

NQF MEASURE ENDORSEMENT:

# 2012 Mid-Year Review

## PERFORMANCE MEASURES AND WHY THEY MATTER

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Performance measures are an essential tool used to evaluate how well healthcare services are being delivered. Measures have proven critical to improving quality, enhancing transparency in healthcare, and ensuring accountability of providers.

The National Quality Forum (NQF) is a nonprofit, nonpartisan organization that reviews, endorses, and recommends healthcare performance measures that serve as the underpinning of federal and private sector initiatives focused on enhancing the value of healthcare services. NQF builds consensus across multiple stakeholders on a set of “best in class” measures to be used by all types of public and private payers for a variety of purposes, including feedback and benchmarking, public reporting, and incentive-based payment.

The NQF endorsement process results in a standardized set of performance measures. This standardization decreases the number of measures that are not harmonized—that is, measures that focus on the same conditions, events, and outcomes, or the same target population—and lessens the data burden collection and reporting for providers. It can also focus payer requests on a discreet and targeted set of measures that can accelerate improvement. Lastly, and importantly, using standardized measures allows consumers and payers to compare and understand quality results, including the performance of local hospitals and doctors.

NQF’s portfolio includes over 700 performance measures, used for the wide range of applications described above. The portfolio is carefully and strategically managed by removing measures whose performance are consistently at the highest levels or “topped out,” working with measure developers to harmonize related measures to reduce reporting burden, and where appropriate, replacing multiple process measures with more comprehensive composite measures and more meaningful outcomes metrics. NQF also aggressively seeks measures from the field that will help fill known gaps in performance measurement.

## A MID-YEAR UPDATE ON ENDORSEMENT ACTIVITIES

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Six months into 2012, NQF has completed 12 measure endorsement projects, resulting in 177 endorsed measures and two measurement frameworks. A quarter of these measures are new, while the rest represent a confirmation of endorsement status—or maintenance—a process NQF undertakes to ensure its previous endorsement still holds given an evolution in the measure evaluation criteria, emerging evidence, or competing measures.

The newly endorsed measures address several critical areas of care, focusing on patient outcomes, underserved populations, people with multiple chronic conditions, and known gaps in performance measurement. With the help of more than 200 dedicated steering committee volunteers, a highly engaged NQF membership, and an array of both experienced and new measure developers, NQF's progress in building and maintaining its best in class measure portfolio is evident. Figure 1 offers a detailed look at the types of measures endorsed in the first six months of 2012.

**Figure 1: 2012 NQF Endorsed Measures**

Project	Endorsed/ Total Evaluated	Measures Maintaining Endorsement	Number of Outcome Measures	Percentage of Reviewed Measures Endorsed
<b>Patient Safety:</b>				
• Healthcare-Associated Infections	4/4	4	4	100%
• Complications	14/27	14	11	52%
<b>Cardiovascular</b>	39/59	32	12	66%
<b>Palliative and End-of-Life Care</b>	14/15	2	0	93%
<b>Resource Use</b>	8/15	0	0	53%
<b>Renal</b>	12/33	9	9	36%
<b>Perinatal and Reproductive Health</b>	14/21	12	5	67%
<b>All-Cause Readmissions</b>	2/3	0	2	67%
<b>Surgery</b>	51/60	42	28	85%
<b>Population Health: Prevention</b>	19/19	17	0	100%
<b>TOTAL</b>	<b>177/256</b>	<b>132</b>	<b>71</b>	<b>69%</b>

## ENDORSEMENT WORK TARGETING NATIONAL PRIORITIES

In 2011, the National Quality Strategy—heavily informed by the NQF-convened, private-public National Priorities Partnership—laid out a series of six goals for focusing the nation on how to best and most rapidly improve our health and healthcare. NQF has carefully aligned its performance measurement endorsement work with these goals. Specifically:

- The patient safety and all-cause readmissions measures directly support **making care safer** by measuring rates of healthcare-associated infections and acute unplanned readmissions

in hospitals. The perinatal measures also promote safer care by assessing elective delivery before 39 weeks or cesarean rates—shown to cause harm to infants.

- The surgical care and palliative and end-of-life care endorsed measures support **person- and family-centered care** by focusing on patient experience. One surgical measure assesses quality of care from the patient's perspective, and the palliative measure set addresses patient care preferences and family evaluation of hospice care.
- The cardiovascular measure set supports promoting the most effective **prevention and treatment practices for the leading causes of mortality** by addressing conditions such as coronary artery disease, heart failure, and hypertension.
- The surgical measures and the regionalized emergency medical care measurement framework promote **effective communication and coordination of care** by supporting surgical care quality efforts between providers and across settings, and establishing a roadmap for managing emergency care services at the national, state, and regional level.
- The population health prevention measures are integral to **promoting wide use of best practices to enable healthy living** by focusing on immunizations and screenings for certain cancers and osteoporosis.
- The resource use measures will be the building blocks for **making quality care more affordable** by evaluating how healthcare dollars are being used.

## TRANSFORMING QUALITY MEASUREMENT

The array of endorsement projects completed in the past six months highlights NQF's efforts to continually improve and innovate quality measurement in an increasingly complex healthcare system. Whether endorsing new types of measures, endorsing more outcome measures, working with new measure developers eager to make a contribution, or harmonizing related measures, NQF has worked to give the healthcare community essential tools to measure, report on, and improve care quality.

Several notable projects illustrate this success. For example, the American College of Surgeons and Centers for Disease Control and Prevention combined and harmonized two similar and competing surgical site infection measures to create one best in class measure that will help eliminate reporting burden and confusion. Similarly, a measurement framework for individuals with multiple chronic conditions addresses critical measure gaps. Resource use measures and palliative and end-of-life care measures tackle relatively new fields of measurement, and cardiovascular and surgical care measure sets add a number of outcome measures to the NQF portfolio, measures considered most relevant to patients and providers looking to improve care.

## A LOOK AHEAD

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NQF is on track to complete several other endorsement projects in 2012, covering critical areas such as care coordination, cancer care, and healthcare disparities and cultural competency, among others. We look forward to collaborating with our membership on these initiatives as we strive to improve healthcare quality.

## QUICK LINKS

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QPS: NQF's Measure Search Tool

<http://www.qualityforum.org/QPS/>

NQF's Portfolio of Measures: Who is Using It, and How is It Evolving?

<http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=69801>

2012 NQF Report to Congress: Changing Healthcare by the Numbers

[http://www.qualityforum.org/Publications/2012/03/2012\\_NQF\\_Report\\_to\\_Congress.aspx](http://www.qualityforum.org/Publications/2012/03/2012_NQF_Report_to_Congress.aspx)

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# ENDORSEMENT SUMMARY:

## Patient Safety Measures

JANUARY 2012

### Purpose of the Project

Healthcare-associated infections (HAIs) remain a significant public health issue in the United States. In hospitals alone, the annual incidence of HAIs is estimated at 1.7 million infections, with 99,000 associated deaths. Urinary tract infections (UTIs), surgical site infections (SSIs), pneumonia, and bloodstream infections account for 83 percent of all HAIs. The annual estimated direct cost of these infections to the healthcare system is \$4.5 billion.

Preventing HAIs has become a national priority for public health and patient safety. Many recent initiatives are designed to accelerate progress in reducing HAIs. In October 2008, Medicare reduced reimbursement to facilities not collecting data on select HAIs including catheter-associated urinary tract infection (CAUTI), central line-associated bloodstream infection (CLABSI), and SSIs. The following year, the American Recovery and Reinvestment Act of 2009 authorized \$50 million in funding for states to engage in HAI planning and other activities supporting the Department of Health and Human Services (HHS) Action Plan to Prevent Healthcare-Associated Infections.

Recent policy extended these payment reductions to Medicaid providers in 2011. To date, 27 states are now requiring public reporting of certain HAIs. The first-ever National Quality Strategy, released in March 2011, has safer care marked as one of its primary aims. Beginning in 2013, hospitals' annual Medicare payment updates will be tied to submission of infection data, including CLABSIs and SSIs. The NQF inventory of endorsed measures includes more than 100 measures related to patient safety. Several of these measures focus specifically on HAIs, addressing UTIs, SSIs, pneumonia, and bloodstream infections. Similarly, the measures recommended for endorsement in this report

include updated versions of previously endorsed HAI measures.

Ultimately, the endorsement of these national standards for HAI measurement will provide states and other organizations with valuable resources for implementing comparable standards and will give consumers access to uniformly reported data that are reliable and useful for decision-making.

### What Was Endorsed

Under this initial phase of NQF's most recent Patient Safety Measures project, NQF endorsed four HAI measures as voluntary consensus standards suitable for accountability and quality improvement. The measures include updated versions of previously-endorsed HAI measures. These measures were submitted by the Centers for Disease Control and Prevention (CDC) and the American College of Surgeons (ACS), and are listed below:

#### **0753: National Healthcare Safety Network (NHSN) Central line-associated bloodstream infection (CLABSI) outcome measure (CDC).**

*Description:* Standardized Infection Ratio (SIR) of healthcare-associated, central line-associated bloodstream infections (CLABSI) in Intensive Care Units (ICUs), Specialty Care Areas (SCAs), and other inpatient locations. This measure replaces NQF-endorsed measure #0139 (Central line catheter-associated bloodstream infections rate for ICU and high-risk nursery (HRN) patients).

#### **0752: American College of Surgeons - Centers for Disease Control and Prevention (ACS-CDC) Harmonized Procedure Specific Surgical Site Infection (SSI) Outcome Measure.**

*Description:* Prototype measure for the facility-adjusted Standardized Infection Ratio (SIR) of deep incisional and organ/space Surgical Site



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Infections (SSI) at the primary incision site among adult patients aged 18 years or older as reported through the ACS National Surgical Quality Improvement Program (ACS-NSQIP) or CDC National Health and Safety Network (NHSN). This prototype measure is intended for time-limited use, and replaces NQF-endorsed measure #0299 (Surgical Site Infection Rate).

**0754: National Healthcare Safety Network (NHSN) catheter-associated urinary tract infection (CAUTI) Outcome (CDC).**

*Description:* Standardized Infection Ratio (SIR) of healthcare-associated, catheter-associated urinary tract infections (CAUTI) in Intensive Care Units (ICUs), Specialty Care Areas (SCAs), and other inpatient locations. This measure replaces NQF-endorsed measure #0138 (Urinary catheter-associated urinary tract infection for intensive care unit (ICU) patients).

**0751: Risk adjusted urinary tract infection outcome measure (ACS).**

*Description:* This is a risk-adjusted, case-mix adjusted urinary tract infection outcome measure of adults 18+ years after surgical procedure.

**Table 1: Summary of Patient Safety Measures Project**

Measures submitted for consideration	8
Measures withdrawn by the developer for more testing and further refinement	4
Measures recommended for endorsement	4
Measures not recommended for endorsement	0

## The Need these Measures Fill

- The CDC's CLABSI and CAUTI outcome measures represent a refresh of previously endorsed measures, including an expansion of care settings. They also have been refined to include a standardized infection ratio.
- The ACS UTI measure is a new standard for tracking postoperative urinary tract infections.
- The ACS-CDC Harmonized SSI measure is the product of an effort by the ACS and the CDC

to combine elements of two SSI measures which were originally submitted separately by those organizations. This singular measure is now applicable to and comparable across surgeons and hospitals, thereby eliminating the confusion that had existed over reporting of similar but not comparable measures.

## Potential Use

- The CDC's CLABSI and CAUTI outcome measures are recommended for use within intensive care units, specialty care areas, and other inpatient locations. Both measures are recommended for the entire patient population.
- The ACS UTI measure includes surgery patients in both inpatient and outpatient settings. The measure is recommended for adults 18 years and older.
- The ACS-CDC Harmonized SSI measure is recommended for adults 18 years and older. It is intended for use in inpatient hospitals, and, as a "prototype" measure, applies to only two specific surgical procedures. The ACS and CDC have indicated that they will work to include additional procedures as their harmonization efforts continue.

## Project Perspectives

A key takeaway from this project is its focus on measure harmonization as a means of creating a best-in-class set of safety measures. In this project, two similar and competing measures from the CDC and the ACS were reviewed; the CDC measure has been in use since 2005 and the ACS measure since 2004 in the private sector. As a result of NQF member and public comments and requests by the Steering Committee, the developers worked with NQF support to combine two competing measures into one metric.

The harmonization process, while time-consuming, creates a clear benefit for patients, payers, providers, and others. In this case, the newly-harmonized measure is now applicable to and comparable across surgeons and hospitals, thereby eliminating reporting burden and confusion resulting from the use of similar but not comparable measures. Stewardship of the SSI measure going forward will be jointly maintained by CDC and ACS — a public-private collaboration to be celebrated.



# ENDORSEMENT SUMMARY:

## Cardiovascular Measures

JANUARY 2012

### Purpose of the Project

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The human and financial costs of cardiovascular disease are enormous. Heart disease is the leading cause of death for men and women in the United States and was estimated to cost the United States \$316.4 billion in 2010. Hypertension affects 1 in 3 Americans, increasing their risk for heart disease, stroke, or kidney disease at a potential cost of \$76.6 billion a year in health care services, medications, and missed days of work.

NQF has endorsed a large number of performance measures to evaluate the quality of care for cardiovascular conditions in the ambulatory and hospital settings over the past 10 years. This evaluation of all NQF-endorsed cardiovascular measures and consideration of new measures will ensure the currency of NQF's portfolio of voluntary consensus standards.

