



## Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to sub criterion 1b).

### Brief Measure Information

**NQF #: 2879e**

**Corresponding Measures:**

**De.2. Measure Title:** Hybrid Hospital-Wide Readmission (HWR) Measure with Claims and Electronic Health Record Data

**Co.1.1. Measure Steward:** Centers for Medicare & Medicaid Services (CMS)

**De.3. Brief Description of Measure:** This measure estimates a hospital-level, risk-standardized readmission rate (RSRR) of unplanned, all-cause readmission within 30 days of hospital discharge for any eligible condition. The measure reports a single summary RSRR, derived from the volume-weighted results of five different models, one for each of the following specialty cohorts based on groups of discharge condition categories or procedure categories: surgery/gynecology, general medicine, cardiorespiratory, cardiovascular, and neurology. The measure also indicates the hospital-level standardized readmission ratios (SRR) for each of these five specialty cohorts. The outcome is defined as unplanned readmission for any cause within 30 days of the discharge date for the index admission (the admission included in the measure cohort). A specified set of readmissions are planned and do not count in the readmission outcome. The target population is Medicare Fee-for-Service (FFS) beneficiaries who are 65 years or older, and hospitalized in non-federal hospitals.

This Hybrid HWR measure is a re-engineered version of the HWR measure 1789, the Hospital-Wide All-Cause Unplanned Readmission Measure, which was developed for patients 65 years and older using Medicare claims and is currently publicly reported in the Hospital Inpatient Quality Reporting Program. This reengineered measure uses clinical data elements from patients' electronic health records in addition to claims data for risk adjustment.

**1b.1. Developer Rationale:** The goal of this measure is to improve patient outcomes by providing patients, physicians, hospitals, and policy makers with information about hospital-level, risk-standardized all cause unplanned readmission rates among Medicare beneficiaries 65 years and older admitted to all non-federal US acute care hospitals. Measurement of patient outcomes allows for a broad view of quality of care that encompasses more than what can be captured by individual process-of-care measures. Complex and critical aspects of care, such as communication between providers, prevention of and response to complications, patient safety, and coordinated transitions to the outpatient environment, all contribute to patient outcomes but are difficult to measure by individual process measures. The goal of outcomes measurement is to risk-adjust for patients' conditions at the time of hospital admission and then evaluate patient outcomes. This measure was developed to identify institutions whose performance is better or worse than would be expected based on their patient case mix and hospital service mix, and therefore promote hospital quality improvement and better inform consumers about care quality.

Hospital-wide readmission is a priority area for outcomes measure development as it is an outcome that is likely attributable to care processes and is an important outcome for patients. Measuring and reporting readmission rates will inform healthcare providers and facilities about opportunities to improve care, strengthen incentives for quality improvement, and ultimately improve the quality of care received by Medicare patients. The measure will also provide patients with information that could guide their choices, as well as increase transparency for consumers.

This Hybrid HWR measure incorporates both data from claims as well as clinical data elements pulled from the EHR in risk adjustment of the readmission models. Some benefits of including the clinical data elements are:

1. Inclusion of patient-level clinical data related to severity of illness is responsive to providers who continue to express preference for using patient-level clinical data, and provides an opportunity to incorporate clinical data into outcome measures.

2. Hospitals will increasingly use EHR data to assess severity of illness and patients' risk of poor outcomes. This provides an opportunity to align the measure with clinical decision support systems that many providers utilize to alert care teams about patients at increased risk of poor outcomes in real time during the inpatient stay.
3. Collecting a simple core set of clinical data elements that perform well as risk-adjustment variables (for illness severity) across conditions can greatly reduce the cost and effort of future measure development, improve harmonization, and create opportunity for longitudinal assessment of patient status and quality of care across settings.
4. These core clinical data elements will provide measure developers with a standard set of reliable data that can be used as a starting place when building risk-adjustment models for quality measures using clinical data.

**S.4. Numerator Statement:** The outcome for this measure is 30-day readmission. We define readmission as an inpatient admission for any cause, with the exception of certain planned readmissions, within 30 days from the date of discharge from an eligible index admission. If a patient has more than one unplanned admission (for any reason) within 30 days after discharge from the index admission, only one is counted as a readmission. The measure looks for a dichotomous yes or no outcome of whether each admitted patient has an unplanned readmission within 30 days. However, if the first readmission after discharge is considered planned, any subsequent unplanned readmission is not counted as an outcome for that index admission because the unplanned readmission could be related to care provided during the intervening planned readmission rather than during the index admission.

**S.6. Denominator Statement:** The measure includes admissions for Medicare beneficiaries who are 65 years and older and are discharged from all non-federal, acute care inpatient US hospitals (including territories) with a complete claims history for the 12 months prior to admission.

Additional details are provided in S.7 Denominator Details.

**S.8. Denominator Exclusions:** The Hybrid HWR measure excludes index admissions for patients:

1. Admitted to Prospective Payment System (PPS)-exempt cancer hospitals;
2. Without at least 30 days post-discharge enrollment in Medicare FFS;
3. Discharged against medical advice (AMA);
4. Admitted for primary psychiatric diagnoses;
5. Admitted for rehabilitation; or
6. Admitted for medical treatment of cancer.

