December 21, 2012

Accountable Care Organization 2013 Program Analysis

Quality Performance Standards Narrative Measure Specifications

Prepared for

Quality Measurement & Health Assessment Group
Center for Clinical Standards & Quality
Centers for Medicare & Medicaid Services
7500 Security Boulevard
Baltimore, MD 21244-1850

Prepared by

RTI International
1440 Main Street, Suite 310
Waltham, MA 02451-1623

Telligen
1776 West Lakes Parkway
West Des Moines, IA 50266

RTI Project Number 0213195.000.004

2013 ACO Narrative Measure Specifications

Table of Contents

INFORMATION NOT RELEASABLE TO THE PUBLIC UNLESS AUTHORIZED BY LAW: *This information has not been publicly disclosed and may be privileged and confidential. It is for internal government use only and must not be disseminated, distributed, or copied to persons not authorized to receive the information. Unauthorized disclosure may result in prosecution to the full extent of the law.*

INFORMATION NOT RELEASABLE TO THE PUBLIC UNLESS AUTHORIZED BY LAW: *This information has not been publicly disclosed and may be privileged and confidential. It is for internal government use only and must not be disseminated, distributed, or copied to persons not authorized to receive the information. Unauthorized disclosure may result in prosecution to the full extent of the law.*

SECTION 1: INTRODUCTION

On November 2, 2011, the Centers for Medicare & Medicaid Services (CMS) finalized new rules under the Patient Protection and Affordable Care Act (Affordable Care Act) to help doctors, hospitals, and other health care providers better coordinate care for Medicare patients through Accountable Care Organizations (ACOs). ACOs create incentives for health care providers to work together to treat an individual patient across care settings—including doctor's offices, hospitals, and long-term care facilities. The Medicare Shared Savings Program (Shared Savings Program) will reward ACOs that lower their growth in health care costs while meeting performance standards on quality of care and putting patients first. Participation in an ACO is purely voluntary. (ACO Provider Fact sheet: http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/Downloads/ACO_Summary_Factsheet_ICN907404.pdf)

An ACO refers to a group of providers and suppliers of services (e.g., hospitals, physicians, and others involved in patient care) that will work together to coordinate care for the Medicare Fee-For-Service patients they serve. The goal of an ACO is to deliver seamless, high-quality care for Medicare beneficiaries, instead of the fragmented care that often results from a Fee-For-Service payment system in which different providers receive different, disconnected payments. The ACO will be a patient-centered organization where the patient and providers are true partners in care decisions. The ACO will be responsible for maintaining a patient-centered focus and developing processes to promote evidence-based medicine, promote patient engagement, internally and publicly report on quality and cost, and coordinate care.

To participate in the Shared Savings Program, ACOs must meet all eligibility and program requirements, must serve at least 5,000 Medicare Fee-For-Service patients and agree to participate in the program for at least 3 years. Providers and suppliers who are already participating in another shared savings program or demonstration under Fee-For-Service Medicare, such as the Independence at Home Medical Practice pilot program, will not be eligible to participate in a Shared Savings Program ACO.

Medicare providers who participate in an ACO in the Shared Savings Program will continue to receive payment under Medicare Fee-For-Service rules. That is, Medicare will continue to pay individual providers and suppliers for specific items and services as it currently does under the Medicare Fee-For-Service payment systems. However, CMS will also develop a benchmark for each ACO against which ACO performance is measured to assess whether it qualifies to receive shared savings, or for ACO's that have elected to accept responsibility for losses, potentially be held accountable for losses. The benchmark is an estimate of what the total Medicare Fee-For-Service Parts A and B expenditures for ACO beneficiaries would otherwise have been in the absence of the ACO, even if all of those services were not provided by providers in the ACO. The benchmark will take into account beneficiary characteristics and other factors that may affect the need for health care services. This benchmark will be updated for each performance year within the agreement period.

CMS is implementing both a one-sided model (sharing savings, but not losses, for the entire term of the first agreement) and a two-sided model (sharing both savings and losses for the entire term of the agreement), allowing the ACO to opt for one or the other model for their first agreement period. CMS believes this approach will have the advantage of providing an entry

point for organizations with less experience with risk models, such as some physician-driven organizations or smaller ACOs, to gain experience with population management before transitioning to a shared losses model, while also providing an opportunity for more experienced ACOs that are ready to share in losses to enter a sharing arrangement that provides a greater share of savings, but with the responsibility of repaying Medicare a portion of any losses.

Under both models, if an ACO meets quality standards and achieves savings and also meets or exceeds a Minimum Savings Rate (MSR), the ACO will share in savings, based on the quality score of the ACO. ACOs will share in all savings, not just the amount of savings that exceeds the MSR, up to a performance payment limit. Similarly, ACOs with expenditures meeting or exceeding the Minimum Loss Rate (MLR) will share in all losses, up to a loss sharing limit. To provide a greater incentive for ACOs to adopt the two-sided approach, the maximum sharing percentage based on quality performance is higher for the two-sided model. ACOs adopting this model will be eligible for a sharing rate of up to 60 percent, while ACOs in the one-sided model will be eligible for a sharing rate of up to 50 percent. Under both models, CMS will base the actual savings percentage for the individual ACO (up to the maximum for that model) on its performance score for the quality measures. As with shared savings, the amount of shared losses will be based in part on the ACO's quality performance score.

Medicare offers several ACO initiatives including:

- Medicare Shared Savings Program (https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/index.html?redirect=/sharedsavingsprogram/)—a fee-for-service program

- Advance Payment Initiative (http://innovations.cms.gov/initiatives/aco/advance-payment/index.html)—for certain eligible participants in the Shared Savings Program

- Pioneer ACO Model (http://innovations.cms.gov/initiatives/aco/pioneer/)—population-based payment initiative for health care organizations and providers already experienced in coordinating care for patients across care settings

ACO Quality Measures

Under the CMS ACO initiatives, before an ACO can share in any savings created, it must demonstrate that it met the quality performance standard for that year. CMS will measure quality of care using nationally recognized measures in four key domains:

- Patient/caregiver experience (7 measures)
- Care coordination/patient safety (6 measures)
- Preventive health (8 measures)
- At-risk population:
  Diabetes (1 measure and 1 composite consisting of five measures)
  Hypertension (1 measure)
  Ischemic Vascular Disease (2 measures)
  Heart Failure (1 measure)
  Coronary Artery Disease (1 composite consisting of 2 measures)

The 33 quality measures are provided at-a-glance in Table 1. For each measure, the table includes 1) the ACO measure number, 2) its domain of care, 3) the title of the measure, 4) its measure steward and National Quality Forum number (if applicable), 5) the method of data submission, and 6) when the measure is subject to pay-for-reporting versus pay-for-performance. Note that for the diabetes-related measures, five of the six measures are grouped into one "all-or-nothing" composite performance rate. Similarly, the two coronary-artery disease measures are also grouped into one "all-or-nothing" composite rate for reporting purpose. In addition, six of the CAHPS measures are scored together as one measure and one of the CAHPS measures is treated separately.

The ACO quality measures align with those used in other CMS quality programs, such as the Physician Quality Reporting System and the Electronic Health Record (EHR) Incentive Programs. The ACO quality measures also align with the National Quality Strategy and other HHS priorities, such as the Million Hearts Initiative. In developing the final rule, CMS listened to industry concerns about focusing more on outcomes and considered a broad array of measures that would help to assess an ACO's success in delivering high-quality health care at both the individual and population levels. CMS also sought to address comments that supported adopting fewer total measures that reflect processes and outcomes, and aligning the measures with those used in other quality reporting programs, such as the Physician Quality Reporting System (PQRS).

Methods of Data Submission

The 33 quality measures will be reported through a combination of CMS claims and administrative data (4 measures), the ACO GPRO Web Interface designed for clinical quality measure reporting (22 measures) and patient experience of care surveys (7 measures).

For the claims-based measures, ACOs do not need to be involved in the data collection. The CMS ACO Program Analysis Contractor (ACO PAC) will coordinate with CMS to obtain the necessary Medicare claims and EHR program incentive files. The CMS ACO PAC will then calculate the rates for these measures for each ACO.

The ACO GPRO Web Interface is a method of data submission that incorporates some characteristics and methods from the CMS demonstration projects, including the Physician Group Practice (PGP) Demonstration and the PGP Transition Demonstration for large group practices, and the Medicare Care Management Performance (MCMP) Demonstration for solo to medium-sized practices. More importantly, it is aligned with the web interface that is currently used in the PQRS Group Practice Reporting Option. In the web Interface, a database pre-populated with an ACO assigned beneficiary sample under each condition module (e.g., Diabetes, HF, etc.) will serve as a data collection mechanism for groups to use in collecting and submitting quality measures data to CMS for a given calendar year.

For the patient experience of care measures, CMS will administer and pay for the survey for the CY 2013 reporting period for Shared Savings Program ACOs. Shared Savings Program ACOs are then responsible for selecting and paying for a CMS-certified vendor to administer the patient survey after this period. Pioneer ACOs are responsible for selecting and paying for a CMS-approved vendor to administer the patient survey beginning with the CY 2013 reporting period.

Table 1
Measures for Use in Establishing Quality Performance Standards that ACOs Must Meet for Shared Savings

ACO #	Domain	Measure Title	NQF Measure #/ Measure Steward	Method of Data Submission	P4P Phase-in PY1	P4P Phase-in PY2	P4P Phase-in PY3
AIM: Better Care for Individuals							
1.	Patient/Caregiver Experience	CAHPS: Getting Timely Care, Appointments, and Information	NQF #5, AHRQ	Survey	R	***P***	***P***
2.	Patient/Caregiver Experience	CAHPS: How Well Your Providers Communicate	NQF #5 AHRQ	Survey	R	***P***	***P***
3.	Patient/Caregiver Experience	CAHPS: Patients' Rating of Provider	NQF #5 AHRQ	Survey	R	***P***	***P***
4.	Patient/Caregiver Experience	CAHPS: Access to Specialists	NQF #5 AHRQ	Survey	R	***P***	***P***
5.	Patient/Caregiver Experience	CAHPS: Health Promotion and Education	NQF #5 AHRQ	Survey	R	***P***	***P***
6.	Patient/Caregiver Experience	CAHPS: Shared Decision Making	NQF #5 AHRQ	Survey	R	***P***	***P***
7.	Patient/Caregiver Experience	CAHPS: Health Status/Functional Status	NQF #6 AHRQ	Survey	R	R	R
8.	Care Coordination/ Patient Safety	Risk Standardized All Condition Readmission	CMS; NQF #1789 (adapted)	Claims	R	R	***P***
9.	Care Coordination/ Patient Safety	Ambulatory Sensitive Conditions Admissions: Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults (ACO version 1.0)	NQF #275 AHRQ PQI #5	Claims	R	***P***	***P***
10.	Care Coordination/ Patient Safety	Ambulatory Sensitive Conditions Admissions: Heart Failure (HF) (ACO version 1.0)	NQF #277 AHRQ PQI #8	Claims	R	***P***	***P***
11.	Care Coordination/ Patient Safety	Percent of Primary Care Physicians who Successfully Qualify for an EHR Program Incentive Payment	CMS	EHR Incentive Program Reporting	R	***P***	***P***

(continued)

Table 1 (continued)
Measures for Use in Establishing Quality Performance Standards that ACOs Must Meet for Shared Savings

ACO #	Domain	Measure Title	NQF Measure #/ Measure Steward	Method of Data Submission	P4P Phase-in PY1	P4P Phase-in PY2	P4P Phase-in PY3
12.	Care Coordination/ Patient Safety	Medication Reconciliation	NQF #97 AMA-PCPI/NCQA	GPRO Web Interface	R	***P***	***P***
13.	Care Coordination/ Patient Safety	Falls: Screening for Future Fall Risk	NQF #101 NCQA	GPRO Web Interface	R	***P***	***P***
AIM: Better Health for Populations							
14.	Preventive Health	Influenza Immunization	NQF #41 AMA-PCPI	GPRO Web Interface	R	***P***	***P***
15.	Preventive Health	Pneumococcal Vaccination for Patients 65 Years and Older	NQF #43 NCQA	GPRO Web Interface	R	***P***	***P***
16.	Preventive Health	Body Mass Index (BMI) Screening and Follow-Up	NQF #421 CMS	GPRO Web Interface	R	***P***	***P***
17.	Preventive Health	Tobacco Use: Screening and Cessation Intervention	NQF #28 AMA-PCPI	GPRO Web Interface	R	***P***	***P***
18.	Preventive Health	Screening for Clinical Depression and Follow-Up Plan	NQF #418 CMS	GPRO Web Interface	R	***P***	***P***
19.	Preventive Health	Colorectal Cancer Screening	NQF #34 NCQA	GPRO Web Interface	R	R	***P***
20.	Preventive Health	Breast Cancer Screening	NQF #31 NCQA	GPRO Web Interface	R	R	***P***
21.	Preventive Health	Screening for High Blood Pressure and Follow-Up Documented	CMS	GPRO Web Interface	R	R	***P***
22.	At Risk Population—Diabetes	Diabetes Composite (All or Nothing Scoring): Diabetes Mellitus: Hemoglobin A1c Control (<8 percent)	NQF #729 MN Community Measurement	GPRO Web Interface	R	***P***	***P***
23.	At Risk Population—Diabetes	Diabetes Composite (All or Nothing Scoring): Diabetes Mellitus: Low Density Lipoprotein Control	NQF #729 MN Community Measurement	GPRO Web Interface	R	***P***	***P***

(continued)

Table 1 (continued)
Measures for Use in Establishing Quality Performance Standards that ACOs Must Meet for Shared Savings

ACO #	Domain	Measure Title	NQF Measure #/ Measure Steward	Method of Data Submission	P4P Phase-in PY1	P4P Phase-in PY2	P4P Phase-in PY3
24.	At Risk Population—Diabetes	Diabetes Composite (All or Nothing Scoring): Diabetes Mellitus: High Blood Pressure Control	NQF #729 MN Community Measurement	GPRO Web Interface	R	***P***	***P***
25.	At Risk Population—Diabetes	Diabetes Composite (All or Nothing Scoring): Tobacco Non-Use	NQF #729 MN Community Measurement	GPRO Web Interface	R	***P***	***P***
26.	At Risk Population—Diabetes	Diabetes Composite (All or Nothing Scoring): Diabetes Mellitus: Daily Aspirin or Antiplatelet Medication Use for Patients with Diabetes and Ischemic Vascular Disease	NQF #729 MN Community Measurement	GPRO Web Interface	R	***P***	***P***
27.	At Risk Population—Diabetes	Diabetes Mellitus: Hemoglobin A1c Poor Control	NQF #59 NCQA	GPRO Web Interface	R	***P***	***P***
28.	At Risk Population—Hypertension	Hypertension (HTN): Controlling High Blood Pressure	NQF #18 NCQA	GPRO Web Interface	R	***P***	***P***
29.	At Risk Population—Ischemic Vascular Disease	Ischemic Vascular Disease (IVD): Complete Lipid Panel and LDL Control (<100 mg/dL)	NQF #75 NCQA	GPRO Web Interface	R	***P***	***P***
30.	At Risk Population—Ischemic Vascular Disease	Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic	NQF #68 NCQA	GPRO Web Interface	R	***P***	***P***
31.	At Risk Population—Heart Failure	Heart Failure: Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)	NQF #83 AMA-PCPI	GPRO Web Interface	R	R	***P***
32.	At Risk Population—Coronary Artery Disease	Coronary Artery Disease (CAD) Composite (All or Nothing Scoring): Lipid Control	NQF #74 CMS (composite) / AMA-PCPI (individual component)	GPRO Web Interface	R	R	***P***

(continued)

Table 1 (continued)
Measures for Use in Establishing Quality Performance Standards that ACOs Must Meet for Shared Savings

ACO #	Domain	Measure Title	NQF Measure #/ Measure Steward	Method of Data Submission	P4P Phase-in PY1	P4P Phase-in PY2	P4P Phase-in PY3
33.	At Risk Population—Coronary Artery Disease	Coronary Artery Disease (CAD) Composite (All or Nothing Scoring): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy - Diabetes or Left Ventricular Systolic Dysfunction (LVEF < 40%)	NQF # 66 CMS (composite) / AMA-PCPI (individual component)	GPRO Web Interface	R	R	***P***

NOTE: ACO = accountable care organization; NQF = National Quality Forum; P4P = pay for performance; ***P*** = performance; R = reporting

Quality Performance Scoring

CMS is encouraging providers to participate in the Shared Savings Program by setting the quality performance standard to complete and accurate reporting only for the first performance year of the ACO's agreement period and providing a longer phase in to performance over the second and third performance years. For the first performance year, then, CMS is defining the quality performance standard at the level of complete and accurate reporting for all quality measures. This means that ACOs will be eligible for the maximum sharing rate (60 percent for the two-sided model and 50 percent for the one-sided model) if the ACO generates sufficient savings and successfully reports the required quality measures. During subsequent performance years, the quality performance standard will be phased in such that ACOs must continue to report all measures but will eventually be assessed on performance. That is, after the first year, the ACO must not only report but also perform well on *selected* quality measures. This flexibility will allow newly formed ACOs a grace period as they start up their operations and learn to work together to better coordinate patient care and improve quality.