As the quality measurement enterprise has matured, better data from clinical registries and electronic health records can support the demand for meaningful performance measures. There has also been a shift to focus on outcomes and composite measures.

The Cardiovascular Consensus Standards Endorsement and Maintenance 2010 project addresses the following topic areas: coronary artery disease, atrial fibrillation, implantable cardioverter defibrillators (ICD), heart failure, and hypertension. Additionally, as part of this process, cardiovascular measures that were endorsed by NQF before June 2008 were evaluated under the maintenance process, providing the opportunity to harmonize specifications and to consider competing and related measures.

### What Was Endorsed

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NQF endorsed 39 measures suitable for public reporting and accountability.

Four of the 39 measures have been placed on "reserve status," meaning the measures are highly credible, reliable, and valid and have high levels of performance with little opportunity for improvement. These measures meet all of the NQF criteria except for one sub-criterion, (1b) relating to an opportunity for improvement. Measures are placed on "reserve status" because they address critical aspects of performance that should be periodically reassessed to ensure that high levels of performance are being maintained.

Measures were submitted by the Agency for Healthcare Research and Quality; the American College of Cardiology; American College of Cardiology Foundation; the American Heart Association; the American Medical Association; the Centers for Medicare and Medicaid Services; Minnesota Community Measurement; the National Committee for Quality Assurance; and the Physician Consortium for Performance Improvement (PCPI). The full list of measures is available at the end of this report.

### The Need these Measures Fill

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This project sought to identify and endorse measures that specifically address cardiovascular conditions for public reporting and quality improvement applicable to all settings of care. In addition, NQF-endorsed cardiovascular consensus standards that were endorsed prior to June 2008 have undergone a maintenance review.

Notably, this set of measures included several outcomes measures – measures that evaluate actual results of care – such as congestive heart failure mortality and controlling high blood pressure. Because outcomes measures go beyond simply taking stock of patient care processes, they are considered most relevant to patients and providers looking to improve care delivery.



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Additionally, recognizing that “all-or-none” composite measures, particularly for groups of processes of care applicable to most patients, would significantly enhance the cardiovascular portfolio, NQF endorsed three composites measures. One focused on optimal management of cardiac risk factors for patients with ischemic heart disease, and two focused on prescribing all indicated medications when discharging patients after percutaneous coronary intervention (PCI) or placement of an implantable cardioverter defibrillator.

## Potential Use

The endorsed measures are intended for public reporting and accountability purposes. They are also intended for quality improvement initiatives that specifically address cardiovascular conditions including hypertension, coronary artery disease, acute myocardial infarction, PCI, heart failure, atrial fibrillation, or any other heart disease and any treatments, diagnostic studies, interventions or procedures associated with these conditions.

The measures cover a broad range of patient populations over the age of 18. There are no pediatric measures included in this project.

Applicable care settings include:

- **Ambulatory Care** – Clinic; Emergency Department; Hospital Outpatient; Office
- **Nursing Home/Skilled Nursing Facility**
- **Hospital/Acute Care Facility**

## Project Perspectives

This project is the first of its kind to evaluate both new and previously endorsed measures simultaneously. This process has yielded a very important result in terms of developing a best-in-class portfolio of cardiac care performance measures. NQF will continue to rely on this simultaneous review process as one of its core strategies for cultivating its portfolio of endorsed performance measures.

**Table 1: Summary of Cardiovascular Measures Project**

Measures submitted and evaluated by the Steering Committee	59
Measures withdrawn by the developer for more testing and further refinement	0
Measures recommended for endorsement	39
Measures not recommended for endorsement	20

## Endorsed Measures

### CORONARY ARTERY DISEASE - SECONDARY PREVENTION

#### **0076 Optimal vascular care (Minnesota Community Measurement)**

*Description:* Percentage of adult patients ages 18 to 75 who have ischemic vascular disease with optimally managed modifiable risk factors (LDL, blood pressure, tobacco-free status, daily aspirin use).

#### **0073 IVD: blood pressure management (NCQA)**

*Description:* The percentage of patients 18 years of age and older who were discharged alive with acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous coronary interventions (PCI) from January 1–November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to the measurement year and who had BP reported as under control <140/90.

#### **0068 IVD: use of aspirin or another antithrombotic (NCQA)**

*Description:* The percentage of patients 18 years and older with ischemic vascular disease who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG), or percutaneous coronary interventions (PCI) from January 1–November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to the measurement year and who had the following during the measurement year: Use of aspirin or another antithrombotic.

**0067 CAD: antiplatelet therapy (AMA-PCPI)**

*Description:* Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who were prescribed aspirin or clopidogrel.

**0075 IVD- complete lipid profile and LDL control <100 (NCQA)**

*Description:* The percentage of patients 18 years of age and older who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG), or percutaneous coronary interventions (PCI) from January 1–November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to measurement year, who had each of the following during the measurement year: Complete lipid profile and LDL-C control <100 mg/dL.

**0074 Chronic stable coronary artery disease: lipid control (AMA-PCPI)**

*Description:* Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who have a LDL-C result <100 mg/dL OR patients who have a LDL-C result >100 mg/dL and have a documented plan of care to achieve LDL-C <100mg/dL, including at a minimum the prescription of a statin.

**0066 Chronic stable coronary artery disease: ACE inhibitor or ARB therapy—diabetes or left ventricular systolic dysfunction (LVEF < 40%) (AMA-PCPI)**

*Description:* Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who also have diabetes or a current or prior LVEF <40% who were prescribed ACE inhibitor or ARB therapy.

**0070 Chronic stable coronary artery disease: blocker therapy—prior myocardial infarction (MI) or left ventricular systolic dysfunction (LVEF <40%) (AMA-PCPI)**

*Description:* Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12 month period who also have prior MI or a current or prior LVEF <40% who were prescribed beta-blocker therapy.

**0071 AMI: Persistence of beta blocker therapy after a heart attack (NCQA)**

*Description:* The percentage of patients age 18 years and older during the measurement year who were hospitalized and discharged alive July 1 of the year prior to the measurement year through June 30 of the measurement year with a diagnosis of acute myocardial infarction (AMI) and who received persistent beta-blocker treatment for six months after discharge.

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**CORONARY ARTERY DISEASE - ACUTE PHASE:  
ACUTE MYOCARDIAL INFARCTION AND  
PERCUTANEOUS CORONARY INTERVENTION**

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**0289 Median time to ECG (CMS)**

*Description:* Median time from emergency department arrival to ECG (performed in the ED prior to transfer) for acute myocardial infarction (AMI) or chest pain patients (with probable cardiac chest pain).

**0286 Aspirin at arrival [for patients being transferred] (CMS)**

*Description:* Percentage of emergency department acute myocardial infarction (AMI) patients or chest pain patients (with probable cardiac chest pain) without aspirin contraindications who received aspirin within 24 hours before ED arrival or prior to transfer.

**0288 Fibrinolytic therapy received within 30 minutes of ED arrival and Median time to fibrinolysis [for patients being transferred] (CMS)**

*Description:* Emergency department acute myocardial infarction (AMI) patients receiving fibrinolytic therapy during the ED stay and having a time from ED arrival to fibrinolysis of 30 minutes or less.

**0290 Median time to transfer to another facility for acute coronary intervention (CMS)**

*Description:* Median time from emergency department arrival to time of transfer to another facility for acute coronary intervention.

**0132 Aspirin at arrival for acute myocardial infarction\* (AMI) (CMS)**

*Description:* Percentage of acute myocardial infarction (AMI) patients who received aspirin within 24 hours before or after hospital arrival.

**0163 Primary PCI within 90 minutes of hospital arrival (CMS)**

*Description:* Percentage of acute myocardial infarction (AMI) patients with ST-segment elevation or LBBB on the ECG closest to arrival time receiving primary percutaneous coronary intervention (PCI) during the hospital stay with a time from hospital arrival to PCI of 90 minutes or less.

**0164 Fibrinolytic therapy received within 30 minutes of hospital arrival (CMS)**

*Description:* Percentage of acute myocardial infarction (AMI) patients with ST-segment elevation or LBBB on the ECG closest to arrival time receiving fibrinolytic therapy during the hospital stay and having a time from hospital arrival to fibrinolysis of 30 minutes or less.

**0137 ACEI or ARB for left ventricular systolic dysfunction- acute myocardial infarction (AMI) patients (CMS)**

*Description:* Percentage of acute myocardial infarction (AMI) patients with left ventricular systolic dysfunction (LVSD) who are prescribed an ACEI or ARB at hospital discharge. For purposes of this measure, LVSD is defined as chart documentation of a left ventricular ejection fraction (LVEF) less than 40% or a narrative description of left ventricular systolic (LVS) function consistent with moderate or severe systolic dysfunction.

**0355 Bilateral cardiac catheterization rate (IQI 25) (AHRQ)**

*Description:* Percent of discharges with heart catheterizations in any procedure field with simultaneous right and left heart (bilateral) catheterizations.

**0964 Therapy with aspirin, P2Y12 inhibitor and statin at discharge (ACCF)**

*Description:* Patients undergoing PCI who receive prescriptions for all medications (aspirin, P2Y12 and statins) for which they are eligible for at discharge.

**0133 PCI mortality (risk-adjusted) (ACC)**

*Description:* Risk-adjusted PCI mortality rate.

**0160 Beta blocker prescribed at discharge\* (CMS)**

*Description:* Percentage of acute myocardial infarction (AMI) patients who are prescribed a beta-blocker at hospital discharge.

**0142 Aspirin prescribed at discharge for AMI\* (CMS)**

*Description:* Percentage of acute myocardial infarction (AMI) patients who are prescribed aspirin at hospital discharge.

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**ATRIAL FIBRILLATION**

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**1524 Assessment of thromboembolic risk - (CHADS 2) (ACCF/AHA/PCPI)**

*Description:* Patients with nonvalvular atrial fibrillation or atrial flutter in whom assessment of thromboembolic risk factors using the CHADS2 risk criteria has been documented.

**1525 Chronic anticoagulation therapy (ACCF/AHA/AMA-PCPI)**

*Description:* Prescription of warfarin or another anticoagulant drug that is FDA approved for the prevention of thromboembolism for all patients with nonvalvular atrial fibrillation or atrial flutter at high risk for thromboembolism, according to CHADS2 risk stratification.

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**IMPLANTABLE CARDIOVERTER DEFIBRILLATOR (ICD)**

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**1522 ACE/ARB therapy at discharge for ICD implant patients with LVSD (ACCF)**

*Description:* Proportion of ICD implant patients with a diagnosis of LVSD who are prescribed ACE-I or ARB therapy at discharge.

**1528 Beta blocker at discharge for ICD implant patients with a previous MI (ACCF)**

*Description:* Proportion of ICD implant patients with a diagnosis of previous myocardial infarction (MI) who are prescribed a beta blocker at discharge.

**1529 Beta blocker at discharge for ICD implant patients with LVSD (ACCF)**

*Description:* Proportion of ICD implant patients with a diagnosis of LVSD who are prescribed beta blocker therapy on discharge.

**0965 Patients with an ICD implant who receive prescriptions for all medications (ACE/ARB and beta blockers) for which they are eligible for at discharge (ACCF)**

*Description:* Proportion of patients with an ICD implant who receive prescriptions for all medications (ACE/ARB and beta blockers) for which they are eligible for at discharge (all-or-none composite measure of two medication classes).

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**HEART FAILURE**

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**0079 Heart failure: Left ventricular ejection fraction assessment (outpatient setting) (AMA-PCPI)**

*Description:* Percentage of patients aged 18 years and older with a diagnosis of heart failure for whom the quantitative or qualitative results of a recent or prior (any time in the past) LVEF assessment is documented within a 12-month period.

**0081 Heart failure: ACEI or ARB therapy for left ventricular systolic dysfunction (AMA-PCPI)**

*Description:* Percentage of patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40% who were prescribed ACE inhibitor or ARB therapy either within a 12-month period when seen in the outpatient setting or at hospital discharge.

**0083 Heart Failure: Beta-blocker therapy for left ventricular systolic dysfunction (AMA-PCPI)**

*Description:* Percentage of patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40% who were prescribed beta-blocker therapy either within a 12-month period when seen in the outpatient setting or at hospital discharge.

**0135 Evaluation of left ventricular systolic dysfunction (CMS)\***

*Description:* Percentage of heart failure (HF) patients with documentation in the hospital

record that left ventricular systolic (LVS) function was evaluated before arrival, during hospitalization, or is planned for after discharge.

**0162 ACEI or ARB for left ventricular systolic dysfunction – heart failure patients (CMS)**

*Description:* Percentage of heart failure (HF) patients with left ventricular systolic dysfunction (LVSD) who are prescribed an ACEI or ARB at hospital discharge. For purposes of this measure, LVSD is defined as chart documentation of a left ventricular ejection fraction (LVEF) less than 40% or a narrative description of left ventricular systolic (LVS) function consistent with moderate or severe systolic dysfunction.

**0358 Congestive heart failure (CHF) mortality rate (IQI 16)(AHRQ)**

*Description:* Percent of discharges with principal diagnosis code of CHF with in-hospital mortality.

**0277 CHF admission (PQI 8) (AHRQ)**

*Description:* Percent of county population with an admissions for CHF.

