
MEMORANDUM

TO: National Quality Forum (NQF) Measure Applications Partnership (MAP) Clinician Workgroup

THROUGH: Fiona Larbi, MS, Centers for Medicare & Medicaid Services (CMS) – Medicare Shared Savings Program

FROM: Elizabeth Drye, MD, SM and Faseeha Altaf, MPH, Yale New Haven Health Services Corporation – Center for Outcomes Research and Evaluation (YNHHSC/CORE)

DATE: November 27, 2019

SUBJECT: Measure Results for MUC2019-37: All-Cause Unplanned Admissions for Patients with Multiple Chronic Conditions for the Medicare Shared Savings Program

This memo responds to the NQF’s request for YNHHSC/CORE to provide testing results for this measure. CMS recently completed testing on the updated version of this measure under review by the MAP. This memo describes those updates, presents the measure’s specifications, and provides the measure testing results.

Background

The NQF MAP is scheduled to review the “All-Cause Unplanned Admissions for Patients with Multiple Chronic Conditions” measure (MUC2019-37; ACO MCC measure) at the Clinician Workgroup In-person Meeting on December 5, 2019. Since submitting the measure to the 2019 Measures under Consideration list in June 2019, YNHHSC/CORE completed measure testing under contract to CMS.

The MAP reviewed the “original measure” in 2014-2015. Since then:

- CMS implemented the measure in the Medicare Shared Savings Program in 2015.
- The NQF endorsed the measure in December 2016.
- CMS just revised the measure to align it with the newly developed MIPS MCC admission measure (also labeled MUC2019-37). CMS submitted this “revised measure” to the MAP for review.

Summary of ACO MCC Measure Revisions to Align with MIPS Version

- Cohort: added diabetes as a qualifying chronic condition.
- Outcome: narrowed to admissions that can be influenced by ambulatory care providers coordinating chronic disease care (e.g., removed admissions for surgical complications).
- Risk adjustment: added variables for frailty; added adjustment for two social risk factors – (1) AHRQ SES Index (see below on page 2) and (2) specialist density.

Measure Specifications (Revised Measure)

- The revised ACO MCC measure specifications are aligned with MIPS MCC measure except for attribution, which is program-specific.

- **Cohort:** Medicare FFS beneficiaries aged ≥ 65 years who have two or more of the following nine chronic conditions: 1) acute myocardial infarction, 2) Alzheimer's disease and related disorders or senile dementia, 3) atrial fibrillation, 4) chronic kidney disease, 5) chronic obstructive pulmonary disease or asthma, 6) depression, 7) diabetes, 8) heart failure, and 9) stroke or transient ischemic attack.
 - Exclusions:
 - Patients without continuous enrollment in Medicare Part A or B during the measurement period.
 - Patients in hospice at any time prior to or at the start of the measurement year.
- **Outcome:** Admissions per 100 person-years at risk for admission.
 - Exclusions:
 - Planned admissions.
 - Other admissions that likely do not reflect the quality of ambulatory chronic disease management and primary care provided by the included eligible clinicians:
 - Complications of surgeries;
 - Accidents or injuries;
 - Directly from a skilled nursing facility or acute rehabilitation facility
 - Within 10 days of discharge from a hospital, skilled nursing facility, or acute rehabilitation facility;
 - While patients are enrolled in Medicare's hospice benefit; and
 - Prior to the first visit in the measurement year with any clinician in the assigned ACO if the patient did not see ACO clinician in the prior year.
- **Risk Adjustment:**
 - Adjusts for 47 demographic and clinical variables, including age, comorbidities, and measures of frailty/disability.
 - Also adjusts for two social risk factors: (1) the AHRQ SES Index and (2) density of physician specialists.
 - The AHRQ SES Index is a widely used and validated measure of area deprivation derived from the ACS census block group-level data and linked to patient's ZIP code. It summarizes SES measures of employment, income, education, and housing.
- **Attribution:** Assigned using Shared Savings Program beneficiary assignment methodology, which emphasizes primary care.
 - In contrast to the Shared Savings Program, under MIPS the attribution for each measure is unique. Each MIPS measure's attribution model takes into account the goal and context of the MIPS program as well as the ability of clinicians to influence the measured outcome.

Measure Results – Importance, Scientific Acceptability, Usability/Feasibility

- **Importance:** Patients with MCCs are at high risk for hospital admission, often for potentially preventable causes. We calculated measure scores at the ACO level (N=357 Shared Savings Program ACOs) using 2015 as the measurement year. The number of patients per ACO varied, ranging from 56 to 32,771 MCC patients, with a median of 2,698 and an interquartile range (IQR) of 1,788 to 4,503. Importantly, risk-standardized acute admission rates (RSAARs) showed variation, ranging from 27.4 to 58.9 per 100 person-years, with a median of 41.2 and an IQR of

38.1 to 43.8 per 100 person-years, highlighting opportunities to improve care for these patients.

- Scientific Acceptability:
 - *Model Performance:* The deviance R-squared for the model with demographic, clinical, and the two social risk factor variables was 0.108, indicating that the model explains 10.8% of the variation in admission rates.
 - *Measure Reliability:*
 - The median signal-to-noise reliability for all Shared Savings Program ACOs was 0.96 ranging from 0.35 to 1.00 (IQR: 0.94-0.98) indicating an overall excellent reliability of the measure.
 - Over 99% of Shared Savings Program ACOs have a reliability score of at least 0.5 or 0.7.
 - *Measure Validity:* Measure validity was previously demonstrated based on: reliance on relevant prior validity testing conducted for other claims-based measures, use of established measure development guidelines, and assessment by external groups and a Technical Expert Panel (TEP). There was strong support expressed by the members of the TEP and in public comment for the validity of the original measure. There were no strong concerns about the measure.
- Usability/Feasibility: The original measure has been in use in the Shared Savings Program since 2015 with no issues noted with respect to feasibility and implementation. Shared Savings Program ACOs receive quarterly reports with measure scores to guide their quality improvement efforts.