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 #:** 0282 **NQF Project:** Cardiovascular Endorsement Maintenance 2010
MEASURE DESCRIPTIVE INFORMATION
De.1 **Measure Title:** Angina without procedure (PQI 13)
De.2 **Brief description of measure**: All non-maternal discharges of age 18 years and older with ICD-9-CM principal diagnosis code for angina.
1.1-2 **Type of Measure:** Access De.3 **If included in a composite or paired with another measure, please identify composite or paired measure** Prevention Quality Indicator Composite (overall and for chronic conditions)
De.4 **National Priority Partners Priority Area:** Population health, Safety De.5 **IOM Quality Domain**: Effectiveness De.6 **Consumer Care Need:** Staying healthy

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	**NQF Staff**
A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. *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.* 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)?** Yes A.2 **Indicate if Proprietary Measure** (*as defined in measure steward agreement*)**:** A.3 **Measure Steward Agreement:** Government entity and in the public domain - no agreement necessary A.4 **Measure Steward Agreement attached:**	**A** **Y**☐ **N**☐
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	**B** **Y**☐

every 3 years. Yes, information provided in contact section	N☐
C. The intended use of the measure includes both public reporting and quality improvement. ►**Purpose:** Public reporting, Internal quality improvement	C Y☐ N☐
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:** Yes, fully developed and tested D.2 **Have NQF-endorsed measures been reviewed to identify if there are similar or related measures?** Yes	D Y☐ N☐
(for NQF staff use) **Have all conditions for consideration been met?** **Staff Notes to Steward** (*if submission returned*)**:**	Met Y☐ N☐
Staff Notes to Reviewers (*issues or questions regarding any criteria*)**:** **Staff Reviewer Name(s):**	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
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. *Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria.* (evaluation criteria) **1a. High Impact**	Eval Rating
(for NQF staff use) **Specific NPP goal**:	
1a.1 Demonstrated High Impact Aspect of Healthcare: Patient/societal consequences of poor quality **1a.2** **1a.3 Summary of Evidence of High Impact:** Admissions for angina are common and there increasing evidence that the rate of angina admissions is partially a function of the quality of care in a community. Stable angina can be managed in an outpatient setting using drugs such as aspirin and beta blockers, as well as advice to change diet and exercise habits. Effective treatments for coronary artery disease reduce admissions for serious complications of ischemic heart disease, including unstable angina. **1a.4 Citations for Evidence of High Impact:** Gibbons RJ, Chatterjee K, Daley J, et al. ACC/AHA/ACP-ASIM guidelines for the management of patients with chronic stable angina: a report of the American College of Cardiology/American Heart Association Task force on Practice Guidelines (Committee on Management of Patients with Chronic Stable Angina) [published erratum appears in J Am Coll Cardiol 1999 Jul;34(1):314]. J Am Coll Cardiol 1999;33(7):2092-197. Blustein J, Hanson K, Shea S. Preventable hospitalizations and socioeconomic status. Health Aff (Millwood) 1998;17(2):177-89. Brunwald E, Antman EM, Beasley JW et al. ACC/AHA guidelines for the management of patients with unstable angina and non-ST-segment elevation myocardial infarction. A report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee on the Management of Patients with Unstable Angina). J Am Coll Cardiol 2000;36(3):970-1062.	1a C☐ P☐ M☐ N☐

Rating: C=Completely; P=Partially; M=Minimally; N=Not at all; NA=Not applicable

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).

Billings J, Zeital L, Lukomnik J, et al. Analysis of variation in hospital admission rates associated with area income in New York City. Unpublished report.

Millman M, editor. Committee on Monitoring Access to Personal Health Care Services. Washington, DC: National Academy Press. 1993.

1b. Opportunity for Improvement

1b.1 Benefits (improvements in quality) envisioned by use of this measure: Providers can implement processes of care to reduce the liklihood of a hospital admission or the health system can implement system processes to improve access to high quality outpatient care

1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers:
5th 25th Median 75th 95th
0.000000 0.000003 0.000043 0.000260 0.001208

1b.3 Citations for data on performance gap:
2007 AHRQ State Inpatient Databases with 4,000 counties 57,000 numerator discharges

1b.4 Summary of Data on disparities by population group:
Based on the 2008 national statistics for angina without procedure (http://hcupnet.ahrq.gov) the 2008 rates are as follows:

Overall rate per 100,000: 24.93; Risk adjusted rate: 24.05

Male: 24.42
Female: 25.42

Age groups: 18-39: 2.80; 40-64: 30.37; 65-74: 53.90; 75+: 74.27

1b.5 Citations for data on Disparities:
Nationwide Inpatient Sample, 2008

1b
C☐ P☐ M☐ N☐

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*)**:** Hospital admission is a proxy outcome for a decrease in health status

1c.2-3. Type of Evidence: Systematic synthesis of research

1c.4 Summary of Evidence (*as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome*)**:**
Hospital admission for angina is a PQI that would be of most interest to comprehensive health care delivery systems. Admission for angina is relatively common, suggesting that the indicator will be measured with good precision. The observed variation likely reflects true differences in area performance.
Age-sex adjustment has a moderate impact. Other risk factors for consideration include smoking, hyperlipidemia, hypertension, diabetes, and socioeconomic status. The patient populations served by hospitals that contribute the most to the overall area rate for angina may be a starting point for interventions.

