



Hospital Compare Quality Measure Results for CAHs, 2016

Megan Lahr, MPH; Alex Evenson, MA; Tongtan Chantararat, MPH; Michelle Casey, MS
University of Minnesota

INTRODUCTION

This report summarizes reporting rates and performance among all U.S. Critical Access Hospitals (CAHs) on Hospital Compare inpatient and outpatient process of care and structural measures for calendar year 2016. The Flex Monitoring Team also produces state-specific CAH reports with more detailed results.

BACKGROUND

Since 2004, acute care hospitals paid under the Medicare Prospective Payment System (PPS) have had a financial incentive to publicly report quality measure data on the Centers for Medicare & Medicaid Services' (CMS) Hospital Compare website. Although Critical Access Hospitals (CAHs) do not face the same financial incentives as PPS hospitals to participate, the Hospital Compare initiative provides an important opportunity for CAHs to publicly report, assess and improve their performance on national standards of care.

DATA AND APPROACH

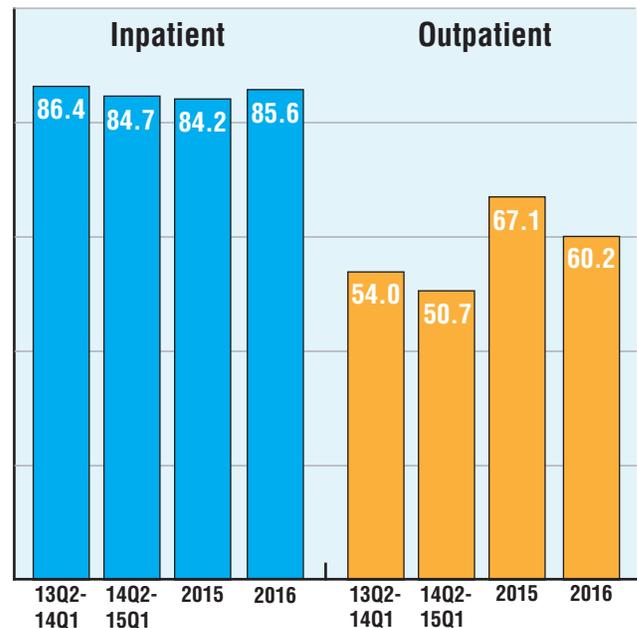
The report used the following data sources:

- Publicly-available Hospital Compare data downloaded from the CMS Hospital Compare website on inpatient and outpatient process measures and structural measures for 2016.
- Data for 2016 on process measures for which CAHs reported ten or fewer cases, which CMS suppresses from the Hospital Compare website, but makes available to the Federal Office of Rural Health Policy for aggregate CAH analyses.

Since the last national report, no measures have been added, though 19 inpatient measures were removed from Hospital Compare. This report includes 20 process of care measures and 6 structural measures that are potentially relevant to CAHs and for which some CAHs nationally have reported data.

For the inpatient and outpatient process of care measures (except the median time process measures), the percentages of patients that received recommended care were calculated by dividing the total number of patients in all CAHs nationally who received the recommended care by

Figure 1. CAH Participation in Hospital Compare, 2016 (N=1,343¹)



1. N value refers to most recent data (2016). Prior years' N values are as follows: Q3Q2-14Q1, 1,338; 14Q2-15Q1, 1,336; 2015, 1,332.



the total number of eligible patients in all CAHs nationally for each measure. Median scores for the median time measures were calculated by arranging the median times by quarter for all CAHs nationally from the lowest time to the highest time by hospital, and selecting the middle value based on the number of patients. On the median time measures, lower scores, indicating shorter median times, are better. For each structural measure, the percentages of CAHs that reported no data and those that reported yes or no on each measure were calculated. The Hospital Compare data in this report include several measures that are also measures for the Medicare Beneficiary Quality Improvement Project (MBQIP). Although the majority of CAHs report data on these measures to both Hospital Compare and MBQIP, the data in this report may differ from MBQIP reports because some CAHs only report data to one of these programs.

