



# MBQIP Quality Measures Annual Report

Iowa - 2021

## Key Findings

- **Patient Safety/Inpatient Measures:** The Patient Safety/Inpatient reporting rate of 95.1% for Iowa in 2021 was higher than the national reporting rate of 93.5%. Compared with all CAHs nationally, CAHs in Iowa scored significantly better on 1 measure, significantly worse on 0 measures, and did not have significantly different performance on 1 measure.
- **Outpatient Measures:** The Outpatient reporting rate of 82.9% for Iowa in 2021 was lower than the national reporting rate of 88.2%. Compared with all CAHs nationally, CAHs in Iowa scored significantly better on 3 measures, significantly worse on 1 measure, and did not have significantly different performance on 0 measures.
- **Patient Engagement Measures:** The HCAHPS reporting rate of 97.6% for Iowa in 2021 was higher than the national reporting rate of 91.5%. Compared with all CAHs nationally, CAHs in Iowa scored significantly better on 5 measures, significantly worse on 0 measures, and did not have significantly different performance on 5 measures.
- **Care Transitions Measures:** The EDTC reporting rate of 87.8% for Iowa in 2021 was lower than the national reporting rate of 92.6%. Compared with all CAHs nationally, CAHs in Iowa scored significantly better on 4 measures, significantly worse on 0 measures, and did not have significantly different performance on 5 measures.

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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 state-level 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.

## Data and Approach

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 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 state and national levels. In all domains, data are not displayed for measures where the aggregated state or 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 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 for performance score values and statistical testing in each domain.

Missing or excluded data are indicated in trend figures by a missing data point, and a missing line indicates data are not available for any of the previous three years or the current year. 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). For measures OP-2, OP-3b, and OP-18b, in instances where states do not have any hospitals reporting data values greater than 0 (shown by an \* in the tables), the trend figures will also have a missing data point for that year.

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 (<https://www.ruralcenter.org/resource-library/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 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.

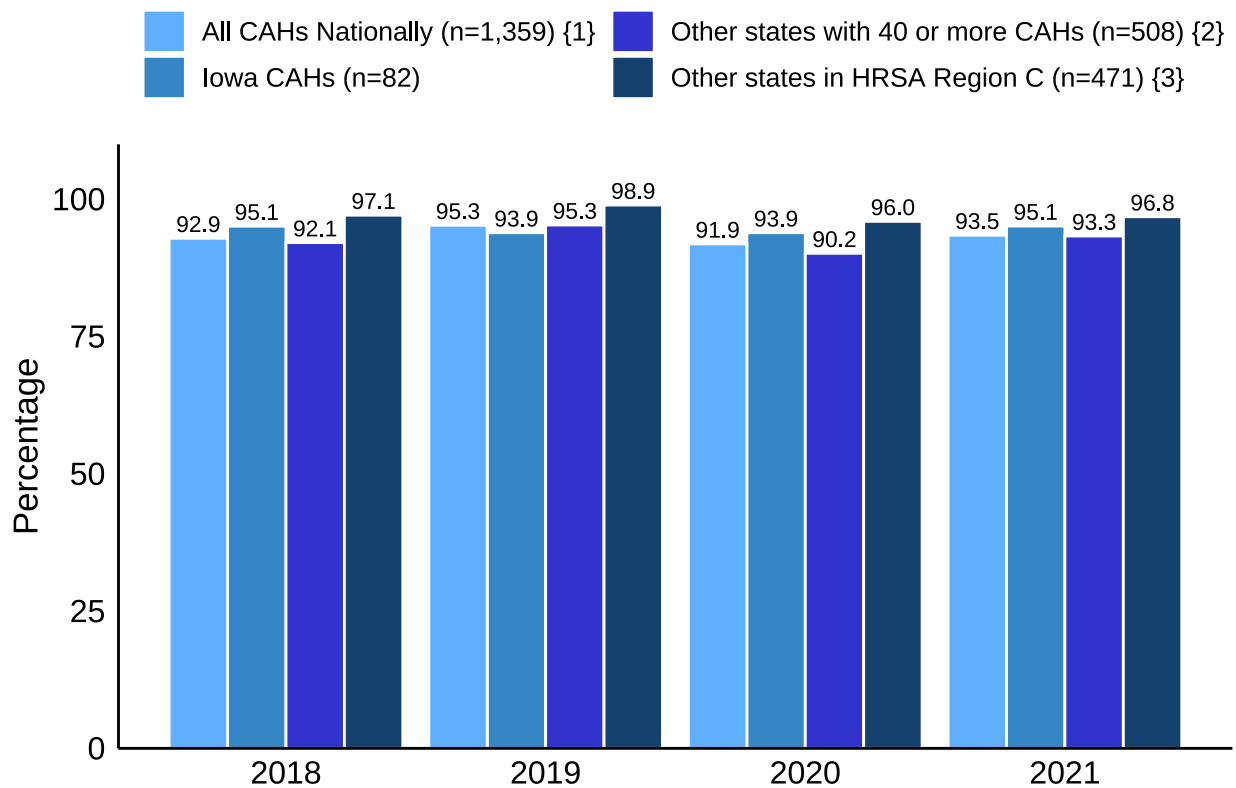
# Patient Safety/Inpatient Domain

## Patient Safety/Inpatient CAH Reporting

### Results

The percent of CAHs reporting Patient Safety/Inpatient quality data varied considerably across states. In Iowa, 95.1% of 82 CAHs reported data on at least one Patient Safety/Inpatient quality measure in 2021, and Figure 1 displays data for 2018-2021 among CAHs in four groups: those in Iowa, all CAHs nationally, other states with a similar number of CAHs as Iowa, and other states located in the same Health Resources and Services Administration (HRSA) geographic region as Iowa. Table 1 compares the Patient Safety/Inpatient reporting rates of CAHs in Iowa to those located in the other 44 states participating in the Flex Program as well as the rate for all CAHs nationally. The Iowa CAH Patient Safety/Inpatient reporting rate of 95.1% ranks #23 nationally. The number of CAHs reporting individual quality measures may differ by measure for several reasons. Some measures only apply to a portion of patients; others exclude patients with contraindications, or only apply to conditions not treated or procedures not performed in some CAHs.

