

# NATIONAL QUALITY FORUM

## Measure Evaluation 4.1 December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the [evaluation criteria](#) are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized): Complete all **yellow highlighted** areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: If there is no TAP or workgroup, the SC also evaluates the subcriteria (**yellow highlighted areas**).

Steering Committee: Complete all **pink** highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met

- C = Completely (unquestionably demonstrated to meet the criterion)
- P = Partially (demonstrated to partially meet the criterion)
- M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)
- N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)
- NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) NQF Review #: 0073	NQF Project: Cardiovascular Endorsement Maintenance 2010
<b>MEASURE DESCRIPTIVE INFORMATION</b>	
De.1 Measure Title: <b>IVD: Blood Pressure Management</b>	
De.2 Brief description of measure: <b>The percentage of patients 18 years of age and older who were discharged alive with acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous coronary interventions (PCI) from January 1-November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to the measurement year and who had BP reported as under control &lt;140/90.</b>	
1.1-2 Type of Measure: <b>Outcome</b>	
De.3 If included in a composite or paired with another measure, please identify composite or paired measure <b>This measure is part of the Comprehensive Ischemic Vascular Disease Care measure.</b>	
De.4 National Priority Partners Priority Area: <b>Population health</b>	
De.5 IOM Quality Domain: <b>Effectiveness</b>	
De.6 Consumer Care Need: <b>Living with illness</b>	

<b>CONDITIONS FOR CONSIDERATION BY NQF</b>	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	<b>NQF Staff</b>
A. The measure is in the public domain or an intellectual property ( <a href="#">measure steward agreement</a> ) is signed. <i>Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.</i>	A Y <input type="checkbox"/> N <input type="checkbox"/>
A.1 Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)? <b>Yes</b>	
A.2 Indicate if Proprietary Measure (as defined in <a href="#">measure steward agreement</a> ): <b>Proprietary measure</b>	
A.3 Measure Steward Agreement: <b>Agreement will be signed and submitted prior to or at the time of measure submission</b>	

A.4 Measure Steward Agreement attached:	
B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. <a href="#">Yes, information provided in contact section</a>	B Y <input type="checkbox"/> N <input type="checkbox"/>
C. The intended use of the measure includes <u>both</u> public reporting <u>and</u> quality improvement. ► <b>Purpose:</b> <a href="#">Public reporting</a> , <a href="#">Internal quality improvement</a>	C Y <input type="checkbox"/> N <input type="checkbox"/>
D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1 Testing: <a href="#">Yes, fully developed and tested</a> D.2 Have NQF-endorsed measures been reviewed to identify if there are similar or related measures? <a href="#">Yes</a>	D Y <input type="checkbox"/> N <input type="checkbox"/>
(for NQF staff use) Have all conditions for consideration been met? Staff Notes to Steward (if submission returned):	Met Y <input type="checkbox"/> N <input type="checkbox"/>
Staff Notes to Reviewers (issues or questions regarding any criteria):	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
<b>1. IMPORTANCE TO MEASURE AND REPORT</b>	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. <i>Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. (evaluation criteria)</i> <a href="#">1a. High Impact</a>	<b>Eval Rating</b>
(for NQF staff use) <a href="#">Specific NPP goal:</a>	
1a.1 Demonstrated High Impact Aspect of Healthcare: <a href="#">Leading cause of morbidity/mortality</a> 1a.2 1a.3 Summary of Evidence of High Impact: <a href="#">Coronary Heart Disease (CHD) was an underlying or contributing cause of death for 451,300 people that accounted for 1 of every 5 deaths in the United States in 2004. AMI was as an underlying or contributing cause of death for 156,000 people (AHA, 2008). In addition, the prevalence of CHD for both sexes in 2005 is nearly 16 million people or 7.3% of the American population (AHA, 2008) The cost of cardiovascular diseases and stroke in the United States for 2008 is estimated at \$448.5 billion (AHA, 2008). This figure includes health expenditures (direct costs such as the cost of physicians and healthcare practitioners, hospital and nursing home services, medications, home health care and other medical durables) and lost productivity resulting from morbidity and mortality (indirect costs). Acute Myocardial Infarction (AMI) represents 18% of hospital discharges and 28% of deaths due to heart disease (NHLBI, 2000). Research has shown that costs associated with cardiovascular disease for hospitals are easily \$156 billion (AHA, 2008).</a>  From 1979 to 2003, the percentage of discharges of patients with discharges from short-stay hospitals with CHD as the main diagnosis rose by 31%. Evidence has shown that age is a strong demographic factor for CHD. The average life expectancy has risen after 10 years by about 2 years since 1965, it is projected by 2030, 1	<b>1a</b> C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/>

**Comment [KP1]:** 1a. The measure focus addresses:  
 • a specific national health goal/priority identified by NQF's National Priorities Partners; OR  
 • a demonstrated high impact aspect of healthcare (e.g., affects large numbers, leading cause of morbidity/mortality, high resource use (current and/or future), severity of illness, and patient/societal consequences of poor quality).

in 5 Americans will be aged 65 or older. The need for CHD management is essential (Berra, 2006).

**Health Importance:**

Hypertension is a very significant health issue in the United States. Fifty million or more Americans have high blood pressure that warrants treatment, according to the NHANES survey (JNC-7, 2003). The USPSTF recommends that clinicians screen adults aged 18 and older for high blood pressure (USPSTF, 2007).

The most frequent and serious complications of uncontrolled hypertension include coronary heart disease, congestive heart failure, stroke, ruptured aortic aneurysm, renal disease, and retinopathy. The increased risks of hypertension are present in individuals ranging from 40 to 89 years of age. For every 20 mmHg systolic or 10 mmHg diastolic increase in BP, there is a doubling of mortality from both IHD and stroke (JNC-7, 2003).

Better control of BP has been shown to significantly reduce the probability that these undesirable and costly outcomes will occur. Thus, the relationship between the measure (control of hypertension) and the long-term clinical outcomes listed is well established. In clinical trials, antihypertensive therapy has been associated with reductions in stroke incidence (35-40%), myocardial infarction (20-25%) and heart failure (>50%) (JNC-7, 2003).

The percentage of persons receiving treatment for their hypertension has increased from 31% (1976-1980) to 59% in 1999-2000. Thirty-four percent of persons with hypertension from 1999-2000 have their blood pressure controlled below 140/90 mmHg compared to 10% from 1976-1980. However, the prevalence and hospitalization rates of heart failure have continued to increase. A majority of the people have hypertension prior to developing heart failure (JNC-7, 2003).

The outcomes that are principally affected by controlling blood pressure are morbidity and mortality related to cerebrovascular and cardiovascular events (e.g., stroke, heart failure and myocardial infarction) (JNC-7, 2003).

