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# MBQIP Quality Measures National Annual Report – 2020

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## KEY FINDINGS

- Patient Safety/Inpatient Measures: The percent of CAHs reporting in the Patient Safety/Inpatient domain decreased from 95.3% in 2019 to 91.9% in 2020.
- Outpatient Measures: The percent of CAHs reporting in the Outpatient domain decreased from 86.8% in 2019 to 86.5% in 2020.
- Patient Engagement Measures: The percent of CAHs reporting in the Patient Engagement domain decreased from 90.2% in 2019 to 89.8% in 2020.
- Care Transitions Measures: The percent of CAHs reporting in the Care Transition domain was 90.2% in 2020.
- Overall, 17 states had all of their CAHs reporting at least one Patient Safety/Inpatient measure, 7 states had all of their CAHs reporting at least one Outpatient measure, 10 states had all of their CAHs reporting at least one Patient Engagement survey, and 15 states had all of their CAHs reporting the Care Transitions measure.

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## BACKGROUND

The Medicare Beneficiary Quality Improvement Program (MBQIP) focuses on quality improvement efforts in the 45 states that participate in the Medicare Rural Hospital Flexibility (Flex) Program. Through Flex, MBQIP supports more than 1,350 small hospitals certified as rural Critical Access Hospitals (CAHs) in voluntarily reporting quality measures that are aligned with those collected by the Centers for Medicare and Medicaid Services (CMS) and other Federal programs. The Flex Monitoring Team (FMT) has been producing national annual reports on quality measures for over a decade, and this annual report from the FMT focuses specifically on MBQIP measures using data



collected under the four MBQIP domains: Patient Safety/Inpatient, Outpatient, Patient Engagement, and Care Transitions. The FMT also produces state-level annual MBQIP reports, which can be found on the [FMT website](#).

### DATA & METHODS

The data used for this report are reported to CMS and extracted from QualityNet, or to the Centers for Disease Control and Prevention (CDC) National Healthcare Safety Network (NHSN) annual survey. Emergency Department Transfer Communication (EDTC) data used for this report are from the Federal Office of Rural Health Policy (FORHP) as reported by CAHs to State Flex Programs. The data values in this report only include CAHs with a signed MBQIP Memorandum of Understanding (MOU).

Quality measures included in this report are limited to MBQIP measures, including: eight Patient Safety/Inpatient measures (HCP/IMM-3; Antibiotic Stewardship; CLABSI; CAUTI; SSI:C; SSI:H; MRSA; CDIFF), four Outpatient measures (OP-2; OP-22; OP-3b; OP-18b), ten Patient Engagement measures (from the Hospital Consumer Assessment of Healthcare Providers and Systems, or HCAHPS survey), and the Care Transitions (EDTC) measure. The six Healthcare-Associated Infections (HAI) measures (CLABSI; CAUTI; SSI:C; SSI:H; MRSA; CDIFF) are part of the MBQIP program, but not in the “core” measure set, and instead are a part of the “additional” measures set which is not required.

For each of the four domains, there are two sections of analyses: reporting and performance. Data are aggregated to the national level, and in all domains, data are not displayed for measures where the aggregated national data include fewer than 25 patients/cases/surveys.

Reporting identifies the number of CAHs reporting in each domain, and CAHs were considered reporting for any domain if they reported data in any quarter for

any one measure with a denominator of one or more for that domain (indicating that they had at least one patient, case, or survey for the applicable measure.) Due to a lack of population and sampling data, these analyses for Q1-Q3 2020 did not include CAHs that may have reported a zero, since there is no way to determine if the zero was due to non-reporting or to a lack of an applicable population for a given measure. Beginning in Q4 2020, these data were included for measures OP-2, OP-3b, and OP-18b which may affect the number of CAHs reporting for those measures and/or Outpatient reporting totals. Analysis for the HAI measures also included data reported for these six measures where CAHs indicated they had a 0 denominator (0 patients in 2020 that would fall under any of these HAI categories). The reporting denominator of all CAHs in the U.S. for 2020 is 1,353 CAHs (the total number of CAHs designated on December 31, 2020), and the reporting numerator includes all CAHs with a signed MBQIP MOU reporting for the specific domain or measure. Please see the Appendix for additional information about the calculation of performance score values and statistical testing in each domain.

Trend figures are not included for OP-22 (due to low annual variation), HAI measures (due to concerns with SIR calculation for CAHs), or the EDTC measure (due to a lack of multiple years’ data for this measure).

