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# MBQIP Quality Measures National Annual Report – 2021

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## KEY FINDINGS

- Patient Safety/Inpatient Measures – The percent of CAHs reporting in the Patient Safety/Inpatient domain increased from 91.9% in 2020 to 93.5% in 2021.
- Outpatient Measures – The percent of CAHs reporting in the Outpatient domain increased from 86.5% in 2020 to 88.2% in 2021.
- Patient Engagement Measures – The percent of CAHs reporting in the Patient Engagement domain increased from 89.8% in 2020 to 91.5% in 2021.
- Care Transitions Measures – The percent of CAHs reporting in the Care Transition domain increased from 92.0% in 2020 to 92.6% in 2021.
- Overall, 15 states had all of their CAHs reporting at least one Patient Safety/Inpatient measure, 9 states had all of their CAHs reporting at least one Outpatient measure, 12 states had all of their CAHs reporting at least one Patient Engagement survey, and 20 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 En-



agement, 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.) Beginning in Q4 2020, population and sampling data (indicating if CAHs did not have an applicable population for a given measure) 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 after that time. Analysis for the HAI measures also included data reported for these 6 measures where CAHs indicated they had a 0 denominator (0 patients in 2021 that would fall under any of these HAI categories). The reporting denominator of all CAHs in the U.S. for 2021 is 1,359 CAHs (the total number of CAHs designated on December 31, 2021), 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 and 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 2021. Benchmarks used for the HCAHPS measures come from the benchmarks selected for CMS’ Hospital Value-Based Purchasing Program in 2022. HCAHPS Question 22 (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 2021, 93.5% of CAHs reported quality data on at least one Patient Safety/Inpatient measure (Figure 1). The inpatient reporting percentage represents an increase 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, 2018-21

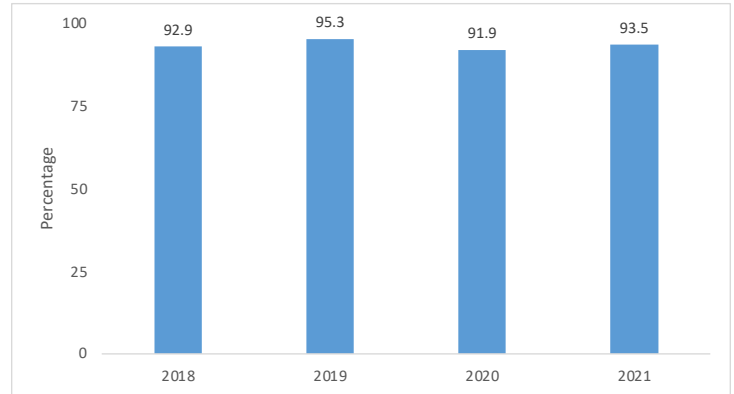


TABLE 1. State Ranking of CAH Reporting Rates for Patient Safety/Inpatient Quality Measures, 2021

Rank	State	CAHs Reporting	% of CAHs	Rank	State	CAHs Reporting	% of CAHs
1	Kansas	82	100.0	24	Washington	37	94.9
1	Wisconsin	58	100.0	25	Missouri	33	94.3
1	Illinois	51	100.0	26	Mississippi	30	93.8
1	Indiana	35	100.0	26	Wyoming	15	93.8
1	Colorado	32	100.0		<b>National</b>	<b>1,270</b>	<b>93.5</b>
1	Georgia	30	100.0	28	Kentucky	26	92.9
1	Arkansas	28	100.0	29	New Hampshire	12	92.3
1	Oregon	25	100.0	29	Nevada	12	92.3
1	Maine	16	100.0	31	Michigan	34	91.9
1	Pennsylvania	16	100.0	32	Montana	44	89.8
1	Alaska	13	100.0	33	Hawaii	8	88.9
1	Utah	13	100.0	34	Ohio	29	87.9
1	Vermont	8	100.0	35	Oklahoma	35	87.5
1	South Carolina	4	100.0	35	Arizona	14	87.5
1	Massachusetts	3	100.0	35	Virginia	7	87.5
16	South Dakota	38	97.4	38	New Mexico	9	81.8
17	North Dakota	36	97.3	39	Tennessee	13	81.3
18	California	35	97.2	40	North Carolina	16	80.0
19	Idaho	26	96.3	40	Florida	8	80.0
20	Minnesota	74	96.1	40	Alabama	4	80.0
21	Nebraska	60	95.2	43	Texas	70	79.5
21	West Virginia	20	95.2	44	Louisiana	20	74.1
23	Iowa	78	95.1	45	New York	13	72.2