**Figure 1: Percentage of CAHs Reporting at Least One Patient Safety/Inpatient Measure**



### Footnotes:

{1} Listed n values refer to most recent data (2021) only

{2} Group includes states with 40 or more CAHs: IL(51), KS(82), MN(77), MT(49), NE(63), OK(40), TX(88), WI(58)

{3} HRSA Region C includes: IL(51), IN(35), KS(82), MI(37), MN(77), MO(35), NE(63), OH(33), WI(58)

**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     |      | National       | 1,270          | 93.5      |
| 1    | Georgia        | 30             | 100.0     | 28   | Kentucky       | 26             | 92.9      |
| 1    | Arkansas       | 28             | 100.0     | 29   | Nevada         | 12             | 92.3      |
| 1    | Oregon         | 25             | 100.0     | 29   | New Hampshire  | 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

### Results

Table 2 displays the results for performance of CAHs on core Patient Safety/Inpatient measures for Iowa and all CAHs nationally. Compared with all CAHs nationally, CAHs in Iowa scored significantly better on 1 measure, significantly worse on 0 measures, and did not have significantly different performance on 1 measure. Figures 2 and 3 show the performance trends for HCP/IMM-3 and Antibiotic Stewardship for Iowa and all CAHs nationally between 2018 and 2021.

**Table 2: Patient Safety/Inpatient Quality Measure Results in Iowa and All CAHs Nationally, 2021**

■ Significantly better than all CAHs nationally
 ■ Significantly worse than all CAHs nationally

| Measure                | Description                                    | IA CAHs (n=82) |                        | All CAHs (n=1,359) |                     | Benchmark (%) |
|------------------------|--|----------------|------------------------|--------------------|---------------------|---------------|
|                        |  | CAHs reporting | Performance (%) {1}{2} | CAHs reporting     | Performance (%) {2} |               |
| HCP/IMM-3              | Healthcare workers given influenza vaccination | 52             | 89.8                   | 984                | 79.4                | 100.0         |
| Antibiotic Stewardship | Fulfill antibiotic stewardship core elements   | 71             | 93.0                   | 1,157              | 88.9                | 100.0         |

Footnotes:

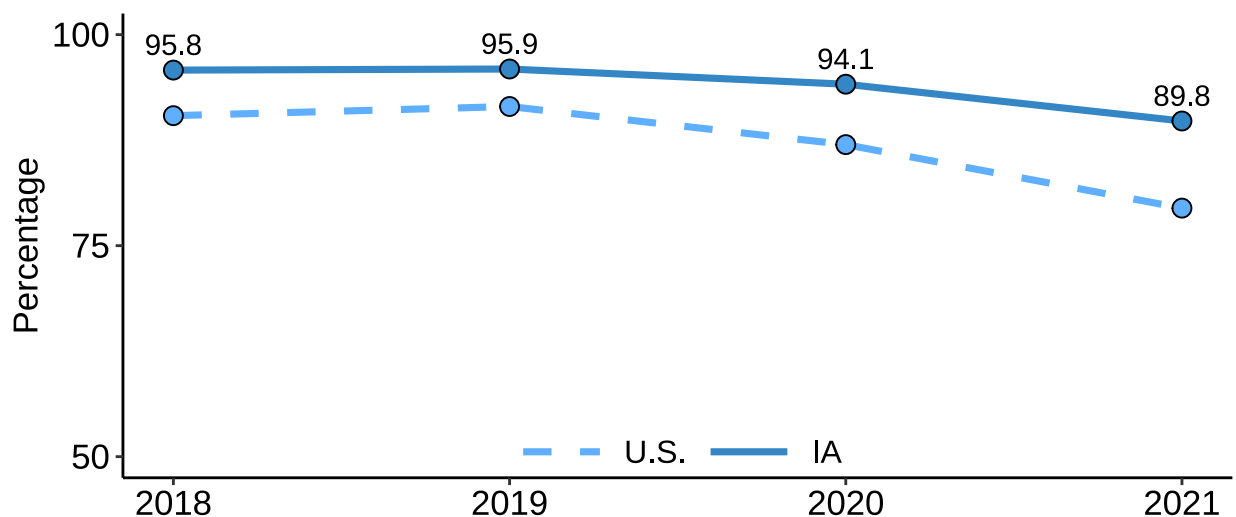
{1} Rates without highlights were not significantly different from comparable rates in all CAHs nationally.

{2} 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 core elements.

† Indicates insufficient data to calculate rate (<25 patients)

**Figure 2: HCP/IMM-3 Trends in Iowa and All CAHs Nationally**

Healthcare workers given influenza vaccination



**Figure 3: Antibiotic Stewardship Trends in Iowa and All CAHs Nationally**

CAHs fulfilling the seven antibiotic stewardship core elements

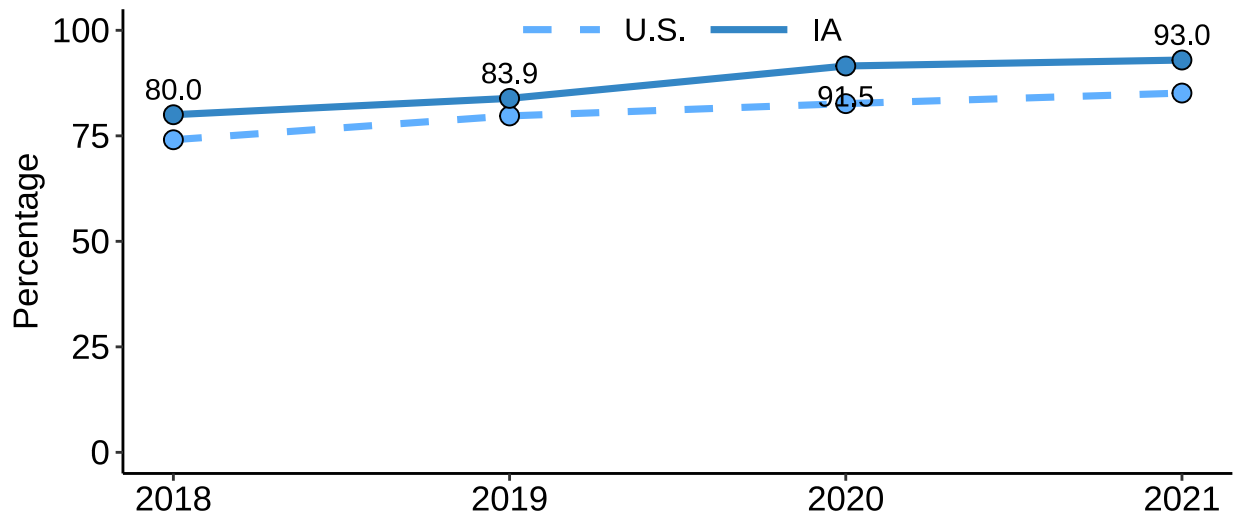


Table 3 displays HAI measures, including SIR performance results. Comparisons to other states are not provided for HAI measures because the majority of states did not meet the conditions for statistical comparisons. Performance trends for HAI measures are also not tracked due to concerns with SIR calculation for CAHs.

