December 12, 2011

Accountable Care Organization 2012 Program Analysis

Quality Performance Standards Narrative Measure Specifications

Final Report

RTI INTERNATIONAL

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Table of Contents

SECTION 1: INTRODUCTION

On October 20, 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: www.cms.gov/MLNProducts/downloads/ACO_Providers_Factsheet_ICN907406.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 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 programs, including:

- Medicare Shared Savings Program (http://www.cms.gov/sharedsavingsprogram/)—a fee-for-service program

- Advance Payment Initiative (http://innovations.cms.gov/areas-of-focus/seamless-and-coordinated-care-models/advance-payment/)—for certain eligible participants in the Shared Savings Program

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

For the purpose of quality performance assessment, the quality measures, modes of data collection, and timing of data submission and reporting will be the same for all three ACO initiatives.

The Affordable Care Act allows CMS to incorporate Physician Quality Reporting System (PQRS) reporting requirements and incentive payments into the Shared Savings Program. ACO participants that include providers/suppliers who are also eligible professionals for purposes of the PQRS will earn the Physician Quality Reporting System incentive as a group practice under the Shared Savings Program, by reporting required clinical quality measures through the ACO Group Practice Reporting Option (GPRO) web interface. For 2012, the GPRO measures will be used for PQRS incentive purposes and eligible professionals must participate in the PQRS through the Shared Savings Program.

<u>ACO Quality Measures</u>

As required by the Affordable Care Act, 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 (6 measures)
  - Hypertension (1 measure)
  - Ischemic Vascular Disease (2 measures)
  - Heart Failure (1 measure)
  - Coronary Artery Disease (2 measures)

The 33 quality measures are provided at-a-glace 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). As part of this alignment, eligible professionals in an ACO that fully and completely report the quality measures required under the Shared Savings Program through the ACO Group Practice Option (GPRO) Web interface will be deemed eligible for the PQRS bonus in any year of the program, regardless of whether the ACO qualifies to share in savings. (ACO Quality Factsheet:
http://www.cms.gov/MLNProducts/downloads/ACO_Quality_Factsheet_ICN907407.pdf)

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 for large group practices and the Medicare Care Management Performance (MCMP) Demonstration for solo to medium-sized practices. More importantly, it is another (almost identical) version of the portal that is currently used in the PQRS Group Practice Reporting Option. In the Web Interface, a database pre-populated with an assigned beneficiary sample under each condition topic (e.g., Diabetes, HF, etc.) will serve as a data collection tool for groups to use in collecting and submitting quality measures data to CMS. While an ACO's first performance year for shared savings purposes would be 18 or 21 months, depending on the start date, quality data will be collected for, and quality performance standards based on, the calendar year, beginning with the reporting period ending December 31, 2012. Similarly, the first data collection for Pioneer ACOs will take place after the reporting period ending December 31, 2012.

For the patient experience of care measures, CMS will administer and pay for the survey for the first 2 years of the Shared Savings Program, 2012 and 2013, and the first year (2012) of the Pioneer ACO initiative. ACOs will be responsible for selecting and paying for a CMS-certified vendor to administer the patient survey after this 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 Doctors Communicate	NQF #5 AHRQ	Survey	R	*P*	*P*
3.	Patient/Caregiver Experience	CAHPS: Patients' Rating of Doctor	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[1]	CMS	Claims	R	R	*P*
9.	Care Coordination/ Patient Safety	Ambulatory Sensitive Conditions Admissions: Chronic Obstructive Pulmonary Disease or Asthma in Older Adults (AHRQ Prevention Quality Indicator (PQI) #5)	NQF #275 AHRQ	Claims	R	*P*	*P*
10.	Care Coordination/ Patient Safety	Ambulatory Sensitive Conditions Admissions: Congestive Heart Failure (AHRQ Prevention Quality Indicator (PQI) #8)	NQF #277 AHRQ	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)

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[1] We note that this measure has been under development and that finalization of this measure is contingent upon the availability of measures specifications before the establishment of the Shared Savings Program on January 1, 2012.