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**HYPERTENSION**

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**0018 Controlling high blood pressure (NCQA)**

*Description:* The percentage of members 18–85 years of age who had a diagnosis of hypertension (HTN) and whose blood pressure (BP) was adequately controlled (<140/90) during the measurement year. Use the Hybrid Method for this measure.

*\*Reserve status measures. To be put on reserve status a measure must be highly credible, reliable, and valid and have high levels of performance with little opportunity for improvement. These measures meet all of the NQF criteria except for one sub-criterion, (1b) relating to an opportunity for improvement. Performance can be reassessed in the future if necessary to ensure that performance does not decline.*



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1030 15TH STREET, NW, SUITE 800  
WASHINGTON, DC 20005  
WWW.QUALITYFORUM.ORG



# ENDORSEMENT SUMMARY:

## Regionalized Emergency Medical Care Framework

JANUARY 2012

### Emergency Medical Care Systems and Performance Measurement

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Emergency medical care systems across the nation, faced with increasing patient populations and limited resources, are under significant stress to provide effective, high-quality healthcare. Recognizing that care quality and resource use are inherently linked, the Institute of Medicine (IOM) called for an assessment of emergency medical care systems to determine strategies for improving care delivery and efficiency.

The concept of regionalization – described by IOM as an established network of resources that delivers specific care to a defined population of patients or within a defined geography – has been identified as a means of improving emergency medical care through more efficient resource use. While new models of regionalized care networks are under development, emergency care services such as trauma, neonatal care, and poison control have been coordinated across geographic areas for many years. More recently, care for patients experiencing time-sensitive emergency conditions – such as stroke and acute myocardial infarction – has been regionalized on a statewide basis. Yet as emergency care systems continue to expand in breadth and scope, these systems must ensure they are using resources efficiently to maximize patient outcomes and ultimately improve care quality.

Performance measurement is critical to improving care quality in emergency medical care systems. Accordingly, NQF sought to develop a measurement framework that could serve as a roadmap for future measure development within regionalized systems. To develop the framework, NQF convened a Steering Committee composed of national

experts on emergency care and regionalization to work in collaboration with the University of North Carolina-Department of Emergency Medicine. Together, these parties worked to:

- **Assess the regionalized emergency medical care system and identify quality improvement opportunities;**
- **Create a pathway for identifying measures, measure gaps, and measure concepts to guide future research, measure development, and measure endorsement; and**
- **Develop a comprehensive framework for measuring and evaluating regionalized emergency medical care systems.**

The resulting framework establishes a roadmap for systematically regionalizing emergency care services at the national, state, and regional level.

### Key Elements of the Framework

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The Regionalized Emergency Medical Care Systems (REMCS) framework, endorsed by NQF, includes several core components:

#### Key Terms and Definitions

The Steering Committee clearly outlined concepts associated with regionalized emergency medical care systems to ensure interested stakeholders fully comprehend the framework:

**Regionalization** refers to an established network of resources that delivers specific care – such as protocols, definitive procedures, higher-care levels, or care pathways – to a defined population of patients or within a defined geography.



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**Regionalized emergency medical care systems (REMCS)** are deliberate and planned networks of both in- and out-of-hospital resources that deliver clinical services to a population of patients defined by having potentially life threatening acute illnesses or injuries.

A full set of related terms and concepts is available in the framework's glossary.

## Episodes of Care Measurement Model

Given the complex nature of regionalized emergency medical systems, an Episodes of Care (EOC) model was utilized. The EOC model allows for care to be evaluated over time and across service units for a given episode. It takes into consideration the various settings and care providers within an episode, as well as the transitions between them as the patient moves through the delivery system.

The Steering Committee acknowledged that the EOC model has certain limitations. For example, measurement could be seen as focusing exclusively on an individual patient's care experience and not on the underlying emergency care and support systems. To address this concern, the committee recommended that a modified EOC model be developed to measure a system's preparedness, capability, and capacity to expand services in preparation for a clinical episode. The committee also agreed that the EOC model does not create comparisons among various organizations with similar systems and recommended that there should be specific emphasis on comparing episodes of care across institutions for similar clinical conditions. Such comparisons could then translate to other organizations or systems.

## Essential Domains for Measurement

The Steering Committee established six key domains, or areas, considered critical to evaluating regionalized emergency medical care systems. These domains are:

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### DOMAIN 1: CAPABILITY, CAPACITY, ACCESS

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A regionalized system's ability to provide for the emergency care needs of its population depends on what the system can do (capability), how much it can do (capacity), and who can enter the system and how they enter it (access). This

domain focuses on six specific areas, including:

- a system's public health initiatives;
- pre-hospital capabilities;
- real-time capacity information;
- the categorization of participating agencies, organizations, and facilities;
- preparedness, monitoring, and data sharing; and
- legal and regulatory frameworks.

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### DOMAIN 2: RECOGNITION AND DIAGNOSIS

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Evaluating how an episode of care is initially recognized is essential to measuring regionalized emergency care. This domain focuses on four specific areas, including:

- community awareness;
- training;
- technology; and
- evidence-based approaches.

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### DOMAIN 3: RESOURCE MATCHING AND USE

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At its most basic level, regionalization focuses on matching resources to patients, or getting the right resource to the right patient at the right time. This domain focuses on the structural and process components of regionalized care, including:

- guidelines and evidence-based triage and protocols;
- Tele-health, or electronic communications; and
- efficiency and overuse.

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### DOMAIN 4: MEDICAL CARE

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Within an episode of care, patients should be receiving care that is timely and in accordance with broadly accepted standards and protocols for a given emergency medical condition. This domain is broken down into sub-categories, based on where and to whom care is provided, including:

- care provided by bystanders;
- pre-hospital and EMS-provider care;
- emergency department care;

- **inpatient care; and**
- **care of special populations.**

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#### DOMAIN 5: COORDINATION OF CARE

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Regionalized emergency medical care systems are composed of many components that must interact efficiently and effectively to best serve patient needs. This domain focuses on those components, including:

- **governance and shared accountability;**
- **handoffs and transitions; and**
- **communication.**

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#### DOMAIN 6: OUTCOMES

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Measuring patient-oriented outcomes of an episode of care is an important part of evaluating the effectiveness of a system. This domain focuses on the factors that determine patient-oriented outcomes, including:

- **access to data;**
- **data linkage across settings of care; and**
- **feedback.**

### Guiding Principles

The Steering Committee developed seven principles intended to guide the framework's implementation and development of measures with regionalized emergency medical care systems. They are:

1. Regionalization of emergency care is a method of matching resources to patient needs in a timely fashion with the goal of improving patient-oriented care outcomes and population health.
2. The effective delivery of regionalized emergency medical care requires ongoing measuring and monitoring of system capabilities and capacity to ensure that the appropriate resources and workforce (including appropriate specialty care) are available.
3. Identifying and evaluating measures of entire systems of emergency care is difficult, but essential.
4. System evaluation should promote transparency and shared accountability

for the system's successes and failures across units of service within the system.

5. The development of regionalized emergency medical care systems is an ongoing process with flexible and adaptive structural and process elements.
6. Regionalized emergency care systems should exist for the public good and should fully integrate with each other in a transparent, shared model with a common oversight structure (taking into consideration federal, state, and local regulations) regardless of geopolitical boundaries to provide optimal care for a population.

7. Measurement should be data driven.

For further explanation of the guiding principles, please see the technical report.

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## The Future of Regionalized Emergency Medical Care

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This framework assesses the current state of regionalized emergency medical care services' measurement, and through the identification of measure gaps, aims to guide future measure development. The framework is meant to help inform future efforts to identify and evaluate performance standards for measuring and reporting the quality of emergency services at the national, state, and regional levels.

The framework also identified areas where further research is needed, touching on topics such as:

- **The need for developing new measures or adapting existing measures to ensure patient-oriented measurement of systems, not merely isolated elements of systems;**
- **A focus on measuring transitions and communication between service units within regionalized systems;**
- **Further evaluation of concepts of system capability, capacity, and access on the use and growth of regionalized emergency care systems. The effectiveness and capacity of regionalized emergency care systems are inextricably linked to the increasing challenges of such systems to provide unscheduled, episodic care to other patients at the same time in the same systems and locations;**



- A focus on communication between service units emphasizing electronic technology and industrial engineering concepts to improve system efficiency and preparedness for system strain and surge;
- Identification of measures or measure concepts that support effective and efficient continued development of healthcare delivery systems; and
- Identification of measures or measure concepts to evaluate care in areas where there are current measurement gaps, such as critical care medicine, toxicology, and psychiatric care. Gaps include areas where measures exist but are not sufficient, areas where measures require development to ensure they are valid indicators of system performance, and areas where no measures exist at all.



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# ENDORSEMENT SUMMARY:

## Palliative Care and End-of-Life Care Measures

FEBRUARY 2012

### Purpose of the Project

Estimates show that by 2030, there will be 72 million older persons in the United States, more than twice the number in 2000. Accordingly, the healthcare community has in recent years increasingly focused its attention on the quality and availability of palliative and end-of-life care services – both for acutely ill patients and older adults with life-limiting diseases. This number of palliative care programs in hospitals, for example, has more than doubled in the last decade.

Palliative and end-of-life care programs help improve care quality throughout the course of a patient's illness. Specifically, patients tend to be more satisfied with their overall care and communication with their providers, and they are less likely to end up in intensive care units and emergency departments. Furthermore, providers are increasingly referring patients to hospice care to ease suffering and better manage pain at the end of life.

Despite the evidence for and support around palliative and end-of-life care, these services are still underused. More than one million people each year who, studies indicate, could have benefited from hospice care die without receiving it. Palliative and end-of-life care performance measures that can assess the quality of care for older adults and acutely ill patients are needed to track improvement in this critical area.

NQF has previously endorsed performance measures related to symptom management and end-of-life care, focused solely on cancer patients. In April 2011, NQF – at the request of the Department of Health and Human Services – began a project focused on identifying, endorsing, and updating a broader set of palliative and end-of-life care performance measures. Specifically, the project sought to endorse measures that addressed:

- Assessment and management of conditions and symptoms in patients, including pain, dyspnea, weight loss, weakness, nausea, serious bowel problems, delirium, and depression;
- Patient- and family-centered palliative and hospice care focused on psychosocial needs and care transitions; and
- Patient, caregiver, and family experiences of care.

The resulting endorsed measures begin to further address palliative and end-of-life care delivery, and will help providers ensure older adults and acutely ill patients receive the high quality care they deserve.

### What Was Endorsed

**Table 1: Summary of Palliative Care and End-of-Life Care Endorsement Maintenance Measures Project**

Measure submitted for consideration	22
Measures withdrawn by the developer for more testing and further refinement	7
Measures recommended for endorsement	14
Measures not recommended for endorsement	1

Under the palliative and end-of-life care endorsement project, NQF endorsed 14 measures suitable for accountability and quality improvement. Of the 14 measures, two were previously endorsed and granted continued endorsement status, and 12 were newly submitted measures.

Measure stewards included a range of healthcare stakeholders, including the National Hospice and Palliative Care Organization; the



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University of North Carolina-Chapel Hill; RAND Corporation; the Center for Gerontology and Health Care Research; Deyta; and PROMISE Center. A full list of measures is available at the end of this report.

## The Need these Measures Fill

This project sought to identify and endorse measures that specifically address palliative and end-of-life care services for accountability and quality improvement. The resulting measures focus on a wide range of care processes, including pain screening and management for patients in hospital and palliative care settings; documenting treatment preferences for patients admitted to intensive care units; documenting patient preferences for life sustaining treatments in hospice and palliative care settings; and evaluating family satisfaction with the quality of care provided following a patient's death.

As the number of palliative and end-of-life care programs continue to grow across the country, it is critical that providers have the right measurement tools to help ensure patients receive safe, high-quality, and compassionate care. Considering that palliative and end-of-life care is a relatively new field of measurement, these measures provide a solid foundation for measuring and improving care quality.

## Potential Use

These measures are applicable for use in a range of clinical settings and providers, which will help improve quality across the healthcare spectrum. Settings include acute care hospitals, hospices, and intensive care units.

## Project Perspectives

As the number of older adults in the United States continues to increase, palliative and end-of-life care services – not to mention metrics for evaluating the quality of such care – are more important than ever. Measuring palliative and end-of-life care quality is relatively new territory; in fact, healthcare stakeholders are just now beginning to define what end-of-life care quality really means, and palliative care units in hospitals didn't even exist until a few years ago. With this set of endorsed measures, NQF has taken significant strides towards advancing higher-quality care for gravely ill patients and people at the end of life.

Throughout the course of the project, NQF identified several areas where further work is needed to more fully address care quality concerns for palliative and end-of-life care patients. Notably, more outcomes measures – measures that evaluate actual results of care – are needed; these are considered most relevant to providers looking to improve care delivery and families looking to choose the best programs to meet the needs of their loved ones. Additionally, measures that evaluate patient care across the continuum, as well as measures that assess how well providers address and integrate patient preferences into treatment plans, are needed to ensure patients receive and are satisfied with higher-quality care. Finally, a significant measure gap exists around measures specifically focused on children receiving palliative or end-of-life care services.

## Endorsed Measures

### **1634: Hospice and Palliative Care- Pain Screening (UNC) (paired with measure 1637)**

*Description:* Percentage of hospice or palliative care patients who were screened for pain during the hospice admission evaluation/palliative care initial encounter.