**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 2021. Figures 2 and 3 show performance trends for HCP/IMM-3 and Antibiotic

Stewardship for all CAHs nationally between 2018 and 2021. 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, 2021

Measure	Description	CAHs Reporting	CAH Performance
HCP/IMM-3	Healthcare workers given influenza vaccination	984	79.4%
Antibiotic Stewardship	Fulfill antibiotic stewardship core elements	1,157	88.9%

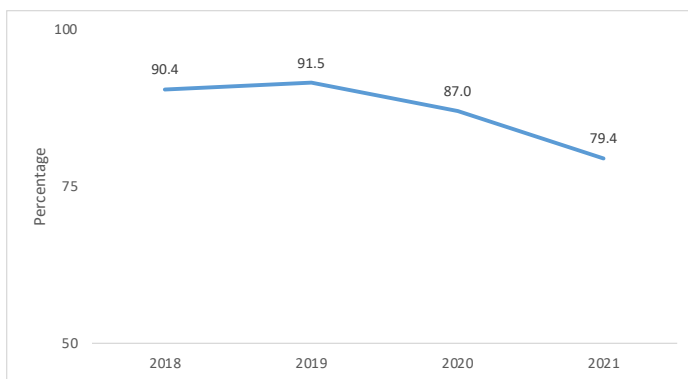
Note: HCP/IMM-3 is expressed as the percentage of health care workers immunized, and Antibiotic Stewardship is the percentage of CAHs fulfilling all antibiotic stewardship elements.

**TABLE 3:** Healthcare-Associated Infection Measures Reported by All CAHs Nationally, 2021

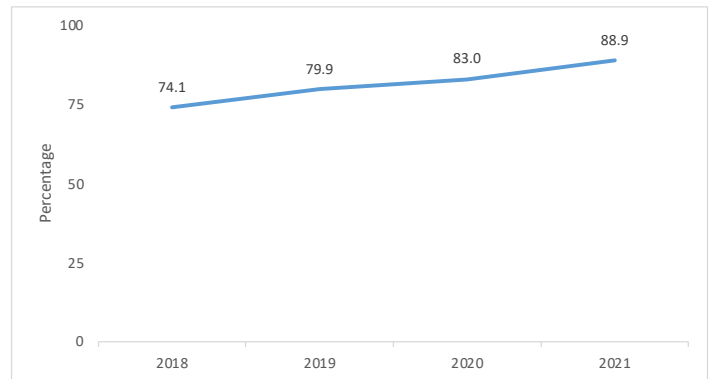
Measure	Description	CAHs Reporting	SIR
HAI-1	Central-line-associated bloodstream infections (CLABSI)	1,102	0.8
HAI-2	Catheter-associated urinary tract infections (CAUTI)	1,156	0.7
HAI-3	Surgical site infections from colon surgery (SSI:C)	469	0.9
HAI-4	Surgical site infections from abdominal hysterectomy (SSI:H)	434	1.4
HAI-5	Methicillin-resistant Staphylococcus Aureus (MRSA) infections	872	0.8
HAI-6	Clostridium difficile (C.diff) intestinal infections	912	0.7

Note: SIRs are a ratio of the total number of infections observed in 2021 divided by the predicted number of annual infections.

**FIGURE 2:** HCP/IMM-3 Trend for All CAHs Nationally, 2018-21 | *Healthcare workers given influenza vaccine*



**FIGURE 3:** Antibiotic Stewardship Trend for All CAHs Nationally, 2018-21 | *CAHs fulfilling the seven antibiotic stewardship core elements*





**OUTPATIENT DOMAIN**

*Outpatient CAH Reporting*

In 2021, 88.2% of CAHs reported quality data on at least one Outpatient measure (Figure 4). The outpatient reporting percentage represents an increase 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, 2018-21