**De.1. Measure Type:** Outcome

**S.17. Data Source:** Claims, Electronic Health Data

**S.20. Level of Analysis:** Facility

**IF Endorsement Maintenance – Original Endorsement Date:** Dec 09, 2016 **Most Recent Endorsement Date:** Sep 01, 2020

**IF this measure is included in a composite, NQF Composite#/title:**

**IF this measure is paired/grouped, NQF#/title:**

**De.4. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results?** N/A

## 1. Evidence, Performance Gap, Priority – Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. **Measures must be judged to meet all sub criteria to pass this criterion and be evaluated against the remaining criteria.**

**1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form**

[Hybrid\\_HWR\\_NQF\\_Evidence\\_Attachment\\_01-29-16\\_v1.0.docx](#)

**1a.1 For Maintenance of Endorsement: Is there new evidence about the measure since the last update/submission?**

Do not remove any existing information. If there have been any changes to evidence, the Committee will consider the new evidence. Please use the most current version of the evidence attachment (v7.1). Please use red font to indicate updated evidence.

## 1b. Performance Gap

Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating:

- considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or
- Disparities in care across population groups.

**1b.1. Briefly explain the rationale for this measure** (e.g., how the measure will improve the quality of care, the benefits or improvements in quality envisioned by use of this measure)

*If a COMPOSITE (e.g., combination of component measure scores, all-or-none, any-or-none), SKIP this question and answer the composite questions.*

The goal of this measure is to improve patient outcomes by providing patients, physicians, hospitals, and policy makers with information about hospital-level, risk-standardized all cause unplanned readmission rates among Medicare beneficiaries 65 years and older admitted to all non-federal US acute care hospitals. Measurement of patient outcomes allows for a broad view of quality of care that encompasses more than what can be captured by individual process-of-care measures. Complex and critical aspects of care, such as communication between providers, prevention of and response to complications, patient safety, and coordinated transitions to the outpatient environment, all contribute to patient outcomes but are difficult to measure by individual process measures. The goal of outcomes measurement is to risk-adjust for patients' conditions at the time of hospital admission and then evaluate patient outcomes. This measure was developed to identify institutions whose performance is better or worse than would be expected based on their patient case mix and hospital service mix, and therefore promote hospital quality improvement and better inform consumers about care quality.

Hospital-wide readmission is a priority area for outcomes measure development as it is an outcome that is likely attributable to care processes and is an important outcome for patients. Measuring and reporting readmission rates will inform healthcare providers and facilities about opportunities to improve care, strengthen incentives for quality improvement, and ultimately improve the quality of care received by Medicare patients. The measure will also provide patients with information that could guide their choices, as well as increase transparency for consumers.

This Hybrid HWR measure incorporates both data from claims as well as clinical data elements pulled from the EHR in risk adjustment of the readmission models. Some benefits of including the clinical data elements are:

1. Inclusion of patient-level clinical data related to severity of illness is responsive to providers who continue to express preference for using patient-level clinical data, and provides an opportunity to incorporate clinical data into outcome measures.
2. Hospitals will increasingly use EHR data to assess severity of illness and patients' risk of poor outcomes. This provides an opportunity to align the measure with clinical decision support systems that many providers utilize to alert care teams about patients at increased risk of poor outcomes in real time during the inpatient stay.
3. Collecting a simple core set of clinical data elements that perform well as risk-adjustment variables (for illness severity) across conditions can greatly reduce the cost and effort of future measure development, improve harmonization, and create opportunity for longitudinal assessment of patient status and quality of care across settings.
4. These core clinical data elements will provide measure developers with a standard set of reliable data that can be used as a starting place when building risk-adjustment models for quality measures using clinical data.

**1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis.** *(This is required for maintenance of endorsement. Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.*

For model development purposes only, we used Dataset 1, which contained merged inpatient claims with clinical data elements derived from patients' EHRs. Our cohort included 381,980 admissions at 21 hospitals.

Overall Measure score – Development Sample, Dataset 1

Mean RSRR (%) 14.84

Min RSRR (%) 13.15

Median RSRR (%) 15.04

Max RSRR (%) 16.16

Results above reflect performance of a small number of hospitals (21) from a single health system, Dataset 1.

**1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.**

CMS currently publicly reports a claims-based Hospital-Wide All-Cause Unplanned Readmission Measure (NQF #1789). The results for this measure, as reported in the 2015 update to the Hospital Compare website, are based on RSRRs calculated for admissions among Medicare FFS patients aged 65 and older from July 1, 2012 - June 30, 2013. It includes 4,772 hospitals. The median hospital RSRR was 15.5%, with an interquartile range of 11.0% to 21.4%.

Randomized controlled trials have shown that improvement in the following areas can directly reduce readmission rates; quality of care during the initial admission; improvement in communication with patients, their caregivers, and their clinicians; patient education; pre-discharge assessment; and coordination of care after discharge<sup>1,2,3,4,5,6,7,8,9,10,11,12,13,14</sup>. Successful randomized trials have reduced 30-day readmission rates by 20-40%. Widespread application of these clinical trial interventions to general practice has also been encouraging. Since 2008, CMS has funded 14 Medicare Quality Improvement Organizations (QIOs) to focus on care transitions and to apply lessons learned from clinical trials. Several QIOs have been notably successful in reducing readmissions within 30 days<sup>15</sup>. Evidence that hospitals have been able to reduce readmission rates through these quality-of-care initiatives illustrates the degree to which hospital practices can affect readmission rates.

