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MBQIP Quality Measures National Annual Report – 2022

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KEY FINDINGS

- Patient Safety/Inpatient Measures – The percent of CAHs reporting in the Patient Safety/Inpatient domain increased from 93.5% in 2021 to 97.1% in 2022.
- Outpatient Measures – The percent of CAHs reporting in the Outpatient domain increased from 88.2% in 2021 to 89.0% in 2022.
- Patient Engagement Measures – The percent of CAHs reporting in the Patient Engagement domain increased from 91.5% in 2021 to 94.6% in 2022.
- Care Transitions Measures – The percent of CAHs reporting in the Care Transition domain slightly decreased from 92.6% in 2021 to 92.4% in 2022.
- Overall, 26 states had all of their CAHs reporting at least one Patient Safety/Inpatient measure, 12 states had all of their CAHs reporting at least one Outpatient measure, 21 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.

CONTENTS

Patient Safety/Inpatient Domain

ReportingPage 3

Performance.....Page 4

Outpatient Domain

ReportingPage 5

Performance.....Page 6

Patient Engagement Domain

ReportingPage 7

Performance.....Page 9

Care Transitions Domain

Reporting Page 11

Performance..... Page 12

Appendix..... Page 14

BACKGROUND

The Medicare Beneficiary Quality Improvement Project (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; CDI), 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; CDI) are part of the MBQIP program, but not in the “core” measure set, and instead are 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.

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. Beginning in Q3 2022, the FMT received and included HCAHPS data for CAHs that were reporting data but had volumes too low to be displayed. These CAHs are now considered to be reporting where previously they were not due to a lack of data indicating their low volume.

Analysis for the HAI measures also included data reported for these 6 measures where CAHs indicated they had a 0 denominator (0 patients in 2022 that would meet criteria for any of these HAI categories). The reporting denominator of all CAHs in the U.S. for 2022 is 1,358 CAHs (the total number of CAHs designated on December 31, 2022), 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) or HAI measures (due to concerns with SIR calculation for CAHs).



PATIENT SAFETY/INPATIENT DOMAIN

Patient Safety/Inpatient CAH Reporting

In 2022, 97.1% of CAHs reported quality data on at least one Patient Safety/Inpatient measure (Figure 1). The inpatient reporting percentage demonstrates 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, 2019-22

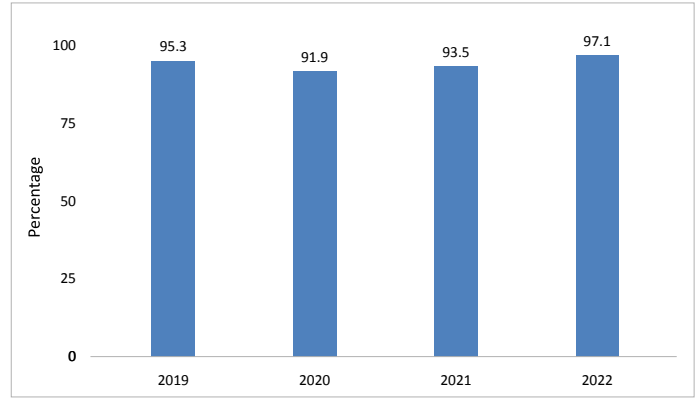


TABLE 1: State Ranking of CAH Reporting Rates for Patient Safety/Inpatient Quality Measures, 2022

Rank	State	CAHs Reporting	% of CAHs
1	Kansas	82	100.0
1	Wisconsin	58	100.0
1	Illinois	52	100.0
1	Montana	49	100.0
1	South Dakota	39	100.0
1	Michigan	37	100.0
1	California	36	100.0
1	Indiana	34	100.0
1	Colorado	32	100.0
1	Georgia	30	100.0
1	Arkansas	28	100.0
1	Idaho	27	100.0
1	Oregon	25	100.0
1	West Virginia	21	100.0
1	Arizona	16	100.0
1	Maine	16	100.0
1	Pennsylvania	16	100.0
1	Wyoming	16	100.0
1	Alaska	13	100.0
1	Nevada	13	100.0
1	New Mexico	11	100.0
1	Virginia	8	100.0
1	Vermont	8	100.0