Benchmarks are included for all measures in this report except the six HAI measures. Benchmarks for HCP/IMM-3, Antibiotic Stewardship, and the EDTC measure are set at 100% to align with the benchmarks used in FORHP’s MBQIP Performance Score. Benchmarks for OP-2, OP-22, OP-3b, and OP-18b are set at the national 90th percentiles of CAHs with MOUs during 2020. Benchmarks used for the HCAHPS measures come from the benchmarks selected for CMS’ Hospital Value-Based Purchasing Program in 2021. HCAHPS Question 19 (patient recommendation) does not have a benchmark as part of these standards, and HCAHPS questions 8 and 9 (quietness and cleanliness) receive a joint benchmark.



**PATIENT SAFETY/INPATIENT DOMAIN**

*Patient Safety/Inpatient CAH Reporting*

In 2020, 91.9% of CAHs reported quality data on at least one Patient Safety/Inpatient measure (Figure 1). The inpatient reporting percentage represents a decrease from the previous reporting period. Table 1 shows state rankings for Patient Safety/Inpatient reporting rates.

FIGURE 1: Percentage of CAHs Reporting at Least One Patient Safety/Inpatient Measure, 2017-20

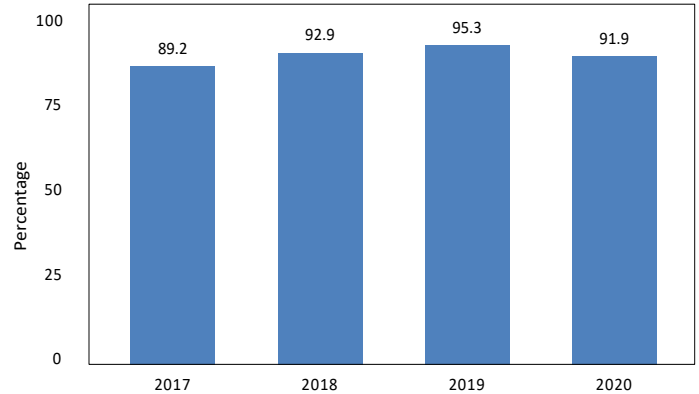


TABLE 1: State Ranking of CAH Reporting Rates for Patient Safety/Inpatient Quality Measures, 2020

Rank	State	CAHs Reporting	% of CAHs	Rank	State	CAHs Reporting	% of CAHs
1	Wisconsin	58	100.0	24	Missouri	33	94.3
1	North Dakota	36	100.0	25	Iowa	77	93.9
1	Indiana	35	100.0	25	Ohio	31	93.9
1	Colorado	32	100.0	27	Nebraska	60	93.8
1	Arkansas	28	100.0	27	Pennsylvania	15	93.8
1	Oregon	25	100.0	29	Kentucky	26	92.9
1	Maine	16	100.0	30	Idaho	25	92.6
1	Wyoming	16	100.0		<b>National</b>	<b>1,243</b>	<b>91.9</b>
1	Tennessee	15	100.0	31	Montana	45	91.8
1	Alaska	13	100.0	32	West Virginia	19	90.5
1	New Hampshire	13	100.0	33	Mississippi	28	90.3
1	Utah	13	100.0	34	Michigan	33	89.2
1	Vermont	8	100.0	35	California	32	88.9
1	Virginia	7	100.0	35	Hawaii	8	88.9
1	Alabama	5	100.0	37	Oklahoma	35	87.5
1	South Carolina	4	100.0	38	Arizona	13	86.7
1	Massachusetts	3	100.0	39	Nevada	11	84.6
18	Illinois	50	98.0	40	North Carolina	16	80.0
19	Georgia	29	96.7	40	Florida	8	80.0
20	Kansas	79	96.3	42	New Mexico	8	72.7
21	Minnesota	74	96.1	43	New York	13	72.2
22	Washington	37	94.9	44	Louisiana	18	66.7
23	South Dakota	36	94.7	45	Texas	57	65.5



**Patient Safety/Inpatient CAH Performance**

Tables 2 and 3 display the number of CAHs reporting and national performance for each of the Patient Safety/Inpatient measures in 2020. Figures 2 and 3 show performance trends for HCP/IMM-3 and Antibiotic

Stewardship for all CAHs nationally between 2017 and 2020. Performance trends for HAI measures are not tracked due to concerns with SIR calculations for CAHs.