As a PQI, angina without procedure is not a measure of hospital quality, but rather one measure of outpatient and other health care. This indicator has unclear construct validity, because it has not been validated except as part of a set of indicators. Providers may reduce admission rates without actually improving quality of care by shifting care to an outpatient setting. Some angina care takes place in emergency rooms. Combining inpatient and emergency room data may give a more accurate picture.

1c
C☐ P☐ M☐ N☐

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).

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., ... [1]

Face validity:Stable angina can be managed in an outpatient setting using drugs such as aspirin and beta blockers, as well as advice to change diet and exercise habits.84 Effective treatments for coronary artery disease reduce admissions for serious complications of ischemic heart disease, including unstable angina.

Precision: Reasonably precise estimates of area angina rates should be feasible, as one study shows that unstable angina accounts for 16.3% of total admissions for ACSCs.85 Based on empirical evidence, this indicator is adequately precise, with a raw area level rate of 166.0 per 100,000 population and a standard deviation of 135.7.
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 91.6%, indicating that the observed differences in age-sex adjusted rates likely represent true differences across areas. Using multivariate signal extraction techniques appears to have little additional impact on estimating true differences across areas.

Minimum bias: No evidence exists in the literature on the potential bias of this indicator. The incidence of angina is related to age structure and risk factors (smoking, hyperlipidemia, hypertension, diabetes) in a population. Elderly age (over 70), diabetes, and hypertension have also been associated with being at higher risk for angina.86

Construct validity: Billings et al. found that low-income ZIP codes in New York City had 2.3 times more angina hospitalizations than high-income ZIP codes.87 Household income explained 13% of this variation. In addition, Millman et al.88 reported that low-income ZIP codes had 2.7 times more angina hospitalizations per capita than high-income ZIP codes.
Based on empirical study, areas with high rates of angina admissions tend to have higher rates of other ACSC admissions.

Fosters true quality improvement:Use of this quality indicator might raise the threshold for admission of angina patients. Because some angina can be managed on an outpatient basis, a shift to outpatient care may occur but is unlikely for severe angina.

Prior use: This indicator was originally developed by Billings et al. in conjunction with the United Hospital Fund of New York.

1c.5 Rating of strength/quality of evidence (*also provide narrative description of the rating and by whom***):** Not applicable

1c.6 Method for rating evidence: Not applicable

1c.7 Summary of Controversy/Contradictory Evidence: In a study of approximately 124,000 cancer-free Medicare beneficiaries/year, with subjects contributing data for 1-8 years, angina PQI hospital discharges declined 75% between 1992 and 1999. CAD hospital discharges rose in a reciprocal pattern, while angina discharges with revascularization declined and discharges for myocardial infarction and ischemic heart disease remained relatively constant. The authors conclude “The marked decline in angina PQI hospital discharges during 1992-1999 does not appear to represent improvements in access to care or prevention of heart disease, but rather increased coding of more specific discharge diagnoses for CAD. Our findings suggest that angina hospitalization is not a valid measure for monitoring access to care and, more generally, demonstrate the need for careful, periodic reevaluation of quality measures.” [1]
[1] Barry G. Saver; Sharon A. Dobie; Pamela K. Green; Ching-Yun Wang; Laura-Mae Baldwin. No Pain, but No Gain? The Disappearance of Angina Hospitalizations, 1992-1999. Med Care. 2009 October ; 47(10): 1106–1110. doi:10.1097/MLR.0b013e31819e1f53.

1c.8 Citations for Evidence (*other than guidelines***):**
[1] Gibbons RJ, Chatterjee K, Daley J, et al. ACC/AHA/ACP-ASIM guidelines for the management of patients with chronic stable angina: a report of the American College of Cardiology/American Heart Association Task force on Practice Guidelines (Committee on Management of Patients with Chronic Stable Angina) [published erratum appears in J Am Coll Cardiol 1999 Jul;34(1):314]. J Am Coll Cardiol 1999;33(7):2092-197.
[2] Blustein J, Hanson K, Shea S. Preventable hospitalizations and socioeconomic status. Health Aff (Millwood) 1998;17(2):177-89.

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.