RESULTS

For 2016, 85.6% of CAHs reported data to Hospital Compare on at least one inpatient measure, while 60.2% of CAHs reported data on at least one outpatient measure (Figure 1, previous page). The inpatient reporting percentage represents a slight increase from the previous reporting period, while outpatient reporting among CAHs has decreased by 6.9 percentage points (from 67.1% in 2015). The decrease in outpatient reporting may be explained in part by changes to the measures included in calculating the reporting rates. This year, measures ED-1b and ED-2b were included as inpatient measures (where previously they were included as outpatient measures), to align with their CMS designation as inpatient measures. Tables 1 and 2 (next page) show state rankings on inpatient and outpatient reporting rates, respectively.

Table 3 (page 4) displays the number of CAHs reporting and their performance on each of the inpatient and outpatient process of care measures (except the median time process measures) for 2016 discharges for CAHs

nationally and for the 45 Flex states. Table 4 (page 4) displays the national and state results for the median time measures. Table 5 (page 5) provides results for CAHs nationally that reported data for structural quality measures in 2016; nationally, nearly three-fourths of CAHs did not report these data.

TOOLS AND RESOURCES

The Flex Monitoring Team has published national Hospital Compare reports since 2006. All are available for download at <http://www.flexmonitoring.org/publications/annual-hospital-compare-results/>.

The Flex Monitoring Team provides free access to all publications and presentations on our website, <http://www.flexmonitoring.org>, including a series of policy briefs on evidence-based QI programs and strategies that could be implemented by CAHs.

The Technical Assistance Services Center (TASC) provides resources for State Flex Programs and CAHs on their website. For profiles of State Flex Programs, State Contacts, and examples of Flex activities to support quality improvement, visit <http://www.ruralcenter.org/tasc/flexprofile>.

For resources focused on the Medicare Beneficiary Quality Improvement Program (MBQIP), visit <https://www.ruralcenter.org/tasc/mbqip>.



CAH Hospital Compare Quality Measure Results, 2016

Table 1. State Rankings of CAH Reporting Rates for Inpatient Quality Measures, 2016

Rank	State	CAHs reporting	% of CAHs
	Michigan	36	
	Indiana	35	
	Georgia	30	
	Arkansas	29	
	Maine	16	
1	Pennsylvania	15	100.0
	Utah	12	
	Virginia	8	
	South Carolina	5	
	Alabama	4	
	Massachusetts	3	
12	Minnesota	77	98.7
13	Wisconsin	57	98.3
14	Washington	38	97.4
15	Illinois	49	96.1
16	Nebraska	61	95.3
17	West Virginia	19	95.0
18	North Dakota	34	94.4
19	Wyoming	15	93.8
20	New Hampshire	12	92.3
21	Oregon	23	92.0
22	Kansas	75	89.3
23	Idaho	24	88.9
24	California	30	88.2
25	Vermont	7	87.5
26	Tennessee	13	86.7
27	North Carolina	18	85.7
	All CAHs	1,150	85.6
28	Kentucky	23	85.2
29	Colorado	25	83.3
30	Iowa	68	82.9
31	Ohio	27	81.8
32	New York	14	77.8
	New Mexico	7	
34	Nevada	10	76.9
	Florida		
36	Montana	36	75.0
	Missouri	27	
38	Alaska	10	71.4
39	Oklahoma	26	70.3
40	Mississippi	20	64.5
41	Arizona	9	64.3
42	South Dakota	24	63.2
43	Louisiana	16	59.3
44	Texas	48	58.5
45	Hawaii	5	55.6

Table 2. State Rankings of CAH Reporting Rates for Outpatient Quality Measures, 2016

