1489
All US	**3,821**	**15,469,442**	**20,218,510.5978**	**0.7651**	**0.7647**

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

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		
0.9178	90	58	64%	25	28%	0.4783
0.6708	10	5	50%	4	40%	.
0.8847	75	35	47%	33	44%	0.4421
0.9388	51	37	73%	9	18%	0.4962
0.8364	336	197	59%	108	32%	0.5393
0.7986	58	29	50%	21	36%	0.4887
0.6452	33	6	18%	25	76%	0.4535
0.5287	10	1	10%	9	90%	.
0.6599	9	.	.	.	.	.
0.5710	224	38	17%	172	77%	0.3374
0.7224	112	55	49%	47	42%	0.4270
.	.	.	.	.	.	.
0.8124	16	9	56%	6	38%	.
0.8530	18	11	61%	4	22%	.
0.7607	133	69	52%	56	42%	0.5275
0.7828	93	47	51%	34	37%	0.4394
1.0426	39	32	82%	2	5%	0.7519
0.7604	63	32	51%	26	41%	0.1482
0.7784	71	44	62%	23	32%	0.5087
0.9460	108	71	66%	24	22%	0.4818
0.7279	21	11	52%	9	43%	0.4931
0.7379	48	17	35%	27	56%	0.4743
0.7158	68	24	35%	41	60%	0.3626
0.7782	100	48	48%	43	43%	0.4548
0.8606	49	31	63%	13	27%	0.6033
1.0843	64	45	70%	11	17%	0.4393
0.7757	78	39	50%	34	44%	0.4100
0.8860	13	8	62%	3	23%	.
0.7789	28	12	43%	14	50%	0.3761
0.6716	30	4	13%	24	80%	0.1954
0.8147	13	6	46%	7	54%	.
0.6292	72	14	19%	52	72%	0.3670
0.8974	33	22	67%	8	24%	0.5716
0.7664	175	80	46%	82	47%	0.4573
0.7359	104	42	40%	54	52%	0.4807
0.8023	10	6	60%	4	40%	.
0.8135	152	88	58%	44	29%	0.5611
0.9487	83	57	69%	20	24%	0.4380
0.7688	36	18	50%	15	42%	0.5977
0.8068	195	91	47%	85	44%	0.3052
1.3918	21	21	100%	0	0%	1.1326
0.7090	11	4	36%	7	64%	.
0.6449	65	22	34%	43	66%	0.3959

0.9095	21	15	71%	4	19%	0.5614
0.7850	99	53	54%	40	40%	0.3457
0.7227	359	166	46%	157	44%	0.4127
0.7357	38	16	42%	15	39%	0.3868
0.9504	7	.	.	.	.	.
.	.	.	.	.	.	.
0.6519	83	29	35%	46	55%	0.4662
0.8361	59	35	59%	17	29%	0.5634
0.9876	31	20	65%	3	10%	0.7418
0.8169	88	44	50%	33	38%	0.3832
1.1811	13	9	69%	3	23%	.
0.7655	**3,819**	**1,884**	**49%**	**1,593**	**42%**	**0.4360**

e less than 5 reporting facilities. This may be different from those reported in the SIR tables due to exclusic
ss than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0 pred
e days in 2022. If a facility's predicted number of device days was <1.0, a facility-specific SUR was neither c
ncluding hematology/oncology, bone marrow transplant]). Data contained in this table are reported from ac

vice type and patient population:

	Median		
25%	50%	75%	90%
0.6589	0.9528	1.2801	1.5735
.	.	.	.
0.6020	0.7707	1.0621	1.3097
0.7721	0.9548	1.4083	1.8086
0.6749	0.8573	1.0887	1.3240
0.6790	0.7964	1.0228	1.2088
0.5661	0.6272	0.7127	1.0896
.	.	.	.
.	.	.	.
0.4506	0.5738	0.7229	0.8945
0.5597	0.7921	1.0161	1.3497
.	.	.	.
.	.	.	.
.	.	.	.
0.6642	0.8256	1.0645	1.4585
0.6272	0.8110	1.1339	1.4985
0.8912	1.0978	1.3414	1.6912
0.5682	0.8198	1.1216	2.0955
0.6663	0.9943	1.4703	1.8513
0.7332	1.1181	1.5366	2.3956
0.6531	0.8567	1.1888	1.2869
0.6355	0.7346	0.9724	1.2262
0.4517	0.6510	0.8613	1.0854
0.6160	0.7772	1.0125	1.3501
0.7219	0.9036	1.1049	1.3639
0.7801	1.1131	1.5255	1.8942
0.5387	0.8012	1.0308	1.3528
.	.	.	.
0.5902	0.7527	1.0646	1.4268
0.4660	0.6364	0.7462	0.9868
.	.	.	.
0.4650	0.6211	0.7578	0.8774
0.7192	0.9546	1.2293	1.8364
0.5584	0.7749	1.0385	1.3415
0.6051	0.7212	1.0275	1.2326
.	.	.	.
0.7209	0.8419	1.0956	1.4242
0.7242	1.0647	1.4854	1.8138
0.6400	0.7775	0.9916	1.2051
0.5532	0.7636	1.0562	1.3967
1.2293	1.5992	2.1943	2.2793
.	.	.	.
0.5317	0.6691	0.9031	1.1933