Pay for performance will be phased in over the ACO's first agreement period as follows:

- Year 1: Pay for reporting applies to all 33 measures.
- Year 2: Pay for performance applies to 25 measures. Pay for reporting applies to eight measures.
- Year 3: Pay for performance applies to 32 measures. Pay for reporting applies to one measure that is a survey measure of functional status. CMS will keep the measure in pay for reporting status for the entire agreement period. This will allow ACOs to gain experience with the measure and will provide important information to them on improving the outcomes of their patient populations.

CMS intends to establish national benchmarks for ACO quality measures and will release benchmark data at the start of the second performance year when the pay for performance phase-in begins, this is 2013 for Pioneer ACOs and 2014 for SSP ACOs with a 2012 or 2013 agreements start date. . For pay for performance measures, the minimum attainment level will be set at a national 30 percent or the national 30th percentile of the performance benchmark. Performance benchmarks will be national and established using national Fee-For-Service (FFS) claims data, national Medicare Advantage (MA) quality reporting rates, or a flat national percentage for measures where MA or FFS claims data is not available. Performance equal to or greater than the minimum attainment level for a measure will receive points on a sliding scale based on the level of performance. Performance at or above 90 percent or the 90th percentile of the performance benchmark will earn the maximum points available for the measure.

As previously noted, two of the disease topics under the "at-risk population" domain contain composite measurements. The all-or-nothing scoring means that diabetes and CAD composite measures will each receive the maximum available points if all criteria of the composite measure are met, and zero points if one or more of the criteria are not met. In addition, six of the CAHPS measures are scored together as one measure and one of the CAHPS measures is treated separately. Moreover, the EHR Incentive Programs participation measure will be double-weighted in order to encourage EHR adoption.

CMS will add the points earned for the individual measures within each domain and divide by the total points available for the domain to determine each of the four domain scores. The domains will be weighted equally and scores averaged to determine the ACO's overall quality performance score and sharing rate. ACOs would need to achieve the minimum attainment level on at least 70 percent of the measures in each domain to avoid being placed on a corrective action plan.

In addition to the measures used for the quality performance standards for shared savings eligibility, CMS will also use certain measures for monitoring purposes, to ensure ACOs are not avoiding at-risk patients or engaging in overuse, underuse, or misuse of health care services.

Organization of This Document

The following sections of this document contain narrative measure specifications for each of the 33 quality measures in the four domains of care that are included in the 2013 ACO Initiatives. These narrative measure specifications are being provided to allow accountable care organizations to better understand the intent of each of quality measure. Once a group practice is selected to participate in the 2013 ACO initiatives, additional detailed information (such as in-depth algorithms, ICD-9-CM and CPT codes, and CAHPS survey information) will be provided.

In the pages that follow, each narrative measure specification includes the following Information:

- Symbol identifying measure steward;
- ACO measure number (as published in the 2012 final rule);
- GPRO web interface measure number (if applicable);
- NQF number and AHRQ measure number (if applicable);
- Measure title;
- Measure description;
- Denominator statement (eligible population);
- Exclusions to measure (if applicable);
- Numerator statement (quality action);
- Rationale statement(s); and
- Clinical recommendations or evidence forming the basis for supporting criteria for the measure.

SECTION 2: PATIENT/CAREGIVER EXPERIENCE

2013 ACO Narrative Measure Specifications
Patient/Caregiver Experience Domain

CMS has finalized the use the Clinician and Group Consumer Assessment of Health Care Providers and Systems (CG CAHPS) to assess patient and caregiver experience of care. CMS plans to use the adult 12 month base survey and certain of the supplemental modules for the adult survey:

- ACO 1 (NQF #0005): Getting Timely Care, Appointments, and Information
- ACO 2 (NQF #0005): How Well Your Providers Communicate
- ACO 3 (NQF #0005): Patient Rating of Provider
- ACO 4 (NQF #0005): Access to Specialist
- ACO 5 (NQF #0005): Health Promotion and Education
- ACO 6 (NQF #0005): Shared Decision Making
- ACO 7 (NQF #0006): Health Status/Functional Status

The survey will be downloadable from the CMS website in the future.

By mid-2013, CMS will develop a process to certify independent survey vendors that will be capable of administering the patient experience of care survey in accord with the standardized sampling and survey administration procedures. CMS will publish the list of certified vendors on a website dedicated to the ACO patient experience of care survey. This website also will include information explaining how survey vendors can apply for certification to administer the patient experience of care survey.

Pioneer ACOs will be required to contract with a CMS-certified survey vendor to administer the patient experience of care survey for CY 2013 and beyond. By contrast, CMS will contract and pay for administration of the survey for CY 2013 on behalf of ACOs participating in the Shared Savings Program. For CY 2014 and beyond, ACOs participating in the Shared Savings Program will be required to contract with a CMS-certified survey vendor to administer the survey. The survey for the 2013 reporting period will be conducted in early 2014.

SECTION 3: CARE COORDINATION/PATIENT SAFETY

2013 ACO Narrative Measure Specifications
Care Coordination/Patient Safety Domain

- **ACO 8 (CMS; adapted NQF #1789): Risk Standardized All Condition Readmission**

DESCRIPTION:
Risk-adjusted percentage of Accountable Care Organization (ACO) assigned beneficiaries who were hospitalized who were readmitted to a hospital within 30 days following discharge from the hospital for the index admission.

DENOMINATOR:
All hospitalizations not related to medical treatment of cancer, primary psychiatric disease, or rehabilitation care, fitting of prostheses, and adjustment devices for ACO assigned beneficiaries at non-Federal, short-stay acute-care or critical access hospitals, where the beneficiary was age 65 or older, was continuously enrolled in fee-for-service Medicare Part A for at least one month after discharge, was not discharged to another acute care hospital, was not discharged against medical advice, and was alive upon discharge and for 30 days post-discharge.

NUMERATOR:
Risk-adjusted readmissions at a non-Federal, short-stay, acute-care or critical access hospital, within 30 days of discharge from the index admission included in the denominator, and excluding planned readmissions.

RATIONALE:
Readmission following an acute care hospitalization is a costly and often preventable event. During 2003 and 2004, almost one-fifth of Medicare beneficiaries—more than 2.3 million patients—were readmitted within 30 days of discharge (Jencks et al., 2009). A Commonwealth Fund report estimated that if national readmission rates were lowered to the levels achieved by the top performing regions, Medicare would save $1.9 billion annually.

Hospital readmission is also disruptive to patients and caregivers, and puts patients at additional risk of hospital-acquired infections and complications (Horwitz et al., 2011). Some readmissions are unavoidable, but readmissions may also result from poor quality of care, inadequate coordination of care, or lack of effective discharge planning and transitional care.

Since studies have shown readmissions within 30 days to often be related to quality of care, coordination of care, or other factors within the control of health care providers, interventions have been able to reduce 30-day readmission rates for a variety of medical conditions, and high readmission rates and institutional variations in readmission rates indicate an opportunity for improvement, it is important to consider an all-condition 30-day readmission rate as a quality measure (Horwitz et al., 2011).

This ACO risk standardized all condition readmission quality measure is adapted from a hospital risk standardized all condition readmission quality measure previously developed for CMS by Yale (Horwitz et al., 2011).

CLINICAL RECOMMENDATION STATEMENTS:

Randomized controlled trials have shown that improvement in health care can directly reduce readmission rates, including the following interventions: quality of care during the initial admission; improvement in communication with patients, caregivers and clinicians; patient education; predischarge assessment; and coordination of care after discharge.(Naylor et al., 1994; 1999; Krumholz et al., 2002; van Walraven et al., 2002; Conley et al., 2003; Coleman et al., 2004; Phillips et al., 2004; Jovicic et al., 2006; Garasen et al., 2007; Mistiaen et al., 2007; Courtney et al., 2009; Jack et al., 2009; Koehler et al., 2009; Weiss et al., 2010; Stauffer et al., 2011; Voss et al., 2011). Successful randomized trials have reduced 30- day readmission rates by as much as 20-40% (Horwitz et al., 2011).

Widespread application of these clinical trial interventions to medical practice settings has also been encouraging (Horwitz et al., 2011). Since 2008, 14 Medicare Quality Improvement Organizations (QIOs) have been funded to focus on care transitions, implementing lessons learned from these clinical trials. Several of these interventions have been notably successful in reducing readmissions within 30 days (CFMC, 2010).

ACOs will have incentives under the Medicare Shared Savings Program (SSP) and Pioneer Model to manage the range of medical care, coordination of care, and other factors affecting readmission rates for their assigned beneficiaries. By taking responsibility for all aspects of the medical care of their assigned beneficiaries, ACOs will be able to assess the range of possible interventions affecting readmissions and then select the interventions appropriate for each population of patients included in among their assigned beneficiaries.

2013 ACO Narrative Measure Specifications
Care Coordination/Patient Safety Domain

♣ ACO 9 (NQF #0275; AHRQ PQI #05): Ambulatory Sensitive Conditions Admissions: Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults (ACO version 1.0)

DESCRIPTION:
All discharges with an ICD-9-CM principal diagnosis code for COPD or Asthma in adults ages 40 years and older, for ACO assigned or aligned Medicare fee-for-service (FFS) beneficiaries with COPD or Asthma, with risk-adjusted comparison of observed discharges to expected discharges for each ACO.[1] This is a ratio of observed to expected discharges.

DENOMINATOR:
Expected discharges from an acute care hospital with a principal diagnosis of COPD or Asthma, for Medicare FFS beneficiaries assigned or aligned to an ACO, aged 40 years and older, with COPD or Asthma.

NUMERATOR:
Observed discharges from an acute care hospital with a principal diagnosis of Chronic Obstructive Pulmonary Disease or Asthma, for Medicare FFS beneficiaries in the denominator population for this measure.

EXCLUSIONS:
- Admissions that are transfers from a hospital, Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF), or another health care facility
- Beneficiaries with a diagnosis of ESRD
- Beneficiaries not eligible for both Medicare Part A and Part B
- Beneficiaries with missing data for gender, age, or principal diagnosis

RATIONALE:
Hospital admissions for COPD or asthma are a Prevention Quality Indicator (PQI) of interest to comprehensive health care delivery systems including ACOs. COPD or asthma can often be controlled in an outpatient setting. Evidence suggests that these hospital admissions could have been avoided through high quality outpatient care, or the condition would have been less severe

[1] For the purposes of the Medicare ACO programs, the following modifications were made to the original Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicator (PQI) version 4.4 technical specifications: 1) denominator changed from general population in a geographic area to Medicare FFS beneficiaries assigned or aligned to a Medicare ACO, including part-year beneficiaries; 2) denominator changed from patients of any disease status to beneficiaries with a diagnosis of COPD or Asthma; and 3) added a denominator exclusion for beneficiaries with ESRD. To verify that these modifications were valid, the following analyses were completed: 1) dry run testing; 2) validity testing; 3) reliability testing; 4) variability testing; and 5) exclusion testing.

if treated early and appropriately. Proper outpatient treatment and adherence to care may reduce the rate of occurrence for this event, and thus of hospital admissions.

CLINICAL RECOMMENDATION STATEMENTS:

Bindman et al. (1995) reported that self-reported access to care explained 27 percent of the variation in COPD hospitalization rates at the ZIP code cluster level. Millman (1993) found that low-income ZIP codes had 5.8 times more COPD hospitalizations per capita than high-income ZIP codes. Physician adherence to practice guidelines and patient compliance also influence the effectiveness of therapy. Practice guidelines for COPD have been developed and published over the last decade (Hackner, 1999). With appropriate outpatient treatment and compliance, hospitalizations for the exacerbations of COPD and decline in lung function should be minimized.

Based on empirical results, areas with high rates of COPD admissions also tend to have high rates of other Ambulatory Sensitive Conditions Admissions (ASCAs). The signal ratio (i.e., the proportion of the total variation across areas that is truly related to systematic differences in area performance rather than random variation) is very high, at 93.4 percent, indicating that the differences in age-sex adjusted rates likely represent true differences across areas (AHRQ, 2007).

Risk adjustment for age and sex appears to most affect the areas with the highest rates. Several factors that are likely to vary by area may influence the progression of the disease, including smoking and socioeconomic status. As a PQI, admissions for COPD or Asthma are not a measure of hospital quality, but rather one measure of outpatient and other health care.

2013 ACO Narrative Measure Specifications
Care Coordination/Patient Safety Domain

♣ ACO 10 (NQF #0277; AHRQ PQI #08): Ambulatory Sensitive Conditions Admissions: Heart Failure (HF) (ACO version 1.0)

DESCRIPTION:
All discharges with an ICD-9-CM principal diagnosis code for HF in adults ages 18 years and older, for ACO assigned or aligned Medicare fee-for-service (FFS) beneficiaries with HF, with risk-adjusted comparison of observed discharges to expected discharges for each ACO.[2] This is a ratio of observed to expected discharges.

DENOMINATOR:
Expected discharges from an acute care hospital with a principal diagnosis of HF, for Medicare FFS beneficiaries assigned or aligned to an ACO, aged 18 years and older, with HF.

NUMERATOR:
Observed discharges from an acute care hospital with a principal diagnosis of HF, for Medicare FFS beneficiaries in the denominator population for this measure.

EXCLUSIONS:
- Admissions that are transfers from a hospital, Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF), or another health care facility
- Beneficiaries with a diagnosis of ESRD
- Beneficiaries not eligible for both Medicare Part A and Part B
- Beneficiaries with missing data for gender, age, or principal diagnosis

RATIONALE:
Hospital admissions for HF are a Prevention Quality Indicator (PQI) of interest to comprehensive health care delivery systems, including ACOs. HF can often be controlled in an outpatient setting. Evidence suggests that these hospital admissions could have been avoided through high quality outpatient care, or the condition would have been less severe if treated early and appropriately. Proper outpatient treatment and adherence to care may reduce the rate of occurrence for this event, and thus of hospital admissions.

Outpatient interventions such as the use of protocols for ambulatory management of low-severity patients and improvement of access to outpatient care would most likely decrease inpatient

[2] For the purposes of the Medicare ACO programs, the following modifications were made to the original Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicator (PQI) version 4.4 technical specifications: 1) denominator changed from general population in a geographic area to Medicare FFS beneficiaries assigned or aligned to a Medicare ACO, including part-year beneficiaries; 2) denominator changed from patients of any disease status to beneficiaries with a diagnosis of HF; and 3) added a denominator exclusion for beneficiaries with ESRD. To verify that these modifications were valid, the following analyses were completed: 1) dry run testing; 2) validity testing; 3) reliability testing; 4) variability testing; and 5) exclusion testing.

admissions for HF. In addition, physician management of patients with HF differs significantly by physician specialty (Edep, 1997; Reis, 1997). Such differences in practice may be reflected in differences in HF admission rates.