Rank	State	CAHs Reporting	% of CAHs
1	Alabama	5	100.0
1	Massachusetts	3	100.0
1	South Carolina	3	100.0
27	Minnesota	76	98.7
28	Iowa	80	97.6
29	Oklahoma	39	97.5
30	Washington	38	97.4
31	North Dakota	36	97.3
	National	1,319	97.1
32	Mississippi	31	96.9
33	Nebraska	61	96.8
34	Kentucky	27	96.4
35	New York	17	94.4
36	Missouri	33	94.3
37	Ohio	31	93.9
38	New Hampshire	12	92.3
38	Utah	12	92.3
40	North Carolina	18	90.0
40	Florida	9	90.0
42	Louisiana	24	88.9
42	Hawaii	8	88.9
44	Tennessee	14	87.5
45	Texas	75	85.2



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 2022. Figures 2 and 3 show performance trends for HCP/IMM-3 and Antibiotic Stewardship for all CAHs nationally between 2019 and 2022. Performance trends for HAI measures are not displayed due to concerns with SIR calculations for CAHs.

TABLE 2: Patient Safety/Inpatient Quality Measure Results for All CAHs Nationally, 2022

Measure	Description	CAHs Reporting	CAH Performance
HCP/IMM-3	Healthcare workers given influenza vaccination	671	78.8%
Antibiotic Stewardship	Fulfill antibiotic stewardship core elements	1,238	91.3%

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, 2022

Measure	Description	CAHs Reporting	SIR
HAI-1	Central-line-associated bloodstream infections (CLABSI)	1,157	0.8
HAI-2	Catheter-associated urinary tract infections (CAUTI)	1,197	0.7
HAI-3	Surgical site infections from colon surgery (SSI:C)	470	1.0
HAI-4	Surgical site infections from abdominal hysterectomy (SSI:H)	432	0.9
HAI-5	Methicillin-resistant Staphylococcus Aureus (MRSA) infections	954	1.1
HAI-6	Clostridium difficile (C.diff) intestinal infections	980	0.8

Note: SIRs are a ratio of the total number of infections observed in 2022 divided by the predicted number of annual infections.

FIGURE 2: HCP/IMM-3 Trend for All CAHs Nationally, 2019-22 | *Healthcare workers given influenza vaccination*

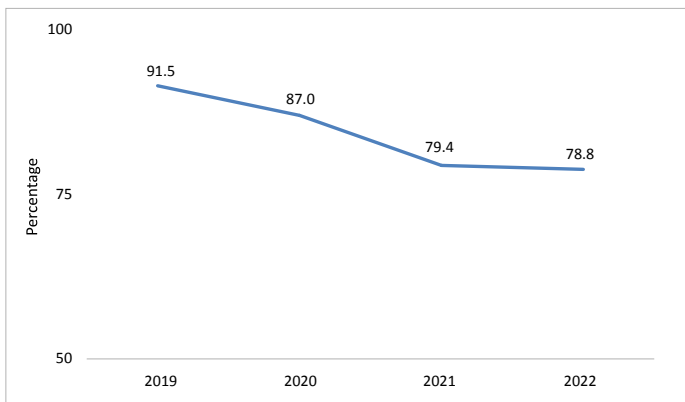
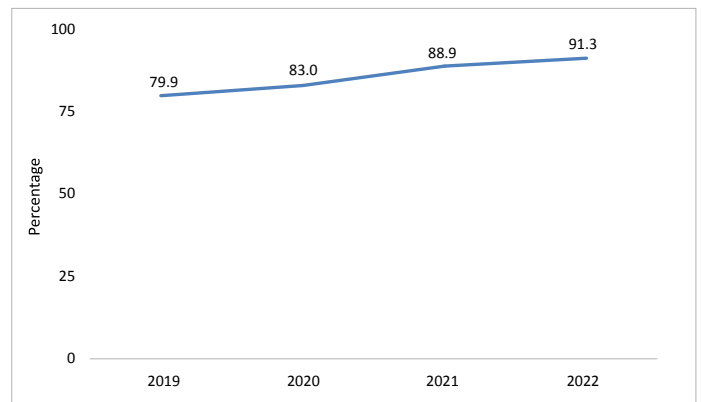


FIGURE 3: Antibiotic Stewardship Trend for All CAHs Nationally, 2019-22 | *CAHs fulfilling the seven antibiotic stewardship core elements*





OUTPATIENT DOMAIN

Outpatient CAH Reporting

In 2022, 89.0% of CAHs reported quality data on at least one Outpatient measure (Figure 4). The outpatient reporting percentage demonstrates 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, 2019-22

