CBE ID

3455

Title

Timely Follow-Up After Acute Exacerbations of Chronic Conditions

Project

Management of Acute Events, Chronic Disease, Surgery, and Behavioral Health

Endorsement Status

Endorsed

Is Under Review

No

Next Maintenance Cycle

Spring 2029

Previous Endorsement Cycle

Spring 2024

Steward

Centers for Medicare & Medicaid Services

1.0 New or Maintenance

Maintenance

1.3 Electronic Clinical Quality Measure (eCQM)

No

1.6 Measure Description

This is a measure of follow-up clinical visits for patients with chronic conditions who have experienced an acute exacerbation of one of six conditions (eight categories) of interest (coronary artery disease [CAD] {high or low acuity}, hypertension {high or medium acuity}, heart failure [HF], diabetes, asthma, and chronic obstructive pulmonary disease [COPD]) and are among adult Medicare Fee-for-Service (FFS) beneficiaries who are attributed to entities participating in the CMMI Accountable Care Organization (ACO) Realizing Equity, Access, and Community Health (REACH) model. Results of the measure are aggregated on an Accountable Care Organization (ACO) level for Standard and New Entrant ACOs. The Yale-New Haven Health Center for Outcomes Research & Evaluation (CORE) has respecified the Timely Follow-Up After Acute Exacerbations of Chronic Conditions Measure, which was originally specified by IMPAQ, CBE #3455.

1.7 Composite Measure

No

1.7 Measure Type

Process

1.8 Level of Analysis

Accountable Care Organization

1.9 Care Setting

Clinician Office/Clinic, Emergency Department, Home Health, Hospital: Critical Access, Hospital: Inpatient, Hospital: Outpatient, Other

1.9b Other Care Setting

Hospital: Rural Emergency

1.10 Measure Rationale

The Timely Follow Up After Acute Exacerbations of Chronic Conditions Measure (hereafter, "TFU measure") captures follow-up clinical visits for patients with chronic conditions who have experienced an acute exacerbation of one of six conditions (with eight categories) of interest (coronary artery disease [CAD] {high or low acuity}, hypertension {high or medium acuity}, heart failure [HF], diabetes, asthma, and chronic obstructive pulmonary disease [COPD]) and are among adult Medicare Fee-for-Service (FFS) beneficiaries who are attributed to entities participating in the CMMI Accountable Care Organization (ACO) Realizing Equity, Access, and Community Health (REACH) model. The goal of this measure is to encourage Model Participants to deliver clinically appropriate follow-up care for the specified conditions, improve care coordination, and produce long-term savings for a given healthcare system. Because the measure is stratified by social risk factor variables, this measure also helps to promote health equity in underserved communities.

The Yale-New Haven Health Center for Outcomes Research & Evaluation (CORE) has respecified the Timely Follow-Up After Acute Exacerbations of Chronic Conditions Measure (TFU), which was originally specified by IMPAQ, CBE #3455.

Rationale:

Patients hospitalized or seen acutely in the Emergency Department (ED) for exacerbations of chronic conditions are at high risk of readmission and poorly coordinated care, which may increase healthcare spending, worsen healthcare outcomes, and result in poor quality of life.

The intent of the Timely Follow-Up After Acute Exacerbations of Chronic Conditions (TFU) measure is to encourage appropriate follow-up care and improve care coordination at discharge. Better coordination of care and time spent with providers can lead to improved quality of care and quality of life, and reduced healthcare costs.

The TFU measure is a pay-for-performance quality measure for the Realizing Equity, Access, and Community Health (ACO REACH) model, which aims to reduce administrative burden by simplifying billing code practices—freeing time and resources to focus on advanced primary care and care coordination for patients with complex, chronic conditions. The measure is claims-based

and low-burden to align with this intent of the ACO REACH model.

Evidence has shown that delivering clinically appropriate follow-up care and improving care coordination can improve healthcare outcomes, reduce readmissions, and reduce healthcare costs. Outpatient follow-up rates vary significantly, and there are disparities for patients with social risk, indicating potential for improving care for the target population. Early outpatient follow-up can prevent ED visits and readmissions, and their associated costs, clinical sequelae, and impact on patient experience. (See question **2.2 Evidence** for further detail on evidence and supporting literature.)

1.13 Data Dictionary

Not attached. I attest that all information will be provided where codes and/or value sets are needed (1.14a - 1.15c).

1.13a Attach Data Dictionary

Attachment A_Value Set_Timely Follow-Up Measure CBE #3455_Update 05012024_final.xlsx

1.14 Numerator

The numerator is the sum of acute exacerbations for which follow-up care was received within the timeframe recommended by clinical practice guidelines, as detailed below:Hypertension: Follow up within 14 days of the date of discharge for high-acuity patients or within 30 days for medium-acuity patientsAsthma: Follow up within 14 days of the date of dischargeHeart Failure: Follow up within 14 days of the date of dischargeCoronary Artery Disease: Follow up within 7 days of the date of discharge for high-acuity patients or within 6 weeks for low-acuity patientsChronic Obstructive Pulmonary Disease: Follow up within 30 days of the date of dischargeDiabetes: Follow up within 14 days of the date of discharge for high-acuity patients

1.14a Numerator Details

The final measure score (the ACO-level Timely Follow-Up rate) is **the total number of qualifying follow-up visits after an acute exacerbation** (the numerator) over the total sum of all qualifying acute exacerbations of any of the six conditions (hypertension, asthma, HF, COPD, CAD, and diabetes) (the denominator), aggregated on an ACO level. The score is expressed as a percentage.

Qualifying follow up visits that contribute to **the numerator** are those for which follow-up care was received within the timeframe recommended by clinical practice guidelines, as detailed below:

- Hypertension: Follow up within 14 days of the date of discharge for high-acuity patients or within 30 days for medium-acuity patients
- Asthma: Follow up within 14 days of the date of discharge
- Heart Failure: Follow up within 14 days of the date of discharge

- Coronary Artery Disease: Follow up within 7 days of the date of discharge for high-acuity patients or within 6 weeks for low-acuity patients
- Chronic Obstructive Pulmonary Disease: Follow up within 30 days of the date of discharge
- Diabetes: Follow up within 14 days of the date of discharge for high-acuity patients

Numerator events (timely follow up) are identified by matching claims (at the patient level) that indicate an acute exacerbation (ED visit, observation stay, inpatient admission) for the conditions listed above, to the follow up visit. To qualify as a numerator event, the follow-up visit must occur within the condition-specific timeframe noted above. Follow up visits are identified in claims as non-emergency outpatient visits after the discharge date of the initial exacerbation, using CPT or HCPCS code indicating appropriate follow up as defined by clinical guidelines and clinical coding experts. The follow-up visit may be a general office visit or telehealth visit and can also take place in certain chronic care or transitional care management settings. For a list of individual codes for timely follow-up, please refer to the 'Final Condition Codes' tab in the Value Set (i.e. Data Dictionary) and their rules as described in the denominator details section of this document.

For two conditions, CAD and hypertension, the cohort is subdivided based on the acuity of the exacerbation; and the code set for each portion of the cohort has its own follow-up window. The follow-up visit timeframes are based on the most recent, evidence-based clinical guidelines.

1.15 Denominator

The denominator is the sum of all acute exacerbations among the target population during the performance period. An acute exacerbation is defined as an ED visit, observation stay, or inpatient stay, for any one of six conditions (hypertension, asthma, heart failure, coronary artery disease, chronic obstructive pulmonary disease, or diabetes) for an ACO-attributed patient.