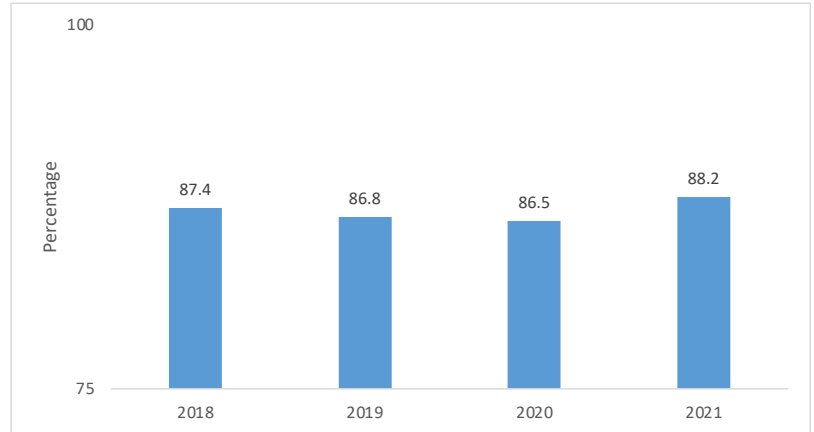


TABLE 4: State Ranking of CAH Reporting Rates for Outpatient Quality Measures, 2021

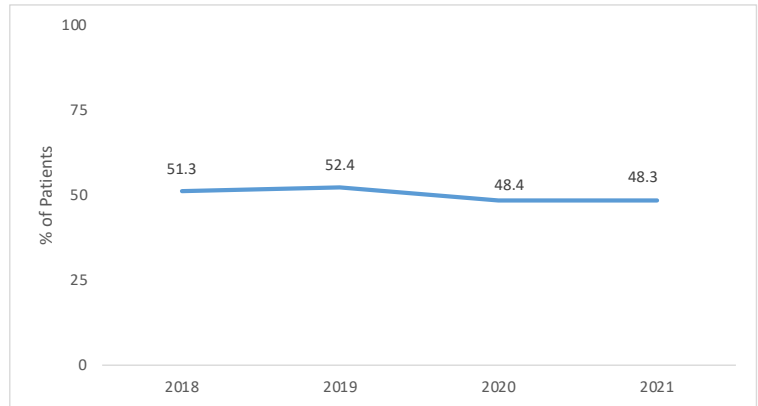
Rank	State	CAHs Reporting	% of CAHs	Rank	State	CAHs Reporting	% of CAHs
1	Kansas	82	100.0	24	Colorado	29	90.6
1	Michigan	37	100.0		<b>National</b>	<b>1,198</b>	<b>88.2</b>
1	Georgia	30	100.0	25	Oregon	22	88.0
1	New York	18	100.0	26	Tennessee	14	87.5
1	New Hampshire	13	100.0	26	Virginia	7	87.5
1	Nevada	13	100.0	28	South Dakota	34	87.2
1	New Mexico	11	100.0	29	Kentucky	24	85.7
1	Hawaii	9	100.0	30	North Carolina	17	85.0
1	Massachusetts	3	100.0	31	Alaska	11	84.6
10	Minnesota	76	98.7	32	Iowa	68	82.9
11	Arkansas	27	96.4	33	Montana	40	81.6
12	Idaho	26	96.3	34	Arizona	13	81.3
13	Nebraska	60	95.2	35	Florida	8	80.0
13	West Virginia	20	95.2	35	Alabama	4	80.0
15	Wisconsin	55	94.8	37	Washington	31	79.5
16	North Dakota	35	94.6	38	California	28	77.8
17	Maine	15	93.8	39	Illinois	39	76.5
17	Pennsylvania	15	93.8	40	Wyoming	12	75.0
19	Oklahoma	37	92.5	41	Texas	65	73.9
20	Utah	12	92.3	42	Louisiana	18	66.7
21	Indiana	32	91.4	43	Mississippi	20	62.5
21	Missouri	32	91.4	44	Vermont	4	50.0
23	Ohio	30	90.9	44	South Carolina	2	50.0



**Outpatient CAH Performance**

Tables 5-6 display the number of CAHs reporting and national performance for each of the Outpatient measures in 2021. Figures 5-7 show performance trends for OP-2, OP-3b, and OP18b for all CAHs nationally between 2018 and 2021. 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, 2018-21**  
*Fibrinolytic therapy received within 30 minutes*