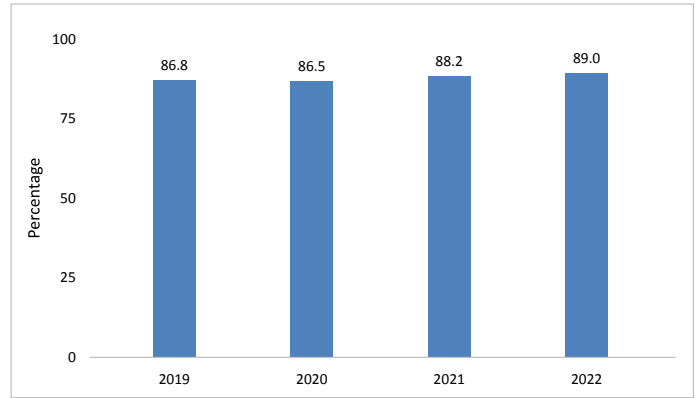


TABLE 4: State Ranking of CAH Reporting Rates for Outpatient Quality Measures, 2022

Rank	State	CAHs Reporting	% of CAHs	Rank	State	CAHs Reporting	% of CAHs
1	South Dakota	39	100.0	24	Oklahoma	36	90.0
1	Michigan	37	100.0	24	Florida	9	90.0
1	North Dakota	37	100.0	26	Arkansas	25	89.3
1	Georgia	30	100.0		National	1,209	89.0
1	New York	18	100.0	27	Missouri	31	88.6
1	Pennsylvania	16	100.0	28	Oregon	22	88.0
1	Tennessee	16	100.0	29	Ohio	29	87.9
1	New Hampshire	13	100.0	30	Alaska	11	84.6
1	Nevada	13	100.0	30	Utah	11	84.6
1	Hawaii	9	100.0	32	Colorado	27	84.4
1	Virginia	8	100.0	33	Arizona	13	81.3
1	Massachusetts	3	100.0	34	California	29	80.6
13	Kansas	81	98.8	35	North Carolina	16	80.0
14	Minnesota	76	98.7	35	Alabama	4	80.0
15	Nebraska	61	96.8	37	Illinois	39	75.0
16	Wisconsin	56	96.6	37	Kentucky	21	75.0
17	Idaho	26	96.3	37	Wyoming	12	75.0
18	West Virginia	20	95.2	40	Washington	29	74.4
19	Maine	15	93.8	41	Texas	65	73.9
20	Iowa	76	92.7	42	Louisiana	19	70.4
21	Montana	45	91.8	43	South Carolina	2	66.7
22	Indiana	31	91.2	44	Mississippi	21	65.6
23	New Mexico	10	90.9	45	Vermont	2	25.0



Outpatient CAH Performance

Tables 5 and 6 display the number of CAHs reporting and national performance for each of the Outpatient measures in 2022. Figures 5-7 show performance trends for OP-2, OP-3b, and OP-18b for all CAHs nationally between 2019 and 2022. 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, 2019-22 | *Fibrinolytic therapy received within 30 minutes*

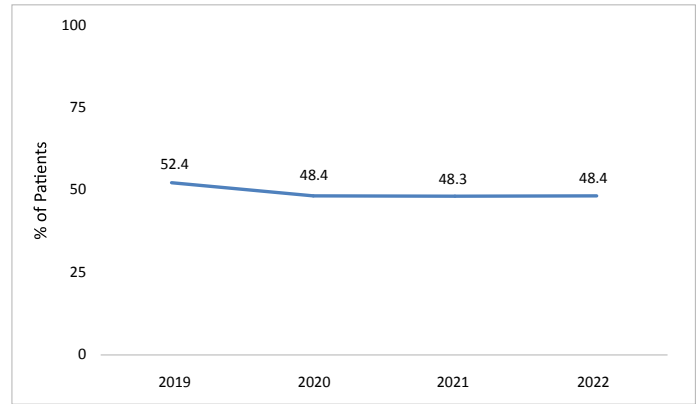


TABLE 5: Outpatient Quality Measure Results for All CAHs Nationally, 2022

Measure	Description	CAHs Reporting	% of Patients
OP-2	Fibrinolytic therapy received within 30 minutes	1,131	48.4
OP-22	Patients left without being seen (lower is better)	976	1.5

TABLE 6: Outpatient Median Quality Measure Results for All CAHs Nationally, 2022

Measure	Description	CAHs Reporting	Median Minutes
OP-3b	Median time to transfer to another facility- acute coronary intervention	1,131	72.0
OP-18b	Median time from ED arrival to ED departure for discharged patients	1,147	115.0