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

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: Reconciliation After Discharge from an Inpatient Facility	NQF #97 AMA-PCPI/NCQA	GPRO Web Interface	R	*P*	*P*
13.	Care Coordination/ Patient Safety	Falls: Screening for 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	NQF #43 NCQA	GPRO Web Interface	R	*P*	*P*
16.	Preventive Health	Adult Weight Screening and Follow-up	NQF #421 CMS	GPRO Web Interface	R	*P*	*P*
17.	Preventive Health	Tobacco Use Assessment and Tobacco Cessation Intervention	NQF #28 AMA-PCPI	GPRO Web Interface	R	*P*	*P*
18.	Preventive Health	Depression Screening	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	Mammography Screening	NQF #31 NCQA	GPRO Web Interface	R	R	*P*
21.	Preventive Health	Screening for High Blood Pressure	CMS	GPRO Web Interface	R	R	*P*
22.	At Risk Population - Diabetes	Diabetes Composite (All or Nothing Scoring): 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): Low Density Lipoprotein (<100)	NQF #729 MN Community Measurement	GPRO Web Interface	R	*P*	*P*
24.	At Risk Population - Diabetes	Diabetes Composite (All or Nothing Scoring): Blood Pressure <140/90	NQF #729 MN Community Measurement	GPRO Web Interface	R	*P*	*P*

(continued)

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

ACO #	Domain	Measure Title	NQF Measure #/ Measure Steward	Method of Data Submission	P4P Phase-in PY1	P4P Phase-in PY2	P4P Phase-in PY3
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): Aspirin Use	NQF #729 MN Community Measurement	GPRO Web Interface	R	*P*	*P*
27.	At Risk Population - Diabetes	Diabetes Mellitus: Hemoglobin A1c Poor Control (>9 percent)	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: Drug Therapy for Lowering LDL-Cholesterol	NQF #74 CMS (composite) / AMA-PCPI (individual component)	GPRO Web Interface	R	R	*P*
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 for Patients with CAD and Diabetes and/or Left Ventricular Systolic Dysfunction (LVSD)	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. 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 2012 ACO Program. 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 2012 Medicare Shared Savings Program or the Pioneer ACO model, 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 final rule);

- GPRO web interface measure number (if applicable);

- NQF number (if applicable);

- AHRQ measure number (if applicable);

- Measure title;

- Measure description;

- Denominator statement;

- Exclusions to measure (if applicable);

- Numerator statement;

- Rationale statement(s); and

- Clinical recommendations or evidence forming the basis for supporting criteria for the measure.

SECTION 2: PATIENT/CAREGIVER EXPERIENCE

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 Doctors Communicate
- ♣ ACO 3 (NQF #0005): Patient Rating of Doctor
- ♣ 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 base survey and the supplemental modules can be downloaded from:
https://www.cahps.ahrq.gov/Surveys-Guidance/CG/Get-Surveys-and-Instructions.aspx

During 2012, CMS will develop standardized sampling and survey administration procedures for the patient experience of care survey. CMS will administer the patient experience of care survey using these procedures in January 2013 to assess performance for 2012. By mid-2013, CMS will analyze the 2012 survey results and refine the sampling and survey administration procedures.

By mid-2013, CMS also 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 2013 and beyond. By contrast, CMS will contract and pay for administration of the survey for 2013 on behalf of ACOs participating in the Shared Savings Program. For 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.

SECTION 3: CARE COORDINATION/PATIENT SAFETY

2012 ACO Narrative Measure Specifications
Care Coordination/Patient Safety Domain

- **ACO 8 (CMS): 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).

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) 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.

2012 ACO Narrative Measure Specifications
Care Coordination/Patient Safety Domain

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

DESCRIPTION:
All discharges of age 40 years and older with ICD-9-CM principal diagnosis code for COPD or Asthma in adults ages 40 years and older, per 1,000 ACO assigned beneficiaries.

DENOMINATOR:
Population of Medicare FFS beneficiaries assigned to an ACO aged 40 years and older.

NUMERATOR:
Risk adjusted discharges aged 40 years and older from an acute care hospital with a principal diagnosis of Chronic Obstructive Pulmonary Disease or Asthma

RATIONALE:
Hospital admissions for chronic obstructive pulmonary disease or asthma are a Prevention Quality Indicator of most interest to comprehensive health care delivery systems. 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 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. reported that self-reported access to care explained 27 percent of the variation in COPD hospitalization rates at the ZIP code cluster level. (Bindman) Millman et al. found that low-income ZIP codes had 5.8 times more COPD hospitalizations per capita than high-income ZIP codes. (Millman) 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) 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. (PQI Guide)

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 chronic obstructive pulmonary disease are not a measure of hospital quality, but rather one measure of outpatient and other health care.

2012 ACO Narrative Measure Specifications
Care Coordination/Patient Safety Domain

♣ **ACO 10 (NQF #0277; AHRQ PQI #08): Ambulatory Sensitive Conditions Admissions: Congestive Heart Failure**

DESCRIPTION:
All discharges, age 18 years and older, with ICD-9-CM principal diagnosis code for CHF, per 1,000 ACO assigned beneficiaries.