[3] Brunwald E, Antman EM, Beasley JW et al. ACC/AHA guidelines for the management of patients with unstable angina and non-ST-segment elevation myocardial infarction. A report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee on the Management of Patients with Unstable Angina). J Am Coll Cardiol 2000;36(3):970-1062.
[4] Billings J, Zeital L, Lukomnik J, et al. Analysis of variation in hospital admission rates associated with area income in New York City. Unpublished report.
[5] Millman M, editor. Committee on Monitoring Access to Personal Health Care Services. Washington, DC: National Academy Press. 1993.

1c.9 **Quote the Specific guideline recommendation (***including guideline number and/or page number***):**
Patients and their close associates should be informed of the nature of angina pectoris, and the implications of the diagnosis and the treatments that may be recommended. The patient can be reassured that, in most cases, both the symptoms of angina and prognosis can be improved with proper management.
Comprehensive risk stratification should be conducted as outlined above, and particular attention should be paid to the elements of lifestyle that could have contributed to the condition and which may influence prognosis, including physical activity, smoking, and dietary habits. The recommendations of the Third Joint European Societies´ Task Force on Cardiovascular Disease Prevention in Clinical Practice should be followed.

1c.10 **Clinical Practice Guideline Citation:** Guidelines on the management of stable angina pectoris. Fox K, Alonso Garcia MA, Ardissino D, Buszman P, Camici PG, Crea F, Daly C, DeBacker G, Hjemdahl P, Lopez-Sendon J, Marco J, Morais J, Pepper J, Sechtem U, Simoons M, Thygesen K. Guidelines on the management of stable angina pectoris. Sophia Antipolis, France: European Society of Cardiology; 2006. 63 p. [683 references]
1c.11 **National Guideline Clearinghouse or other URL:** Http://www.guidelines.gov/content.aspx?id=9421

1c.12 **Rating of strength of recommendation (***also provide narrative description of the rating and by whom***):**
Not applicable

1c.13 **Method for rating strength of recommendation** (*If different from USPSTF system, also describe rating and how it relates to USPSTF)***:**
Not applicable

1c.14 **Rationale for using this guideline over others:**
Not applicable

TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Importance to Measure and Report?* — **1**

Steering Committee: Was the threshold criterion, *Importance to Measure and Report***, met? Rationale:** — **1** Y☐ N☐

2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (evaluation criteria) — **Eval Rating**

2a. MEASURE SPECIFICATIONS

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-specs** C☐ P☐ M☐ N☐

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***):**
All discharges of age 18 years and older with ICD-9-CM principal diagnosis code for angina.

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.

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.2 Numerator Time Window (*The time period in which cases are eligible for inclusion in the numerator***):**
Time window can be determined by user, but is generally a calendar year.

2a.3 Numerator Details (*All information required to collect/calculate the numerator, including all codes, logic, and definitions***):**
Include ICD-9-CM diagnosis codes:
4111 INTERMED CORONARY SYND
41181 CORONARY OCCLSN W/O MI
41189 AC ISCHEMIC HRT DIS NEC
4130 ANGINA DECUBITUS
4131 PRINZMETAL ANGINA
4139 ANGINA PECTORIS NEC/NOS

Exclude cases:
• transfer from a hospital (different facility)
• transfer from a skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF)
• transfer from another health care facility
• MDC 14 (pregnancy, childbirth, and puerperium)
• with a code for cardiac procedure

ICD-9-CM Cardiac procedure codes:
0050 IMPL CRT PACEMAKER SYS OCT02-
0051 IMPL CRT DEFIBRILLAT OCT02-
0052 IMP/REP LEAD LF VEN SYS OCT02-
0053 IMP/REP CRT PACEMKR GEN OCT02-
0054 IMP/REP CRT DEFIB GENAT OCT02-
0056 INS/REP IMPL SENSOR LEAD OCT06-
0057 IMP/REP SUBCUE CARD DEV OCT06-
0066 PTCA OCT06-1751 IMPLANTATION OF RECHARGEABLE CARDIAC CONTRACTILITY MODULATION [CCM], TOTAL SYSTEM OCT09-
1752 IMPLANTATION OR REPLACEMENT OF CARDIAC CONTRACTILITY MODULATION [CCM] RECHARGEABLE PULSE GENERATOR ONLY OCT09-
3500 CLOSED VALVOTOMY NOS
3501 CLOSED AORTIC VALVOTOMY
3502 CLOSED MITRAL VALVOTOMY
3503 CLOSED PULMON VALVOTOMY
3504 CLOSED TRICUSP VALVOTOMY
3510 OPEN VALVULOPLASTY NOS
3511 OPN AORTIC VALVULOPLASTY
3512 OPN MITRAL VALVULOPLASTY
3513 OPN PULMON VALVULOPLASTY
3514 OPN TRICUS VALVULOPLASTY
3520 REPLACE HEART VALVE NOS
3521 REPLACE AORT VALV-TISSUE
3522 REPLACE AORTIC VALVE NEC
3523 REPLACE MITR VALV-TISSUE
3524 REPLACE MITRAL VALVE NEC
3525 REPLACE PULM VALV-TISSUE
3526 REPLACE PULMON VALVE NEC
3527 REPLACE TRIC VALV-TISSUE
3528 REPLACE TRICUSP VALV NEC
3531 PAPILLARY MUSCLE OPS
3532 CHORDAE TENDINEAE OPS
3533 ANNULOPLASTY
3534 INFUNDIBULECTOMY
3535 TRABECUL CARNEAE CORD OP
3539 TISS ADJ TO VALV OPS NEC
3541 ENLARGE EXISTING SEP DEF