**Resources:**

1. Naylor M, Brooten D, Jones R, Lavizzo-Mourey R, Mezey M, Pauly M. Comprehensive discharge planning for the hospitalized elderly. A randomized clinical trial. *Ann Intern Med.* Jun 15 1994;120(12):999-1006.
2. Krumholz HM, Amatruda J, Smith GL, et al. Randomized trial of an education and support intervention to prevent readmission of patients with heart failure. *Journal of the American College of Cardiology.* Jan 2 2002;39(1):83-89.
3. Van Walraven C, Seth R, Austin PC, Laupacis A. Effect of discharge summary availability during post-discharge visits on hospital readmission. *Journal of General Internal Medicine.* Mar 2002;17(3):186-192.
4. Conley RR, Kelly DL, Love RC, McMahon RP. Rehospitalization risk with second-generation and depot antipsychotics. *Annals of Clinical Psychiatry.* Mar 2003;15(1):23-31.
5. Coleman EA, Smith JD, Frank JC, Min S-J, Parry C, Kramer AM. Preparing patients and caregivers to participate in care delivered across settings: the Care Transitions Intervention. *Journal of the American Geriatrics Society.* Nov 2004;52(11):1817-1825.
6. Phillips CO, Wright SM, Kern DE, Singa RM, Shepperd S, Rubin HR. Comprehensive discharge planning with postdischarge support for older patients with congestive heart failure: a meta-analysis. *JAMA.* Mar 17 2004;291(11):1358-1367.
7. Jovicic A, Holroyd-Leduc JM, Straus SE. Effects of self-management intervention on health outcomes of patients with heart failure: a systematic review of randomized controlled trials. *BMC Cardiovasc Disord.* 2006;6:43.
8. Garasen H, Windspoll R, Johnsen R. Intermediate care at a community hospital as an alternative to prolonged general hospital care for elderly patients: a randomised controlled trial. *BMC Public Health.* 2007;7:68.
9. Mistiaen P, Francke AL, Poot E. Interventions aimed at reducing problems in adult patients discharged from hospital to home: a systematic meta-review. *BMC Health Services Research.* 2007;7:47.
10. Courtney M, Edwards H, Chang A, Parker A, Finlayson K, Hamilton K. Fewer emergency readmissions and better quality of life for older adults at risk of hospital readmission: a randomized controlled trial to determine the effectiveness of a 24-week exercise and telephone follow-up program. *Journal of the American Geriatrics Society.* Mar 2009;57(3):395-402.

11. Jack BW, Chetty VK, Anthony D, et al. A reengineered hospital discharge program to decrease rehospitalization: a randomized trial. *Ann Intern Med.* Feb 3 2009;150(3):178-187.
12. Koehler BE, Richter KM, Youngblood L, et al. Reduction of 30-day postdischarge hospital readmission or emergency department (ED) visit rates in high-risk elderly medical patients through delivery of a targeted care bundle. *Journal of Hospital Medicine.* Apr 2009;4(4):211-218.
13. Weiss M, Yakusheva O, Bobay K. Nurse and patient perceptions of discharge readiness in relation to postdischarge utilization. *Medical Care.* May 2010;48(5):482-486.
14. Stauffer BD, Fullerton C, Fleming N, et al. Effectiveness and cost of a transitional care program for heart failure: a prospective study with concurrent controls. *Archives of Internal Medicine.* Jul 25 2011;171(14):1238-1243. Voss R, Gardner R, Baier R, Butterfield K, Lehrman S, Gravenstein S. The care transitions intervention: translating from efficacy to effectiveness. *Archives of Internal Medicine.* Jul 25 2011;171(14):1232-1237.
15. (CFMC) CFMC. Care Transitions QIOS. 2010; <http://www.cfmc.org/caretransitions/Hospital-wide Readmission Measure> 68 July 2012, 2011.

**1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability.** (*This is required for maintenance of endorsement. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included.*) For measures that show high levels of performance, i.e., “topped out”, disparities data may demonstrate an opportunity for improvement/gap in care for certain sub-populations. This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.

Due to the small number of hospitals (21) and relative lack of diversity with respect to socioeconomic status (SES) in the Kaiser Permanente of Northern California system, we did not perform disparities analyses for this measure as specified. However, we have conducted disparities analysis for the claims-only HWR measure (NQF #1789) which uses the same exact specifications except for the additional clinical data elements in the measure’s risk models. We present that data in 1b.5 below.

**1b.5. If no or limited data on disparities from the measure as specified is reported in 1b.4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations. Not necessary if performance data provided in 1b.4**

The most informative data on potential disparities for hospital-wide readmission come from analysis of 30-day readmission rates for the HWR measure (NQF #1789) using 2013-2014 Medicare data.

Distribution of HWR RSRRs by Proportion of Dual Eligible Patients:

Dates of Data: July 2013 through June 2014

Data Source: Medicare FFS claims

Characteristic//Hospitals with a low proportion (=9.8%) Dual Eligible patients//Hospitals with a high proportion (=22.6%) Dual Eligible patients

Number of Measured Hospitals// 1,257 // 1,219

Number of Patients// 2,137,895 patients in low-proportion hospitals // 927,007 in high-proportion hospitals

Maximum// 18.7 // 20.1

90th percentile// 16.2 // 16.8

75th percentile// 15.7 // 16.0

Median (50th percentile)// 15.3 // 15.6

25th percentile// 14.8 // 15.2

10th percentile// 14.3 // 14.9

Minimum // 11.5 // 12.2

Distribution of HWR RSRRs by Proportion of African-American Patients:

Dates of Data: July 2013 through June 2014

Data Source: Medicare FFS claims

Characteristic// Hospitals with a low proportion (=2.2%) African-American patients//Hospitals with a high proportion (=9.4%) African-American patients

Number of Measured Hospitals// 1,156 // 1,180

Number of Patients// 222,648 patients in low-proportion hospitals/ 2,294,715 in high-proportion hospitals