**Table 3: Healthcare-Associated Infection Measures Results in Iowa and All CAHs Nationally, 2021**

| Measure | Description   | IA CAHs (n=82) |         | All CAHs (n=1,359) |     |
|---------|---|----------------|---------|--------------------|-----|
|         |   | CAHs reporting | SIR {1} | CAHs reporting     | SIR |
| HAI-1   | Central-line-associated bloodstream infections (CLABSI)       | 64             | 0.5     | 1,102              | 0.8 |
| HAI-2   | Catheter-associated urinary tract infections (CAUTI)          | 71             | 0.3     | 1,156              | 0.7 |
| HAI-3   | Surgical site infections from colon surgery (SSI:C)           | 17             | †       | 469                | 0.9 |
| HAI-4   | Surgical site infections from abdominal hysterectomy (SSI:H)  | 14             | †       | 434                | 1.4 |
| HAI-5   | Methicillin-resistant Staphylococcus Aureus (MRSA) infections | 53             | 0.6     | 872                | 0.8 |
| HAI-6   | Clostridium difficile (C.diff) intestinal infections          | 62             | 0.5     | 912                | 0.7 |

**Footnotes:**

{1} SIRs are a ratio of the total number of infections observed in 2021 divided by the predicted number of annual infections.

† Indicates insufficient data to calculate SIR

- Indicates no data available for this measure

Note: Significance tests for HAI Measures are not included as statistical tests are not able to be performed on these data.

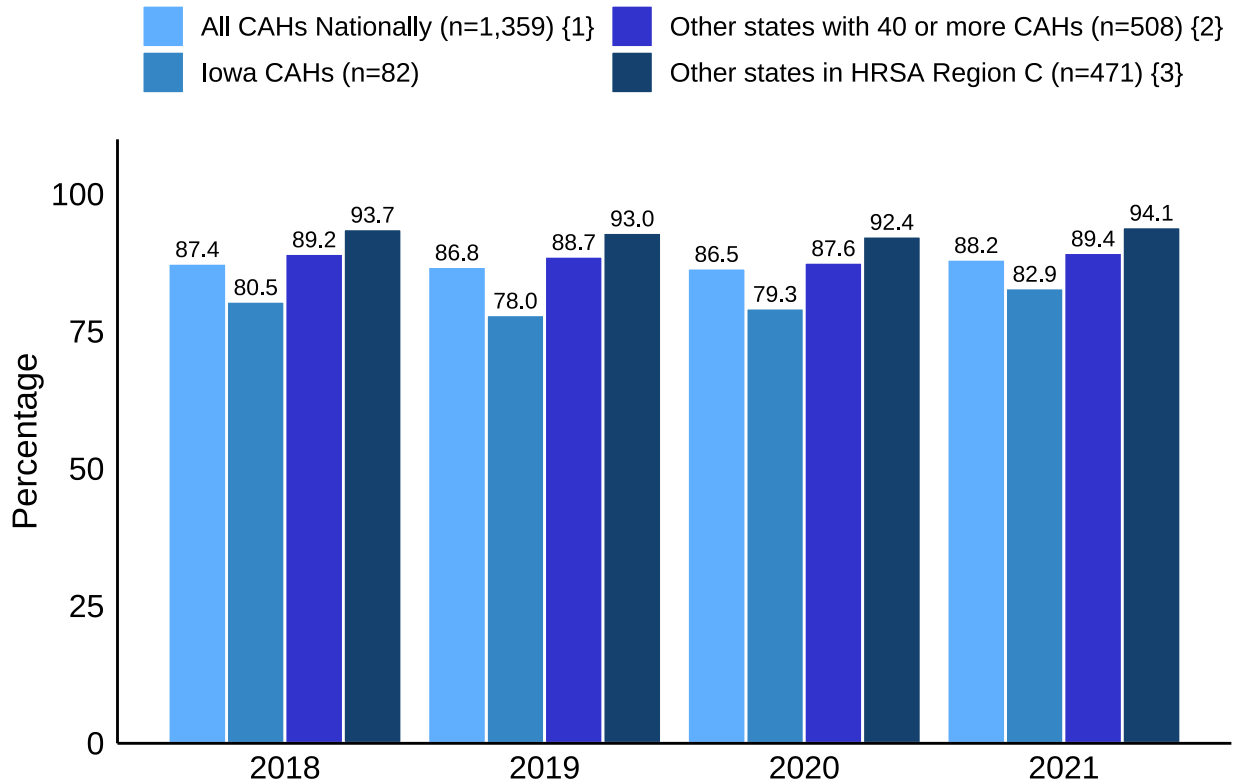
# Outpatient Domain

## Outpatient CAH Reporting

### Results

The percent of CAHs reporting Outpatient quality data varied considerably across states. In Iowa, 82.9% of the 82 CAHs reported data on at least one Outpatient quality measure in 2021, and Figure 4 displays data for 2018-2021 among CAHs in four groups: those in Iowa, all CAHs nationally, other states with a similar number of CAHs as Iowa, and other states located in the same HRSA geographic region as Iowa. Table 4 compares the Outpatient reporting rates of CAHs in Iowa to those located in the other 44 states participating in the Flex Program as well as the rate for all CAHs nationally. The Iowa CAH Outpatient reporting rate of 82.9% ranks #32 nationally. The number of CAHs reporting individual quality measures may differ by measure for several reasons, other than missing data. Some measures may only apply to a portion of patients; others exclude patients with contraindications, or only apply to conditions not treated or procedures not performed in some CAHs.

**Figure 4: Percentage of CAHs Reporting at Least One Outpatient Measure**



**Footnotes:**

{1} Listed n values refer to most recent data (2021) only

{2} Group includes states with 40 or more CAHs: IL(51), KS(82), MN(77), MT(49), NE(63), OK(40), TX(88), WI(58)

{3} HRSA Region C includes: IL(51), IN(35), KS(82), MI(37), MN(77), MO(35), NE(63), OH(33), WI(58)

**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    | Nevada        | 13             | 100.0     | 26   | Virginia        | 7              | 87.5        |
| 1    | New Hampshire | 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   | <b>Iowa</b>     | <b>68</b>      | <b>82.9</b> |
| 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

### Results

Tables 5 and 6 display the results for performance of CAHs on Outpatient measures for Iowa and all CAHs nationally. Table 6 displays results for median time measures (lower scores, indicating shorter median times, are better). Compared with all CAHs nationally, CAHs in Iowa scored significantly better on 3 measures, significantly worse on 1 measure, and did not have significantly different performance on 0 measures.