**TABLE 5: Outpatient Quality Measure Results for All CAHs Nationally, 2021**

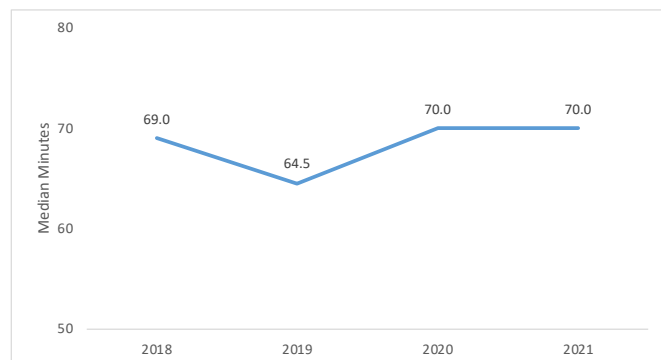
Measure	Description	CAHs Reporting	% of Patients
OP-2	Fibrinolytic therapy received within 30 minutes	1,121	48.3
OP-22	Patients left without being seen (lower is better)	834	1.3

**TABLE 6: Outpatient Median Quality Measure Results for All CAHs Nationally, 2021**

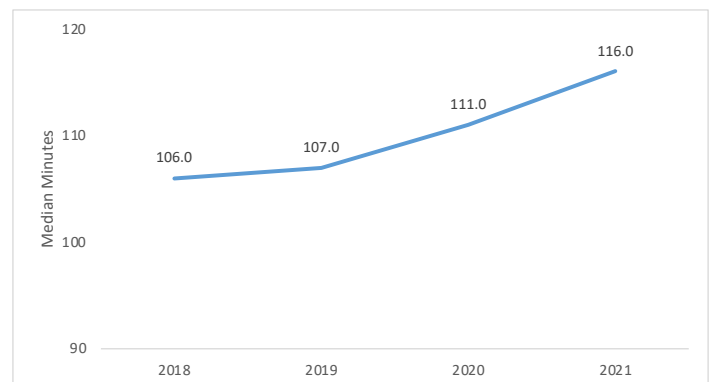
Measure	Description	CAHs Reporting	Median Minutes
OP-3b	Median time to transfer to another facility- acute coronary intervention	1,121	70.0
OP-18b	Median time from ED arrival to ED departure for discharged patients	1,134	116.0

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

**FIGURE 6: OP-3b Trend for All CAHs Nationally, 2018-21**  
*Median time to transfer to another facility – acute coronary intervention (lower is better)*



**FIGURE 7: OP-18b Trend for All CAHs Nationally, 2018-21**  
*Median time for ED arrival to ED departure for discharged patients (lower is better)*





## PATIENT ENGAGEMENT DOMAIN

### HCAHPS CAH Reporting

In 2021, 91.5% of CAHs reported quality data on at least one Patient Engagement (HCAHPS) measure (Figure 8). The patient engagement reporting percentage represents an increase from the previous reporting period. However, the number of completed surveys per reporting CAH has also changed over time. While the previous three years indicated a trend of increases in the proportion of CAHs reporting less than 100 surveys, this year saw slightly different results with increases in the percentage of CAHs reporting between 100-299 surveys accompanied by a decrease in the proportion of CAHs reporting less than 100 surveys, from 90% in 2020 to 72.5% in 2021 (Figure 9). This change for 2020 was likely due to changes in how HCAHPS data were reported (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.

Eight hospitals with over 800 admissions had less than 50 completed surveys – five 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, 2018-21