0.6780	1.0132	1.4383	1.6851
0.6049	0.8069	1.2316	1.7747
0.5762	0.8081	1.1133	1.6684
0.5816	0.7729	0.9415	1.1270
.	.	.	.
.	.	.	.
0.5217	0.6797	0.8772	1.2926
0.7079	0.8378	1.0032	1.4890
0.7594	0.9573	1.5202	1.7212
0.6133	0.7863	1.0121	1.1928
.	.	.	.
0.5977	**0.7961**	**1.0851**	**1.4828**

ɔn and inclusion criteria. Refer to the technical appendix for details.
licted device days in 2022.
calculated nor included in the distribution of facility-specific SURs.
ute care hospitals.

| State | No. of Facilities | No. of Device Days | | | 95% CI |
		Observed	Predicted	SUR	Lower
Alabama	46	74,863	75,276.2814	0.9945	0.9874
Alaska	5	6,605	7,148.5065	0.9240	0.9019
Arizona	26	59,972	58,185.0177	1.0307	1.0225
Arkansas	24	40,154	44,366.7152	0.9050	0.8962
California	171	422,613	351,531.7553	1.2022	1.1986
Colorado	42	71,158	80,284.7145	0.8863	0.8798
Connecticut	17	42,726	34,711.8703	1.2309	1.2193
D.C.	4	.	.	.	.
Delaware	2	.	.	.	.
Florida	141	301,370	337,678.9049	0.8925	0.8893
Georgia	71	230,204	196,842.7368	1.1695	1.1647
Guam	2	.	.	.	.
Hawaii	9	14,981	13,097.8758	1.1438	1.1256
Idaho	6	8,242	9,887.0996	0.8336	0.8158
Illinois	43	71,118	74,924.4547	0.9492	0.9423
Indiana	56	77,170	78,532.8311	0.9826	0.9758
Iowa	12	8,746	8,934.2060	0.9789	0.9586
Kansas	29	27,344	37,859.0472	0.7223	0.7137
Kentucky	38	59,080	61,966.7905	0.9534	0.9458
Louisiana	40	50,395	60,121.6361	0.8382	0.8309
Maine	14	16,748	20,172.2874	0.8302	0.8177
Maryland	22	40,236	31,153.8049	1.2915	1.2790
Massachusetts	22	27,923	28,579.9239	0.9770	0.9656
Michigan	53	107,837	100,338.2862	1.0747	1.0683
Minnesota	12	45,968	38,271.9726	1.2011	1.1901
Mississippi	27	34,619	38,419.2442	0.9011	0.8916
Missouri	41	93,363	98,862.2997	0.9444	0.9383
Montana	6	11,394	8,499.0228	1.3406	1.3162
Nebraska	7	11,355	15,370.7462	0.7387	0.7252
Nevada	18	79,962	85,036.6704	0.9403	0.9338
New Hampshire	10	12,294	10,229.5579	1.2018	1.1807
New Jersey	52	140,255	123,111.1166	1.1393	1.1333
New Mexico	18	16,182	13,919.1007	1.1626	1.1448
New York	101	303,417	271,570.3271	1.1173	1.1133
North Carolina	40	66,647	69,247.3329	0.9624	0.9552
North Dakota	2	.	.	.	.
Ohio	73	145,959	155,488.4105	0.9387	0.9339
Oklahoma	35	50,387	42,045.0987	1.1984	1.1880
Oregon	19	21,268	26,554.3941	0.8009	0.7902
Pennsylvania	128	310,036	332,371.2010	0.9328	0.9295
Puerto Rico	14	21,547	16,667.7939	1.2927	1.2756
Rhode Island	9	14,120	15,736.7064	0.8973	0.8826
South Carolina	53	99,959	108,709.6593	0.9195	0.9138

South Dakota	6	6,769	7,647.1809	0.8852	0.8643
Tennessee	48	93,292	110,672.9437	0.8430	0.8376
Texas	153	291,963	322,039.5582	0.9066	0.9033
Utah	8	12,618	15,346.5065	0.8222	0.8080
Vermont	1	.	.	.	.
Virgin Islands	2	.	.	.	.
Virginia	51	107,604	111,050.0239	0.9690	0.9632
Washington	25	42,714	50,223.6467	0.8505	0.8425
West Virginia	14	25,132	24,396.9050	1.0301	1.0175
Wisconsin	33	32,997	35,784.0010	0.9221	0.9122
Wyoming	7	352	1,110.6062	0.3169	0.2851
All US	**1,908**	**3,882,609**	**3,887,478.6147**	**0.9987**	**0.9977**

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 o
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. This excludes NICUs. Data contained

for SUR 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%
1.0017	46	19	41%	18	39%	0.1742
0.9465	5	.	.	.	.	.
1.0390	26	11	42%	14	54%	0.0898
0.9139	24	9	38%	9	38%	0.4653
1.2058	169	114	67%	40	24%	0.6813
0.8929	41	11	27%	23	56%	0.2163
1.2426	16	10	63%	6	38%	.
.	.	.	.	.	.	.
0.8957	141	39	28%	86	61%	0.4196
1.1742	71	34	48%	33	46%	0.2645
.	.	.	.	.	.	.
1.1622	9	.	.	.	.	.
0.8517	6	.	.	.	.	.
0.9562	43	14	33%	22	51%	0.3834
0.9896	56	23	41%	27	48%	0.3170
0.9996	11	4	36%	6	55%	.
0.7309	29	5	17%	21	72%	0.4010
0.9611	38	18	47%	15	39%	0.3194
0.8456	39	5	13%	27	69%	0.0000
0.8429	14	3	21%	9	64%	.
1.3042	22	14	64%	5	23%	0.7787
0.9885	22	7	32%	12	55%	0.0000
1.0812	52	22	42%	22	42%	0.3141
1.2121	12	7	58%	5	42%	.
0.9106	27	9	33%	12	44%	0.0000
0.9504	41	19	46%	21	51%	0.4048
1.3654	6	.	.	.	.	.
0.7524	6	.	.	.	.	.
0.9469	18	9	50%	7	39%	.
1.2232	10	4	40%	2	20%	.
1.1452	52	27	52%	20	38%	0.6947
1.1806	18	7	39%	9	50%	.
1.1213	101	58	57%	33	33%	0.4990
0.9698	40	14	35%	20	50%	0.3679
.	.	.	.	.	.	.
0.9435	72	23	32%	42	58%	0.2567
1.2089	35	19	54%	11	31%	0.1190
0.8118	19	8	42%	11	58%	.
0.9361	126	43	34%	70	56%	0.4193
1.3101	14	9	64%	4	29%	.
0.9122	9	.	.	.	.	.
0.9252	53	19	36%	28	53%	0.3739

