



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 IM1.1 relates to sub criterion IM1).

Brief Measure Information

NQF #: 1557

De.2. Measure Title: Relative Resource Use for People With Diabetes (RDI)

Co.1.1. Measure Steward: National Committee for Quality Assurance

De.3. Brief Description of Measure: The risk-adjusted relative resource use by health plan members with diabetes (type 1 and type 2) during the measurement year.

IM2.1. Developer Rationale: The development and implementation of the RRU measurement set, when considered alongside relevant HEDIS quality of-care measures, advances us further down the path to obtaining information that supports value-based purchasing. For the first time, purchasers have a more complete picture of relative health plan value-performance. They can evaluate plans' relative quality and resource use, in comparison to other plans available to the employer, for a number of major chronic illnesses, in addition to specific premiums offered by the plans.

In terms of their overall role in defining cost and utilization, RRU measures provide an aggregate level of measurement within specific high-cost conditions but are reported nationally and within regions, overall and by service type (e.g., inpatient and outpatient E&M services) and across age/gender cohorts. This allows for identification of specific areas on which to focus improvement efforts. These measures are an important first step towards value-based purchasing.

De.1. Measure Type: Cost/Resource Use

S.5. Data Source: Claims

Electronic Health Data

Electronic Health Records

S.3. Level of Analysis: Health Plan, Integrated Delivery System, Other

IF Endorsement Maintenance – Original Endorsement Date: Jan 31, 2012 **Most Recent Endorsement Date:** Jan 31, 2012

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?

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.**

IM1. High Priority

IM1.1. Demonstrated High Priority Aspect of Healthcare

Affects large numbers

A leading cause of morbidity/mortality

High resource use

Patient/societal consequences of poor quality

Severity of illness

IM1.2. Provide epidemiologic or resource use data that demonstrates the measure addresses a high priority aspect of healthcare.

List citations in IM.1.3. Diabetes is a global epidemic that has created a crisis for the health care system. Data from the National Health and Nutrition Examination Survey (NHANES) indicated that as of 2002, 19.3 million, or 9.3 percent of the adult population ages 20 years and older in the United States, had diabetes (Cowie, 2006). Of the 19.3 million, one-third did not receive an initial diagnosis of diabetes. Diagnostic efforts have improved over the years, with the prevalence of diabetes diagnoses increasing from 5.1% (time frame: 1988-1994) to 6.5% (1999 to 2002) (Cowie, 2006).

However, diabetes continues to be the sixth leading cause of death (CDC, 2005). Risk for premature death among individuals with diabetes is about twice that for those without the diagnosis. Adults with diabetes have higher rates of stroke and death from heart disease in comparison to adults without diabetes, being 2 to 4 times more at risk for these events.

Additionally, poor management of diabetes contributes to serious morbidities. Diabetes is the leading cause of new cases of blindness among adults aged 20 to 74 years and the leading cause of end-stage renal disease (ESRD), accounting for 44% of new cases. Diabetes is also the primary cause of over 60% of lower-limb amputations that are not attributed to trauma (CDC, 2005).

Financially, in 2007, excess medical expenditures attributed to diabetes totaled \$116 billion and \$58 billion in productivity costs (ADA, 2008). People with diabetes account for significantly higher use of health care resources (e.g., inpatient hospital care, outpatient and physician office visits, emergency visits, nursing facility stays, home health visits, prescription drug and medical supplies) when compared to people without diabetes. In addition, people with diabetes are at an increased risk of comorbidities and other complications, which also account for the high cost and resource utilization (ADA, 2008).

Recent studies highlight the prevalence and economic burden associated with diabetes by type and the stage of progression of the disease (ADA, 2008; Dall, 2009; Zhang, 2009; Chen, 2009). Nearly 17.5 million people living in the United States were diagnosed with type 1 or type 2 diabetes mellitus in 2007, costing an estimated \$174.4 billion in medical costs and lost productivity (ADA, 2008). For patients with type 2 diabetes (approximately 16.5 million), the annual national cost is \$159.5 billion; and for patients with type 1 diabetes (approximately 1.0 million people), the cost is \$14.9 billion (Dall, 2009). Currently, the annual direct and indirect costs associated with all of these conditions are approximately \$218 billion (Timothy, 2010).

In 2007, another 6.3 million adults in the United States who were undiagnosed suffered from associated costs estimated at \$18 billion (inclusive of direct and indirect costs) (Zhang, 2009). In addition, nearly 57 million adults have pre-diabetes, which is associated with \$25 billion annually in higher medical costs (Zhang, 2009). Diabetes for specific populations is also expensive. This figure highlights the significance of the economic burden of diabetes with respect to spending on other national priorities.

IM1.3. Citations for data demonstrating high priority provided in IM.1.2

American Diabetes Association. Economic costs of diabetes in the U.S. in 2007. *Diabetes Care*. 2008;31 (3):576–615.

Centers for Disease Control and Prevention. National Diabetes Fact Sheet: General Information and National Estimates on Diabetes in the United States, 2005. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2005.

Chen Y, Quick WW, Yang W, Zhang Y, Baldwin A, Moran J, et al. Cost of gestational diabetes mellitus in the United States in 2007. *Popul Health Manag*. 2009;12(3):165–74.

Cowie CC, Rust KF, Byrd-Holt DD, Eberhardt MS, Flegal KM, Engelgau MM, et al. Prevalence of diabetes and impaired fasting glucose in adults in the U.S. population: National Health and Nutrition Examination Survey 1999- 2002. *Diabetes Care*. 2006;29:1263-8. [PMID: 16732006]

Dall TM, Mann SE, Zhang Y, Quick WW, Seifert RF, Martin J, et al. Distinguishing the economic costs associated with type 1 and type 2 diabetes. *Popul Health Manag*. 2009;12(2):103–10.

Timothy M., Yiduo Zhang, Yaozhu J., William W., et al. The economic burden of diabetes. *Health Affairs*. 2010; 29 (2).

Zhang Y, Dall TM, Mann SE, Chen Y, Martin J, Moore V, et al. The economic costs of undiagnosed diabetes. *Popul Health Manag.* 2009;12 (2):95–101.

IM2. Opportunity for Improvement

IM2.1. Briefly explain the rationale for this measure (e.g., the benefits or improvements in performance envisioned by use of this measure)

The development and implementation of the RRU measurement set, when considered alongside relevant HEDIS quality-of-care measures, advances us further down the path to obtaining information that supports value-based purchasing. For the first time, purchasers have a more complete picture of relative health plan value-performance. They can evaluate plans' relative quality and resource use, in comparison to other plans available to the employer, for a number of major chronic illnesses, in addition to specific premiums offered by the plans.

In terms of their overall role in defining cost and utilization, RRU measures provide an aggregate level of measurement within specific high-cost conditions but are reported nationally and within regions, overall and by service type (e.g., inpatient and outpatient E&M services) and across age/gender cohorts. This allows for identification of specific areas on which to focus improvement efforts. These measures are an important first step towards value-based purchasing.

IM2.2. Provide performance scores on the measure as specified (current and over time) **at the specified level of analysis.** (This is required for endorsement maintenance. Include mean, stddev, 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 subcriterion on improvement (U.2.1.) under Usability and Use.

Annual analysis of RRU data collected by NCQA over the last four years demonstrates substantial variation in health plan resource use from an overall perspective and with respect to specific service areas (e.g., procedure and surgery services or pharmacy services) and regions. Moreover, a substantial number of health plans can be identified as statistically significantly better or worse than average along RRU and quality dimensions.

IM2.3. If no or limited performance data on the measure as specified is reported in IM.2.2., 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.

National Committee for Quality Assurance (NCQA) HEDIS® 2010 Relative Resource Use (RRU) Annual Analytic Report.

IM2.4. 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 endorsement maintenance. 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 subcriterion on improvement (U.2.1.) under Usability and Use.**

Data from the Centers for Disease Control and Prevention (CDC) show a dramatic increase in the prevalence of diabetes mellitus in the United States, particularly among certain ethnic populations. For example, the mortality rates for African-Americans and Hispanics with diabetes is nearly twice that of Caucasians (Cowie, 2006). Nearly 50% of both Hispanic and African-American children born between 1900 and 1950 are more likely to develop diabetes if adequate preventive measures are not implemented (Tuomilehto, 2001). Furthermore, non-Hispanic African-American individuals and Mexican-American individuals are respectively 1.8 and 1.7 times more likely to have diabetes when compared to non-Hispanic white individuals. Sufficient data are not yet available to calculate more precise estimates of the total prevalence of diabetes (both diagnosed and undiagnosed) for Hispanic and Latino populations. Additionally, American Indian and Alaska Native individuals are 2.2 times more likely to have diabetes than non-Hispanic white individuals. Meanwhile, individuals of Asian, Native Hawaiian, and other Pacific Islander ancestry who are 20 years or older are more than twice as likely as non-Hispanic white individuals to be diagnosed with diabetes (CDC, 2005).

A considerable number of studies have proved that the presence of diabetes increases the risk of coronary heart disease (CHD), particularly the correlated mortality rates among diagnosed women (Lee, 2000; Hu, 2003). It has also been suggested that women with diabetes have a similar risk of CVD events with women with CVD as a primary diagnosis (Becker, 2003). Women with diabetes also have a greater risk of CHD mortality than women with prior incidents of myocardial infarction (Hu, 2005). However, men who have a primary diagnosis of CVD or have experienced a previous myocardial infarction event conferred a higher risk than diabetes. In addition, over the past 30 years, women with diabetes have not experienced the decline in CHD-related mortality in comparison to men with diabetes and both men and women without diabetes (Pantelis, 2006). In particular, data from the National Health and Nutrition Examination Survey (NHANES) showed that CHD mortality in women with diabetes has increased 23% over the past three

decades, compared with a 13.1% decrease in diabetic men and decreases of 27% and 36.4% in women and men without diabetes (Gu, 1999).