1.15a Denominator Details

The denominator is the count of all acute exacerbation events for six clinical conditions attributed to an ACO during the performance period. Of note, if a patient has multiple qualifying acute exacerbation events during the performance period, these would all be included in the measure outcome calculation. Exacerbations are defined as an acute-care visit (i.e., ED visit, observation stay, or inpatient hospitalization) for any of the six conditions of interest (with eight category cohorts): coronary artery disease (CAD) [high or low acuity], hypertension [high or medium acuity], heart failure (HF), diabetes, asthma, and chronic obstructive pulmonary disease (COPD). The cohorts for hypertension, CAD, and diabetes were divided based on acuity of condition because clinical guidelines reflected heterogeneity in follow-up timeline recommendations for exacerbations of different acuities; therefore, because CAD and HTN were subdivided into high and lower acuity categories, the measure structure reflects eight condition cohorts for the six conditions of interest.

Please refer to the codes in the 'Inpat, Obs, ED, Discharge' tab of the Value Set for codes that are used to identify the denominator (exacerbations or acute-care visits). Inpatient admissions are

identified using codes listed in the “Inpatient” tab in the value set. ED visits and observation stays are identified using codes listed in the ‘Emergency Department’ and ‘Observation Stay’ tabs of the Value Set professional claims (i.e. carrier claims). Billing/Claim type codes used to identify outpatient claims are listed on the ‘TOB-Outpatient’ tab of the Value Set.

Assigning Condition Categories

The value set contains both sufficient codes, which are unambiguously linked to the associated condition, and related codes, which are codes that often occur in conjunction with the condition. This system of code assignment was created by the team that initially developed the measure and was retained by our team during respecification efforts. Additionally, our team of clinical experts reviewed each code that had been included in the value set and, through a consensus process, determined whether the preexisting code assignments were appropriate.

Distinctions are also made between principal and secondary diagnoses when assigning a visit to a specific clinical condition cohort. The first diagnosis code in the header for each claim is used as the principal diagnosis code. All other diagnosis codes in the header are referred to as secondary diagnosis codes. Using the sufficient and related ICD codes listed on the ‘Final Condition Codes’ tab in the Value Set, claims are assigned to one of the eight condition cohorts listed above.

For all six conditions, an acute encounter is assigned to [condition] if the principal diagnosis is a sufficient code for [condition].

OR

If the principal diagnosis is a related code for [condition] AND at least one additional diagnosis is a sufficient code for [condition].

For conditions with different levels of acuity (e.g., high-acuity hypertension and medium-acuity CAD), the encounter is then assigned to the highest-acuity condition for which a code is present. The value set includes codes for low-acuity hypertension and diabetes conditions to appropriately classify events; however, low-acuity hypertension and diabetes cohorts are not included in this measure given that these conditions do not generally require outpatient follow-up as urgently as the other chronic conditions of interest.

In cases where the encounter has a related code applicable to two or more conditions that qualify as primary diagnoses and a sufficient code in an additional diagnosis position, the encounter is assigned to the condition with a higher follow-up priority in the following order: high-acuity coronary artery disease (CAD), high-acuity diabetes, heart failure (HF), asthma, high-acuity hypertension, medium-acuity hypertension, chronic obstructive pulmonary disease (COPD), and low-acuity CAD.

The following explains how the rules about sufficient and related codes and principal and secondary diagnoses can be applied.

Asthma, COPD, and HF do not have acuity levels. For these conditions, the following must be satisfied: (1) a sufficient code as a primary diagnosis **or** (2) a related code as a primary diagnosis and a sufficient code as a secondary diagnosis.

CAD, diabetes, and hypertension all have low- to high-acuity levels. However, each of these conditions has a different satisfaction criterion outlined below.

For the CAD condition, the following must be satisfied: (1) a high or low acuity sufficient code as a primary diagnosis **or** (2) a high or low acuity related code as a primary diagnosis **and** a high or low acuity sufficient code as a secondary diagnosis.

- High acuity can only be satisfied with (1) a high acuity sufficient code as a primary diagnosis **or** (2) a high or low acuity related code as a primary diagnosis **and** a high acuity sufficient code as a secondary diagnosis **or** (3) a high acuity related code as a primary diagnosis **and** a high or low acuity sufficient code as a secondary diagnosis.
- If criteria for a high-acuity CAD condition is not satisfied, then low acuity is met.

For the diabetes condition, the following must be satisfied: (1) a high, medium, or low sufficient code as a primary diagnosis **or** (2) a high or medium acuity related code as a primary diagnosis **and a** high, medium, or low acuity sufficient code as a secondary diagnosis.

- High acuity can only be satisfied with (1) a high acuity sufficient code as a primary diagnosis **or** (2) a high or medium acuity related code as a primary diagnosis **and** a high acuity sufficient code as a secondary diagnosis **or** (3) a high acuity related code as a primary diagnosis **and** a high, medium, or low acuity sufficient code as a secondary diagnosis.
- Note that only high acuity diabetes conditions are eligible for this measure.

For the hypertension condition, the following must be satisfied: (1) a high acuity or low acuity sufficient code as a primary diagnosis **or** (2) a high, medium, or low acuity related code as a primary diagnosis **and a** high or low acuity sufficient code as a secondary diagnosis.

- High acuity can only be satisfied with (1) a high acuity sufficient code as a primary diagnosis **or** (2) a high, medium, or low acuity related code as a primary diagnosis **and** a high acuity sufficient code as a secondary diagnosis **or** (3) a high acuity related code as a primary diagnosis **and** a high or low acuity sufficient code as a secondary diagnosis.
- If the criteria for the high-acuity condition is not satisfied, then the medium-acuity condition is satisfied with the following: a medium acuity related code as a primary diagnosis **and** a high or low acuity sufficient code as a secondary diagnosis.
- Note that only high and medium acuity hypertension conditions are eligible for this measure.

Each unique claim—based upon the from and through dates as well as the claim type (i.e.,

inpatient, outpatient, carrier)—is assigned to a condition/severity group. If a claim meets the criteria for more than one condition/severity group, the condition/severity group with the shortest follow-up period is assigned, as this represents the more urgent clinical situation. If a beneficiary has a unique claim that begins on the same or the following day of another unique claim, the claims are considered part of one continuous acute event. In this case, the discharge date of the last claim is the beginning of the follow-up interval. And, if the unique claims that make up an acute event are assigned to different condition/severity groups, the acute event is assigned to the condition/severity group that occurs last chronologically. Following this methodology, only one condition is recorded in the denominator per acute encounter.

1.15b Denominator Exclusions

The measure excludes events with:

1. Subsequent acute events that occur two days after the prior discharge, but still during the follow-up interval of the prior event for the same reason. To prevent double counting, only the first acute event will be included in the denominator.
2. Acute events after which the patient does not have continuous enrollment for two months for all the condition groups, except the low-acuity CAD group, which requires continuous enrollment of three months.
3. Acute events where the discharge status of the last claim is not “to community” (e.g., “left against medical advice” is not a discharge to community). For a list of the appropriate codes, please refer to the “Discharge to Community” codes on the ‘Inpat, Obs, ED, Discharge’ tab in the Value Set.
4. Acute events for which the calendar year ends before the follow-up window ends (e.g., Acute asthma events occurring fewer than 14 days before December 31 will not be included.).
5. Acute events where the patient enters a skilled nursing facility (SNF), non-acute care, or hospice care within the follow-up interval. For a list of the appropriate codes to identify non-acute care, please refer to the “NonAcute” tab in the Value Set.