DENOMINATOR:
Population of Medicare FFS beneficiaries assigned to an ACO aged 18 years and older.

NUMERATOR:
Risk adjusted discharges aged 18 years and older from an acute care hospital with a principal diagnosis of Congestive Heart Failure.

RATIONALE:
Evidence suggests that a large number of 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.

Hospital admissions for congestive heart failure (CHF) are a Prevention Quality Indicator of most interest to comprehensive health care delivery systems. CHF can often be controlled in an outpatient setting. (Edep; Reis) 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 admissions for CHF. In addition, physician management of patients with CHF differs significantly by physician specialty. (Edep; Reis) Such differences in practice may be reflected in differences in CHF admission rates.

CLINICAL RECOMMENDATION STATEMENTS:
Billings et al. found that low-income ZIP codes in New York City had 4.6 times more CHF hospitalizations per capita than high-income ZIP codes. (Billings) Millman et al. reported that low-income ZIP codes had 6.1 times more CHF hospitalizations per capita than high-income ZIP codes. (Millman) Based on empirical results, areas with high rates of CHF 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 (PQI Guide). Risk adjustment for age and sex appears to most affect the areas with the highest rates. As a PQI, admissions for CHF 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; Rosenthal)

2012 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, 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 one or more of the ACO's identified Tax Identification Numbers (TINs) included on the claim.

Exception: For Federally Qualified Health Centers (FQHC) or Rural Health Clinics (RHC) participating in an Accountable Care Organization (ACO) under the Medicare Shared Savings Program, a primary care physician (PCP) is any physician included in an attestation by the FQHC or RHC as part of the process of joining the ACO program.

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 <u>certified</u> 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 sets the baseline for electronic data capture and information sharing. Stage 2 and Stage 3 will expand on the baseline established in Stage 1, and will be developed through future rule making (CMS 2010).

2012 ACO Narrative Measure Specifications
Care Coordination/Patient Safety Domain

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* ACO 12 (ACO-Care-1) (NQF 0097): Medication Reconciliation: Reconciliation After Discharge from an Inpatient Facility

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DESCRIPTION:
Percentage of patients aged 65 years and older <u>discharged from any inpatient facility</u> (e.g., hospital, skilled nursing facility, or rehabilitation facility) and <u>seen within 60 days following discharge</u> 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 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 60 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)

2012 ACO Narrative Measure Specifications
Care Coordination/Patient Safety Domain

⌘ ACO 13 (ACO-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

2012 ACO Narrative Measure Specifications
Preventive Care Domain

▲ ACO 14 (ACO-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 of the one-year measurement period 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

- Documentation of patient reason(s) for not receiving an influenza immunization during the flu season

- Documentation of system reason(s) for not receiving an influenza immunization during the flu season

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

Definition:

Previous Receipt – May include: receipt of influenza immunization from another provider OR receipt of influenza immunization from same provider during a visit prior to October 1.

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).

2012 ACO Narrative Measure Specifications
Preventive Care Domain

◆ **ACO 15 (ACO-Prev-8) (NQF 0043): Preventive Care and Screening: Pneumonia 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 <u>ever</u> received a pneumococcal vaccination

RATIONALE:
The elderly have a much higher mortality from community-acquired pneumonia due to increased risk factors such as comorbidities, an increase in the number of medications taken and weaknesses or disease of lung tissue. Pneumonia accounts for an estimated 20 percent of nosocomial infections among the elderly, second only to urinary tract infections. The disease burden is large for older adults and the potential for prevention is high. (Ely, E., 1997)

Drugs such as penicillin were once effective in treating these infections; but the disease has become more resistant, making treatment of pneumococcal infections more difficult. This makes prevention of the disease through vaccination even more important. Centers for Disease Control (CDC. National Immunization Program—*Pneumococcal Disease,* 2005)

CLINICAL RECOMMENDATION STATEMENTS:
The U.S. Preventive Services Task Force's *Guide to Clinical Preventive Services* 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 may be appropriate in immunocompetent individuals at high risk for morbidity and mortality from pneumococcal disease (e.g., persons ≥ 75 years of age or with severe chronic disease) who were vaccinated more than five years previously. Medicare Part B fully covers the cost of the vaccine and its administration every five years. (United States Preventive Services Task Force, 1998) Pneumococcal infection is a common cause of illness and death in the elderly and persons with certain underlying conditions. In 1998, an estimated 3,400 adults aged ≥ 65 years died as a result of invasive pneumococcal disease. Pneumococcal infection accounts for more deaths than any other vaccine-preventable bacterial disease. (CDC, 2002; Pneumococcal Pneumonia, National Institute of Allergy and Infectious Diseases (NIAID) Fact Sheet, December 2004.)