IM2.5. If no or limited data on disparities from the measure as specified is reported in IM.2.4., then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations.

Becker A, Bos G, de VF, et al.: Cardiovascular events in type 2 diabetes: comparison with nondiabetic individuals without and with prior cardiovascular disease. 10-year follow-up of the Hoorn Study. *Eur Heart J* 2003, 24:1406–1413.

Cowie CC, Rust KF, Byrd-Holt DD, Eberhardt MS, Flegal KM, Engelgau MM, et al. Prevalence of diabetes and impaired fasting glucose in adults in the U.S. population: National Health and Nutrition Examination Survey 1999- 2002. *Diabetes Care*. 2006;29:1263-8. [PMID: 16732006]

Hu G: Gender difference in all-cause and cardiovascular mortality related to hyperglycaemia and newly-diagnosed diabetes. The DECODE Study Group. *Diabetologia* 2003, 46:608–617.

Hu G, Jousilahti P, Qiao Q, et al.: The gender-specific impact of diabetes and myocardial infarction at baseline and during follow-up on mortality from all causes and coronary heart disease. *J Am Coll Cardiol* 2005, 45:1413–1418.

Lee WL, Cheung AM, Cape D, Zinman B: Impact of diabetes on coronary artery disease in women and men: a meta-analysis of prospective studies. *Diabetes Care* 2000, 23:962–968.

National Diabetes Fact Sheet: United States 2005. Centers for Disease Control and Prevention Web site. Available at: www.ndep.nih.gov/diabetes/pubs/2005_National_Diabetes_Fact_Sheet.pdf. Accessed August 1, 2006. (LOE 1)

Pantelis A. Sarafidis, MD, PhD, Samy I. McFarlane, MD, MPH, and George L. Bakris, MD. Gender Disparity in Outcomes of Care and Management for Diabetes and the Metabolic Syndrome. *Current Diabetes Reports* 2006, 6:219-224

Tuomilehto J, Lindstrom J, Eriksson JG, et al. Prevention of type 2 diabetes mellitus by changes in lifestyle among subjects with impaired glucose tolerance. *N Engl J Med*. 2001;344(18):1343–1350.

IM3. Measure Intent

IM3.1. Describe intent of the measure and its components/ Rationale (including any citations) for analyzing variation in resource use in this way.

Relative Resource Use (RRU) measures are a standardized way to measure relative resource use related to different types of health care services. When evaluated in conjunction with corresponding quality of care measures, they provide important information related to the efficiency or value of health care services. RRU measures have the following features:

- Focus on high-cost conditions for which there are corresponding HEDIS Effectiveness of Care measures
- Segment the effect of unit price and utilization variation
- Rely on an indirect standardization approach to risk adjustment that was developed from regression analysis

RRU measures report the organization's total resource use for defined diseases by service category and use standardized price to relate service units for each eligible member, during each measure's treatment period. The organization does not report prices based on its contracts and fee schedules; rather it applies a standard price to each service, multiplies it by the number of units of service and reports the resulting standard cost. For RRU measures that relate to chronic conditions (e.g., Relative Resource Use for People With Diabetes), the treatment period is the 12-month measurement year. As contrasted with episode grouper based measures, relative resource use is calculated for included services, whether or not they relate directly (as defined by some algorithm or episode grouper) to the specific chronic condition.

When health plans select providers, negotiate price, design benefits or implement incentives, they use interventions to influence quality and moderate cost. When plans and other stakeholders can compare results with other health plans using the RRU measurement set based on national and regional benchmarks, they have a growing body of information with which to gauge their performance in categories such as clinical quality, patient experience and resource use-cost. Purchasers and plans can independently and collectively review and select appropriate, targeted interventions.

RRU measures indicate how a plan uses a set of key resources (e.g., physician visits, hospital stays) to care for its members with specific diseases, compared with the average for plans in the same region and adjusted for the set of diseases and case mix of plan members. RRU results make it possible to simultaneously evaluate both the quality of services and key elements that drive costs and

premiums.

In the interest of transparency, NCQA has issued quality reports on individual measures and in aggregate ratings of quality—for example, in the State of Health Care Report and America’s Best Health Plans—that make it possible to compare plan performance with market averages. NCQA created additional disease-specific composites for use with the RRU measures. By reviewing a health plan’s RRU and quality ratios together, purchasers and plans can engage in a balanced, data-driven dialogue about benefit design or the effectiveness of a wellness program or disease management program. Plan performance information can be supplemented with a detailed analysis of internal data by self-insured employers or by plans studying expenditures. These individual plan or purchaser data can provide a detailed look at specific criteria (e.g., age and disease, procedure-specific admissions).

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.**

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):

Endocrine

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

Population Health

De.7. Care Setting (Select all the settings for which the measure is specified and tested):

Inpatient/Hospital

Outpatient Services

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.)

<WebPageURLExists nodeType="1"><http://www.ncqa.org/RelativeResourceUseMeasuresRDI.aspx>

S.2. Type of resource use measure (Select the most relevant)

S.3. Level of Analysis (Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED):

Health Plan, Integrated Delivery System, Other

S.4. Target Population Category (Check all the populations for which the measure is specified and tested if any):

Populations at Risk

S.5. Data Source (Check ONLY the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in S.5.1.

Claims

Electronic Health Data

Electronic Health Records

S.5.1. Data Source or Collection Instrument (Identify the specific data source or data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.)

NCQA collects HEDIS RRU data directly from Health Plan Organizations and Preferred Provider Organizations via a data submission portal - the Interactive Data Submission System (IDSS).). RRU measures use NCQA’s standardized prices and NCQA collects data

with only the standardized prices applied. The list below summarizes the standard pricing tables (and table names) which organizations use to apply to each service captured for reporting RRU. Consistent standard prices protect the organization's proprietary fee schedules and contracts and support measure comparison across organizations and across regions without requiring adjustment for levels of service payment

HEDIS 2011 STANDARD PRICING TABLES: Volume 2: Technical Specifications

1. Description of codes and services included in the standard price and supporting tables (RRU Reference Table)
2. Cost Cap Amounts (SPT-CAP Amounts)

Inpatient Facility Tables

1. Length of Stay Group (LOS Group)
2. Standard price for inpatient facility services using DRGs (SPT-INP-DRG)
3. Standard price for inpatient facility services using ADSC (SPT-INP-ADSC)
4. Inpatient ICD-9-CM Diagnosis mapping to ADSC (ADSC-Table)
5. Codes indicating major surgery (Maj-Surg-Table)

E&M Table

1. Standard price for evaluation and management (SPT-EM Inpatient and Outpatient)

Surgery and Procedure Table

1. Standard price for surgery and procedures (SPT-Surg-Proc Inpatient and Outpatient)

Diagnostic Lab and Imaging Table

1. Standard price for diagnostic laboratory services (SPT-LAB)
2. Standard price for diagnostic imaging services (SPT-IMG)

Pharmacy Tables

1. Standard price for pharmacy services (SPT-Pharm)
2. Standard price for RLB measure-specific pharmacy services (SPT-Pharm for RLB)

Risk Adjustment Tables

1. CC comorbid category assignments (Table CC-Comorbid)
2. CC ranking assignments (Table HCC-Rank)
3. CC combination assignments (Table HCC-Comb)
4. Age/gender HCC weighting (Table RRU-age/gender HCC)
5. Predefined risk weight (Table RRU-Weight)

S.5.2. Data Source or Collection Instrument Reference (available at measure-specific Web page URL identified in S.1 OR in the file attached here) (Save file as: S_5_2_DataSourceReference)

S.6. Data Dictionary or Code Table (Please provide a web page URL or attachment if exceeds 2 pages. NQF strongly prefers URLs. Attach documents only if they are not available on a web page.)

Data Dictionary:

URL:

Please supply the username and password:

Attachment:

Code Table:

URL: <http://www.ncqa.org/RelativeResourceUseMeasuresRDI.aspx>

Please supply the username and password:

Attachment:

Construction Logic

S.7.1. Brief Description of Construction Logic

If applicable, summarize the general approach or methodology to the measure construction. This is most relevant to measures that are part of or rely on the execution of a measure system or applies to multiple measures.

The measure reports total standard costs and frequency for all included services for which the organization has paid or expects to pay for the eligible population during a pre-specified measurement year. The eligible population for RDI includes all health plan members with Type I or Type II diabetes that were continuously enrolled for a two year period (the measurement year and the year prior). Total standard costs are assigned to each service the member received during the measurement year by matching codes for services rendered to codes listed in the NCQA Standardized Price Tables (SPTs) (<http://www.ncqa.org/downloads/rru/9C9848A9-59EE-4E8D-B092-2350FA74EA35>).

Standard costs are calculated and reported for the following service categories:

- Inpatient Facility
- E&M (inpatient and outpatient service categories)
- Laboratory Services
- Surgery and Procedure (inpatient and outpatient service categories)
- Imaging Services
- Pharmacy

Service frequency counts are reported for all services for which the organization has paid or expects to pay for the eligible population during the treatment period. Organizations capture each eligible member's services rendered during the treatment period for the following utilization categories.