**TABLE 2: Patient Safety/Inpatient Quality Measure Results for All CAHs Nationally, 2020**

Measure	Description	CAHs Reporting	CAH Performance
HCP/IMM-3	Healthcare workers given influenza vaccination	903	87.0%
Antibiotic Stewardship	Fulfill antibiotic stewardship core elements	1,118	83.0%

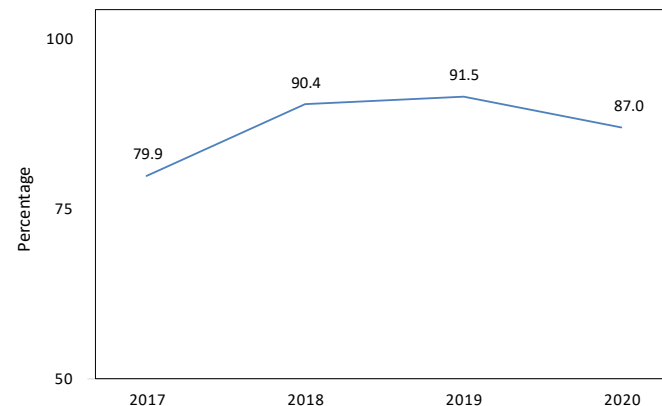
Note: HCP/IMM-3 is expressed as the percentage of health care workers immunized, and Antibiotic Stewardship is the percentage of CAHs fulfilling all antibiotic stewardship elements.

**TABLE 3: Healthcare-Associated Infection Measures Reported by All CAHs Nationally, 2020**

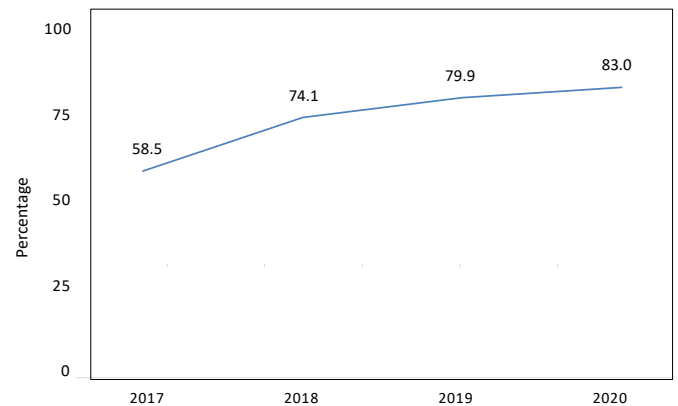
Measure	Description	CAHs Reporting	SIR
HAI-1	Central-line-associated bloodstream infections (CLABSI)	1,037	0.9
HAI-2	Catheter-associated urinary tract infections (CAUTI)	1,108	0.6
HAI-3	Surgical site infections from colon surgery (SSI:C)	432	0.8
HAI-4	Surgical site infections from abdominal hysterectomy (SSI:H)	414	1.7
HAI-5	Methicillin-resistant Staphylococcus Aureus (MRSA) infections	714	0.6
HAI-6	Clostridium difficile (C.diff) intestinal infections	805	0.7

Note: SIRs are a ratio of the total number of infections observed in 2020 divided by the predicted number of annual infections.

**FIGURE 2: HCP/IMM-3 Trend for All CAHs Nationally, 2017-20 | Healthcare workers given the influenza vaccination**



**FIGURE 3: Antibiotic Stewardship Trend for All CAHs Nationally, 2017-20 | CAHs fulfilling the seven antibiotic stewardship core elements**





## OUTPATIENT DOMAIN

### Outpatient CAH Reporting

In 2020, 86.5% of CAHs reported quality data on at least one Outpatient measure (Figure 4). The outpatient reporting percentage represents a slight decrease from the previous reporting period. Table 4 shows state rankings for Outpatient reporting rates.

FIGURE 4: Percentage of CAHs Reporting at Least One Outpatient Measure, 2017-20

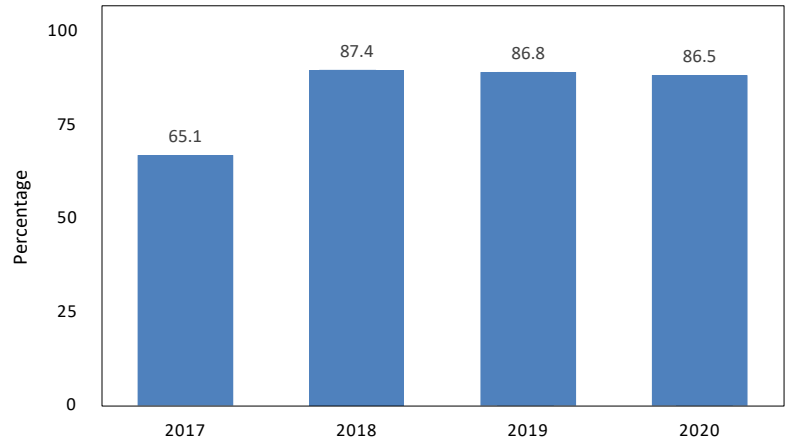


TABLE 4: State Ranking of CAH Reporting Rates for Outpatient Quality Measures, 2020