Maximum// 19.1 // 19.9

90th percentile// 16.0 // 17.1

75th percentile// 15.6 // 16.3

Median (50th percentile)// 15.4 // 15.7

25th percentile// 15.1 // 15.2

10th percentile// 14.8 // 14.8

Minimum // 12.9 // 12.2

Distribution of HWR RSRRs by Proportion of Patients with AHRQ SES Index Scores Below 45.0:

Dates of Data: July 2013 through June 2014

Data Source: Medicare FFS claims and the American Community Survey (2008-2012) data

Characteristic//Hospitals with a low proportion of patients below AHRQ SES index score of 45.0 (=5.0%)// Hospitals with a high proportion of patients below AHRQ SES index score of 45.0 (=57.1%)

Number of Measures Hospitals// 1,209 // 1,217

Number of Patients// 1,651,852 patients in hospitals with low proportion of patients below AHRQ SES index score of 45.0 //795,899 patients in hospitals with high proportion of patients below AHRQ SES index score of 45.0

Maximum// 19.9 // 20.1

90th percentile// 16.2 // 16.6

75th percentile// 15.7 // 16.0

Median (50th percentile)// 15.3 // 15.5

25th percentile// 14.9 // 15.2

10th percentile// 14.5 // 14.8

Minimum // 11.5 // 13.0

## 2. Reliability and Validity—Scientific Acceptability of Measure Properties

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. ***Measures must be judged to meet the sub criteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.***

**2a.1. Specifications** The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability. eMeasures should be specified in the Health Quality Measures Format (HQMF) and the Quality Data Model (QDM).

**De.5. Subject/Topic Area** (check all the areas that apply):

Cardiovascular, Cardiovascular : Arrhythmia, Cardiovascular : Congestive Heart Failure, Cardiovascular : Coronary Artery Disease, Cardiovascular : Coronary Artery Disease (AMI), Cardiovascular : Coronary Artery Disease (PCI), Cardiovascular : Hyperlipidemia, Cardiovascular : Hypertension, Critical Care, Endocrine, Endocrine : Diabetes, Endocrine : Thyroid Disorders, Gastrointestinal (GI), Gastrointestinal (GI) : Gall Bladder Disease, Gastrointestinal (GI) : Gastroenteritis, Gastrointestinal (GI) : Gastro-Esophageal Reflux Disease (GERD), Gastrointestinal (GI) : Peptic Ulcer, Genitourinary (GU), Genitourinary (GU) : Incontinence/pelvic floor disorders, Infectious Diseases (ID), Infectious Diseases (ID) : HIV/AIDS, Infectious Diseases (ID) : Pneumonia and respiratory infections, Infectious Diseases (ID) : Sexually Transmitted, Infectious Diseases (ID) : Tuberculosis, Liver : Viral Hepatitis, Musculoskeletal : Falls and Traumatic Injury, Musculoskeletal : Low Back Pain, Musculoskeletal : Osteoporosis, Neurology, Neurology : Brain Injury, Neurology : Stroke/Transient Ischemic Attack (TIA), Renal, Renal : Chronic Kidney Disease (CKD), Renal : End Stage Renal Disease (ESRD), Respiratory, Respiratory : Asthma, Respiratory : Chronic Obstructive Pulmonary Disease (COPD), Respiratory : Dyspnea, Respiratory : Pneumonia, Respiratory : Sleep Apnea, Surgery, Surgery : Cardiac Surgery, Surgery : General Surgery, Surgery : Perioperative and Anesthesia, Surgery : Thoracic Surgery, Surgery : Vascular Surgery

**De.6. Non-Condition Specific**(check all the areas that apply):

Care Coordination, Care Coordination : Readmissions, Care Coordination : Transitions of Care, Safety, Safety : Complications, Safety : Healthcare Associated Infections, Safety : Medication, Screening

**De.7. Target Population Category** (Check all the populations for which the measure is specified and tested if any):

Elderly

**S.1. Measure-specific Web Page** (Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials. Do not enter a URL linking to a home page or to general information.)

<https://ecqi.healthit.gov/ecqm/measures/cms529v0>

**S.2a. If this is an eMeasure**, HQMF specifications must be attached. Attach the zipped output from the eMeasure authoring tool (MAT) - if the MAT was not used, contact staff. (Use the specification fields in this online form for the plain-language description of the specifications)

This is an eMeasure Attachment: [CCDE\\_v4\\_Artifacts\\_01-29-16\\_v1.0-636488643142576517-636809007633309783.zip](#)

**S.2b. Data Dictionary, Code Table, or Value Sets** (and risk model codes and coefficients when applicable) must be attached. (Excel or csv file in the suggested format preferred - if not, contact staff)

Attachment Attachment: [NQF\\_2879\\_Hybrid\\_HWR\\_NQF\\_Data\\_Dictionary\\_v1.0\\_final\\_12-20-18.xlsx](#)

**S.2c.** Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

No, this is not an instrument-based measure Attachment:

**S.2d.** Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

Not an instrument-based measure

**S.3.1. For maintenance of endorsement:** Are there changes to the specifications since the last updates/submission. If yes, update the specifications for S1-2 and S4-22 and explain reasons for the changes in S3.2.

No

**S.3.2. For maintenance of endorsement,** please briefly describe any important changes to the measure specifications since last measure update and explain the reasons.

N/A

**S.4. Numerator Statement** (Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome) DO NOT include the rationale for the measure.

IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

The outcome for this measure is 30-day readmission. We define readmission as an inpatient admission for any cause, with the exception of certain planned readmissions, within 30 days from the date of discharge from an eligible index admission. If a patient has more than one unplanned admission (for any reason) within 30 days after discharge from the index admission, only one is counted as a readmission. The measure looks for a dichotomous yes or no outcome of whether each admitted patient has an unplanned readmission within 30 days. However, if the first readmission after discharge is considered planned, any subsequent unplanned readmission is not counted as an outcome for that index admission because the unplanned readmission could be related to care provided during the intervening planned readmission rather than during the index admission.

**S.5. Numerator Details** (All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in



required format at S.2b)

IF an OUTCOME MEASURE, describe how the observed outcome is identified/counted. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

#### Outcome definition

The measure counts readmissions to any acute care hospital for any cause within 30 days of the date of discharge from an eligible index admission, excluding planned readmissions as defined below.

#### Rationale

Planned readmissions are generally not a signal of quality of care. Including planned readmissions in a readmission measure could create a disincentive to provide appropriate care to patients who are scheduled for elective or necessary procedures within 30 days of discharge. From a patient perspective, an unplanned readmission from any cause is an adverse event. Outcomes occurring within 30 days of discharge can be influenced by hospital care and the early transition to the non-acute care setting. The 30-day time frame is a clinically meaningful period for hospitals to collaborate with their communities to reduce readmissions.

#### Planned Readmission Algorithm (Version 4.0)

The Planned Readmission Algorithm is a set of criteria for classifying readmissions as planned among the general Medicare population using Medicare administrative claims data. The algorithm identifies admissions that are typically planned and may occur within 30 days of discharge from the hospital.

The Planned Readmission Algorithm has three fundamental principles:

1. A few specific, limited types of care are always considered planned (obstetric delivery, transplant surgery, maintenance chemotherapy/radiotherapy/ immunotherapy, rehabilitation);
2. Otherwise, a planned readmission is defined as a non-acute readmission for a scheduled procedure; and
3. Admissions for acute illness or for complications of care are never planned.

The algorithm was developed in 2011 as part of the HWR measure. In 2013, CMS applied the algorithm to its other readmission measures.

For more details on the Planned Readmission Algorithm, please see the report titled “2018 All-Cause Hospital-Wide Measure Updates and Specifications Report: Hospital-Level 30-Day Risk-Standardized Readmission Measure – Version 7.0”

Simoes J, Grady J, Purvis D, et al. 2018 All-Cause Hospital Wide Measure Updates and Specifications Report.

<http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1219069855841>. Accessed November 6, 2018.

#### **S.6. Denominator Statement** (Brief, narrative description of the target population being measured)

The measure includes admissions for Medicare beneficiaries who are 65 years and older and are discharged from all non-federal, acute care inpatient US hospitals (including territories) with a complete claims history for the 12 months prior to admission.

Additional details are provided in S.7 Denominator Details.

#### **S.7. Denominator Details** (All information required to identify and calculate the target population/denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)

IF an OUTCOME MEASURE, describe how the target population is identified. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

To be included in the measure cohort, patients must meet the following additional inclusion criteria:

1. Enrolled in Medicare FFS Part A for the 12 months prior to the date of admission and during the index admission;
2. Aged 65 or over;
3. Discharged alive from a non-federal short-term acute care hospital; and,
4. Not transferred to another acute care facility.



The measure first assigns admissions with qualifying Agency for Healthcare Research and Quality (AHRQ) Clinical Classifications Software (CCS) procedure categories to the Surgery/Gynecology Cohort. This cohort includes admissions likely cared for by surgical or gynecological teams.

The measure then sorts admissions into one of the four remaining specialty cohorts based on the AHRQ CCS diagnosis category of the principal discharge diagnosis:

The Cardiorespiratory Cohort includes several condition categories with very high readmission rates such as pneumonia, chronic obstructive pulmonary disease, and heart failure. These admissions are combined into a single cohort because they are often clinically indistinguishable and patients are often simultaneously treated for several of these diagnoses.

The Cardiovascular Cohort includes condition categories such as acute myocardial infarction that in large hospitals might be cared for by a separate cardiac or cardiovascular team.

The Neurology Cohort includes neurologic condition categories such as stroke that in large hospitals might be cared for by a separate neurology team.

The Medicine Cohort includes all non-surgical patients who were not assigned to any of the other cohorts.

The full list of the specific diagnosis and procedure AHRQ CCS categories used to define the specialty cohorts are attached in the data dictionary.

**S.8. Denominator Exclusions** *(Brief narrative description of exclusions from the target population)*

The Hybrid HWR measure excludes index admissions for patients:

1. Admitted to Prospective Payment System (PPS)-exempt cancer hospitals;
2. Without at least 30 days post-discharge enrollment in Medicare FFS;
3. Discharged against medical advice (AMA);
4. Admitted for primary psychiatric diagnoses;
5. Admitted for rehabilitation; or
6. Admitted for medical treatment of cancer.

**S.9. Denominator Exclusion Details** *(All information required to identify and calculate exclusions from the denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)*

The Hybrid HWR measure excludes index admissions for patients:

1. Admitted to PPS-exempt cancer hospitals

Rationale: These hospitals care for a unique population of patients that cannot reasonably be compared to patients admitted to other hospitals.

2. Without at least 30 days of post-discharge enrollment in Medicare FFS

Rationale: The 30-day readmission outcome cannot be assessed in this group since claims data are used to determine whether a patient was readmitted.

3. Discharged against medical advice

Rationale: Providers did not have the opportunity to deliver full care and prepare the patient for discharge.