In patients ages 65 and older with systolic blood pressure greater than 139, it was estimated that if these persons were in active treatment for their hypertension using antihypertensive drugs alone, the following annual, short-term benefits would be produced:

- No additional medical costs,
- 115,000 fewer strokes,
- 106,000 fewer CAD events,
- 77,000 fewer deaths,
- 46,000 fewer skilled nursing facility and recovery facility admissions, and
- 4,000 fewer long term care placements (Pyenson, 2004)

The prevalence of high blood pressure by age in Americans 20 and older between 1999 and 2002 was:

- For ages 20-34, 11.1 percent for men and 5.8 percent for women
- For ages 35-44, 21.3 percent for men and 18.1 percent for women
- For ages 45-54, 34.1 percent for men and 34.0 percent for women
- For ages 55-64, 46.6 percent for men and 55.5 percent for women
- For ages 65-74, 60.9 percent for men and 74.0 percent for women
- For ages 75+, 69.2 percent for men and 83.4 percent for women (AHA, 2004)

The death rates per 100,000 in 2002 from high blood pressure were:

- 14.4 for White Males
- 49.6 for Black Males
- 13.7 for White Females
- 40.5 for Black Females (AHA High BP Statistics, 2003)

In the SHEP study involving hypertensive individuals over age 60 with pretreatment SBP >160 and DBP <90 mmHg, individuals treated with chlorthalidone (with or without BB) had reductions in the primary endpoint of stroke (36 percent), as well as HF events (54 percent), MI (27 percent), and overall CVD (32 percent) as compared with the placebo group (SHEP, 1991).

Although no randomized prospective clinical trial has conclusively proven the benefits of treatment of hypertension in individuals with stage 1 systolic hypertension (140-159 mmHg), hypertension therapy should not be withheld in these patients, and therapy should not be withheld on the basis of age (JNC-7, 2003). There is no definitive evidence of an increase in risk of aggressive treatment (a J-curve) unless DBP is lowered to <55 or 60 mmHg by treatment (Somes, 1999).

For treatment of hypertension in patients 80 and older, hypertension is a significant problem. Controlling high blood pressure is important and beneficial for this age group; however there are also significant risks of serious complications and death. In one study, 70% of those 80 and older have hypertension, and among the oldest participants only 38% of men and 23% of women had a blood pressure controlled to less than 140/90 mm Hg. Since the relative and very high absolute risks among those 80 and over are very similar, their data suggest that the 80 and over age group have the most to gain from blood pressure reduction, even if they have a shorter lifespan remaining (Lloyd-Jones, 2005).

A meta-analysis of eight placebo-controlled trials in 15,693 elderly patients followed for 4 years found that active antihypertensive treatment reduced coronary events (23 percent), strokes (30 percent), cardiovascular deaths (18 percent), and total deaths (13 percent), with the benefit particularly great in those older than 70 years (Staessen, 2000). Benefits of therapy have been demonstrated even in individuals over 80 years of age (Hansson, 1999 & Gueyffier, 1999). However, in the same study (Gueyffier, 1999), the meta-analysis showed that while the risk of cardiovascular and stroke events with blood pressure control decreased, there was an increase in mortality suggesting that a reduction in stroke events of 36% may have to be balanced against a 14% increase in total mortality (Gueyffier, 1999). In addition, a review article by Goodwin showed that BP is protective of mortality in those less than 80 years of age, and that mortality increases with treatment in those older than 80 years of age (Goodwin, 2003).

It is important to exclude patients with End Stage Renal Disease due to the complicated health factors with this condition. Eleven percent of the U.S. population has chronic kidney disease (Smith, 2004). Treatment strategies for hypertension are different for patients with End Stage Renal Disease especially if the patient is on dialysis. Adequacy and duration of dialysis are key determinants of blood pressure in ESRD patients. There seems to be a lack of consensus regarding treatment of hypertension for ESRD patients based on antihypertensive prescription patterns (Griffith, 2003).

#### Financial Importance:

Hypertension is extremely costly for the United States. High blood pressure and its complications cost the U.S. economy more than \$100 billion each year (NHLBI, 2004). When you look at just the office visits to physicians, high blood pressure causes more visits than any other condition. Just a 10% reduction in visits would save \$478 million each year (Facts about HBP, NHLBI). To give perspective, in 2002 there were 17.2 million visits to office based physicians related to hypertension (CDC Hypertension Fact Sheet, 2003).

In addition, drugs to treat hypertension are among the leading prescriptions in the U.S.. Two anti-hypertensive drugs are in the NDCHealth Top 50 drugs for 2004 by U.S. sales (NDCHealth Top 200, 2005) and five anti-hypertensive drugs are in the top 11 prescriptions for 2004 by number of U.S. mail and retail prescriptions (NDCHealth Top 10, 2005).

**1a.4 Citations for Evidence of High Impact:** American Heart Association. Heart Disease and Stroke Statistics – 2008 Update.

[http://www.americanheart.org/downloadable/heart/1200082005246HS\\_Stats%202008.final.pdf](http://www.americanheart.org/downloadable/heart/1200082005246HS_Stats%202008.final.pdf) Accessed: Accessed 15 Jul 2008.

National Institutes of Health, National Heart, Lung, and Blood Institute. Morbidity and Mortality: 2000 Chart Book on Cardiovascular, Lung, and Blood Diseases. <http://www.nhlbi.nih.gov/resources/docs/cht-book.htm>

Berra K, Miller NH, Fair JM. Cardiovascular disease prevention and disease management: A critical role for nursing. *J Cardiopulm Rehabil* 2006;26(4):197-206.

The Seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. (JNC-7) Hypertension. 2003 Dec;42(6):1206-52. Epub 2003 Dec 1.

USPSTF - U.S. Preventive Services Task Force. Screening for high blood pressure: recommendations and rationale. Am J Prev Med. 2003 Aug;25(2):159-64.

Pyenson, et al., Milliman, Inc. "Controlling Hypertension Among Medicare Beneficiaries: Saving Lives Without Additional Cost," (Brookfield, WI: Milliman, 2004).  
<<http://www.phrma.org/publications/policy/23.08.2005.1042.cfm>>.AHA.

American Heart Association. High Blood Pressure Statistics. 2004.  
<http://www.americanheart.org/downloadable/heart/1110821765203FS14HBP5.REVdoc.doc> Accessed: 8/24/05

AHA. American Heart Association. High Blood Pressure Statistics. 2003.  
<http://www.americanheart.org/presenter.jhtml?identifier=4621> Accessed: 7/18/05

SHEP Cooperative Research Group. Prevention of stroke by antihypertensive drug treatment in older persons with isolated systolic hypertension. Final results of the Systolic Hypertension in the Elderly Program (SHEP). JAMA 1991;265:3255-64.

Somes GW, Pahor M, Shorr RI, Cushman WC, Applegate WB. The role of diastolic blood pressure when treating isolated systolic hypertension. Arch Intern Med 1999;159:2004-9.

Lloyd-Jones DM, Evans JC, Levy D. Hypertension in adults across the age spectrum: current outcomes and control in the community. JAMA 2005; 294(4):466-472.

Staessen JA, Gasowski J, Wang JG, Thijs L, Den Hond E, Boissel JP et al. Risks of untreated and treated isolated systolic hypertension in the elderly: meta-analysis of outcome trials. Lancet 2000; 355(9207):865-872.

Hansson L, Lindholm LH, Ekblom T, Dahlof B, Lanke J, Schersten B et al. Randomised trial of old and new antihypertensive drugs in elderly patients: cardiovascular mortality and morbidity the Swedish Trial in Old Patients with Hypertension-2 study. Lancet 1999; 354(9192):1751-1756.

Gueyffier F, Bulpitt C, Boissel JP, Schron E, Ekblom T, Fagard R et al. Antihypertensive drugs in very old people: a subgroup meta-analysis of randomised controlled trials. INDANA Group. Lancet 1999; 353(9155):793-796.

Goodwin, James S. Embracing complexity: A consideration of hypertension in the very old. J Gerontol A Biol Sci Med Sci. 2003 Jul;58(7):653-8. Review.