CLINICAL RECOMMENDATION STATEMENTS:

Billings et al. (1993) found that low-income ZIP codes in New York City had 4.6 times more HF hospitalizations per capita than high-income ZIP codes. Millman (1993) reported that low-income ZIP codes had 6.1 times more HF hospitalizations per capita than high-income ZIP codes. Based on empirical results, areas with high rates of HF admissions also tend to have high rates of other ASCAs.

The signal ratio (i.e., the proportion of the total variation across areas that is truly related to systematic differences in area performance rather than random variation) is very high, at 93.0 percent, indicating that the observed differences in age-sex adjusted rates very likely represent true differences across areas (AHRQ, 2007). Risk adjustment for age and sex appears to most affect the areas with the highest rates. As a PQI, admissions for HF are not a measure of hospital quality, but rather one measure of outpatient and other health care.

This indicator was originally developed by Billings et al. in conjunction with the United Hospital Fund of New York. It was subsequently adopted by the Institute of Medicine and has been widely used in a variety of studies of avoidable hospitalizations (Bindman, 1995; Rosenthal,1997).

2013 ACO Narrative Measure Specifications
Care Coordination/Patient Safety Domain

- **ACO 11 (CMS): Percent of Primary Care Physicians who Successfully Qualify for an EHR Program Incentive Payment**

DESCRIPTION:
Percentage of Accountable Care Organization (ACO) primary care physicians (PCPs) who successfully qualify for either a Medicare or Medicaid Electronic Health Record (EHR) Incentive Program incentive payment.

DENOMINATOR:
All primary care physicians (PCPs), identified by a primary care specialty code in one or more Medicare Part B claims or Part A Outpatient claims, who are participating in an Accountable Care Organization (ACOs) under the Medicare Shared Savings Program. Physicians participating in an ACO are defined as those submitting one or more Medicare Part B claims with the ACO's identified Tax Identification Numbers (TINs) or one or more Medicare Part A outpatient claims with the ACO's identified CMS Certification Number (CCNs) included on the claim.

EXCLUDED FROM DENOMINATOR POPULATION:
- Entities (i.e., identified by TIN or CCN) that are not used for beneficiary assignment.
- Providers from the Part B Carrier file who did not bill any primary care services during the reporting year.
- Hospital-based physicians, as identified by CMS through Medicare claims, who are participating in an MSSP or Pioneer ACO during the reporting year.
- Physicians solely from FQHCs or RHCs, as identified in the participant list.

NUMERATOR:
Primary care physicians (PCPs) participating in an ACO and identified as included in the denominator for that ACO for this quality measure, who successfully qualify for either a Medicare or the Medicaid EHR Incentive Program incentive payment.

RATIONALE:
Health information technology has been shown to improve quality of care by increasing adherence to guidelines, supporting disease surveillance and monitoring, and decreasing medication errors through decision support and data aggregation capabilities (Chaundry et al., 2007). According to a 2008 CBO study, in addition to enabling providers to deliver care more efficiently, there is a potential to gain both internal and external savings from widespread adoption of health IT (CBO, 2008).

The American Recovery and Reinvestment Act of 2009 (ARRA) provides incentive payments for Medicare and Medicaid providers who "adopt, implement, upgrade, or meaningfully use [MU] certified electronic health records (EHR) technology." These incentives are intended to significantly improve health care processes and outcomes, and are part of the larger Health Information Technology for Economic and Clinical Health (HITECH) Act (Blumenthal and Tavenner, 2010). The goal of the HITECH act is to accelerate the adoption of HIT and

utilization of qualified EHRs. The final rule for the electronic health records incentive program serves to establish guidelines for and implement the HITECH incentive payments for meaningful use (CMS 2010).

Under the final rule for the electronic health records incentive program, eligibility criteria for the payment incentive differ somewhat between the Medicare and Medicaid programs. To qualify for Medicare EHR incentive payments, PCPs must successfully demonstrate meaningful use for each year of participation in the program. To qualify for Medicaid incentive payments, PCPs must adopt, implement, upgrade, or demonstrate meaningful of certified EHR technology in the first year of participation, and successfully demonstrate meaningful use in subsequent participation years (CMS 2010).

CLINICAL RECOMMENDATION STATEMENTS:

Electronic data capture and information sharing is critical to good care coordination and high quality patient care. For the purposes of the Medicare and Medicaid EHR Incentive Programs, eligible professionals, eligible hospitals and critical access hospitals (CAHs) must use certified EHR technology. Certified EHR technology gives assurance to purchasers and other users that an EHR system or module offers the necessary technological capability, functionality, and security to help them meet the meaningful use (MU) criteria. Certification also helps providers and patients be confident that the electronic health IT products and systems they use are secure, can maintain data confidentially, and can work with other systems to share information.

The American Health Information Management Associations (AHIMA) states that "the most critical element of meaningful use is widespread adoption of standards-based certified EHRs." AHIMA identifies 5 key measurements of MU. It states that the use of HIT should:

- Reflect the end goals (AMHIMA states the goal of HIT is achieving improvements in quality, cost, and health system performance.)
- Be incremental
- Leverage the standards, certification, and information exchange progress of recent years
- Be auditable
- Be relevant to consumers

The ARRA specifies three main components of MU (CMS 2010):

1. The use of a certified EHR in a meaningful manner, such as e-prescribing.
2. The use of certified EHR technology for electronic exchange of health information to improve quality of health care.
3. The use of certified EHR technology to submit clinical quality and other measures.

The CMS criteria for MU will be developed in three stages. Stage 1 set the baseline for electronic data capture and information sharing. Stage 2 expands on the baseline established in Stage 1. Stage 3 will be developed through future rule making.

2013 ACO Narrative Measure Specifications
Care Coordination/Patient Safety Domain

* ACO 12 (GPRO CARE-1) (NQF 0097): Medication Reconciliation

DESCRIPTION:
Percentage of patients aged 65 years and older **discharged from any inpatient facility** (e.g., hospital, skilled nursing facility, or rehabilitation facility) and **seen within 30 days following discharge** in the office by the physician providing on-going care who had a reconciliation of the discharge medications with the current medication list in the outpatient medical record documented

DENOMINATOR:
All patients aged 65 years and older discharged from any inpatient facility (e.g., hospital, skilled nursing facility, or rehabilitation facility) and seen within 30 days following discharge in the office by the physician providing on-going care

NUMERATOR:
Patients who had a reconciliation of the discharge medications with the current medication list in the outpatient medical record documented

> **Definition:**
> **Medical Record** – Must indicate: The clinician is aware of the inpatient facility discharge medications and will either keep the inpatient facility discharge medications or change the inpatient facility discharge medications or the dosage of an inpatient facility discharge medication.

RATIONALE:
Medications are often changed while a patient is hospitalized. Continuity between inpatient and on-going care is essential.

CLINICAL RECOMMENDATION STATEMENTS:
No trials of the effects of physician acknowledgment of medications post-discharge were found. However, patients are likely to have their medications changed during a hospitalization. One observational study showed that 1.5 new medications were initiated per patient during hospitalization, and 28% of chronic medications were canceled by the time of hospital discharge. Another observational study showed that at one week post-discharge, 72% of elderly patients were taking incorrectly at least one medication started in the inpatient setting, and 32% of medications were not being taken at all. One survey study faulted the quality of discharge communication as contributing to early hospital readmission, although this study did not implicate medication discontinuity as the cause. Assessing Care of Vulnerable Elders (ACOVE)

First, a medication list must be collected. It is important to know what medications the patient has been taking or receiving prior to the outpatient visit in order to provide quality care. This applies regardless of the setting from which the patient came — home, long-term care, assisted living, etc.

The medication list should include all medications (prescriptions, over-the-counter, herbals, supplements, etc.) with dose, frequency, route, and reason for taking it. It is also important to verify whether the patient is actually taking the medication as prescribed or instructed, as sometimes this is not the case.

At the end of the outpatient visit, a clinician needs to verify three questions:

1. Based on what occurred in the visit, should any medication that the patient was taking

   or

   receiving prior to the visit be discontinued or altered?
2. Based on what occurred in the visit, should any prior medication be suspended pending consultation with the prescriber?
3. Have any new prescriptions been added today?

These questions should be reviewed by the physician who completed the procedure, or the physician who evaluated and treated the patient.

- If the answer to ***all three questions*** is "no," the process is complete.
- If the answer to ***any question*** is "yes," the patient needs to receive clear instructions about what to do — all changes, holds, and discontinuations of medications should be specifically noted. Include any follow-up required, such as calling or making appointments with other practitioners and a timeframe for doing so. Institute for Healthcare Improvement (IHI)

2013 ACO Narrative Measure Specifications
Care Coordination/Patient Safety Domain

ACO 13 (GPRO CARE-2) (NQF #0101): Falls: Screening for Future Fall Risk

DESCRIPTION:
Percentage of patients aged 65 years and older who were screened for future fall risk at least once within 12 months

DENOMINATOR:
All patients aged 65 years and older

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
(Exclusion only applied if patient was not screened for future fall risk)

- Documentation of medical reason(s) for not screening for future fall risk (e.g., patient is not ambulatory)

NUMERATOR:
Patients who were screened for future fall risk at least once within 12 months

Definition:
Fall - Is defined as a sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of a sudden onset of paralysis, epileptic seizure, or overwhelming external force.

NUMERATOR NOTE: *Patients are considered at risk for future falls if they have had 2 or more falls in the past year or any fall with injury in the past year.*

RATIONALE:
Patients may not volunteer information regarding falls.

Data elements required for the measure can be captured and the measure is actionable by the physician.

CLINICAL RECOMMENDATION STATEMENTS:
All older persons who are under the care of a heath professional (or their caregivers) should be asked at least once a year about falls. American Geriatrics Society/British Geriatrics Society/American Academy of Orthopaedic Surgeons (AGS/BGS/AAOS)

Older persons who present for medical attention because of a fall, report recurrent falls in the past year, or demonstrate abnormalities of gait and/or balance should have a fall evaluation performed. This evaluation should be performed by a clinician with appropriate skills and experience, which may necessitate referral to a specialist (e.g., geriatrician). (AGS/BGS/AAOS)

Older people in contact with health care professionals should be asked routinely whether they have fallen in the past year and asked about the frequency, context, and characteristics of the falls. National Institute for Clinical Excellence (NICE) (Grade C)

Older people reporting a fall or considered at risk of falling should be observed for balance and gait deficits and considered for their ability to benefit from interventions to improve strength and balance. (NICE) (Grade C)

SECTION 4: PREVENTIVE CARE

2013 ACO Narrative Measure Specifications
Preventive Care Domain

▲ ACO 14 (GPRO PREV-7) (NQF #0041): Preventive Care and Screening: Influenza Immunization

DESCRIPTION:
Percentage of patients aged 6 months and older seen for a visit between October 1 and March 31 who received an influenza immunization OR who reported previous receipt of an influenza immunization

DENOMINATOR:
All patients aged 6 months and older seen for a visit between October 1 and March 31

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
(Exclusions only applied if patient did not receive influenza immunization during the flu season)

- Documentation of medical reason(s) for not receiving an influenza immunization during the flu season (e.g., patient allergy, other medical reasons)
- Documentation of patient reason(s) for not receiving an influenza immunization during the flu season (e.g., patient declined, other patient reasons)
- Documentation of system reason(s) for not receiving an influenza immunization during the flu season (e.g., vaccine not available, other system reasons)

NUMERATOR:
Patients who have received an influenza immunization OR who reported previous receipt of influenza immunization

Definition:
Previous Receipt – Receipt of the current season's influenza immunization from another provider OR from same provider prior to the visit to which the measure is applied (typically, prior vaccination would include influenza vaccine given since August 1st).

RATIONALE:
Annual influenza vaccination is the most effective method for preventing influenza virus infection and its complications. Influenza vaccine is recommended for all persons aged ≥ 6 months who do not have contraindications to vaccination.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

Routine annual influenza is recommended for all persons aged ≥ 6 months. Centers for Disease Control/Advisory Committee on Immunization Practices (CDC/ACIP, 2011).

2013 ACO Narrative Measure Specifications
Preventive Care Domain

♦ **ACO 15 (GPRO PREV-8) (NQF #0043): Preventive Care and Screening: Pneumococcal Vaccination for Patients 65 Years and Older**

DESCRIPTION:
Percentage of patients aged 65 years and older who have ever received a pneumococcal vaccine

DENOMINATOR:
All patients 65 years and older

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
(Exclusion only applied if patient did not ever receive a pneumococcal immunization)
- Documentation of medical reason(s) for not ever receiving pneumococcal vaccination

NUMERATOR:
Patients who have **ever** received a pneumococcal vaccination

RATIONALE:
Pneumonia is a common cause of illness and death in the elderly and persons with certain underlying conditions such as heart failure, diabetes, cystic fibrosis, asthma, sickle cell anemia, or chronic obstructive pulmonary disease. (NHLBI, 2011) In 1998, an estimated 3,400 adults aged > 65 years died as a result of invasive pneumococcal disease. (IPD) (CDC, 2003) Pneumococcal infection accounts for more deaths than any other vaccine-preventable bacterial disease.

Among the 91.5 million US adults aged > 50 years, 29,500 cases of IPD, 502,600 cases of nonbacteremic pneumococcal pneumonia and 25,400 pneumococcal-related deaths are estimated to occur yearly; annual direct and indirect costs are estimated to total $3.7 billion and $1.8 billion, respectively. Pneumococcal disease remains a substantial burden among older US adults, despite increased coverage with 23-valent pneumococcal polysaccharide vaccine, (PPV23) and indirect benefits afforded by PCV7 vaccination of young children. (Weycker, et al., 2011)

The Centers for Disease Control and Prevention (CDC) also analyzed cost-effectiveness of a measure for pneumococcal immunization. Using conservative health impact figures, the study's principal conclusions indicate that a 10 percent absolute increase in immunization among Medicare HMO enrollees would result in cost savings of $8,471 for an average HMO with 17,000 enrollees, and that deaths due to pneumococcal disease would be reduced. The study only considers the prevention of pneumococcal bacteria; actual savings may be greater, as vaccination is also likely to confer protection against pneumococcal pneumonia (nonbacteremic pneumococcal). Vaccination has been found to be effective against bacteremic cases (OR: 0.34; 95% CI: 0.27–0.66) as well as nonbacteremic cases (OR: 0.58; 95% CI: 0.39–0.86). Vaccine effectiveness was highest against bacteremic infections caused by vaccine types (OR: 0.24; 95% CI: 0.09–0.66). (Vila-Corcoles, et al., 2009)

The disease burden is large for older adults and the potential for prevention is high. Pneumococcal infections result in significant health care expenditures each year, and vaccination is safe and effective. Modest cash outlays for vaccination have been shown to result in substantial cost savings and significantly lower morbidity

CLINICAL RECOMMENDATION STATEMENTS:

The Advisory Committee on Immunization Practices' (ACIP) Updated Recommendations for Prevention of Invasive Pneumococcal Disease Among Adults Using the 23-Valent Pneumococcal Polysaccharide Vaccine recommends pneumococcal vaccine for all immunocompetent individuals who are 65 and older or otherwise at increased risk for pneumococcal disease. Routine revaccination is not recommended, but a second dose is appropriate for those who received PPV23 before age 65 years for any indication if at least 5 years have passed since their previous dose. (USPSTF, 1989; ACIP, 2010) Both primary vaccination and revaccination with PPV23 induce antibody responses that persist during 5 years of observation. (Musher, et al., 2010) Subsequently, Medicare Part B fully covers the cost of the vaccine and its administration every five years.