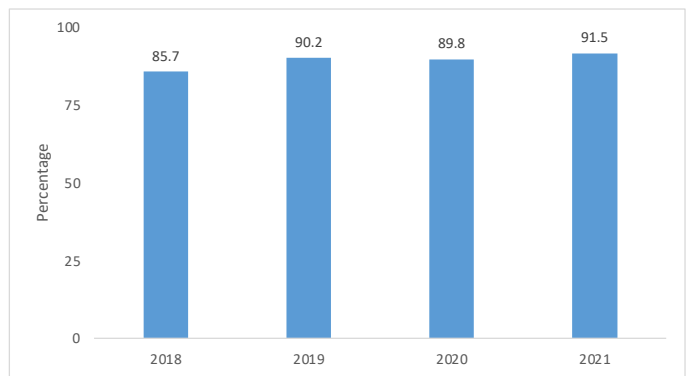
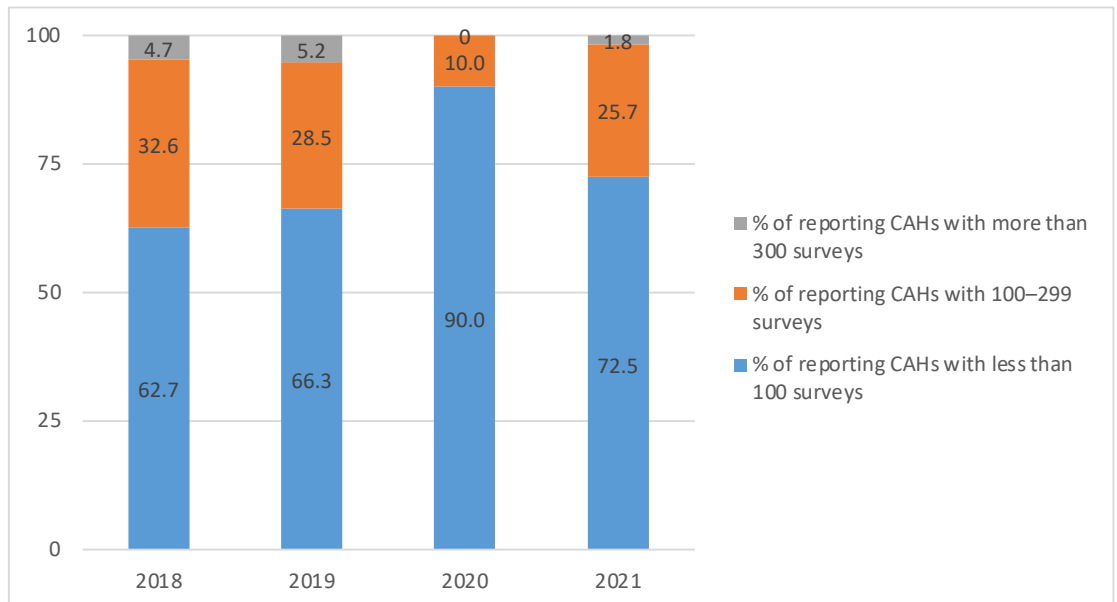


FIGURE 9: Completed HCAHPS Surveys among CAHs Reporting Data, 2018-21





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TABLE 7: State Ranking of CAH Reporting Rates for HCAHPS Quality Measure, 2021

Rank	State	CAHs Reporting	% of CAHs	Rank	State	CAHs Reporting	% of CAHs
1	Illinois	51	100.0	24	Arkansas	26	92.9
1	Georgia	30	100.0	24	Kentucky	26	92.9
1	Idaho	27	100.0	26	Oklahoma	37	92.5
1	West Virginia	21	100.0	27	Nevada	12	92.3
1	New York	18	100.0	27	Utah	12	92.3
1	Maine	16	100.0		<b>National</b>	<b>1,243</b>	<b>91.5</b>
1	New Hampshire	13	100.0	29	Mississippi	29	90.6
1	New Mexico	11	100.0	30	North Carolina	18	90.0
1	Vermont	8	100.0	31	Missouri	31	88.6
1	Alabama	5	100.0	32	Montana	43	87.8
1	South Carolina	4	100.0	33	Wyoming	14	87.5
1	Massachusetts	3	100.0	33	Virginia	7	87.5
13	Nebraska	62	98.4	35	Michigan	32	86.5
14	Wisconsin	57	98.3	36	California	31	86.1
15	Iowa	80	97.6	37	Washington	33	84.6
16	South Dakota	38	97.4	38	Texas	71	80.7
17	Colorado	31	96.9	39	Arizona	12	75.0
18	Kansas	79	96.3	39	Tennessee	12	75.0
19	Minnesota	74	96.1	41	Indiana	26	74.3
20	Oregon	24	96.0	42	Louisiana	20	74.1
21	North Dakota	35	94.6	43	Alaska	8	61.5
22	Ohio	31	93.9	44	Florida	6	60.0
23	Pennsylvania	15	93.8	45	Hawaii	4	44.4

TABLE 8: CAHs by Number of Completed HCAHPS Surveys and Hospital Admissions, 2021

# Completed Surveys	0-250 Admissions	251-500 Admissions	501-800 Admissions	>800 Admissions	Total
Less than 25	215	50	12	5	282
25-49	137	100	34	3	274
50-99	39	167	104	34	344
100-299	0	35	103	181	319
300 and higher	0	0	2	20	22
<b>Total</b>	<b>391</b>	<b>352</b>	<b>255</b>	<b>243</b>	<b>1,241</b>

Note: Two CAHs did not have AHA annual survey data and are excluded from this table.  
Data sources: MBQIP, CY2020; AHA Annual Survey data, FY2020





TABLE 9: Number of Completed HCAHPS Surveys and Response Rates for CAHs, 2021

	Total CAHs Reporting	Number of completed surveys					HCAHPS survey response rates		
		<25	25-49	50-99	100-299	>300	<25%	25-50%	>50%
National	1,243	282	275	344	320	22	559	666	18

**HCAHPS CAH Performance**

Table 10 shows the performance for each of the Patient Engagement (HCAHPS) measures in 2021. The lowest national performance rates for individual HCAHPS measures were related to understanding post-discharge instructions (“strongly agree care understood when left hospital”), explanations for medications (“staff always explained medications before giving them”), and patient rating of the hospital environment (“area around patient’s room was always quiet at night”).