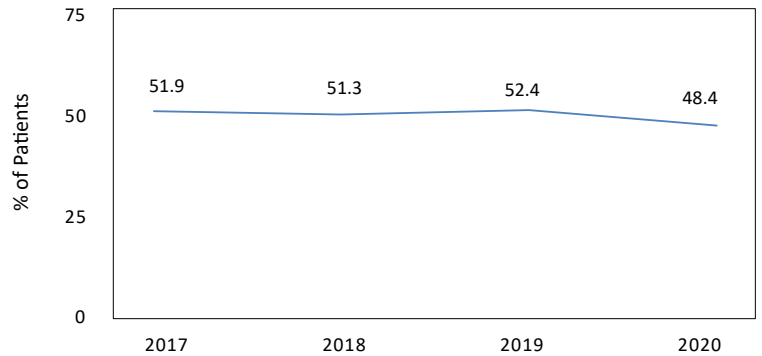
Rank	State	CAHs Reporting	% of CAHs	Rank	State	CAHs Reporting	% of CAHs
1	Michigan	37	100.0	24	Colorado	28	87.5
1	Georgia	30	100.0	25	Tennessee	13	86.7
1	Arkansas	28	100.0		<b>National</b>	<b>1,171</b>	<b>86.5</b>
1	New Hampshire	13	100.0	26	Montana	42	85.7
1	Hawaii	9	100.0	27	Oklahoma	34	85.0
1	Virginia	7	100.0	27	North Carolina	17	85.0
1	Massachusetts	3	100.0	29	Oregon	21	84.0
8	Nebraska	62	96.9	30	Washington	32	82.1
9	Wisconsin	56	96.6	30	Kentucky	23	82.1
10	Idaho	26	96.3	32	Wyoming	13	81.3
11	Minnesota	74	96.1	33	Alabama	4	80.0
12	West Virginia	20	95.2	34	Iowa	65	79.3
13	Kansas	78	95.1	35	South Dakota	30	78.9
14	North Dakota	34	94.4	36	California	28	77.8
15	Maine	15	93.8	37	Alaska	10	76.9
15	Pennsylvania	15	93.8	38	South Carolina	3	75.0
17	Nevada	12	92.3	39	Arizona	11	73.3
17	Utah	12	92.3	40	Illinois	37	72.5
19	Indiana	32	91.4	41	Texas	62	71.3
20	New Mexico	10	90.9	42	Louisiana	19	70.4
21	New York	16	88.9	43	Mississippi	20	64.5
22	Missouri	31	88.6	44	Florida	6	60.0
23	Ohio	29	87.9	45	Vermont	4	50.0



**Outpatient CAH Performance**

Tables 5 and 6 display the number of CAHs reporting and national performance for each of the Outpatient measures in 2020. Figures 5-7 show performance trends for OP-2, OP-3b, and OP-18b for all CAHs nationally between 2017 and 2020. Performance trends for OP-22 are not displayed due to the measure's low annual variation.

**FIGURE 5: OP-2 Trend for All CAHs Nationally, 2017-20 Fibrinolytic therapy received within 30 minutes**



**TABLE 5: Outpatient Quality Measure Results for All CAHs Nationally, 2020**

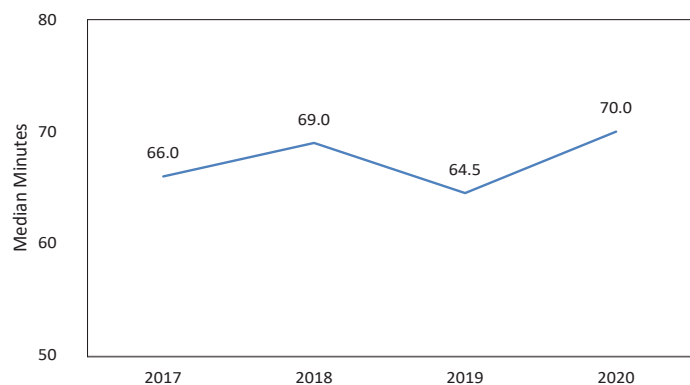
Measure	Description	CAHs Reporting	% of Patients
OP-2	Fibrinolytic therapy received within 30 minutes	958	48.4
OP-22	Patients left without being seen (lower is better)	797	0.9