1.15c Denominator Exclusions Details

Please see above question **1.15b Denominator Exclusions** for detail on how to calculate denominator exclusions.

1.16 Type of Score

Rate/proportion

1.17 Measure Score Interpretation

Better performance = Higher score

1.18 Calculation of Measure Score

1. Denominator events (acute exacerbations) for the six conditions of interest are identified in claims using codes that indicate an inpatient admission, observation stay, or ED visit, using

the appropriate codes listed in the Value Set.
2. Exclusions are applied to the population to produce the eligible patient population for the measure (i.e., the count of all qualifying events).
3. For each qualifying event, numerator events (timely follow up) are identified by matching patient-level claims that satisfy the follow-up requirement for that particular qualifying event (e.g., a diabetes acute event receiving follow-up within the appropriate timeframe for diabetes from a provider). Each event for which the follow-up requirement was satisfied is counted as 'one' in the numerator. Each event for which the follow-up requirement was not satisfied is counted as a 'zero' in the numerator.
4. The percentage score is calculated as the numerator divided by the denominator multiplied by 100.

1.19 Measure Stratification Details

To promote improvements in disparities in care for patients with social risk factors, REACH ACO measure scores are stratified by three social risk factors: (1) dual eligibility (DE); (2) low socioeconomic status (SES) as defined by the Area Deprivation Index (ADI); and (3) race/ethnicity other than white (i.e., non-white). As of the 2022 model performance year (Calendar Year 2022), CMS provides the stratified results to ACOs quarterly, in Quarterly Quality Reports (QQRs), and annually, in Annual Quality Reports (AQRs). The stratified results are provided to ACOs confidentially.

The three social risk factors used in stratified reporting are defined as:

1. Dual eligibility: Full-benefit dually eligible status for at least 1 month during the performance period.
2. Living in a low-SES neighborhood: Defined as a neighborhood with an ADI percentile value of 81 or higher. We continue to use the 2019 version of ADI data due to differences between 2010 and 2020 Census boundaries and the limited prevalence of the 2020 boundaries among addresses within claims data. For beneficiaries with addresses that have no ADI match, we impute a county-level average ADI. More information about the ADI is available here.
3. Non-white: Race/ethnicity other than white based on RTI_RACE_CD variable from the IDR.

The stratified results are calculated through the following steps:

1. The finder file, which is the first file created and used for building analytic files for each quality measure, creates the health equity indicator variables that are used for stratified reporting.
2. Once the finder file is created, the health equity indicator variables are used to calculate the Timely Follow-Up measure for the ACOs included in the ACO REACH model as well as the benchmark population, which are non-ACO REACH provider groups.
3. Summary statistics for each of the stratified populations are provided to ACOs in the QQRs.

Values are not reported if the denominator volume (acute events) is less than 20.

1.20 Types of Data Sources

Administrative Data, Claims Data, Other

1.20a Other Data Source

2019 Area Deprivation Index

1.25 Data Source Details

To calculate the measure score, CMS uses final-action claims for Medicare FFS Part A and B, administrative (enrollment data) from the Medicare Beneficiary Summary File. Measure scores are calculated for REACH ACOs and their aligned beneficiaries, as well as non-REACH ACO provider groups (TINs and CCNs that bill Medicare FFS Parts A and B) and beneficiaries aligned using the same ACO REACH Model alignment criteria. Non-REACH ACO provider groups must have at least 1000 aligned and eligible beneficiaries to be included in the benchmarking population.

This is a claims-based measure, and the measure score is calculated automatically from 100% final-action claims; claims data are routinely generated during the delivery of care. We did not encounter any difficulties with respect to data feasibility, reliability, or validity.

As described in Section 1.19, we also use the 2019 Area Deprivation Index data and the RTI_RACE_CD variable from the Integrated Data Repository for race/ethnicity stratification.

1.26 Minimum Sample Size

Not applicable. This measure is not based on a sample.

2.2 Evidence of Measure Importance

Overall, the literature has found that better follow-up leads to better health outcomes for patients by improving the management of chronic conditions, particularly for those with more than two such conditions. Early outpatient follow-up, within 14 days of discharge (Jackson et al., 2015), reduces hospital readmission rates for high-risk patients, such as those with heart failure or non-ST-elevation myocardial infarction (NSTEMI) (Tung et al., 2017). Additionally, follow-up enhances patient self-efficacy, especially for conditions like COPD (Jarab et al., 2018), leading to better health outcomes and decreased healthcare utilization over time. Timely follow-up, when paired with other types of discharge support, contributes positively to health outcomes and is a key component of high-quality healthcare, helping improve long-term patient outcomes and quality of life.

Clinical Recommendations:

Evidence has shown that delivering clinically appropriate follow-up care and improving care coordination can improve healthcare outcomes (Jackson et al., 2015), reduce readmissions, and reduce healthcare costs.

Outpatient follow-up rates can differ substantially among older patients, suggesting there is potential for improving care for the elderly population. Data from twenty-seven countries in the European Union demonstrates that patients with more than two chronic conditions benefit the most from strong primary care systems that allow for adequate outpatient follow up (Hansen et al., 2015). Moreover, while relatively healthy patients may not demonstrate significant benefit from rapid follow-up after an acute care visit, a study conducted on a sample of nearly 45,000 Medicaid recipients demonstrated a 19.1% reduction in readmission among the highest risk patients who had follow up within 14 days after discharge (Jackson et al., 2015).

Additionally, the benefit of early outpatient follow-up after hospital discharge may vary according to a patient's specific disease process. For example, follow up consistently increased patient self-efficacy while decreasing health care utilization over a three-month period among individuals with COPD (Jarab et al., 2018). Heart failure patients appear to derive significant benefit from rapid follow-up after receiving acute care for an exacerbation. Among hospitals with higher rates of early follow-up, the risk of 30-day readmission was lower for patients initially admitted for heart failure (McAlister et al., 2016). Another study found that the composite outcome of death or emergency department visit or hospitalization within 30 days of first discharge from a hospital or emergency department during which heart failure was thought to be the primary diagnosis has been shown to be statistically significantly better among patient who have outpatient follow-up within 14 days of discharge (McAlister et al., 2016). Finally, for both non-ST-elevation myocardial infarction (NSTEMI) and heart failure, an outpatient visit with a physician within 7 days of discharge has been associated with a lower risk of 30-day readmission (Tung et al., 2017).

Although some variation in follow-up may be due to condition or disease severity, there is evidence that some variation may also be due to quality of care for elderly patients, rather than patient-level differences. For example, researchers have found that a decreased health-related quality of life (as assessed by the Assessment of Quality of Life [AQoL] instrument) was predictive of emergency department visits over a 3-year period (Hutchinson et al., 2015). As stated above, although the long-term outcomes which can be attributed to timely follow-up as a stand-alone intervention remain unclear, a systematic review has demonstrated that, when coupled with other types of discharge support, timely follow-up does positively contribute to health outcomes and is a key component of high-quality healthcare (Jayakody et al., 2016).

Summary of Literature Review:

Below, we summarize the results of the literature review completed in 2020 at the time of measure re-specification.

The literature review aimed to reassess the timing of follow-up visits for chronic conditions included in the TFU measure, which assesses follow-up after acute exacerbations resulting in emergency department visits or hospitalizations. Using a systematic search strategy, including database searches and manual screening of articles, the review identified clinical guidelines and

relevant publications to inform the measure's outcome definition.