Griffith TF, Chua BS, Allen AS, Klassen PS, Reddan DN, Szczech LA. Characteristics of treated hypertension in incident hemodialysis and peritoneal dialysis patients. Am J Kidney Dis 2003; 42(6):1260-1269.

CDC. National Center for Health Statistics. Hypertension Fact Sheet. 2003. Accessed: 7/14/05.  
<http://www.cdc.gov/nchs/fastats/hyprtens.htm>

NDCHealth Top 200 Drugs for 2004 by U.S. Sales. Accessed: 7/25/05.  
[http://www.ndchealth.com/press\\_center/uspharmaIndustryData/ndchealthtop2002004sales.htm](http://www.ndchealth.com/press_center/uspharmaIndustryData/ndchealthtop2002004sales.htm)

NDCHealth Top 200 Drugs for 2004 by U.S. Sales Accessed: 7/25/05.  
[http://www.ndchealth.com/press\\_center/uspharmaindustrydata/2004top10productsbytotalprescription.htm](http://www.ndchealth.com/press_center/uspharmaindustrydata/2004top10productsbytotalprescription.htm)

**1b. Opportunity for Improvement**

**1b.1 Benefits (improvements in quality) envisioned by use of this measure:** Better control of Blood Pressure has been shown to significantly reduce the probability of serious and costly complications, including coronary heart disease, congestive heart failure, stroke, ruptured aortic aneurysm, renal disease and retinopathy.

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**Comment [KP2]:** 1b. Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating considerable variation, or overall poor performance, in the quality of care across providers and/or population groups (disparities in care).

**1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers:**

[Data collected from physician applications to the Heart/Stroke Recognition Program]

	Year	N (physicians)	N (patients)	Avg	P10	P25	P50	P75	P90	Physi-	2006	561	21510
All	2005	51	1415	71.37	44.0	64.0	76.0	84.0	92.0				
				75.01	60.0	68.0	76.0	84.0	92.0				
Physicians	2007	839	26287	75.14	60.0	68.0	76.0	84.0	88.6				
	2008	679	23843	75.40	60.0	68.0	76.0	84.0	92.0				
	2009	208	6062	75.59	60.0	68.0	76.0	84.0	92.0				

**1b.3 Citations for data on performance gap:**

NA

**1b.4 Summary of Data on disparities by population group:**

NA

**1b.5 Citations for data on Disparities:**

NA

**1c. Outcome or Evidence to Support Measure Focus**

**1c.1 Relationship to Outcomes** (For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population): The most frequent and serious complications of uncontrolled hypertension include coronary heart disease, congestive heart failure, stroke, ruptured aortic aneurysm, renal disease, and retinopathy. Better control of BP has been shown to significantly reduce the probability that these undesirable and costly outcomes will occur. Thus, the relationship between the measure (control of hypertension) and the long-term clinical outcomes listed is well established. In clinical trials, antihypertensive therapy has been associated with reductions in stroke incidence (35-40%), myocardial infarction (20-25%) and heart failure (>50%) (JNC-7, 2003).

**1c.2-3. Type of Evidence:**

**1c.4 Summary of Evidence** (as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome):

Given the prevalence of hypertension, the impact of uncontrolled hypertension on the population that lead to acute clinical conditions/events, and the cost of care for these conditions, this condition could have a significant impact on health plans. Hypertension is a condition where a proven method for controlling hypertensive patients' blood pressure levels may be high on the list of strategic priorities.

The prevalence of hypertension varies in the population by (JNC-7, 2003):

- Age: prevalence and increased risk is higher in adults 40 to 89 years of age;
- Gender: hypertension is more common among men in early adulthood, however after the age of 50, hypertension in women increases faster than in men, and after the age of 60 the prevalence of hypertension in women is equal to or exceeds that in men;
- Race: blacks are more likely to have hypertension than whites;
- Socioeconomic status: persons with lower incomes and lower educational levels are more likely to have hypertension than those with higher incomes and education levels

While prevalence data are useful for understanding the proportion of persons who have HTN, the question from the perspective of controllability is whether any of these groups represent greater challenges for clinical management. The JNC-7 (2003) indicates that "women are more likely than men to know they have hypertension and to have it treated and controlled. In NHANES III, approximately 75 percent of hypertensive Black and White women were aware of their high BP in contrast to 65 percent of hypertensive men in these ethnic groups. Overall, 61 percent of hypertensive women, but only 44 percent of men were being treated with antihypertensive medications. The higher treatment rates in women have been attributed to increased numbers of physician contact" (JNC-7, 2003).

Health plans can supplement and reinforce patient and provider education related to the importance of

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**Comment [k3]:** 1 Examples of data on opportunity for improvement include, but are not limited to: prior studies, epidemiologic data, measure data from pilot testing or implementation. If data are not available, the measure focus is systematically assessed (e.g., expert panel rating) and judged to be a quality problem.

**Comment [k4]:** 1c. The measure focus is:  
 • an outcome (e.g., morbidity, mortality, function, health-related quality of life) that is relevant to, or associated with, a national health goal/priority, the condition, population, and/or care being addressed;  
 OR  
 • if an intermediate outcome, process, structure, etc., there is evidence that supports the specific measure focus as follows:  
 oIntermediate outcome - evidence that the measured intermediate outcome (e.g., blood pressure, Hba1c) leads to improved health/avoidance of harm or cost/benefit.  
 oProcess - evidence that the measured clinical or administrative process leads to improved health/avoidance of harm and if the measure focus is on one step in a multi-step care process, it measures the step that has the greatest effect on improving the specified desired outcome(s).  
 oStructure - evidence that the measured structure supports the consistent delivery of effective processes or access that lead to improved health/avoidance of harm or cost/benefit.  
 oPatient experience - evidence that an association exists between the measure of patient experience of health care and the outcomes, values and preferences of individuals/ the public.  
 oAccess - evidence that an association exists between access to a health service and the outcomes of, or experience with, care.  
 oEfficiency - demonstration of an association between the measured resource use and level of performance with respect to one or more of the other five IOM aims of quality.

**Comment [k5]:** 4 Clinical care processes typically include multiple steps: assess → identify problem/potential problem → choose/plan intervention (with patient input) → provide intervention → evaluate impact on health status. If the measure focus is one step in such a multi-step process, the step with the greatest effect on the desired outcome should be selected as the focus of measurement. For example, although assessment of immunization status and recommending immunization are necessary steps, they are not sufficient to achieve the desired impact on health status - patients must be vaccinated to achieve immunity. This does not preclude consideration of measures of preventive screening interventions where there is a strong link with desired outcomes (e.g., mammography) or measures for multiple care processes that affect a single outcome.

blood pressure management in patients with hypertension and the decreased risk of coronary events and death associated with lower levels. Education and communication materials can emphasize the importance of adhering to medication, diet, and weight loss programs. Because response to patient and provider education programs has been mixed, health plans should review interventions conducted by other plans, assess studies on effectiveness and design intervention and patient education programs which have proven effective in like settings.

Hypertension is treatable with lifestyle modifications and if goal is not achieved, antihypertensive drugs can be used. A large number of drugs are currently available for reducing BP. Thiazide-type diuretics should be used as initial therapy for most patients, either alone or in combination with one of the other classes (ACEIs, ARBs, BBs, CCBs) that have also been shown to reduce one or more hypertensive complications in randomized controlled outcome trials (JNC-7, 2004).