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

FIGURE 6: OP-3b Trend for All CAHs Nationally, 2019-22 | *Median time to transfer to another facility - acute coronary intervention (lower is better)*

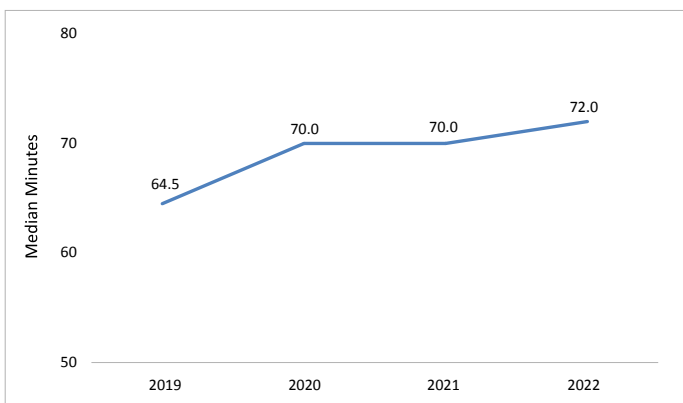
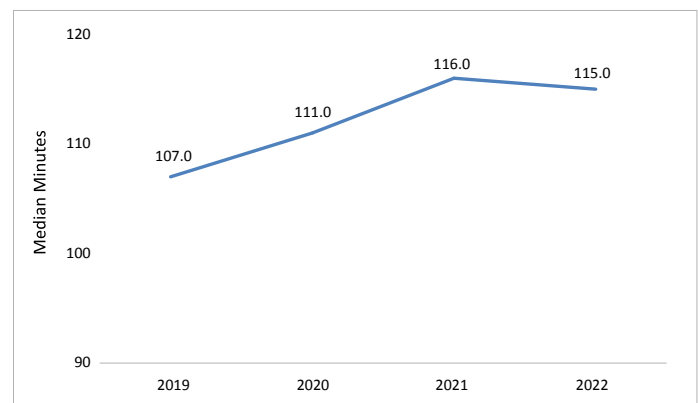


FIGURE 7: OP-18b Trend for All CAHs Nationally, 2019-22 | *Median time from ED arrival to ED departure for discharged patients (lower is better)*





PATIENT ENGAGEMENT DOMAIN

HCAHPS CAH Reporting

In 2022, 94.6% of CAHs reported quality data on at least one Patient Engagement (HCAHPS) measure (Figure 8). The patient engagement reporting percentage demonstrates an increase from the previous reporting period. This increase may be in part attributed to the changes in methodology; beginning in Q3 2022, the FMT received and included data for CAHs who were reporting data, but had volumes too low to be displayed. These CAHs are now considered to be “reporting” where previously they were not due to a lack of data indicating their low volume. The number of surveys being reported seems to have stabilized and was very similar to 2021 after seeing dramatic changes in previous years (Figure 9). The 2020 data on the number of completed surveys may be anomalous due to changes in gaps in HCAHPS data released by CMS (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. Fourteen hospitals with over 800 admissions had less than 50 completed surveys, and eight of those hospitals had less than 25 surveys. Only one CAH with 0-250 admissions had more than 99 surveys completed. The number of completed surveys may differ between CAHs for many reasons, including the number of discharged patients who are eligible for HCAHPS and 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 Measure (HCAHPS), 2019-22