The literature review supports the current measure specifications for all conditions. Recommendations for follow-up timelines vary across conditions, with some aligning closely with the original IMPAQ measure's recommendations, such as heart failure and asthma, while others, like coronary artery disease and hypertension, benefited from subdivision into clinically discrete diagnoses or exclusion of certain severity levels. The changes that the CORE measure team made during respecification underscores the need for continued refinement and consideration of updated clinical guidelines to ensure appropriate follow-up intervals as clinical science evolves.

The following are recommendations from the most recent review listed by health condition:

Heart Failure: The recommendation for a 14-day follow-up aligns with the 2019 ACC Expert Consensus, emphasizing a phone call within 3 days of discharge and a clinical visit within 14 days (Hollenberg et al., 2019). While shorter timelines were suggested, evidence supports the efficacy of a 14-day interval, with literature indicating no significant reduction in readmissions within a 7-day span (Ezekowitz et al., 2017; McAlister et al., 2016; Quality Improvement for Institutions (report, retrieved 2020); Chang et al., 2018).

Chronic Obstructive Pulmonary Disease (COPD): Retaining the original measure's 30-day recommendation is supported by the 2nd National COPD Readmissions Summit and Beyond (Willard et al., 2016). While various sources suggest longer timelines, the heterogeneity of clinical exacerbations supports continued use of the 30-day timeline (Wedizchia et al., 2016; Global Initiative for Chronic Obstructive Lung Disease, 2019 and 2020 reports; University of Michigan, 2020 report; Fidahussein et al., 2014), especially for patients initiating oxygen therapy (Kaiser Permanente, 2020 report).

Coronary Artery Disease (CAD): Due to the lack of guidelines for CAD as a broad category, subdivision into high-risk/acute myocardial infarction (AMI) and low-risk groups with different time frames is recommended. Specific recommendations for conditions like angina and NSTEMI guide this measure's follow-up intervals (Batten et al., 2018; Wiviott et al., 2004).

Hypertension: Recognizing the variability in patient risk, recommendations range from <1 month for high-risk individuals to 2-6 months for low-risk patients (Welton et al., 2017; Chobanian et al., 2003; Atzema et al., 2018). The original IMPAQ measure's 7-day timeline may have been inappropriately stringent, with guidelines suggesting the appropriateness of longer follow-up intervals, even for patients with poorly controlled hypertension.

Asthma: A 14-day follow-up recommendation is supported for patients with poorly controlled asthma exacerbations. Consequently, our inclusion of relevant ICD-10 codes considered both asthma severity and control levels (Schatz et al., 2009; National Institutes of Health, 2013; Kaiser Permanente, 2019).

Diabetes: Despite variations in severity, the recommendation is to follow the ADA's guideline of a 14-day follow-up for patients with recent medication changes. Given the heterogeneity of diabetes, this recommendation aims to ensure timely care while excluding patients who do not meet the specified criteria (Joslin Diabetes Center, 2020; Jackson et al., 2015; Gregory et al., 2018).

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2.4 Performance Gap

We analyzed performance on the TFU Measure using the CY 2021 data sets (See: **Section 4.1.1 Data Used for Testing** for a description) across 475 ACOs that submitted data to the Medicare Shared Savings Program. (See Attachment B for Table 1: Performance Scores by Decile).

The measure score ranged from 36.4% to 91.0%, showing a wide range in performance. Mean performance on the Timely Follow Up measure was 77.4% (4.5%); the median was 77%. These results show that the worst-performing ACO (36.4%) has a measure score that is 111% (or 1.11 times) worse than the median, and the highest-performing ACO (91.0%) has a measure score that is 18% better than the median. As ACOs serve large patient populations, low performance of just a few ACOs can affect many patients. For example, the 238 ACOs with measure scores below the median represent 351,597 patients (or 48.5% of patients).

The measure may additionally be useful in elucidating disparities for patients with social risk factors. ACO-level results indicate there are disparities in ACO-level performance for dual, non-

white, and patients of low socioeconomic status; please see Section 5: Equity for further detail.

Table 1. Performance Scores by Decile

Performance Gap

	Overall	Minimum	Decile_1	Decile_2	Decile_3	Decile_4	Decile_5	Decile_6	Decile_7	Decile_8	Decile_9	Decile_10	Maximum
Mean Performance Score	77	36.4	69	73	75	76	77	78	79	80	82	85	91
N of Entities	475	1	47	48	47	48	47	48	48	48	47	47	1
N of Persons / Encounters / Episodes	725,078	118	45,521	56,570	63,608	76,199	108,852	83,224	107,682	63.664	76,643	43,115	1,204

2.6 Meaningfulness to Target Population

As described in Section 2.2 Evidence of Measure Importance, lack of timely follow up care after an acute exacerbation can lead to poor post-discharge outcomes, including further exacerbation of chronic conditions, and post-discharge acute care utilization including readmission to the hospital. Recently, CORE interviewed patients and caregivers for a Technical Expert Panel (TEP) related to readmissions; patients and caregivers shared their stories of frustration, confusion, and suffering, as they or their loved ones faced unexpected returns to the hospital after discharge. In our interviews they cited experiences such as return to the hospital following exacerbation of a condition caused by changes in medication after discharge, returns to the hospital due to infection after an inpatient procedure, and other signs of poor coordination of care including insufficient communication from providers. In addition, prior qualitative work performed by a CORE team member for a different project has found that patients expect their providers to follow clinical guidelines and therefore would expect to receive timely follow up care in concordance with the clinical guidelines cited in Section 2.2.

Reference:

Summary of Technical Expert Panel (TEP) Meetings, Excess Days in Acute Care (EDAC). April 2024. Prepared by Yale New Haven Health Services Corporation – Center for Outcomes Research and Evaluation under contracts to the Centers for Medicare and Medicaid Services. https://mmshub.cms.gov/sites/default/files/EDAC-TEP-Summary-Report.pdf

3.1 Contributions Towards Closing Care Gaps

Reporting and reducing disparities are a key area of focus for quality measures and payment models. Use of stratified quality measures, that is, calculating and reporting quality measure results separately for persons with and without social risk factors, can illuminate gaps in quality care within and across entities. To this end, during original measure respecification, CORE assessed disparities in the TFU measure. We analyzed timely follow-up rates at both the *patient* and *ACO* level, by condition and social risk factors to provide insight into whether patients receive equitable care.

For these analyses, we used Medicare FFS administrative claims data (Parts A and B) and

Medicare beneficiary summary file (MBSF) data from Calendar Year (CY) 2018.

At the patient-level, we examined the percent timely follow-up for each condition by patients based on social risk factors and the absolute difference in percent receiving timely follow-up care. At the ACO level, we calculated the percent timely follow-up among its patients with and without the social risk factor and the difference in % timely follow-up between the social risk group and the referent. The variables considered included race (White vs non-White), sex (male vs female), dual eligibility (dual vs non-dual) and neighborhood (low SES vs non-low SES) based on the AHRQ SES index.

Results:

For the results of patient-level disparities, see Attachment B for Table 8: Patient-level Percent Timely Follow-Up by Condition and Social Disparity.

Across all the condition-specific cohorts, timely follow-up percent is consistently lower for dual-eligible patients than non-dual eligible patients (abs. difference range was -9.53% to -3.28%), higher (except CHF) for female than male patients (abs. difference range was from -0.56% to 2.88%), lower for non-white patients than white patients (abs. difference range was -10.25% to -2.00%), and lower for persons living in low SES neighborhoods (defined as lowest quartile of AHRQ-SES of patient's ZIP code) than persons living in non-low SES (abs. difference ranged from -7.02% to -1.28%).