- 1.Total Inpatient Facility: Discharges
- 2.Acute Inpatient: Discharges, Days, ALOS
- 3.Acute Medicine: Discharges, Days, ALOS
- 4.Acute Surgery: Discharges, Days, ALOS
- 5.Nonacute: Discharges, Days, ALOS
- 6.ED Discharges
- 7.Pharmacy Utilization
 - o Name brand only (N1)
 - o Name brand—Generic exists (N2)
 - o Generic only (G1)
 - o Generic name—Name brand exists (G2):
- 8.Cardiac Catheterization
- 9.PCI
- 10.CABG
- 11.Carotid Endarterectomy
- 12.Carotid Artery Stenosis Diagnostic Test
- 13.Cardiac Computed Tomography
- 14.CAD Diagnostic Test Using EBCT/Nuclear Imaging Stress Test

S.7.2. Construction Logic *(Detail logic steps used to cluster, group or assign claims beyond those associated with the measure's clinical logic.)*

An organization counts all services listed in the Standardized Price Tables rendered to members in the eligible population during the measurement year. The unit prices are calculated to represent data derived from a single source, using a single approach for classifying and pricing services. Pricing algorithms represent average service pricing levels for organizations for the most recent period. Standard prices support consistent comparisons of "weighted utilization" across all members, organizations and geographic areas and protect individual proprietary pricing and fee schedules.

First the eligible population is defined using the clinical and eligibility criteria outlined in Section S.8.2 and below:

- 18–75 years of age as of the end of the measurement year (e.g., December 31).
- They must be continuously enrolled throughout the measurement year.
- They may not have more than one gap in enrollment (of up to 45 days) anytime during the measurement year. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not considered continuously enrolled).
- They must have medical benefits for the measurement year

Exclusion criteria are then applied to the eligible population as detailed in Section S.8.2. Member months during the measurement year are then calculated for the measure's eligible population after all exclusion criteria has been applied to the eligible population data set using the following steps:

Step 1: Determine member months using a prespecified day (e.g., the 15th or the last day of the month), determined according to the organization's administrative processes. The day selected must be consistent from month to month and year to year. For example, if the organization tallies membership on the 15th of the month and Ms. X is enrolled in the organization on January 15, Ms. X contributes one member month in January. Organizations may count any month in which members were enrolled retrospectively and the organization received a retroactive capitation payment.

Step 2: Use the member's age on the last day of the measurement period to determine the age group where member months will be counted. For example, for Relative Resource Use for People With Diabetes, if Ms. X turns 18 on December 31 and is enrolled for the entire measurement period, she contributes 12 months to the 18–44 age category.

Step 3: Attribute all member months to the product line in which the member is enrolled on the last day of the measurement period.

Note: Pharmacy member months are the number of months during the measurement period when the member is covered by a pharmacy benefit. Calculate pharmacy member months with the same method described in steps 1–3.

In order to calculate outpatient procedures and services, organizations count the number of specified services the organization paid for, or expects to pay for, during the treatment period. The organization is responsible for reporting all services under the member's age and product on the last day of the treatment period.

In order to calculate inpatient services, organizations break down the member services into services for pricing and services for frequency:

- 1) in services for standard pricing, each organization identifies all inpatient stays that occurred during the treatment period, even if the inpatient admission was prior to the treatment period or the inpatient discharge was after the end of the treatment period. Include all services billed for any inpatient facility, E&M; surgery and procedure, and pharmacy service. Include multiple billings that have the same date of service in the patient record.
- 2) To determine frequency of services, each organization identifies all inpatient utilization and reports by discharge date (rather than admission date) using the member's age and product on the last day of the treatment period. Include all discharges that occurred during the treatment period. For inpatient discharges, ED visits and condition-specific frequencies, count discharges, not the frequency of procedure codes billed. Transfers between institutions are treated as separate admissions especially when the transfer is between acute and nonacute levels of service or between mental health/chemical dependency services and non-mental health/chemical dependency services. Only one admission is counted when the transfer takes place within the same service category but to a different level of care.

When calculating inpatient services length of stay, organizations should use the following formula to report length of stay (LOS).

$$\text{LOS} = \text{discharge date} - \text{admit date} - \text{denied days}$$

LOS includes all paid days from admission up to discharge except the last day of the stay unless the admission and discharge date are the same. For inpatient stays that start before the treatment period and end during the treatment period, or that start during the treatment period and end after the treatment period, count all paid days during the inpatient stay, even if they occur outside of the treatment period. When an inpatient revenue code (i.e., UB Revenue code or equivalent) is associated with a stay, the LOS must equal at least one day. If the discharge date and the admission date are the same, the discharge date minus admission date equals 1 day, not 0 days. If the inpatient stay falls completely within the treatment period, the total number of paid days is used as the per diem multiplier. If the inpatient stay does not fall completely inside the treatment period, or all days are not paid for or expected to be paid for, only the days within the treatment period (including the last day in the treatment period) that are paid for or expected to be paid for, are counted to compute the per diem multiplier.

Step 4: Calculate total cost: Sum the total standard cost for each eligible member. Within each service category, if a member's standard cost exceeds the service category cap amount, report the total standard cost specified in the NCQA Cost Cap Amounts table (released with the Standardized Price Tables).

Sum and report the total standard cost for the eligible population in each service category by member cohort.

Service frequency counts are reported for all services for which the organization has paid or expects to pay for the eligible population during the treatment period. Organizations capture each eligible member's services rendered during the treatment period for the following utilization categories.

- Total Inpatient Facility: Discharges, Days and ALOS
- Acute Inpatient: Discharges, Days, ALOS
- Acute Medicine: Discharges, Days, ALOS
- Acute Surgery: Discharges, Days, ALOS
- Nonacute: Discharges, Days, ALOS
- ED Visits

Step 5: For each of the RRU reporting services categories, if a member's standard cost exceeds the set cap amount

<http://www.ncqa.org/HEDISQualityMeasurement/HEDISMeasures/HEDIS2016/2016SPTUsageAgreement/2016SupportingTables.aspx> only the total standard cost including the truncated amount taken from the NCQA Member Cost Cap Amounts table is reported. Members are not excluded from the data set when the capped amount is reached.

Service Category Cap Amount

Inpatient Facility \$75,000

E&M – Outpatient \$2,500

E&M – Inpatient \$2,500

Surgery – Outpatient \$7,500

Surgery – Inpatient \$15,000

Pharmacy \$15,000

Laboratory \$4,000

Imaging \$4,000

S.7.2a. CONSTRUCTION LOGIC ATTACHMENT or URL: If needed, attach supplemental documentation (Save file as:

S_7_2_Construction_Logic). All fields of the submission form that are supplemented within the attachment must include a summary of important information included in the attachment and its intended purpose, including any references to page numbers, tables, text, etc.

URL:

Please supply the username and password:

Attachment:

S.7.3. Concurrency of clinical events, measure redundancy or overlap, disease interactions (Detail the method used for identifying concurrent clinical events, how to manage them, and provide the rationale for this methodology.)

We do not provide specifications for concurrency of clinical events.

The NCQA RRU measurement approach accounts for all health plan members who meet the disease specific criteria. All events or encounters for the predefined population that occur during the measurement year are captured by the measure cost or frequency of services categories.

S.7.4. Complementary services (Detail how complementary services have been linked to the measure and provide rationale for this methodology.)

We do not provide specifications for linking complementary services.

The NCQA RRU measurement approach accounts for all health plan members who meet the disease specific criteria. All events or encounters for the predefined population that occur during the measurement year are collected separately across all service categories, and standard costs and service frequencies are aggregated across services and members to compute the overall resource use for that member for that year. Including all events for a member, whether or not it can be attributed to a specific chronic condition captures a true snapshot of the resources required to treat a health plan member with a chronic condition.

S.7.5. Clinical hierarchies (Detail the hierarchy of codes or condition groups used and provide rationale for this methodology.)

The RRU-HCC risk adjustment divides qualified service diagnoses into 184 condition categories which are then subjected to

hierarchy logic assigning each a ranking group and an HCC group using tables provided by NCQA. The approach captures the combined effect of multiple unrelated conditions, however some diseases (e.g. diabetes, vascular disease) have multiple HCCs to differentiate disease severity and identify rankings (hierarchy) so that a patient's highest ranked HCC for a given disease will cancel out lower ranked HCCs for the same disease. See Section S10.1 for the specific steps required to assign HCCs and rankings. Patients are assigned to a demographic cohort, each of which has its own HCC-RRU. A weight is then calculated for each identified HCC for the patient and summed to provide a summarized total risk score which is then assigned to a predetermined risk cohort for reporting.

S.7.6. Missing Data *(Detail steps associated with missing data and provide rationale for this methodology (e.g., any statistical techniques to impute missing data))*

We do not provide measure specifications or guidelines for missing data :

NCQA requires reportable observed data in order to calculate RRU results. All measures must have a final, audited result submitted to NCQA. All plans that do not have any blanked-out utilization numbers are included in the calculation of the raw observed-to-expected ratio. When normalizing the ratios to develop an index, if any raw ratio = 0 (zero), or a plan has submitted a \$0.00 cost for its given member months, that ratio is discarded.

S.7.7. Resource Use Service Categories (Units) (Select all categories that apply)

Inpatient services: Evaluation and management

Inpatient services: Procedures and surgeries

Inpatient services: Imaging and diagnostic

Inpatient services: Lab services

Inpatient services: Admissions/discharges

Ambulatory services: Outpatient facility services

Ambulatory services: Emergency Department

Ambulatory services: Pharmacy

Ambulatory services: Evaluation and management

Ambulatory services: Procedures and surgeries

Ambulatory services: Imaging and diagnostic

Ambulatory services: Lab services

S.7.8. Identification of Resource Use Service Categories (Units)

(For each of the resource use service categories selected above, provide the rationale for their selection and detail the method or algorithms to identify resource units, including codes, logic and definitions.)