Rank	State	CAHs reporting	% of CAHs
1	Alabama	4	100.0
2	Nebraska	63	98.4
3	Michigan	35	97.2
4	Pennsylvania	14	93.3
5	Minnesota	70	89.7
6	Indiana	31	88.6
7	Maine	13	81.3
	Wyoming		
9	Wisconsin	45	77.6
10	Virginia	6	75.0
11	Washington	29	74.4
12	Tennessee	11	73.3
13	New York	13	72.2
14	Oregon	18	72.0
15	Georgia	21	70.0
16	North Dakota	25	69.4
17	Nevada	9	69.2
18	Oklahoma	25	67.6
	Ohio	22	
19	North Carolina	14	66.7
	Utah	8	
	Massachusetts	2	
23	Iowa	54	65.9
24	New Hampshire	8	61.5
25	Illinois	31	60.8
	All CAHs	808	60.2
26	West Virginia	12	60.0
27	Kentucky	16	59.3
28	Mississippi	18	58.1
29	Arizona	7	50.0
30	Arkansas	13	44.8
	New Mexico	4	44.4
	Hawaii		
33	Kansas	33	39.3
34	Florida	5	38.5
35	Colorado	11	36.7
36	Missouri	13	36.1
37	California	12	35.3
38	Texas	28	34.1
39	Montana	16	33.3
	Idaho	9	
41	Louisiana	8	29.6
42	Vermont	2	25.0
43	South Dakota	9	23.7
44	Alaska	3	21.4
45	South Carolina	1	20.0



Table 3. Inpatient and Outpatient Process of Care Results for Patients Discharged from Reporting CAHs, 2016

	Code	Description	CAHs reporting	CAH performance ¹
Inpatient	IMM-2 [†]	Immunization for influenza	950	87.3
	OP-27/IMM-3 [†]	Healthcare workers given influenza vaccination	953	87.7
	PC-01 [‡]	Early elective delivery (lower is better)	199	2.0
	STK-4	Thrombolytic therapy	119	8.7
	VTE-5	Warfarin therapy discharge instructions	293	90.2
	VTE-6	Incidence of potentially-preventable VTE (lower is better)	94	2.4
	Code	Description	CAHs reporting	CAH performance ¹
Outpatient	OP-2 [†]	Fibrinolytic therapy received within 30 minutes	342	50.5
	OP-4 [†]	Aspirin at arrival	758	95.3
	OP-22 [†]	Patient left without being seen (lower is better)	561	1.1
	OP-23 [‡]	Received head CT scan interpretation within 45 minutes	479	62.3
	OP-29	Appropriate follow-up interval, colonoscopy, average-risk patients	152	76.0
	OP-30	Appropriate follow-up interval, colonoscopy, patients with polyps	142	92.0

1. Expressed as a percentage of patients receiving recommended care (lower is better for PC-01, VTE-6, and OP-22), except for OP-27/IMM-3, which is the percentage of healthcare workers immunized.

[†] MBQIP core measure, FY 2018-21 (this table shows Hospital Compare data)

[‡] MBQIP additional improvement measure, FY 2018-21 (this table shows Hospital Compare data)

Table 4. Median Time to Patients Receiving Recommended Care at CAHs, 2016

Code	Description	CAHs reporting	Median minutes ¹
ED-1b [†]	Median time from ED admission to ED departure for admitted patients	651	202.0
ED-2b [†]	Admit decision time to ED departure time for admitted patients	651	47.0
OP-1 [†]	Median time to fibrinolysis	342	32.0
OP-3b [†]	Median time to transfer to another facility - acute coronary intervention	414	66.8
OP-5 [†]	Median time to ECG	757	7.5
OP-18b [†]	Median time from ED arrival to ED departure for discharged patients	724	104.5
OP-20 [†]	Median time from door to diagnostic evaluation	725	17.0
OP-21 [†]	Median time to pain management for long bone fracture	697	45.0

1. Median number of minutes to receiving recommended care (lower is better for all median time measures)

[†] MBQIP core measure, FY 2018-21 (this table shows Hospital Compare data)