Overall, dual patients had 70.14% timely follow-up while non-dual patients had 76.54% timely follow-up with an absolute difference of 6.40% lower for dual patients. Female patients had 75.90% timely follow-up compared to 74.98% of male patients, with absolute 0.92% higher timely follow-up for female patients. Non-white patients had 69.32% timely follow-up compared to 77.08% for white patients, with non-white patients having absolute 7.76% lower timely follow-up for non-white patients. Low SES patients had 72.50% timely follow-up compared to 76.27% for non-low SES patients, with low SES patients having absolute 3.77% less than non-low SES patients. These results indicate disparities for timely follow-up for dual, non-white race, and low SES patients.

ACO-level analysis:

For the results of ACO-level analysis, see attached Attachment B for Table 9: ACO-level Percent Timely Follow-Up by Social Disparity.

ACOs had on average absolute 6.22% lower TFU for dual patients than non-dual patients; 1.01% higher TFU for female patients than male patients; 5.97% lower TFU for non-white patients than white patients; and 2.94% lower TFU for low SES patients than non-low SES patients. We also see substantial variation in ACO's TFU for social risk disparities. The interquartile range of the difference between its dual and non-dual patients ranges from 2.58% to 9.16% lower TFU; 0.97% lower to 3.04% higher TFU for female patients; 2.97% to 9.28% lower TFU for non-white patients;

and 0.36% higher to -5.86% lower TFU for low SES patients. We further show (see Section 4.4.4 and Table 7 in Attachment B) that ACOs stratified by quartiles of TFU measure scores, have a higher proportion of patients with DE status.

In conclusion, there are disparities in rates of timely follow-up for dual, non-white race, and low SES patients. ACO-level results indicate there are disparities between dual, non-white, and patients of low socioeconomic status within ACOs.

As described in Section 6.1.4 Program Details, this measure is used in the ACO REACH model, and CMS uses the same approach to social risk factor adjustment for the ACO REACH model as it does in other programs, such as the Hospital Readmission Reduction Program (HRRP) by adjusting for social risk factors at the level of payment in the program, rather than at the quality measure level. This promotes fairness in calculating payments, so as not to penalize measured entities with a high proportion of patients with social risk, but still allows for transparency in terms of outcomes for patients with social risk factors. Specifically, the ACO REACH model, for 2024, adjusts payments based on dual-eligibility status and the University of Wisconsin Area Deprivation Index (ADI), which uses 17 variables from the U.S. Census data, including education level, employment status, home values, and income. The 2024 model will adjust ACO benchmarks by $30 per-beneficiary, per-month (PBPM) for beneficiaries with equity scores in the top decile, $20 PBPM for beneficiaries in the second decile, $10 PBPM for the third decile, and $0 PBPM for the next four deciles. For any aligned beneficiary in the bottom 50%, an ACO's benchmark will be reduced by $6 PBPM.

4.1 Feasibility Assessment

This is a claims-based measure, and the measure score is calculated automatically from claims data which are routinely generated during the delivery of care. No data are collected by ACOs; therefore, this measure imposes no burden on measured entities, and no implementation effort. CMS monitors feedback from the public and measured entities and there have been no concerns about burden related to implementation of this measure. There are no concerns about patient confidentiality because the measure is based on CMS claims data.

We did not perform an analysis of missing data for the measure because it is based on a 100% sample of paid, final action claims submitted by facilities for payment. To ensure complete claims, we allow at least 3 months of time between accessing the data and the end of the performance period.

We identified no unintended consequences.

4.3 Feasibility Informed Final Measure

No changes were made to the measure based on feasibility; this is a claims-based measure there is no burden on the ACO; rates are automatically calculated by CMS based on claims data generated during the course of clinical care for Medicare beneficiaries.

4.4 Proprietary Information

Not a proprietary measure and no proprietary components

5.1.1 Data Used for Testing

For measure re-specification and testing (feasibility, reliability, validity), we used data from Medicare Fee-for-Service (FFS) Accountable Care Organizations (ACOs) as follows:

- Medicare FFS administrative claims data (Parts A and B), Calendar Year (CY) 2018 claims.
- Medicare beneficiary summary file (MBSF) data, which includes beneficiary enrollment information.

As part of measure reevaluation efforts, and in preparation for CBE measure maintenance review, we performed additional testing (feasibility, reliability, validity) with the following data:

- Medicare FFS administrative claims data (Parts A and B), CY 2021 claims.
- MBSF data, which includes beneficiary enrollment information.

Unless otherwise noted, this submission references these more recent analyses using the 2021 data sources. Because this is a claims-based measure where data elements are generated during the course of clinical care, we found no data feasibility, reliability, and/or validity challenges during measure respecification. For further detail on feasibility, see Section 3.1 Feasibility. We note that data used for testing the re-specified measure includes all ACOs with attributed beneficiaries.

For any implementation-focused analyses, CMS, and their implementation contractor, RTI International, used Medicare FFS administrative claims data for CY 2022 and CY 2023 to identify acute events and their follow-up for TFU. RTI also uses the enrollment data from the Integrated Data Repository (IDR). For further detail on these analyses please see responses included in Section 6: Usability. We note that any analyses that uses data from the ACO model itself (e.g. improvement), includes only ACOs that participate in the ACO Reach Model.

5.1.2 Differences in Data

For measure reevaluation and updated analyses: the study team used CY 2021 Medicare FFS

administrative claims data, and CY 2021 MBSF data for each aspect of testing. This data included claims information from 475 ACOs, including 698,370 acute encounters.

For equity analyses, the study team used CY 2018 Medicare FFS claims data, and CY 2018 MBSF data for each aspect of testing (e.g. reliability, validity, etc.) This data included claims information from 610 ACOs, including 2,980,296 acute encounters. In addition, CMS and their implementation contractor used Medicare FFS administrative claims data for CY 2022 and CY 2023 for any implementation-focused analyses.

5.1.3 Characteristics of Measured Entities

For analyses related to measure respecification and testing (reliability, validity) we used claims data from CY 2021 to approximate the accountable care organization (ACO) population for which this measure is being specified. This data included claims information from 475 ACOs, including 698,370 acute encounters.

For analyses related to improvement, the implementation contractor used Medicare FFS administrative claims data for CY 2022 and CY 2023. 91 ACOs were included in the ACO REACH Model in Performance Year (PY) 2022 and 118 were included in PY 2023 Standard and New Entrant ACOs only). This includes 120,199 acute encounters for PY 2022 from the PY 2022 Q4 Quarterly Quality Report (QQR) and 142,363 encounters for PY2023 from the PY 2023 Q4 QQR. Please note each model performance year aligns with the calendar year.

5.1.4 Characteristics of Units of the Eligible Population

Please see Attachment B for Table 2: Characteristics of Patients Included in Timely Follow-Up Development Database. This table displays the demographic characteristics of patients included in the development database used for testing the Timely Follow-Up.