**TABLE 6: Outpatient Median Time Quality Measure Results for All CAHs Nationally, 2020**

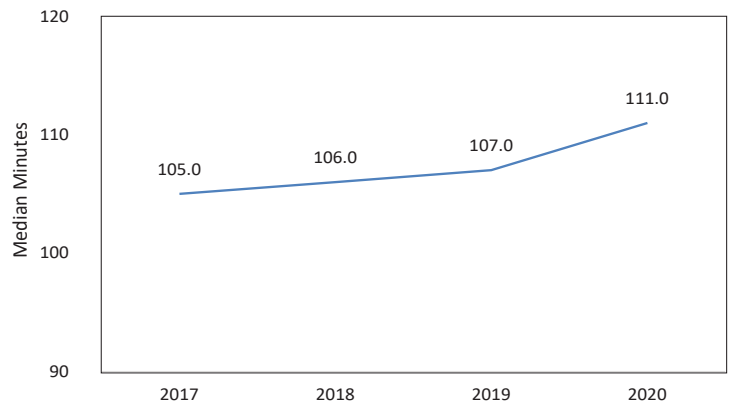
Measure	Description	CAHs Reporting	Median Minutes
OP-3b	Median time to transfer to another facility- acute coronary intervention	950	70.0
OP-18b	Median time from ED arrival to ED departure for discharged patients	1,098	111.0

Note: Median minutes to receiving care. Lower is better for all measures.

**FIGURE 6: OP-3b Trend for All CAHs Nationally, 2017-20 Median time to transfer to another facility – acute coronary intervention (lower is better)**



**FIGURE 7: OP-18b Trend for All CAHs Nationally, 2017-20 Median time for ED arrival to ED departure for discharged patients (lower is better)**





## PATIENT ENGAGEMENT DOMAIN

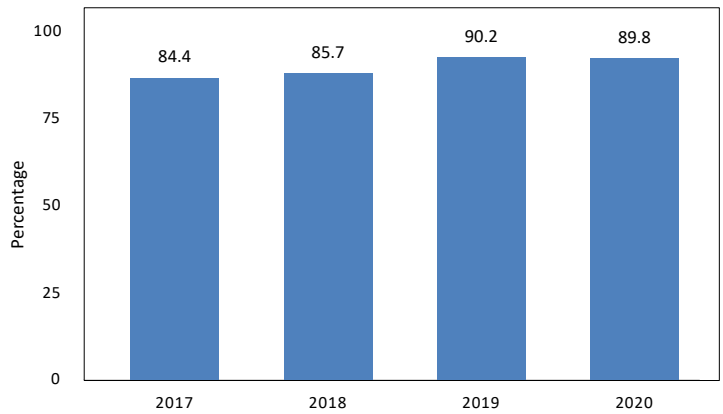
### HCAHPS CAH Reporting

In 2020, 89.9% of CAHs reported quality data with at least one Patient Engagement (HCAHPS) survey submitted (Figure 8). The patient engagement reporting percentage represents a small decrease from the previous reporting period. However, the number of completed surveys per reporting CAH has also changed over time as the proportion of CAHs reporting less than 100 surveys continues to increase from 59.9% in 2017 to 90.0% in 2020, and the percentage reporting more than 300 surveys decreased from 5.4% in 2017 to 0% in 2020 (Figure 9). This change is likely due to changes in how HCAHPS data were reported for 2020 (due to the COVID-19 pandemic), as the HCAHPS data only included two rolling quarters of data (Q3 2020 and Q4 2020) instead of the typical four quarters. Table 7 shows state rankings for Patient Engagement reporting rates.

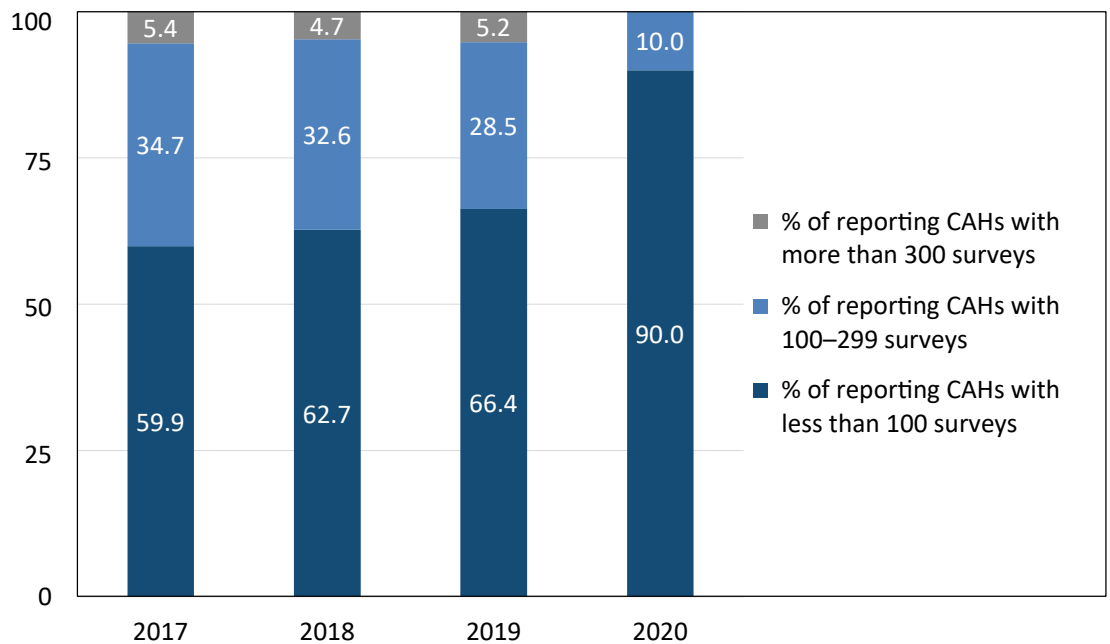
Table 8 shows the wide variation in the number of completed HCAHPS surveys per CAH when compared to the annual volume of inpatient admissions.