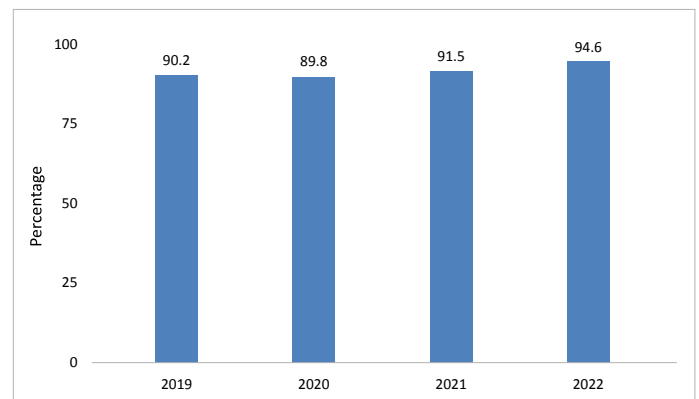
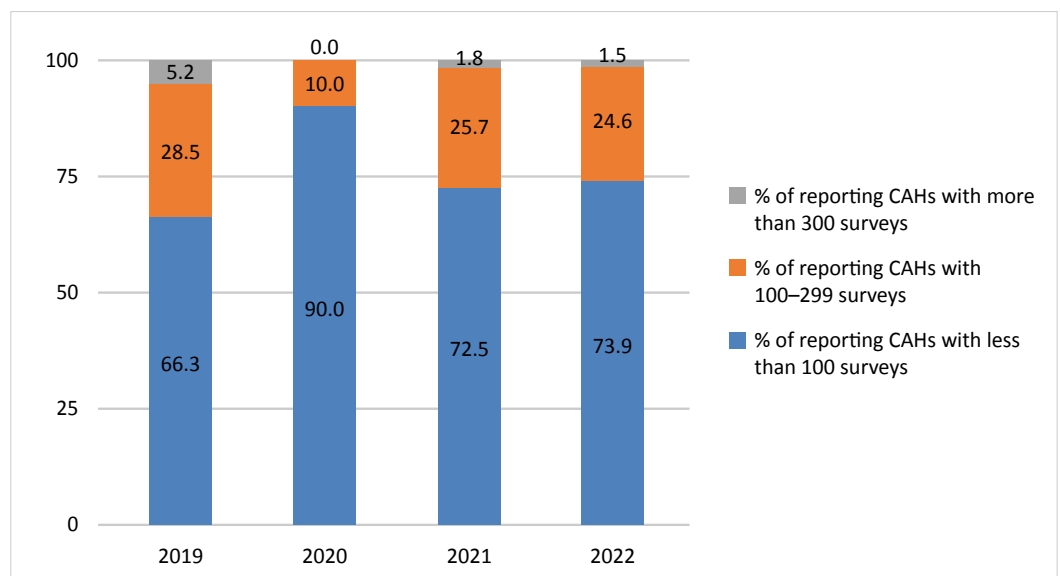


FIGURE 9: Completed HCAHPS Surveys among CAHs Reporting Data, 2019-22





Flex Monitoring Team

University of Minnesota | University of North Carolina at Chapel Hill | University of Southern Maine

TABLE 7: State Ranking of CAH Reporting Rates for HCAHPS Quality Measures, 2022

Rank	State	CAHs Reporting	% of CAHs	Rank	State	CAHs Reporting	% of CAHs
1	Nebraska	63	100.0	24	California	35	97.2
1	Wisconsin	58	100.0	25	Ohio	32	97.0
1	Illinois	52	100.0	26	Colorado	31	96.9
1	South Dakota	39	100.0	27	Minnesota	74	96.1
1	Georgia	30	100.0	28	Oklahoma	38	95.0
1	Idaho	27	100.0		National	1,284	94.6
1	Oregon	25	100.0	29	North Dakota	35	94.6
1	West Virginia	21	100.0	30	Montana	46	93.9
1	New York	18	100.0	31	Mississippi	30	93.8
1	Maine	16	100.0	32	Arkansas	26	92.9
1	Pennsylvania	16	100.0	32	Kentucky	26	92.9
1	Wyoming	16	100.0	34	Utah	12	92.3
1	New Hampshire	13	100.0	35	North Carolina	18	90.0
1	Nevada	13	100.0	36	Michigan	33	89.2
1	New Mexico	11	100.0	37	Texas	78	88.6
1	Hawaii	9	100.0	37	Missouri	31	88.6
1	Virginia	8	100.0	39	Washington	34	87.2
1	Vermont	8	100.0	40	Tennessee	13	81.3
1	Alabama	5	100.0	41	Florida	8	80.0
1	Massachusetts	3	100.0	42	Louisiana	21	77.8
1	South Carolina	3	100.0	43	Indiana	26	76.5
22	Iowa	81	98.8	44	Arizona	12	75.0
22	Kansas	81	98.8	45	Alaska	9	69.2

TABLE 8: CAHs by Number of Completed HCAHPS Surveys and Hospital Admissions, 2022

# Completed Surveys	0-250 Admissions	251-500 Admissions	501-800 Admissions	>800 Admissions	Total
Less than 25	251	61	21	8	341
25-49	117	103	35	6	261
50-99	34	175	105	30	344
100-299	1	24	100	190	315
300 and higher	0	0	0	19	19
Total	403	363	261	253	1,280

Note: Four CAHs did not have AHA annual survey data and are excluded from this table.
Data sources: MBQIP, CY2022; AHA Annual Survey data, FY2021



TABLE 9: Number of Completed HCAHPS Surveys and Response Rates for CAHs, 2022

	Total CAHs Reporting	Number of completed surveys					HCAHPS survey response rates		
		<25	25-49	50-99	100-299	>300	<25%	25-50%	>50%
National	1,284	344	261	344	316	19	550	712	22

HCAHPS CAH Performance

Table 10 shows the performance for each of the Patient Engagement (HCAHPS) measures in 2022. 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”), the same as 2021.