0.9064	6	.	.	.	.	.
0.8484	48	12	25%	34	71%	0.2408
0.9099	150	49	33%	80	53%	0.1600
0.8366	8	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0.9748	51	19	37%	23	45%	0.3879
0.8586	25	7	28%	15	60%	0.4087
1.0429	14	6	43%	7	50%	.
0.9321	33	12	36%	17	52%	0.5807
0.3514	7	.	.	.	.	.
0.9998	**1,894**	**773**	**41%**	**904**	**48%**	**0.3410**

e are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to exc
r less than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0 p
vice days in 2022. If a facility's predicted number of device days was <1.0, a facility-specific SUR was neitl
 in this table are reported from acute care hospitals.

levice type and patient population:

	Median		
25%	50%	75%	90%
0.6344	1.0063	1.3760	1.8495
.	.	.	.
0.6720	0.8969	1.3131	1.7253
0.6977	0.9777	1.2895	1.4911
0.9535	1.2252	1.6553	2.4435
0.4357	0.8831	1.1100	1.3113
.	.	.	.
.	.	.	.
.	.	.	.
0.6642	0.8676	1.0728	1.3099
0.6165	0.9772	1.3338	1.8920
.	.	.	.
.	.	.	.
.	.	.	.
0.6388	0.8979	1.1611	1.5476
0.5215	0.9677	1.2065	2.1997
.	.	.	.
0.4678	0.7341	1.0082	1.4961
0.6495	1.1052	1.6414	1.8217
0.4558	0.7504	0.9493	1.1590
.	.	.	.
0.9711	1.2710	1.7516	2.4915
0.5180	0.8940	1.1152	1.5758
0.6632	0.9736	1.3245	1.7724
.	.	.	.
0.7316	0.9697	1.1795	1.9909
0.6799	0.9403	1.2426	1.3777
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.8361	1.0806	1.4495	1.7974
.	.	.	.
0.8319	1.1346	1.4190	1.9670
0.6744	0.9551	1.2357	1.3943
.	.	.	.
0.5744	0.8634	1.1340	1.6911
0.7302	1.1659	1.6525	2.3529
.	.	.	.
0.6064	0.8656	1.1523	1.4522
.	.	.	.
.	.	.	.
0.6778	0.9324	1.1727	1.6805

.	.	.	.
0.4654	0.7381	1.0578	1.4275
0.6181	0.8993	1.1133	1.6874
.	.	.	.
.	.	.	.
.	.	.	.
0.7374	0.9561	1.1610	1.4239
0.5385	0.7748	1.1144	1.2776
.	.	.	.
0.6917	0.9152	1.1904	1.6834
.	.	.	.
0.6672	**0.9562**	**1.2789**	**1.7270**

lusion and inclusion criteria. Refer to the technical appendix for details.
redicted device days in 2022.
her calculated nor included in the distribution of facility-specific SURs.

State	No. of Facilities	No. of Device Days		SUR	95% CI
		Observed	Predicted		Lower
Alabama	45	74,433	72,380.1362	1.0284	1.0210
Alaska	5	6,605	7,089.7904	0.9316	0.9094
Arizona	25	59,678	57,627.7110	1.0356	1.0273
Arkansas	24	40,146	44,128.2055	0.9098	0.9009
California	163	388,285	326,462.5942	1.1894	1.1856
Colorado	40	69,102	78,513.9155	0.8801	0.8736
Connecticut	16	40,848	33,007.4524	1.2375	1.2256
D.C.	4	.	.	.	.
Delaware	2	.	.	.	.
Florida	140	291,612	322,433.2339	0.9044	0.9011
Georgia	68	197,778	188,364.4744	1.0500	1.0453
Guam	2	.	.	.	.
Hawaii	9	14,192	12,173.9564	1.1658	1.1467
Idaho	6	8,242	9,887.0996	0.8336	0.8158
Illinois	41	66,581	70,957.8027	0.9383	0.9312
Indiana	53	75,382	75,825.5797	0.9941	0.9871
Iowa	12	8,746	8,934.2060	0.9789	0.9586
Kansas	29	27,091	36,953.0038	0.7331	0.7245
Kentucky	37	58,391	61,471.5032	0.9499	0.9422
Louisiana	34	48,013	57,610.8066	0.8334	0.8260
Maine	13	16,737	19,844.3615	0.8434	0.8307
Maryland	22	35,036	29,468.9613	1.1889	1.1765
Massachusetts	20	26,825	27,768.7770	0.9660	0.9545
Michigan	49	101,715	96,984.9993	1.0488	1.0424
Minnesota	10	43,684	36,824.3619	1.1863	1.1752
Mississippi	24	34,619	38,312.3007	0.9036	0.8941
Missouri	41	88,937	93,379.3517	0.9524	0.9462
Montana	5	11,287	8,474.2830	1.3319	1.3075
Nebraska	7	11,057	15,033.0780	0.7355	0.7219
Nevada	18	65,007	67,412.8355	0.9643	0.9569
New Hampshire	10	12,294	10,229.5579	1.2018	1.1807
New Jersey	52	121,854	107,938.5158	1.1289	1.1226
New Mexico	16	15,842	13,577.2655	1.1668	1.1488
New York	99	256,048	237,558.1107	1.0778	1.0737
North Carolina	38	61,852	63,922.7093	0.9676	0.9600
North Dakota	2	.	.	.	.
Ohio	68	136,248	128,249.7393	1.0624	1.0567
Oklahoma	32	50,293	41,706.8771	1.2059	1.1954
Oregon	19	19,921	24,197.2421	0.8233	0.8119
Pennsylvania	124	293,754	302,380.2895	0.9715	0.9680
Puerto Rico	13	15,830	11,755.1525	1.3466	1.3258
Rhode Island	9	13,988	14,598.7461	0.9582	0.9424