Standard Costs are reported for the following categories:

- Inpatient facility: this category reports standard prices for inpatient facility services assigned to each stay and based on the standard per diem price. Standard prices include room, board and ancillary services. Organizations use the length of stay and ICD-9-CM/ICD-10-CM Diagnosis codes to assign the appropriate standard price.
- E&M: Standard prices for E&M services use a resource-based, relative value scale (RBRVS) that establishes consistent prices across a wide range of professional services, including those performed by different specialists and other professionals. Additionally, inpatient E&M services are summarized and collected separately from outpatient services.
- Surgery and Procedures: Standard prices for surgery and procedure services (professional component) use a resource-based, relative value scale (RBRVS) that establishes consistent prices across a wide range of professional services, including those performed by different specialists and other professionals. Additionally, inpatient surgery and procedure services are summarized and collected separately from outpatient services.
- Diagnostic Lab and Imaging: Standard prices for imaging and laboratory services (professional and technical components) use an

approach that establishes consistent prices across a wide range of services, including those performed by facilities, specialists and other professionals. An RBRVS is the primary source of data for these prices.

- Pharmacy: Standard prices for ambulatory prescriptions are based on an index of average wholesale prices for drugs of interest. The standard price is listed per metric quantity for each NDC code. Organizations that do not capture the metric quantity for a prescription can use the standard price per days supply for an NDC. Both the standard price per metric quantity and the standard price per days supply are included in the Standard Pricing Tables provided on the NCQA Web site (<http://www.ncqa.org/HEDISQualityMeasurement/HEDISMeasures/HEDIS2016/2016SPTUsageAgreement/2016SupportingTables.aspx>).

Service Frequency is reported for the following categories:

- Inpatient Facility: This category measures the number of acute and nonacute inpatient facility discharges, days and ALOS regardless of diagnosis. Count each discharge once. Include data from any institution that provides acute or long-term/specialty nonacute care.

If days from the stay are counted in the cost calculation, the stay should also be counted in the inpatient frequency calculation. For nonacute discharges, days and ALOS, include care from any institution that provides nonacute care in hospice, nursing homes, rehabilitation, SNFs, transitional care and respite.

- ED Visits: This category measures use of ED services. Count each visit to an ED during the measurement period that does not result in an inpatient stay, regardless of the intensity of care required during the stay or the length of stay. Count only one ED visit per date of service. Do not count visits to urgent care centers. Services for members admitted to the hospital from an ED visit are included in the Inpatient Facility category only.

Identify ED visits using either of the following: An ED visit (ED Value Set) OR A procedure code (ED Procedure Code Value Set) with an ED place of service code (ED POS Value Set)

(See corresponding Excel file for the ED Value Set, ED Procedure Code Value Set, and the ED POS Value Set)

- Pharmacy Utilization: Use Table SPT-Pharm

(<http://www.ncqa.org/HEDISQualityMeasurement/HEDISMeasures/HEDIS2016/2016SPTUsageAgreement/2016SupportingTables.aspx>) to identify the prescription categories for each drug dispensed in the measurement period. Sum and report the number of prescriptions in each of the four categories in the Pharmacy—Total Service Frequency by Prescription Category table.

Additional service frequency categories are part of RDI that are subject to risk adjustment along with the standard cost components of the RRU measures. This allows health plans to more accurately compare their utilization rates to those of their peers as well as to national and regional benchmarks. Health plans can also drill down and trend this information by condition or reporting cohort (e.g., age, gender and HCC-RRU Risk cohort) to determine if there are areas for clinical quality improvement. Standard prices are not applied to these additional service categories as they capture frequency counts only. Refer to Cardiac Catheterization Value Set, PCI Value Set, CABG Value Set, Carotid Endarterectomy Value Set, CAS Tests Value Set, Cardiac CT Value Set & CAD Tests Value Set for codes to selected procedures.

1)Cardiac catheterization (Cardiac Catheterization Value Set): Report all cardiac catheterizations performed separately. Do not report a cardiac catheterization performed in conjunction with (i.e., on the same date of service as) a PCI in the cardiac catheterization rate; report only the PCI. Do not report PCI cardiac catheterization performed in conjunction with (i.e., on the same date of service as) a CABG in the PCI or the cardiac catheterization rate; report only the CABG

2)PCI (PCI Value Set): Report all PCIs performed separately. Do not report PCI or cardiac catheterization performed in conjunction with (i.e., on the same date of service as) a CABG in the PCI or the cardiac catheterization rate; report only the CABG
See corresponding Excel document for the PCI Value Set.

3)CABG (CABG Value Set): Coronary artery bypass graft. Report each CABG only once for each date of service per patient, regardless of the number of arteries involved or the number or types of grafts involved.
Do not report PCI or cardiac catheterization performed in conjunction with (i.e., on the same date of service as) a CABG in the PCI or the cardiac catheterization rate; report only the CABG.
See corresponding Excel document for the CABG Value Set.

4)Carotid endarterectomy (Carotid Endarterectomy Value Set): Report the number of carotid endarterectomies.
See corresponding Excel document for the Carotid Endarterectomy Value Set

5)Carotid artery stenosis diagnostic test (CAS Tests Value Set): Report the number of carotid artery stenosis diagnostic tests. See corresponding Excel document for the CAS Value Set.

6)Cardiac computed tomography (Cardiac CT Value Set): Report the number of cardiac computed tomographies. See corresponding Excel document for the Cardiac CT Value Set.

7)Report the number of coronary artery disease diagnostic tests using EBCT and nuclear imaging stress tests (CAD Tests Value Set). See corresponding Excel document for the Value Sets referenced above.

S.7.8a. If needed, provide supplemental resource use service category specifications in either URL (preferred) or as an attachment (Save file as S.7.8a_RU_Service_Categories):

URL:
<http://www.ncqa.org/HEDISQualityMeasurement/HEDISMeasures/HEDIS2016/2016SPTUsageAgreement/2016SupportingTables.aspx>

Please supply the username and password:

Attachment:

Clinical Logic

S.8.1. Brief Description of Clinical Logic (Briefly describe your clinical logic approach including clinical topic area, whether or not your account for comorbid and interactions, clinical hierarchies, clinical severity levels and concurrency of clinical events.)

This measure addresses the resource use of members identified with diabetes (Type I and Type II). Diagnosis of the disease or use of anti-diabetic medications are used to identify members for inclusion in the eligible population and the results are adjusted to account for age, gender, and HCC-RRU risk classifications that predict cost variability (Refer to Attachment S8_Clinical Logic for additional information).

S.8.2. Clinical Logic (Detail any clustering and the assignment of codes, including the grouping methodology, the assignment algorithm, and relevant codes for these methodologies.)

Patients with diabetes can be identified two ways:

Claim/encounter data: Patients who met any of the following criteria during the measurement year or the year prior to the measurement year (count services that occur over both years):

- At least two outpatient visits (Outpatient Value Set), observation visits (Observation Value Set), ED visits (ED Value Set) or nonacute inpatient encounters (Nonacute Inpatient Value Set), on different dates of service, with a diagnosis of diabetes (Diabetes Value Set). Visit type need not be the same for the two visits.
- At least one acute inpatient encounter (Acute Inpatient Value Set), with a diagnosis of diabetes (Diabetes Value Set).

Pharmacy data: Patients who were dispensed insulin or hypoglycemics/antihyper-glycemics during the measurement year or the year prior to the measurement year, on an ambulatory basis (Table CDC-A).

- See corresponding Excel document for the value sets referenced above.

PRESCRIPTIONS TO IDENTIFY PATIENTS WITH DIABETES (Table CDC-A)

Alpha-glucosidase inhibitors:

Acarbose, Miglitol

Amylin analogs:

- Pramlintide

Antidiabetic combinations:

- Alogliptin-metformin, Alogliptin-pioglitazone, Canagliflozin-metformin, Empagliflozin-linagliptin, Empagliflozin-metformin, Glimepiride-pioglitazone, Glimepiride-rosiglitazone, Glipizide-metformin, Glyburide-metformin, Linagliptin-metformin, Metformin-pioglitazone, Metformin-repaglinide, Metformin-rosiglitazone, Metformin-saxagliptin, Metformin-sitagliptin, Sitagliptin-simvastatin

Insulin:

- Insulin aspart, Insulin aspart-insulin aspart protamine, Insulin detemir, Insulin glargine, Insulin glulisine, Insulin human inhaled, Insulin isophane human, Insulin isophane-insulin regular, Insulin lispro, Insulin lispro-insulin lispro protamine, Insulin regular human

Meglitinides:

- Nateglinide, Repaglinide

Glucagon-like peptide-1 (GLP1) agonists:

- Dulaglutide, Exenatide, Liraglutide, Albiglutide

Sodium glucose cotransporter 2 (SGLT2) inhibitor:

- Canagliflozin, Dapagliflozin, Empagliflozin

Sulfonylureas:

- Chlorpropamide, Glimepiride, Glipizide, Glyburide, Tolazamide, Tolbutamide

Thiazolidinediones:

- Pioglitazone, Rosiglitazone

Dipeptidyl peptidase-4 (DDP-4) inhibitors:

- Alogliptin, Linagliptin, Saxagliptin, Sitagliptin

S.8.3. Evidence to Support Clinical Logic Described in S.8.2 *Describe the rationale, citing evidence to support the grouping of clinical conditions in the measurement population(s) and the intent of the measure (as described in IM3)*

S.8.3a. CLINICAL LOGIC ATTACHMENT or URL: If needed, attach supplemental documentation (Save file as: S_8_3a_Clinical_Logic). All fields of the submission form that are supplemented within the attachment must include a summary of important information included in the attachment and its intended purpose, including any references to page numbers, tables, text, etc.