Figure 10 shows performance trends for HCAHPS measures for all CAHs nationally between 2018 and 2021.

TABLE 10: HCAHPS Results for All CAHs Nationally, 2021

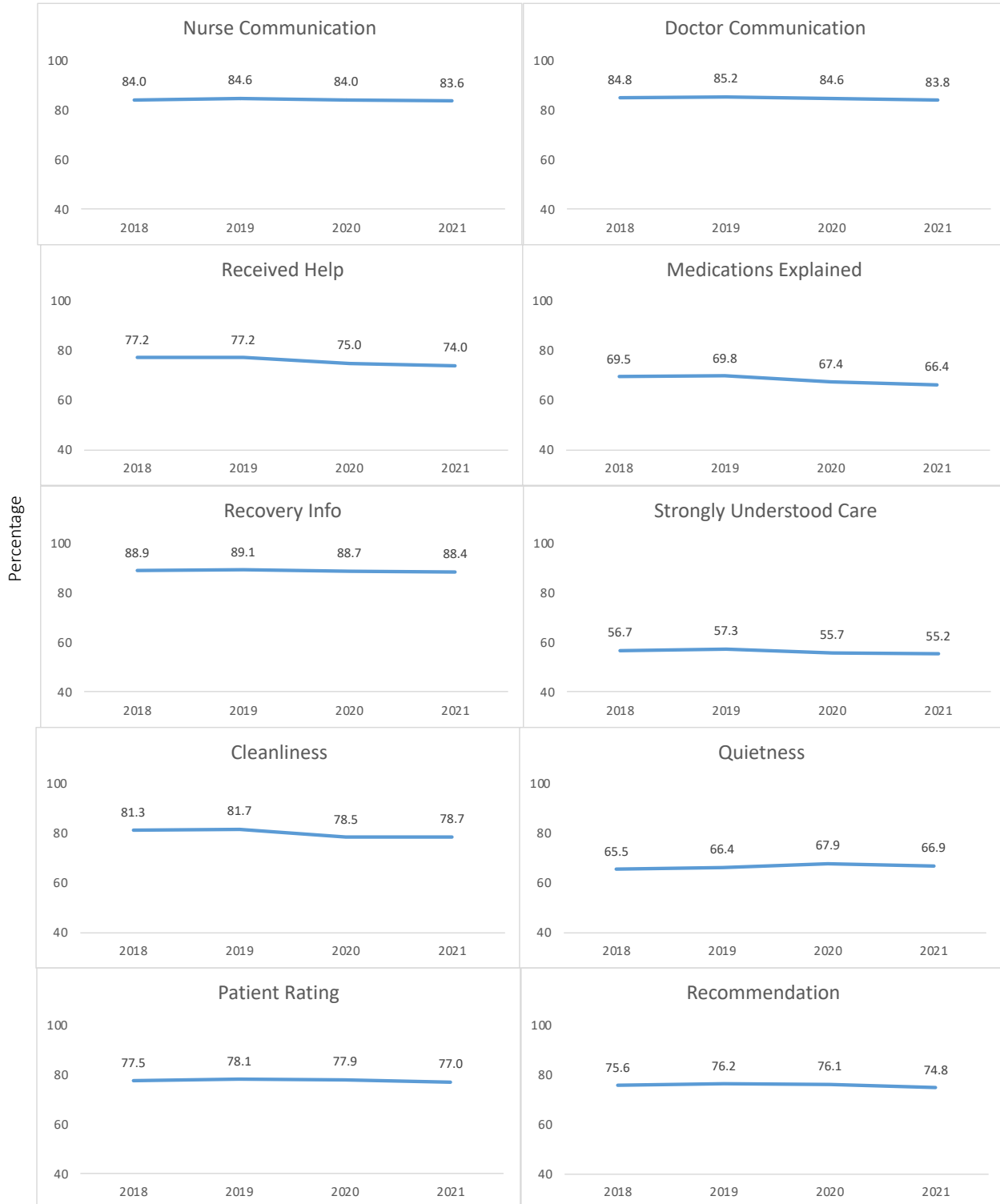
HCAHPS Measure	Percentage
CAHs Reporting	n= 1,243
Nurses always communicated well	83.6
Doctors always communicated well	83.8
Patient always received help as soon as wanted	74.0
Staff always explained medications before giving them	66.4
Yes, staff gave patient info. about recovery at home	88.4
Strongly agree care understood when left hospital	55.2
Patient's room and bathroom were always clean	78.7
Area around patient's room was always quiet at night	66.9
Overall hospital rating of 9 or 10 (high)	77.0
Would definitely recommend hospital to others	74.8