**1c.5 Rating of strength/quality of evidence** (also provide narrative description of the rating and by whom):  
NA

**1c.6 Method for rating evidence:** NA

**1c.7 Summary of Controversy/Contradictory Evidence:** NA

**1c.8 Citations for Evidence (other than guidelines):** The Seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. (JNC-7) Hypertension. 2003 Dec;42(6):1206-52. Epub 2003 Dec 1.

Wang Y, Wang QJ. The prevalence of prehypertension and hypertension among US adults according to the new joint national committee guidelines: new challenges of the old problem. Arch Intern Med 2004; 164(19):2126-2134.

**1c.9 Quote the Specific guideline recommendation (including guideline number and/or page number):**  
AHA/ACC Secondary Prevention for Patients With Coronary and Other Vascular Disease\*: 2006 Update

**BLOOD PRESSURE CONTROL:** For all patients:

Goal

- Initiate or maintain lifestyle modification—weight control; increased physical activity; alcohol moderation; sodium reduction; and emphasis on increased consumption of fresh fruits, vegetables, and low-fat dairy products. I (B)

<140/90 mm Hg

For patients with blood pressure 140/90 mm Hg:

- As tolerated, add blood pressure medication, treating initially with β-blockers and/or ACE inhibitors, with addition of other drugs such as thiazides as needed to achieve goal blood pressure. I (A)

[For compelling indications for individual drug classes in specific vascular diseases, see Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7).]

Classification of Recommendations and Level of Evidence\*

Classification of Recommendations

Class I: Conditions for which there is evidence and/or general agreement that a given procedure or treatment is beneficial, useful, and effective.

Class II: Conditions for which there is conflicting evidence and/or a divergence of opinion about the usefulness/efficacy of a procedure or treatment.

Class IIa: Weight of evidence/opinion is in favor of usefulness/efficacy.

Class IIb: Usefulness/efficacy is less well established by evidence/opinion.

Class III: Conditions for which there is evidence and/or general agreement that a procedure/treatment is not useful/effective and in some cases may be harmful.

Level of Evidence

Level of Evidence A: Data derived from multiple randomized clinical trials or meta-analyses.

Level of Evidence B: Data derived from a single randomized trial or nonrandomized studies.

**Comment [k6]:** 3 The strength of the body of evidence for the specific measure focus should be systematically assessed and rated (e.g., USPSTF grading system <http://www.ahrq.gov/clinic/uspstf07/methods/benefit.htm>). If the USPSTF grading system was not used, the grading system is explained including how it relates to the USPSTF grades or why it does not. However, evidence is not limited to quantitative studies and the best type of evidence depends upon the question being studied (e.g., randomized controlled trials appropriate for studying drug efficacy are not well suited for complex system changes). When qualitative studies are used, appropriate qualitative research criteria are used to judge the strength of the evidence.

<p>Level of Evidence C: Only consensus opinion of experts, case studies, or standard-of-care.</p> <p>* Classification of Recommendations and Level of Evidence are expressed in the ACC/AHA format and described in more detail in Table 3.</p> <p>However, updated guidelines are anticipated in Fall 2011 for BP management. Recent studies International Verapamil SR-Trandolapril Study (INVEST) suggested that treating patients with diabetes or known vascular disease to a SBP goal of &lt;130 was associated with a higher all cause mortality (JAMA 2010).</p> <p><b>1c.10 Clinical Practice Guideline Citation:</b> Smith S, Allen J, Blair S., et al. Circulation 2006; 113;2363-2372. AHA/ACC Secondary Prevention for Patients With Coronary and Other Vascular Disease*: 2006 Update</p> <p>Cooper-DeHoff RM, Gong Y, Handberg EM, Bavry AA, Denardo SJ, Bakris GL, Pepine CJ. Tight blood pressure control and cardiovascular outcomes among hypertensive patients with diabetes and coronary artery disease. JAMA 2010 304(1): 61-68.</p> <p><b>1c.11 National Guideline Clearinghouse or other URL:</b></p> <p><b>1c.12 Rating of strength of recommendation</b> (also provide narrative description of the rating and by whom): I(B)</p> <p><b>1c.13 Method for rating strength of recommendation</b> (If different from <a href="#">USPSTF system</a>, also describe rating and how it relates to USPSTF): Classification of Recommendations and Level of Evidence* Classification of Recommendations Class I: Conditions for which there is evidence and/or general agreement that a given procedure or treatment is beneficial, useful, and effective. Class II: Conditions for which there is conflicting evidence and/or a divergence of opinion about the usefulness/efficacy of a procedure or treatment. Class IIa: Weight of evidence/opinion is in favor of usefulness/efficacy. Class IIb: Usefulness/efficacy is less well established by evidence/opinion. Class III: Conditions for which there is evidence and/or general agreement that a procedure/treatment is not useful/effective and in some cases may be harmful. Level of Evidence Level of Evidence A: Data derived from multiple randomized clinical trials or meta-analyses. Level of Evidence B: Data derived from a single randomized trial or nonrandomized studies. Level of Evidence C: Only consensus opinion of experts, case studies, or standard-of-care.</p> <p>* Classification of Recommendations and Level of Evidence are expressed in the ACC/AHA format and described in more detail in Table 3.</p> <p><b>1c.14 Rationale for using this guideline over others:</b></p>	
<p><b>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Importance to Measure and Report</i>?</b></p>	<p>1</p>
<p><b>Steering Committee: Was the threshold criterion, <i>Importance to Measure and Report</i>, met?</b> Rationale:</p>	<p>1 Y <input type="checkbox"/> N <input type="checkbox"/></p>
<p><b>2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES</b></p>	
<p>Extent to which the measure, <u>as specified</u>, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (<a href="#">evaluation criteria</a>)</p>	<p><a href="#">Eval Rating</a></p>
<p><b>2a. MEASURE SPECIFICATIONS</b></p>	

**Comment [k7]:** USPSTF grading system <http://www.ahrq.gov/clinic/uspstf/grades.htm>: A - The USPSTF recommends the service. There is high certainty that the net benefit is substantial. B - The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial. C - The USPSTF recommends against routinely providing the service. There may be considerations that support providing the service in an individual patient. There is at least moderate certainty that the net benefit is small. Offer or provide this service only if other considerations support the offering or providing the service in an individual patient. D - The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits. I - The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.



S.1 Do you have a web page where current detailed measure specifications can be obtained?  
 S.2 If yes, provide web page URL:

**2a. Precisely Specified**

**2a.1 Numerator Statement** (*Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome*):

The numerator is the number of patients in the denominator whose most recent blood pressure is adequately controlled during the measurement year. For a patient's BP to be controlled, both the systolic and the diastolic BP must meet the desired threshold of <140/90 mm Hg.

**2a.2 Numerator Time Window** (*The time period in which cases are eligible for inclusion in the numerator*):  
 12 months

**2a.3 Numerator Details** (*All information required to collect/calculate the numerator, including all codes, logic, and definitions*):

The numerator is the number of patients in the denominator whose most recent blood pressure is adequately controlled during the measurement year. For a patient's BP to be controlled, both the systolic and the diastolic BP must meet the desired threshold of <140/90 mm Hg

**Electronic Specification:**

If using electronic data to identify the most recent BP reading during the measurement year, calculate a numerator using the CPT Category II codes in Table IVD-G to determine compliance with the threshold. If CPT Category II codes are used to identify numerator compliance for this indicator, search for all codes in Table IVD-G and use the most recent code to evaluate whether the patient is numerator compliant. If a combination of data from internal electronic databases and CPT Category II codes is being used, search all sources and use the most recent result.