**Table 5: Outpatient Quality Measure Results in Iowa and All CAHs Nationally, 2021**

 Significantly better than all CAHs nationally  Significantly worse than all CAHs nationally

| Measure | Description  | IA CAHs (n=82) |                   | All CAHs (n=1,359) |               | Benchmark (%) |
|---------|--|----------------|-------------------|--------------------|---------------|---------------|
|         |  | CAHs reporting | % of patients {1} | CAHs reporting     | % of patients |               |
| OP-2    | Fibrinolytic therapy received within 30 minutes    | 64             | 35.4              | 1,121              | 48.3          | 100.0         |
| OP-22   | Patients left without being seen (lower is better) | 42             | 0.5               | 834                | 1.3           | 0.1           |

Footnotes:

{1} Rates without highlights were not significantly different from comparable rates in all CAHs nationally.

† Indicates insufficient data to calculate rate (<25 patients)

\* Indicates that no CAHs in the state submitted data values for eligible patients, but that one or more CAHs in the state either reported a population of 0 or submitted eligible cases to CMS that were excluded for the measure.

**Table 6: Outpatient Median Quality Measure Results in Iowa and All CAHs Nationally, 2021**

 Significantly better than all CAHs nationally  Significantly worse than all CAHs nationally

| Measure | Description   | IA CAHs (n=82) |             | All CAHs (n=1,359) |         | Benchmark (minutes) |
|---------|---|----------------|-------------|--------------------|---------|---------------------|
|         |   | CAHs reporting | Minutes {1} | CAHs reporting     | Minutes |                     |
| OP-3b   | Median time to transfer to another facility - acute coronary intervention | 64             | 69.0        | 1,121              | 70.0    | 36.0                |
| OP-18b  | Median time from ED arrival to ED departure for discharged patients       | 60             | 105.5       | 1,134              | 116.0   | 84.0                |

Footnotes:

{1} Median minutes to receiving care. Lower is better for all measures. Rates without highlights were not significantly different from comparable rates in all CAHs nationally.

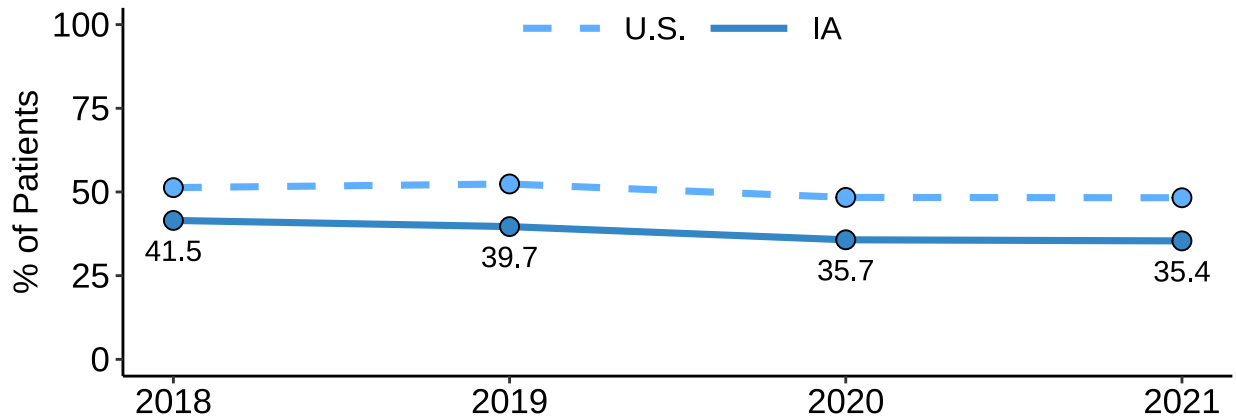
† Indicates insufficient data to calculate rate (<25 patients)

\* Indicates that no CAHs in the state submitted data values for eligible patients, but that one or more CAHs in the state either reported a population of 0 or submitted eligible cases to CMS that were excluded for the measure.

Figures 5-7 show the performance trends for the Outpatient measures for Iowa and all CAHs nationally between 2018 and 2021. The OP-22 trend is not displayed due to the measure's low annual variation.

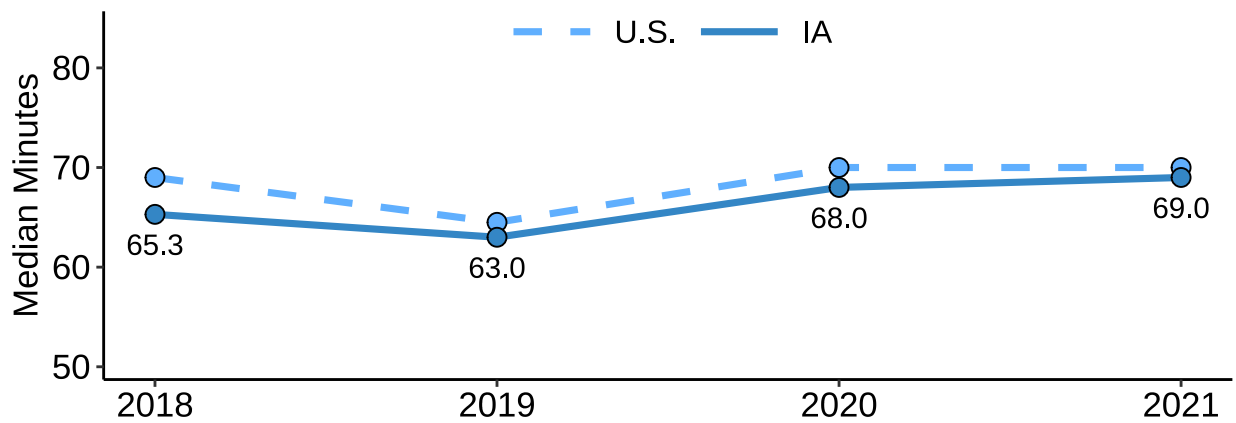
**Figure 5: OP-2 Trends in Iowa and All CAHs Nationally**