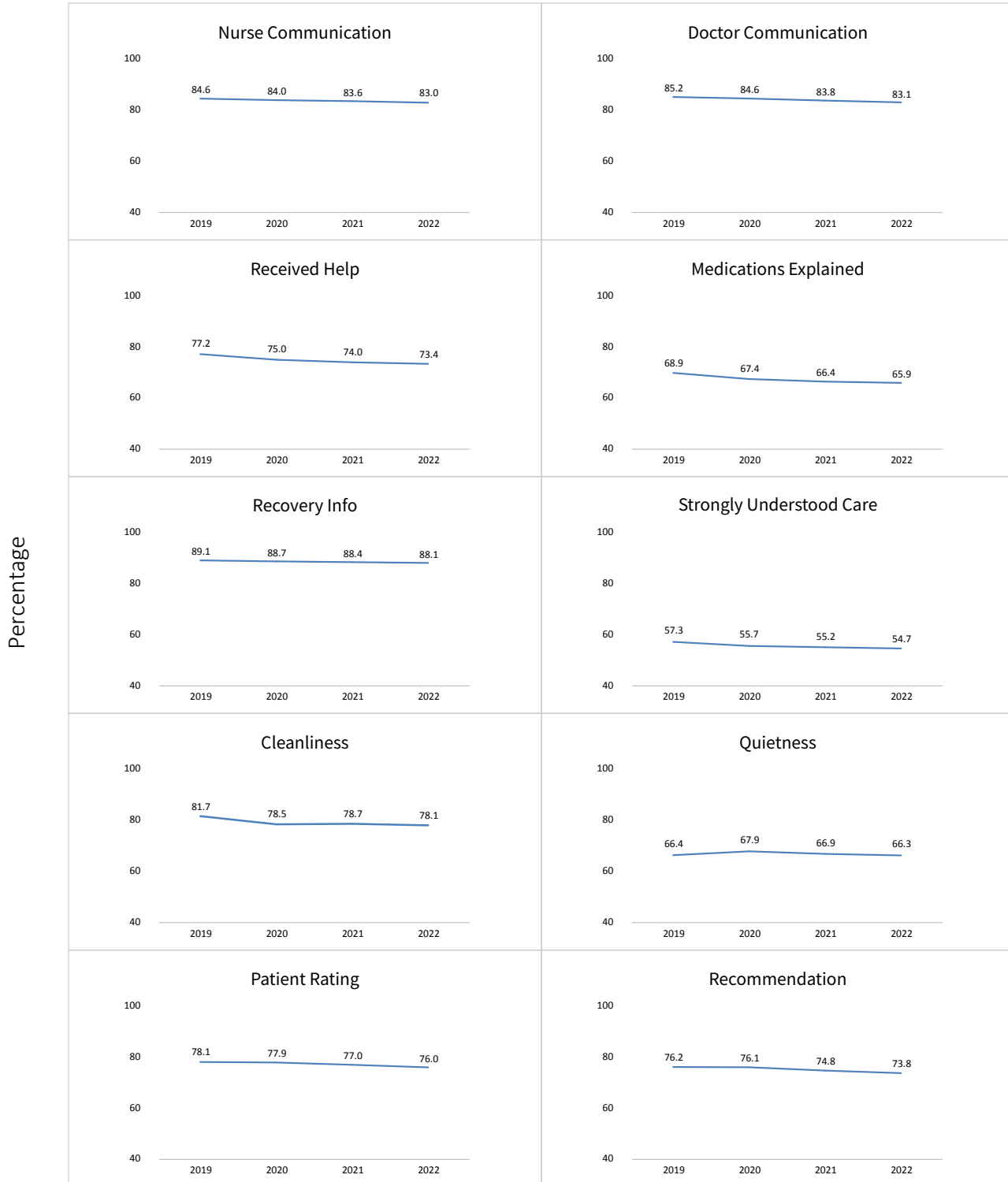
Figure 10 shows performance trends for HCAHPS measures for all CAHs nationally between 2019 and 2022.