3542 CREATE SEPTAL DEFECT	
3550 PROSTH REP HRT SEPTA NOS	
3551 PROS REP ATRIAL DEF-OPN	
3552 PROS REPAIR ATRIA DEF-CL	
3553 PROST REPAIR VENTRIC DEF	
3554 PROS REP ENDOCAR CUSHION	
3555 PROS REP VENTRC DEF-CLOS OCT06-	
3560 GRFT REPAIR HRT SEPT NOS	
3561 GRAFT REPAIR ATRIAL DEF	
3562 GRAFT REPAIR VENTRIC DEF	
3563 GRFT REP ENDOCAR CUSHION	
3570 HEART SEPTA REPAIR NOS	
3571 ATRIA SEPTA DEF REP NEC	
3572 VENTR SEPTA DEF REP NEC	
3573 ENDOCAR CUSHION REP NEC	
3581 TOT REPAIR TETRAL FALLOT	
3582 TOTAL REPAIR OF TAPVC	
3583 TOT REP TRUNCUS ARTERIOS	
3584 TOT COR TRANSPOS GRT VES	
3591 INTERAT VEN RETRN TRANSP	
3592 CONDUIT RT VENT-PUL ART	
3593 CONDUIT LEFT VENTR-AORTA	
3594 CONDUIT ARTIUM-PULM ART	
3595 HEART REPAIR REVISION	
3596 PERC HEART VALVULOPLASTY	
3598 OTHER HEART SEPTA OPS	
3599 OTHER HEART VALVE OPS	
3601 PTCA-1 VESSEL W/O AGENT	
3602 PTCA-1 VESSEL WITH AGNT	
3603 OPEN CORONRY ANGIOPLASTY	
3604 INTRCORONRY THROMB INFUS	
3605 PTCA-MULTIPLE VESSEL	
3606 INSERT OF COR ART STENT OCT95-	
3607 INS DRUG-ELUT CORONRY ST OCT02-	
3609 REM OF COR ART OBSTR NEC	
3610 AORTOCORONARY BYPASS NOS	
3611 AORTOCOR BYPAS-1 COR ART	
3612 AORTOCOR BYPAS-2 COR ART	
3613 AORTOCOR BYPAS-3 COR ART	
3614 AORTCOR BYPAS-4+ COR ART	
3615 1 INT MAM-COR ART BYPASS	
3616 2 INT MAM-COR ART BYPASS	
3617 ABD-CORON ART BYPASS OCT96-	
3619 HRT REVAS BYPS ANAS NEC	
362 ARTERIAL IMPLANT REVASC	
363 OTH HEART REVASCULAR	
3631 OPEN CHEST TRANS REVASC	
3632 OTH TRANSMYO REVASCULAR	
3633 ENDO TRANSMYO REVASCULAR OCT06-	
3634 PERC TRANSMYO REVASCULAR OCT06-	
3639 OTH HEART REVASULAR	
3691 CORON VESS ANEURYSM REP	
3699 HEART VESSLE OP NEC	
3731 PERICARDIECTOMY	
3732 HEART ANEURYSM EXCISION	
3733 EXC/DEST HRT LESION OPEN	
3734 EXC/DEST HRT LES OTHER	
3735 PARTIAL VENTRICULECTOMY	