2013 ACO Narrative Measure Specifications
Preventive Care Domain

♠ ACO 16 (GPRO PREV-9) (NQF #0421): Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up

DESCRIPTION:
Percentage of patients aged 18 years and older with a calculated BMI in the past six months or during the current visit documented in the medical record AND if the most recent BMI is **outside of normal parameters**, a follow-up plan is documented within the past six months or during the current visit

Normal Parameters: Age 65 years and older BMI ≥ 23 and < 30
Age 18 – 64 years BMI ≥ 18.5 and < 25

DENOMINATOR:
All patients aged 18 years and older at the beginning of the measurement period

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
(Exclusion only applied if a calculated BMI was not documented as normal OR was outside parameters with a follow-up not performed during the measurement period)

- Documentation of medical reason(s) for not having a BMI measurement performed during the measurement period (e.g., patient is receiving palliative care, patient is pregnant or patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status)
- Documentation of patient reason(s) for not having a BMI measurement performed during the measurement period (e.g., patient refuses BMI measurement or if there is any other reason documented in the medical record by the provider explaining why BMI measurement was not appropriate)

NUMERATOR:
Patients with BMI calculated within the past six months or during the current visit and a follow-up plan is documented within the last six months or during the current visit if the BMI is outside of normal parameters

Definitions:
BMI – Body mass index (BMI) is expressed as weight/height (BMI; kg/m^2) and is commonly used to classify weight categories.
Calculated BMI – Requires an eligible professional or their staff to measure both the height and weight. Self-reported values cannot be used. BMI is calculated either as weight in pounds divided by height in inches squared multiplied by 703, or as weight in kilograms divided by height in meters squared.
Follow-up Plan – Proposed outline of treatment to be conducted as a result of a BMI out of normal parameters. Such follow-up may include but is not limited to: documentation of a future appointment, education, referral (such as, a registered dietician, nutritionist, occupational therapist, physical therapist, primary care provider, exercise physiologist,

mental health professional or surgeon), pharmacological interventions, dietary supplements, exercise counseling or nutrition counseling.
Not Eligible/Not Appropriate for BMI Measurement or Follow-Up Plan – A patient is **not** eligible if one or more of the following reasons exists:

- Patient is receiving palliative care
- Patient is pregnant
- Patient refuses BMI measurement
- If there is any other reason documented in the medical record by the provider explaining why BMI measurement or follow-up plan was not appropriate
- Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status.

Numerator Note: *Calculated BMI or follow-up plan for BMI outside of normal parameters that is documented in the medical record may be reported if done in the provider's office/facility or if obtained by the provider from outside medical records within the past six months.*

The documented follow-up interventions must be related to the BMI outside of normal parameters, example: "Patient referred to nutrition counseling for BMI above normal parameters".

RATIONALE:

BMI Above Upper Parameter

"In 2009, no state met the healthy people 2012 obesity target of 15 percent, and the self-reported overall prevalence of obesity among U.S. adults had increased 1.1 percentage points from 2007. Overall self-reported obesity prevalence in the U.S. was 26.7 percent". (CDC, 2010)

Obesity continues to be a public health concern in the United States and throughout the world. In the United States, obesity prevalence doubled among adults between 1980 and 2004. (Flegal, et al., 2002; Ogden, et al., 2006) Obesity is associated with increased risk of a number of conditions, including diabetes mellitus, cardiovascular disease, hypertension, and certain cancers, and with increased risk of disability and a modestly elevated risk of all-cause mortality." Obesity is associated with an increased risk of death, particularly in adults younger than age 65 years. Obesity has been shown to reduce life expectancy by 6 to 20 years depending on age and race. Ischemic heart disease, diabetes, cancer (especially liver, kidney, breast, endometrial, prostate and colon), and respiratory diseases are the leading cause of death in persons who are obese". (AHRQ, 2011)

Results from the 2009-2010 National Health and Nutrition Examination Survey (NHANES) indicate that an estimated 35.7 percent of adults are obese. (NCHS CDC, 2012) Although the prevalence of adults in the U.S. who are obese is still high with about one-third of adults obese in 2007-2008, data suggest that the rate of increase for obesity in the U.S. in recent decades may be slowing. (Flegal, et al., 2010)

Finkelstein et al. (2009), found that across all payers, per capita medical spending for the obese is $1,429 higher per year, or roughly 42 percent higher than for someone of normal weight. In

aggregate, the annual medical burden of obesity has increased from 6.5 percent to 9.1 percent of annual medical spending and could be as high as $147 billion per year (in 2008 dollars). A study by Tsai et al. (2010) estimated cost for obesity to be even higher. A recent study by Cawley et al. (2012) reported findings that indicate that the effect of obesity of medical care cost is much greater than previously appreciated.

Ma, et al. (2009) performed a retrospective, cross-sectional analysis of ambulatory visits in the National Ambulatory Medical Care Survey from 2005 and 2006. The study findings on obesity and office-based quality of care concluded the evidence is compelling that obesity is underappreciated in office-based physician practices across the United States. Many opportunities are missed for obesity screening and diagnosis, as well as for the prevention and treatment of obesity and related health risks, regardless of patient and provider characteristics.

BMI Below Normal Parameter

Poor nutrition or underlying health conditions can result in underweight. Results from the 2007-2008 National Health and Nutrition Examination Survey (CDC, 2010), using measured heights and weights, indicate an estimated 1.6% of U.S. adults are underweight with women more likely to be underweight than men.

Huffman (2002) states elderly patients with unintentional weight loss are at higher risk for infection, depression and death. The leading causes of involuntary weight loss are depression (especially in residents of long-term care facilities), cancer (lung and gastrointestinal malignancies), cardiac disorders and benign gastrointestinal diseases. Medications that may cause nausea and vomiting, dysphagia, dysgeusia and anorexia have been implicated. Polypharmacy can cause unintended weight loss, as can psychotropic medication reduction (e.g., by unmasking problems such as anxiety). In an observational study Ranhoff et al. (2005) identified using a BMI < 23, resulted in a positive screen for malnutrition, thus leading to the recommendation that a score of BMI < 23 to identify poor nutritional status in elderly.

CLINICAL RECOMMENDATION STATEMENTS:

Although multiple clinical recommendations addressing obesity have been developed by professional organizations, societies and associations, two recommendations have been identified which exemplify the intent of the measure and address the numerator and denominator.

The US Preventive Health Services Task Force (USPSTF) *The Guide to Clinical Preventive Services, 2010-2011* recommends that clinicians screen all adult patients for obesity and offer intensive counseling and behavioral interventions to promote sustained weight loss for obese adults (Level Evidence B).

Institute for Clinical Systems Improvement (ICSI, 2011) Prevention and Management of Obesity (Mature Adolescents and Adults) provides the following guidance:

- Calculate the body mass index; classify the individual based on the body mass index categories. Educate patients about their body mass index and their associated risks.
- Weight management requires a team approach. Be aware of clinical and community resources. The patient needs to have an ongoing therapeutic relationship and follow-up with a health care team.

- Weight control is a lifelong commitment, and the health care team can assist with setting specific goals with the patient.

2013 ACO Narrative Measure Specifications
Preventive Care Domain

▲ACO 17 (GPRO PREV-10) (NQF #0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention

DESCRIPTION:
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months **AND** who received cessation counseling intervention if identified as a tobacco user

DENOMINATOR:
All patients aged 18 years and older

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
(Exclusion only applied if patient was not screened for tobacco use during the measurement period or year prior)

- Documentation of medical reason(s) for not screening for tobacco use (e.g., limited life expectancy, other medical reasons)

NUMERATOR:
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation counseling intervention if identified as a tobacco user

Definitions:
Tobacco Use – Includes use of any type of tobacco.
Cessation Counseling Intervention – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

NUMERATOR NOTE: *If tobacco use status of a patient is unknown, the patient cannot be counted in the numerator and should be considered a measure failure. Instances where tobacco use status of "unknown" is recorded include: 1) the patient was not screened; or 2) the patient was screened and the patient (or caregiver) was unable to provide a definitive answer. If tobacco use status of "unknown" is recorded but the patient has an allowable medical exception, then the patient should be removed from the denominator of the measure and reported as a valid exception.*

RATIONALE:
There is good evidence that tobacco screening and brief cessation intervention (including counseling and pharmacotherapy) in the primary care setting is successful in helping tobacco users quit. (USPSTF, 2003) Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke. (USPSTF, 2003)

CLINICAL RECOMMENDATION STATEMENTS:

The following evidence statements are quoted verbatim from the referenced clinical guidelines:

The USPSTF strongly recommends that clinicians screen all adults for tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (USPSTF, 2003)

During new patient encounters and at least annually, patients in general and mental healthcare settings should be screened for at-risk drinking, alcohol use problems and illnesses, and any tobacco use. (NQF, 2007)

All patients should be asked if they use tobacco and should have their tobacco-use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health & Human Services-Public Health Service, 2008)

All *physicians* should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health & Human Services-Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health & Human Services-Public Health Service, 2008)

2013 ACO Narrative Measure Specifications
Preventive Care Domain

♠ ACO 18 (GPRO PREV-12) (NQF #0418): Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan

DESCRIPTION:
Percentage of patients aged 12 years and older screened for clinical depression during the measurement period using an age appropriate standardized depression screening tool AND if positive, a follow-up plan is documented on the date of the positive screen

DENOMINATOR:
All patients aged 12 years and older at the beginning of the measurement period

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
(Exclusions only applied if patient did not receive screening for clinical depression using an age appropriate standardized tool)

- Documentation of medical reason(s) for not having screening for clinical depression performed during the measurement period (e.g., patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status, situations where the patient's functional capacity or motivation to improve may impact the accuracy of results of standardized depression assessment tools [For example: certain court appointed cases or cases of delirium], or patient has an active diagnosis of depression or bipolar disorder)
- Documentation of patient reason(s) for not having screening for clinical depression performed during the measurement period (e.g., patient refuses to participate)

NUMERATOR:
Patients screened for clinical depression during the measurement period using an age appropriate standardized tool AND if positive, a follow-up plan is documented on the date of the positive screen

Definitions:
Screening – Completion of a clinical or diagnostic tool used to identify people at risk of developing or having a certain disease or condition, even in the absence of symptoms.
Standardized Clinical Depression Screening Tool – A normalized and validated depression screening tool developed for the patient population where it is being utilized. Examples of depression screening tools include but are not limited to:

Adolescent Screening Tools (12-17 years)
Patient Health Questionnaire for Adolescents (PHQ-A), Beck Depression Inventory-Primary Care Version (BDI-PC), Mood Feeling Questionnaire, Center for Epidemiologic Studies Depression Scale (CES-D) and PRIME MD-PHQ 2

Adult Screening Tools (18 years and older)
Patient Health Questionnaire (PHQ-9), Beck Depression Inventory (BDI or BDI-II), Center for Epidemiologic Studies Depression Scale (CES-D), Depression

Scale (DEPS), Duke Anxiety-Depression Scale (DADS), Geriatric Depression Scale (GDS), Cornell Scale Screening and PRIME MD-PHQ 2

Follow-Up Plan – Proposed outline of treatment to be conducted as a result of positive clinical depression screening. Follow-up for a positive depression screening *must* include one or more of the following:

- Additional evaluation
- Suicide Risk Assessment
- Referral to a practitioner who is qualified to diagnose and treat depression
- Pharmacological interventions
- Other interventions or follow-up for the diagnosis or treatment of depression

RATIONALE:

The World Health Organization, as seen in Pratt & Brody (2008), found that major depression was the leading cause of disability worldwide. Depression causes suffering, decreases quality of life, and causes impairment in social and occupational functioning. It is associated with increased health care costs as well as with higher rates of many chronic medical conditions. Studies have shown that a higher number of depression symptoms are associated with poor health and impaired functioning, whether or not the criteria for a diagnosis of major depression are met. Persons 40-59 years of age had higher rates of depression than any other age group. Persons 12-17, 18-39 and 60 years of age and older had similar rates of depression. Depression was more common in females than in males. Non-Hispanic black persons had higher rates of depression than non-Hispanic white persons. In the 18-39 and 40-59 age groups, those with income below the federal poverty level had higher rates of depression than those with higher income. Among persons 12-17 and 60 years of age and older, raters of depression did not vary significantly by poverty status. Overall, approximately 80% of persons with depression reported some level of difficulty in functioning because of their depressive symptoms. In addition 35% of males and 22% of females with depression reported that their depressive symptoms make it very or extremely difficult for them to work, get things done at home, or get along with other people. More than one-half of all persons with mild depressive symptoms also reported some difficulty in daily functioning attributable to their symptoms.

The negative outcomes associated with early onset depression, make it crucial to identify and treat depression in its early stages. As reported in Borner (2010), a study conducted by the World Health Organization (WHO) reported that in North America, primary care and family physicians are likely to provide the first line of treatment for depressive disorders. Others consistently report a 10% prevalence rate of depression in primary care patients. But studies have shown that primary care physicians fail to recognize up to 50% of depressed patients, purportedly because of time constraints and a lack of brief, sensitive, easy-to administer psychiatric screening instruments. Coyle et al. (2003) suggested that the picture is grimmer for adolescents, and that more than 70% of children and adolescents suffering from serious mood disorders go unrecognized or inadequately treated. In 2000, Healthy People 2010 recommended routine screening for mental health problems as a part of primary care for both children and adults.

Major depressive disorder (MDD) is a debilitating condition that has been increasingly recognized among youth, particularly adolescents. The prevalence of current or recent depression among children is 3% and among adolescents is 6%. The lifetime prevalence of MDD among

adolescents may be as high as 20%. Adolescent-onset MDD is associated with an increased risk of death by suicide, suicide attempts, and recurrence of major depression by young adulthood. MDD is also associated with early pregnancy, decreased school performance, and impaired work, social, and family functioning during young adulthood (Williams et al., 2009). Every fifth adolescent may have a history of depression by age 18. The increase in the onset of depression occurs around puberty. According to Gil Zalsman et al. (2006) as reported in Borner et al. (2010), depression ranks among the most commonly reported mental health problems in adolescent girls.

The economic burden of depression is substantial for individuals as well as society. Costs to an individual may include suffering, possible side effects from treatment, fees for mental health and medical visits and medications, time away from work and lost wages, transportation, and reduced quality of personal relationships. Costs to society may include loss of life, reduced productivity (because of both diminished capacity while at work and absenteeism from work), and increased costs of mental health and medical care. In 2000, the United States spent an estimated $83.1 billion in direct and indirect costs of depression. (USPSTF, 2009)

CLINICAL RECOMMENDATION STATEMENTS:

Adolescent Recommendation (12-18 years)

The USPSTF recommends screening of adolescents (12-18 years of age) for major depressive disorder (MDD) when systems are in place to ensure accurate diagnosis, psychotherapy (cognitive-behavioral or interpersonal), and follow-up (2009).

Level II Child Preventive Services should be assessed and offered to each patient; as such services have been shown to be effective. Such Level II services include: Screening adolescents ages 12-18 for major depressive disorder when systems are in place for accurate diagnosis, treatment, and follow-up. (ICSI, 2010)

Adult Recommendation (18 years and older)

The USPSTF recommends screening adults for depression when staff-assisted depression care supports are in place to assure accurate diagnosis, effective treatment, and follow-up. (2009)

Routine depression screening should be performed for adult patients (including older adults) but only if the practice has staff-assisted “systems in place to ensure that positive results are followed by accurate diagnosis, effective treatment, and careful follow-up”. (ICSI, 2010)

2013 ACO Narrative Measure Specifications
Preventive Care Domain

♦ ACO 19 (GPRO PREV-6) (NQF #0034): Preventive Care and Screening: Colorectal Cancer Screening

DESCRIPTION:
Percentage of patients aged 50 through 75 years who received the appropriate colorectal cancer screening

DENOMINATOR:
All patients aged 50 through 75 years

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
(Exclusion only applied if colorectal cancer screening not performed)
- Documentation of medical reason(s) for not performing colorectal cancer screening (i.e., total colectomy)

NUMERATOR:
Patients who had at least one or more screenings for colorectal cancer during or prior to the reporting period

Numerator Instructions: Patients are considered to have appropriate screening for colorectal cancer if any of the following are documented:
- Fecal occult blood test (FOBT) within the last 12 months
- Flexible sigmoidoscopy during the reporting period or the four years prior to thereporting period
- Colonoscopy during the reporting period or the nine years prior to the reporting period

RATIONALE:
Colorectal cancer is the second leading cause of cancer-related death in the United States. There were an estimated 135,400 new cases and 56,700 deaths from the disease during 2001. Colorectal cancer (CRC) places significant economic burden on the society as well with treatment costs over $6.5 billion per year and, among malignancies, is second only to breast cancer at $6.6 billion per year. (Schrag, 1999)

Colorectal cancer screening can detect pre-malignant polyps and early stage cancers. Unlike other screening tests that only detect disease, colorectal cancer screening can guide removal of pre-malignant polyps, which in theory can prevent development of colon cancer. Three tests are currently recommended for screening: fecal occult blood testing (FOBT), flexible sigmoidoscopy, and colonoscopy.