Fibrinolytic therapy received within 30 minutes



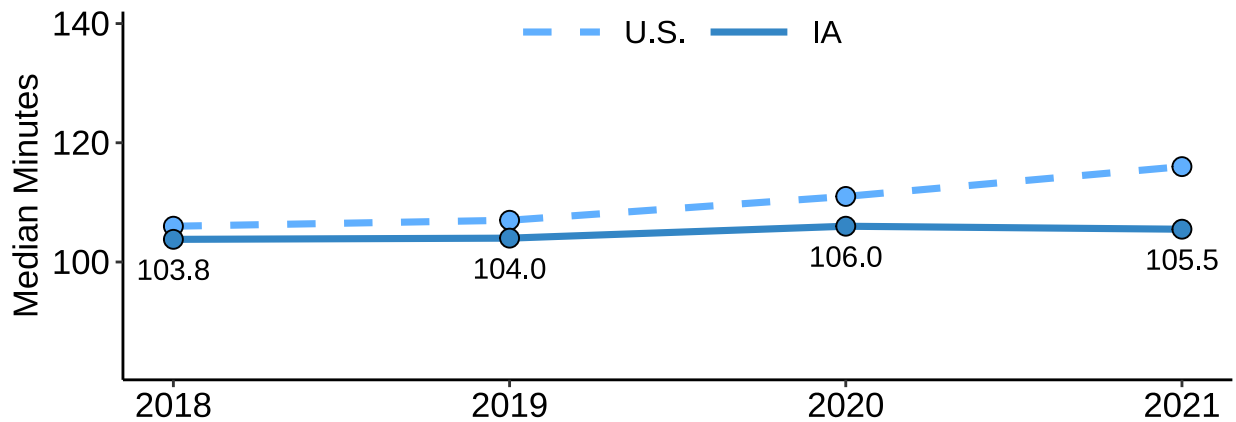
**Figure 6: OP-3b Trends in Iowa and All CAHs Nationally**

Median time to transfer to another facility - acute coronary intervention (lower is better)



**Figure 7: OP-18b Trends in Iowa and All CAHs Nationally**

Median time from ED arrival to ED departure for discharged patients (lower is better)



# Patient Engagement Domain

## HCAHPS CAH Reporting

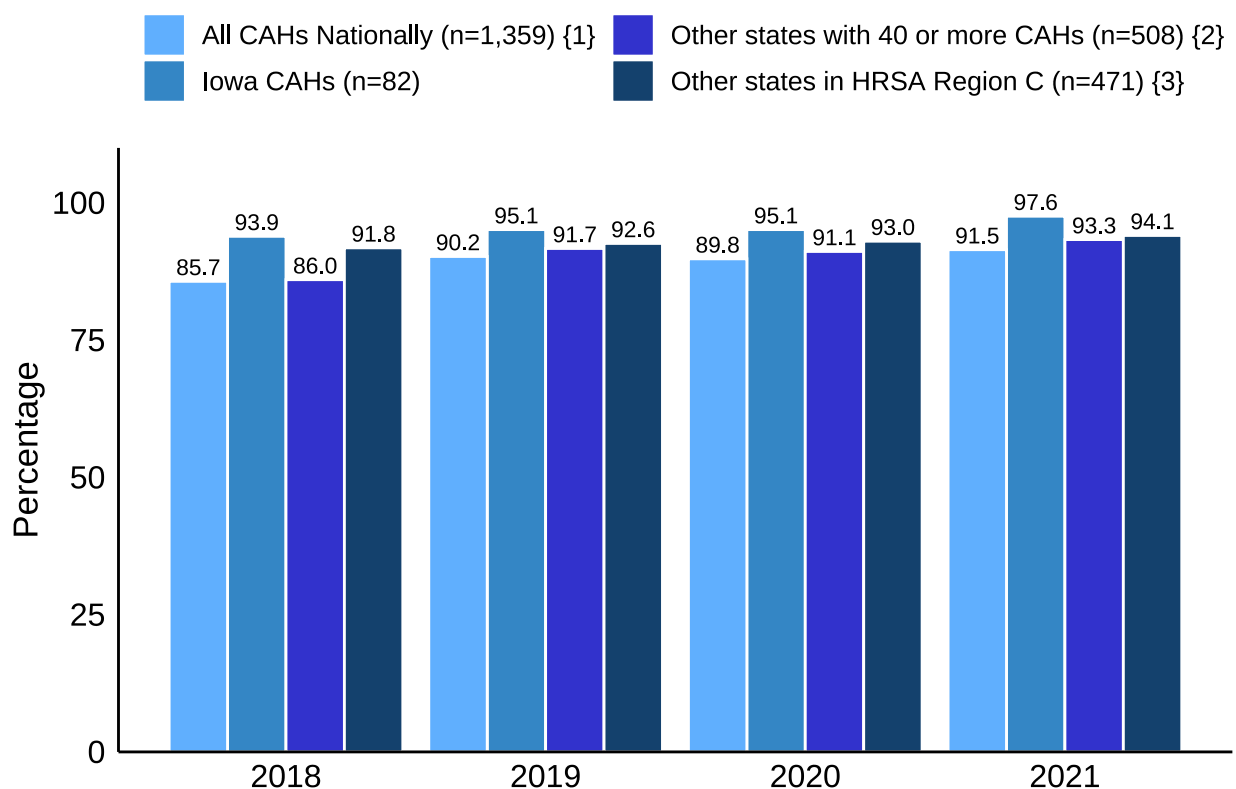
### Results

The HCAHPS reporting rate for Iowa was 97.6% in 2021. Figure 8 compares reporting rates from 2018-2021 in the Patient Engagement domain (HCAHPS) over time among four groups of CAHs: those in Iowa, all CAHs nationally, those located in other states with a similar number of CAHs, and those located in the same HRSA geographic region as Iowa.

The number of completed HCAHPS surveys per CAH in Iowa and nationally in the five survey completion and three survey response rate categories reported by CMS are shown in Table 7. Hospitals with 100 or more completed HCAHPS surveys over a four-quarter period receive HCAHPS Star Ratings from CMS. CMS recommends that each hospital obtain 300 completed HCAHPS surveys annually, in order to be more confident that the survey results are reliable for assessing the hospital's performance. However, some smaller hospitals may sample all of their HCAHPS-eligible discharges and still have fewer than 300 completed surveys. Caution should be exercised in comparing HCAHPS results for states that have few CAHs reporting results and/or CAHs whose results are based on fewer than 100 completed surveys. In 2020, HCAHPS data only included two rolling quarters (Q3 2020 and Q4 2020) instead of the typical four, and as a result CAHs submitted fewer completed surveys that year.