One of the *Healthy People 2010* objectives is to increase pneumococcal immunization levels for the non-institutionalized, high-risk populations to at least 90 percent (objective no. 14.29). While the percent of

persons 65 years and older receiving the pneumococcal vaccine has increased, it still remains considerably below the *Health People 2010* objective. According to the National Health Interview Survey (NHIS), which is used to track performance on year 2010 objectives, in 1998 only 46 percent of adults age 65 years and older report receiving the vaccine. The figure was 45 percent based on the 1997 Behavioral Risk Factor Surveillance System (BRFSS) survey. (National Center for Health Statistics., 2005; CDC, 1997)

A particular strength of this measure is that it provides an opportunity to compare performance against national, state and/or regional benchmarks, which are collected through nationally organized and administered surveys.

At the physician practice level where a patient survey may not be feasible, data collection on pneumonia vaccination status through chart abstraction is a viable option.

2012 ACO Narrative Measure Specifications
Preventive Care Domain

> ♠ **ACO 16 (ACO-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 <u>outside of normal</u> parameters, a follow-up plan is documented

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

DENOMINATOR:
All patients aged 18 years and older

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

- Documentation of patient reason(s) for not having a BMI measurement performed during the measurement period

- Documentation of system reason(s) for not having a BMI measurement performed during the measurement period

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

Definitions:
BMI – Body mass index (BMI), expressed as weight/height (BMI; kg/m2), is commonly used to classify overweight (BMI 25.0-29.9), obesity (BMI greater than or equal to 30.0) and extreme obesity (BMI greater than or equal to 40) among adults. Centers for Disease Control (CDC). 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.
Elderly BMI – Most experts suggest use of a higher BMI threshold for underweight elderly individuals, compared to what is used for the general population. *International Dietetics and Nutrition Terminology* defines underweight in persons > 65 years of age as a BMI of < 23. This BMI value is one indicator of malnutrition when forming a nutrition diagnosis for the elderly population. A BMI of < 23 classifies an older adult (older than age 65) as underweight and may require nutrition intervention.
Calculated BMI – Requires that both the height and weight are actually measured by an eligible professional or by their staff. Self-reported values cannot be used.
Follow-up Plan – Proposed outline of treatment to be conducted as a result of abnormal BMI

measurement. Such follow-up can include documentation of a future appointment, education, referral (such as, a registered dietician, nutritionist, occupational therapy, primary care physician, exercise physiologist, mental health professional, surgeon, etc.), prescription/administration of medications/dietary supplements, exercise counseling, nutrition counseling, etc.

Not Eligible/Not Appropriate for BMI Measurement – Patients can be considered <u>not</u> eligible in the following situations:

- There is documentation in the medical record that the patient is over or under weight and is being managed by another provider

- If the patient has a terminal illness – life expectancy less than 6 months

- If the patient is pregnant

- If the patient refuses BMI measurement

- If there is any other reason documented in the medical record by the provider explaining why BMI measurement was not appropriate

- If the 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.

RATIONALE:
BMI Above Upper Parameter

In 2009, no U.S. state met the *Healthy People 2010* adult obesity prevalence target of 15 percent, and the number of states with an obesity prevalence ≥ 30 increased from zero in 2000 to 9 in 2009 (CDC, 2010). Further, the report revealed that the overall self-reported obesity prevalence in the United States was 26.7 percent, an increase of 1.1 percentage points from 2007 to 2009 among adults aged 18 years or older.

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. With obesity on the rise, the medical community anticipates an increase in the complications of obesity, including type 2 diabetes mellitus, hypertension, dyslipidemia, cardiovascular disease, obstructive sleep apnea, degenerative arthritis, non-alcoholic steatohepatitis, gallbladder disease and others.

Results from the 2005-2006 National Health and Nutrition Examination Survey (NHANES) indicate that an estimated 32.7 percent of U.S. adults 20 years and older are overweight, 34.3 percent are obese and 5.9 percent are extremely obese. 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, new 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 increased prevalence of obesity is responsible for almost $40 billion of increased medical spending through 2006, including $7 billion in Medicare prescription drug costs. We estimate the medical costs of obesity may raise to $147 billion per year by 2008.

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.