URL:

Please supply the username and password:

Attachment: S8_Clinical Logic_RDI.pdf

S.8.4. Measure Trigger and End mechanisms *(Detail the measure's trigger and end mechanisms and provide rationale for this methodology)*

The measure captures total annual resource use measured during the measurement year (e.g., from January 1 to December 31 of the measurement year).

S.8.5. Clinical severity levels *(Detail the method used for assigning severity level and provide rationale for this methodology)*

The methodology for calculating risk via HCC and the mapping of that estimated risk to HCC-RRU risk categories accounts for clinical severity as well as other interactions that have been shown to be a significant predictor of health care costs. Refer to section S10.1 for a more complete description of the steps for risk adjustment that account for comorbidities and other disease interactions.

S.8.6. Comorbid and interactions *(Detail the treatment of co-morbidities and disease interactions and provide rationale for this methodology.)*

NCQA utilizes a risk adjustment model based on components of the CMS-HCC risk adjustment methodology that accounts for variable risk classifications due to comorbidities and other disease interactions. For each condition, members are assigned to a clinical cohort category that provides a more specific classification of the condition and has been shown to be a predictor of healthcare costs.

For example, a member with Type 1 or Type 2 diabetes is assigned to one of 64 HCC-RRU risk categories based on diagnosis codes that are identified in claims for each member in the prior year. A members age, gender, and HCC-RRU category all determine their risk score (cohort). Refer to section S10.1 for a more complete description of the steps for risk adjustment that account for comorbidities and other disease interactions.

Adjustments for Comparability

S.9.1. Inclusion and Exclusion Criteria *Detail initial inclusion/exclusion criteria and data preparation steps (related to clinical exclusions, claim-line or other data quality, data validation, e.g. truncation or removal of low or high dollar claim, exclusion of ESRD patients)*

:

To identify the eligible population, include all services whether or not the organization paid for, or expects to pay for, the services (i.e., include denied claims).

For cost and frequency reporting, report all services the organization paid for or expects to pay for (i.e., claims incurred but not paid yet). Do not include any denied service or day. If a member is enrolled retroactively, count all services for which the organization paid or expects to pay. Organizations and providers that use proprietary codes, Level II or state-specific Level III HCPCS codes must map to the industry standard code and remove codes that are not included in the NCQA Standard Pricing Tables.

The reporting organization has several options when determining payment for claims: a) Cover the full amount, b) Pay only a portion of the fee (e.g., 80 percent). c) Not pay anything because the member must cover the entire amount to meet a deductible, d) Not pay anything because the service is covered as part of a PMPM payment, e) Deny the service.

Count the service if:

- The organization paid the full amount or a portion of the amount (e.g., 80 percent).
- The patient paid for the service as part of the benefit offering (e.g., to meet a deductible), or
- The service was covered under a PMPM payment.

Do not count the service if:

- The organization denied the service for any reason, unless the patient paid for the service as part of the benefit offering (e.g., to meet a deductible), or
- The claim for the service was rejected because it was missing information or was invalid for another reason.

Exclusion Criteria

Members with one or more of the following dominant clinical conditions during the measurement year must be excluded from the RDI measurement data set.

1) Active cancer. Patients who had any diagnosis of cancer (Malignant Neoplasms Value Set; Other Neoplasms Value Set) with treatment (Cancer Treatment Value Set) during the measurement year.

2) Organ transplant (other than kidney). Organ transplant (other than kidney) (Organ Transplant Other Than Kidney Value Set) during the measurement year.

3) HIV/AIDS. Patients who met any of the following criteria during the measurement year:

- At least two outpatient visits (Outpatient Value Set), observation visits (Observation Value Set) or nonacute inpatient encounters (Nonacute Inpatient Value Set), on different dates of service, with an HIV diagnosis (HIV Disease Value Set). Visit types need not be the same for the two visits.
- At least one acute inpatient encounter (Acute Inpatient Value Set) with an HIV diagnosis (HIV Disease Value Set).
- At least one ED visit (ED Value Set) with an HIV diagnosis (HIV Disease Value Set).

Exclude patients who do not have a diagnosis of diabetes (Diabetes Value Set), in any setting, during the measurement year or year prior to the measurement year and who had a diagnosis of gestational diabetes or steroid-induced diabetes (Diabetes Exclusions Value Set), in any setting, during the measurement year or the year prior to the measurement year.

See corresponding Excel file for value sets referenced above.

S.9.2. Risk Adjustment Type (Select type)

Stratification by risk category/subgroup

If other:

S.9.3. Statistical risk model method and variables (Name the statistical method - e.g., logistic regression and list all the risk factor variables.)

The current risk model utilized by NCQA is based on components of the CMS-HCC risk adjustment methodology and accounts for age, gender, and HCC-RRU risk classifications that predict cost variability. For each condition, members are assigned to a clinical cohort category that provides a more specific classification of the condition. For example, a member with Type 1 or Type 2 diabetes is assigned to one of 64 HCC-RRU risk categories based on diagnosis codes that are identified in claims for each member in the prior year. A member's age, gender, and HCC category determines their risk score (cohort). NCQA then calculates the average per-member per-month (PMPM) cost for each cohort then weights that cost by the total member months within each cohort. Each plan will have its own weight for each cohort since case-mix varies across plans. These weighted cohort PMPMs are then summed across all cohorts to arrive at a PMPM that would be expected if the "average" plan had the same case-mix as the plan in question. The ratio of the observed to expected PMPM utilization indicates the degree to which a plan deviates from expected performance. This is known as indirect standardization.

Health plans submit the member month and summarized standardized cost separately for each member cohort, and NCQA calculates expected per member per month (PMPM) results. Thus, each health plan's RRU results are adjusted based on its mix of members.

The following steps assign each member a risk score and HCC-RRU risk reporting category for RRU measurement. Steps are implemented after the eligible population is identified:

Step 1: Identify the qualified service diagnosis.

Use the following value sets* and identify all diagnoses for encounters during the measurement period based on the date of service for outpatient or ED services or on the discharge date for inpatient stays.

- Outpatient (Outpatient Value Set).
- Observation (Observation Value Set).
- Acute inpatient (Acute Inpatient Value Set).
- Nonacute inpatient (Nonacute Inpatient Value Set).
- ED (ED Value Set).
- Surgery and procedure services. Services with a CPT Procedure code in Table HCC—Surg (<http://www.ncqa.org/HEDISQualityMeasurement/HEDISMeasures/HEDIS2016/2016SPTUsageAgreement/2016SupportingTables.aspx>).

Use all diagnosis codes for all services that meet the criteria listed above to complete the steps below.

Step 2: Assign each diagnosis code to one CC category (CC) using Table CC-Comorbid. Exclude all diagnoses that cannot be assigned to a CC category. For members with no qualifying diagnoses from face-to-face encounters, skip to step 6.

Step 3: Determine HCC for each CC identified. Refer to Table HCC-Rank.

For member's CC list, match the CC code to the CC code in the Table HCC-Rank, and assign:

- The ranking group
- The rank
- The HCC

For CCs that do not match to Table HCC—Rank, use the CC as the HCC and assign a rank of 1.

Note: One CC can map to multiple HCCs; each HCC can have one or more CCs.

Step 4: Select only the highest ranked HCC in each ranking group using the "Rank" column (1 is the highest rank possible).

Drop all other HCCs in each ranking group and de-duplicate the HCC list if necessary.

For example, for member 1, the following HCCs would be listed:

- HCC-RRU-5
- HCC-RRU-15

Note: One CC-RRU can map to multiple HCC-RRUs; each HCC-RRU can have one or more CC-RRUs.

Step 5: Identify combination HCCs listed in Table HCC-Comb

Some combinations suggest a greater amount of risk when observed together. For example, when diabetes and CHF are present, an increased amount of risk is evident. Additional HCC are selected to account for these relationships.

Compare each member's list of unique HCCs to those listed in the "HCC" column in Table HCC-Comb and assign any additional HCC conditions.

For fully nested combinations (e.g., the diabetes/CHF combination is nested in the diabetes/ CHF/renal combination), use only the more comprehensive pattern. In this example, only the diabetes/CHF/renal combination is counted.

For overlapping combinations (e.g., the CHF, COPD combination overlaps the CHF/renal/ diabetes combination), use both sets of combinations. In this example, both CHF/COPD and CHF/renal/diabetes combinations are counted.

Based on the combinations, a patient can have none, one or more of these additional HCCs.

Step 6: Identify Demographic HCCs for RRU.

Categorize patients by age and gender using the age ranges described in Table RRU—Age/ Gender—HCC. Assign a demographic HCC based on gender and the patient's age on the last day of the measurement period.

At the end of step 6, each member will have a final list of HCCs that includes at least one demographic HCC and zero, one or more HCCs based on steps 1-5.

Step 7: Calculate the weight for all the HCCs on each patient's list using Table Rru-Weight. Each HCC for RRU carries a predefined risk weight.

Step 8: Sum each patient's risk weights based on the final list of HCCs. A patient's risk score is the sum of the risk weights for all HCCs on that patient's list. Sum the weights based on the patient's HCC lists. Round the final risk score to four decimal places.