CLINICAL RECOMMENDATION STATEMENTS:
During the past decade, compelling evidence has accumulated that systematic screening of the population can reduce mortality from colorectal cancer. Three randomized, controlled trials demonstrated that fecal occult blood testing (FOBT), followed by complete diagnostic evaluation

of the colon for a positive test, reduced colorectal cancer mortality. (Hardcastle et al., 1996; Mandel & Oken, 1998; Kronborg, 1996) One of these randomized trials (Mandel et al., 1993) compared annual FOBT screening to biennial FOBT screening, and found that annual screening resulted in greater reduction in colorectal cancer mortality. Two case control studies have provided evidence that sigmoidoscopy reduces colorectal cancer mortality. (Selby et al., 1992; Newcomb et al., 1992) Approximately 75% of all colorectal cancers arise sporadically. (Stephenson et al., 1991) Part of the effectiveness of colorectal cancer screening is mediated by the removal of the precursor lesion—an adenomatous polyp. (Vogtelstein et al., 1988) It has been shown that removal of polyps in a population can reduce the incidence of colorectal cancer. (Winawer, 1993) Colorectal screening may also lower mortality by allowing detection of cancer at earlier stages, when treatment is more effective. (Kavanaugh, 1998)

The U.S. Preventive Services Task Force (USPSTF) published an updated recommendation for colorectal cancer screening in 2008. The guideline strongly recommends that clinicians screen men and women ages 50 to 75 years of age for colorectal cancer. (A recommendation) The USPSTF recommends not screening adults age 85 and older due to possible harms. (D recommendation) The appropriateness of colorectal cancer screening for men and women aged 76 to 85 years old should be considered on an individual basis. (C recommendation) While the approved modalities vary for patients 50 to 75 years old, the USPSTF found there is insufficient evidence to assess the benefits and harms of computed tomographic colonography (CTC) and fecal DNA (fDNA) testing as screening modalities for colorectal cancer for all patients. (I statement)

2013 ACO Narrative Measure Specifications
Preventive Care Domain

♦ ACO 20 (GPRO PREV-5) (NQF #0031): Preventive Care and Screening: Breast Cancer Screening

DESCRIPTION:
Percentage of women aged 40 through 69 years who had a mammogram to screen for breast cancer within 24 months

DENOMINATOR:
All female patients aged 40 through 69 years

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
(Exclusion only applied if mammogram not performed within 24 months)

- Documentation of medical reason(s) for not performing a mammogram within 24 months (i.e., women who had a bilateral mastectomy or two unilateral mastectomies)

NUMERATOR:
Patients who had a mammogram at least once within 24 months

RATIONALE:
Breast cancer ranks as the second leading cause of death in women. For women 40 to 49 years of age mammography can reduce mortality by 17 percent. American Medical Association (AMA, 2003)

CLINICAL RECOMMENDATION STATEMENTS:
The U.S. Preventive Services Task Force (USPSTF) recommends biennial screening mammography for women aged 50-74 years (B recommendation).The decision to start regular, biennial screening mammography before the age of 50 years should an individual one and take patient context into account, including the patient's values regarding specific benefits and harms (C recommendation). (USPSTF, 2009) The Task Force concludes the evidence is insufficient to assess the additional benefits and harms of screening mammography in women 75 years and older. (I statement)

The American Cancer Society recommends yearly Mammograms starting at age 40 and continuing for as long as a woman is in good health. Clinical Breast Exam (CBE) about every 3 years for women in the 20s and 30s and every year for women 40 and over. (Smith, 2003)

Based on the incidence of breast cancer, the sojourn time for breast cancer growth, and the potential reduction in breast cancer mortality, the American College of Obstetricians and Gynecologists recommends that women aged 40 years and older be offered screening mammography annually. Clinical breast examination should be performed annually for women aged 40 years and older. For women aged 20–39 years, clinical breast examinations are recommended every 1–3 years. (ACOG, 2011)

2013 ACO Narrative Measure Specifications
Preventive Care Domain

♠ ACO 21 (GPRO PREV-11) (CMS): Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented

DESCRIPTION:
Percentage of patients aged 18 years and older seen during the measurement period who were screened for high blood pressure (BP) AND a recommended follow-up plan is documented based on the current blood pressure reading as indicated

DENOMINATOR:
All patients aged 18 years and older at the beginning of the measurement period

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
(Exclusions only applied if patient did not receive screening for high blood pressure during the measurement period)

- Documentation of medical reason(s) for not receiving screening for high blood pressure (e.g., patient has an active diagnosis of hypertension, patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient's health status. This may include, but is not limited to severely elevated BP when immediate medical treatment is indicated)
- Documentation of patient reason(s) for not receiving screening for high blood pressure (e.g., patient refuses BP measurement)

NUMERATOR:
Patients who were screened for high blood pressure and a recommended follow-up plan is documented as indicated if the blood pressure is pre-hypertensive or hypertensive

Definitions:
BP Classification – BP is defined by four BP reading classifications as listed in the "Recommended Blood Pressure Follow-Up" table below including Normal, Pre-Hypertensive, First Hypertensive, and Second Hypertensive Readings.
Recommended BP Follow-Up – The current *Report of the Joint National Committee on the Prevention, Detection, Evaluation, and Treatment of High Blood Pressure* (JNC) recommends BP screening intervals, lifestyle modifications and interventions based on BP Classification of the current BP reading as listed in the "Recommended BP Follow-Up" table below.
Lifestyle Modifications – The current JNC report outlines lifestyle modifications and **must** include one or more of the following as indicated: Weight Reduction, DASH Eating Plan, Dietary Sodium Restriction, Increased Physical Activity, or Moderation in Alcohol Consumption.
Second Hypertensive Reading – Requires both a BP reading of Systolic BP ≥ 140 mmHg OR Diastolic BP ≥ 90 mmHg during the current encounter AND a most recent BP reading within the last 12 months Systolic BP ≥ 140 mmHg OR Diastolic BP ≥ 90 mmHg.

Second Hypertensive Reading Interventions – The current JNC report outlines interventions based on BP Readings shown in the "Recommended BP Follow-up" table and **must** include one or more of the following as indicated: Anti-Hypertensive Pharmacologic Therapy, Laboratory Tests, or Electrocardiogram (ECG).

NUMERATOR NOTE: *Although recommended screening interval for a normal BP reading is every 2 years, to meet the intent of this measure, a BP screening must be performed once per measurement period. The intent of this measure is to screen patients for high blood pressure. Normal blood pressure follow-up is not recommended for patients with clinical or symptomatic hypotension.*

Recommended Blood Pressure Follow-Up Table

BP Classification	Systolic BP mmHg	Diastolic BP mmHg	Recommended Follow-Up *(must include all indicated actions for each BP Classification)*
Normal BP Reading	< 120	AND < 80	• No Follow-Up Required
Pre-Hypertensive BP Reading	≥ 120 AND ≤ 139	OR ≥ 80 AND ≤89	• Rescreen BP within a Minimum of 1 year *AND* Recommend Lifestyle Modifications OR • Referral to Alternative/Primary Care Provider
First Hypertensive BP Reading	≥ 140	OR ≥ 90	• Rescreen BP within a Minimum of ≥ 1 Day and ≤ 4 Weeks *AND* Recommend Lifestyle Modifications OR • Referral to Alternative/Primary Care Provider
Second Hypertensive BP Reading	≥ 140	OR ≥ 90	• Recommend Lifestyle Modifications *AND* 1 or more of the Second Hypertensive Reading Interventions (see definitions) OR • Referral to Alternative/Primary Care Provider

RATIONALE:

This measure assesses the percentage of patients aged 18 and older without known hypertension who were screened for high blood pressure. Hypertension is a prevalent condition that

contributes to important adverse health outcomes, including premature death, heart attack, renal insufficiency and stroke. The United States Preventive Services Task Force (USPSTF, 2007) found good evidence that blood pressure measurement can identify adults at increased risk for cardiovascular disease from high blood pressure. The relationship between systolic blood pressure and diastolic blood pressure and cardiovascular risk is continuous and graded. The actual level of blood pressure elevation should not be the sole factor in determining treatment. Clinicians should consider the patient's overall cardiovascular risk profile, including smoking, diabetes, abnormal blood lipid values, age, sex, sedentary lifestyle, and obesity, when making treatment decisions. The seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7) recommends screening every 2 years for patients with blood pressure less than 120/80 mmHg and every year for patients with systolic blood pressure of 120 to 139 mmHg or diastolic blood pressure of 80 to 90 mmHg.

Appropriate follow-up after blood pressure measurement is a pivotal component in preventing the progression of hypertension and the development of heart disease. Detection of marginally or fully elevated blood pressure by a specialty clinician warrants referral to a provider familiar with the management of hypertension and prehypertension. Lifestyle modifications have demonstrated effectiveness in lowering blood pressure. (JNC 7, 2003) The synergistic effect of several lifestyle modifications results in greater benefits than a single modification alone. Baseline diagnostic/laboratory testing establishes if a co-existing underlying condition is the etiology of hypertension and evaluates if end organ damage from hypertension has already occurred. Landmark trials such as ALLHAT have repeatedly proven the efficacy of pharmacologic therapy to control blood pressure and reduce the complications of hypertension. Follow-up intervals based on blood pressure control have been established by the JNC 7 and the USPSTF.

CLINICAL RECOMMENDATION STATEMENTS:

The U.S. Preventive Services Task Force (USPSTF) recommends screening for high blood pressure in adults age 18 years and older. This is a grade A recommendation.

U.S. Preventive Services Task Force. Screening for high blood pressure: U.S. Preventive Services Task Force reaffirmation recommendation statement. Ann Intern Med 2007 Dec 4;147(11):783-6.

Department of Health and Human Services (2003). Joint National Committee on the Prevention, Detection, Evaluation, and Treatment of High Blood Pressure.

SECTION 5: AT RISK POPULATION

2013 ACO Narrative Measure Specifications
At-Risk Population Domain

𝄞 ACO 22 (GPRO DM-15) (NQF #0729): Composite (All or Nothing Scoring): Diabetes Mellitus: Hemoglobin A1c Control (<8%)

The DM Composite measure consists of GPRO DM-13, DM-14, DM-15, DM-16 and DM-17.

DESCRIPTION:
Percentage of patients ages 18 to 75 years of age with diabetes mellitus who had HbA1c < 8.0 percent

DENOMINATOR:
Patients 18 to 75 years of age with a diagnosis of diabetes mellitus with two or more face-to-face visits for diabetes in the last two years and at least one visit for any reason in the last 12 months

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
- Diagnosis of polycystic ovaries, gestational diabetes or steroid induced diabetes

NUMERATOR:
Patients with most recent hemoglobin A1c < 8.0 percent

RATIONALE:
According to the MN Department of Health, diabetes is a high impact clinical condition in Minnesota. More than 1 in 3 adults and 1 in 6 youth in Minnesota have diabetes or are at high risk of developing it. Each year more than 20,000 Minnesotans are newly diagnosed with diabetes. Diabetes is the sixth leading cause of death in Minnesota and is a significant risk factor in developing cardiovascular disease and stroke, non-traumatic lower extremity amputations, blindness, and end-stage renal disease. Diabetes costs Minnesota almost $2.7 billion annually, including medical care, lost productivity and premature mortality.

According to the American Diabetes Association, an estimated 23.6 million American children and adults have diabetes. Most people with diabetes have other risk factors, such as high blood pressure and cholesterol that increase the risk for heart disease and stroke. In fact, more than 65% of people with diabetes die from these complications.

The intermediate physiological and biochemical outcomes included in this composite measure are modifiable lifestyle risk factors that can ultimately decrease the incidence of long term catastrophic events and chronic illness associated with diabetes. A multifactorial approach to diabetes care that includes emphasis on blood pressure, lipids, glucose, aspirin use, and non-use of tobacco will maximize health outcomes far more than a strategy that is limited to just one or two of these clinical domains. ICSI Diabetes Guidelines July 2010 (American Diabetes Association, 2010; Duckworth, 2009; Gaede, 2008 [A]; Holman, 2008a [A])

Two sets of guidelines are referenced in the development and maintenance of this measure.

- The Institute for Clinical Systems Improvement (ICSI) Guidelines for the Diagnosis and Management of Type 2 Diabetes Mellitus Fourteenth Edition July 2010. This includes a comprehensive literature review and some of the articles quoted within the guideline are also included as references. References will be referred to as ICSI Diabetes Guideline or ICSI. Detailed guidelines are available at http://www.icsi.org.
- The American Diabetes Association 2011 Standards of Medical Care. Will be referred to as American Diabetes Association or ADA. Detailed standards of medical care are available at http://www.diabetes.org under the "For Professionals" tab.

ICSI Diabetes Guideline recommends that A1c levels should be individualized to the patient. Efforts to achieve lower A1c below 7% may increase the risk of mortality, weight gain, hypoglycemia and other adverse effects in many patients with type 2 diabetes, therefore measure targets are selected carefully in the interests of patient safety.

CLINICAL RECOMMENDATION STATEMENTS:

ICSI Diabetes Guideline:

Recommends that individual A1c and other goals should be based on the risks and benefits for each patient.

- All diabetic patients should aim to achieve an A1c of less than 8.0%.
- Set personalized A1c goal less than 7.0% or individualize to goal less than 8.0% based on complex patient factors.
- For patients with type 2 diabetes and the following factors, an A1c goal of less than 8.0% may be more appropriate than an A1c goal of less than 7.0%. (Action to Control Cardiovascular Risk in Diabetes Study Group, The, 2008 [A]; ADVANCE Collaborative Group, The, 2008 [A]; Duckworth, 2009 [A])
    - Known cardiovascular disease or high cardiovascular risk.
    - Inability to recognize and treat hypoglycemia, history of severe hypoglycemia requiring assistance.
    - Inability to comply with standard goals, such as polypharmacy issues.
    - Limited life expectancy or estimated survival of less than 10 years.
    - Cognitive impairment.
    - Extensive comorbid conditions such as renal failure, liver failure and end-stage disease complications.

American Diabetes Association 2011 Standards of Medical Care state:

- Lowering A1C to below or around 7.0% has been shown to reduce microvascular and neuropathic complications of diabetes and, if implemented soon after the diagnosis of diabetes, is associated with long-term reduction in macrovascular disease. Therefore, a reasonable A1C goal for many nonpregnant adults is less than 7.0%.
- Because additional analyses from several randomized trials suggest a small but incremental benefit in microvascular outcomes with A1C values closer to normal, providers might reasonably suggest more stringent A1C goals for selected individual patients, if this can be achieved without significant hypoglycemia or other adverse effects

of treatment. Such patients might include those with short duration of diabetes, long life expectancy, and no significant CVD.

- Conversely, less stringent A1C goals may be appropriate for patients with a history of severe hypoglycemia, limited life expectancy, advanced microvascular or macrovascular complications, extensive comorbid conditions, and those with longstanding diabetes in whom the general goal is difficult to attain despite DSME, appropriate glucose monitoring, and effective doses of multiple glucose-lowering agents including insulin.