3736 EXCISION OR DESTRUCTION OF LEFT ATRIAL APPENDAGE (LAA) OCT08-
3741 IMPLANT PROSTH CARD SUPPORT DEV OCT06
375 HEART TRANSPLANTATION (NOT VALID AFTER OCT 03)
375 HEART TRANPLANTATION OCT03-
3752 IMPLANT TOT REP HRT SYS OCT03-
3753 REPL/REP THORAC UNIT HRT OCT03-
3754 REPL/REP OTH TOT HRT SYS OCT03-
3755 REMOVAL OF INTERNAL BIVENTRICULAR HEART REPLACEMENT SYSTEM OCT08-
3760 IMPLANTATION OR INSERTION OF BIVENTRICULAR EXTERNAL HEART ASSIST SYSTEM OCT08-
3761 IMPLANT OF PULSATION BALLOON
3762 INSERTION OF NON-IMPLANTABLE HEART ASSIST SYSTEM
3763 REPAIR OF HEART ASSIST SYSTEM
3764 REMOVAL OF HEART ASSIST SYSTEM
3765 IMPLANT OF EXTERNAL HEART ASSIST SYSTEM
3766 INSERTION OF IMPLANTABLE HEART ASSIST SYSTEM
3770 INT INSERT PACEMAK LEAD
3771 INT INSERT LEAD IN VENT
3772 INT INSERT LEAD ATRI-VENT
3773 INT INSER LEAD IN ATRIUM
3774 INT OR REPL LEAD EPICAR
3775 REVISION OF LEAD
3776 REPL TV ATRI-VENT LEAD
3777 REMOVAL OF LEAD W/O REPL
3778 INSER TEAM PACEMAKER SYS
3779 REVIS OR RELOCATE POCKET
3780 INT OR REPL PERM PACEMKR
3781 INT INSERT 1-CHAM, NON
3782 INT INSERT 1-CHAM, RATE
3783 INT INSERT DUAL-CHAM DEV
3785 REPL PACEM W 1-CHAM, NON
3786 REPL PACEM 1-CHAM, RATE
3787 REPL PACEM W DUAL-CHAM
3789 REVISE OR REMOVE PACEMAK
3794 IMPLT/REPL CARDDEFIB TOT
3795 IMPLT CARDIODEFIB LEADS
3796 IMPLT CARDIODEFIB GENATR
3797 REPL CARDIODEFIB LEADS
3798 REPL CARDIODEFIB GENRATR

Exclude cases:

- transfer from a hospital (different facility)
- transfer from a skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF)
- transfer from another health care facility
- MDC 14 (pregnancy, childbirth, and puerperium)
- with a code for cardiac procedure in any field

2a.4 Denominator Statement (*Brief, text description of the denominator - target population being measured***):**
Population in Metro Area or county, age 18 years and older.

2a.5 Target population gender: Female, Male
2a.6 Target population age range: age 18 and over

2a.7 Denominator Time Window (*The time period in which cases are eligible for inclusion in the denominator***):**
Time window can be determined by user, but is generally a calendar year.

2a.8 Denominator Details (*All information required to collect/calculate the denominator - the target*

population being measured - including all codes, logic, and definitions):
Population in Metro Area or county, age 18 years and older.

2a.9 **Denominator Exclusions** (*Brief text description of exclusions from the target population*): none

2a.10 **Denominator Exclusion Details** (*All information required to collect exclusions to the denominator, including all codes, logic, and definitions*):
none

2a.11 **Stratification Details/Variables** (*All information required to stratify the measure including the stratification variables, all codes, logic, and definitions*):
Observed rates may be stratified by age sex.

2a.12-13 **Risk Adjustment Type:** Risk adjustment method widely or commercially available

2a.14 **Risk Adjustment Methodology/Variables** (*List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method*):
The predicted value for each case is computed using standard logistic regression and covariates for gender and age (in 5-year age groups). The reference population used in the regression is the universe of discharges for states that participate in the HCUP State Inpatient Databases (SID) for the year 2007, a database consisting of approximately 35 million discharges from 43 states. The expected rate is computed as the sum of the predicted value for each case divided by the number of cases for the unit of analysis of interest (i.e., county or state). The risk adjusted rate is computed using indirect standardization as the observed rate divided by the expected rate, multiplied by the reference population rate.

2a.15-17 **Detailed risk model available Web page URL or attachment:** URL
http://www.qualityindicators.ahrq.gov/downloads/pqi/PQI Risk Adjustment Tables (Version 4 2).pdf

2a.18-19 **Type of Score:** Rate/proportion
2a.20 **Interpretation of Score:** Better quality = Lower score
2a.21 **Calculation Algorithm** (*Describe the calculation of the measure as a flowchart or series of steps*):
Each Prevention Quality Indicator (PQI) expressed as a rate, is defined as outcome of interest/population at risk or numerator/denominator. The Quality Indicators software performs five steps to produce the PQI rates. 1) Discharge-level data is used to mark inpatient records containing outcomes of interest. 2) Identify populations at risk. For provider PQIs, such as short-term complications from diabetes, populations at risk are derived from hospital discharge records. 3) Calculate observed rates. Using output data from steps 1 and 2, PQI rates are calculated for user-specified combinations of stratifiers. 4) Risk adjust the PQI rates. Regression coefficients from a reference population database are applied to the observed rates in the risk-adjustment process. The risk-adjusted rates will then reflect the age and sex distribution of data in the reference population. 5) Create multivariate signal extraction (MSX) smoothed rates. Shrinkage factors are applied to the risk-adjusted rates for each PQI in the MSX process. For each PQI, the shrinkage estimate reflects a reliability adjustment unique to each indicator. Full information on PQI algorithms and specification can be found at http://qualityindicators.ahrq.gov/pqi_download.htm.