<u>BMI Below Normal Parameter</u>

Poor nutrition or underlying health conditions can result in underweight. Results from the 2003-2006 National Health and Nutrition Examination Survey (NHANES, 2009), using measured heights and weights, indicate an estimated 1.8% of U.S. adults are underweight. A tremendous gap still exists between our knowledge of malnutrition, its sequelae and our actions in preventing and treating malnutrition. To date professionals in various disciplines have applied their own approaches to solving the problem. Yet the causes of malnutrition are multi-factorial and the solutions demand an integration of knowledge and expertise from the many different disciplines involved in geriatric care. Older people have special nutritional needs due to age and disease processes.

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 one study it was found that a BMI of less than 22 kg per m2 in women and less than 23.5 in men is associated with increased mortality. The optimal BMI in the elderly is 24 to 29 kg per m2. (In an observational study, Ranhoff, et al. (2005) identified using a BMI < 23, resulted in a positive screen for malnutrition (sensitivity 0.86, specificity 0.71), giving 0.75 correctly classified subjects, thus leading to the recommendation that a score of BMI < 23 should be followed by Mini Nutritional Assessment short-form (MNA-SF) when the aim is to identify poor nutritional status in elderly.

<u>CLINICAL RECOMMENDATION STATEMENTS:</u>
Although multiple clinical recommendations addressing obesity have been developed by professional organizations, societies and associations, two recommendations, which exemplify the intent of the measure and address the numerator and denominator, have been identified.

The US Preventive Health Services Task Force (USPSTF) (2003) 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, 2009) 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.

2012 ACO Narrative Measure Specifications
Preventive Care Domain

> ▲ ACO 17 (ACO-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

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 any type of tobacco
> **Cessation Counseling Intervention** – Includes counseling or pharmacotherapy

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).

CLINICAL RECOMMENDATION STATEMENT:
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. National Quality Foundation (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)

2012 ACO Narrative Measure Specifications
Preventive Care Domain

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

DESCRIPTION:
Percentage of patients ages 12 and older screened for clinical depression using an age appropriate standardized tool AND follow-up plan documented

DENOMINATOR:
All patients 12 years and older

> EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:
> (Exclusion only applied if depression screening not performed)
> - Patient refuses to participate
>
> - 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
>
> - Situations where the patient's motivation to improve may impact the accuracy of results of nationally recognized standardized depression assessment tools. For example: certain court appointed cases
>
> - Patient was referred with a diagnosis of depression
>
> - Patient has been participating in on-going treatment with screening of clinical depression in a preceding reporting period
>
> - Severe mental and/or physical incapacity where the person is unable to express himself/herself in a manner understood by others. For example: cases such as delirium or severe cognitive impairment, where depression cannot be accurately assessed through use of nationally recognized standardized depression assessment tools

NUMERATOR:
Patients whose screening for clinical depression using an age appropriate standardized tool AND follow-up plan is documented

> Definitions:
> Screening – Testing done on people at risk of developing a certain disease, even if they have no symptoms. Screening tests can predict the likelihood of someone having or developing a particular disease. This measure looks for the test being done in the practitioner's office that is filing the code.
> Standardized Tool – An assessment tool that has been appropriately normalized and validated for the population in which it is used. Some examples of depression screening tools include but are not limited to:
> - Adult Screening Tools (18 years and older)

Patient Health Questionnaire (PHQ9), 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 Depression Scale (SDS), Cornell Scale Screening (this is a screening tool which is used in situations where the patient has cognitive impairment and is administered through the caregiver) and PRIME MD-PHQ2

   ▪   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-PHQ2

Follow-Up Plan – Proposed outline of treatment to be conducted as a result of clinical depression screen. Such follow-up *must* include further evaluation if screen is positive and may include documentation of a future appointment, education, additional evaluation and/or referral to a practitioner who is qualified to diagnose and treat depression, and/or notification of primary care provider.

Numerator Quality-Data Coding Options for Reporting Satisfactorily:
Positive Screen for Clinical Depression, Follow-Up Plan Documented
G8431: Positive screen for clinical depression using an age appropriate standardized tool and a follow-up plan documented

OR

Negative Screen for Clinical Depression Documented, Follow-Up Plan not Required
G8510: Negative screen for clinical depression using an age appropriate standardized tool, follow-up not required

OR

Screening for Clinical Depression not Documented, Patient not Eligible/Appropriate
G8433: Screening for clinical depression using an age appropriate standardized tool not documented, patient not eligible/appropriate

OR

Screening for Clinical Depression not Documented, Reason not Specified
G8432: No documentation of clinical depression screening using an age appropriate standardized tool

OR

Screening for Clinical Depression Documented, Follow-Up Plan not Documented, Reason not Specified
G8511: Positive Screen for clinical depression using an age appropriate standardized tool documented, follow-up plan not documented, reason not specified

<u>RATIONALE:</u>
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 even more grim 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:

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).