Step 9: Use the table below to assign the patient to a risk group based on risk score.

For example, a patient with a total HCC risk score of 1.2300 is assigned to Risk Group 5. Report all patient months and cost information for this patient in this risk group, within the appropriate age and gender stratifications.

Risk Group//Lower Score//Upper Score

1// 0.0000// 0.2499

2// 0.2500// 0.4999

3// 0.5000// 0.7499

4// 0.7500// 0.9999

5// 1.0000// 1.2499

6// 1.2500// 1.4999

7// 1.5000// 1.9999

8// 2.0000// 2.4999

9// 2.5000// 2.9999

10// 3.0000// 3.9999

11// 4.0000// 4.9999

12// 5.0000// 5.9999

13// 6.0000// 6.9999 over

See corresponding Excel document for the above value sets.

S.9.4. Detailed Risk Model Specifications available at measure-specific Web page URL identified in S.1 OR in attached data dictionary/code list Excel or csv file.

S.9.5. Stratification Details/Variables *(All information required to stratify the measure results including the stratification variables, definitions, specific data collection items/responses, code/value sets)*

NCQA collects resource measures at the plan level and summarizes across reporting cohorts along the following dimensions:

- a) Product line (3 levels): commercial, Medicaid, and Medicare;
- b) Reporting type (2 levels): HMO and PPO;
- c) Area level (2 levels): national and region;
- d) Resource use or utilization (11 levels): inpatient facility, procedure and surgery (inpatient and outpatient), evaluation and management (inpatient and outpatient), laboratory services, imaging services, ambulatory pharmacy, inpatient discharges, emergency department discharges.

Although the HCC-RRU risk adjustment accounts for confounding variables such as age and gender, in order to assist organizations in using their results to identify opportunities to improve, NCQA reports RRU results using the HCC-RRU cohorts as reporting strata by age and gender cohorts. Reporting the measure results by these strata increases the ability of the reporting organizations to target areas for improvement without having to reverse engineer their measure results.

S.9.6. Costing method

Detail the costing method including the source of cost information, steps to capture, apply or estimate cost information, and provide rationale for this methodology.

Other

RRU measures use NCQA's standardized prices. The organization does not report prices based on its contracts and fee schedules, rather it applies a standard price to each service, multiplies it by the number of units of service and reports the resulting standard cost. Using this approach protects proprietary fee schedules and contracts while supporting equitable measure comparison across organizations and across regions without requiring adjustment for levels of service payment. Each year, NCQA updates RRU SPTs that catalog a unit price for each type of health service necessary to report the measure. The SPTs allow health plans to match resource use in various service categories to a standardized cost structure, thus translating utilization to relative resource use. The standard pricing approach is based on the following sources of data:

- Relative values from the Medicare Fee Schedule (Resource-Based Relative Value Scale, or RBRVS)
- Pharmacy prices published by First Bank Data
- Inpatient prices based on a model that uses a broad set of averages, representing different local, regional and national health plans across the country.

A plan maps a standard price to each service, multiplies it by the number of units of service and reports the resulting standard cost. It then calculates total standard costs for eligible members across different areas of clinical care and aggregates standard costs across services and members to compute the overall relative resource use.

All RRU measures report the standard cost for the following categories.

- o Inpatient Facility
- o Surgery and Procedure
- o Inpatient Services
- o Outpatient Services
- o Evaluation and Management (E&M)
- o Inpatient Services
- o Outpatient Services
- o Diagnostic Laboratory Services
- o Diagnostic Imaging Services
- o Pharmacy, Ambulatory

Calculating Standard Cost

The organization applies the SPTs to all services in each service category using the following steps.

Step 1: Identify eligible members for each major clinical condition and assign them into the appropriate HCC-RRU risk category (See Section S10.1)..

Step 2: Identify all services rendered during the treatment period for each service category.

- Inpatient Facility (services provided by a facility during an inpatient stay, standard price includes room and board and ancillary services)
- E&M (inpatient visits, and outpatient visits including office visits, consultations and other services)

- Surgery and Procedure (inpatient and outpatient procedures)
- Pharmacy (ambulatory prescriptions included in a member's pharmacy benefit)

Step 3: Multiply the standard price by the units of service to compute a standard cost for the service. Refer to each service category's instructions below to calculate standard cost.

Step 4: For each major clinical condition, aggregate or sum each eligible member's total standard cost for each service category.

Step 5: Aggregate and report the total standard cost at the member cohort level.

Step 6: In each service category, if a member's standard cost exceeds the cap amount, report the total standard cost including only the cap amount from Table SPT-CAP (<http://www.ncqa.org/tabid/1277/Default.aspx>). Do not exclude members who exceed the capped amount. Methods used to identify the unit of service and assign standard unit prices vary by service category. The steps required for calculating each category are described below.

Calculating Total Standard Cost: Inpatient Facility

Step 1: Identify all inpatient stays that occurred during the treatment period. Include stays that may have started before the treatment period or ended after the close of the treatment period. Define a single, unique record describing the member's inpatient stay.

Step 2: Determine the LOS for frequency reporting. Compute the LOS in days, using paid for or expected-to-be-paid-for days only. Include all paid days in the calculation, whether or not they fall inside the treatment period. Use this LOS when reporting the frequency counts for each inpatient stay.

Step 3: Determine the LOS category for standard cost reporting. Assign the appropriate LOS group using Table C.

Table C: Length of Stay Group

LOS (Days) LOS GRP

1	A
2	B
3-4	C
5-6	D
7-8	E
9-15	F
16+	G

Step 4: Determine the LOS per diem multiplier. If the inpatient stay falls within the treatment period, use the total number of paid for or expected-to-be-paid-for days as the per diem multiplier. If the inpatient stay does not fall inside the treatment period, or if all days are not paid for or expected to be paid for, count only the days within the treatment period (including the last day of the treatment period) that are paid for or expected to be paid for, as the per diem multiplier.

Step 5: Determine if the inpatient stay is acute or nonacute. Nonacute stays include nursing home, skilled nursing facility, rehabilitation, hospice, hospital transitional care, swing bed and respite; all other inpatient stays are acute. For frequency reporting of inpatient stays, acute and nonacute stays will be reported separately.

Note: SPT-INP tables assign the Acute field a value of "1" if the discharge was from an acute inpatient stay and a value of "0" if the discharge is from a nonacute stay.

Step 6: Assign an Aggregate Diagnostic Service Category (ADSC) for the inpatient stay using the principal discharge diagnosis. To assign ADSC, download the ADSC Table from the NCQA Web site (www.ncqa.org) and match the principal ICD-9-CM Diagnosis code from the discharge claim to an ADSC. If the principal ICD-9-CM Diagnosis code is invalid or missing or cannot be determined, map the inpatient stay to the ADSC Table's MISA category.

Step 7: Determine if the member underwent major surgery during the inpatient stay. Identify major surgeries by using the list of codes from the Maj-Surg Table. Flag eligible members if one procedure code in the Maj-Surg-Table is present from any provider during the stay. If the inpatient stay is acute and it has a major surgery, include it in the acute surgery category for frequency reporting. If the stay is acute but does not have a major surgery, include it in the Acute Medicine category. Nonacute stays are not categorized as surgical or non-surgical for frequency reporting. Note: SPT-INP-ADSC assigns the field MAJSURG a value of "1" to indicate the standard price when a major surgery is identified and a value of "0" if no major surgery is identified during the member's inpatient stay.

Step 8: Match each ADSC, LOS group, major surgery flag and acute or nonacute assignment for the stay to the NCQA-provided SPT to

obtain the assigned standard price. Multiply the per diem multiplier by the per diem standard price to compute the total standard cost for the stay.

For frequency reporting, report the stay in the appropriate category based on the acute or nonacute assignment and surgery or medicine assignment.

Calculating Total Standard Cost: E&M

Step 1: Identify all E&M services that occurred during the treatment period. The valid E&M codes used to select these services are listed in Table SPT-EM (<http://www.ncqa.org/tabid/1277/Default.aspx>).

Step 2: Match each E&M service to the CPT codes in Table SPT-EM and assign the standard price to the E&M service.

Step 3: Multiply the standard price by the number of units associated with the E&M service. Most services have one unit.

Step 4: Sum the standard prices across the E&M services to calculate the total cost. Include all units of service on a claim line. Sum E&M services labeled as inpatient separate from those labeled as outpatient services.

Calculating Total Standard Cost: Surgery and Procedure

Step 1: Identify all surgery and procedure services provided by physicians and other professional providers during the treatment period. The valid procedure codes for these services are listed in Table SPT-Surg-Proc.

Step 2: Identify modifier codes. Procedure modifiers are sometimes used to define a service in more detail. The standard price for procedure modifiers varies, so these modifiers are combined with the procedure code to match to the appropriate row in the SPT table. Use only the applicable modifiers below to combine with procedure codes.

- 26 = Professional Component
- 50 = Bilateral Service
- 51 = Multiple Surgery
- 52 = Reduced Service
- 54 = Surgical Care Only
- 55 = Post-Surgical Care Only
- 56 = Pre-Op Surgical Care Only
- 62 = Two Surgeons
- 78 = Return to Operating Room
- 80–82 = Assistant at Surgery
- TC = Technical Component

If a procedure code is billed with a nonapplicable modifier, set the modifier to blank. If the procedure code has no modifiers or if all modifiers for a specific procedure code are not applicable, price the procedure code with a blank modifier. Surgery and Procedure CPT codes that have a proprietary modifier indicating an anesthesiology bill are not priced.