If there are multiple BPs on the same date of service, use the lowest systolic and lowest diastolic BP on that date as the representative BP.

The patient is noncompliant in the following circumstances.

- The electronic result for the most recent BP test exceeds the desired threshold
- The BP test result is missing
- A BP test was not done during the measurement year

Do not include readings that meet the following criteria:

- Taken during an acute inpatient stay or an ED visit
- Taken during an outpatient visit which was for the sole purpose of having a diagnostic test or surgical procedure performed
- Taken the same day as major diagnostic or surgical procedure
- Reported by or taken by the patient
- Documentation of "VS within normal limits" or "vital signs normal".

**Medical Record Specification:**

To identify the representative blood pressure, follow these steps:

- Identify the most recent blood pressure reading noted during the measurement year. Do not include readings that meet the criteria as listed above under the electronic specification (i.e taken during an ED visit, etc.)
- Identify the lowest systolic and lowest diastolic reading from the most recent blood pressure notation in the medical record. If there are multiple readings for a single date, use the lowest systolic and the lowest diastolic reading on that date as the representative blood pressure. The systolic and diastolic results do not need to be from the same reading. Table IVD-G: Codes to Identify Systolic and Diastolic BP Levels

Description	CPT Category II
Systolic pressure <140mm Hg	3076F
Systolic pressure =>140 mm Hg	3077F
Diastolic pressure <80 mm Hg	3078F
Diastolic pressure 80-89 mm Hg	3079F
Diastolic pressure =>90 mm Hg	3080F

**2a.4 Denominator Statement** (*Brief, text description of the denominator - target population being measured*):

**Comment [KP8]:** 2a. The measure is well defined and precisely specified so that it can be implemented consistently within and across organizations and allow for comparability. The required data elements are of high quality as defined by NQF's Health Information Technology Expert Panel (HITEP) .

2a-  
 specs  
 C  
 P  
 M  
 N

Patients 18 years or older as of December 31 of the measurement year who were discharged alive for AMI, CABG or PCI on or between January 1 and November 1 of the year prior to the measurement year or who had a diagnosis of IVD during both the measurement year and the year prior to the measurement year.

2a.5 Target population gender: Female, Male

2a.6 Target population age range: 18 years and older

2a.7 Denominator Time Window (*The time period in which cases are eligible for inclusion in the denominator*):

Between January 1st of the year prior to the measurement year through December 31st of the measurement year.

2a.8 Denominator Details (*All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions*):

Patients 18 years or older as of December 31 of the measurement year who met the following patient inclusion criteria:

-if calculating physician performance from health plan data: Continuous medical benefit enrollment for the measurement year, with no more than one gap in continuous enrollment of up to 45 days during the measurement year. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, there may not be more than a 1-month gap in coverage during each year of continuous enrollment. The patient must be enrolled as of December 31 of the measurement year.

-For calculating physician performance from non-health plan data. Any enrollment, claim or encounter transaction any time during the measurement year.

Event/ Diagnosis Event:

Discharged alive for AMI, CABG or PCI on or between January 1 and November 1 of the year prior to the measurement year. Use the codes listed in Table IVD-A to identify AMI, PCI and CABG. AMI and CABG cases should be from inpatient claims only. All cases of PCI should be included, regardless of setting (e.g., inpatient, outpatient, ED).

Diagnosis. Identify patients as having IVD who met at least one of the two criteria below, during both the measurement year and the year prior to the measurement year. Criteria need not be the same across both years.

- At least one outpatient visit (Table IVD-C) with an IVD diagnosis (Table IVD-B), or
- At least one acute inpatient visit (Table IVD-C) with an IVD diagnosis (Table IVD-B)

Table IVD-A: Codes to Identify AMI,PCI, and CABG

Description	CPT	HCPCS	ICD-9-CM Diagnosis	ICD-9-CM Procedure
AMI (inpatient only)				410.x1
CABG (inpatient only)	33510-33514, 33516-33519, 33521-33523, 33533-33536	S2205-S2209	36.1, 36.2	
PCI	92980, 92982, 92995	00.66, 36.06, 36.07		

Table IVD-B: Codes to Identify IVD

Description	ICD-9-CM Diagnosis
IVD	411, 413, 414.0, 414.2, 414.8, 414.9, 429.2, 433-434, 440.1, 440.2, 440.4, 444, 445

Table IVD-C: Codes to Identify Visit Type

Description	CPT	UB Revenue
Outpatient	99201-99205, 99211-99215, 99217-99220, 99241-99245, 99341-99345, 99347-99350, 99384-99387, 99394-99397, 99401-99404, 99411, 99412, 99420, 99429, 99455, 99456	051x, 0520-0523, 0526-0529, 057x-059x, 0982, 0983
Acute inpatient	99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99261-99263, 99291	010x, 0110-0114, 0119, 0120-0124, 0129, 0130-0134, 0139, 0140-0144, 0149, 0150-0154, 0159, 016x, 020x-021x, 072x, 0987

Medical record data Documentation of IVD in the medical record includes:

<ul style="list-style-type: none"> <li>• IVD</li> <li>• Ischemic heart disease</li> <li>• Angina</li> <li>• Coronary atherosclerosis</li> <li>• Coronary artery occlusion</li> <li>• Cardiovascular disease</li> <li>• Occlusion or stenosis of precerebral arteries (including basilar, carotid and vertebral arteries)</li> <li>• Atherosclerosis of renal artery</li> <li>• Atherosclerosis of native arteries of the extremities</li> <li>• Chronic total occlusion of artery of the extremities</li> <li>• Arterial embolism and thrombosis</li> <li>• Atheroembolism.</li> </ul> <p>Note: Use paper logs, patient registries or EMRs to identify the denominator, then use the medical record to confirm patient eligibility.</p>
<p><b>2a.9 Denominator Exclusions</b> (<i>Brief text description of exclusions from the target population</i>): All patients with ESRD, who are pregnant or who had an admission to a non-acute inpatient setting during the measurement year.</p> <p><b>2a.10 Denominator Exclusion Details</b> (<i>All information required to collect exclusions to the denominator, including all codes, logic, and definitions</i>):</p> <p>-All patients with ESRD (Table CBP-C) on or prior to 12/31 of the measurement year. Documentation in the medical record must include a date noted indicating ESRD, dialysis or renal transplant meets the criterion for evidence of ESRD.</p> <p>-All patients who are pregnant (Table CBP-C) during the measurement year.</p> <p>-All patients who had an admission to a non-acute inpatient setting (Table FUH-B) any time during the measurement year.</p> <p>Table CBP-C Codes to Identify ESRD &amp; Pregnancy Exclusions:  Evidence of ESRD: CPT (36145, 36147, 36800, 36810, 36815, 36818, 36819, 36820, 36821, 36831-36833, 50300, 50320, ,50340, 50360, 50365, 50370, 50380, 90920, 90921, 90924, 90925, 90935, 90937, 90940, 90945, 90947, 90957-90962, 90965, 90966, 90969, 90970, 90989, 90993, 90997, 90999, 99512), HCPCS (G0257, G0308-G0319, G0322, G0323, G0326, G0327, G0392, G0393, S9339), ICD-9 diagnosis (585.5, 585.6, V42.0, V45.1, V56), ICD-9 Procedure (38.95, 39.27, 39.42, 39.43, 39.53, 39.93-39.95, 54.98, 55.6), UB Revenue (0367, 080x, 082x-085x, 088x), UB Type of Bill (72X), POS (65)  Pregnancy: ICD-9 Diagnosis (630-679, V22, V23, V28)  Table FUH-B to identify non-acute inpatient exclusions:  Hospice: UB Rev (0115, 0125, 0135, 0145, 0155, 0650, 0656, 0658, 0659), UB Type Bill (81x, 82x), POS (34)  SNF: UB Rev (019x), UB Type Bill (21x, 22x, 28x), POS (31, 32)  Hospital Transitional Care: UB Type Bill (18x)  Rehabilitation: UB Rev (0118, 0128, 0138, 0148, 0158)  Respite:UB Rev (0655)  Intermediate Care Facility: POS (54)  Residential Substance Abuse Treatment Facility: UB Rev (1002), POS (55)  Psychiatric Residential Treatment Facility Center: HCPCS (T2048, H0017-19), UB Rev (1001), POS (56)  Comprehensive Inpatient Rehabilitation Facility: POS (61)</p>
<p><b>2a.11 Stratification Details/Variables</b> (<i>All information required to stratify the measure including the stratification variables, all codes, logic, and definitions</i>):  NA</p>
<p><b>2a.12-13 Risk Adjustment Type:</b> No risk adjustment necessary</p>
<p><b>2a.14 Risk Adjustment Methodology/Variables</b> (<i>List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method</i>):</p>
<p><b>2a.15-17 Detailed risk model available Web page URL or attachment:</b></p>
<p><b>2a.18-19 Type of Score:</b> Rate/proportion</p>
<p><b>2a.20 Interpretation of Score:</b> Better quality = Higher score</p>