Table 8 compares the HCAHPS reporting rates of CAHs in Iowa to those located in the other 44 states participating in the Flex Program as well as the rate for all CAHs nationally. The Iowa HCAHPS reporting rate of 97.6% ranks #15 nationally.

**Figure 8: Percentage of CAHs Reporting at Least One Patient Engagement Measure (HCAHPS)**



### Footnotes:

{1} Listed n values refer to most recent data (2021) only

{2} Group includes states with 40 or more CAHs: IL(51), KS(82), MN(77), MT(49), NE(63), OK(40), TX(88), WI(58)

{3} HRSA Region C includes: IL(51), IN(35), KS(82), MI(37), MN(77), MO(35), NE(63), OH(33), WI(58)

**Table 7: Number of Completed HCAHPS Surveys and Response Rates in Iowa and All CAHs Nationally, 2021**

|          | Total CAHs reporting | Number of Completed HCAHPS 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   |
| Iowa     | 80                   | 15                                 | 22    | 20    | 22      | 1    | 12                           | 67     | 1    |

**Table 8: State Ranking of CAH Reporting Rates for HCAHPS Quality Measures, 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   | <b>Iowa</b>    | <b>80</b>      | <b>97.6</b> | 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        |

## HCHAPS CAH Performance

### Results

Table 9 displays the results for performance on Patient Engagement (HCAHPS) measures for Iowa and all CAHs nationally. Compared with all CAHs nationally, CAHs in Iowa scored significantly better on 5 measures, significantly worse on 0 measures, and did not have significantly different performance on 5 measures.

**Table 9: HCAHPS Results for CAHs in Iowa and All CAHs Nationally, 2021**

 Significantly better than all CAHs nationally  Significantly worse than all CAHs nationally

| HCAHPS Measure   | Percentage of patients that gave the highest level of response (e.g., “always”) |                       |                  |
|--|---|-----------------------|------------------|
|  | IA CAHs<br>(n=82)   | All CAHs<br>(n=1,359) | Benchmark<br>(%) |
| CAHs Reporting   | n=80  | n=1,243               |                  |
| Nurses always communicated well  | 84.0  | 83.6                  | <b>87.7</b>      |
| Doctors always communicated well   | <b>85.4</b>   | 83.8                  | <b>88.0</b>      |
| Patients always received help as soon as wanted                            | 73.0  | 74.0                  | <b>81.2</b>      |
| Staff always explained medications before giving them to patients          | 66.4  | 66.4                  | <b>74.1</b>      |
| Staff always provided information about what to do during recovery at home | 89.1  | 88.4                  | <b>92.2</b>      |
| Patients strongly understood their care when they left the hospital        | <b>57.1</b>   | 55.2                  | <b>63.6</b>      |
| Patient’s room and bathroom were always clean                              | 79.5  | 78.7                  | <b>79.6</b>      |
| Area around patient’s room was always quiet at night                       | <b>70.2</b>   | 66.9                  | <b>79.6</b>      |
| Patient gave a rating 9 or 10 [high] on a 1-10 scale                       | <b>80.7</b>   | 77.0                  | <b>85.7</b>      |
| Patient would definitely recommend the hospital to friends and family      | <b>77.3</b>   | 74.8                  | <b>NA</b>        |

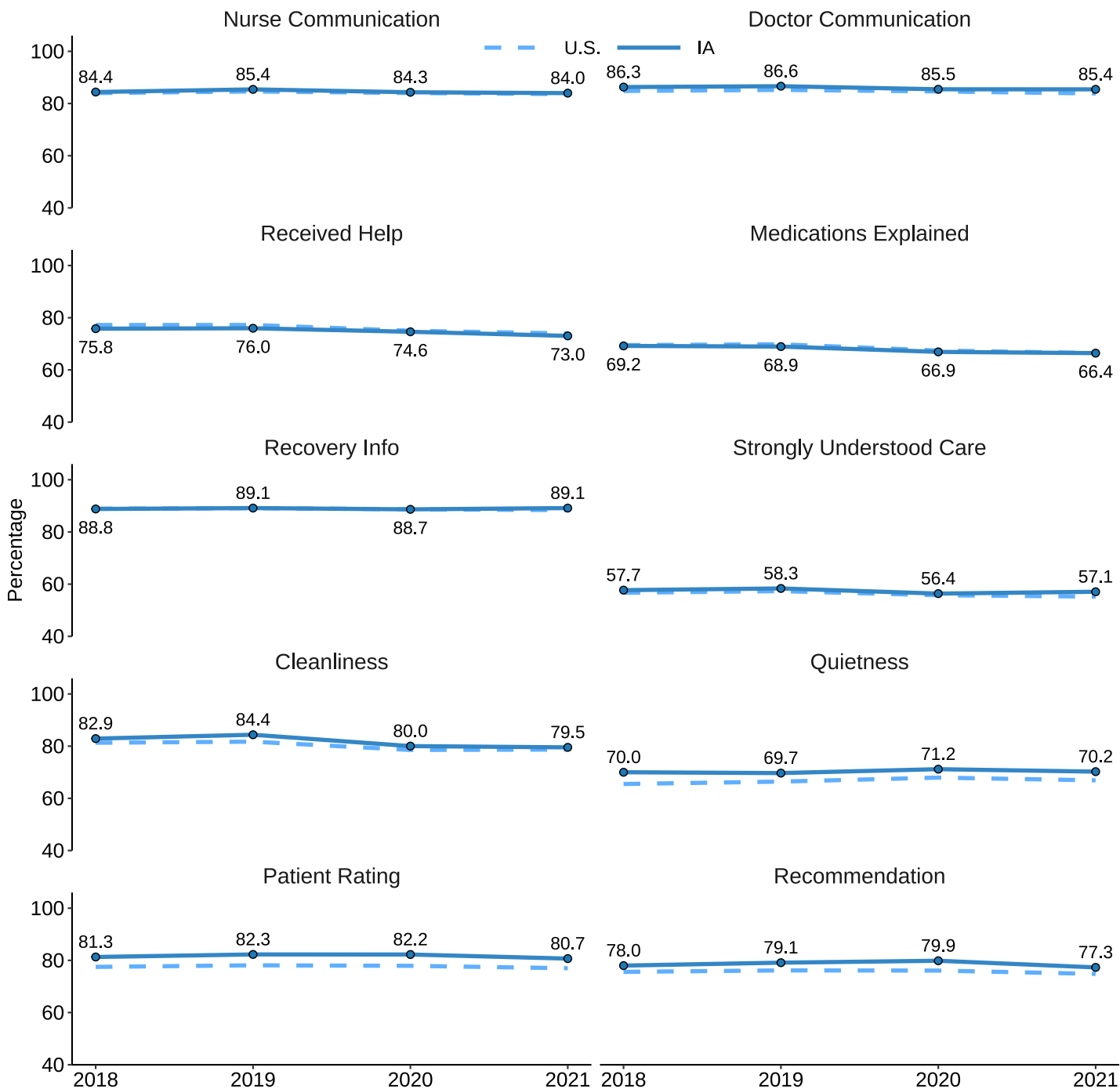
### Footnotes:

† Indicates insufficient data to calculate rate (<25 surveys)

Figure 10 shows the trends for each HCAHPS measure for Iowa and all CAHs nationally between 2018 and 2021.