### **1637: Hospice and Palliative Care – Pain Assessment (UNC) (paired with measure 1634)**

*Description:* Percentage of hospice or palliative care patients who screened positive for pain and who received a clinical assessment of pain within 24 hours of screening.

### **1617: Patients treated with an Opioid who are given a bowel regimen (RAND)**

*Description:* Percentage of vulnerable adults treated with an opioid that are offered/prescribed a bowel regimen or documentation of why this was not needed.

### **1628: Patients with advanced cancer assessed for pain at outpatient visits (RAND)**

*Description:* Adult patients with advanced cancer who have an assessment of pain with a standardized quantitative tool at each outpatient visit.

### **1638: Hospice and Palliative Care- Dyspnea Treatment (UNC) (paired with measure 1639)**

*Description:* Percentage of patients who screened positive for dyspnea who received treatment within 24 hours of screening.

**1639: Hospice and Palliative Care – Dyspnea Screening (UNC) (paired with measure 1638)**

*Description:* Percentage of hospice or palliative care patients who were screened for dyspnea during the hospice admission evaluation / palliative care initial encounter.

**1626: Patients admitted to the ICU who have care preferences documented (RAND)**

*Description:* Percentage of vulnerable adults admitted to ICU who survive at least 48 hours who have their care preferences documented within 48 hours OR documentation as to why this was not done.

**1641: Hospice and Palliative Care- Treatment Preferences (UNC)**

*Description:* Percentage of patients with chart documentation of preferences for life sustaining treatments.

**1647: Percentage of hospice patients with documentation in the clinical record of a discussion of spiritual/religious concerns or documentation that the patient/caregiver did not want to discuss (Deyta)**

*Description:* Percentage of hospice patients with documentation of a discussion of spiritual/religious concerns or documentation that the patient/caregiver/family did not want to discuss.

**0209: Comfortable dying (NHPCO) (maintenance)**

*Description:* Number of patients who report being uncomfortable because of pain at the initial assessment (after admission to hospice services) who report pain was brought to a comfortable level within 48 hours.

**1625: Hospitalized patients who die an expected death with an ICD that has been deactivated (RAND)**

*Description:* Percentage of hospitalized patients who die an expected death from cancer or other terminal illness and who have an implantable cardioverter-defibrillator (ICD) in place at the

time of death that was deactivated prior to death, or there is documentation why it was not deactivated

**0208: Family Evaluation of Hospice Care (NHPCO) (maintenance)**

*Description:* Composite Score: Derived from responses to 17 items on the Family Evaluation of Hospice Care (FEHC) survey presented as a single score ranging from 0 to 100. Global Score: Percentage of best possible response (Excellent) to the overall rating question on the FEHC survey. Target Population: The FEHC survey is an after-death survey administered to bereaved family caregivers of individuals who died while enrolled in hospice. Timeframe: The survey measures family members perception of the quality of hospice care for the entire enrollment period, regardless of length of service.

**1632: CARE- Consumer Assessments and Reports of End of Life (Center for Gerontology and Health Care Research)**

*Description:* The CARE survey is a mortality follow-back survey that is administered to the bereaved family members of adult persons (age 18 and older) who died of a chronic progressive illness receiving services for at least 48 hours from a home health agency, nursing homes, hospice, or acute care hospital. The survey measures perceptions of the quality of care either in terms of unmet needs, family reports of concerns with the quality of care, and overall rating of the quality of care. The time frame is the last 2 days of life up to last week of life spent in a hospice, home health agency, hospital, or nursing home.

**1623: Bereaved Family Survey (PROMISE Center)**

*Description:* The purpose of this measure is to assess families' perceptions of the quality of care that Veterans received from the Veteran's Administration in the last month of life. The BFS consists of 19 items (17 structured and 2 open-ended). The BFS items were selected from a longer survey that was developed and validated with the support of a VA HSR&D Merit Award and have been approved for use by the Office of Management and Budget.



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# ENDORSEMENT SUMMARY:

## Resource Use Measures

APRIL 2012

### Purpose of the Project

Healthcare expenditures in the United States are unmatched by any country in the world. This spending, however, has not resulted in better health for Americans – in general, the U.S. does not outperform other countries in terms of lower mortality, greater patient satisfaction, increased access to care, or higher-quality care within the healthcare system. Meanwhile, healthcare spending continues to increase at a rate of seven percent per year, and is largely focused on treating acute and chronic illness rather than prevention and health promotion. When looked at together, these factors illustrate an unparalleled opportunity for creating a more efficient, less wasteful healthcare system.

As health reform efforts focus on expanding coverage, increasing access to care, and

reducing costs, understanding how resources are being used is important. Resource use data – especially when paired with quality data – are integral to evaluate care efficiency, defined as a measure of cost of care associated with a specified level of quality of care. Several provisions in recent policy require use of resource use data over the next several years to support efforts to move toward a value-based purchasing payment model. Furthermore, making quality care more affordable by developing and spreading new healthcare delivery models is one of the National Quality Strategy's priorities. Understanding resource use measurement as a building block toward measuring efficiency and value is a critical step toward achieving these aims.

Diagram 1. Resource Use as a Building Block toward Efficiency and Value



*Efficiency can be defined broadly as the resource use (or cost) associated with a specific level of performance with respect to the other five Institute of Medicine (IOM) aims of quality: safety, timeliness, effectiveness, equity, and patient-centeredness. Resource use measures can be used to assess value by integrating preference-weighted assessments of the quality and cost performance of a specified stakeholder, such as an individual patient, consumer organization, payer, provider, government, or society.*



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Resource use measures as defined by NQF are broadly applicable and comparable measures of health services counts (in terms of units or dollars) that are applied to a population or event (this is also broadly defined to include diagnoses, procedures, or encounters). A resource use measure counts the frequency of defined health system resources; some may further apply a dollar amount – such as allowable charges, paid amounts, or standardized prices – to each resource use unit. Current approaches for measuring resource use range from broadly focused measures, such as per capita measures, which address total healthcare spending per person, to those with a more narrow focus, such as measures dealing with healthcare spending for an individual procedure.

In 2009, NQF was tasked with understanding resource use measures and identifying important attributes to consider when evaluating them, which resulted in a guidance document that provided explanatory language to accommodate resource use measures. Since that time, NQF has evaluated resource use measures for endorsement. NQF convened an expert, multi-stakeholder Steering Committee and divided this work into two cycles, choosing first to focus on four areas for measurement: cardiovascular, stroke, diabetes, and non-condition specific. The second cycle focused on pulmonary, cancer, and bone/joint conditions.

## What was Endorsed

Under this first cycle of work, NQF endorsed four measures as voluntary consensus standards suitable for accountability and performance improvement:

### **(1557) Relative Resource Use for People with Diabetes (NCQA).**

*Description:* The risk-adjusted relative resource use by health plan members 18-75 years of age who were identified as having diabetes (type 1 and type 2) during the measurement year.

### **(1558) Relative Resource Use for People with Cardiovascular Conditions (NCQA).**

*Description:* The risk-adjusted relative resource use by health plan members with specific cardiovascular conditions – including major cardiac events such as acute myocardial infarction, coronary artery bypass graft, and

percutaneous cardiac intervention, as well as cardiovascular-related diagnoses such as ischemic vascular disease – during the measurement year.

### **(1598) Total Resource Use Population-based PMPM Index (HealthPartners).**

*Description:* Resource Use Index (RUI) is a measure of a primary care provider's risk-adjusted frequency and intensity of services used to manage patients using standardized prices. Resource use includes all resources associated with treating members, including professional, facility inpatient and outpatient, pharmacy, laboratory, radiology, ancillary, and behavioral health services.

### **(1604) Total Cost of Care Population-based PMPM Index (HealthPartners).**

*Description:* Total Cost Index (TCI) is a measure of a primary care provider's risk-adjusted cost effectiveness at managing the population they care for using actual prices paid by the health plan. TCI includes all costs associated with treating members, including professional, facility inpatient and outpatient, pharmacy, lab, radiology, ancillary, and behavioral health services.

In April 2012, NQF endorsed four additional measures as voluntary consensus standards suitable for accountability and performance improvement:

### **(1560) Relative Resource Use (RRU) for People with Asthma (NCQA).**

*Description:* This measure identifies members with asthma then captures their total resource use over the measurement year. Both encounter and pharmacy data are used to identify members for inclusion in the eligible population, and the results are adjusted to account for age, gender, and hierarchical condition category (HCC) RRU risk classifications that predict cost variability.

### **(1561) Relative Resource Use for People with Chronic Obstructive Pulmonary Disease (COPD) (NCQA)**

*Description:* This measure identifies members with COPD then captures their total resource use over the measurement year. Clinical diagnosis of COPD is 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.



**(1609) ETG based Hip/Knee Replacement Cost of Care (Ingenix)**

*Description:* This measure uses an episode-based approach for measuring the cost of care for hip and knee replacement using actual prices paid by the health plan. Together, the Episode Treatment Group (ETG) and Procedure Episode Group (PEG) methodologies identify the services involved in diagnosing, managing and treating, as well as the procedure event and related services performed before and after the procedure.

**(1611) ETG based Pneumonia Cost of Care (Ingenix)**

*Description:* This measure uses an episode-based approach for measuring the cost of care for pneumonia using actual prices paid by the health plan. The Episode Treatment Groups (ETG) methodology identifies the services involved in diagnosing, managing and treating pneumonia.

## The Need these Measures Fill

These measures are primed to offer a more complete picture of what is driving healthcare costs. Notably, the measures will enable stakeholders to identify opportunities to create a higher-value healthcare system centered on reduced cost growth. They will also send a clear signal to the measure development community of the urgent need to develop additional resource use measures. Such measures get us one step closer to achieving a higher quality, lower cost healthcare system, where quality is measured in conjunction with resource use, or efficiency. Given the diverse perspectives on cost and resource use measurement in healthcare, NQF recognizes that the measures submitted and evaluated in this process only represent a narrow perspective in accounting for healthcare expenditures.

## Potential Use

These four measures are structured to capture costs across a range of clinical and administrative

settings, including ambulatory care centers, acute and long-term care facilities, outpatient and home health service settings, laboratories, and pharmacies. Based on the current level of testing, these measures are appropriate for measuring utilization of healthcare services within the commercial population (<65 years old) in settings where administrative claims data is accessible.

These measures may be useful to a wide range of stakeholders when used in concert with measures of quality and patient satisfaction. Purchasers, health plans, and consumers may be able to better identify providers that deliver high quality care at the lowest cost. Providers and health care teams can more effectively manage cost and health care quality if they can better understand how resources are being expended.

## Project Perspectives

Resource use is a key gap area in performance measurement, but this project has made an important contribution. Over the coming years, NQF will work to enhance its portfolio of resource use measures, given the keen interest in cost and resource use measures on the part of public and private payers. For example, the Centers for Medicare & Medicaid Services will soon introduce a value-based payment modifier under the Medicare Physician Fee Schedule, and many private plans have used these types of measures for years.

Further work is needed by the broader quality and applied research community to identify how best to use resource use measures in concert with quality measures. When paired with measures of patient outcomes and experience of care, resource use measures can help the healthcare system identify best practices for removing waste while maintaining quality. However, there is much to learn about how best to display and interpret measure sets that include measures of quality and cost, and how to construct composite measures that assess value.



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# ENDORSEMENT SUMMARY:

## Renal Measures

APRIL 2012

### Purpose of the Project

An estimated 31 million adults in the United States suffer from chronic kidney disease, making renal-related diseases one of the leading causes of morbidity and mortality. Often brought on by existing conditions such as cardiovascular disease, diabetes, hypertension, and obesity, chronic kidney disease accounted for close to 25 percent of all Medicare expenditures in 2008.

Untreated chronic kidney disease can lead to end stage renal disease (ESRD) – also known as permanent kidney failure – where patients need dialysis treatments or kidney transplants to survive. More than half a million Americans have been diagnosed with ESRD, with treatment costs as high as \$26 billion in recent years. Minority populations also disproportionately suffer from this disease. ESRD is diagnosed in African American and Native American populations at rates significantly higher than Caucasians; in addition, ESRD is diagnosed in Hispanics at a rate 1.5 times higher than that of non-Hispanic populations.

These statistics make improving quality of care for ESRD and other renal disease patients a significant priority. Developing and endorsing performance measures that can assess care of these patients are a critical part of this effort.

Over the past several years, NQF has endorsed 32 performance measures related to renal disease. In May 2011, NQF – at the request of the Department of Health and Human Services – began a project focused on identifying, endorsing, and updating a broader set of renal performance measures. Specifically, the project sought to endorse measures that addressed chronic kidney disease, ESRD, and other related conditions such as polycystic kidney disease, nephrolithiasis, and lupus nephritis.

The resulting endorsed measures will help providers ensure renal patients receive the high quality care they deserve.

### What Was Endorsed

#### Summary of Renal Endorsement Maintenance Measures Project

Measures submitted for consideration	33
Measures recommended for endorsement	12
Measures not recommended for endorsement	21

Under the renal endorsement project, NQF endorsed 12 measures suitable for accountability and quality improvement. Of the 12 measures, nine were previously endorsed and granted continued endorsement status; three were newly submitted measures.