South Carolina	52	97,822	102,690.7521	0.9526	0.9467
South Dakota	6	6,210	7,083.9181	0.8766	0.8550
Tennessee	46	88,922	105,042.4898	0.8465	0.8410
Texas	143	287,402	312,674.2414	0.9192	0.9158
Utah	8	12,511	14,334.5497	0.8728	0.8576
Vermont	1	.	.	.	.
Virgin Islands	2	.	.	.	.
Virginia	51	104,051	104,855.6803	0.9923	0.9863
Washington	24	41,700	48,220.1158	0.8648	0.8565
West Virginia	14	25,040	24,127.8661	1.0378	1.0250
Wisconsin	31	32,043	30,996.2994	1.0338	1.0225
Wyoming	7	347	1,086.4497	0.3194	0.2871
All US	**1,831**	**3,631,046**	**3,630,467.6901**	**1.0002**	**0.9992**

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 o
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), and NICUs. Data contained

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		
1.0358	45	20	44%	15	33%	0.2791
0.9543	5	.	.	.	.	.
1.0439	24	10	42%	13	54%	0.1964
0.9187	24	10	42%	9	38%	0.4653
1.1931	161	108	67%	36	22%	0.7518
0.8867	39	10	26%	22	56%	0.3478
1.2496	16	10	63%	6	38%	.
.	.	.	.	.	.	.
0.9077	140	42	30%	82	59%	0.4553
1.0546	68	35	51%	29	43%	0.4239
.	.	.	.	.	.	.
1.1850	9	.	.	.	.	.
0.8517	6	.	.	.	.	.
0.9455	41	11	27%	23	56%	0.3834
1.0013	53	22	42%	25	47%	0.3570
0.9996	11	4	36%	6	55%	.
0.7419	29	4	14%	20	69%	0.4010
0.9576	37	17	46%	14	38%	0.3339
0.8409	33	5	15%	23	70%	0.4251
0.8563	13	3	23%	8	62%	.
1.2014	22	14	64%	5	23%	0.7787
0.9776	20	6	30%	11	55%	0.2864
1.0552	49	20	41%	21	43%	0.3390
1.1975	10	7	70%	3	30%	.
0.9131	24	9	38%	9	38%	0.6678
0.9587	41	19	46%	19	46%	0.4048
1.3567	5	.	.	.	.	.
0.7493	6	.	.	.	.	.
0.9717	18	7	39%	10	56%	.
1.2232	10	4	40%	2	20%	.
1.1353	52	28	54%	19	37%	0.7065
1.1851	16	7	44%	6	38%	.
1.0820	99	58	59%	32	32%	0.5738
0.9752	38	14	37%	18	47%	0.3750
.	.	.	.	.	.	.
1.0680	68	29	43%	30	44%	0.4160
1.2164	32	19	59%	11	34%	0.3861
0.8348	19	9	47%	10	53%	.
0.9750	123	50	41%	60	49%	0.4346
1.3677	13	10	77%	3	23%	.
0.9741	9	.	.	.	.	.

0.9586	52	22	42%	26	50%	0.4509
0.8986	6	.	.	.	.	.
0.8521	46	13	28%	32	70%	0.3096
0.9225	142	50	35%	71	50%	0.3576
0.8882	8	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0.9984	51	19	37%	22	43%	0.3879
0.8731	24	6	25%	15	63%	0.4087
1.0507	14	6	43%	7	50%	.
1.0451	31	13	42%	13	42%	0.5807
0.3544	7	.	.	.	.	.
1.0012	**1,822**	**779**	**43%**	**825**	**45%**	**0.4264**

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 pi
ice days in 2022. If a facility's predicted number of device days was <1.0, a facility-specific SUR was neith
in this table are reported from acute care hospitals.

evice type and patient population:

	Median		
25%	50%	75%	90%
0.7238	1.0316	1.3962	1.8495
.	.	.	.
0.6819	0.9346	1.3091	1.6956
0.6977	0.9868	1.3117	1.4911
0.9713	1.2789	1.5968	2.2030
0.5852	0.8958	1.1100	1.4567
.	.	.	.
.	.	.	.
.	.	.	.
0.6682	0.8724	1.0947	1.3763
0.6962	1.0460	1.3531	1.9330
.	.	.	.
.	.	.	.
.	.	.	.
0.6497	0.8979	1.0797	1.5476
0.6331	0.9896	1.2044	2.1997
.	.	.	.
0.4678	0.6435	0.9574	1.1629
0.6509	1.0669	1.6142	1.7448
0.6286	0.7920	0.9493	1.1590
.	.	.	.
0.9711	1.2277	1.5484	2.4915
0.7284	0.9209	1.1586	1.5753
0.7271	0.9798	1.2258	1.7724
.	.	.	.
0.8136	0.9750	1.2010	1.9909
0.6959	0.9708	1.2534	1.5145
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.8593	1.0806	1.4468	1.7974
.	.	.	.
0.8613	1.1442	1.4485	1.6409
0.6466	0.9522	1.2908	1.5415
.	.	.	.
0.7115	1.0056	1.2701	1.7384
0.7910	1.1822	1.5740	2.1068
.	.	.	.
0.6606	0.9904	1.1909	1.4107
.	.	.	.
.	.	.	.

0.7078	0.9677	1.2088	1.6805
.	.	.	.
0.4707	0.7447	1.0703	1.4275
0.6697	0.9174	1.1149	1.6862
.	.	.	.
.	.	.	.
.	.	.	.
0.7566	0.9561	1.2322	1.4239
0.5063	0.7686	1.0860	1.1651
.	.	.	.
0.7424	0.9225	1.1904	1.6027
.	.	.	.
0.7233	**0.9822**	**1.2908**	**1.6932**

usion and inclusion criteria. Refer to the technical appendix for details.
redicted device days in 2022.
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	8	430	2,896.1452	0.1485	0.1349
Alaska	2	.	.	.	.
Arizona	6	294	557.3067	0.5275	0.4698
Arkansas	2	.	.	.	.
California	56	34,328	25,069.1611	1.3693	1.3549
Colorado	9	2,056	1,770.7990	1.1611	1.1117
Connecticut	4	.	.	.	.
D.C	0	.	.	.	.
Delaware	1	.	.	.	.
Florida	26	9,758	15,245.6711	0.6401	0.6274
Georgia	26	32,426	8,478.2624	3.8246	3.7830
Guam	0	.	.	.	.
Hawaii	2	.	.	.	.
Idaho	0	.	.	.	.
Illinois	13	4,537	3,966.6520	1.1438	1.1108
Indiana	12	1,788	2,707.2514	0.6604	0.6304
Iowa	0	.	.	.	.
Kansas	5	253	906.0434	0.2792	0.2464
Kentucky	6	689	495.2872	1.3911	1.2902
Louisiana	14	2,382	2,510.8295	0.9487	0.9111
Maine	2	.	.	.	.
Maryland	8	5,200	1,684.8437	3.0863	3.0034
Massachusetts	5	1,098	811.1469	1.3536	1.2754
Michigan	16	6,122	3,353.2869	1.8257	1.7804
Minnesota	5	2,284	1,447.6107	1.5778	1.5141
Mississippi	4	.	.	.	.
Missouri	13	4,426	5,482.9480	0.8072	0.7837
Montana	1	.	.	.	.
Nebraska	1	.	.	.	.
Nevada	10	14,955	17,623.8350	0.8486	0.8350
New Hampshire	0	.	.	.	.
New Jersey	15	18,401	15,172.6008	1.2128	1.1953
New Mexico	5	340	341.8352	0.9946	0.8930
New York	40	47,369	34,012.2163	1.3927	1.3802
North Carolina	8	4,795	5,324.6236	0.9005	0.8753
North Dakota	0	.	.	.	.
Ohio	36	9,711	27,238.6713	0.3565	0.3495
Oklahoma	7	94	338.2216	0.2779	0.2259
Oregon	3	.	.	.	.
Pennsylvania	49	16,282	29,990.9115	0.5429	0.5346
Puerto Rico	11	5,717	4,912.6415	1.1637	1.1339
Rhode Island	1	.	.	.	.

South Carolina	13	2,137	6,018.9072	0.3550	0.3402
South Dakota	3	.	.	.	.
Tennessee	9	4,370	5,630.4538	0.7761	0.7534
Texas	32	4,561	9,365.3168	0.4870	0.4730
Utah	1	.	.	.	.
Vermont	0	.	.	.	.
Virgin Islands	1	.	.	.	.
Virginia	9	3,553	6,194.3436	0.5736	0.5550
Washington	4	.	.	.	.
West Virginia	1	.	.	.	.
Wisconsin	6	954	4,787.7016	0.1993	0.1869
Wyoming	1	.	.	.	.
All US	**512**	**251,563**	**257,010.9246**	**0.9788**	**0.9750**

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

SURs using device days data reported to NHSN during 2022 for acute care hospitals (ACHs), by de
ntilator days (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%
0.1630	8	.	.	.	.	.
0.5905	6	.	.	.	.	.
1.3839	54	23	43%	28	52%	0.0000
1.2121	9	.	.	.	.	.
0.6528	26	6	23%	20	77%	0.0000
3.8664	26	6	23%	17	65%	0.0000
1.1774	13	7	54%	6	46%	.
0.6916	12	2	17%	9	75%	.
0.3153	4	.	.	.	.	.
1.4980	6	.	.	.	.	.
0.9874	14	2	14%	9	64%	.
3.1711	8	.	.	.	.	.
1.4355	5	.	.	.	.	.
1.8718	15	8	53%	5	33%	.
1.6435	5	.	.	.	.	.
0.8313	13	4	31%	9	69%	.
0.8622	10	4	40%	6	60%	.
1.2304	15	9	60%	6	40%	.
1.1047	5	.	.	.	.	.
1.4053	40	20	50%	16	40%	0.0000
0.9263	8	.	.	.	.	.
0.3637	35	4	11%	28	80%	0.0000
0.3386	7	.	.	.	.	.
0.5513	48	6	13%	40	83%	0.0000
1.1942	11	7	64%	4.00	36%	.