4. Admitted for primary psychiatric diagnoses

Rationale: Patients admitted for psychiatric treatment are typically cared for in separate psychiatric or rehabilitation centers that are not comparable to short-term acute care hospitals.

5. Admitted for rehabilitation

Rationale: These admissions are not typically to a short-term acute care hospital and are not for acute care.

6. Admitted for medical treatment of cancer

Rationale: These admissions have a different mortality and readmission profile than the rest of the Medicare population, and outcomes for these admissions do not correlate well with outcomes for other admissions. Patients with cancer admitted for other diagnoses or for surgical treatment of their cancer remain in the measure.

**S.10. Stratification Information** (Provide all information required to stratify the measure results, if necessary, including the stratification variables, definitions, specific data collection items/responses, code/value sets, and the risk-model covariates and coefficients for the clinically-adjusted version of the measure when appropriate – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b.)

N/A

**S.11. Risk Adjustment Type** (Select type. Provide specifications for risk stratification in measure testing attachment)

Statistical risk model

If other:

**S.12. Type of score:**

Rate/proportion

If other:

**S.13. Interpretation of Score** (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)

Better quality = Lower score

**S.14. Calculation Algorithm/Measure Logic** (Diagram or describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; time period for data, aggregating data; risk adjustment; etc.)

The measure estimates hospital-level 30-day all-cause RSRRs using hierarchical logistic regression models. In brief, the approach simultaneously models data at the patient and hospital levels to account for variance in patient outcomes within and between hospitals (Normand et al., 2007). At the patient level, it models the log-odds of hospital readmission within 30 days of discharge using age, selected clinical covariates, and a hospital-specific effect. At the hospital level, the approach models the hospital-specific effects as arising from a normal distribution. The hospital effect represents the underlying risk of a readmission at the hospital, after accounting for patient risk. The hospital-specific effects are given a distribution to account for the clustering (non-independence) of patients within the same hospital (Normand et al., 2007). If there were no differences among hospitals, then after adjusting for patient risk, the hospital effects should be identical across all hospitals.

Admissions are assigned to one of five mutually exclusive specialty cohort groups consisting of related conditions or procedures. For each specialty cohort group, the SRR is calculated as the ratio of the number of “predicted” readmissions to the number of “expected” readmissions at a given hospital. For each hospital, the numerator of the ratio is the number of readmissions within 30 days, predicted based on the hospital’s performance with its observed case mix and service mix, and the denominator is the number of readmissions expected based on the nation’s performance with that hospital’s case mix and service mix. This approach is analogous to a ratio of “observed” to “expected” used in other types of statistical analyses. It conceptually allows a particular hospital’s performance, given its case mix and service mix, to be compared to an average hospital’s performance with the same case mix and service mix. Thus, a lower ratio indicates lower-than-expected readmission rates or better quality, while a higher ratio indicates higher-than-expected readmission rates or worse quality.

For each specialty cohort, the “predicted” number of readmissions (the numerator) is calculated by using the coefficients estimated by regressing the risk factors and the hospital-specific effect on the risk of readmission. The estimated hospital-specific effect for each cohort is added to the sum of the estimated regression coefficients multiplied by patient characteristics. The results are log-transformed and summed over all patients attributed to a hospital to get a predicted value. The “expected” number of readmissions (the denominator) is obtained in the same manner, but a common effect using all hospitals in our sample is added in place of the hospital-specific effect. The results are log-transformed and summed over all patients in the hospital to get an expected value. To assess hospital performance for each reporting period, we re-estimate the model coefficients using the data in that period.

The specialty cohort SRRs are then pooled for each hospital using a volume-weighted geometric mean to create a hospital-wide composite SRR. The composite SRR is multiplied by the national observed readmission rate to produce the RSRR. The statistical

modeling approach is described fully in Appendix A and in the original methodology report (Horwitz et al., 2012).

**References:**

Horwitz L, Partovian C, Lin Z, et al. Hospital-Wide All-Cause Unplanned Readmission Measure: Final Technical Report. 2012; <https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1219069855841>. Accessed August 3, 2018.

Normand S-LT, Shahian DM. 2007. Statistical and Clinical Aspects of Hospital Outcomes Profiling. Stat Sci 22(2): 206-226.

**S.15. Sampling** (If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)

IF an instrument-based performance measure (e.g., PRO-PM), identify whether (and how) proxy responses are allowed.

N/A

**S.16. Survey/Patient-reported data** (If measure is based on a survey or instrument, provide instructions for data collection and guidance on minimum response rate.)

Specify calculation of response rates to be reported with performance measure results.

N/A

**S.17. Data Source** (Check ONLY the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in S.18.

Claims, Electronic Health Data

**S.18. Data Source or Collection Instrument** (Identify the specific data source/data collection instrument (e.g. name of database, clinical registry, collection instrument, etc., and describe how data are collected.)

IF instrument-based, identify the specific instrument(s) and standard methods, modes, and languages of administration.

Data sources for the Medicare FFS measure:

1. Medicare Part A inpatient claims: This data source contains claims data for FFS inpatient services including: Medicare inpatient hospital care as well as inpatient physician claims for the 12 months prior to and including the index admission.

2. Medicare Enrollment Database (EDB): This database contains Medicare beneficiary demographic, benefit/coverage, and vital status information. This data source was used to obtain information on several inclusion/exclusion indicators such as Medicare status on admission and following discharge from index admission.

3. Patients' electronic health records: The clinical data elements used in the risk models for this measure will be derived from patients EHRs. The measure was developed and tested using data from EHRs.