### Figure 10: HCAHPS Trends for CAHs in Iowa and All CAHs Nationally

Percentage of respondents that gave the highest level of response (e.g. "always")



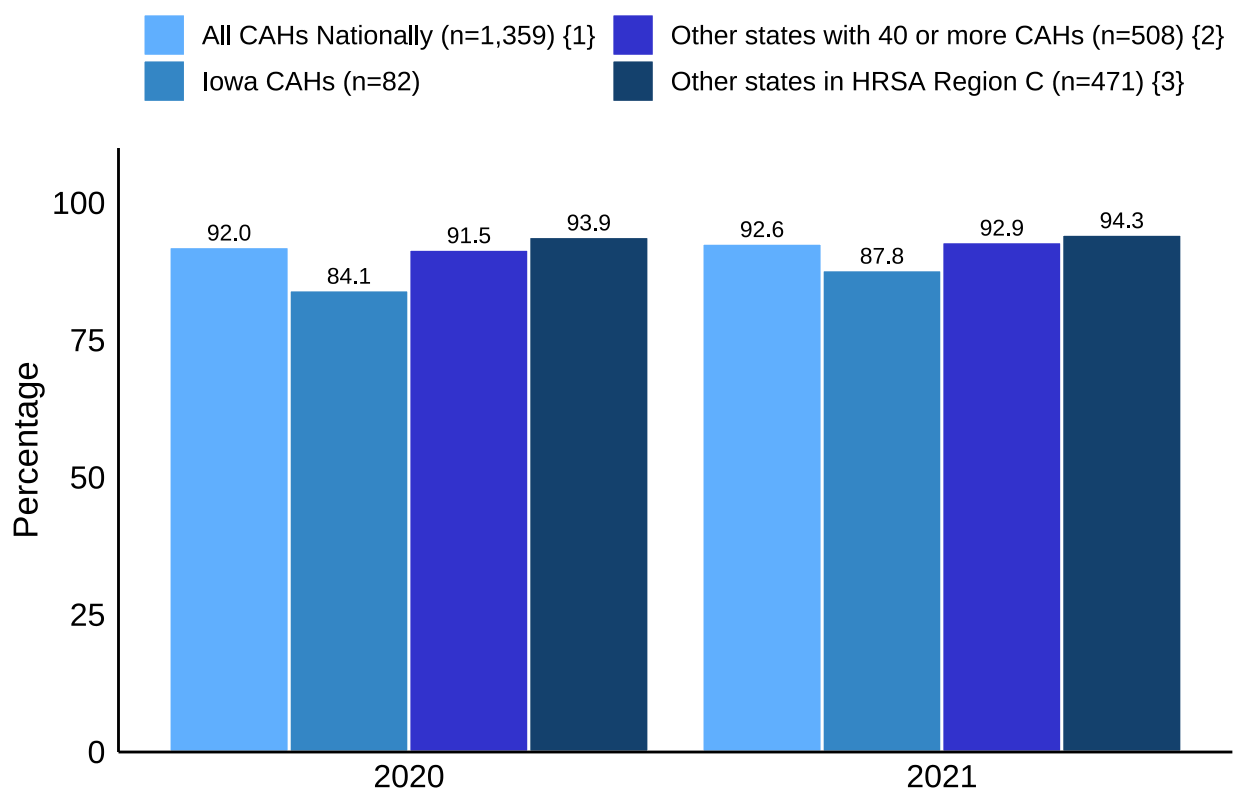
# Care Transitions Domain

## EDTC CAH Reporting

### Results

Figure 11 compares reporting in the Care Transitions domain (EDTC) for Iowa and all CAHs nationally for 2021. 87.8% of Iowa CAHs reported the EDTC measure. Collection and reporting procedures for the EDTC measure changed beginning in 2020. This and future reports only include data for the new measure. Table 10 compares the EDTC reporting rates of CAHs in Iowa to those located in the other 44 states participating in the Flex Program as well as the rate for all CAHs nationally. The Iowa EDTC reporting rate of 87.8% ranks #35 nationally.

**Figure 11: Percentage of CAHs Reporting Care Transitions Measure (EDTC)**



### Footnotes:

{1} Listed n values refer to most recent data (2021) only

{2} Group includes states with 40 or more CAHs: IL(51), KS(82), MN(77), MT(49), NE(63), OK(40), TX(88), WI(58)

{3} HRSA Region C includes: IL(51), IN(35), KS(82), MI(37), MN(77), MO(35), NE(63), OH(33), WI(58)

**Table 10: 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     |      | National       | 1,259          | 92.6      |
| 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

### Results

Table 11 displays the results for performance on the Care Transitions (EDTC) measure for Iowa and all CAHs nationally. Compared with all CAHs nationally, CAHs in Iowa scored significantly better on 4 measures, significantly worse on 0 measures, and did not have significantly different performance on 5 measures. Figure 12 shows performance data for EDTC over time, though data on this measure are only available for 2020 and 2021.