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).

2012 ACO Narrative Measure Specifications
Preventive Care Domain

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

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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 the reporting 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)

2012 ACO Narrative Measure Specifications
Preventive Care Domain

♦ ACO 20 (ACO-Prev-5) (NQF 0031): Preventive Care and Screening: Screening Mammography

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 STATEMENT:
The U.S. Preventive Services Task Force (USPSTF) recommends screening mammography, with or without clinical breast examination (CBE), every 1-2 years for women aged 40 and older. (USPSTF, 2002)

>	▪	The USPSTF found fair evidence that mammography screening every 12-33 months significantly reduces mortality from breast cancer. Evidence is strongest for women aged 50-69, the age group generally included in screening trials. (USPSTF, 2002)

>	▪	For women aged 40-49, the evidence that screening mammography reduces mortality from breast cancer is weaker, and the absolute benefit of mammography is smaller, than it is for older women. Most, but not all, studies indicate a mortality benefit for women undergoing mammography at ages 40-49, but the delay in observed benefit in women younger than 50 makes it difficult to determine the incremental benefit of beginning screening at age 40 rather than at age 50. (USPSTF, 2002)

>	▪	The absolute benefit is smaller because the incidence of breast cancer is lower among women in their 40s than it is among older women. (USPSTF, 2002)

The USPSTF concluded that the evidence is also generalizable to women aged 70 and older (who face a higher absolute risk for breast cancer) if their life expectancy is not compromised by comorbid disease. The absolute probability of benefits of regular mammography increases along a continuum with age, whereas the likelihood of harms from screening (false-positive results and unnecessary anxiety, biopsies, and cost) diminishes from ages 40-70. The balance of benefits and potential harms, therefore, grows more favorable

as women age. The precise age at which the potential benefits of mammography justify the possible harms is a subjective choice. (USPSTF, 2002)

American Cancer Society: Yearly Mammograms starting at age 40 and continuing for as long as a woman is in good health. (Smith, 2003)

American College of Preventive Medicine (ACPM):

- Low-risk women (no family history, familial cancer syndrome, or prior cancer). There is inadequate evidence for or against mammography screening of women under the age of 50. Women between the ages of 50-69 should have annual or biennial, high-quality, two-view mammography. Women aged 70 and older should continue undergoing mammography screening provided their health status permits breast cancer treatment. (Ferrini, 1996)

- Higher-risk women: Women with a family history of pre-menopausal breast cancer in a first-degree relative or those with a history of breast and/or gynecologic cancer may warrant more aggressive screening. Women with these histories often begin screening at an earlier age, although there is no direct evidence of effectiveness to support this practice. The future availability of genetic screening may define new recommendations for screening high-risk women. (Ferrini, 1996)

The American Medical Association (AMA), the American College of Obstetricians and Gynecologists (ACOG), and the American College of Radiology (ACR), all support screening with mammography and CBE beginning at age 40. (AMA, 1999; ACOG, 2000; Feig, 1998)

The Canadian Task Force on Preventive Health Care (CTFPHC), and the American Academy of Family Physicians (AAFP), recommends beginning mammography for average-risk women at age 50. (Canadian Task Force on the Periodic Health Examination, 1999; AAFP, 2005)

AAFP recommends that mammography in high-risk women begin at age 40, and recommends that all women aged 40-49 be counseled about the risks and benefits of mammography before making decisions about screening. (AAFP, 2005)

2012 ACO Narrative Measure Specifications
Preventive Care Domain

♠ **ACO 21 (ACO-Prev-11) (CMS): Preventive Care and Screening: Screening for High Blood Pressure**

DESCRIPTION:
Percentage of patients aged 18 and older who are screened for high blood pressure

DENOMINATOR:
Percentage of patients aged 18 years and older who are screened for high blood pressure

> **EXCLUDED FROM PERFORMANCE DENOMINATOR POPULATION:**
> (Exclusions only applied if patient did not receive screening for high blood pressure during the current year or year prior)
> - ▪ Documentation of medical reason(s) for not receiving screening for high blood pressure (i.e., diagnosis of hypertension)

NUMERATOR:
Patients who were screened for high blood pressure according to defined recommended screening intervals

NUMERATOR NOTE: *For the purposes of the Medicare Shared Savings Program and Physician Quality Reporting System, this measure only needs to be reported once per reporting period*