5.2.1 Level(s) of Reliability Testing Conducted

Accountable entity level (i.e., measure score) (e.g., signal-to-noise analysis)

5.2.2 Method(s) of Reliability Testing

To assess reliability on this measure, CORE performed signal-to-noise analyses to assess the proportion of the variation between providers that comprises the total variation [1]. Since the TFU Measure is a process measure, there is no risk adjustment at the patient-level and instead the provider's performance is measured as the proportion of acute exacerbations that were followed timely at the provider. The timely follow up is modeled then as a hierarchical logistic regression model with only the random effects that account for variation at the ACO level. To estimate the overall signal and noise, we will use the estimated covariance from a hierarchical generalized linear model (HGLM) as the between-entity variance $\tau 2$ and $\pi^2/3$ as within-entity variance $\sigma 2$. We then calculate the intraclass correlation $\rho = \tau 2 /(\tau 2 + \sigma 2)$ and use the Spearman-Brown equation: $Rj = nj\rho/(1+(nj-1)\rho)$ to calculate the reliability of each ACO; we report the reliability as the mean

Rj over all ACOs.

Reference:

Adams, JL, Mehrotra A, Thomas JW, et al (2010). Physician Cost Profiling—Reliability and Risk of Misclassification. *NEJM*. 2010;362:1014-1021.

5.2.3 Reliability Testing Results

Across the 475 measured ACOs, the minimum signal-to-noise reliability is 0.658, which meets the CBE minimum reliability threshold of 0.6. Mean reliability is 0.933, with a standard deviation of 0.043; median reliability is 0.940. Please see Attachment B for Table 3: Timely Follow-Up Accountable Entity-Level Reliability Testing Results.

5.2.4 Interpretation of Reliability Results

The minimum signal-to-noise reliability score was 0.658 which meets Battelle's minimum signal-to-noise reliability threshold of 0.6. Therefore, this measure meets the CBE requirements for reliability.

Reference:

Partnership for Quality Measurement. Endorsement and Maintenance (E&M) Guidebook. October 2023. https://p4qm.org/sites/default/files/2023-12/Del-3-6-Endorsement-and-Ma…

5.3.1 Level(s) of Validity Testing Conducted

Accountable entity level (i.e., measure score) (e.g., criterion validity)

5.3.3 Method(s) of Validity Testing

As part of our ongoing measure reevaluation efforts, CORE utilized the CY 2021 Medicare FFS and MBSF data sources (see: Section 4.1.1 Data Used for Testing) to conduct validity testing. To empirically evaluate the measure's validity, we correlated performance on the TFU measure among 475 SSP ACOs in CY 2021 to performance on three quality measures in use by the SSP program in the same period. We identified the candidate measures as those that might capture quality related to similar constructs of care coordination and follow-up care for the conditions included in the measure. We were interested in the correlation with the following measures using CY 2021 data sources:

- ACO-MCC1, All-Cause Unplanned Admissions for Patients with Multiple Chronic Conditions, CBE #2888
- ACO-27, Diabetes Mellitus: Hemoglobin A1c Poor Control, CBE #0059
- ACO-28, Hypertension (HTN): Controlling High Blood Pressure, CBE #0018

We expected negative correlations with the unplanned admissions measure because we would expect providers who were providing good care coordination to reduce their unplanned admissions (unplanned admissions is a lower-is-better measure, and Timely Follow Up is a higher-is-better measure). We also expected a correlation with the two measures that indicated good control of chronic disease, demonstrated by a negative correlation with the Diabetes Mellitus: Hemoglobin A1c Poor Control measure (higher is worse) and a positive correlation with the Hypertension (HTN): Controlling High Blood Pressure measure (higher is better).

5.3.4 Validity Testing Results

Table 4 (see Attachment B) shows our validity testing results using the 2021 data sources. The correlation coefficients for each association, and their p-values, are also shown below:

- All-Cause Unplanned Admissions for Patients with Multiple Chronic Conditions [CBE #2888] (n=475): r=-0.136, p=0.003
- Diabetes Mellitus: Hemoglobin A1c Poor Control [CBE#0059] (n=465): r=-0.027, p<.0001
- Hypertension (HTN): Controlling High Blood Pressure [CBE#0018] (n=465): r=0.305, p<.0001

5.3.5 Interpretation of Validity Results

Our testing results support the validity of the TFU measure. The selected comparator measures, all in the same causal pathway as the TRU measure, show significant associations in the expected strength and direction. We further discuss our findings below.

We expected weak negative correlations with the unplanned admissions measure because we would expect providers who were providing good care coordination to somewhat reduce their unplanned admissions. For All-Cause Unplanned Admissions for Patients with Multiple Chronic Conditions, a statistically significant but small negative correlation was shown.

For Diabetes Mellitus: Hemoglobin A1c Poor Control, a statistically significant but very small negative correlation was found. This is expected as we would expect that ACOs with appropriate follow-up would also have better diabetes control. For Hypertension (HTN): Controlling High Blood Pressure, a statistically significant positive correlation was found. This direction and strength of the association is also expected, as ACOs with appropriate follow-up would also be expected to do well with hypertension control. Of note, exacerbations of diabetes represent a much more heterogenous cohort of conditions when compared to exacerbations of HTN; therefore, we would anticipate the relative difference in strength of correlation described above.

5.3.2 Type of Accountable Entity Level Validity Testing Conducted (derived)

Empirical validity testing at the accountable entity-level (e.g., criterion validity, construct validity, known groups analysis)

5.4.1 Methods Used to Address Risk Factors

Stratification by risk factor category

5.4.2 Conceptual Model Rationale

Rationale and Conceptual Model for Stratification

Studies have shown that there are disparities in both rates of follow up, as well as rates of readmission, in patients with social risk factors, including disparities by income and race/ethnicity (Miskey et al., 2010; DeLia et al., 2014; Anderson et al., 2022). For example, a 2014 study found that Black or Hispanic Medicare beneficiaries over age 65 were less likely than white beneficiaries to experience post-discharge follow up care within 30 days after discharge from an inpatient hospitalization (DeLia et al., 2014). Study authors also found that Black patients were more likely to have a post-discharge readmission or an ED visit rather than a post-discharge follow up visit as the first healthcare utilization event following hospital discharge (DeLia et al., 2014). A 2022 study confirming these disparities found that rates of follow up were lower for Medicare beneficiaries who were non-Hispanic Black (34.1%) or Hispanic (40.0%), compared with non-Hispanic white beneficiaries (45.3%) (Anderson et al., 2022). This study also describes disparities between beneficiaries with dual eligibility vs. non-dual beneficiaries (follow up rates of 38.3% vs. 45.7%, respectively), and disparities associated with higher vs. lower area-level deprivation (lowest quartile, 47.1%, highest quartile, 38.8%) (Anderson et al., 2022). Finally, there is evidence that disparities in timely follow up are associated with disparities in outcomes. For example, the same 2022 study cited previously found that post-discharge follow up (within 7 days) was associated with hospital readmission, with higher follow up rates associated with lower readmission rates. Furthermore, study authors found that a substantial proportion of the variation in readmission rates for patients with social risk factors was mediated by 7-day follow up: about 20 percent for dual eligibility and 50 percent for area deprivation. For Black patients hospitalized for pneumonia, the timely follow up rate mediated almost all (97.5%) of the risk of readmission (Anderson et al., 2022).

These studies demonstrate that social risk factors are associated with the intermediate outcome captured by the TFU measure, and that the intermediate outcome is associated with broader outcomes such as readmission. Conceptually, these social risk factors could be related to barriers to receiving care, which could be modified or mitigated by measured entities (ACOs). Potential barriers include access to providers during the post-discharge period (both in terms of provider availability, transportation, or other access barriers), the quality of outpatient providers, low health literacy, or housing insecurity (Wolfe et al., 2020; ASPE, 2020; Virapongse, et al., 2018; Levy et al., 2016). Please see Section 6.2.1 for literature that supports actions that ACOs can implement to improve performance and patient outcomes for the TFU measure.