**S.19. Data Source or Collection Instrument** (available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

No data collection instrument provided

**S.20. Level of Analysis** (Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)

Facility

**S.21. Care Setting** (Check ONLY the settings for which the measure is SPECIFIED AND TESTED)

Inpatient/Hospital

If other:

**S.22. COMPOSITE Performance Measure** - Additional Specifications (Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.)

N/A

**2. Validity – See attached Measure Testing Submission Form**

Hybrid\_HWR\_NQF\_Testing\_Attachment\_01-29-16\_v1.0.docx

### 2.1 For maintenance of endorsement

*Reliability testing: If testing of reliability of the measure score was not presented in prior submission(s), has reliability testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.*

### 2.2 For maintenance of endorsement

*Has additional empirical validity testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.*

### 2.3 For maintenance of endorsement

*Risk adjustment: For outcome, resource use, cost, and some process measures, risk-adjustment that includes social risk factors is not prohibited at present. Please update sections 1.8, 2a2, 2b1,2b4.3 and 2b5 in the Testing attachment and S.140 and S.11 in the online submission form. NOTE: These sections must be updated even if social risk factors are not included in the risk-adjustment strategy. You MUST use the most current version of the Testing Attachment (v7.1) -- older versions of the form will not have all required questions.*

## 3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

### 3a. Byproduct of Care Processes

For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

#### 3a.1. Data Elements Generated as Byproduct of Care Processes.

Generated or collected by and used by healthcare personnel during the provision of care (e.g., blood pressure, lab value, diagnosis, depression score), Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims)  
If other:

### 3b. Electronic Sources

The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.

**3b.1. To what extent are the specified data elements available electronically in defined fields (i.e., data elements that are needed to compute the performance measure score are in defined, computer-readable fields)** Update this field for **maintenance of endorsement**.

ALL data elements are in defined fields in a combination of electronic sources

**3b.2. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources. For maintenance of endorsement**, if this measure is not an eMeasure (eCQM), please describe any efforts to develop an eMeasure (eCQM).

**3b.3. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL. Please also complete and attach the NQF Feasibility Score Card.**

**Attachment:** [NQF\\_2879\\_Hybrid\\_HWR\\_Feasibility\\_Scorecard\\_01-29-16\\_v1.1.docx](#)

### 3c. Data Collection Strategy

Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, costs

associated with fees/licensing of proprietary measures) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use). For eMeasures, a feasibility assessment addresses the data elements and measure logic and demonstrates the eMeasure can be implemented or feasibility concerns can be adequately addressed.

**3c.1. Required for maintenance of endorsement.** Describe difficulties (as a result of testing and/or operational use of the measure) regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.

**IF instrument-based,** consider implications for both individuals providing data (patients, service recipients, respondents) and those whose performance is being measured.

Administrative data are routinely collected as part of the billing process.

Electronic clinical data will be collected from hospitals using MAT output and value sets to inform data queries and electronic reporting requirements.

**3c.2. Describe any fees, licensing, or other requirements to use any aspect of the measure as specified (e.g., value/code set, risk model, programming code, algorithm).**

There are no fees associated with the use of this measure.

## 4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

### 4a. Accountability and Transparency

Performance results are used in at least one accountability application within three years after initial endorsement and are publicly reported within six years after initial endorsement (or the data on performance results are available). If not in use at the time of initial endorsement, then a credible plan for implementation within the specified timeframes is provided.

#### 4.1. Current and Planned Use

NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement in addition to performance improvement.

Specific Plan for Use	Current Use (for current use provide URL)

#### 4a1.1 For each CURRENT use, checked above (update for maintenance of endorsement), provide:

- Name of program and sponsor
- Purpose
- Geographic area and number and percentage of accountable entities and patients included
- Level of measurement and setting

N/A

**4a1.2. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing) what are the reasons? (e.g., Do policies or actions of the developer/steward or accountable entities restrict access to performance results or impede implementation?)**

This is a new measure.

**4a1.3. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement. (Credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.)**

CMS intends to implement this measure in the Hospital Inpatient Quality Reporting (HIQR) Program once the clinical data elements required for this measure have been reported by hospitals for one year. This measure requires one year of data for calculation. The exact timeline therefore depends on the implementation of a reporting mechanism for these data elements. Once this new measure is implemented, it may replace the claims-only other Hospital-Wide All Cause Unplanned Readmission Measure.

**4a2.1.1. Describe how performance results, data, and assistance with interpretation have been provided to those being measured or other users during development or implementation.**

**How many and which types of measured entities and/or others were included? If only a sample of measured entities were included, describe the full population and how the sample was selected.**

This measure was included as a voluntary measure in the HWR program with an initial data collection period of 2018. There are not performance results available yet. We anticipate results being available to providers in 2019.

**4a2.1.2. Describe the process(es) involved, including when/how often results were provided, what data were provided, what educational/explanatory efforts were made, etc.**

N/A

**4a2.2.1. Summarize the feedback on measure performance and implementation from the measured entities and others described in 4d.1.**

**Describe how feedback was obtained.**

N/A

**4a2.2.2. Summarize the feedback obtained from those being measured.**

For the Hybrid HWR measure, we have received the following inquiries from hospitals since the completion of measure maintenance in December 2017:

1. Queries about voluntary reporting such as requirements for participation, processes for data extraction from EHR, correct formatting for QRDA file;
2. Request for information regarding measure methodology including planned readmission algorithm, clarification on HTML document, clinical and laboratory values, and use of Labs in the measure in terms of surgical cases.
3. Queries about the implementation of the Hybrid HWR measure, including how the movement from HIC number to MBI number for linking variable will affect measure specifications.
4. Queries on payment penalties including whether risk adjustment calculation affects VBP or IQR payment or penalties for readmission.