Table 5. Structural Quality Measures Reported by CAHs, 2016

Code	Description	No data		No		Yes	
		#CAHs	%	#CAHs	%	#CAHs	%
OP-12	Ability to receive lab data directly to certified EHR	995	74.1	28	2.1	320	23.8
OP-17	Ability to track clinical results between visits	999	74.4	36	2.7	308	22.9
OP-25 [†]	Use of safe surgery checklist: outpatient	958	71.3	25	1.9	360	26.8
SM-PART-NURSE	Nursing care registry	1,011	75.3	237	17.6	95	7.1
SM-PART-GEN-SURG	General surgery registry	1,013	75.4	303	22.6	27	2.0
SM-SS-CHECK	Use of safe surgery checklist: inpatient	977	72.7	28	2.1	338	25.2

† MBQIP additional improvement measure, FY 2018-21 (this table shows Hospital Compare data)

DEFINITIONS OF MEASURES

Note: higher numbers reflect better performance, except where indicated below.

- **ED-1b:** Admit Decision Time to Emergency Department (ED) Departure Time for Admitted Patients - median time from admit decision time to time of departure from the ED for patients admitted to inpatient status. (A lower number is better.)
- **ED-2b:** Median Time from Emergency Department (ED) Arrival to ED Departure for Admitted Patients - median time from ED arrival to time of departure from the ED for patients admitted to the facility from the ED (A lower number is better.)
- **IMM-2:** Influenza Vaccination – This prevention measure addresses acute care hospitalized inpatients age 6 months and older who were screened for seasonal influenza immunization status and were vaccinated prior to discharge if indicated. The numerator captures two activities: screening and the intervention of vaccine administration when indicated. As a result, patients who had documented contraindications to the vaccine, patients who were offered and declined the vaccine, and patients who received the vaccine during the current year’s influenza season but prior to the current hospitalization are captured as numerator events.
- **OP-1:** Median Time to Fibrinolysis - median time from arrival to fibrinolysis for patients that received fibrinolysis. (A lower number is better.)
- **OP-2:** Fibrinolytic therapy received within 30 minutes of arrival – Acute Myocardial Infarction (AMI) patients receiving fibrinolytic therapy during the hospital stay and having a time from hospital arrival to fibrinolysis of 30 minutes or less.
- **OP-3b:** Median Time to Transfer to Another Facility for Acute Coronary Intervention – Median number of minutes before outpatients with heart attack who needed specialized care were transferred to another hospital. (A lower number is better.)
- **OP-4:** Aspirin at arrival – Acute Myocardial Infarction (AMI) patients without aspirin contraindications who received aspirin within 24 hours before or after hospital arrival.
- **OP-5:** Median Time to echocardiogram (ECG) – median number of minutes before outpatients with heart attack (or with chest pain that suggests a possible heart attack) got an ECG. (A lower number is better.)
- **OP-12:** Ability to Receive Lab Data Directly to Electronic Health Record (EHR) – the ability for providers with Health Information Technology (HIT) to receive laboratory data directly into their ONC-certified EHR system as discrete searchable data.
- **OP-17:** Ability to Track Clinical Results between Visits – the ability for a facility to track pending laboratory tests, diagnostic studies, or patient referrals through the ONC-certified Electronic Health Record (EHR) system.