> **Definitions:**
> **Recommended screening intervals**
> - ▪ Patients with the most recent blood pressure < 120/80 mmHg should be screened every 2 years
>
> - ▪ Patients with a most recent systolic blood pressure of 120-139 mmHg or diastolic blood pressure of 80-90 mmHg should be screened every year
>
> - ▪ Patients with 1 elevated reading of ≥ 140 mmHg or > 90 mmHg should be re-screened in a month
>
> **Not Eligible**
> - ▪ Previous diagnosis with hypertension at any time in the patient's history OR whose two most recent systolic blood pressure ≥ 140 mmHg or diastolic blood pressure > 90 mmHg
>
> - ▪ Patient refuses blood pressure measurement
>
> - ▪ 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

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) found good evidence that blood pressure measurement can indentify 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 in person with blood pressure less than 120/80 mmHg and every year in persons with systolic blood pressure of 120 to 139 mmHg or diastolic blood pressure of 80 to 90 mmHg.

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.

Reference: 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. [6 references]

SECTION 5: AT RISK POPULATION

2012 ACO Narrative Measure Specifications
At-Risk Population Domain

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

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 visits for diabetes during the current year or year prior and one visit within the measurement year

DENOMINATOR NOTE: *For the purposes of the Medicare Shared Savings Program, the following exclusions apply.*

> **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 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 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.

2012 ACO Narrative Measure Specifications
At-Risk Population Domain

🎼 **ACO 23 (ACO-DM-14) (NQF 0729): Diabetes Composite (All or Nothing Scoring): Diabetes Mellitus: Low Density Lipoprotein (LDL-C) Control in Diabetes Mellitus**

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 visits for diabetes during the current year or year prior and one visit within the measurement year

DENOMINATOR NOTE: *For the purposes of the Medicare Shared Savings Program, the following exclusions apply.*

> **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 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 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 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.

2012 ACO Narrative Measure Specifications
At-Risk Population Domain

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

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 visits for diabetes during the current year or year prior and one visit within the measurement year

DENOMINATOR NOTE: For the purposes of the Medicare Shared Savings Program, the following exclusions apply.

> **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 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 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.

<u>CLINICAL RECOMMENDATION STATEMENTS:</u>

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 80 mmHg. 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

44

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.

2012 ACO Narrative Measure Specifications
At-Risk Population Domain

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

DESCRIPTION:
Percentage of patients with a diagnosis of diabetes who indicated they were tobacco non-users

DENOMINATOR:
Patients 18 through 75 years of age with a diagnosis of diabetes mellitus with two or more visits for diabetes during the current year or year prior and one visit within the measurement year

DENOMINATOR NOTE: For the purposes of the Medicare Shared Savings Program, the following exclusions apply.

WITHOUT

Diagnosis of polycystic ovaries, gestational diabetes or steroid induced diabetes

THERE ARE NO PERFORMANCE EXCLUSIONS FOR THIS MEASURE

NUMERATOR:
Patients 18 through 75 years of age with a diagnosis of diabetes 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 adult 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 <u>verbatim</u> 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])

2012 ACO Narrative Measure Specifications
At-Risk Population Domain

🎼 **ACO 26 (ACO-DM-16) (NQF 0729): Diabetes Composite (All or Nothing Scoring): Diabetes Mellitus: Daily Aspirin Use for Patients with Diabetes and Ischemic Vascular Disease**

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

DENOMINATOR:
Patients 18 to 75 years of age with a diagnosis of diabetes mellitus (established diabetic patient defined as two or more visits for diabetes in the last two years and at least one visit in the last 12 months) and a diagnosis of ischemic vascular disease

DENOMINATOR NOTE: For the purposes of the Medicare Shared Savings Program, the following exclusions apply.

WITHOUT

Diagnosis of polycystic ovaries, gestational diabetes or steroid induced diabetes

THERE ARE NO PERFORMANCE EXCLUSIONS FOR THIS MEASURE

NUMERATOR:
Patients with the diagnosis of diabetes and ischemic vascular disease with documentation of taking daily aspirin 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.