2a.22 **Describe the method for discriminating performance** (*e.g., significance testing*):
Significance testing is not prescribed by the software. Users may define their methods of discriminating performance according to their application. Although all cases are measured, the rate is considered a sample in time, given the variations in case mix over time. Confidence intervals can be calculated, but again are not prescribed.

2a.23 **Sampling (Survey) Methodology** *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)*:
Not applicable

2a.24 **Data Source** (*Check the source(s) for which the measure is specified and tested)*
Electronic administrative data/claims

2a.25 **Data source/data collection instrument** (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.*):
Hospital administrative discharge data. See data requirements in the AHRQ QI Windows Application Documentation: http://www.qualityindicators.ahrq.gov/software.htm

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.

2a.26-28 Data source/data collection instrument reference web page URL or attachment: URL
http://www.qualityindicators.ahrq.gov/software.htm

2a.29-31 Data dictionary/code table web page URL or attachment: URL
http://www.qualityindicators.ahrq.gov/downloads/winqi/AHRQ_QI_Windows_Software_Documentation_V41a.pdf,

2a.32-35 Level of Measurement/Analysis (*Check the level(s) for which the measure is specified and tested)*
Population: states, Population: counties or cities

2a.36-37 Care Settings (*Check the setting(s) for which the measure is specified and tested)*
Ambulatory Care: Office

2a.38-41 Clinical Services (*Healthcare services being measured, check all that apply*)
Clinicians: Physicians (MD/DO)

TESTING/ANALYSIS

2b. Reliability testing

2b.1 Data/sample *(description of data/sample and size)*: 2007 AHRQ State Inpatient Databases

2b.2 Analytic Method *(type of reliability & rationale, method for testing)*:
Annual review of ICD-9-CM coding updates for numerator specifications

2b.3 Testing Results *(reliability statistics, assessment of adequacy in the context of norms for the test conducted)*:
Not applicable

2b C☐ P☐ M☐ N☐

2c. Validity testing

2c.1 Data/sample *(description of data/sample and size)*: 2007 AHRQ State Inpatient Databases

2c.2 Analytic Method *(type of validity & rationale, method for testing)*:
Annual update of risk-adjustment covariates and comparative data

2c.3 Testing Results *(statistical results, assessment of adequacy in the context of norms for the test conducted)*:
Signal variance of 0.000000249270; Average signal ratio of 0.99

2c C☐ P☐ M☐ N☐

2d. Exclusions Justified

2d.1 Summary of Evidence supporting exclusion(s):
Not applicable

2d.2 Citations for Evidence:
Not applicable

2d.3 Data/sample *(description of data/sample and size)*: Not applicable

2d.4 Analytic Method *(type analysis & rationale)*:
Not applicable

2d.5 Testing Results *(e.g., frequency, variability, sensitivity analyses)*:
Not applicable

2d C☐ P☐ M☐ N☐ NA☐

2e. Risk Adjustment for Outcomes/ Resource Use Measures

2e.1 Data/sample *(description of data/sample and size)*: 2007 AHRQ State Inpatient Databases (SID)

2e C☐ P☐ M☐

Rating: C=Completely; P=Partially; M=Minimally; N=Not at all; NA=Not applicable

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.

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
•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 ca ... [2]

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 (but not disparities in care) and are present at start of care;[Error! Bookmark not defined.] OR ... [3]

2e.2 Analytic Method *(type of risk adjustment, analysis, & rationale)*:
The predicted value for each case is computed using standard logistic regression and covariates for gender and age (in 5-year age groups). The reference population used in the regression is the universe of discharges for states that participate in the HCUP State Inpatient Databases (SID) for the year 2007, a database consisting of approximately 35 million discharges from 43 states. The expected rate is computed as the sum of the predicted value for each case divided by the number of cases for the unit of analysis of interest (i.e., county or state). The risk adjusted rate is computed using indirect standardization as the observed rate divided by the expected rate, multiplied by the reference population rate.

2e.3 Testing Results *(risk model performance metrics)*:
c-statistic not calculated

2e.4 If outcome or resource use measure is not risk adjusted, provide rationale: Not applicable

N☐ NA☐

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). It is preferable to stratify measures by race and socioeconomic status rather than adjusting out differences.

2f. Identification of Meaningful Differences in Performance

2f.1 Data/sample from Testing or Current Use *(description of data/sample and size)*: 2007 AHRQ State Inpatient Databases (SID)

2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance *(type of analysis & rationale)*:
Posterior probability distribtion (gamma) and 95% probability intervals

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 meaningfully differences in performance)*:
5th 25th Median 75th 95th
0.000000 0.000003 0.000043 0.000260 0.001208

2f
C☐ P☐ M☐ N☐

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 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.