Sixty hospitals with over 800 admissions had less than 50 completed surveys – fourteen of the hospitals had less than 25 surveys. No CAHs with 0-250 admissions had more than 99 surveys. Variation in the number of completed surveys may be due in part to the number of discharged patients who are eligible for HCAHPS and in part to differences in response rates among surveyed patients. Table 9 displays the number of completed HCAHPS surveys and response rates nationally for CAHs.

**FIGURE 8:** Percentage of CAHs Reporting at Least One Patient Engagement (HCAHPS) Survey, 2017-20



**FIGURE 9:** Completed HCAHPS Surveys among CAHs Reporting Data, 2017-20





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TABLE 7: State Ranking of CAH Reporting Rates for HCAHPS Quality Measure, 2020

Rank	State	CAHs Reporting	% of CAHs	Rank	State	CAHs Reporting	% of CAHs
1	Illinois	51	100.0	24	Nevada	12	92.3
1	South Dakota	38	100.0	25	Minnesota	71	92.2
1	West Virginia	21	100.0	26	North Dakota	33	91.7
1	Maine	16	100.0	27	Oklahoma	36	90.0
1	New Hampshire	13	100.0	27	North Carolina	18	90.0
1	Utah	13	100.0		<b>National</b>	<b>1,215</b>	<b>89.8</b>
1	New Mexico	11	100.0	29	Michigan	33	89.2
1	Vermont	8	100.0	30	Missouri	31	88.6
1	South Carolina	4	100.0	31	Pennsylvania	14	87.5
1	Massachusetts	3	100.0	32	Mississippi	27	87.1
11	Colorado	31	96.9	33	Virginia	6	85.7
12	Wisconsin	56	96.6	34	Washington	32	82.1
13	Arkansas	27	96.4	35	California	29	80.6
13	Kentucky	27	96.4	36	Texas	70	80.5
15	Kansas	79	96.3	37	Arizona	12	80.0
15	Idaho	26	96.3	37	Alabama	4	80.0
17	Oregon	24	96.0	39	Montana	39	79.6
18	Nebraska	61	95.3	40	Indiana	26	74.3
19	Iowa	78	95.1	41	Tennessee	11	73.3
20	New York	17	94.4	42	Louisiana	19	70.4
21	Ohio	31	93.9	43	Florida	5	50.0
22	Wyoming	15	93.8	44	Alaska	6	46.2
23	Georgia	28	93.3	45	Hawaii	3	33.3

TABLE 8: CAHs by Number of Completed HCAHPS Surveys and Hospital Admissions, 2020

# Completed Surveys	0-250 Admissions	251-500 Admissions	501-800 Admissions	>800 Admissions	Total
Less than 25	286	169	57	14	526
25-49	37	146	101	46	330
50-99	2	30	84	119	235
100-299	0	1	11	109	121
300 and higher	0	0	0	0	0
<b>Total</b>	<b>325</b>	<b>346</b>	<b>253</b>	<b>288</b>	<b>1,212</b>

Note: Three CAHs did not have AHA annual survey data and are excluded from this table.  
Data sources: MBQIP, CY2020; AHA Annual Survey data, FY2019





TABLE 9: Number of Completed HCAHPS Surveys and Response Rates for CAHs, 2020

	Total CAHs Reporting	Number of completed surveys					HCAHPS survey response rates		
		<25	25-49	50-99	100-299	>300	<25%	25-50%	>50%
National	1,215	528	330	236	121	0	498	683	34

**HCAHPS CAH Performance**

Table 10 shows the performance for each of the Patient Engagement (HCAHPS) measures in 2020. The lowest national performance rates for individual HCAHPS measures were related to understanding post-discharge instructions (“strongly agree care understood when left hospital”), patient rating of the hospital environment (“area around patient’s room was always quiet at night”), and explanations for medications (“staff always explained medications before giving them”).

Figure 10 shows performance trends for HCAHPS measures for all CAHs nationally between 2017 and 2020.