2013 ACO Narrative Measure Specifications
At-Risk Population Domain

𝄞 ACO 23 (GPRO DM-14) (NQF #0729): Composite (All or Nothing Scoring): Diabetes Mellitus: Low Density Lipoprotein (LDL-C) Control

The DM Composite measure consists of GPRO DM-13, DM-14, DM-15, DM-16 and DM-17.

DESCRIPTION:
Percentage of patients ages 18 to 75 years of age with diabetes mellitus who had LDL-C < 100 mg/dL

DENOMINATOR:
Patients 18 to 75 years of age with a diagnosis of diabetes mellitus with two or more face-to-face visits for diabetes in the last two years and at least one visit for any reason in the last 12 months

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
- Diagnosis of polycystic ovaries, gestational diabetes or steroid induced diabetes

NUMERATOR:
Patients with most recent low density lipoprotein < 100 mg/dL

RATIONALE:
According to the MN Department of Health, diabetes is a high impact clinical condition in Minnesota. More than 1 in 3 adults and 1 in 6 youth in Minnesota have diabetes or are at high risk of developing it. Each year more than 20,000 Minnesotans are newly diagnosed with diabetes. Diabetes is the sixth leading cause of death in Minnesota and is a significant risk factor in developing cardiovascular disease and stroke, non-traumatic lower extremity amputations, blindness, and end-stage renal disease. Diabetes costs Minnesota almost $2.7 billion annually, including medical care, lost productivity and premature mortality.

According to the American Diabetes Association, an estimated 23.6 million American children and adults have diabetes. Most people with diabetes have other risk factors, such as high blood pressure and cholesterol that increase the risk for heart disease and stroke. In fact, more than 65% of people with diabetes die from these complications.

The intermediate physiological and biochemical outcomes included in this composite measure are modifiable lifestyle risk factors that can ultimately de**c**rease the incidence of long term catastrophic events and chronic illness associated with diabetes. A multifactorial approach to diabetes care that includes emphasis on blood pressure, lipids, glucose, aspirin use, and non-use of tobacco will maximize health outcomes far more than a strategy that is limited to just one or two of these clinical domains. ICSI Diabetes Guidelines July 2010 (American Diabetes Association, 2010; Duckworth, 2009; Gaede, 2008 [A]; Holman, 2008a [A])

Two sets of guidelines are referenced in the development and maintenance of this measure.

- The Institute for Clinical Systems Improvement (ICSI) Guidelines for the Diagnosis and Management of Type 2 Diabetes Mellitus Fourteenth Edition July 2010. This includes a comprehensive literature review and some of the articles quoted within the guideline are also included as references. References will be referred to as ICSI Diabetes Guideline or ICSI. Detailed guidelines are available at http://www.icsi.org.
- The American Diabetes Association 2011 Standards of Medical Care. Will be referred to as American Diabetes Association or ADA. Detailed standards of medical care are available at http://www.diabetes.org under the "For Professionals" tab.

Seventy to seventy-five percent of adult patients with diabetes die of macrovascular disease, specifically coronary, carotid and/or peripheral vascular disease. Diabetes is considered a coronary artery disease equivalent and dyslipidemia is a known risk factor for macrovascular disease. Patients with diabetes develop more atherosclerosis than patients without diabetes with the same quantitative lipoprotein profiles. High triglycerides and low high-density lipoprotein cholesterol levels are independent risk factors for cardiovascular disease in the patient with diabetes. (ICSI, American Diabetes Association, 2010 [R])

CLINICAL RECOMMENDATION STATEMENTS:

American Diabetes Association 2011 Standards of Medical Care:

- For most patients with diabetes, the first priority of dyslipidemia therapy (unless severe hypertriglyceridemia is the immediate issue) is to lower LDL cholesterol to a target goal of less than 100 mg/dl (2.60 mmol/l).
- Lifestyle intervention, including MNT, increased physical activity, weight loss, and smoking cessation, may allow some patients to reach lipid goals. Nutrition intervention should be tailored according to each patient's age, type of diabetes, pharmacological treatment, lipid levels, and other medical conditions and should focus on the reduction of saturated fat, cholesterol, and trans unsaturated fat intake and increases in omega-3 fatty acids, viscous fiber (such as in oats, legumes, citrus), and plant stanols/sterols.
- Glycemic control can also beneficially modify plasma lipid levels, particularly in patients with very high triglycerides and poor glycemic control.
- In those with clinical CVD or over age 40 years with other CVD risk factors, pharmacological treatment should be added to lifestyle therapy regardless of baseline lipid levels. Statins are the drugs of choice for LDL cholesterol lowering.
- In patients other than those described above, statin treatment should be considered if there is an inadequate LDL cholesterol response to lifestyle modifications and improved glucose control, or if the patient has increased cardiovascular risk (e.g., multiple cardiovascular risk factors or long duration of diabetes).

ICSI Diabetes Guideline:

Recommend LDL goals based on the presence of or absence of cardiovascular disease.

For diabetic patients without cardiovascular disease the recommendation is an LDL goal less than 100 mg/dL or on a statin. For diabetic patients with cardiovascular disease, LDL goal is less than 70 mg/dL and statins should be considered unless contraindicated.

2013 ACO Narrative Measure Specifications
At-Risk Population Domain

𝄞 ACO 24 (GPRO DM-13) (NQF #0729): Composite (All or Nothing Scoring): Diabetes Mellitus: High Blood Pressure Control

The DM Composite measure consists of GPRO DM-13, DM-14, DM-15, DM-16 and DM-17.

DESCRIPTION:
Percentage of patients ages 18 to 75 years of age with diabetes mellitus who had a blood pressure < 140/90 mmHg

DENOMINATOR:
Patients 18 to 75 years of age with a diagnosis of diabetes mellitus with two or more face-to-face visits for diabetes in the last two years and at least one visit for any reason in the last 12 months

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
- Diagnosis of polycystic ovaries, gestational diabetes or steroid induced diabetes

NUMERATOR:
Patients with most recent blood pressure < 140/90 mmHg

RATIONALE:
According to the MN Department of Health, diabetes is a high impact clinical condition in Minnesota. More than 1 in 3 adults and 1 in 6 youth in Minnesota have diabetes or are at high risk of developing it. Each year more than 20,000 Minnesotans are newly diagnosed with diabetes. Diabetes is the sixth leading cause of death in Minnesota and is a significant risk factor in developing cardiovascular disease and stroke, non-traumatic lower extremity amputations, blindness, and end-stage renal disease. Diabetes costs Minnesota almost $2.7 billion annually, including medical care, lost productivity and premature mortality.

According to the American Diabetes Association, an estimated 23.6 million American children and adults have diabetes. Most people with diabetes have other risk factors, such as high blood pressure and cholesterol that increase the risk for heart disease and stroke. In fact, more than 65% of people with diabetes die from these complications.

The intermediate physiological and biochemical outcomes included in this composite measure are modifiable lifestyle risk factors that can ultimately decrease the incidence of long term catastrophic events and chronic illness associated with diabetes. A multifactorial approach to diabetes care that includes emphasis on blood pressure, lipids, glucose, aspirin use, and non-use of tobacco will maximize health outcomes far more than a strategy that is limited to just one or two of these clinical domains. ICSI Diabetes Guidelines July 2010 (American Diabetes Association, 2010; Duckworth, 2009; Gaede, 2008 [A]; Holman, 2008a [A])

Two sets of guidelines are referenced in the development and maintenance of this measure.

- The Institute for Clinical Systems Improvement (ICSI) Guidelines for the Diagnosis and Management of Type 2 Diabetes Mellitus Fourteenth Edition July 2010. This includes a comprehensive literature review and some of the articles quoted within the guideline are also included as references. References will be referred to as ICSI Diabetes Guideline or ICSI. Detailed guidelines are available at http://www.icsi.org.
- The American Diabetes Association 2011 Standards of Medical Care. Will be referred to as American Diabetes Association or ADA. Detailed standards of medical care are available at http://www.diabetes.org under the "For Professionals" tab.

Hypertension is a major cardiovascular risk factor for patients with diabetes. According to ICSI Diabetes guidelines, aggressive blood pressure control is just as important as glycemic control. Systolic blood pressure level should be the major factor for detection, evaluation and treatment of hypertension. The use of two or more blood pressure lowering agents is often required to meet blood pressure goal.

CLINICAL RECOMMENDATION STATEMENTS:

Current guidelines are in a state of flux in terms of recommendations for a target blood pressure for patients with diabetes and hypertension in general. The hypertension guidelines produced by the National Heart Lung and Blood Institute are currently undergoing revision (JNC8) and not yet available for use. On the recommendation of the National Quality Forum's Cardiovascular Steering Committee, whose membership included cardiologists privy to development discussions with JNC8, MN Community Measurement selected a blood pressure target of less than 140/90. This target is also in alignment with the proposed Meaningful Use of HIT measure Diabetes: Blood Pressure Management (< 140/90).

ICSI Diabetes Guideline:

The UKPDS, HOT, ADVANCE and ACCORD trials are all large randomized clinical trials that allow comparison of more stringent versus less stringent blood pressure levels on major cardiovascular outcomes (ACCORD Study Group, The, 2010 [A]; ADVANCE Collaborative Group, 2008 [A]; Hansson, 1998 [A]; United Kingdom Prospective Diabetes Study Group (UKPDS), 1993e [R]). The UKPDS, HOT and ADVANCE trials all found reduced cardiovascular outcomes with lower achieved blood pressure levels. However, none of these trials achieved average systolic blood pressure levels below 130 mmHg. The ACCORD trial found no difference in major cardiovascular outcomes between a more intensive blood pressure intervention targeting systolic blood pressure < 120 mmHg compared to a more standard intervention targeting systolic blood pressure between 130 and 139 mmHg (Table 2). The more intensive blood pressure regimen was associated with a small reduction in the rate of stroke, greater medication use and more serious adverse events. (ACCORD Study Group, The, 2010 [A])

The above studies support a systolic blood pressure goal less than 140 mmHg for people with type 2 diabetes. We would estimate that targeting a systolic blood pressure less than 140 mmHg would result in an achieved blood pressure around 135 mmHg for most people.

Only the HOT trial specifically targeted diastolic blood pressure. In the HOT trial, targeting a lower diastolic blood pressure was associated with fewer cardiovascular events in subjects with type 2 diabetes. The average achieved diastolic blood pressure values in the three HOT intervention arms ranged from 81-85 mmHg. Based on results from the ADVANCE and ACCORD trials, it appears likely that achieved systolic blood pressure values in the mid-130 range will be associated with diastolic blood pressure values well below 80mmHg. Therefore, the work group recommends a diastolic blood pressure goal of less than 85 mmHg. Although more recent evidence supports raising the blood pressure goal above the previous goal of less than 130/80, the work group acknowledges that the evidence is not definitive for any particular general blood pressure goal for patients with diabetes. The work group will continue to review the blood pressure goal to consider any new evidence and the recommendations of other national practice guidelines (e.g., ADA and JNC8) that are expected to announce revisions. The general recommendation of blood pressure less than 140/85 does not preclude setting individual patient goals lower than that based on patient characteristics, comorbidities, risks or the preference of an informed patient.

2013 ACO Narrative Measure Specifications
At-Risk Population Domain

𝄞 ACO 25 (GPRO DM-17) (NQF #0729): Composite (All or Nothing Scoring): Diabetes Mellitus: Tobacco Non-Use

The DM Composite measure consists of GPRO DM-13, DM-14, DM-15, DM-16 and DM-17.

DESCRIPTION:
Percentage of patients ages 18 to 75 years of age with a diagnosis of diabetes who indicated they were tobacco non-users

DENOMINATOR:
Patients 18 to 75 years of age with a diagnosis of diabetes mellitus with two or more face-to-face visits for diabetes in the last two years and at least one visit for any reason in the last 12 months

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
- Diagnosis of polycystic ovaries, gestational diabetes or steroid induced diabetes

NUMERATOR:
Patients who were identified as non-users of tobacco

RATIONALE:
There is good evidence that tobacco screening and brief cessation intervention (including counseling and pharmacotherapy) in the primary care setting is successful in helping tobacco users quit U.S. Preventive Services Task Force (USPSTF, 2003). Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke. (USPSTF, 2003)

Tobacco smoking increases risk of macrovascular complications about 4%-400% in adults with type 2 diabetes, and also increases risk of macrovascular complications. Although only about 14% of adult with diabetes in Minnesota are current smokers, in these patients, smoking cessation is very likely to be the single most beneficial intervention that is available. (Institutes for Clinical Systems Improvement (ICSI) Diabetes Guideline pages 28 and 29)

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

The U.S. Preventive Services Task Force (USPSTF) strongly recommends that clinicians screen all adults for tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (USPSTF, 2003) During new patient encounters and at least annually, patients in general and mental healthcare settings should be screened for at-risk drinking, alcohol use problems and illnesses, and any tobacco use. National Quality Forum ([NQF],2007) All patients should be asked if they use tobacco and should have their tobacco-use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention.

(Strength of Evidence = A) (U.S. Department of Health & Human Services-Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health & Human Services-Public Health Service, 2008) Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health & Human Services-Public Health Service, 2008)

In 2010 the American Diabetes Association recommended that a physician and patient should discuss and document specific treatment goals and develop a plan to achieve all desired goals pertaining to diabetes care. A multifactorial approach to diabetes care that includes emphasis on blood pressure, lipids, glucose, aspirin use, and non-use of tobacco will maximize health outcomes far more than a strategy that is limited to just one or two of these clinical domains. (American Diabetes Association, 2010 [R]; Duckworth, 2009 [A]; Gaede, 2008 [A]; Holman, 2008a [A])

2013 ACO Narrative Measure Specifications
At-Risk Population Domain

𝄞 ACO 26 (GPRO DM-16) (NQF #0729): Composite (All or Nothing Scoring): Diabetes Mellitus: Daily Aspirin or Antiplatelet Medication Use for Patients with Diabetes and Ischemic Vascular Disease

The DM Composite measure consists of GPRO DM-13, DM-14, DM-15, DM-16 and DM-17.

DESCRIPTION:
Percentage of patients ages 18 to 75 years of age with diabetes mellitus and ischemic vascular disease with documented daily aspirin or antiplatelet medication use during the measurement year unless contraindicated

DENOMINATOR:
Patients 18 to 75 years of age with a diagnosis of diabetes mellitus with two or more face-to-face visits for diabetes in the last two years and at least one visit for any reason in the last 12 months **and** a diagnosis of ischemic vascular disease

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
- Diagnosis of polycystic ovaries, gestational diabetes or steroid induced diabetes (Exclusion only applied if patient was not prescribed daily aspirin or antiplatelet medication)

- Documentation of medical reason(s) for not prescribing daily aspirin or antiplatelet medication

NUMERATOR:
Patients with the diagnosis of diabetes **and** ischemic vascular disease with documentation of taking daily aspirin or antiplatelet medication or have a documented contraindication in the measurement year

ACCEPTED CONTRAINDICATIONS:
- Anticoagulant use, Lovenox (enoxaparin) or Coumadin (warfarin)
- Any history of gastrointestinal (GI)* or intracranial bleed (ICB)
- Allergy to aspirin (ASA)

*Gastroesophogeal reflux disease (GERD) is not automatically considered a contraindication but may be included if specifically documented as a contraindication by the physician.

The following may be exclusions if specifically documented by the physician:
- Use of non-steroidal anti-inflammatory agents
- Documented risk for drug interaction
- Uncontrolled hypertension defined as > 180 systolic, > 110 diastolic
- Other provider documented reason for not being on ASA therapy

RATIONALE:
According to the MN Department of Health, diabetes is a high impact clinical condition in Minnesota. More than 1 in 3 adults and 1 in 6 youth in Minnesota have diabetes or are at high risk of developing it. Each year more than 20,000 Minnesotans are newly diagnosed with diabetes. Diabetes is the sixth leading cause of death in Minnesota and is a significant risk factor in developing cardiovascular disease and stroke, non-traumatic lower extremity amputations, blindness, and end-stage renal disease. Diabetes costs Minnesota almost $2.7 billion annually, including medical care, lost productivity and premature mortality. According to the American Diabetes Association, an estimated 23.6 million American children and adults have diabetes. Most people with diabetes have other risk factors, such as high blood pressure and cholesterol that increase the risk for heart disease and stroke. In fact, more than 65% of people with diabetes die from these complications.