2g. Comparability of Multiple Data Sources/Methods

2g.1 Data/sample *(description of data/sample and size)*: Not applicable

2g.2 Analytic Method *(type of analysis & rationale)*:
Not applicable

2g.3 Testing Results *(e.g., correlation statistics, comparison of rankings)*:
Not applicable

2g
C☐ P☐ M☐ N☐ NA☐

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

2h. Disparities in Care

2h.1 If measure is stratified, provide stratified results *(scores by stratified categories/cohorts)*: Based on the 2008 national statistics for angina without procedure (http://hcupnet.ahrq.gov) the 2008 rates are as follows:

Overall rate per 100,000: 24.93; Risk adjusted rate: 24.05

Male: 24.42
Female: 25.42

Age groups: 18-39: 2.80; 40-64: 30.37; 65-74: 53.90; 75+: 74.27

2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:
Rates may be reported by age, gender and race/ethnicity

2h
C☐ P☐ M☐ N☐ NA☐

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.

TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Scientific Acceptability of Measure Properties?*

2

Steering Committee: Overall, to what extent was the criterion, *Scientific Acceptability of Measure Properties*, **met?**
Rationale:

2
C☐ P☐

M☐ N☐

3. USABILITY

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)

Eval Rating

3a. Meaningful, Understandable, and Useful Information

3a.1 Current Use: In use

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*)**:**
1) State of California: Hospital Inpatient Mortality Indicators for California, http://www.oshpd.ca.gov/hid/products/preventable_hospitalizations/pdfs/PH_REPORT_WEB.pdf
2) State of Kentucky, http://chfs.ky.gov/ohp/healthdata
3) State of New Jersey: Find and Compare Quality Care in New Jersey Hospitals, http://www.nj.gov/health/healthcarequality/
4) Niagara Health Quality Coalition and Alliance for Quality Health Care: New York State Hospital Report Card, http://www.myhealthfinder.com/
5) State of Texas: Reports on Hospital Performance, http://www.dshs.state.tx.us/thcic/
6) State of Nevada: Nevada Compare Care, http://nevadacomparecare.net/Monahrq/home.html

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***):**
he software is publically available and free of charge (http://www.qualityindicators.ahrq.gov/). Users apply the software to their own administrative data (UB-04 or claims) that is readily available. Hundreds of users have downloaded AHRQ Quality Indicators software.

Testing of Interpretability (*Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement*)
3a.4 Data/sample *(description of data/sample and size)***:** The AHRQ State Inpatient Databases (SID) consist of approximatley 4,500 counties and 38 million discharges

3a.5 Methods *(e.g., focus group, survey, QI project)***:**
A research team from the School of Public Affairs, Baruch College, under contracts with the Department of Public Health, Weill Medical College and Battelle, Inc., has developed a pair of Hospital Quality Model Reports at the request of the Agency for Healthcare Research & Quality (AHRQ). The AHRQ hip fracture mortality measure is included in the reports. These reports are designed specifically to report comparative information on hospital performance based on the AHRQ Quality Indicators (QIs). The work was done in close collaboration with AHRQ staff and the AHRQ Quality Indicators team.

The Model Reports (discussed immediately above) are based on:
- Extensive search and analysis of the literature on hospital quality measurement and reporting, as well as public reporting on health care quality more broadly;
- Interviews with quality measurement and reporting experts, purchasers, staff of purchasing coalitions, and executives of integrated health care delivery systems who are responsible for quality in their facilities;
- Two focus groups with chief medical officers of hospitals and/or systems and two focus groups with quality managers from a broad mix of hospitals;
- Four focus groups with members of the public who had recently experienced a hospital admission; and
- Four rounds of cognitive interviews (a total of 62 interviews) to test draft versions of the two Model Reports with members of the public with recent hospital experience, basic computer literacy but widely varying levels of education.

3a.6 Results *(qualitative and/or quantitative results and conclusions)***:**

3a C☐ P☐ M☐ N☐

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.

Given the above review of the literature and original research that was conducted, a Model report was the result that could help sponsors use the best evidence on public reports so they are most likely to have the desired effects on quality.	
3b/3c. Relation to other NQF-endorsed measures **3b.1 NQF # and Title of similar or related measures:**	
(for NQF staff use) **Notes on similar/related endorsed or submitted measures:**	
3b. Harmonization If this measure is related to measure(s) already endorsed by NQF (e.g., same topic, but different target population/setting/data source or different topic but same target population): **3b.2 Are the measure specifications harmonized? If not, why?**	**3b** C☐ P☐ M☐ N☐ NA☐
3c. Distinctive or Additive Value **3c.1 Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:** **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:**	**3c** C☐ P☐ M☐ N☐ NA☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Usability*?	**3**
Steering Committee: Overall, to what extent was the criterion, *Usability*, met? **Rationale:**	**3** C☐ P☐ M☐ N☐
4. FEASIBILITY	
Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)	**Eval Rating**
4a. Data Generated as a Byproduct of Care Processes **4a.1-2 How are the data elements that are needed to compute measure scores generated?** Coding/abstraction performed by someone other than person obtaining original information (E.g., DRG, ICD-9 codes on claims, chart abstraction for quality measure or registry)	**4a** C☐ P☐ M☐ N☐
4b. Electronic Sources **4b.1 Are all the data elements available electronically?** (*elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims*) Yes **4b.2 If not, specify the near-term path to achieve electronic capture by most providers.**	**4b** C☐ P☐ M☐ N☐
4c. Exclusions **4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications?** No **4c.2 If yes, provide justification.**	**4c** C☐ P☐ M☐ N☐ NA☐

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.)