The TFU empiric results, taken together with information from published studies, the conceptual pathway, and the goals of the ACO REACH model to reduce disparities, have informed the rationale to report stratified TFU measure results (stratified by dual eligibility, race, and Area Deprivation Index) to ACOs to support their quality improvement efforts and reduce disparities.

References:

Anderson, A., Mills, C. W., Willits, J., Lisk, C., Maksut, J. L., Khau, M. T., & Scholle, S. H. (2022). Follow-up Post-discharge and Readmission Disparities Among Medicare Fee-for-Service Beneficiaries, 2018. Journal of general internal medicine, 37(12), 3020–3028. https://doi.org/10.1007/s11606-022-07488-3

DeLia, D., Tong, J., Gaboda, D., & Casalino, L. P. (2014). Post-discharge follow-up visits and hospital utilization by Medicare patients, 2007-2010. *Medicare & medicaid research review*, *4*(2), mmrr.004.02.a01. https://doi.org/10.5600/mmrr.004.02.a01

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Virapongse A, Misky GJ. Self-identified social determinants of health during transitions of care in the medically underserved: a narrative review. *J Gen Intern Med.* 2018;33(11):1959–1967. doi: 10.1007/s11606-018-4615-3.

Wolfe, M. K., McDonald, N. C., & Holmes, G. M. (2020). Transportation Barriers to Health Care in the United States: Findings From the National Health Interview Survey, 1997-2017. *American journal of public health*, *110*(6), 815–822. https://doi.org/10.2105/AJPH.2020.305579

5.4.3 Variable Distribution Across Measured Entities

See Attachment B for Table 5: Risk Factor Characteristics Across Measured Entities. This table shows the distribution of social risk factors identified in the conceptual model for the TFU measure, based on CY 2018 data. Across the TFU cohort, 16.7% of patients are dual eligible, 21.3% are low income (Low AHRQ SES), and 20.8% are non-white. Across ACOs (n=610), the median proportion of patients with social risk factors is: 14.6% dual eligible, 18.6% low income (Low AHRQ SES), and 17.1% non-white (See Attachment B, Table 6: ACO-Level Distribution of Patients with Social Risk Factors.

These variables were tested in the stratification approach, however the low AHRQ SES variable was replaced with the Area Deprivation Index variable during implementation.

5.4.4 Risk/Case-Mix Adjustment Modeling and/or Stratification Results

See Attachment B for Table 7: Proportion of Beneficiaries with Social Risk within Quartiles of TFU Scores. As discussed in Section 5.1 (Equity) and Tables 8 and 9 in the attachment, measure scores for beneficiaries with social risk factors are lower (worse) at both the patient and ACO level for patients with: dual eligibility (vs. non-dual), low AHRQ SES (vs. non-low AHRQ SES), and non-white (vs. white). For example, at the ACO level, median TFU measure scores for beneficiaries stratified by social risk factor are: dual eligibility vs. non-dual: 70.5% vs. 76.8%; non-white vs white: 70.9% vs. 77.1%; low SES vs. non-low SES: 73.3% vs. 76.3% (Table 6 in the attachment).

Table 7 (Attachment B) shows the relationship between measure scores and social risk factors, demonstrating that ACOs with the lowest measure scores have the highest proportion of beneficiaries with social risk (in this case, the ADI variable was used as the income variable), most markedly for the DE variable.

5.4.6 Interpretation of Risk/Case-mix Factor Findings

While there is an association between TFU measure scores and the proportion of patients with social risk factors, consistent with the aim of the ACO REACH model to reduce disparities, CMS has chosen a stratification approach because risk adjustment would serve to make these important and potentially modifiable disparities invisible. In addition, the ACO REACH payment calculation accounts for ACOs that treat a high proportion of patients with social risk. As described in Section 5.1 (Equity), the ACO REACH model, for 2024, adjusts payments based on dual-eligibility status and the University of Wisconsin Area Deprivation Index (ADI), which uses 17 variables from the U.S. Census data, including education level, employment status, home values, and income. The 2024 model will adjust ACO benchmarks by $30 per-beneficiary, per-month (PBPM) for beneficiaries with equity scores in the top decile, $20 PBPM for beneficiaries in the second decile, $10 PBPM for the third decile, and $0 PBPM for the next four deciles. For any aligned beneficiary in the bottom 50%, an ACO's benchmark will be reduced by $6 PBPM.

5.4.7 Final Approach to Address Risk Factors

Stratification by risk factor category

6.1.1 Current Status

In use

6.1.3 Current Use(s)

Public Reporting, Payment Program, Quality Improvement with Benchmarking (external benchmarking to multiple organizations)

6.1.3 Program Details

Name of the program and sponsor
Centers for Medicare & Medicaid Services (CMS) Accountable Care Organization Realizing Equity Access, and Community Health (ACO REACH) Model
URL of the program
https://www.cms.gov/priorities/innovation/innovation-models/aco-reach
Purpose of the program
The ACO Realizing Equity, Access, and Community Health (ACO REACH) Model provides novel tools and resources for health care providers to work together in an accountable care organization (ACO) to improve the quality of care for people with Traditional Med
Geographic area and percentage of accountable entities and patients included
The ACO REACH model for 2023 consisted of 132 ACOs, including 131,772 providers and 2.6 million patients, across the United States (click here for map of currently participating ACOs). The TFU measure is calculated for all eligible ACOs in the ACO REACH m
Applicable level of analysis and care setting

Level of analysis: ACO level; care setting: hospital outpatient, clinician office/clinic, home health, hospital:critical access, Emergency Department, Hospital:Inpatient, Rural Emergency Hospital.

6.2.1 Actions of Measured Entities to Improve Performance

There is clear evidence that there are interventions that can be put in place to improve timely follow up and therefore improve performance on the measure score. For example, studies have shown that implementing an automated appointment reminder system following discharge from the ED resulted in improvement in post-discharge follow up visit attendance (Bauer et al., 2020). In addition, ACOs can encourage provider to implement interventions such as the Care Transitions Intervention (CTI), an evidence-based process that includes coaching sessions that encourage timely follow up care, both after discharge from the inpatient setting as well as the Emergency Department (Coleman et. al., 2006; Jacobson et al., 2022). Other potential strategies include scheduling follow up appointments prior to hospital discharge (Merritt et. al., 2020), follow up text messages (Arora, et al., 2015), and follow up phone calls, where a higher frequency of completed calls has been shown to be associated with higher follow-up visit rates (Bhandare et al., 2022). Entities may have to adjust staffing to ensure that appointment slots are available for patients within the condition-specific specified time frames for follow-up. Entities can also improve measure performance with the timely use of telehealth visits for follow-up, when appropriate.

Measured entities must ensure that providers implement evidence-based solutions that support improvement in timely follow up follow-up within the specified time frame for a given condition. The measure timeframes align with clinical guidelines and best practices for follow-up, so the measure does not ask more than what would be expected for appropriate clinical care.

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6.2.2 Feedback on Measure Performance

Beginning in model Performance Year (PY) 2021 (CY 2021) the measure steward received direct feedback from ACO REACH model participants via the ACO REACH helpdesk (ACOREACH@cms.hhs.gov). In addition, the measure steward facilitated a PY 2024 Quality Kickoff Webinar focused on frequently asked questions (FAQs) to gather additional stakeholder feedback. Please note, each model performance year aligns with the calendar year.