Measure stewards included the Centers for Medicare & Medicaid Services, the Physician Consortium for Performance Improvement convened by the American Medical Association, and the Kidney Care Quality Alliance. A full list of measures is available at the end of this report.

### The Need these Measures Fill

This project sought to identify and endorse measures that specifically address renal disease for accountability and quality improvement. The resulting measures focus on a wide range of care processes and outcomes of care, including mortality rates in dialysis facilities; measured hemoglobin levels in patients at risk for anemia; annual lipid profiles; dialysis effectiveness; mineral metabolism; and catheter use in dialysis patients.



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As increasing numbers of Americans are treated for renal-related diseases, it is critical that providers have the right measurement tools to help ensure patients receive safe, high-quality, and compassionate care. These measures span a range of clinical care, and provide a solid foundation for measuring and improving care quality.

## Potential Use

These measures are applicable for use in several clinical settings, which will help improve quality across the healthcare spectrum. Settings include acute care hospitals, dialysis facilities, physician offices, and in-home care.

## Project Perspectives

With so many individuals in the United States suffering from renal-related conditions, it is imperative that healthcare providers are able to evaluate the quality of care delivered to patients. This set of measures will be critical to that evaluation; more importantly, these measures will give providers the information they need to ultimately improve care quality.

Throughout the course of the project, NQF successfully worked with measure developers to harmonize similar measures focused on dialysis adequacy for both individual clinicians and dialysis facilities. NQF also identified where further work is needed to more fully address care quality concerns for renal patients. Notably, patient education is very important for informed choice of renal replacement therapy and managing chronic kidney disease, but should be measured from the patient's perspective. For example, assessing a patient's understanding of renal replacement therapy options is more important than checking off that information on such options was provided.

## Endorsed Measures

### 0369: Dialysis Facility Risk-adjusted Standardized Mortality Ratio (CMS)

*Description:* Risk-adjusted standardized mortality ratio for dialysis facility patients.

### 1666: Patients on Erythropoiesis Stimulating Agent (ESA)—Hemoglobin Level > 12.0 g/dL (AMA-PCPI)

*Description:* Percentage of calendar months within a 12-month period during which a Hemoglobin is measured for patients aged 18 years and older with a diagnosis of advanced CKD (stage 4 or 5, not receiving RRT) or ESRD (who are on hemodialysis or peritoneal dialysis) who are also receiving ESA therapy and have a Hemoglobin Level > 12.0 g/dL.

### 1667: (Pediatric) ESRD Patients Receiving Dialysis: Hemoglobin Level < 10g/dL (AMA-PCPI)

*Description:* Percentage of calendar months within a 12-month period during which patients aged 17 years and younger with a diagnosis of ESRD receiving hemodialysis or peritoneal dialysis have a Hemoglobin level <10 g/dL.

### 1668: Laboratory Testing (Lipid Profile) (AMA-PCPI)

*Description:* Percentage of patients aged 18 years and older with a diagnosis of CKD (stage 3, 4 or 5, not receiving RRT) who had a fasting lipid profile performed at least once within a 12-month period.

### 0249: Hemodialysis Adequacy Clinical Performance Measure III: Hemodialysis Adequacy—HD Adequacy—Minimum Delivered Hemodialysis Dose (CMS)

*Description:* Percentage of all adult (>=18 years old) patients in the sample for analysis who have been on hemodialysis for 6 months or more and dialyzing thrice weekly whose average delivered dose of hemodialysis (calculated from the last measurements of the month using the UKM or Daugirdas II formula) was a  $\text{spKt/V} \geq 1.2$  during the study period.

### 0323: Hemodialysis Adequacy: Solute (AMA-PCPI)

*Description:* Percentage of calendar months within a 12-month period during which patients aged 18 years and older with a diagnosis of ESRD receiving hemodialysis three times a week for  $\geq 90$  days have a  $\text{spKt/V} \geq 1.2$ .

### 0318: Peritoneal Dialysis Adequacy Clinical Performance Measure III - Delivered Dose of Peritoneal Dialysis Above Minimum (CMS)

*Description:* Percentage of all adult (>= 18 years old) peritoneal dialysis patients whose delivered peritoneal dialysis dose was a weekly Kt/Vurea of at least 1.7 (dialytic + residual) during the four month study period.

**0321: Peritoneal Dialysis Adequacy: Solute (AMA-PCPI)**

*Description:* Percentage of patients aged 18 years and older with a diagnosis of ESRD receiving peritoneal dialysis who have a total Kt/V  $\geq$  or = 1.7 per week measured once every 4 months.

**0255: Measurement of Serum Phosphorus Concentration (CMS)**

*Description:* Percentage of all adult ( $\geq$  18 years of age) peritoneal dialysis and hemodialysis patients included in the sample for analysis with serum phosphorus measured at least once within month.

**0251: Vascular Access—Functional AVF or AV Graft or Evaluation for Placement (Kidney Care Quality Alliance)**

*Description:* Percentage of end stage renal disease (ESRD) patients aged 18 years and older receiving hemodialysis during the 12-month reporting period and on dialysis  $\geq$  90 days who:

1. have a functional autogenous AVF (defined as two needles used or a single-needle device [NOT one needle used in a two-needle device]) (computed and reported separately);
2. have a functional AV graft (computed and reported separately); or
3. have a catheter but have been seen/evaluated by a vascular surgeon, other surgeon qualified in the area of vascular access, or interventional nephrologist trained in the primary placement of vascular access for a functional autogenous AVF or AV graft at least once during the 12-month reporting period (computed and reported separately).

The total numerator and each of the numerator subgroups (the outcomes subgroups and the process subgroup) will be reported separately. Reporting should be stratified by incident versus prevalent patients, as defined by USRDS.

**0256: Hemodialysis Vascular Access- Minimizing use of catheters as Chronic Dialysis Access (CMS)**

*Description:* Percentage of patients on maintenance hemodialysis during the last HD treatment of study period with a chronic catheter continuously for 90 days or longer prior to the last hemodialysis session.

**0257: Hemodialysis Vascular Access- Maximizing Placement of Arterial Venous Fistula (AVF) (CMS)**

*Description:* Percentage of patients on maintenance hemodialysis during the last HD treatment of month using an autogenous AV fistula with two needles.



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# ENDORSEMENT SUMMARY:

## Perinatal and Reproductive Health Measures

APRIL 2012

### Purpose of the Project

With an estimated four million babies born in the United States annually, pregnancy and childbirth-related procedures account for all five of the most common medical procedures for women of childbearing age. Conditions related to pregnancy, childbirth, and newborns also account for nearly a quarter of hospitalizations each year. Yet studies show that deaths during pregnancy and childbirth have doubled for all U.S. women in the past 20 years, and infant mortality due to maternal complications is responsible for close to six percent of all infant deaths.

Lower quality care during pregnancy, labor and delivery, and the postpartum period can lead to unnecessary complications, extended hospital stays, costly neonatal intensive care unit admissions, and undue suffering for newborns, mothers, and families. Unfortunately, research indicates that significant racial, ethnic, and socioeconomic disparities exist with regard to maternal morbidity and mortality, preterm births, low birth weight infants, and other complications. When looked at together, these factors indicate a strong opportunity for creating safer, higher-quality care environments for mothers and babies. Perinatal measures are essential to achieving this aim.

NQF has previously endorsed measures related to perinatal and reproductive health. As of July 2011, 33 related measures had been endorsed as part of other projects, focused on areas such as ambulatory care, emergency care, and patient outcomes. Since then – at the request of the Department of Health and Human Services – NQF has focused on identifying, endorsing, and updating a broader set of perinatal and reproductive health performance measures. Specifically, this project sought to endorse measures that addressed reproductive health, pregnancy,

childbirth and postpartum care, and newborn care.

### What Was Endorsed

#### Summary of Perinatal and Reproductive Health Endorsement Maintenance Measures Project

Measures under consideration	32
Measures withdrawn by the developer	11
Measures recommended for endorsement	14
Measures not recommended for endorsement	7

Under the perinatal and reproductive health endorsement project, NQF endorsed 14 measures suitable for accountability and quality improvement. Of the 14 measures, 12 were previously endorsed and underwent endorsement maintenance review, and two were newly submitted measures.

Measure stewards included a range of healthcare stakeholders, including the Joint Commission, the Agency for Healthcare Research and Quality, the Centers for Disease Control and Prevention, and Massachusetts General Hospital, among others. A full list of measures is at the end of this report.

### The Need these Measures Fill

This project sought to identify and endorse measures that specifically address perinatal and reproductive health for accountability and quality improvement. The resulting measures focus on a wide range of care concerns, including but not limited to elective vaginal deliveries and cesarean sections before 39 weeks; the percentage of women receiving prophylactic antibiotics before a cesarean



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section; hepatitis B vaccinations rates for newborns; healthcare-associated bloodstream infections in newborns; and exclusive breastfeeding rates during hospitalization.

Research suggests that morbidity and mortality associated with pregnancy and childbirth can be largely prevented when evidence-based care guidelines are followed; therefore, it is critical that providers have the right measurement tools to help ensure mothers and newborns receive safe, high-quality care. These measures will enhance NQF's perinatal care portfolio and provide significant support for measuring and improving care quality.

## Potential Use

These measures are applicable for use in acute care hospitals and neonatal intensive care units.

## Project Perspectives

The troubling statistics surrounding pregnancy and childbirth in the United States illustrate the urgent need for quality measures capable of evaluating and ultimately improving perinatal care. With this set of updated and newly endorsed measures, NQF has taken a significant step in that direction.

Specifically, many of the endorsed measures have the potential to dramatically affect the health and well-being of both mothers and newborns. For example, the Joint Commission's measure focused on elective vaginal deliveries or cesarean sections before 39 weeks is critical. There is compelling evidence that elective delivery prior to 39 weeks can cause serious harm to infants, so much so that the March of Dimes has launched a campaign to prevent unnecessary premature birth. A measure put forth by Massachusetts General Hospital and Partners Health Care System, focused on women receiving prophylactic antibiotics prior to a cesarean section, is equally important. More than one million cesarean sections are performed in the United States each year and are associated with high surgical site infection rates; there is clear evidence that appropriate antibiotics given in a timely manner before the procedure greatly reduces infection and further complications.

Measurement gaps, however, still exist. NQF identified several areas where further work is

needed to more fully address care concerns for these populations. Reproductive health measures – such as preconception health screenings for diabetes, hypertension, and HIV; and assessment of medication use and screening for tobacco, alcohol, or drugs – are still needed. Additionally, measures that evaluate childbirth and postpartum care at the clinician level are essential to improving care quality.

## Endorsed Measures

### 0469: PC-01 Elective Delivery (Joint Commission)

*Description:* This measure assesses patients with elective vaginal deliveries or elective cesarean sections at  $\geq 37$  and  $< 39$  weeks of gestation completed. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).

### 0470: Incidence of Episiotomy (Christiana Care Health System)

*Description:* Percentage of vaginal deliveries (excluding those coded with shoulder dystocia) during which an episiotomy is performed.

### 0471: PC-02 Cesarean Section (Joint Commission)

*Description:* This measure assesses the number of nulliparous women with a term, singleton baby in a vertex position delivered by cesarean section. This measure is part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).

### 0472: Appropriate Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision– Cesarean Section (Massachusetts General Hospital/Partners Health Care System)

*Description:* Percentage of patients undergoing cesarean section who receive appropriate prophylactic antibiotics within 60 minutes of the start of the cesarean delivery, unless the patient is already receiving appropriate antibiotics.

**0473: Appropriate DVT Prophylaxis in Women Undergoing Cesarean Delivery (Hospital Corporation of America)**

*Description:* Measure adherence to current ACOG, SMFM recommendations for use of DVT prophylaxis in women undergoing cesarean delivery. Current ACOG and SMFM recommendations call for the use of pneumatic compression devices in all women undergoing cesarean delivery who are not already receiving medical VTE prophylaxis.

**0475: Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge (Centers for Disease Control and Prevention)**

*Description:* Percent of live newborn infants that receive hepatitis B vaccination before discharge at each single hospital/birthing facility during given time period (one year).

**0476: PC-03 Antenatal Steroids (Joint Commission)**

*Description:* This measure assesses patients at risk of preterm delivery at 24 0/7-32 0/7 weeks gestation receiving antenatal steroids prior to delivering preterm newborns. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Section, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).

**1746: Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (GBS) (Massachusetts General Hospital)**

*Description:* Percentage of pregnant women who are eligible for and receive appropriate intrapartum antibiotic prophylaxis (IAP) for Group B Streptococcus (GBS).

**0477: Under 1500g infant Not Delivered at Appropriate Level of Care (California Maternal Quality Care Collaborative)**

*Description:* The number per 1,000 live births of <1500g infants delivered at hospitals not appropriate for that size infant.

**0478: Neonatal Blood Stream Infection Rate (NQI #3) (Agency for Healthcare Research and Quality)**

*Description:* Percentage of high-risk newborn discharges with an ICD-9-CM diagnosis code of bloodstream infection.

**1731: Health Care-Associated Bloodstream Infections in Newborns (Joint Commission)**

*Description:* This measure assesses the number of staphylococcal and gram negative septicemias or bacteremias in high-risk newborns. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-05: Exclusive Breast Milk Feeding).