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.

4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences

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.**
In a study of approximately 124,000 cancer-free Medicare beneficiaries/year, with subjects contributing data for 1-8 years, angina PQI hospital discharges declined 75% between 1992 and 1999. CAD hospital discharges rose in a reciprocal pattern, while angina discharges with revascularization declined and discharges for myocardial infarction and ischemic heart disease remained relatively constant. The authors conclude "The marked decline in angina PQI hospital discharges during 1992-1999 does not appear to represent improvements in access to care or prevention of heart disease, but rather increased coding of more specific discharge diagnoses for CAD. Our findings suggest that angina hospitalization is not a valid measure for monitoring access to care and, more generally, demonstrate the need for careful, periodic reevaluation of quality measures." [1]

[1] Barry G. Saver; Sharon A. Dobie; Pamela K. Green; Ching-Yun Wang; Laura-Mae Baldwin. No Pain, but No Gain? The Disappearance of Angina Hospitalizations, 1992-1999. Med Care. 2009 October ; 47(10): 1106–1110. doi:10.1097/MLR.0b013e31819e1f53.

4d C☐ P☐ M☐ N☐

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

4e. Data Collection Strategy/Implementation

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:**
None

4e.2 **Costs to implement the measure** (*costs of data collection, fees associated with proprietary measures*)**:**
Administrative and census data are collected as part of routine operations. Some staff time is required to download and execute the software

4e.3 **Evidence for costs:**
User reports

4e.4 **Business case documentation:** None

4e C☐ P☐ M☐ N☐

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).

TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Feasibility*?

4

Steering Committee: Overall, to what extent was the criterion, *Feasibility*, **met?**
Rationale:

4 C☐ P☐ M☐ N☐

RECOMMENDATION

(for NQF staff use) **Check if measure is untested and only eligible for time-limited endorsement.**

Time-limited ☐

Steering Committee: Do you recommend for endorsement?
Comments:

Y☐ N☐ A☐

CONTACT INFORMATION

Co.1 **Measure Steward (Intellectual Property Owner)**
Co.1 **Organization**
Agency for Healthcare Research and Quality, 540 Gaither Road, Rockville, Maryland, 20850

Co.2 **Point of Contact**

John, Bott, MSSW, MBA, john.bott@ahrq.hhs.gov, 301-427-1317-
Measure Developer If different from Measure Steward Co.3 **Organization** Agency for Healthcare Research and Quality, 540 Gaither Road, Rockville, Maryland, 20850 Co.4 **Point of Contact** John, Bott, MSSW, MBA, john.bott@ahrq.hhs.gov, 301-427-1317-
Co.5 **Submitter If different from Measure Steward POC** John, Bott, MSSW, MBA, john.bott@ahrq.hhs.gov, 301-427-1317-, Agency for Healthcare Research and Quality
Co.6 **Additional organizations that sponsored/participated in measure development** UC Davis Stanford University Battelle Memorial Institute
ADDITIONAL INFORMATION
Workgroup/Expert Panel involved in measure development Ad.1 **Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.** None
Ad.2 **If adapted, provide name of original measure:** Not applicable Ad.3-5 **If adapted, provide original specifications URL or attachment**
Measure Developer/Steward Updates and Ongoing Maintenance Ad.6 **Year the measure was first released:** 2001 Ad.7 **Month and Year of most recent revision:** 10, 2010 Ad.8 **What is your frequency for review/update of this measure?** annually Ad.9 **When is the next scheduled review/update for this measure?** 05, 2011
Ad.10 **Copyright statement/disclaimers:** The AHRQ QI software is publicly available. We have no copyright disclaimers.
Ad.11 -13 **Additional Information web page URL or attachment:**
Date of Submission (*MM/DD/YY*)**:** 12/31/2010

Page 3: [1] Comment [k5] **Karen Pace** **10/5/2009 8:59:00 AM**

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.

Page 10: [2] Comment [KP14] **Karen Pace** **10/5/2009 8:59:00 AM**

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).

Page 10: [3] Comment [KP16] **Karen Pace** **10/5/2009 8:59:00 AM**

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;**Error! Bookmark not defined.** OR

rationale/data support no risk adjustment.