TABLE 10: HCAHPS Results for All CAHs Nationally, 2020

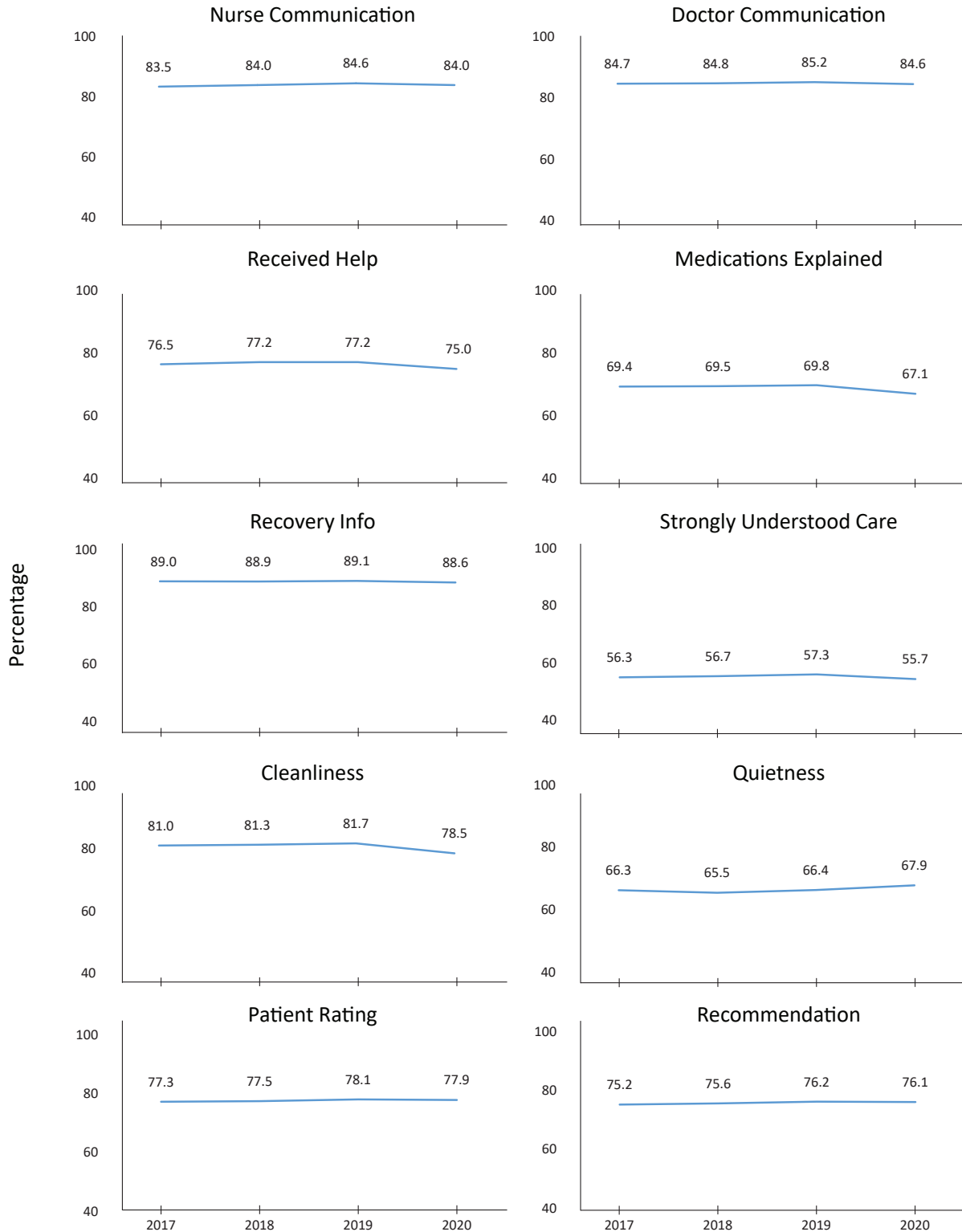
HCAHPS Measure	Percentage
CAHs Reporting	n= 1,215
Nurses always communicated well	84.0
Doctors always communicated well	84.6
Patient always received help as soon as wanted	75.0
Staff always explained medications before giving them	67.1
Yes, staff gave patient info. about recovery at home	88.6
Strongly agree care understood when left hospital	55.7
Patient's room and bathroom were always clean	78.5
Area around patient's room was always quiet at night	67.9
Overall hospital rating of 9 or 10 (high)	77.9
Would definitely recommend hospital to others	76.1



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FIGURE 10: HCAHPS Trends for All CAHs Nationally, 2017-20





## CARE TRANSITIONS DOMAIN

### EDTC CAH Reporting

In 2020, 92.0% of CAHs reported quality data on the Care Transitions (EDTC) measure. Only 2020 data are included in this report since collection and reporting

procedures for the EDTC measure changed beginning in 2020. Table 11 shows state rankings for Care Transitions reporting rates.