The most recent American Diabetes Association (ADA) Guideline published in January 2011 concludes that aspirin has been shown to be effective in reducing cardiovascular morbidity and mortality in high-risk patients with previous myocardial infarction or stroke (secondary prevention). Its net benefit in primary prevention among patients with no previous cardiovascular events is more controversial, both for patients with and without a history of diabetes. Two recent randomized controlled trials of aspirin specifically in patients with diabetes failed to show a significant reduction in cardiovascular disease (CVD) end points, raising further questions about the efficacy of aspirin for primary prevention in people with diabetes.

CLINICAL RECOMMENDATION STATEMENTS:
According to the 2011 ADA guidelines, the clinical recommendations for aspirin/ anti-platelet use included the following:

- Use aspirin therapy (75–162 mg/day) as a secondary prevention strategy in those with diabetes with a history of CVD.
- Consider aspirin therapy (75–162 mg/day) as a primary prevention strategy in those with type 1 or type 2 diabetes at increased cardiovascular risk (10-year risk > 10%). This includes most men > 50 years of age or women > 60 years of age who have at least one additional major risk factor (family history of CVD, hypertension, smoking, dyslipidemia, or albuminuria).
- Aspirin should not be recommended for CVD prevention for adults with diabetes at low CVD risk (10-year CVD risk < 5%, such as in men < 50 and women < 60 years of age with no major additional CVD risk factors), since the potential adverse effects from bleeding likely offset the potential benefits.

2013 ACO Narrative Measure Specifications
At-Risk Population Domain

♦ ACO 27 (GPRO DM-2) (NQF #0059): Diabetes Mellitus: Hemoglobin A1c Poor Control

DESCRIPTION:
Percentage of patients aged 18 through 75 years with diabetes mellitus who had most recent hemoglobin A1c greater than 9.0%

DENOMINATOR:
Patients aged 18 through 75 years with the diagnosis of diabetes

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
- Diagnosis of polycystic ovaries, gestational diabetes or steroid induced diabetes

NUMERATOR:
Patients with most recent hemoglobin A1c level > 9.0%

RATIONALE:
Intensive management of hemoglobin (A1c) reduces the risk of microvascular complications.

CLINICAL RECOMMENDATION STATEMENTS:
The American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD) released updated guidelines in 2012. Within this document, goals for treatment are specified in two strata, both are within HbA1c less than 9. The implication for measurement is that HbA1c of greater than 9 represents inadequate or poor control for persons 18 to 75 with diabetes.

Glycemic Targets
The ADA's "Standards of Medical Care in Diabetes" recommends lowering HbA1c to <7.0% in most patients to reduce the incidence of microvascular disease This can be achieved with a mean plasma glucose of ~8.3–8.9 mmol/L (~150–160 mg/dL); ideally, fasting and premeal glucose should be maintained at <7.2 mmol/L (<130 mg/dL) and the postprandial glucose at <10 mmol/L (<180 mg/dL). More stringent HbA1c targets (e.g., 6.0–6.5%) might be considered in selected patients (with short disease duration, long life expectancy, no significant CVD) if this can be achieved without significant hypoglycemia or other adverse effects of treatment. Conversely, less stringent HbA1c goals—e.g., 7.5–8.0% or even slightly higher—are appropriate for patients with a history of severe hypoglycemia, limited life expectancy, advanced complications, extensive comorbid conditions and those in whom the target is difficult to attain despite intensive self-management education, repeated counseling, and effective doses of multiple glucose-lowering agents, including insulin. [http://care.diabetesjournals.org/content/35/6/1364.full]

2013 ACO Narrative Measure Specifications
At-Risk Population Domain

♦ ACO 28 (GPRO HTN-2) (NQF #0018): Hypertension (HTN): Controlling High Blood Pressure

DESCRIPTION:
Percentage of patients aged 18 through 85 years of age who had a diagnosis of hypertension (HTN) and whose blood pressure (BP) was adequately controlled (< 140/90 mmHg) during the measurement year

DENOMINATOR:
Patients aged 18 through 85 years with the diagnosis of hypertension

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
(Exclusions only applied if patient did not receive a blood pressure measurement)
- Documentation of medical reason(s) for not recording a blood pressure measurement (diagnosis for End-Stage Renal Disease [ESRD] and pregnancy are the only acceptable exclusions)

NUMERATOR:
Patients whose most recent blood pressure < 140/90 mmHg

RATIONALE:
Hypertension is a very significant health issue in the United States especially for individuals 40 to 89 years of age who may be at higher risk. NHANES data suggest that over fifty million Americans have high blood pressure that warrant treatment. (JNC-7, 2003) The most frequent and serious complications of uncontrolled hypertension include coronary heart disease, congestive heart failure, stroke, ruptured aortic aneurysm, renal disease, and retinopathy. Moreover, a majority of the people have hypertension prior to developing heart failure. (JNC-7, 2003)

According to the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure, treating systolic blood pressure and diastolic blood pressure to targets that are <140/90 mmHg is associated with a decrease in cardiovascular disease complications. (JNC-7, 2003) The outcomes that are principally affected by controlling blood pressure are morbidity and mortality related to cerebrovascular and cardiovascular events (e.g., stroke, heart failure and myocardial infarction). (JNC-7, 2003) For every 20 mmHg systolic or 10 mmHg diastolic increase in BP, there is a doubling of mortality from both IHD and stroke. (JNC-7, 2003) The percentage of individuals receiving treatment for their hypertension has increased from 31% (1976-1980) to 59% in 1999-2000. Thirty-four percent of persons with hypertension from 1999-2000 have their blood pressure controlled below 140/90 mmHg compared to only 10% from 1976-1980. Although the prevalence and hospitalization rates of heart failure have continued to increase, better control of BP has been shown to significantly reduce the probability of undesirable and costly outcomes. (JNC-7, 2003)

CLINICAL RECOMMENDATION STATEMENTS:

JNC 7 suggests that all people with hypertension (stages 1 and 2) be treated where stage 1 is defined as: 140-159 mmHg systolic/90-99 mmHg diastolic and stage 2 is defined as: greater than or equal to 160 mmHg systolic/greater than or equal to 100 mmHg diastolic. The treatment goal for individuals with hypertension and no other compelling conditions is <140/90 mmHg.

2013 ACO Narrative Measure Specifications
At-Risk Population Domain

♦ ACO 29 (GPRO IVD-1) (NQF #0075): Ischemic Vascular Disease (IVD): Complete Lipid Profile and Low Density Lipoprotein (LDL-C) Control

DESCRIPTION:
Percentage of patients aged 18 years and older with Ischemic Vascular Disease (IVD) who received at least one lipid profile within 12 months and whose most recent LDL-C level was in control (less than 100 mg/dL)

DENOMINATOR:
Patients aged 18 years and older with the diagnosis of ischemic vascular disease, or who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous coronary interventions (PCI)

NUMERATOR:
Patients who received at least one lipid profile (or ALL component tests) with most recent LDL-C < 100 mg/dL

RATIONALE:
There is general agreement in the literature that individuals with existing coronary artery disease can reduce their risk of subsequent morbidity and premature mortality by management of cholesterol levels. Total cholesterol in general and LDL level specifically, is the leading indicator for management of these patients. Treatments include limits on dietary fat and cholesterol, or in certain cases, cholesterol lowering medications.

A 10% decrease in total cholesterol levels (population wide) may result in an estimated 30% reduction in the incidence of coronary heart disease (CHD) Centers for Disease Control (CDC, 2000). Based on data from the Third Report of the Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults:

- Less than half of persons who qualify for any kind of lipid-modifying treatment for CHD risk reduction are receiving it.
- Less than half of even the highest-risk persons, those who have symptomatic CHD, are receiving lipid-lowering treatment.
- Only about a third of treated patients are achieving their LDL goal; less than 20% of CHD patients are at their LDL goal. (2002)

Several studies have shown that reducing high lipid levels will reduce cardiovascular morbidity and mortality. These studies include the Coronary Primary Prevention Trial, the Framingham Heart Study, the Oslo Study Diet and Anti-smoking Trial, the Helsinki Heart Study, the Coronary Drug Project, the Stockholm Ischemic Heart Study, the Scandinavian Simvastatin Survival Study, the West of Scotland Coronary Prevention Study, the Program on the Surgical Control of the Hyperlipidemias, and Cholesterol and Recurrent Events trial.

CLINICAL RECOMMENDATION STATEMENTS:

Third report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). (2001) AND Implications of recent clinical trials for the National Cholesterol Education Program Adult Treatment Panel III guidelines. (2004)

In high-risk persons, the recommended LDL-C goal is < 100 mg/dL.

- An LDL-C goal of < 70 mg/dL is a therapeutic option on the basis of available clinical trial evidence, especially for patients at very high risk.
- If LDL-C is > 100 mg/dL, an LDL-lowering drug is indicated simultaneously with lifestyle changes.
- If baseline LDL-C is < 100 mg/dL, institution of an LDL-lowering drug to achieve an LDL-C level < 70 mg/dL is a therapeutic option on the basis of available clinical trial evidence.
- If a high-risk person has high triglycerides or low HDL-C, consideration can be given to combining a fibrate or nicotinic acid with an LDL-lowering drug. When triglycerides are > 200 mg/dL, non-HDL-C is a secondary target of therapy, with a goal 30 mg/dL higher than the identified LDL-C goal.

The U.S. Preventive Services Task Force (USPSTF) strongly recommends screening men aged 35 and older for lipid disorders and recommends screening men aged 20 to 35 for lipid disorders if they are at increased risk for coronary heart disease. The USPSTF also strongly recommends screening women aged 45 and older for lipid disorders if they are at increased risk for coronary heart disease and recommends screening women aged 20 to 45 for lipid disorders if they are at increased risk for coronary heart disease.

2013 ACO Narrative Measure Specifications
At-Risk Population Domain

♦ ACO 30 (GPRO IVD-2) (NQF #0068): Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic

DESCRIPTION:
Percentage of patients aged 18 years and older with Ischemic Vascular Disease (IVD) with documented use of aspirin or another antithrombotic

DENOMINATOR:
Patients aged 18 years and older with the diagnosis of ischemic vascular disease, or who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous coronary interventions (PCI)

NUMERATOR:
Patients who are using aspirin or another antithrombotic therapy

RATIONALE:
Aspirin therapy has been shown to directly reduce 14% of the odds of cardiovascular events among men and 12% of the odds for women. (Berger, 2006) Aspirin use reduced the number of strokes by 20%, myocardial infarction (MI) by 30%, and other vascular events by 30%. (Weisman, 2002) Also, aspirin treatments have been shown to prevent 1 cardiovascular event over an average follow-up of 6.4 years. This means that on average in a 6.4 year time period the use of aspirin therapy results in a benefit of 3 cardiovascular events prevented per 1000 women and 4 events prevented per 1000 men. (Berger, 2006) Even for patients with peripheral arterial disease, aspirin has been shown to reduce coronary heart disease (CHD) in people. (Kikano, 2007)

CLINICAL RECOMMENDATION STATEMENTS:
The U.S. Preventive Services Task Force (USPSTF) strongly recommends that clinicians discuss aspirin chemoprevention with adults who are at increased risk (5-year risk of greater than or equal to 3 percent) for coronary heart disease (CHD). Discussions with patients should address both the potential benefits and harms of aspirin therapy.

The USPSTF found good evidence that aspirin decreases the incidence of coronary heart disease in adults who are at increased risk for heart disease. They also found good evidence that aspirin increases the incidence of gastrointestinal bleeding and fair evidence that aspirin increases the incidence of hemorrhagic strokes. The USPSTF concluded that the balance of benefits and harms is most favorable in patients at high risk of CHD (5-year risk of greater than or equal to 3 percent) but is also influenced by patient preferences.

USPSTF encourages men age 45 to 79 years to use aspirin when the potential benefit of a reduction in myocardial infarctions outweighs the potential harm of an increase in gastrointestinal hemorrhage. They encourage women age 55 to 79 years to use aspirin when the potential benefit of a reduction in ischemic strokes outweighs the potential harm of an increase in gastrointestinal hemorrhage.

The American Diabetes Association (ADA) recommends use aspirin therapy (75-162 mg/day) as a primary prevention strategy in those with type 1 or 2 diabetes at increased cardiovascular risk, including those who are 40 years of age or who have additional risk factors (family history of cardiovascular disease (CVD), hypertension, smoking, dyslipidemia, or albuminuria).

American Heart Association/American College of Cardiology (AHA/ACC): Start aspirin 75 to 162 mg/day and continue indefinitely in all patients with coronary and other vascular disease unless contraindicated.

Institute for Clinical Systems Improvement (ICSI): Aspirin should be prescribed to all patients with stable coronary disease. If a patient is aspirin intolerant, then use clopidogrel.

Veterans Affairs/Department of Defense (VA/DoD): Ensure that all patients with ischemic heart disease or angina symptoms receive antiplatelet therapy (aspirin 81-325 mg/day). For patients who require warfarin therapy, aspirin may be safely used at a dose of 80 mg/day. If use of aspirin is contraindicated, clopidogrel (75 mg/day) may be used.

American Heart Association/American Stroke Association (AHA/ASA): The use of aspirin is recommended for cardiovascular (including but not specific to stroke) prophylaxis among persons whose risk is sufficiently high for the benefits to outweigh the risks associated with treatment (a 10-year risk of cardiovascular events of 6% to 10%).

American College of Chest Physicians (ACCP): For long-term treatment after percutaneous coronary intervention (PCI), the guideline developers recommend aspirin, 75 to 162 mg/day. For long-term treatment after PCI in patients who receive antithrombotic agents such as clopidogrel or warfarin, the guideline developers recommend lower-dose aspirin, 75 to 100 mg/day. For patients with ischemic stroke who are not receiving thrombolysis, the guideline developers recommend early aspirin therapy, 160 to 325 mg/day.

2013 ACO Narrative Measure Specifications
At-Risk Population Domain

➧ ACO 31 (GPRO HF-6) (NQF #0083): Heart Failure: Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed beta-blocker therapy either within a 12 month period when seen in the outpatient setting OR at **each** hospital discharge

DENOMINATOR:
All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

DENOMINATOR NOTE: *LVEF < 40% corresponds to qualitative documentation of moderate dysfunction or severe left ventricular systolic dysfunction.*

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
(Exclusions only applied if patient was not prescribed beta-blocker therapy)
- Documentation of medical reason(s) for not prescribing beta-blocker therapy (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an intravenous positive inotropic agent, allergy, intolerance, other medical reasons)
- Documentation of patient reason(s) for not prescribing beta-blocker therapy (e.g., patient declined, other patient reasons)
- Documentation of system reason(s) for not prescribing beta-blocker therapy (e.g., other reasons attributable to the healthcare system)

NUMERATOR:
Patients who were prescribed beta-blocker therapy either within a 12 month period when seen in the outpatient setting OR at hospital discharge

Definition:
Prescribed – Outpatient Setting: May include prescription given to the patient for beta-blocker therapy at one or more visits in the measurement period OR patient already taking beta-blocker therapy as documented in current medication list.
Prescribed – Inpatient Setting: May include prescription given to the patient for beta-blocker therapy at discharge OR beta-blocker therapy to be continued after discharge as documented in the discharge medication list.
Beta-blocker Therapy for Patients with Prior LVEF < 40% – Should include bisoprolol, carvedilol, or sustained release metoprolol succinate.