**Comment [k9]:** 11 Risk factors that influence outcomes should not be specified as exclusions.  
12 Patient preference is not a clinical exception to eligibility and can be influenced by provider interventions.

<p><b>2a.21 Calculation Algorithm</b> (<i>Describe the calculation of the measure as a flowchart or series of steps</i>): NA</p>	
<p><b>2a.22</b> Describe the method for discriminating performance (<i>e.g., significance testing</i>): After a measure is created, it will go through first-year analysis.</p>	
<p><b>2a.23 Sampling (Survey) Methodology</b> <i>If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate)</i>: NA</p>	
<p><b>2a.24 Data Source</b> (<i>Check the source(s) for which the measure is specified and tested</i>) Paper medical record/flow-sheet, Electronic administrative data/claims, Electronic clinical data, Electronic Health/Medical Record</p>	
<p><b>2a.25 Data source/data collection instrument</b> (<i>Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.</i>): NA</p>	
<p><b>2a.26-28</b> Data source/data collection instrument reference web page URL or attachment:</p>	
<p><b>2a.29-31</b> Data dictionary/code table web page URL or attachment:</p>	
<p><b>2a.32-35 Level of Measurement/Analysis</b> (<i>Check the level(s) for which the measure is specified and tested</i>) Clinicians: Individual, Clinicians: Group</p>	
<p><b>2a.36-37 Care Settings</b> (<i>Check the setting(s) for which the measure is specified and tested</i>) Ambulatory Care: Clinic, All settings</p>	
<p><b>2a.38-41 Clinical Services</b> (<i>Healthcare services being measured, check all that apply</i>) Clinicians: PA/NP/Advanced Practice Nurse, Clinicians: Physicians (MD/DO)</p>	
<b>TESTING/ANALYSIS</b>	
<p><b>2b. Reliability testing</b></p>	
<p><b>2b.1 Data/sample</b> (<i>description of data/sample and size</i>): This data has been taken from physician submission results of the Heart Stroke Recognition Program. N Obs: 2341 N:2338</p>	
<p><b>2b.2 Analytic Method</b> (<i>type of reliability &amp; rationale, method for testing</i>): Reliability was estimated by using the beta-binomial model. Beta-binomial is a better fit when estimating the reliability of simple pass/fail rate measure. The beta-binomial model assumes the score is a binomial random variable conditional on the true value that comes from the beta distribution. The beta distribution is usually defined by two parameters, alpha and beta. Alpha and beta can be thought of as intermediate calculations to get to the needed variance estimates. The beta distribution can be symmetric, skewed or even U-shaped.</p>	
<p>Reliability used here is the ratio of signal to noise. The signal in this case is the proportion of the variability in measured performance that can be explained by real differences in performance. A reliability of zero implies that all the variability in a measure is attributable to measurement error. A reliability of one implies that all the variability is attributable to real differences in performance. The higher the reliability score, the greater is the confidence with which one can distinguish the performance of one entity from another. A reliability score greater than or equal to 0.7 is considered very good.</p>	
<p><b>2b.3 Testing Results</b> (<i>reliability statistics, assessment of adequacy in the context of norms for the test conducted</i>): BP &lt;140/90 Beta-Binomial Reliability: 0.67</p>	<p>2b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>

**Comment [KP10]:** 2b. Reliability testing demonstrates the measure results are repeatable, producing the same results a high proportion of the time when assessed in the same population in the same time period.

**Comment [k11]:** 8 Examples of reliability testing include, but are not limited to: inter-rater/abstractor or intra-rater/abstractor studies; internal consistency for multi-item scales; test-retest for survey items. Reliability testing may address the data items or final measure score.

<p>Coefficient of Variation (CV) (std/mean*100): 16.58</p> <p>Other aspects of reliability: Inter-rater Reliability- in the field test related to BP measurements, inter-rater reliability in abstracting BP measurements from patients' charts was high.</p> <p>Definition of Representative BP- field test data examined five potential ways of defining the BP that is "representative" for a patient during a specified time period: the maximum BP determination, the median BP determination, the average of all BP determinations, the last BP determination, and the average of the last three BP determinations during a given time period. There was very little difference in the mean representative systolic and diastolic BP across any of the approaches to defining representative BP. Based upon these results, the easiest (and least expensive) approach would be to take the most recent BP as "representative".</p>	
<p><b>2c. Validity testing</b></p> <p>2c.1 Data/sample (description of data/sample and size): NA</p> <p>2c.2 Analytic Method (type of validity &amp; rationale, method for testing):</p> <p>2c.3 Testing Results (statistical results, assessment of adequacy in the context of norms for the test conducted): NA</p>	<p>2c</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>
<p><b>2d. Exclusions Justified</b></p> <p>2d.1 Summary of Evidence supporting exclusion(s): NA</p> <p>2d.2 Citations for Evidence: NA</p> <p>2d.3 Data/sample (description of data/sample and size): NA</p> <p>2d.4 Analytic Method (type analysis &amp; rationale): NA</p> <p>2d.5 Testing Results (e.g., frequency, variability, sensitivity analyses): NA</p>	<p>2d</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> <p>NA <input type="checkbox"/></p>
<p><b>2e. Risk Adjustment for Outcomes/ Resource Use Measures</b></p> <p>2e.1 Data/sample (description of data/sample and size): NA</p> <p>2e.2 Analytic Method (type of risk adjustment, analysis, &amp; rationale): NA</p> <p>2e.3 Testing Results (risk model performance metrics): NA</p> <p>2e.4 If outcome or resource use measure is not risk adjusted, provide rationale: NA</p>	<p>2e</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> <p>NA <input type="checkbox"/></p>
<p><b>2f. Identification of Meaningful Differences in Performance</b></p> <p>2f.1 Data/sample from Testing or Current Use (description of data/sample and size): NA</p> <p>2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance (type of analysis &amp; rationale): NA</p>	<p>2f</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>

**Comment [KP12]:** 2c. Validity testing demonstrates that the measure reflects the quality of care provided, adequately distinguishing good and poor quality. If face validity is the only validity addressed, it is systematically assessed.