**4a2.2.3. Summarize the feedback obtained from other users**

For the Hybrid HWR measure, we have received the following feedback from other stakeholders since the completion of measure maintenance in December 2017:

1. Request for information regarding measure methodology including removal of risk factors that are currently used in the claims-based Hospital-Wide Readmission (HWR) measure, clarification of meaning of "index admission", and whether patients will be identified through CMS' algorithm or an internal process.
2. Queries about the implementation of the Hybrid HWR measure, including public reporting, purpose of data collection, whether risk adjustment will have bearing in the current HRRP, impact on Medicare ACO scoring for the all-cause measure, and CMS overall intent in collecting labs and vital signs.

**4a2.3. Describe how the feedback described in 4a2.2.1 has been considered when developing or revising the measure specifications or implementation, including whether the measure was modified and why or why not.**

We anticipate receiving feedback in late 2018 and 2019 that will be incorporated into measure reevaluation.

#### **Improvement**

Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated. If not in use for performance improvement at the time of initial endorsement, then a credible rationale describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

**4b1. Refer to data provided in 1b but do not repeat here. Discuss any progress on improvement (trends in performance results,**

number and percentage of people receiving high-quality healthcare; Geographic area and number and percentage of accountable entities and patients included.)

If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

In order for CMS to implement this measure in HIQR, there must be a requirement for Inpatient Prospective Payment Systems (IPPS) hospitals to submit the clinical data elements required for measure calculation. This requirement is not yet in place and there is no current timetable for implementation. However, once the core clinical data elements are collected, this hybrid measure may replace the claims-only measure. The hybrid measure has improved credibility and face validity among stakeholders. It also aligns with CMS's goal to incorporate electronic clinical data into quality measures wherever possible.

#### **4b2. Unintended Consequences**

The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

##### **4b2.1. Please explain any unexpected findings (positive or negative) during implementation of this measure including unintended impacts on patients.**

We did not identify any unintended consequences during preliminary measure development or model testing. However, we are committed to monitoring this measure's use and assessing potential unintended consequences over time, such as the inappropriate shifting of care, increased patient morbidity and mortality, and other negative unintended consequences for patients.

##### **4b2.2. Please explain any unexpected benefits from implementation of this measure.**

## **5. Comparison to Related or Competing Measures**

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure.

### **5. Relation to Other NQF-endorsed Measures**

Are there related measures (conceptually, either same measure focus or target population) or competing measures (conceptually both the same measure focus and same target population)? If yes, list the NQF # and title of all related and/or competing measures.  
Yes

#### **5.1a. List of related or competing measures (selected from NQF-endorsed measures)**

#### **5.1b. If related or competing measures are not NQF endorsed please indicate measure title and steward.**

### **5a. Harmonization of Related Measures**

The measure specifications are harmonized with related measures;

**OR**

The differences in specifications are justified

#### **5a.1. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):**

Are the measure specifications harmonized to the extent possible?

Yes

#### **5a.2. If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.**

N/A



#### 5b. Competing Measures

The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);

**OR**

Multiple measures are justified.

#### 5b.1. If this measure conceptually addresses both the same measure focus and the same target population as NQF-endorsed measure(s):

**Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible.)**

We did not include in our list of related measures any non-outcome measures, such as process measures, with the same target population as our measure. Because this is an outcome measure, clinical coherence of the cohort takes precedence over alignment with related non-outcome measures. Furthermore, non-outcome measures are limited due to broader patient exclusions. This is because they typically only include a specific subset of patients who are eligible for that measure (for example, patients who receive a specific medication or undergo a specific procedure).

The proposed Hybrid HWR measure is a reengineered version of the HWR measure (NQF #1789) in that the proposed measure uses clinical data elements collected from EHR in addition to claims data for risk adjustment. The measure listed above uses only claims data for risk adjustment. In order for CMS to implement this measure in HIQR, there must be a requirement for IPPS hospitals to submit the clinical data elements required for measure calculation. This requirement is not yet in place and there is no current timetable for implementation. However, once the CCDE are collected, this Hybrid measure may replace the claims-only measure.

## Appendix

**A.1 Supplemental materials may be provided in an appendix.** All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.

**Attachment** [Attachment: eHWR\\_Tech\\_Report\\_01-29-16\\_v1.0.pdf](#)

## Contact Information

**Co.1 Measure Steward (Intellectual Property Owner):** Centers for Medicare & Medicaid Services (CMS)

**Co.2 Point of Contact:** Lein, Han, [Lein.han@cms.hhs.gov](mailto:Lein.han@cms.hhs.gov), 410-786-0205-

**Co.3 Measure Developer if different from Measure Steward:** Yale New Haven Health Services Corporation/Center for Outcomes Research and Evaluation (YNHHSC/CORE)

**Co.4 Point of Contact:** Karen, Dorsey, [karen.dorsey@yale.edu](mailto:karen.dorsey@yale.edu), 203-764-5700-

## Additional Information

### Ad.1 Workgroup/Expert Panel involved in measure development

**Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.**

### Measure Developer/Steward Updates and Ongoing Maintenance

**Ad.2 Year the measure was first released:**

**Ad.3 Month and Year of most recent revision:**

**Ad.4 What is your frequency for review/update of this measure?**

**Ad.5 When is the next scheduled review/update for this measure?**

**Ad.6 Copyright statement:**

**Ad.7 Disclaimers:**

**Ad.8 Additional Information/Comments:**