RATIONALE:
Beta-blockers are recommended for all patients with stable heart failure and left ventricular systolic dysfunction, unless contraindicated. Treatment should be initiated as soon as a patient is diagnosed with left ventricular systolic dysfunction and does not have low blood pressure, fluid

overload, or recent treatment with an intravenous positive inotropic agent. Beta-blockers have been shown to lessen the symptoms of heart failure, improve the clinical status of patients, reduce future clinical deterioration, and decrease the risk of mortality and the combined risk of mortality and hospitalization.

CLINICAL RECOMMENDATION STATEMENTS:

The following evidence statements are quoted verbatim from the referenced clinical guidelines:

Beta-blockers (using 1 of the 3 proven to reduce mortality, i.e., bisoprolol, carvedilol, and sustained release metoprolol succinate) are recommended for all stable patients with current or prior symptoms of [heart failure] and reduced LVEF, unless contraindicated. (Class I, Level of Evidence: A) American College of Cardiology Foundation/American Heart Association (ACCF/AHA, 2009)

Treatment with a beta blocker should be initiated at very low doses [see excerpt from guideline table below], followed by gradual increments in dose if lower doses have been well tolerated…physicians, especially cardiologists and primary care physicians, should make every effort to achieve the target doses of the beta blockers shown to be effective in major clinical trials. (ACCF/AHA, 2009)

Beta Blockers Commonly Used for the Treatment of Patients with [Heart Failure] with Low Ejection Fraction

Drug	Initial Daily Dose(s)	Maximum Doses(s)
Beta Blockers		
Bisoprolol	1.25 mg once	10 mg once
Carvedilol	3.125 mg twice	25 mg twice 50 mg twice for patients > 85 kg
Metoprolol succinate extended release (metoprolol CR/XL)	12.5 to 25 mg once	200 mg once

For the hospitalized patient:

- In patients with reduced ejection fraction experiencing a symptomatic exacerbation of [heart failure] requiring hospitalization during chronic maintenance treatment with oral therapies known to improve outcomes, particularly [ACE inhibitors] or ARBs and beta-blocker therapy, it is recommended that these therapies be continued in most patients in the absence of hemodynamic instability or contraindications. (Class I, Level of Evidence: C) (ACCF/AHA, 2009)
- In patients hospitalized with [heart failure] with reduced ejection fraction not treated with oral therapies known to improve outcomes, particularly [ACE inhibitors] or ARBs and

beta-blocker therapy, initiation of these therapies is recommended in stable patients prior to hospital discharge. (Class I, Level of Evidence: B) (ACCF/AHA, 2009)

- Initiation of beta-blocker therapy is recommended after optimization of volume status and successful discontinuation of intravenous diuretics, vasodilators, and inotropic agents. Beta-blocker therapy should be initiated at a low dose and only in stable patients. Particular caution should be used when initiating beta blockers in patients who have required inotropes during their hospital course. (Class I, Level of Evidence: B) (ACCF/AHA, 2009)

2013 ACO Narrative Measure Specifications
At-Risk Population Domain

➧ ACO 32 (GPRO CAD-2) (NQF #0074): Composite (All or Nothing Scoring): Coronary Artery Disease (CAD): Lipid Control

The CAD Composite measure consists of CAD-2 and CAD-7.

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 < 100 mg/dL, including at a minimum the prescription of a statin

DENOMINATOR:
All patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12 month period

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
(Exclusions only applied if patient was not prescribed statin therapy)
- Documentation of medical reason(s) for not prescribing statin therapy (e.g., allergy, intolerance to statin medication(s), other medical reasons)
- Documentation of patient reason(s) for not prescribing statin therapy (e.g., patient declined, other patient reasons)
- Documentation of system reason(s) for not prescribing statin therapy (e.g., financial reasons, other system reasons)

NUMERATOR:
Patients who have a LDL-C < 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 < 100 mg/dL, including, at a minimum the prescription of a statin

Definitions:
Documented plan of care – Includes the prescription of a statin and may also include: documentation of discussion of lifestyle modifications (diet, exercise) or scheduled re-assessment of LDL-C.
Prescribed – May include prescription given to the patient for a statin at one or more visits within the measurement period OR patient already taking a statin as documented in the current medication list.

RATIONALE:
Managing LDL-C to less than 100 mg/dL through use of statins reduces risk of cardiovascular events.

CLINICAL RECOMMENDATION STATEMENTS:

The following evidence statements are quoted verbatim from the referenced clinical guidelines:

Recommended lipid management includes assessment of a fasting lipid profile. (Class I Recommendation, Level A Evidence) American College of Cardiology/American Heart Association (ACC/AHA, 2007)

a. LDL-C should be less than 100 mg/dL. (Class I Recommendation, Level A Evidence)
b. Reduction of LDL-C to less than 70 mg/dL or high-dose statin therapy is reasonable. (Class IIa Recommendation, Level A Evidence)
c. If baseline LDL-C is greater than or equal to 100 mg/dL, LDL-lowering medications are used in high-risk or moderately high-risk persons, it is recommended that intensity of the therapy be sufficient to achieve a 30% to 40% reduction in LDL-C levels. (Class I Recommendation, Level A Evidence)
d. If on-treatment LDL-C is greater than or equal to 100 mg/dL, LDL-lowering therapy should be intensified. (Class I Recommendation, Level A Evidence)
e. If baseline LDL-C is 70 to 100 mg/dL, it is reasonable to treat LDL-C to less than 70 mg/dL. (Class IIa Recommendation, Level B Evidence)

Statins should be considered as first-line drugs when LDL-lowering drugs are indicated to achieve LDL treatment goals. (The Third Report of the National Cholesterol Education Program [NCEP] Adult Treatment Panel III [ATPII], 2002)

2013 ACO Narrative Measure Specifications
At-Risk Population Domain

ACO 33 (GPRO CAD-7) (NQF #0066): Composite (All or Nothing Scoring): Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy - Diabetes or Left Ventricular Systolic Dysfunction (LVEF < 40%)

The CAD Composite measure consists of CAD-2 and CAD-7.

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 Left Ventricular Ejection Fraction (LVEF) < 40% who were prescribed ACE inhibitor or ARB therapy

DENOMINATOR:
All patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12 month period who also have a current or prior LVEF < 40%

OR

All patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12 month period who also have a diagnosis of diabetes

EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
(Exclusions only applied if patient was not prescribed ACE or ARB therapy)
- Documentation of medical reason(s) for not prescribing ACE or ARB therapy (e.g., allergy, intolerance, other medical reasons)
- Documentation of patient reason(s) for not prescribing ACE or ARB therapy (e.g., patient declined, other patient reasons)
- Documentation of system reason(s) for not prescribing ACE or ARB therapy (e.g., lack of drug availability, other reasons attributable to the health care system)

NUMERATOR:
Patients who were prescribed ACE inhibitor or ARB therapy

Definition:
Prescribed – May include prescription given to the patient for ACE inhibitor or ARB therapy at one or more visits in the measurement period OR patient is already taking ACE inhibitor or ARB therapy as documented in current medication list.

RATIONALE:
Nonadherence to cardioprotective medications is prevalent among outpatients with coronary artery disease and can be associated with a broad range of adverse outcomes, including all-cause and cardiovascular mortality, cardiovascular hospitalizations, and the need for revascularization procedures.

In the absence of contraindications, ACE inhibitors or ARBs are recommended for all patients with a diagnosis of coronary artery disease and diabetes or reduced left ventricular systolic function. ACE inhibitors remain the first choice, but ARBs can now be considered a reasonable alternative. Both pharmacologic agents have been shown to decrease the risk of death, myocardial infarction, and stroke. Additional benefits of ACE inhibitors include the reduction of diabetic symptoms and complications for patients with diabetes.

CLINICAL RECOMMENDATION STATEMENTS:

The following evidence statements are quoted verbatim from the referenced clinical guidelines:

ACE inhibitors should be started and continued indefinitely in all patients with left ventricular ejection fraction less than or equal to 40% and in those with hypertension, diabetes, or chronic kidney disease, unless contraindicated. (Class I Recommendation, Level A Evidence). American College of Cardiology/American Heart Association (ACC/AHA, 2007)

Angiotensin receptor blockers are recommended for patients who have hypertension, have indicators for but are intolerant of ACE inhibitors, have heart failure, or have had a myocardial infarction with left ventricular ejection fraction less than or equal to 40%. (Class I Recommendation, Level A Evidence). (ACC/AHA, 2007)

Symbol and Copyright Information

* The following notice applies to each of the measures that contain an asterisk (*) before the title:

Physician Performance Measures (Measures) and related data specifications, developed by the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement ® (PCPI™) and the National Committee for Quality Assurance (NCQA) pursuant to government sponsorship under subcontract 6205-05-054 with Mathematica Policy Research, Inc. under contract 500-00-0033 with Centers for Medicare & Medicaid Services.

These performance Measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications.

The Measures, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, e.g., use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the Measures for commercial gain, or incorporation of the Measures into a product or service that is sold, licensed or distributed for commercial gain. Commercial uses of the Measures require a license agreement between the user and the AMA, (on behalf of the PCPI) or NCQA. Neither the AMA, NCQA, PCPI nor its members shall be responsible for any use of the Measures.

THE MEASURES AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

© 2004-6 American Medical Association and National Committee for Quality Assurance. All Rights Reserved.

Limited proprietary coding is contained in the Measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. The AMA, NCQA, the PCPI and its members disclaim all liability for use or accuracy of any Current Procedural Terminology (CPT®) or other coding contained in the specifications.

CPT® contained in the Measures specifications is copyright 2004-2011 American Medical Association. G codes and associated descriptions included in these Measure specifications are in the public domain.

LOINC® copyright 2004-2011 Regenstrief Institute, Inc. SNOMED CLINICAL TERMS (SNOMED CT®) copyright 2004-2011 International Health Terminology Standards Development Organisation. All Rights Reserved. Use of SNOMED CT® is only authorized within the United States.

▲ The following notice applies to each of the measures that contain a triangle (▲) before the title:

Physician Performance Measures (Measures) and related data specifications, developed by the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® (PCPI™), are intended to facilitate quality improvement activities by physicians.

These Measures are intended to assist physicians in enhancing quality of care. Measures are designed for use by any physician who manages the care of a patient for a specific condition or for prevention. These performance Measures are not clinical guidelines and do not establish a standard of medical care. The PCPI has not tested its Measures for all potential applications. The PCPI encourages the testing and evaluation of its Measures.

Measures are subject to review and may be revised or rescinded at any time by the PCPI. The Measures may not be altered without the prior written approval of the PCPI. Measures developed by the PCPI, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, e.g., use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the Measures for commercial gain, or incorporation of the Measures into a product or service that is sold, licensed or distributed for commercial gain. Commercial uses of the Measures require a license agreement between the user and American Medical Association, on behalf of the PCPI. Neither the PCPI nor its members shall be responsible for any use of these Measures.

THE MEASURES ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

© 2007 American Medical Association. All Rights Reserved.

Limited proprietary coding is contained in the Measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. The AMA, the PCPI and its members disclaim all liability for use or accuracy of any Current Procedural Terminology (CPT®) or other coding contained in the specifications.

THE SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

CPT® contained in the Measures specifications is copyright 2004-2011 American Medical Association.
LOINC® copyright 2004-2011 Regenstrief Institute, Inc. SNOMED CLINICAL TERMS (SNOMED CT®) copyright 2004-2011 International Health Terminology Standards Development Organisation. All Rights Reserved. Use of SNOMED CT® is only authorized within the United States.

♦ The following notice applies to each of the measures that contain a diamond (♦) before the title:

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

These performance measures were developed and are owned by the National Committee for Quality Assurance ("NCQA"). These performance measures are not clinical guidelines and do not establish a standard of medical care. NCQA makes no representations, warranties, or endorsement about the quality of any organization or physician that uses or reports performance measures and NCQA has no liability to anyone who relies on such measures. NCQA holds a copyright in this measure and can rescind or alter this measure at any time. Users of the measure shall not have the right to alter, enhance, or otherwise modify the measure and shall not disassemble, recompile, or reverse engineer the source code or object code relating to the measure. Anyone desiring to use or reproduce the measure without modification for a noncommercial purpose may do so without obtaining any approval from NCQA. All commercial uses must be approved by NCQA and are subject to a license at the discretion of NCQA. ©2004-2013 National Committee for Quality Assurance, all rights reserved.

Performance measures developed by NCQA for CMS may look different from the measures solely created and owned by NCQA.

♠ The following notice applies to each of the measures that contain a spade (♠) before the title:

Limited proprietary coding is contained in the measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. Quality Insights of Pennsylvania disclaims all liability for use or accuracy of any Current Procedural Terminology (CPT [R]) or other coding contained in the specifications. CPT (R) contained in the Measure specifications is copyright 2007-2011 American Medical Association. All Rights Reserved. These performance measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications. THE MEASURES AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.
http://www.usqualitymeasures.org/For-Your-Information/contact.aspx

---

𝄞 The following notice applies to each of the measures that contain a treble clef (𝄞) before the title:

© Minnesota Community Measurement, 2012. All rights reserved.

➧ The following notice applies to each of the measures that contain a chevron (➧) before the title:

Physician Performance Measures (Measures) and related data specifications were developed by the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® (PCPI™) including the American College of Cardiology (ACC), the American Heart Association (AHA) and the American Medical Association (AMA) to facilitate quality improvement activities by physicians. These performance Measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications. While copyrighted, they can be reproduced and distributed, without modification, for noncommercial purposes, e.g., use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the performance measures for commercial gain, or incorporation of the Measures into a product or service that is sold, licensed or distributed for commercial gain.

Commercial uses of the Measures require a license agreement between the user and the AMA, (on behalf of the PCPI) or the ACC or the AHA. Neither the AMA, ACC, AHA, PCPI nor its members shall be responsible for any use of these Measures.

THE MEASURES AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

© 2010 American College of Cardiology, American Heart Association and American Medical Association. All Rights Reserved.

Limited proprietary coding is contained in the measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. The AMA, ACC, AHA, PCPI and its members disclaim all liability for use or accuracy of any *Current Procedural Terminology* (CPT®) or other coding contained in the specifications.

THE SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

CPT® contained in the Measures specifications is copyright 2004-2011 American Medical Association.

LOINC® copyright 2004-2011 Regenstrief Institute, Inc. SNOMED CLINICAL TERMS (SNOMED CT®) copyright 2004-2011 International Health Terminology Standards Development Organisation. All Rights Reserved. Use of SNOMED CT® is only authorized within the United States.

⌘ The following notice applies to each of the measures that contain a cloverleaf (⌘) before the title:

Physician Performance Measures (Measures) and related data specifications developed by the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® (PCPI™) and the National Committee for Quality Assurance (NCQA), pursuant to government sponsorship under Subcontract No. 6414-07-089 with Mathematica Policy Research under Contract HHSM-500-2005-000251(0004) with Centers for Medicare and Medicaid Services. These performance Measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications.

The Measures, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, e.g., use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the Measures for commercial gain, or incorporation of the Measures into a product or service that is sold, licensed or distributed for commercial gain. Commercial uses of the Measures require a license agreement between the user and the AMA, (on behalf of the PCPI) or NCQA. Neither the AMA, NCQA, PCPI nor its members shall be responsible for any use of the Measures.

THE MEASURES AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

© 2008 American Medical Association and National Committee for Quality Assurance. All Rights Reserved.

Limited proprietary coding is contained in the Measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. The AMA, NCQA, the PCPI and its members disclaim all liability for use or accuracy of any Current Procedural Terminology (CPT®) or other coding contained in the specifications.

CPT® contained in the Measures specifications is copyright 2004-2011 American Medical Association.
LOINC® copyright 2004-2011 Regenstrief Institute, Inc. SNOMED CLINICAL TERMS (SNOMED CT®) copyright 2004-2011 International Health Terminology Standards Development Organisation. All Rights Reserved. Use of SNOMED CT® is only authorized within the United States.