- **OP-18b:** Median Time from Emergency Department (ED) Arrival to ED Departure for Discharged Patients - median time from ED arrival to time of departure from the ED for patients discharged from the ED (a lower number is better).
- **OP-20:** Door to Diagnostic Evaluation by Qualified Medical Personnel - median time from Emergency Department (ED) arrival to provider contact for ED patients (a lower number is better).
- **OP-21:** Median Time to Pain Management for Long Bone Fracture - median time from Emergency Department (ED) arrival to time of initial oral or parenteral pain medication administration for ED patients with a principal diagnosis of long bone fracture (a lower number is better).
- **OP-22:** Left Without Being Seen - percent of patients who leave the Emergency Department (ED) without being evaluated by a physician, advanced practice nurse (APN), or physician's assistant (PA). (A lower number is better.)
- **OP-23:** Head CT or MRI Scan Results for Acute Ischemic Stroke or Hemorrhagic Stroke Patients who Received Head CT or MRI Scan Interpretation Within 45 Minutes of Emergency Department (ED) Arrival - percentage of acute ischemic stroke or hemorrhagic stroke patients who arrive at the ED within 2 hours of the onset of symptoms who have a head CT or MRI scan performed during the stay and have interpretation of the CT or MRI scan within 45 minutes of arrival.
- **OP-25:** Use of Safe Surgery Checklist (Outpatient) – whether or not a facility used a checklist for outpatient surgical procedures during each of the three critical perioperative periods (prior to administration of anesthesia, prior to skin incision, and closure of incision / prior to patient leaving the operating room).
- **OP-27 / IMM-3:** Health Care Workers Given Influenza Vaccination – Facilities must report vaccination data for three categories of Healthcare Personnel (HCP): employees on payroll; licensed independent practitioners (who are physicians, advanced practice nurses, and physician assistants affiliated with the hospital and not on payroll); and students, trainees, and volunteers aged 18 or older. Only HCP physically working in the facility for at least one day or more between October 1 and March 31 should be counted. Data on vaccinations received at the facility, vaccinations received outside of the facility, medical contraindications, and declinations are reported for the three categories of HCP.
- **OP-29:** Appropriate Follow-up Interval for Normal Colonoscopy in Average Risk Patients - Percentage of patients aged 50 to 75 years of age receiving a screening colonoscopy without biopsy or polypectomy who had a recommended follow-up interval of at least 10 years for repeat colonoscopy documented in their colonoscopy report
- **OP-30:** Colonoscopy Interval for Patients with a History of Adenomatous Polyps - Percentage of patients aged 18 years and older receiving a surveillance colonoscopy, with a history of a prior colonic polyp(s) in previous colonoscopy findings, who had a follow-up interval of 3 or more years since their last colonoscopy.
- **PC-01:** Elective Delivery - patients with elective vaginal deliveries or elective cesarean sections at greater than or equal to 37 and less than 39 weeks of gestation completed (a lower number is better).
- **SM-PART-GEN-SURG (SM-4):** General Surgery Registry – participation in a systematic clinical database for general surgery.
- **SM-PART-NURSE (SM-3):** Nursing Care Registry – participation in a systematic clinical database for nursing-sensitive care.
- **SM-SS-CHECK (SM-5):** Use of Safe Surgery Checklist (inpatient) – whether or not a facility used a checklist for inpatient surgical procedures during each of the three critical perioperative periods (prior to administration of anesthesia, prior to skin incision, and closure of incision / prior to patient leaving the operating room).
- **STK-4:** Thrombolytic Therapy - acute ischemic stroke patients who arrive at this hospital within two hours of time last known well and for whom intravenous tissue plasminogen activator (IV tPA) was initiated at this hospital within three hours of time last known well.
- **VTE-5:** Venous Thromboembolism (VTE) Warfa-

rin Therapy Discharge Instructions - the number of patients diagnosed with confirmed VTE that are discharged to home, home care, court/law enforcement or home on hospice care on warfarin with written discharge instructions that address all four criteria: compliance issues, dietary advice, follow-up monitoring, and information about the potential for adverse drug reactions/interactions.

- **VTE-6:** Hospital Acquired Potentially-Preventable Venous Thromboembolism (VTE) - the number of patients diagnosed with confirmed VTE during hospitalization (not present at admission) who did not receive VTE prophylaxis between hospital admission and the

day before the VTE diagnostic testing order date (a lower number is better).

For detailed measure specifications:

- Specifications Manual for National Hospital Inpatient Quality Measures <http://bit.ly/InpManual>, accessed January 2018
- Specifications Manual for National Hospital Outpatient Quality Measures <http://bit.ly/OutpManual>, accessed January 2018
- Prenatal measure specifications <http://bit.ly/Prenatal-Specs>, accessed January 2018

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



This study was conducted by the Flex Monitoring Team with funding from the Federal Office of Rural Health Policy (FORHP), Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services (HHS), under PHS Grant No. U27RH01080. The information, conclusions, and opinions expressed in this document are those of the authors and no endorsement by FORHP, HRSA, or HHS is intended or should be inferred.