0.3703	13	0	0%	11	85%	.
.	.	.	.	.	.	.
0.7994	9	.	.	.	.	.
0.5013	30	6	20%	21	70%	0.0000
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0.5927	9	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
0.2122	6	.	.	.	.	.
.	.	.	.	.	.	.
0.9826	**502**	**149**	**30%**	**319**	**64%**	**0.0000**

are less than 5 reporting facilities. This may be different from those reported in the SIR tables due to exclus

ess than the nominal value of the national SUR. This is only calculated if at least 10 facilities had ≥ 1.0 pre

ce days in 2022. If a facility's predicted number of device days was <1.0, a facility-specific SUR was neither

[including hematology/oncology, bone marrow transplant]). Data contained in this table are reported from

| | Median | | |
25%	50%	75%	90%
.	.	.	
.	.	.	
.	.	.	.
0.2834	0.8690	2.4769	8.3786
.	.	.	.
.	.	.	.
.	.	.	.
0.0000	0.1383	0.5414	1.6926
0.0000	0.1391	0.8624	3.6581
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.3326	1.1415	2.2142	6.0909
.	.	.	.
0.0000	0.0603	0.4895	1.1757
.	.	.	.
0.0000	0.0980	0.6567	2.6401
.	.	.	.
.	.	.	.

.	.	.	.
.	.	.	.
.	.	.	.
0.0000	0.1587	0.7762	2.9964
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
0.0000	0.3557	1.4540	3.4439

sion and inclusion criteria. Refer to the technical appendix for details.
dicted device days in 2022.
r calculated nor included in the distribution of facility-specific SURs.
acute care hospitals.

Table 5. Changes in national standardized utilization ratios (SURs) using HAI data reported from all NHSN acute care hospitals reporting during 2022 by HAI and patient population:

Central line days (CLDs), urinary catheter days (UCDs), and ventilator days (VDs), 2022 compared to 2021

	2021 SUR	2022 SUR	Percent Change	Direction of Change, Based on Statistical Significance	p-value
CLDs, all locations[1]	0.9051	0.8668	4%	Decrease	0.0000
ICU[2]	1.0189	0.9267	9%	Decrease	0.0000
Ward[3]	0.8472	0.8375	1%	Decrease	0.0000
NICU[4]	0.8817	0.8693	1%	Decrease	0.0000
UCDs, all locations[5]	0.8427	0.7984	5%	Decrease	0.0000
	0.9414	0.8579	9%	Decrease	0.0000
	0.7825	0.7651	2%	Decrease	0.0000
VDs, all[5]	1.2089	0.9987	17%	Decrease	0.0000
ICUs[2]	1.2173	1.0002	18%	Decrease	0.0000
Wards[3]	1.0794	0.9788	9%	Decrease	0.0000

* Statistically significant, p < 0.0500

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

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

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

4. Data from all NICU locations, including Level II/III and Level III nurseries.

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

cilities).

int]). This excludes LTAC locations (or facilities) and IRF locations (or facilities).

s).

Table 6. Changes in state-specific standardized utilization ratios (SURs) between 2021 and 2022 from NHSN Acute Care Hospitals