**Table 11: EDTC Results for CAHs in Iowa and All CAHs Nationally, 2021**

 Significantly better than all CAHs nationally  Significantly worse than all CAHs nationally

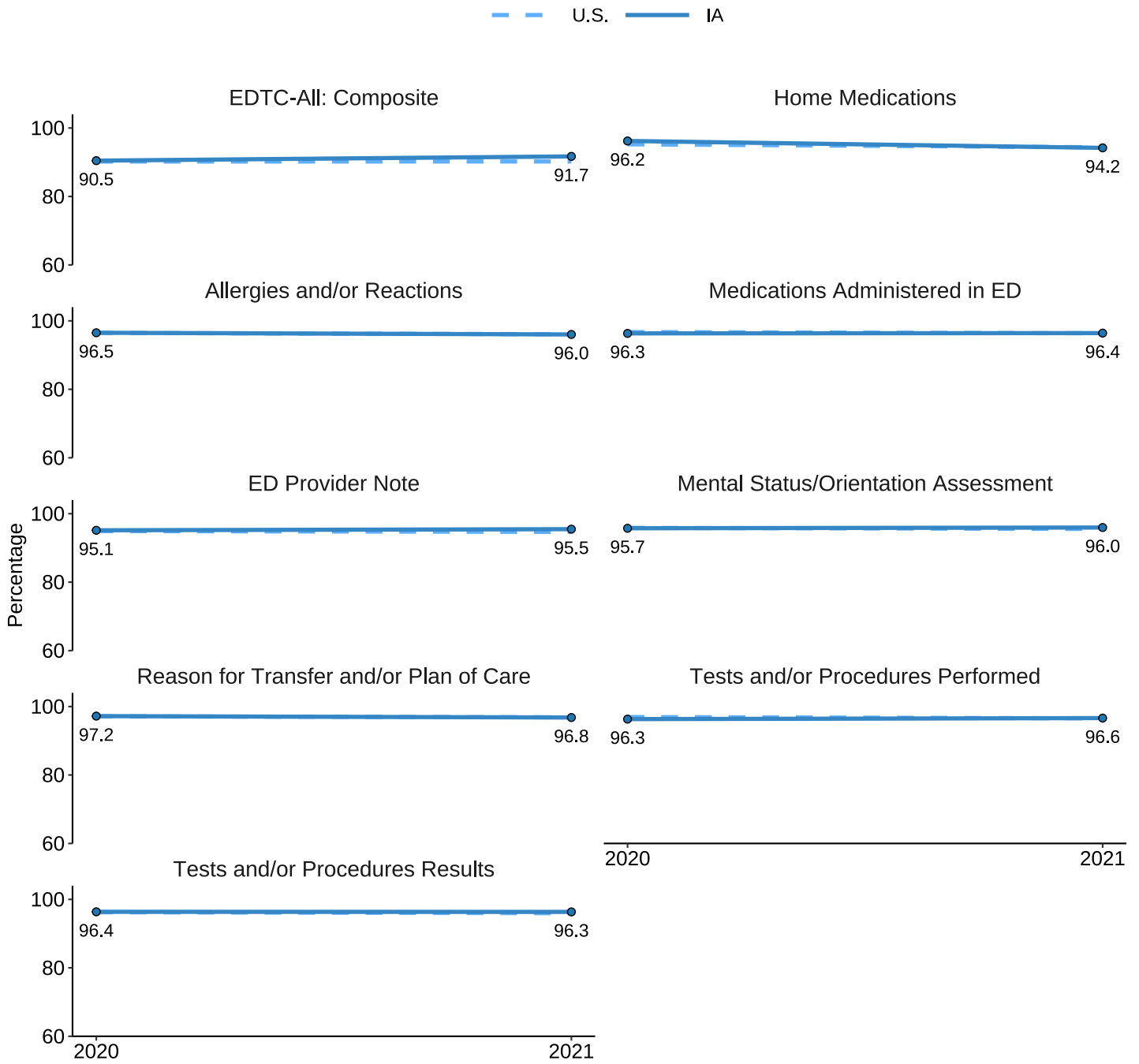
| EDTC Measure                            | Average Percentage  |                       |                  |
|---|---------------------|-----------------------|------------------|
|   | Iowa CAHs<br>(n=82) | All CAHs<br>(n=1,359) | Benchmark<br>(%) |
| CAHs Reporting                          | n=72                | n=1,259               |                  |
| EDTC-All: Composite                     | 91.7                | 90.2                  | 100.0            |
| Home Medications                        | 94.2                | 94.4                  | 100.0            |
| Allergies and/or Reactions              | 96.0                | 96.1                  | 100.0            |
| Medications Administered in ED          | 96.4                | 96.4                  | 100.0            |
| ED Provider Note                        | 95.5                | 94.7                  | 100.0            |
| Mental Status/Orientation Assessment    | 96.0                | 95.5                  | 100.0            |
| Reason for Transfer and/or Plan of Care | 96.8                | 96.8                  | 100.0            |
| Tests and/or Procedures Performed       | 96.6                | 96.5                  | 100.0            |
| Tests and/or Procedures Results         | 96.3                | 96.0                  | 100.0            |

Footnotes:

† Indicates insufficient data to calculate rate (<25 patients)

**Figure 12: EDTC Trends for CAHs in Iowa and All CAHs Nationally**

Percentage of patients that met this element



## 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 met the measure criteria, divided by the number of patients or workers in the measure population, which are specifically defined for each measure. For antibiotic stewardship measures, this report showed the percentage of CAHs in your state that met the seven elements individually, as well as the percentage that met all elements. Values were rounded to the nearest decimal place. State performance was compared to the performance for all CAHs nationally using Chi-square tests ( $p < 0.05$ ). The results of the state performance comparisons were classified as: 1) insufficient data (less than 25 total patients); 2) not significantly different than all CAHs nationally; 3) significantly better than all CAHs nationally; or 4) significantly worse than all CAHs nationally.

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. Wilcoxon-Mann-Whitney tests were used to compare the median times for CAHs in each state to all CAHs nationally.

Antibiotic stewardship performance were 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. For all years, antibiotic stewardship values only include data submitted by the March 31 NHSN deadline. The state-level performance on antibiotic stewardship was compared to the performance of all other CAHs nationally using Fisher's exact test.

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 were calculated and made available by the CDC. SIRs could only be calculated when there were one or more predicted infections for the time period. A lower SIR indicates better performance. Significance tests comparing state HAI performance to the performance all CAHs nationally were not performed because the majority of states did not meet the conditions for statistical comparisons: at least one predicted infection and the state's predicted number of infections multiplied by the SIR of all other CAHs must be equal to or greater than one.

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 within a state and all 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. Two-sample t-tests were used to compare whether the mean scores on each measure are significantly different between CAHs in each state and all CAHs nationally.

Performance for the EDTC measure was calculated as the percentage of patients that met all of the seven data elements. State performance was compared to the performance for all CAHs nationally using Chi-square tests ( $p < 0.05$ ). 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.

All statistical analysis was carried out using R 4.0.3 (R Core Team, 2020) and the Tidyverse (Wickham et al., 2019), rmarkdown (Allaire et al., 2020), kableExtra (Zhu, 2020), and knitr (Xie, 2020) packages.

For more information on this report, please contact Megan Lahr at lahrx074@umn.edu.

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