TABLE 10: HCAHPS Results for All CAHs Nationally, 2022

HCAHPS Measure	Percentage
CAHs Reporting	n= 1,284
Nurses always communicated well	83.0
Doctors always communicated well	83.1
Patient always received help as soon as wanted	73.4
Staff always explained medications before giving them	65.9
Yes, staff gave patient info. about recovery at home	88.1
Strongly agree care understood when left hospital	54.7
Patient's room and bathroom were always clean	78.1
Area around patient's room was always quiet at night	66.3
Overall hospital rating of 9 or 10 (high)	76.0
Would definitely recommend hospital to others	73.8



FIGURE 10: HCAHPS Trends for All CAHs Nationally, 2019-22





CARE TRANSITIONS DOMAIN

EDTC CAH Reporting

In 2022, 92.4% of CAHs reported quality data on the Care Transitions (EDTC) measure (Figure 11). The care transitions reporting percentage demonstrates a slight decrease from the previous reporting period. Only 2020-2022 data are included in this report because 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, 2020-22

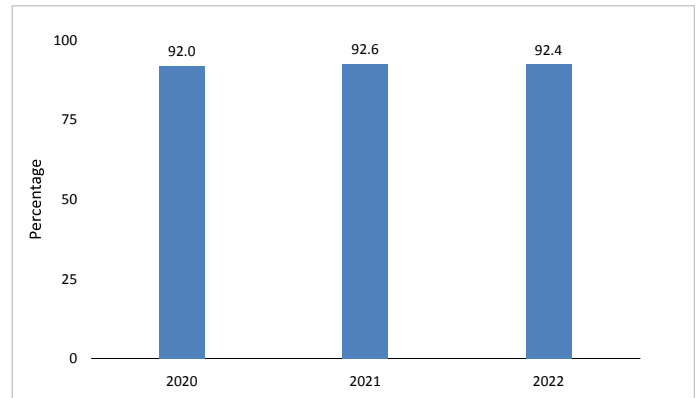


TABLE 11: State Ranking of CAH Reporting Rates for EDTC Quality Measure, 2022

Rank	State	CAHs Reporting	% of CAHs	Rank	State	CAHs Reporting	% of CAHs
1	Kansas	82	100.0	24	Wisconsin	56	96.6
1	Oklahoma	40	100.0	25	New York	17	94.4
1	South Dakota	39	100.0	26	Arizona	15	93.8
1	North Dakota	37	100.0	26	Maine	15	93.8
1	California	36	100.0	26	Wyoming	15	93.8
1	Georgia	30	100.0	29	Louisiana	25	92.6
1	Arkansas	28	100.0		National	1,255	92.4
1	Idaho	27	100.0	30	Washington	36	92.3
1	West Virginia	21	100.0	30	Alaska	12	92.3
1	Pennsylvania	16	100.0	32	Mississippi	29	90.6
1	New Hampshire	13	100.0	33	Iowa	74	90.2
1	Nevada	13	100.0	34	Kentucky	25	89.3
1	Utah	13	100.0	35	Michigan	33	89.2
1	New Mexico	11	100.0	36	Missouri	31	88.6
1	Florida	10	100.0	37	Montana	42	85.7
16	Hawaii	9	100.0	38	Illinois	44	84.6
17	Virginia	8	100.0	39	Colorado	27	84.4
18	Alabama	5	100.0	40	Tennessee	13	81.3
19	Massachusetts	3	100.0	41	Oregon	20	80.0
20	South Carolina	3	100.0	41	North Carolina	16	80.0
21	Minnesota	76	98.7	43	Ohio	26	78.8
22	Indiana	33	97.1	44	Texas	68	77.3
23	Nebraska	61	96.8	45	Vermont	2	25.0