Step 3: Identify surgeries or procedures provided during an acute or nonacute inpatient stay. In the SPT, services provided in an inpatient setting are under the Excel workbook tab labeled “Std Price—IP Surgery” and services provided in an outpatient setting are under the Excel workbook tab labeled “Std Price—OP Surgery.” Organizations can distinguish between services provided in an inpatient or outpatient setting in several ways.

- Treat a surgery or procedure as outpatient unless it has a POS code of 21, 31, 39, 51 or 61.

- If the POS code is not available, determine if the member was admitted overnight for the surgery or procedure. If so, treat the surgery or procedure as inpatient; if not, treat it as outpatient.

- Treat a surgery as inpatient if it falls between the dates of an inpatient stay. If a surgery was used to classify an inpatient stay as surgical, price the surgery as inpatient.

Step 4: Download Table SPT-Surg-Proc for surgery and procedure services from the NCQA Web site (www.ncqa.org).

Step 5: Match each procedure code, applicable modifier and POS to obtain the assigned standard price for the service.

Step 6: Multiply the standard price by the number of units associated with the service. Most services have one unit.

Step 7: Sum the standard prices across the surgery and procedure services to calculate the total cost. Sum inpatient and outpatient costs separately. Note: Surgeries must be correctly classified as inpatient or outpatient because the overhead charges for inpatient surgeries are included in the Inpatient Facility Cost category. The overhead for outpatient surgeries are included in the total cost of the surgery. If the health care facility bills the plan for overhead charges using codes in the SPT-Surg-Proc table, those costs should not be counted in this category.

- Do not include services provided by anesthesiologists. If an anesthesiologist submits a claim or encounter with codes included in

Table SPT-Surg-Proc, the claim or encounter for these services should not be included in the total cost.

Calculating Total Standard Cost: Laboratory Services

Step 1: Identify all lab services that occurred during the treatment period. The valid lab codes used to select these services are listed in Table SPT-LAB.

Step 2: Match each lab service to the codes in Table SPT-LAB and assign the standard price to the service.

Step 3: Multiply the standard price by the number of units associated with the lab service. Most services have one unit.

Step 4: Sum the standard prices across the lab services to calculate the total cost. Include all units of service on a claim line.

Calculating Total Standard Cost: Imaging Services

Step 1: Identify all imaging services that occurred during the treatment period. The valid imaging codes used to select these services are listed in Table SPT-IMG.

Step 2: Match each imaging service to the codes in Table SPT-IMG and assign the standard price to the imaging service.

Step 3: Multiply the standard price by the number of units associated with the imaging service. Most services have one unit.

Step 4 Sum the standard prices across the imaging services to calculate the total cost. Include all units of service on a claim line.

Calculating Total Standard Cost: Pharmacy Services

Step 1: Identify all ambulatory prescriptions dispensed (pharmacy services) during the treatment period.

Step 2: Identify the NDC code and the metric quantity for each prescription. If metric quantity is available, the organization must use it to determine standard price. If the metric quantity is not available, the organization should use the standard unit price per day in the NCQA table.

An organization that uses proprietary or regional codes should map them to standard NDC codes.

Step 3: Download Table SPT-Pharm from the NCQA Web site (<http://www.ncqa.org/tabid/1277/Default.aspx>). The table contains:

- The NDC code
- A standard unit price per metric quantity
- A standard unit price per day.
- Prescription category

Name brand only (N1) Generic only (G1)

Name brand—Generic exists (N2) Generic name—Name brand exists (G2)

Step 4: Match each NDC code to the appropriate row in Table SPT-Pharm.

Step 5: Aggregate and report service frequencies within each prescription category at the total level by organization for pharmacy prescription utilization.

Step 6: If the metric quantity is available, multiply the metric quantity dispensed by the standard price per metric quantity for each prescription.

Step 7: If the metric quantity is unavailable, multiply the days supply dispensed by the standard unit price per day for each prescription.

Step 8: Sum the unit prices for all unique prescription dispensing events.

S.10. Type of score*(Select the most relevant):*

Frequency Distribution

Ratio

Weighted score/composite scale

Attachment

If other:

Attachment:

S.11. Interpretation of Score *(Classifies interpretation of a ratio score(s) according to whether higher or lower resource use amounts is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score, etc.)*

RRU measures indicate how a plan uses a set of key resources (e.g., physician visits, hospital stays) to care for its members with specified diseases, compared with the average for plans in the same region and adjusted for the set of diseases and case mix of plan members. When used in tandem with quality measures, RRU results make it possible to simultaneously evaluate the quality of services and key elements that drive costs and premiums. As described in detail in Sections S11.2 and S11.6, a ratio of observed-to-expected resource use is calculated for each clinical condition for each plan which is then indexed to a mean of 1.0 to allow for equitable comparisons between plan peer groups. When considering RRUs for patients with diabetes, an RRU index ratio result of 1.00 indicates that a health plan used the same level of resources to treat its population of patients with diabetes as the average of

all plans for a similar (case mix-adjusted) group of patients with diabetes. An index ratio of 1.12 indicates that a health plan used 12 percent more resources than their national or regional (depending on which benchmark is being used) peer average. An index ratio of 0.73 indicates that a plan used 27 percent fewer resources than the average of all plans for a similar (case mix-adjusted) group of patients.

S.12. Detail Score Estimation *(Detail steps to estimate measure score.)*

A ratio of observed-to-expected resource use is calculated for each clinical condition for each plan. The observed value is the actual summarized use data that health plans submit to NCQA for each measure's eligible population. NCQA calculates the expected value for each plan—the resources the plan would be expected to use if it performed at the average level of use for all other plans that submitted data, considering case mix differences between plans. NCQA then calculates an observed to expected ratio and reports it for each plan's national and regional peer group

The definitions below provide the rationale behind the type of score and how each are reported:

Observed (O): A plan's resource use, calculated using units of resources used (inpatient days) converted to dollar terms using the SPT and reported to NCQA. Summarized data are displayed as PMPM dollars for the four RRU service categories and as per 1,000 member years for the service frequency categories.

Expected (E): A plan's resource use assuming that the plan performed like an "average" plan with the same case-mix. NCQA provides these values to the plans.

O/E ratio: A plan's observed (reported) RRU values divided by its expected RRU values.

Indexed O/E ratio: The O/E ratio adjusted such that the mean of the O/E ratios for all plans equals 1.0

NCQA estimates and reports both the national peer group O/E results and the indexed plan type/regional peer group O/E results. An indexed ratio result of 1.00 indicates that one plan's level of resource use is the same as the average of all plans' level of resource use. This calculation creates a method for purchasers to examine the differences in plan resource use for a specific condition.

Reporting Guidelines

This section is optional and will be available for users of the measure as guidance for implementation and reporting.

S.13.1. Describe discriminating results approach

Detail methods for discriminating differences (reporting with descriptive statistics--e.g., distribution, confidence intervals).

IDSS report information gives health plans an opportunity to identify areas where resource use is too high (O/E >1.0) or offers a benchmark of best performance. NCQA concurrently publishes an organization's RRU ratio, indexed ratio, and quality index ratios for both the national and regional peer groups.

The O/E ratio for each plan can indicate if that plan's O/E is different from 1 or not. These include confidence interval (CI) calculations for the national Total Medical and Total Pharmacy service categories. The O/E ratio for each plan can indicate if that plan's O/E is different from 1 or not. Unfortunately, statistical tests have not been developed to determine the statistical significance of differences between one plan's O/E ratio and another's.

Service category-specific confidence intervals for a given plan are calculated using the following.

95% Confidence Limit=O/E ratio \pm 1.96 \times SE

where:

"SE" is the standard error

1.96 is the standard normal deviate that corresponds to a 95% confidence limit

The standard error (SE) that NCQA uses in the calculation of the plan confidence limits is derived through a bootstrap approach resulting in 100 simulations drawing from plans covering 44 market areas (Ingenix Impact Benchmark Database). These simulations result in plans with pre-specified eligible populations (30, 50, 100, 200, 400, 1000, and 2500). The standard error across simulations of O/E ratios for each eligible population size is the estimated standard error for the O/E ratio. For a given plan, the standard error chosen for the calculation of its confidence limit is the estimate corresponding to the nearest match on eligible population size (highest bootstrap sample size that an observed eligible population exceeds).

S.13.2. Detail attribution approach

Detail the attribution rules used for attributing resources/costs to providers (e.g., a proportion of total measure cost or frequency of visits during the measure's measurement period) and provide rationale for this methodology.

Using administrative claims data submitted by all organizations, NCQA estimates the expected RRU amounts for each clinical condition for each organization. RRU index amounts are based on the ratio of observed to expected amounts. Results can be assessed at an overall basis, across all members and major clinical conditions, by service category or for a member cohort within a condition. Relative resource use is calculated at the plan-level and no attribution of resource use is made below this level. Attribution of resource use to a particular NCQA submission is based on the product line and reporting type of the plan that the member was enrolled in as of the end of the measure year.

S.13.3. Identify and define peer group

Identify the peer group and detail how peer group is identified and provide rationale for this methodology.

There are multiple concepts of a "peer group" for the RRU measures. NCQA collects resource measures at the plan level and summarizes across reporting cohorts along the following dimensions:

- ? Product line (3 levels): commercial, Medicaid, and Medicare;
- ? Reporting type (2 levels): HMO and PPO;
- ? Area level (2 levels): national and region;
- ? Resource use or utilization (11 levels): inpatient facility, procedure and surgery (inpatient and outpatient), evaluation and management (inpatient and outpatient), laboratory services, imaging services, ambulatory pharmacy, inpatient discharges, emergency department discharges.