2012 ACO Narrative Measure Specifications
At-Risk Population Domain

♦ **ACO 27 (ACO–DM-2) (NQF 0059): Diabetes Mellitus: Hemoglobin A1c Poor Control in Diabetes Mellitus**

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

WITHOUT

Diagnosis of polycystic ovaries, gestational diabetes or steroid induced diabetes

THERE ARE NO PERFORMANCE EXCLUSIONS FOR THIS MEASURE

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

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

CLINICAL RECOMMENDATION STATEMENTS:
A glycosylated hemoglobin should be performed during an initial assessment and during follow-up assessments, which should occur at no longer than three-month intervals. American Association of Clinical Endocrinologists/American College of Endocrinology (AACE/ACE)

The A1c should be universally adopted as the primary method of assessment of glycemic control. On the basis of data from multiple interventional trials, the target for attainment of glycemic control should be A1c values ≤ 6.5%. (AACE/ACE)

Obtain a glycosylated hemoglobin during an initial assessment and then routinely as part of continuing care. In the absence of well-controlled studies that suggest a definite testing protocol, expert opinion recommends glycosylated hemoglobin be obtained at least twice a year in patients who are meeting treatment goals and who have stable glycemic control and more frequently (quarterly assessment) in patients whose therapy was changed or who are not meeting glycemic goals. (Level of Evidence: E) American Diabetes Association (ADA)

Because different assays can give varying glycated hemoglobin values, the ADA recommends that laboratories only use assay methods that are certified as traceable to the Diabetes Control and Complications Trial A1c reference method. The ADA's goal for glycemic control is A1c < 7%. (Level of Evidence: B) (ADA)

Monitor and treat hyperglycemia, with a target A1c of 7%, but less stringent goals for therapy may be appropriate once patient preferences, diabetes severity, life expectancy and functional status have been considered. American Geriatrics Society (AGS)

2012 ACO Narrative Measure Specifications
At-Risk Population Domain

♦ACO 28 (ACO-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:
This measure assesses the percentage of patients demonstrating adequate control of systolic and diastolic blood pressure levels. Over 50 million Americans warrant treatment for high blood pressure, according to the National Health and Nutrition Examination Survey (NHANES) survey Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC-7 2003). Financially, hypertension and associated disorders and heath complications, such as coronary heart disease and congestive heart failure, cost the U.S. economy more than $100 billion each year. The United States Preventive Services Task Force (USPSTF) recommends that clinicians screen adults 18 and older for high blood pressure (2007). This guideline is further endorsed by research studies and clinical trials that have demonstrated decline in costly health outcomes as a direct result of improved blood pressure control. This measure is important in efforts to promote blood pressure control and improve quality of life.

CLINICAL RECOMMENDATION STATEMENTS:
The U.S. Preventive Services Task Force (USPSTF) recommends screening for high blood pressure in adults age 18 years and older. JNC-7: Treating systoloic blood pressure (SBP) and diastolic blood pressure (DBP) to targets that are < 140/90 mmHg is associated with a decrease in cardiovascular disease (CVD) complications.

2012 ACO Narrative Measure Specifications
At-Risk Population Domain

♦ **ACO 29 (ACO-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 transluminal coronary angioplasty (PTCA)

THERE ARE NO PERFORMANCE EXCLUSIONS FOR THIS MEASURE

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.

<u>CLINICAL RECOMMENDATION STATEMENTS:</u>
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.

2012 ACO Narrative Measure Specifications
At-Risk Population Domain

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

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DESCRIPTION:
Percentage of patients aged 18 years and older with ischemic vascular disease (IVD) with documented use of aspirin or other 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 transluminal coronary angioplasty (PTCA)

THERE ARE NO PERFORMANCE EXCLUSIONS FOR MEASURE

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.

2012 ACO Narrative Measure Specifications
At-Risk Population Domain

➤ ACO 31 (ACO-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 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
> - Documentation of patient reason(s) for not prescribing beta-blocker therapy
> - Documentation of system reason(s) for not prescribing beta-blocker therapy

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** – 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.
> **Beta-blocker therapy** – 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 <u>verbatim</u> 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)

2012 ACO Narrative Measure Specifications
At-Risk Population Domain

❯ **ACO 32 (ACO-CAD-2) (NQF #0074): Coronary Artery Disease (CAD): Lipid Control**

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 lipid-lowering therapy)
> - Documentation of medical reason(s) for not prescribing lipid-lowering therapy
>
> - Documentation of patient reason(s) for not prescribing lipid-lowering therapy
>
> - Documentation of system reason(s) for not prescribing lipid-lowering therapy

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 <u>verbatim</u> 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)

2012 ACO Narrative Measure Specifications
At-Risk Population Domain

❱ **ACO 33 (ACO-CAD-7) (NQF 0066): Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Patients with CAD and Diabetes and/or Left Ventricular Systolic Dysfunction (LVSD)**

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 CAD 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
>
> - Documentation of patient reason(s) for not prescribing ACE or ARB therapy
>
> - Documentation of system reason(s) for not prescribing ACE or ARB therapy

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 <u>verbatim</u> 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)

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