TABLE 11: State Ranking of CAH Reporting Rates for EDTC Quality Measure, 2020

Rank	State	CAHs Reporting	% of CAHs	Rank	State	CAHs Reporting	% of CAHs
1	Oklahoma	40	100.0	24	New York	17	94.4
1	South Dakota	38	100.0	25	Maine	15	93.8
1	North Dakota	36	100.0	25	Wyoming	15	93.8
1	Georgia	30	100.0	27	Mississippi	29	93.5
1	Arkansas	28	100.0	28	Tennessee	14	93.3
1	Idaho	27	100.0	29	Kentucky	26	92.9
1	West Virginia	21	100.0	30	Louisiana	25	92.6
1	Pennsylvania	16	100.0	31	Washington	36	92.3
1	Nevada	13	100.0	31	Alaska	12	92.3
1	Utah	13	100.0	31	New Hampshire	12	92.3
1	Hawaii	9	100.0		<b>National</b>	<b>1,245</b>	<b>92.0</b>
1	Virginia	7	100.0	34	New Mexico	10	90.9
1	Alabama	5	100.0	35	Florida	9	90.0
1	South Carolina	4	100.0	36	Missouri	31	88.6
1	Massachusetts	3	100.0	37	Arizona	13	86.7
16	Kansas	81	98.8	38	Iowa	69	84.1
17	Minnesota	76	98.7	39	Oregon	21	84.0
18	Nebraska	63	98.4	40	Illinois	42	82.4
19	Wisconsin	57	98.3	41	Colorado	26	81.2
20	Michigan	36	97.3	42	Montana	39	79.6
21	California	35	97.2	43	Texas	67	77.0
22	Indiana	34	97.1	44	Ohio	23	69.7
23	North Carolina	19	95.0	45	Vermont	3	37.5



**EDTC CAH Performance**

Table 12 displays the number of CAHs reporting and national performance for each component of the Care Transitions (EDTC) measure in 2020. A figure for the EDTC trend is not displayed due to a lack of multiple years data for this measure.

TABLE 12: EDTC Results for All CAHs Nationally, 2020

<b>EDTC Measure</b>	<b>Percentage</b>
CAHs Reporting	n=1,245
EDTC-All: Composite	90.2
Home Medications	95.2
Allergies and/or Reactions	96.5
Medications Administered in ED	96.7
ED Provider Note	94.9
Mental Status/Orientation Assessment	95.9
Reason for Transfer and/or Plan of Care	97.1
Tests and/or Procedures Performed	96.9
Tests and/or Procedure Results	96.2



### APPENDIX

This appendix includes additional detailed information regarding the methods and data used in this report. Performance for each measure is shown in a variety of ways depending on the measure.

**Percentages** were calculated using the number of patients (or healthcare workers for the measure HCP/IMM-3) who meet the measure criteria, divided by the number of patients or workers in the measure population, which are specifically defined for each measure. Antibiotic stewardship performance was measured as the percentage of CAHs that fulfilled all seven core elements of an antibiotic stewardship program. The questions in the NHSN address different activities CAHs can participate in to fulfill the core elements. The state-level performance on antibiotic stewardship was compared to the performance of all other CAHs nationally using Fisher's exact test. For all years, antibiotic stewardship values only include data submitted by the March 31 NHSN deadline.

**Median time** includes the median number of minutes until the specified event occurs among patients who meet certain criteria, which are specifically defined for each measure. For median time measures, lower scores, indicating shorter median times, are better.

**Performance for each HAI measure** was calculated using Standardized Infection Ratios (SIRs). SIRs are a ratio of the total number of infections observed in 2020 divided by the predicted number of annual infections. Predicted number of infections data are calculated and made available by the CDC. SIRs can only be calculated when there are one or more predicted infections for the time period. A lower SIR indicates better performance.

For each **HCAHPS measure**, the percentage of patients reporting the highest response (e.g., "always") on each measure were summed and averaged across all reporting CAHs nationally. HCAHPS data for 2020 only include two rolling quarters (Q3 2020 and Q4 2020) instead of the typical four quarters, as a result of CMS reporting changes due to the COVID-19 pandemic.

**Performance for the EDTC measure** was calculated as the percentage of patients nationally that met each of the data elements. Changes to the EDTC measure in 2020 focused on adjustments to help streamline and modernize the measure, including a reduction in the total number of data elements from 27 to 8 and clarifications to specific definitions of individual data elements.

For more information on this report, please contact Megan Lahr, [lahrx074@umn.edu](mailto:lahrx074@umn.edu).

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