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

State[2]	All Acute Care Hospitals Reporting to NHSN				
	2021 SUR	2022 SUR	Percent Change[3]	Direction of Change, Based on Statistical Significance	p-value
Alabama	0.8476	0.7992	6%	Decrease	0.0000
Alaska	1.1143	1.0007	10%	Decrease	0.0000
Arizona	0.9996	0.9942	1%	Decrease	0.0022
Arkansas	0.8760	0.8397	4%	Decrease	0.0000
California	0.9647	0.9205	5%	Decrease	0.0000
Colorado	1.0056	0.9357	7%	Decrease	0.0000
Connecticut	0.8181	0.7871	4%	Decrease	0.0000
D.C.	0.8089	0.8164	1%	Increase	0.0319
Delaware	0.8653	0.8263	5%	Decrease	0.0000
Florida	0.8162	0.7540	8%	Decrease	0.0000
Georgia	0.8930	0.8408	6%	Decrease	0.0000
Guam	.	.	.	.	.
Hawaii	1.1304	1.1041	2%	Decrease	0.0000
Idaho	0.9958	0.8982	10%	Decrease	0.0000
Illinois	0.8808	0.8612	2%	Decrease	0.0000
Indiana	0.9965	0.9776	2%	Decrease	0.0000
Iowa	0.9858	0.9312	6%	Decrease	0.0000
Kansas	0.9651	0.9565	1%	Decrease	0.0026
Kentucky	0.9242	0.8717	6%	Decrease	0.0000
Louisiana	0.9302	0.8842	5%	Decrease	0.0000
Maine	0.9271	0.8008	14%	Decrease	0.0000
Maryland	0.8839	0.8377	5%	Decrease	0.0000
Massachusetts	0.9092	0.9233	2%	Increase	0.0000
Michigan	0.8106	0.7925	2%	Decrease	0.0000
Minnesota	1.0740	1.0436	3%	Decrease	0.0000
Mississippi	0.9337	0.9236	1%	Decrease	0.0000
Missouri	0.9534	0.9082	5%	Decrease	0.0000
Montana	0.6653	0.6243	6%	Decrease	0.0000
Nebraska	0.9875	0.9275	6%	Decrease	0.0000
Nevada	0.8860	0.8442	5%	Decrease	0.0000
New Hampshire	0.9506	0.9297	2%	Decrease	0.0000
New Jersey	0.7641	0.7389	3%	Decrease	0.0000
New Mexico	0.9794	0.9058	8%	Decrease	0.0000
New York	0.7627	0.7372	3%	Decrease	0.0000
North Carolina	0.9521	0.9423	1%	Decrease	0.0000
North Dakota	0.9587	0.9156	4%	Decrease	0.0000
Ohio	0.9299	0.8946	4%	Decrease	0.0000
Oklahoma	1.2429	1.1534	7%	Decrease	0.0000
Oregon	0.8856	0.8812	0%	No change	0.0651
Pennsylvania	0.8425	0.8332	1%	Decrease	0.0000
Puerto Rico	0.7263	0.8965	23%	Increase	0.0000
Rhode Island	0.8331	0.7789	7%	Decrease	0.0000
South Carolina	0.8289	0.7570	9%	Decrease	0.0000
South Dakota	0.8963	0.7411	17%	Decrease	0.0000
Tennessee	0.9418	0.8922	5%	Decrease	0.0000
Texas	0.9728	0.9009	7%	Decrease	0.0000
Utah	0.8662	0.8410	3%	Decrease	0.0000
Vermont	0.9108	0.8886	2%	Decrease	0.0010
Virgin Islands	.	.	.	.	.
Virginia	0.8639	0.8270	4%	Decrease	0.0000
Washington	1.0046	1.0009	0%	Decrease	0.0480
West Virginia	1.0238	0.9856	4%	Decrease	0.0000
Wisconsin	0.9941	0.9700	2%	Decrease	0.0000
Wyoming	1.2064	0.9642	20%	Decrease	0.0000
All US	**0.9051**	**0.8668**	**4%**	**Decrease**	**0.0000**

* Statistically significant, p < 0.0500

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

2. Percent change and subsequent calculations are not calculated for states without SUR in either 2021 and/or 2022.

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 2021 and 2022 from NHSN Acute Care Hospitals

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

	All Acute Care Hospitals Reporting to NHSN			
	2021 SUR	2022 SUR	Direction of Change, Based on Statistical Significance	p-value
Alabama	0.9982	0.9458	5% Decrease	0.0000
Alaska	0.7776	0.6471	17% Decrease	0.0000
Arizona	0.9387	0.8903	5% Decrease	0.0000
Arkansas	1.0245	0.9250	10% Decrease	0.0000
California	0.9005	0.8533	5% Decrease	0.0000
Colorado	0.8514	0.7971	6% Decrease	0.0000
Connecticut	0.7406	0.7227	2% Decrease	0.0000
D.C	0.5319	0.5611	6% Increase	0.0000
Delaware	0.7769	0.7302	6% Decrease	0.0000
Florida	0.6897	0.6362	8% Decrease	0.0000
Georgia	0.8345	0.7447	11% Decrease	0.0000
Guam	.	.	.	.
Hawaii	0.8601	0.8174	5% Decrease	0.0000
Idaho	0.9922	0.8848	11% Decrease	0.0000
Illinois	0.7996	0.7643	4% Decrease	0.0000
Indiana	0.8581	0.8110	5% Decrease	0.0000
Iowa	1.0490	1.0331	2% Decrease	0.0000
Kansas	0.8011	0.7642	5% Decrease	0.0000
Kentucky	0.8994	0.8341	7% Decrease	0.0000
Louisiana	0.9832	0.9159	7% Decrease	0.0000
Maine	0.8024	0.7500	7% Decrease	0.0000
Maryland	0.7673	0.7456	3% Decrease	0.0000
Massachusetts	0.8163	0.7992	2% Decrease	0.0000
Michigan	0.8557	0.8340	3% Decrease	0.0000
Minnesota	0.9287	0.8946	4% Decrease	0.0000
Mississippi	1.0824	1.0598	2% Decrease	0.0000
Missouri	0.8549	0.8071	6% Decrease	0.0000
Montana	0.9345	0.8940	4% Decrease	0.0000
Nebraska	0.7839	0.7559	4% Decrease	0.0000
Nevada	0.7858	0.7042	10% Decrease	0.0000
New Hampshire	0.8805	0.8543	3% Decrease	0.0000
New Jersey	0.6841	0.6654	3% Decrease	0.0000
New Mexico	0.9817	0.9235	6% Decrease	0.0000
New York	0.8201	0.7972	3% Decrease	0.0000
North Carolina	0.8205	0.7871	4% Decrease	0.0000
North Dakota	0.9103	0.8577	6% Decrease	0.0000
Ohio	0.8890	0.8425	5% Decrease	0.0000
Oklahoma	1.0549	0.9766	7% Decrease	0.0000
Oregon	0.8132	0.7895	3% Decrease	0.0000
Pennsylvania	0.8548	0.8385	2% Decrease	0.0000
Puerto Rico	1.2206	1.3240	8% Increase	0.0000
Rhode Island	0.7807	0.7667	2% Decrease	0.0007
South Carolina	0.7722	0.6888	11% Decrease	0.0000
South Dakota	0.9198	0.8909	3% Decrease	0.0000
Tennessee	0.8474	0.8070	5% Decrease	0.0000
Texas	0.8379	0.7621	9% Decrease	0.0000
Utah	0.7808	0.7590	3% Decrease	0.0000
Vermont	0.9515	0.9188	3% Decrease	0.0000
Virgin Islands	.	.	.	.
Virginia	0.7287	0.6912	5% Decrease	0.0000
Washington	0.8288	0.8422	2% Increase	0.0000
West Virginia	1.0518	1.0014	5% Decrease	0.0000
Wisconsin	0.8440	0.8202	3% Decrease	0.0000
Wyoming	1.0707	1.0395	3% Decrease	0.0004
All US	**0.8427**	**0.7984**	**5% Decrease**	**0.0000**

* 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 2021 and/or 2022.