In the context of calculation of RRU ratios for risk adjustment purposes, NCQA uses indirect standardization to define a "case-mix peer group" for each plan relative to a hypothetical plan (with the same case-mix). The national average of PMPM resource use for each is used to calculate this "case-mix peer-group". Conceptually speaking, the "case-mix peer group" represents what we might expect resource use to look like from the "average" plan if it had the same case-mix as the observed plan.. Mathematically, this expected resource use is the national mean PMPM resource use for each cohort (weighted by the cohort's member months in an individual plan) summed up over all of the cohorts in the plan for each service category (e.g. Inpatient facility, Inpatient E&M, etc.). Resource use can be summed across service categories to get grand totals such as "Total Medical"..At this point, there is an estimate of observed resource use and an estimate of expected resource use.

In order to determine how different a plan is from its own hypothetical "case-mix peer-group" (i.e. how different observed resource use is from expected resource use, the observed and expected total costs are expressed as an observed to expected (O/E) ratio. If a plan used 10% fewer resources than expected, it would have an O/E ratio of 0.9. Conversely, a plan that used 10% more resources than expected, the O/E ratio would be 1.1.

These O/E ratios are subsequently indexed to facilitate comparisons of efficiency by region and by reporting type (e.g. HMO/PPO), with the "indexed peer group" defined by the average O/E ratio for all plans in the same region and of the same reporting type. The difference between the "case-mix peer group" and the "indexed peer group" is that the former is an intermediate step of risk-adjustment and the latter is a means for making comparisons within a plan type and within a region more straightforward.

After calculating the indexed O/E ratios, NCQA provides organizations with their relative resource index score at the service category and major clinical condition level.

- A score of 1.00 indicates that the observed amounts for standard costs or utilization are equal to the expected amounts for a given region and plan type.
- A score >1.00 indicates that the observed amounts for standard costs or utilization are greater than the expected amounts for a given region and plan type.
- A score <1.00 indicates that the observed amounts for standard costs or utilization are lower than the expected amounts for a given region and plan type.

For example, an organization whose indexed observed-to-expected ratio is 1.10 for pharmacy services in its Relative Resource Use for People With Cardiovascular Conditions measure has a total standard cost for pharmacy services for RCA that is 10 percent higher than the expected total pharmacy services cost for other plans in the same region and of the same plan type.

S.13.4. Sample size

Detail the sample size requirements for reporting measure results.

Organizations submit all patients who meet the eligible population criteria for diabetes to NCQA; however we do not publicly report any organization whose eligible population (n) is <400.

The sample size of 400 is based on a bootstrap sampling approach in which the standard errors of each plan's O/E ratios for Total Medical and Total Pharmacy were calculated from 100 simulations in which plans were drawn from 44 market areas with pre-specified eligible populations of 30, 50, 100, 200, 400, 1000, and 2500. This analysis was conducted for the Diabetes, Asthma, and

Acute Low Back Pain RRU measures. Across all three chronic diseases, the decrease in the average standard error (estimated over the 100 simulations) with increasing sample size begins to flatten out at a sample of size close to 400 indicating reliable estimates of the O/E ratios can be obtained for plans with as few as 400 cases of the chronic disease.

S.13.5. Define benchmarking and comparative estimates

Detail steps to produce benchmarking and comparative estimates and provide rationale for this methodology.

A ratio of observed-to-expected resource use is calculated for each clinical condition for each plan. The observed value is the actual summarized use data that health plans submit to NCQA for each measure's eligible population. NCQA calculates the expected value, or the resources the plan would be expected to use if it performed at the average level of use for all other plans that submitted data with consideration of case mix differences between plans (See Section S11.2).

Upon obtaining these values, NCQA calculates an observed-to-expected ratio and reports it for each plan's national and regional peer group. If a plan reported that its level of resource use for all patients with diabetes was identical to the average of all plans and the plan had a case mix of patients that was identical to the average for all plans, the observed and expected values would be the same and the O/E ratio would be 1.0.

If the plan used more resources for patients with diabetes than the average of all plans, but had the same (average) case mix, the actual reported RRU (observed) would be higher than expected and the O/E ratio would be >1.0.

Generally, NCQA calculates the index ratio, which compares a plan's resource use to the average performance of all health plans in a specific product line. NCQA does not set benchmarks or thresholds for the O/E or indexed ratios (other than the outlier exclusion for O/E ratios > 3 and < 0.33).

Validity – See attached Measure Testing Submission Form

SA.1. Attach measure testing form

[SA_Reliability_Veracity Testing-636096455914274207.pdf](#)

Feasibility

F.1. 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).

F.1.1. Data Elements Generated as Byproduct of Care Processes.

Generated by and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition

Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims)

Abstracted from a record by someone other than person obtaining original information (e.g., chart abstraction for quality measure or registry)

If other:

F.2. 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.

F.2.1. 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)

[ALL data elements are in defined fields in a combination of electronic sources](#)

F.2.1a. 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.

F.2.2. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL.

Attachment:**F.3. 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.

F.3.1. Describe what you have learned/modified 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.

NA – measure currently is in use.

F.3.2. 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, and algorithm)?

F.3.3. If there are any fees associated with the use of this measure as specified, attach the fee schedule here. (Save file as: F3_3_FeeSchedule)

Usability and Use

Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making.

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.

U.1.1. Current and Planned Use

Specific Plan for Use	Current Use (for current use provide URL)
Public Reporting	
Regulatory and Accreditation Programs	
Professional Certification or Recognition Program	
Quality Improvement (Internal to the specific organization)	

U.1.2. For each CURRENT use, checked above, provide:

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

U.1.3. 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?)

U.1.4. 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.*)

U.2.1. Progress on Improvement. (Not required for initial endorsement unless available.) Performance results on this measure (current and over time) should be provided in IM.2.2 and IM.2.4.

Discuss:

- Purpose Progress (trends in performance results)
- Geographic area and number and percentage of accountable entities and patients included

U.2.2. 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.

U.3.1. Were any unintended negative consequences to individuals or populations identified during testing; OR has evidence of unintended negative consequences to individuals or populations been reported since implementation? If so, identify the negative unintended consequences and describe how benefits outweigh them or actions taken to mitigate them.

NCQA recognizes that, despite the clear specifications defined for HEDIS RRU, data collection and calculation methods may vary, and other errors may taint the results, diminishing the usefulness of HEDIS data for managed care organization (MCO) comparison. In order for HEDIS to reach its full potential, NCQA conducts an independent audit of HEDIS collection and reporting processes, as well as an audit of the data which are manipulated by those processes, in order to verify that HEDIS specifications are met. NCQA has developed a precise, standardized methodology for verifying the integrity of HEDIS collection and calculation processes through a two-part program consisting of an overall information systems capabilities assessment (IS standards) followed by an evaluation of the MCO's ability to comply with HEDIS specifications (HD standards). NCQA-certified auditors using standard audit methodologies will help enable purchasers to make more reliable "apples-to-apples" comparisons between health plans.

The HEDIS Compliance Audit addresses the following functions:

- 1) information practices and control procedures
- 2) sampling methods and procedures
- 3) data integrity
- 4) compliance with HEDIS specifications
- 5) analytic file production
- 6) reporting and documentation

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.

H.1. Relation to Other NQF-endorsed Measures

If there are 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.

H.1.1. List of related or competing measures (selected from NQF-endorsed measures)

H.1.2. If related or competing measures are not NQF endorsed please indicate measure title and steward.

H.2. Harmonization

H.2.1. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed

measure(s):

Are the measure specifications completely harmonized?

H.2.2. If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.

H.3. Competing Measure(s)

H.3.1. 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.)

Contact Information

Co.1 Measure Steward (Intellectual Property Owner): [National Committee for Quality Assurance](#)

Co.2 Point of Contact: [Bob, Rehm, \[nqf@ncqa.org\]\(mailto:nqf@ncqa.org\), 202-955-1728-](#)

Co.3 Measure Developer if different from Measure Steward: [National Committee for Quality Assurance](#)

Co.4 Point of Contact: [Jill Marie, Farrell, \[farrell@ncqa.org\]\(mailto:farrell@ncqa.org\), 202-955-1785-](#)

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Ad.1 Workgroup/Expert Panel involved in measure development

List the workgroup/panel members' names and organizations.

Describe the members' role in measure development.

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The Efficiency Measurement Advisory panel (EMAP) has guided NCQA staff through most of the measure development process. They EMAP provide methodological expertise as well as feedback from their respective organizations experiences in programming the measures. Specific members of the panel have created large research datasets (under contract with NCQA) in which NCQA tests measure concept s and refinements to the measure specifications prior to public release

Measure Developer/Steward Updates and Ongoing Maintenance

Ad.2 Year the measure was first released: 2007

Ad.3 Month and Year of most recent revision: 12, 2010

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

Ad.5 When is the next scheduled review/update for this measure? 05, 2011

Ad.6 Copyright statement: NCQA Notice of Use. Broad public use and dissemination of these measures is encouraged and NCQA has agreed with NQF that noncommercial uses do not require the consent of the measure developer. Use by health care physicians in connection with their own practices is not commercial use. Commercial use of a measure requires the prior written consent of NCQA. As used herein, "commercial use" refers to any sale, license or distribution of a measure for commercial gain, or incorporation of a measure into any product or service that is sold, licensed or distributed for commercial gain, even if there is no actual charge for inclusion of the measure.

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Ad.7 Disclaimers:

Ad.8 Additional Information/Comments: www.ncqa.org/rru