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FIGURE 10: HCAHPS Trends for All CAHs Nationally, 2018-21





**CARE TRANSITIONS DOMAIN**

*EDTC CAH Reporting*

In 2021, 92.6% of CAHs reported quality data on the Care Transitions (EDTC) measure (Figure 11). The care transitions reporting percentage represents a slight increase from the previous reporting period. Only 2020 and 2021 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.

FIGURE 11: Percentage of CAHs Reporting the EDTC Quality Measure, 2020-21

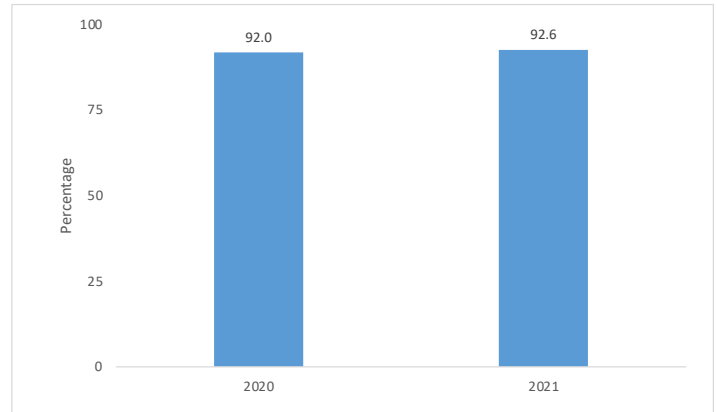


TABLE 11: State Ranking of CAH Reporting Rates for EDTC Quality Measure, 2021

Rank	State	CAHs Reporting	% of CAHs	Rank	State	CAHs Reporting	% of CAHs
1	Kansas	82	100.0	24	Mississippi	30	93.8
1	Minnesota	77	100.0	24	Maine	15	93.8
1	Oklahoma	40	100.0	24	Tennessee	15	93.8
1	California	36	100.0	24	Wyoming	15	93.8
1	Georgia	30	100.0		<b>National</b>	<b>1,259</b>	<b>92.6</b>
1	Arkansas	28	100.0	28	Louisiana	25	92.6
1	Idaho	27	100.0	29	Washington	36	92.3
1	West Virginia	21	100.0	29	Alaska	12	92.3
1	New York	18	100.0	29	New Hampshire	12	92.3
1	Pennsylvania	16	100.0	32	Illinois	46	90.2
1	Nevada	13	100.0	33	Wisconsin	52	89.7
1	Utah	13	100.0	34	Missouri	31	88.6
1	New Mexico	11	100.0	35	Iowa	72	87.8
1	Florida	10	100.0	36	Arizona	14	87.5
1	Hawaii	9	100.0	36	Virginia	7	87.5
1	Alabama	5	100.0	38	Montana	42	85.7
1	South Carolina	4	100.0	38	Kentucky	24	85.7
1	Massachusetts	3	100.0	40	North Carolina	17	85.0
19	Nebraska	62	98.4	41	Colorado	27	84.4
20	South Dakota	38	97.4	42	Texas	71	80.7
21	Michigan	36	97.3	43	Oregon	20	80.0
21	North Dakota	36	97.3	44	Ohio	24	72.7
23	Indiana	34	97.1	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 2021. Figure 12 shows performance data for EDTC for all CAHs nationally from 2020 to 2021.