**0304: Late Sepsis or Meningitis in Very Low Birth Weight (VLBW) Neonates (risk-adjusted) (Vermont Oxford Network)**

*Description:* Standardized rate and standardized morbidity ratio for nosocomial bacterial infection after day 3 of life for very low birth weight infants, including infants with birth weights between 401 and 1500 grams and infants whose gestational age is between 22 and 29 weeks.

**0480: PC-05 Exclusive Breast Milk Feeding (Joint Commission)**

*Description:* This measure assesses the number of newborns exclusively fed breast milk feeding during the newborn's entire hospitalization. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns).

**0483: Proportion of Infants 22 to 29 Weeks Gestation Screened for Retinopathy of Prematurity (Vermont Oxford Network)**

*Description:* Proportion of infants 22 to 29 weeks gestation who were in the reporting hospital at the postnatal age recommended for retinopathy of prematurity (ROP) screening by the American Academy of Pediatrics (AAP) and who received a retinal examination for ROP prior to discharge.



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# ENDORSEMENT SUMMARY:

## All-Cause Readmissions

APRIL 2012

### Purpose of the Project

About one in five Medicare beneficiaries that leave a hospital are readmitted within 30 days. Such unplanned readmissions – many of which have the potential to be prevented – cost Medicare about \$15 billion annually. And although Medicare beneficiaries are more likely to be rehospitalized, the private sector also spends billions of dollars each year on people who end up back in the hospital within a month of an initial stay. Readmissions take a significant toll on patients and families as well, often resulting in prolonged illness or pain, emotional distress, and loss of productivity.

As a result, reducing the number of avoidable hospital readmissions has become a major priority, even as understanding among healthcare stakeholders has deepened that readmissions are caused by a complex array of patient and health system factors. These include the complexity of the medical condition and associated therapies; effectiveness of inpatient treatment and care transitions; patient understanding of and adherence to treatment plans; patient health literacy and language barriers; and the availability and quality of post-acute and community-based services, particularly for patients with low income.

In October 2011 – at the request of the Department of Health and Human Services (HHS) – NQF launched a project to identify and endorse quality measures related to all-cause readmissions. Specifically, this project sought to endorse cross-cutting (not condition-specific) measures of readmissions that could be used for quality improvement and accountability. The resulting endorsed measures will help the healthcare community better understand and ultimately reduce unplanned hospital readmission rates across the country.

### What Was Endorsed

#### Summary of All-Cause Readmissions Measures Endorsement Project

Measures submitted for consideration	3
Measures withdrawn by the developer for more testing and further refinement	0
Measures recommended for endorsement	2
Measures not recommended for endorsement	1

Under the all-cause readmissions endorsement project, NQF endorsed two measures suitable for accountability and quality improvement. Three measures – two new, one previously endorsed – were originally submitted. The previously endorsed measure was not endorsed.

### Endorsed Measures

#### 1768: Plan all-cause readmissions (NCQA)

This measure – developed by the National Committee for Quality Assurance (NCQA) – counts the number of acute inpatient hospital stays for patients aged 18 and older during the measurement year that were followed by an acute readmission for any diagnosis within 30 days, as well as the predicted probability of an acute readmission. The measure reports data in the following categories: count of index hospital stays; count of 30-day readmissions; average adjusted probability of readmission; observed readmission; and total variance.

#### 1789: Hospital-wide all-cause readmission measure (CMS/Yale)

This measure estimates the hospital-level, risk-standardized rate of unplanned, all-cause readmissions for any eligible condition



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within 30 days of hospital discharge for patients aged 18 and older. The measure will result in a single summary risk-adjusted readmission rate for conditions or procedures that fall under five specialties: surgery/gynecology, general medicine, cardiorespiratory, cardiovascular, and neurology.

The NQF Board also requested that the CMS/Yale measure be accompanied by the following guidance language to help explain the multifaceted nature of hospital readmissions and the opportunity for broad stakeholder collaboration to address the issue:

“Multiple factors affect readmission rates and other measures including: the complexity of the medical condition and associated therapies; effectiveness of inpatient treatment and care transitions; patient understanding of and adherence to treatment plans; patient health literacy and language barriers; and the availability and quality of post-acute and community-based services, particularly for patients with low income. Readmission measurement should reinforce national efforts to focus all stakeholders’ attention and collaboration on this important issue.”

### The Need these Measures Fill

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The endorsed measures are a major step in promoting better understanding of readmissions and a reduction in hospital readmission rates, when appropriate. In turn, the measures will help reduce the significant financial and emotional stress that readmissions place on the healthcare system and patients and families alike.

### Potential Use

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Both measures are intended for use in accountability and quality improvement programs.

### Project Perspectives

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The NQF Board of Directors voted on June 25 to uphold its initial decision to endorse the new all-cause hospital-wide readmissions measure developed by Yale University and CMS. The Board’s decision to endorse this measure was challenged through NQF’s official appeal process by seven hospital systems.

During its deliberations, the Board reaffirmed the important differences between the measure endorsement process, which thoroughly vets the properties of a measure, and that of the Measure Applications Partnership (MAP) whose role is to advise both public and private sectors on best use of measures in payment and public reporting programs. The Board explicitly requested MAP to convene a special session over the summer to consider the complex issue of how to use this new measure as part of a broader set of care coordination measures applicable to all types of providers.

CMS agreed to defer use of this particular readmission measure in the new CMS Readmissions Reduction Program until MAP had deliberated and recommended back to CMS its advice on the measure’s optimal use. CMS also reaffirmed its previous commitment to provide findings of the dry run back to NQF’s expert steering committee that reviewed and voted to endorse this measure within one year.



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# ENDORSEMENT SUMMARY:

## Multiple Chronic Conditions Measurement Framework

MAY 2012

### Purpose of the Project

People with multiple chronic conditions (MCCs) now comprise over one-quarter of the U.S. population. As the population ages in coming decades, that percentage is expected to grow. This population is at significantly higher risk of adverse outcomes and complications. They are also more likely to see multiple clinicians, take five or more medications, and receive care that is fragmented, incomplete, inefficient, and ineffective. As a result, MCCs are associated with higher healthcare costs and utilization rates, and individuals with MCCs are at increased risk for potentially avoidable inpatient admissions and preventable hospital complications.

Despite the growing prevalence of MCCs and associated complications, existing quality measures largely do not address individuals with MCCs. As a result, in June 2010 NQF – under contract with the Department of Health and Human Services (HHS) – convened a multi-stakeholder steering committee to develop a measurement framework for individuals with MCCs. The steering committee's work was informed by several important national initiatives spearheaded by HHS and public-private sector initiatives, including HHS's Multiple Chronic Conditions Strategic Framework, the National Quality Strategy, and the National Priorities Partnership, among others.

This framework will serve as a guide for future NQF-endorsement decisions for measures that address the MCC population. Specifically, the framework:

- Establishes a definition for MCCs in order to achieve a common understanding and a shared vision for effectively measuring the quality of care for individuals with MCCs;
- Identifies high-leverage measurement areas for the MCCs population in an effort

to mitigate unintended consequences and measurement burden;

- Presents a conceptual model that serves as an organizing structure for identifying and prioritizing quality measures; and
- Offers guiding principles to address methodological and practical measurement issues.

In addition, the report identifies several timely strategic opportunities for applying the framework that are relevant to current policy context. These include: a coordinated approach for filling measure gaps; building a common data platform to consistently and seamlessly collect information, including patient-reported data; opportunities to apply the core tenets of the framework as new delivery models are implemented and tested; and transparency through public reporting to enable informed consumer decision-making.

### Components of the Framework

The MCC framework endorsed by NQF includes several core components:

#### DEFINITION OF MULTIPLE CHRONIC CONDITIONS

MCCs are defined in a multitude of ways in literature and in practice. Widespread adoption of a standardized definition will help align quality measurement initiatives across the healthcare spectrum. As a result, the steering committee built upon previously established definitions from HHS and the Agency for Healthcare Research and Quality and defined MCCs to be:

*Persons having two or more concurrent chronic conditions that collectively have an adverse effect on health status, function, or quality of life and that require complex healthcare management, decision-making, or coordination.*



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### KEY MEASUREMENT CONCEPTS

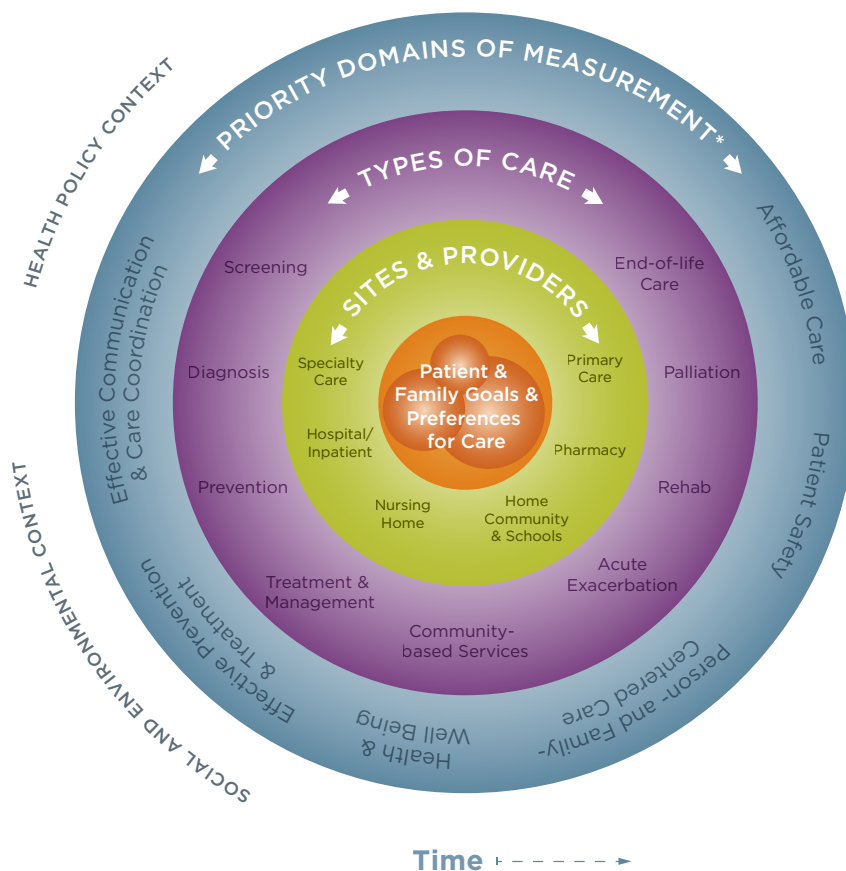
Strict adherence to disease-specific measures for patients with MCCs may lead to the unintended consequences of delivering inappropriate care that is not aligned with patient goals and preferences. Additionally, applying numerous measures targeting a variety of diseases could lead to high measurement burden. Therefore, the steering committee sought to identify the highest-leverage measurement areas for the MCC population in an effort to mitigate these two important concerns. The committee's selection criteria was based on identifying cross-cutting areas that offer the greatest potential for reducing disease burden and cost and improving well-being, and are valued most by patients and their families. The final measure concepts include:

- Optimizing function, maintaining function, or preventing further decline in function;
- Seamless transitions between multiple providers and sites of care;
- Patient important outcomes (includes patient-reported outcomes and relevant disease-specific outcomes);

- Avoiding inappropriate, non-beneficial care, particularly at the end of life;
- Access to a usual source of care;
- Transparency of cost (total cost);
- Shared accountability across patients, families, and providers; and
- Shared decision-making.

### CONCEPTUAL MODEL FOR MEASURING CARE PROVIDED TO MCC INDIVIDUALS

The steering committee's measurement priorities set the stage for the development of a conceptual model to guide measurement for individuals with MCCs. This model is designed to illustrate the complexity of providing care for these individuals by showing the various ways that conditions, patient and family preferences, sites and providers of care, and types of care interact. Also represented in the model are the social and environmental context in which the individual lives and receives care and the public and private health policy priorities that guide care delivery.



\* Each priority domain of measurement may be addressed using several types of measures, including structure, process, outcome, efficiency, cost/resource use, and composite measures. The use of outcomes measures, when available, and process measures that are most closely linked to outcomes is preferable.

Please see the [full report](#) for a further explanation of the conceptual model.

#### GUIDING PRINCIPLES

In considering implementation challenges for the conceptual model and measure concepts, the steering committee adopted the following guiding principles:

To evaluate the full spectrum of care for individuals with MCCs, measurement should:

1. Promote collaborative care among providers and across settings at all levels of the system, while aligning across various public- and private-sector applications, such as public reporting and payment.
2. Assess the quality of care and incorporate several types of measures including cross-cutting, condition-specific, structure, process, outcomes, efficiency, cost/resource use, composites, and behavioral; and that address appropriateness of care.
3. Be prioritized based on the best available evidence of links to optimum outcomes and consider patient preferences jointly established through care planning.
4. Assess if a shared decision-making process was undertaken as part of initial and ongoing care planning and ultimately that the care provided was in concordance with patient preferences or, as appropriate, family or caregiver preferences on behalf of the patient.
5. Assess care longitudinally (care provided over extended periods of time) and changes in care over time (delta measures of improvement or maintenance rather than attainment).
6. Be as inclusive as possible, as opposed to excluding individuals with MCCs from measure denominators. Where exclusions are appropriate, either existing measures should be modified or new measures developed.
7. Include methodological approaches, such as stratification, to illuminate and track disparities and other variances in care for individuals with MCCs. In addition to stratifying the MCC population in measurement (which is particularly important to understanding application of disease-specific measures to the MCC population), bases for stratification include disability, cognitive impairments, life expectancy, illness burden, dominant conditions, socioeconomic status, and race/ethnicity.
8. Use risk adjustment for comparability with caution, as risk adjustment may result in the unintended consequence of obscuring serious gaps in care for the MCC population. Risk adjustment should be applied only to outcomes measures and not process measures.
9. Capture inputs in a standardized fashion from multiple data sources, particularly patient-reported data, to ensure key outcomes of care (e.g., functional status) are assessed and monitored over time.