**Comment [k13]:** 9 Examples of validity testing include, but are not limited to: determining if measure scores adequately distinguish between providers known to have good or poor quality assessed by another valid method; correlation of measure scores with another valid indicator of quality for the specific topic; ability of measure scores to predict scores on some other related valid measure; content validity for multi-item scales/tests. Face validity is a subjective assessment by experts of whether the measure reflects the quality of care (e.g., whether the proportion of patients with BP < 140/90 is a marker of quality). If face validity is the only validity addressed, it is systematically assessed (e.g., ratings by relevant stakeholders) and the measure is judged to represent quality care for the specific topic and that the measure focus is the most important aspect of quality for the specific topic.

**Comment [KP14]:** 2d. Clinically necessary measure exclusions are identified and must be: supported by evidence of sufficient frequency of occurrence so that results are distorted without the exclusion; AND

**Comment [k15]:** 10 Examples of evidence that an exclusion distorts measure results include, but are not limited to: frequency of occurrence, sensitivity analyses with and without the exclusion, and variability of exclusions across providers.

**Comment [KP16]:** 2e. For outcome measures and other measures (e.g., resource use) when indicated: an evidence-based risk-adjustment strategy (e.g., risk models, risk stratification) is specified and is based on patient clinical factors that influence the measured outcome.

**Comment [k17]:** 13 Risk models should not obscure disparities in care for populations by including factors that are associated with differences/inequalities in care such as race, socioeconomic status, gender (e.g., poorer treatment outcomes of African American men with prostate cancer, inequalities in treatment for CVD risk factors between men and women).

**Comment [KP18]:** 2f. Data analysis demonstrates that methods for scoring and analysis of the specified measure allow for identification of statistically significant and practically/clinically meaningful differences in performance.

**Comment [k19]:** 14 With large enough sample sizes, small differences that are statistically significant may or may not be practically or clinically meaningful. The substantive question may be, for example, whether a statistically significant difference of one percentage point in the percentage of patients who received smoking cessation

<p>2f.3 Provide Measure Scores from Testing or Current Use (description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningful differences in performance): NA</p>	
<p>2g. Comparability of Multiple Data Sources/Methods</p> <p>2g.1 Data/sample (description of data/sample and size): NA</p> <p>2g.2 Analytic Method (type of analysis &amp; rationale): NA</p> <p>2g.3 Testing Results (e.g., correlation statistics, comparison of rankings): NA</p>	<p>2g</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> <p>NA <input type="checkbox"/></p>
<p>2h. Disparities in Care</p> <p>2h.1 If measure is stratified, provide stratified results (scores by stratified categories/cohorts): NA</p> <p>2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans: NCQA has participated with IOM and others in attempting to include information on disparities in measure data collection. However, at the present time, this data, at all levels (claims data, paper chart review, and electronic records), is not coded in a standard manner, and is incompletely captured. There are no consistent standards for what entity (physician, group, plan, employer) should capture and report this data. While "requiring" reporting of the data could push the field forward, it has been our position that doing so would create substantial burden with inability to use the data because of its inconsistency. At the present time, we agree with the IOM report that disparities are best considered by the use of zip code analysis which has limited applicability in most reporting situations. At the health plan level, for HEDIS health plan data collection, NCQA does have extensive data related to our use of stratification by insurance status (Medicare, Medicaid and private-commercial) and would strongly recommend this process where the data base supporting the measurement includes this information. However, we believe that the measure specifications should NOT require this since the measure is still useful where the data needed to determine disparities cannot be ascertained from the data available.</p>	<p>2h</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> <p>NA <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Scientific Acceptability of Measure Properties</i>?</p>	<p>2</p>
<p>Steering Committee: Overall, to what extent was the criterion, <i>Scientific Acceptability of Measure Properties</i>, met? Rationale:</p>	<p>2</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>
<p><b>3. USABILITY</b></p>	
<p>Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (evaluation criteria)</p>	<p>Eval Rating</p>
<p>3a. Meaningful, Understandable, and Useful Information</p> <p>3a.1 Current Use: In use</p> <p>3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large) (If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years): Part of HEDIS for Physician Measurement and NCQA's Heart Stroke Recognition Program.</p> <p>3a.3 If used in other programs/initiatives (If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years):</p>	<p>3a</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>

**Comment [KP20]:** 2g. If multiple data sources/methods are allowed, there is demonstration they produce comparable results.

**Comment [KP21]:** 2h. If disparities in care have been identified, measure specifications, scoring, and analysis allow for identification of disparities through stratification of results (e.g., by race, ethnicity, socioeconomic status, gender); OR rationale/data justifies why stratification is not necessary or not feasible.

**Comment [KP22]:** 3a. Demonstration that information produced by the measure is meaningful, understandable, and useful to the intended audience(s) for both public reporting (e.g., focus group, cognitive testing) and informing quality improvement (e.g., quality improvement initiatives). An important outcome that may not have an identified improvement strategy still can be useful for informing quality improvement by identifying the need for and stimulating new approaches to improvement.

<p>Testing of Interpretability (Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement)</p> <p>3a.4 Data/sample (description of data/sample and size): None</p> <p>3a.5 Methods (e.g., focus group, survey, QI project): NA</p> <p>3a.6 Results (qualitative and/or quantitative results and conclusions): NA</p>	
<p>3b/3c. Relation to other NQF-endorsed measures</p> <p>3b.1 NQF # and Title of similar or related measures: None</p>	
<p>(for NQF staff use) Notes on similar/related <u>endorsed</u> or submitted measures:</p> <p><b>3b. Harmonization</b>                  If this measure is related to measure(s) already <u>endorsed by NQF</u> (e.g., same topic, but different target population/setting/data source <u>or</u> different topic but same target population):                  3b.2 Are the measure specifications <u>harmonized</u>? If not, why?                  Note that this measure is different from the Controlling High Blood Pressure (0018) measure in that the denominators are different. IVD: Blood Pressure Control (0075) is specific to the population diagnosed with IVD while Controlling High Blood Pressure (0018) measures BP control in the population of patients with a diagnosis of hypertension.</p> <p>NCOA is also open to harmonizing this measure with other developers' measures; however, the ACC-AHA and MNCM have established a process for measure development, so no direct harmonization has been performed at this time. NQF is preparing cross walks for both competing measures' evaluation and harmonization. NCOA and AMA PCPI-ACC AHA have initiated discussions regarding harmonizing elements within this measure where there is potential for harmonization. Efforts will continue to determine whether it is possible (and/or alternative strategies) to harmonize denominator conditions (IVD vs. CAD) and the potential risks and benefits to populations being measured. There remain significant differences in the respective measures related to complexity, feasibility, standardization, and medication prescribing.</p>	<p>3b</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> <p>NA <input type="checkbox"/></p>
<p><b>3c. Distinctive or Additive Value</b>                  3c.1 Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures: NA</p> <p>5.1 If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality: NA</p>	<p>3c</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> <p>NA <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for Usability?</p>	<p>3</p>
<p>Steering Committee: Overall, to what extent was the criterion, Usability, met?                  Rationale:</p>	<p>3</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>
<p><b>4. FEASIBILITY</b></p>	
<p>Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (<a href="#">evaluation criteria</a>)</p>	<p><a href="#">Eval Rating</a></p>
<p><b>4a. Data Generated as a Byproduct of Care Processes</b>                  4a.1-2 How are the data elements that are needed to compute measure scores generated?                  Data generated as byproduct of care processes during care delivery (Data are generated and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition)</p>	<p>4a</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>

**Comment [KP23]:** 3b. The measure specifications are harmonized with other measures, and are applicable to multiple levels and settings.