TABLE 12: EDTC Results for All CAHs Nationally, 2021

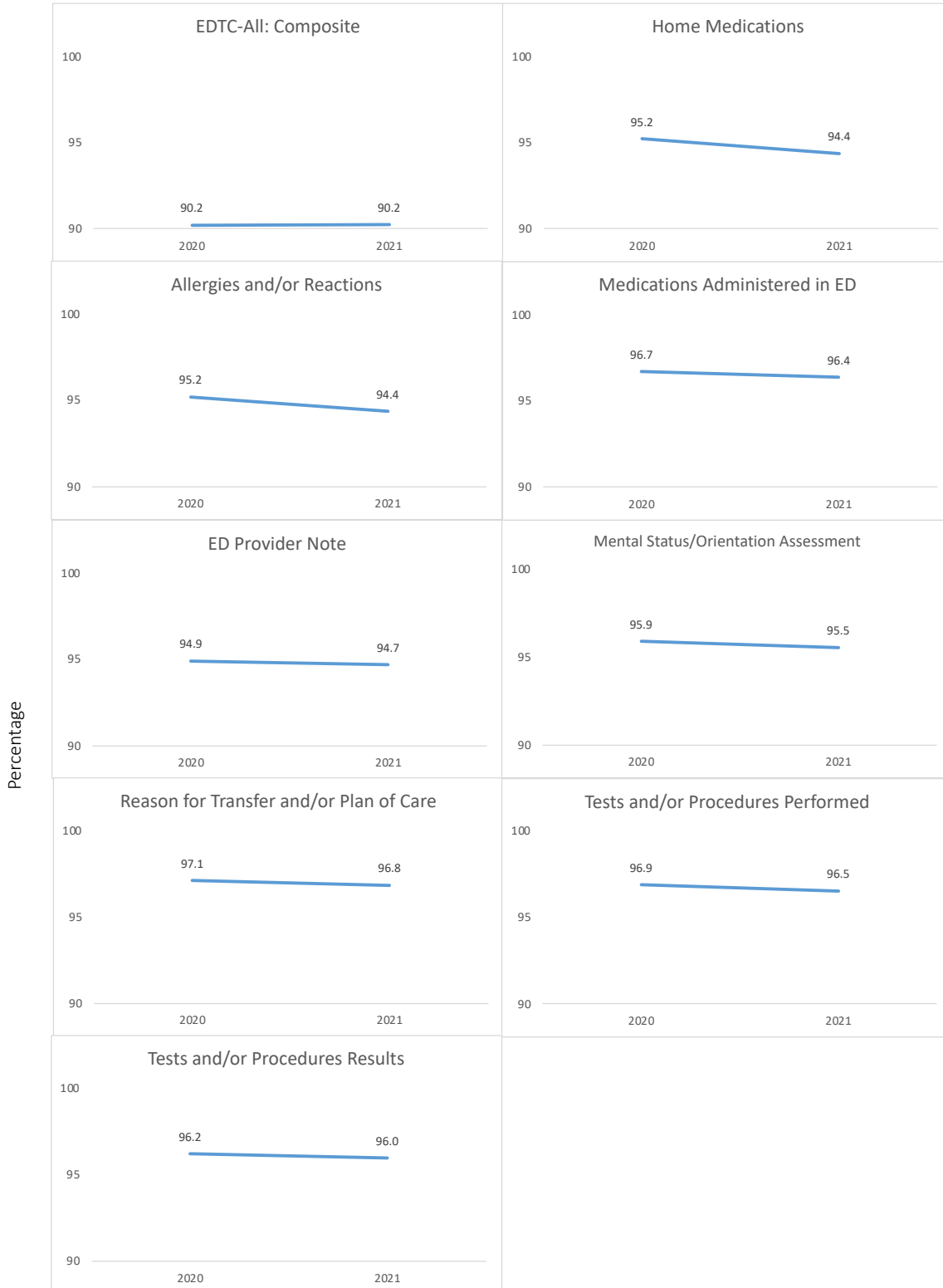
<b>EDTC Measure</b>	<b>Percentage</b>
<b>CAHs Reporting</b>	<b>n= 1,259</b>
EDTC-All: Composite	90.2
Home Medications	94.4
Allergies and/or Reactions	96.1
Medications Administered in ED	96.4
ED Provider Note	94.7
Mental Status/Orientation Assessment	95.5
Reason for Transfer and/or Plan of Care	96.8
Tests and/or Procedures Performed	96.5
Tests and/or Procedure Results	96.0



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FIGURE 12. EDTC Data for All CAHs Nationally, 2020-21





## 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** are 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. Values are rounded to the nearest decimal place.

**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 2021 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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