The guiding principles address methodological considerations including assessment of care across episodes, measure prioritization, and the infrastructure needed for data collection. These methodological considerations are further discussed in the [final report](#).

### The Future of Quality Measurement for MCCs

The MCC framework will need to evolve over time as it is implemented in real-life settings. It will be critical to have a feedback loop to capture experiences from the field to further refine the approaches recommended within.

The forward-looking considerations for applying this framework lay out a pathway toward providing patient-centered, efficient care to people with MCCs. This pathway will be critical to achieving the aims of the National Quality Strategy – better care, healthy people and communities, and affordable care.

For further explanation of the MCC framework, please see the [final report](#).



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# ENDORSEMENT SUMMARY:

## Surgery Measures

MAY 2012

### Purpose of the Project

The number of surgical procedures, especially those performed outside of hospitals, continues to rise each year. In 2006, 99 million surgeries were performed in the United States, with 53 million of those taking place in ambulatory surgery centers. By 2007, there were almost 5,000 Medicare-certified ambulatory surgery centers across the country, a 64 percent increase from 2000. These statistics illustrate the need for surgical measures that can assess care quality across a variety of care settings and conditions.

NQF has endorsed a significant number of performance measures related to surgical procedures and care over the past six years. In fall 2010, NQF – at the request of the Department of Health and Human Services – began a two-phase project focused on identifying, endorsing, and updating surgical performance measures. Phase I of the project focused on measures related to cardiac surgery, including pre-operative evaluation, post-operative care, diagnostic studies, and treatments associated with these surgeries. Phase II sought to endorse measures specifically focused on general surgery and surgical specialties including but not limited to thoracic, vascular, orthopedic, and neurosurgery.

The resulting endorsed measures address care delivery across a range of clinical settings and will help providers ensure patients receive the high-quality surgical care they deserve.

### What Was Endorsed

#### Summary of Surgery Endorsement Maintenance Measures Project

Measure submitted for consideration	73
Measures withdrawn by the developer for more testing and further refinement	13
Measures recommended for endorsement	51 (42 maintenance, 9 new)
Measures not recommended for endorsement	9

In the two phases of the surgery endorsement project, NQF endorsed 51 measures (18 measures in phase I, 24 measures in phase 2, and nine measures in an addendum to phase 2) suitable for accountability and quality improvement. Of the 51 measures, 42 were previously endorsed and granted continued endorsement status, and nine were newly submitted measures. Two measures were placed in reserve status, meaning they address critical aspects of performance that should be periodically reassessed to ensure that high levels of performance are maintained.

Measure stewards included both public- and private-sector healthcare stakeholders. Among them were the Centers for Medicare & Medicaid Services; Society of Thoracic Surgeons; Agency for Healthcare Research and Quality; Society for Vascular Surgery; The Children's Hospital of Philadelphia; and the ACS Quality Collaboration. A full list of measures is available at the end of this report.



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## The Need these Measures Fill

This project sought to identify and endorse measures that specifically address surgical care and surgical procedures for accountability and quality improvement. The resulting measures focus on a wide range of procedures and processes, including coronary artery bypass grafts, hip and knee replacement, pediatric cardiology volume and mortality rates, and cataract surgery.

Notably, this set of endorsed measures includes several that evaluate the actual outcomes of care – such as incidents of stroke or death following a carotid endarterectomy or carotid artery stenting procedure, and death among surgical inpatients with serious, treatable complications. Because outcomes measures go beyond simply taking stock of patient care processes, they are considered most relevant to patients and providers looking to improve care delivery.

This measure set also includes a measure from the American College of Surgeons focused on patient experience, an increasingly important area of interest in quality measurement. The measure assesses quality of care from the patient's perspective based on the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) surgical care survey. Data from the survey – which touches on patients' thoughts on how well they were prepared for surgery, how well they believed the surgeons communicated, and what information they were given to help them recover from surgery, among other questions – should help providers better understand and ultimately improve patient care and experience.

## Potential Use

While these measures are available for use in hospitals, many are also available for use in ambulatory surgery centers, which will help with quality improvement efforts in a range of clinical settings.

## Project Perspectives

The rate of surgical procedures continues to increase each year, as does the number and type of sites performing surgery. Outpatient care settings, such as physicians' offices and ambulatory surgical centers, can face different challenges than hospitals with respect to quality

and safety. Measuring quality of care across the many and varied locations in which surgical procedures are performed may drive providers in these different locations to recognize and address barriers to quality in their practices, and may lead to an increased focus on the tools, behaviors, and principles that ensure safe, cost-effective care.

The endorsed surgery measures listed below also address important cross-cutting areas of patient safety and care coordination. Preventable complications of healthcare, such as surgical site infections or postoperative pulmonary embolisms, can have significant financial and human costs. A lack of coordination and communication by providers across settings and between episodes of care can also result in adverse health outcomes for surgery patients. For example, measures tracking hospital readmission rates promote a view of care that reaches beyond the walls of the hospital or outpatient facility, pushing providers to improve their oversight of care transitions and to engage in follow-up efforts with patients who have been in their care. This is especially critical for patients who have had surgery and are at risk of a variety of serious complications following their procedures.

## Endorsed Measures

### **0114: Risk-adjusted post-operative renal failure (STS)**

*Description:* Percent of patients aged 18 years and older undergoing isolated CABG (without pre-existing renal failure) who develop post-operative renal failure or require dialysis.

### **0115: Risk-adjusted surgical re-exploration (STS)**

*Description:* Percent of patients aged 18 years and older undergoing isolated CABG who require a return to the operating room for bleeding with or without tamponade, graft occlusion, valve dysfunction, or other cardiac reason.

### **0129: Risk-adjusted prolonged intubation (ventilation) (STS)**

*Description:* Percent of patients aged 18 years and older undergoing isolated CABG who require intubation for more than 24 hours.

### **0131: Risk-adjusted stroke/cerebrovascular accident (STS)**

*Description:* Percent of patients aged 18 years and older undergoing isolated CABG who have

a postoperative stroke (i.e., any confirmed neurological deficit of abrupt onset caused by a disturbance in blood supply to the brain) that did not resolve within 24 hours.

**0119: Risk-adjusted operative mortality for CABG (STS)**

*Description:* Percent of patients aged 18 years and older undergoing isolated CABG who die, including both 1) all deaths occurring during the hospitalization in which the CABG was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.

**0113: Participation in a database for cardiac surgery (STS) (reserve status)**

*Description:* Participation in a clinical database with broad state, regional, or national representation, that provides regular performance reports based on benchmarked data.

**0120: Risk-adjusted operative mortality for aortic valve replacement (AVR) (STS)**

*Description:* Percent of patients aged 18 years and older undergoing Aortic Valve Replacement (AVR) who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.

**0121: Risk-adjusted operative mortality for mitral valve (MV) replacement (STS)**

*Description:* Percent of patients aged 18 years and older undergoing MV replacement who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.

**0122: Risk-adjusted operative mortality MV replacement + CABG surgery (STS)**

*Description:* Percent of patients aged 18 years and older undergoing combined MV replacement and CABG who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.

**0123: Risk-adjusted operative mortality for aortic valve replacement (AVR) + CABG surgery (STS)**

*Description:* Percent of patients aged 18 years and older undergoing combined AVR and CABG who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.

**1501: Risk-adjusted operative mortality for mitral valve (MV) repair (STS)**

*Description:* Percent of patients aged 18 years and older undergoing MV Repair who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.

**1502: Risk-adjusted operative mortality for MV repair + CABG surgery (STS)**

*Description:* Percent of patients aged 18 years and older undergoing combined MV repair and CABG who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.

**0360: Esophageal resection mortality rate (IQI 8) (AHRQ)**

*Description:* Number of inpatient deaths per 100 discharges with a procedure for esophageal resection.

**0361: Esophageal resection volume (IQI 1) (AHRQ)**

*Description:* Number of discharges with a procedure for esophageal resection.

**0116: Anti-platelet medication at discharge (STS)**

*Description:* Percent of patients aged 18 years and older undergoing isolated CABG who were discharged on anti-platelet medication.

**0118: Anti-lipid treatment discharge (STS)**

*Description:* Percent of patients aged 18 years and older undergoing isolated CABG who were discharged on a statin or other lipid-lowering regimen.



**0130: Risk-adjusted deep sternal wound infection rate (STS)**

*Description:* Percent of patients aged 18 years and older undergoing isolated CABG who, within 30 days postoperatively, develop deep sternal wound infection involving muscle, bone, and/or mediastinum requiring operative intervention.

**0218: Surgery patients who received appropriate venous thromboembolism (VTE) prophylaxis within 24 hours prior to surgery to 24 hours after surgery end time (CMS)**

*Description:* Percentage of surgery patients who received appropriate venous thromboembolism (VTE) prophylaxis within 24 hours prior to surgery to 24 hours after surgery end time.

**0134: Use of internal mammary artery (IMA) in coronary artery bypass graft (CABG) (STS)**

*Description:* Percentage of patients aged 18 years and older undergoing isolated coronary artery bypass graft (CABG) who received an internal mammary artery (IMA) graft

**0300: Cardiac surgery patients with controlled postoperative blood glucose (CMS)**

*Description:* Cardiac surgery patients with controlled postoperative blood glucose (less than or equal to 180mg/dL) in the timeframe of 18 to 24 hours after Anesthesia End Time.

**0127: Preoperative beta blockade (STS)**

*Description:* Percent of patients aged 18 years and older undergoing isolated CABG who received beta blockers within 24 hours preceding surgery.

**0284: Surgery patients on beta blocker therapy prior to admission who received a beta blocker during the perioperative period (CMS)**

*Description:* Percentage of patients on beta blocker therapy prior to admission who received a beta blocker during the perioperative period. To be in the denominator, the patient must be on a beta-blocker prior to arrival. The case is excluded if the patient is not on a beta-blocker prior to arrival, as described below in 2a4.

**0117: Beta blockade at discharge (STS)**

*Description:* Percent of patients aged 18 years and older undergoing isolated CABG who were discharged on beta blockers.

**0273: Perforated appendix admission rate (PQI 2) (AHRQ)**

*Description:* Percentage of admissions for appendicitis within county with perforated appendix.

**0265: Hospital transfer/admission (ASC Quality Collaboration)**

*Description:* Rate of ASC admissions requiring a hospital transfer or hospital admission upon discharge from the ASC

**1519: Statin therapy at discharge after lower extremity bypass (LEB) (SVS)**

*Description:* Percentage of patients aged 18 years and older undergoing infrainguinal lower extremity bypass who are prescribed a statin medication at discharge. This measure is proposed for both hospitals and individual providers.

**1540: Postoperative stroke or death in asymptomatic patients undergoing carotid endarterectomy (SVS)**

*Description:* Percentage of patients age 18 or older without carotid territory neurologic or retinal symptoms within the one year immediately preceding carotid endarterectomy (CEA) who experience stroke or death following surgery while in the hospital. This measure is proposed for both hospitals and individual surgeons.

**1543: Postoperative stroke or death in asymptomatic patients undergoing carotid artery stenting (CAS) (SVS)**

*Description:* Percentage of patients 18 years of age or older without carotid territory neurologic or retinal symptoms within 120 days immediately preceding carotid angioplasty and stent (CAS) placement who experience stroke or death during their hospitalization for this procedure. This measure is proposed for both hospitals and individual interventionalists.

**0339: RACHS-1 pediatric heart surgery mortality (AHRQ)**

*Description:* Risk-adjusted rate of in-hospital death for pediatric cases undergoing surgery for congenital heart disease, along with ratio of observed to expected in-hospital mortality rates.

**0340: Pediatric heart surgery volume (PDI 7) (AHRQ)**

*Description:* Number of discharges with procedure for pediatric heart surgery

**0352: Failure to rescue in-hospital mortality (risk adjusted) (CHOP)**

*Description:* Percentage of patients who died with a complications in the hospital.

**0353: Failure to rescue 30-day mortality (risk adjusted) (CHOP)**

*Description:* Percentage of patients who died with a complication within 30 days from admission.

**0351: Death among surgical inpatients with serious, treatable complications (PSI 4) (AHRQ)**

*Description:* Percentage of cases having developed specified complications of care with an in-hospital death.

**0515: Ambulatory surgery patients with appropriate method of hair removal (ASC Quality Collaboration)**

*Description:* Percentage of ASC admissions with appropriate surgical site hair removal.

**1550: Hospital-level risk-standardized complication rate (RSCR) following elective primary total hip arthroplasty (THA) and total knee arthroplasty (TKA) (CMS)**

*Description:* This measure estimates hospital risk-standardized complication rates (RSCRs) associated with primary elective THA and TKA in patients 65 years and older. The measure uses Medicare claims data to identify complications occurring from the date of index admission to 90 days post date of the index admission.