**Comment [k24]:** 16 Measure harmonization refers to the standardization of specifications for similar measures on the same topic (e.g., influenza immunization of patients in hospitals or nursing homes), or related measures for the same target population (e.g., eye exam and HbA1c for patients with diabetes), or definitions applicable to many measures (e.g., age designation for children) so that they are uniform or compatible, unless differences are dictated by the evidence. The dimensions of harmonization can include numerator, denominator, exclusions, and data source and collection instructions. The extent of harmonization depends on the relationship of the measures, the evidence for the specific measure focus, and differences in data sources.

**Comment [KP25]:** 3c. Review of existing endorsed measures and measure sets demonstrates that the measure provides a distinctive or additive value to existing NQF-endorsed measures (e.g., provides a more complete picture of quality for a particular condition or aspect of healthcare, is a more valid or efficient way to measure).

**Comment [KP26]:** 4a. For clinical measures, required data elements are routinely generated concurrent with and as a byproduct of care processes during care delivery. (e.g., BP recorded in the electronic record, not abstracted from the record later by other personnel; patient self-assessment tools, e.g., depression scale; lab values, meds, etc.)

<p><b>4b. Electronic Sources</b></p> <p>4b.1 Are all the data elements available electronically? (<i>elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims</i>) Yes</p> <p>4b.2 If not, specify the near-term path to achieve electronic capture by most providers.</p>	<p>4b C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p><b>4c. Exclusions</b></p> <p>4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications? No</p> <p>4c.2 If yes, provide justification.</p>	<p>4c C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/></p>
<p><b>4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences</b></p> <p>4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results. NA</p>	<p>4d C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p><b>4e. Data Collection Strategy/Implementation</b></p> <p>4e.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data/missing data, timing/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues: NA</p> <p>4e.2 Costs to implement the measure (<i>costs of data collection, fees associated with proprietary measures</i>): NA</p> <p>4e.3 Evidence for costs: NA</p> <p>4e.4 Business case documentation: NA</p>	<p>4e C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Feasibility</i>?</p>	<p>4</p>
<p>Steering Committee: Overall, to what extent was the criterion, <i>Feasibility</i>, met? Rationale:</p>	<p>4 C <input type="checkbox"/> P <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/></p>
<p style="text-align: center;"><b>RECOMMENDATION</b></p>	
<p>(for NQF staff use) Check if measure is untested and only eligible for time-limited endorsement.</p>	<p>Time-limited <input type="checkbox"/></p>
<p>Steering Committee: Do you recommend for endorsement? Comments:</p>	<p>Y <input type="checkbox"/> N <input type="checkbox"/> A <input type="checkbox"/></p>
<p style="text-align: center;"><b>CONTACT INFORMATION</b></p>	
<p>Co.1 Measure Steward (Intellectual Property Owner) Co.1 Organization</p>	

**Comment [KP27]:** 4b. The required data elements are available in electronic sources. If the required data are not in existing electronic sources, a credible, near-term path to electronic collection by most providers is specified and clinical data elements are specified for transition to the electronic health record.

**Comment [KP28]:** 4c. Exclusions should not require additional data sources beyond what is required for scoring the measure (e.g., numerator and denominator) unless justified as supporting measure validity.

**Comment [KP29]:** 4d. Susceptibility to inaccuracies, errors, or unintended consequences and the ability to audit the data items to detect such problems are identified.

**Comment [KP30]:** 4e. Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, etc.) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use).



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<b>Co.2 Point of Contact</b> Greg, Pawlson, pawlson@ncqa.org, 202-955-5170-
Measure Developer If different from Measure Steward <b>Co.3 Organization</b> National Committee for Quality Assurance, 1100 13th Street NW, Suite 1000, Washington, District Of Columbia, 20005
<b>Co.4 Point of Contact</b> Greg, Pawlson, pawlson@ncqa.org, 202-955-5170-
<b>Co.5 Submitter If different from Measure Steward POC</b> Greg, Pawlson, pawlson@ncqa.org, 202-955-5170-, National Committee for Quality Assurance
<b>Co.6 Additional organizations that sponsored/participated in measure development</b>
<b>ADDITIONAL INFORMATION</b>
Workgroup/Expert Panel involved in measure development <b>Ad.1</b> Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development. NCQA follows a standard process of vetting members of the measurement advisory panel for conflicts of interest.
<b>Ad.2</b> If adapted, provide name of original measure: <b>Ad.3-5</b> If adapted, provide original specifications URL or attachment
Measure Developer/Steward Updates and Ongoing Maintenance <b>Ad.6</b> Year the measure was first released: <b>Ad.7</b> Month and Year of most recent revision: 07, 2009 <b>Ad.8</b> What is your frequency for review/update of this measure? Approximately every 3 years, sooner if the clinical guidelines have changed significantly. <b>Ad.9</b> When is the next scheduled review/update for this measure?
<b>Ad.10</b> Copyright statement/disclaimers:
<b>Ad.11 -13</b> Additional Information web page URL or attachment:
Date of Submission (MM/DD/YY): 03/15/2011

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2d. Clinically necessary measure exclusions are identified and must be:

- supported by evidence of sufficient frequency of occurrence so that results are distorted without the exclusion;
- AND
- a clinically appropriate exception (e.g., contraindication) to eligibility for the measure focus;
- AND
- precisely defined and specified:
    - if there is substantial variability in exclusions across providers, the measure is specified so that exclusions are computable and the effect on the measure is transparent (i.e., impact clearly delineated, such as number of cases excluded, exclusion rates by type of exclusion);

if patient preference (e.g., informed decision-making) is a basis for exclusion, there must be evidence that it strongly impacts performance on the measure and the measure must be specified so that the information about patient preference and the effect on the measure is transparent (e.g., numerator category computed separately, denominator exclusion category computed separately).

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2e. For outcome measures and other measures (e.g., resource use) when indicated:

- an evidence-based risk-adjustment strategy (e.g., risk models, risk stratification) is specified and is based on patient clinical factors that influence the measured outcome (but not disparities in care) and are present at start of care;<sup>Error! Bookmark not defined.</sup> OR

rationale/data support no risk adjustment.

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13 Risk models should not obscure disparities in care for populations by including factors that are associated with differences/inequalities in care such as race, socioeconomic status, gender (e.g., poorer treatment outcomes of African American men with prostate cancer, inequalities in treatment for CVD risk factors between men and women). It is preferable to stratify measures by race and socioeconomic status rather than adjusting out differences.

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14 With large enough sample sizes, small differences that are statistically significant may or may not be practically or clinically meaningful. The substantive question may be, for example, whether a statistically significant difference of one percentage point in the percentage of patients who received smoking cessation counseling (e.g., 74% v. 75%) is clinically meaningful; or whether a statistically significant difference of \$25 in cost for an episode of care (e.g., \$5,000 v. \$5,025) is practically meaningful. Measures with overall poor performance may not demonstrate much variability across providers.