The following is a brief summary of stakeholder feedback from PY 2021 through the first quarter of PY 2024 (or March 2024), obtained from the implementation contractor:

From 2021-2023, feedback was received on the following topics:

Acuity Levels: Stakeholders requested definitions for high, medium, and low acuity for the six conditions included in the TFU measure. Answer: That acuity levels have been pre-defined by clinical guidelines and expert recommendations, with specific designations available in the Timely Follow-Up measure documentation.

Coding and Claim Type Inclusion Criteria: Stakeholders asked for clarification on whether both professional and institutional claim types are included in the denominator for the Timely Follow-Up measure. Answer: Clarified that timely follow-up visits are defined by specific claim criteria, including appropriate CPT or HCPCS codes, and directs stakeholders to updated resources in the 4i Knowledge Library for details.

National Average Rates and Methodology: Stakeholders inquired about national average rates and the methodology for determining acuity levels. Answer: Provides insights into acuity definitions and the methodology used, encouraging stakeholders to refer to updated resources in the 4i Knowledge Library.

Overall, stakeholders asked for clarity on various aspects of the TFU measure, including credit attribution, telehealth visits, acuity definitions, coding criteria, and national average rates, with CMS providing guidance and directing stakeholders to available resources for further information.

From 2023-2024, feedback was received on the following topics:

Value Set Inclusions: There were questions about specific codes included in the TFU Value Set, such as the absence of certain codes like G2025 for telehealth services. Answer: G2025 and additional telehealth codes were added to the measure numerator.

Numerator Criteria: Clarifications were sought regarding the criteria for qualifying visits in the numerator, including whether follow-up visits are restricted to certain providers, whether telephonic visits are acceptable, and what elements must be covered during the follow-up.

Denominator Logic: There were discussions on the logic used for identifying denominator events, including the classification of events based on acuity levels and the handling of subsequent acute events within the follow-up interval.

Performance Assessment: Questions arose regarding performance rates, the comparison of performance between different years, and the availability of beneficiary-level data for validation purposes.

Policy Changes: There were inquiries about policy changes affecting telehealth services post the COVID-19 public health emergency and their implications for meeting TFU requirements.

Overall, the stakeholder feedback reflected a thorough examination of the TFU measure's technical aspects, ensuring compliance with guidelines accurately reflects performance while accommodating changes in healthcare policies and practices.

6.2.3 Consideration of Measure Feedback

As noted in the measure Intent-to-Submit, the Yale-New Haven Health Center for Outcomes Research & Evaluation (CORE) respecified the Timely Follow-Up After Acute Exacerbations of Chronic Conditions Measure, which was originally specified by IMPAQ, CBE #3455. During respecification, changes were made to the measure to reflect the latest clinical guidelines, as well as its intended use in CMMI's Global and Professional Direct Contracting (DC) model (initially launched in 2021), which was later redesigned as the ACO REACH model. This respecification effort has incorporated changes to the timeframe and cohorts for diabetes, coronary artery disease (CAD), and hypertension based on current guidelines and subsequent clinical expert input and analyses. For diabetes, we removed low-acuity exacerbations from the cohort based on clinical guidelines that only recommend follow-up within the 14-day timeline for highly acute exacerbations. For the hypertension and CAD cohorts, CORE utilized expert clinical input to divide the cohort based on acuity and altered the follow-up timeline to differ based on the acuity of exacerbation.

After implementation of the measure in 2021, updates for clarification purposes were added to the Measure Information Form annually in response to stakeholder feedback; but no substantial changes to measure structure or intended outcomes were made. Annual code updates were added to stakeholder materials for the Performance Year (PY) 2022, PY 2023, and PY 2024 value sets, including additions and deletions to available codes or code descriptors as part of routine measure maintenance. This year, we evaluated additional telehealth codes relevant to this measure. Our aim was to capture the expanded use and accessibility of synchronous communications (i.e., video consultation and telephone encounters) in clinical follow-up practices. A comprehensive review of the literature identified 114 new telehealth codes relevant to timely follow-up. In addition, a minor revision was made to the specifications and SAS code to clearly note that the TFU measure applies to an adult (age 18 years+) cohort. Our updated testing and analyses reflect these changes, which will also be added to the future PY 2025 stakeholder materials, except for 13 telehealth codes which were already added to the current PY 2024 value set in response to stakeholder feedback.

References:

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6.2.4 Progress on Improvement

This response includes analyses performed for CMS by their implementation contractor, RTI International. The below analyses show small improvements over time in the measure scores for ACO REACH participants. ACO REACH participants demonstrated improvements above and beyond non-participants, which is an expected result of the implementation of this program. There have not, however, been improvements for patients with dual eligibility over time. Please note that each model performance year (PY) aligns with the calendar year.

See Attachment B for Table 10: Non-Stratified Populations Quarterly Results. This table includes quarterly results for all patients (see Table 11 for results stratified by social risk factors). Between PY 2022 Q4 and PY 2023 Q4, the average Timely Follow-Up rate for ACOs increased from 68.31% to 70.65%, a 2.34 percentage point increase. The average Timely Follow-Up rate in PY 2023 Q4 for ACOs was 1.49 percentage points higher than the benchmark population ('All Entities'). The 'All Entities' population includes the ACOs in the ACO REACH Model as well as non-ACO REACH provider groups. CMS uses all available Medicare FFS data aggregated to individual TINs or CCNs to identify non-ACO REACH provider groups, like physicians, group practices, or hospitals. The 'Non-ACOs' population includes only these non-ACO REACH provider groups. Starting in PY 2023 Q3, claims for services provided during the 12-month reporting period were pulled one-month after the end of the period, as opposed to the three-month runout utilized in previous reports. This one-month claims runout allows for more timely provision of the Quarterly Quality Reports (QQRs) to participants. Therefore, when interpreting results from PY 2023 Q3 and beyond, it is important to note that the shift from a three-month runout to a one-month runout may impact measure scores. While this is the case, PY 2023 Q3 and Q4 measure scores for ACOs increased at rates similar to before the shift in runout and, therefore, CMS estimates the impact is minimal to none.

In addition to providing measure results for the overall population, measure scores are shown for three social risk factors: (1) living in a low socioeconomic status (SES) neighborhood as defined by the Area Deprivation Index (ADI) (2) having dual eligibility; and (3) identifying with a race/ethnicity other than white (i.e., non-white).

The three social risk factors are defined as:

1. Living in a low-SES neighborhood: Neighborhoods with an area deprivation index (ADI) percentile value of 81 or higher
2. Dual eligibility: Full-benefit dually eligible status for at least 1 month during the performance period
3. Non-white: Identify as a race/ethnicity other than white

The average Timely Follow-Up rates for these stratified populations are provided to ACOs for (but not linked to performance). For each stratified population, the average Timely Follow-Up rates slightly increased from PY 2022 Q4 to PY 2023 Q4. Between PY 2022 Q4 and PY 2023 Q4, for High-ADI populations, the average Timely Follow-Up rates increased by 0.72 percentage points. For dual eligible populations, the rates increased by 3.42 percentage points. For non-white populations, the rates increased by 2.04 percentage points. The average Timely Follow-Up rates for each stratified population have been consistently lower (poorer) than the non-stratified population, which is consistent with trends seen with other quality measures in the ACO REACH model.

6.2.5 Unexpected Findings

We did not encounter any unintended impacts on patients. However, it was unexpected (see Section 6.2.4 on improvement) that measure scores for patients with social risk factors did not improve over time, while overall, measure scores for the TFU measure did improve.

7.1 Supplemental Attachment

Attachment B_Tables and Figures_Timely Follow-Up Measure CBE #3455_Update 05012024_final.pdf

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