**1551: Hospital-level 30-day all-cause risk-standardized readmission rate (RSRR) following elective primary total hip arthroplasty (THA) and total knee arthroplasty (TKA) (CMS)**

*Description:* This measure estimates hospital 30-day RSRRs following elective primary THA and TKA in patients 65 years and older. The measure uses Medicare claims data to develop a hospital-level RSRR for THA and TKA and will include patients readmitted for any reason within 30 days of discharge date of the index admission. Some patients are admitted within 30 days of the index hospitalization to undergo another elective THA/TKA procedure. These are considered planned readmissions and are NOT counted in the measure as readmissions.

**1536: Cataracts: Improvement in patient's visual function within 90 days following cataract surgery (AAO/Hoskins Center for Quality Eye Care)**

*Description:* Percentage of patients aged 18 years and older who had cataract surgery and had improvement in visual function achieved within 90 days following the cataract surgery

**0528: Prophylactic antibiotic selection for surgical patients (CMS)**

*Description:* Surgical patients who received prophylactic antibiotics consistent with current guidelines (specific to each type of surgical procedure).

**0126: Selection of antibiotic prophylaxis for cardiac surgery patients (STS)**

*Description:* Percent of patients aged 18 years and older undergoing cardiac surgery who received preoperative prophylactic antibiotics recommended for the operation.

**0264: Prophylactic intravenous (IV) antibiotic timing (ASC Quality Collaboration)**

*Description:* Rate of ASC patients who received IV antibiotics ordered for surgical site infection prophylaxis on time

**0527: Prophylactic antibiotic received within 1 hour prior to surgical incision (CMS)**

*Description:* Surgical patients with prophylactic antibiotics initiated within one hour prior to surgical incision. Patients who received vancomycin or a fluoroquinolone for prophylactic antibiotics should have the antibiotics initiated within two hours prior to surgical incision. Due to the longer infusion time required for vancomycin or a fluoroquinolone, it is acceptable to start these antibiotics within two hours prior to incision time.

**0301: Surgery patients with appropriate hair removal (CMS) (reserve status)**

*Description:* Percentage of surgery patients with surgical hair site removal with clippers or depilatory or no surgical site hair removal.

**0128: Duration of antibiotic prophylaxis for cardiac surgery patients (Society of Thoracic Surgeons)**

*Description:* Percent of patients aged 18 years and older undergoing cardiac surgery whose prophylactic antibiotics were discontinued within 48 hours after surgery end time.

**0357: Abdominal aortic aneurysm (AAA) repair volume (IQI 4) (ARHQ)**

*Description:* Count of adult hospital discharges in a one year time period with a procedure code of AAA repair.

**0359: Abdominal aortic aneurysm (AAA) repair mortality rate (IQI 11) (risk adjusted) (ARHQ)**

*Description:* Percent of adult hospital discharges in a one-year time period with a procedure code of AAA repair and a diagnosis of AAA with an in-hospital death.

**0365: Pancreatic resection mortality rate (IQI 9) (risk adjusted) (AHRQ)**

*Description:* Percentage of adult hospital discharges with procedure code of pancreatic resection with an in-hospital death, stratified by benign and malignant disease.

**0366: Pancreatic resection volume (IQI 2) (AHRQ)**

*Description:* Number of adult hospital discharges with procedure for pancreatic resection, stratified by benign and malignant disease.

**0529: Prophylactic antibiotics discontinued within 24 hours after surgery end time (CMS)**

*Description:* Surgical patients whose prophylactic antibiotics were discontinued within 24 hours after Anesthesia End Time (48 hours for CABG or Other Cardiac Surgery). The Society of Thoracic Surgeons (STS) Practice Guideline for Antibiotic Prophylaxis in Cardiac Surgery (2006) indicates that there is no reason to extend antibiotics beyond 48 hours for cardiac surgery and very explicitly states that antibiotics should not be extended beyond 48 hours even with tubes and drains in place for cardiac surgery.

**1523: In-hospital mortality following elective open repair of AAAs (Society for Vascular Surgery)**

*Description:* Percentage of asymptomatic patients undergoing open repair of abdominal

aortic aneurysms (AAA) who die while in hospital. This measure is proposed for both hospitals and individual providers.

**1534: In-hospital mortality following elective EVAR of AAAs (Society for Vascular Surgery)**

*Description:* Percentage of patients undergoing elective endovascular repair of asymptomatic abdominal aortic aneurysms (AAA) who die while in hospital. This measure is proposed for both hospitals and individual providers.

**1741: Patient experience with surgical care based on the Consumer Assessment of Healthcare Providers and Systems (CAHPS)® surgical care survey (American College of Surgeons)**

*Description:* The following 6 composites and 1 single-item measure are generated from the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Surgical Care Survey. Each measure is used to assess a particular domain of surgical care quality from the patient's perspective.

- Measure 1: Information to help you prepare for surgery (2 items)
- Measure 2: How well surgeon communicates with patients before surgery (4 items)
- Measure 3: Surgeon's attentiveness on day of surgery (2 items)
- Measure 4: Information to help you recover from surgery (4 items)
- Measure 5: How well surgeon communicates with patients after surgery (4 items)
- Measure 6: Helpful, courteous, and respectful staff at surgeon's office (2 items)
- Measure 7: Rating of surgeon (1 item)

The Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Surgical Care Survey is administered to adult patients (age 18 and over) having had a major surgery as defined by CPT codes (90 day globals) within 3 to 6 months prior to the start of the survey.



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1030 15TH STREET, NW, SUITE 800  
WASHINGTON, DC 20005  
WWW.QUALITYFORUM.ORG



# ENDORSEMENT SUMMARY:

## Population Health: Prevention Measures

MAY 2012

### Purpose of the Project

Inadequate preventive care has a significant negative impact on health outcomes. The healthcare delivery system, the public health community, and other key stakeholders play an important role in improving poor health outcomes through targeted preventive care interventions.

In recent years, the nation has increased its attention on improving population health through the promotion of preventive care screening for specific cancers, osteoporosis and other disease and/or conditions. The Department of Health and Human Services (HHS), in its National Quality Strategy, lists improved population health as one of three overarching national healthcare aims. In addition, HHS's National Prevention Strategy, released in 2011, includes specific strategies to enhance clinical and community preventive services and promote healthy eating, active living, and improved reproductive and sexual health.

Even with this renewed effort, screening rates for many diseases, though improved, still lag behind desired targets. For example, 56 percent of adults aged 50 and over have ever had a colonoscopy, according to 2010 data cited by the American Cancer Society (ACS). Colonoscopy screening detects ulcers, polyps, tumors, and other abnormalities in the colon, and therefore it is an important diagnostic test for colon cancer. All people aged 50 and over are urged to have a colonoscopy and the ACS has set a target of increasing the percentage to 75 percent by 2015. To add momentum to achieving more widespread and effective preventive screening and a healthier population, in May 2011, NQF – at the request of HHS – began a two-phase project focused on identifying, endorsing, and updating population health measures. Phase I sought to maintain and expand previous

efforts in measuring clinical prevention and immunization. Phase II focuses on broader population-level measures and is currently underway.

Phase I endorsed measures address influenza and pneumococcal immunizations across many healthcare settings, as well as screenings for specific cancers, sexually transmitted diseases, and osteoporosis.

### What Was Endorsed

#### Summary of Population Health: Prevention Endorsement Maintenance Measures Project

Measure submitted for consideration	25
Measures withdrawn by the developer	5
Measures deferred to another project	1
Measures recommended for endorsement	19 (17 maintenance)
Measures not recommended for endorsement	0

Under Phase I of the population health-prevention endorsement project, NQF endorsed 19 measures suitable for accountability and quality improvement. Of the 19 measures, 17 were previously endorsed and granted continued endorsement status, and two were newly submitted measures.

Measure stewards included a range of public- and private-sector healthcare stakeholders, including the Centers for Medicare & Medicaid Services; National Committee for Quality Assurance; the Centers for Disease Control and Prevention; the Kidney Care Quality Alliance; the Physician Consortium for Performance Improvement, convened by the



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American Medical Association; Active Health Management; and Resolution Health, Inc. A full list of measures is available at the end of this report.

## The Need these Measures Fill

The endorsed measures deal with a wide range of related care concerns, including screenings for colorectal and cervical cancer, osteoporosis screening and treatment for older women, routine childhood vaccinations, and influenza and pneumococcal immunizations in high-risk populations, such as hospital, home health, and end stage renal disease patients.

## Potential Use

These measures are applicable for use in a range of healthcare settings, which will allow and foster community-level assessments of performance across the country.

## Project Perspectives

Standardized measurement of preventive care services and screenings has contributed substantially to enhancing their use. Phase I of this project puts continued pressure on providers and the healthcare community to sustain progress made to date. In endorsing this set of measures, NQF supports the recognition by the National Quality Strategy and National Prevention Strategy that preventive care services and screenings must continue to be a priority if efforts to increase the population's overall health and reduce the number of preventable, premature deaths are to be achieved.

## Endorsed Measures

### 0431: Influenza vaccination among healthcare personnel (CDC)

*Description:* Percentage of healthcare personnel (HCP) who receive the influenza vaccination.

### 0522: Influenza immunization- home health (CMS)

*Description:* Percentage of home health episodes of care during which patients received influenza immunization for the current flu season.

### 0226: Influenza immunization in the ESRD population (Kidney Care Quality Alliance)

*Description:* Percentage of end stage renal disease (ESRD) patients aged 6 months and older receiving hemodialysis or peritoneal dialysis during the time from October 1 (or when the influenza vaccine became available) to March 31 who either received, were offered and declined, or were determined to have a medical contraindication to the influenza vaccine.

### 0039: Flu shots for ages 50 and over (NCQA)

*Description:* This measure represents the percentage of adults aged 50 and over who received an influenza vaccine within the measurement period within the respective age-stratified CAHPS surveys. This measure is only reported by age group stratification.

### 0041: Influenza immunization (AMA-PCPI)

*Description:* Percentage of patients aged 6 months and older seen for a visit between October 1 and the end of February who received an influenza immunization OR patient reported previous receipt of an influenza immunization.

### 1659: Influenza immunization (hospital) (CMS)

*Description:* Inpatients age 6 months and older discharged during October, November, December, January, February or March who are screened for influenza vaccine status and vaccinated prior to discharge if indicated.

### 0043: Pneumonia vaccination for older adults (NCQA)

*Description:* Percentage of patients 65 years of age and older who ever received a pneumococcal vaccination.

### 0617: Pneumococcal vaccination (Active Health Management)

*Description:* The percentage of patients age 5-64 with a high risk condition, or age 65 years and older who:

1. Received a pneumococcal vaccine (reported separately)
2. Had a contraindication to pneumococcal vaccine (reported separately)

**1653: Pneumococcal immunization (hospital) (CMS)**

*Description:* Inpatients age 65 years and older and 6-64 years of age who have a high risk condition who are screened for 23-valent Pneumococcal Polysaccharide Vaccine (PPV23) status and vaccinated prior to discharge if indicated.

**0525: Pneumococcal vaccine ever received (home health) (CMS)**

*Description:* Percentage of home health episodes of care during which patients were determined to have ever received Pneumococcal Polysaccharide Vaccine (PPV).

**0038: Childhood immunizations (NCQA)**

*Description:* Percentage of children 2 years of age who had four diphtheria, tetanus and acellular pertussis (DtaP); three polio (IPV); one measles, mumps and rubella (MMR); three H influenza type B (HiB); three hepatitis B (HepB); one chicken pox (VZV); four pneumococcal conjugate (PCV); two hepatitis A (HepA); two or three rotavirus (RV); and two influenza (flu) vaccines by their second birthday. The measure calculates a rate for each vaccine and nine separate combination rates.

**0034: Colorectal cancer screening (NCQA)**

*Description:* The percentage of members 50-75 years of age who had appropriate screening for colorectal cancer.

**0033: Chlamydia screening in women (NCQA)**

*Description:* Assesses the percentage of women 16-24 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year.

**0032: Cervical cancer screening (NCQA)**

*Description:* Percentage of women 21-64 years of age received one or more Pap tests to screen for cervical cancer.

**0579: Annual cervical cancer screening for high-risk patients (Resolution Health, Inc.)**

*Description:* This measure identifies women age 12 to 65 diagnosed with cervical dysplasia (CIN 2), cervical carcinoma-in-situ, or HIV/AIDS prior to the measurement year, and who still have a cervix, who had a cervical CA screen during the measurement year.

**0037: Osteoporosis testing in older women (NCQA)**

*Description:* Percentage of female patients aged 65 and older who reported receiving a bone density test (BMD) to check for osteoporosis.

**0046: Osteoporosis screening or therapy for women aged 65 years and older (NCQA)**

*Description:* Percentage of female patients aged 65 years and older who have a central DXA measurement ordered or performed at least once since age 60 or pharmacologic therapy prescribed within 12 months.

**0614: Steroid use - osteoporosis screening (Active Health Management)**

*Description:* The percentage of patients, 18 and older, who have been on chronic steroids for at least 180 days in the past 9 months and who had a bone density evaluation or osteoporosis treatment.

**0629: Male smokers or family history of Abdominal Aortic Aneurysm (AAA) – screening for AAA (Active Health Management)**

*Description:* The percentage of men age 65-75 years with history of tobacco use or men age 60 years and older with a family history of abdominal aortic aneurysm who were screened for AAA.



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