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 2021 and 2022 from NHSN Acute Care Hospitals

6c. Ventilator days (VDs), all locations[1]

	All Acute Care Hospitals Reporting to NHSN				
	2021 SUR	2022 SUR	Direction of Change, Based on Statistical Significance		p-value
Alabama	1.3875	0.9945	28%	Decrease	0.0000
Alaska	.	0.9240	.		.
Arizona	1.3081	1.0307	21%	Decrease	0.0000
Arkansas	1.1101	0.9050	18%	Decrease	0.0000
California	1.4034	1.2022	14%	Decrease	0.0000
Colorado	1.2542	0.8863	29%	Decrease	0.0000
Connecticut	1.3444	1.2309	8%	Decrease	0.0000
D.C.	.	.	.		.
Delaware	.	.	.		.
Florida	1.1799	0.8925	24%	Decrease	0.0000
Georgia	1.2769	1.1695	8%	Decrease	0.0000
Guam	.	.	.		.
Hawaii	1.2433	1.1438	8%	Decrease	0.0000
Idaho	1.3610	0.8336	39%	Decrease	0.0000
Illinois	1.0499	0.9492	10%	Decrease	0.0000
Indiana	1.1847	0.9826	17%	Decrease	0.0000
Iowa	1.2405	0.9789	21%	Decrease	0.0000
Kansas	0.9123	0.7223	21%	Decrease	0.0000
Kentucky	1.2057	0.9534	21%	Decrease	0.0000
Louisiana	1.0886	0.8382	23%	Decrease	0.0000
Maine	1.0082	0.8302	18%	Decrease	0.0000
Maryland	1.4047	1.2915	8%	Decrease	0.0000
Massachusetts	1.0949	0.9770	11%	Decrease	0.0000
Michigan	1.2208	1.0747	12%	Decrease	0.0000
Minnesota	1.3294	1.2011	10%	Decrease	0.0000
Mississippi	1.2730	0.9011	29%	Decrease	0.0000
Missouri	1.1369	0.9444	17%	Decrease	0.0000
Montana	1.0740	1.3406	25%	Increase	0.0000
Nebraska	1.0107	0.7387	27%	Decrease	0.0000
Nevada	1.1347	0.9403	17%	Decrease	0.0000
New Hampshire	1.3965	1.2018	14%	Decrease	0.0000
New Jersey	1.2524	1.1393	9%	Decrease	0.0000
New Mexico	1.7303	1.1626	33%	Decrease	0.0000
New York	1.2125	1.1173	8%	Decrease	0.0000
North Carolina	1.2633	0.9624	24%	Decrease	0.0000
North Dakota	.	.	.		.
Ohio	1.1054	0.9387	15%	Decrease	0.0000
Oklahoma	1.3827	1.1984	13%	Decrease	0.0000
Oregon	1.0225	0.8009	22%	Decrease	0.0000
Pennsylvania	1.0935	0.9328	15%	Decrease	0.0000
Puerto Rico	0.8133	1.2927	59%	Increase	0.0000
Rhode Island	0.9813	0.8973	9%	Decrease	0.0000
South Carolina	1.2045	0.9195	24%	Decrease	0.0000
South Dakota	1.0086	0.8852	12%	Decrease	0.0000
Tennessee	1.0676	0.8430	21%	Decrease	0.0000
Texas	1.2648	0.9066	28%	Decrease	0.0000
Utah	1.0660	0.8222	23%	Decrease	0.0000
Vermont	.	.	.		.
Virgin Islands	.	.	.		.
Virginia	1.1481	0.9690	16%	Decrease	0.0000
Washington	1.0781	0.8505	21%	Decrease	0.0000
West Virginia	1.2406	1.0301	17%	Decrease	0.0000
Wisconsin	1.2709	0.9221	27%	Decrease	0.0000
Wyoming	1.2798	0.3169	75%	Decrease	0.0000
All US	**1.2089**	**0.9987**	**17%**	**Decrease**	**0.0000**

* 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 2021 and/or 2022.

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.

Appendix A. Factors used in NHSN risk adjusted standard utilization ratios (SUR) calculation of the device utilization in Acute Care Hospitals (ACHs).

Device Type	Validated Parameters for Risk Model
CLDs (non-NICU)	Intercept Location type Facility bed size* Facility type* Medical school type*
CLDs (NICU)	Intercept Birthweight Location type Facility bed size* Facility type* Medical school type*

UCDs	Intercept
	    Location type
	Facility bed size*
	  Facility type*
	Medical school type*

VDs	Intercept Location type Facility bed size* Facility type* Medical school type*

* Facility bed size, facility type and medical school type are taken from the Annual Hospital Survey.

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 found

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

at the above website.