EDTC CAH Performance

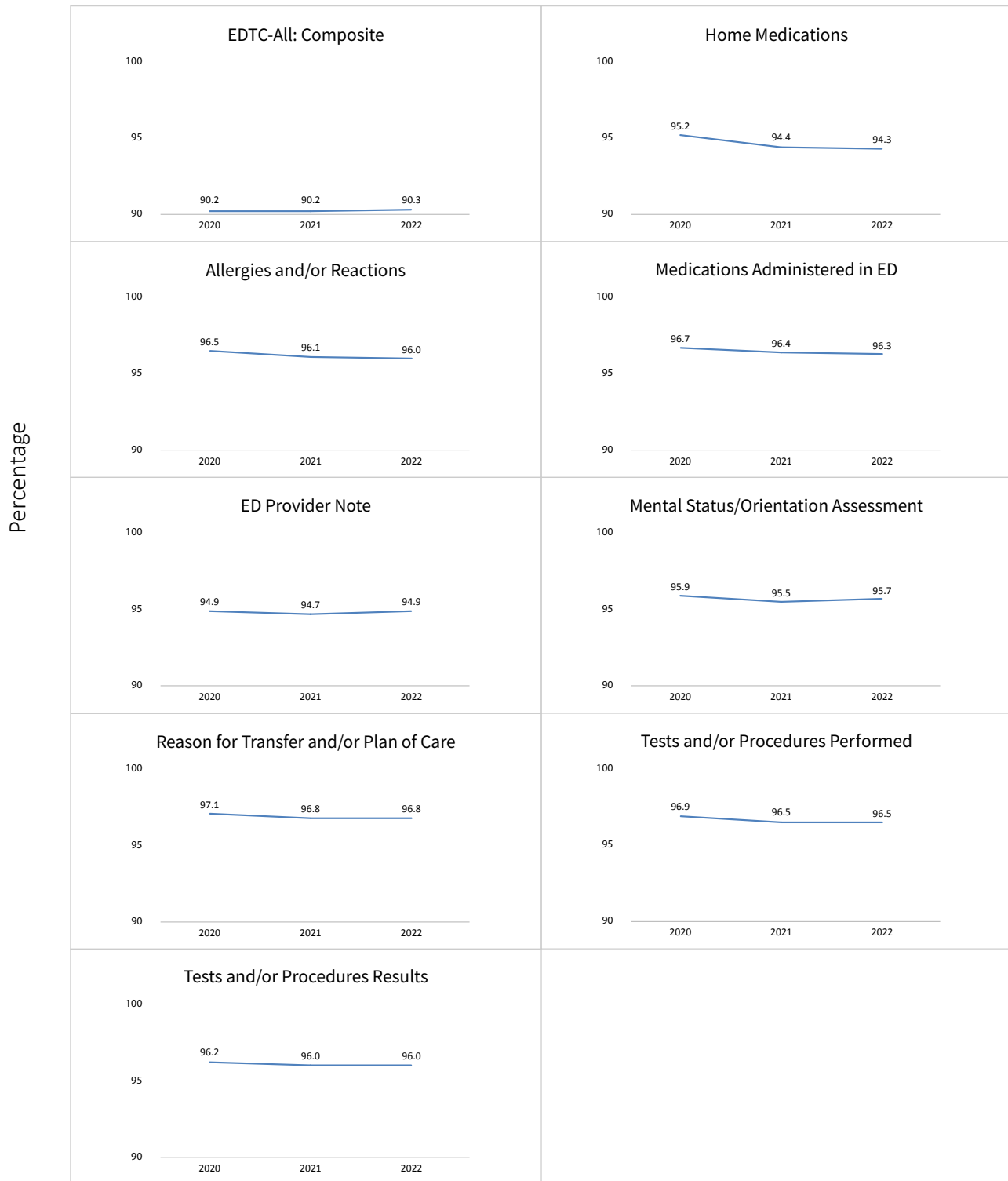
Table 12 displays the national performance for each component of the Care Transitions (EDTC) measure in 2022. Figure 12 shows performance data for EDTC for all CAHs nationally from 2020-2022.

TABLE 12: EDTC Results for All CAHs Nationally, 2022

EDTC Measure	Percentage
CAHs Reporting	n= 1,255
EDTC-All: Composite	90.3
Home Medications	94.3
Allergies and/or Reactions	96.0
Medications Administered in ED	96.3
ED Provider Note	94.9
Mental Status/Orientation Assessment	95.7
Reason for Transfer and/or Plan of Care	96.8
Tests and/or Procedures Performed	96.5
Tests and/or Procedure Results	96.0



FIGURE 12: EDTC Data for All CAHs Nationally, 2020-22





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 2022 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. Beginning in Q3 2022, the FMT received and included data for CAHs who were reporting data, but had volumes too low to be displayed. These CAHs are now considered to be “reporting” where previously they were not due to a lack of data indicating their low volume.

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.

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