NATIONAL QUALITY FORUM

Measure Submission and Evaluation Worksheet 5.0

This form contains the information submitted by measure developers/stewards, organized according to NQF's measure evaluation criteria and process. The evaluation criteria, evaluation guidance documents, and a blank online submission form are available on the submitting standards web page.

NQF #: 0046   **NQF Project:** Population Health: Prevention Project
(for Endorsement Maintenance Review) **Original Endorsement Date:** May 01, 2007   **Most Recent Endorsement Date:** May 01, 2007

BRIEF MEASURE INFORMATION
De.1 Measure Title: Osteoporosis: Screening or Therapy for Women Aged 65 Years and Older
Co.1.1 Measure Steward: National Committee for Quality Assurance
De.2 Brief Description of Measure: Percentage of female patients aged 65 years and older who have a central DXA measurement ordered or performed at least once since age 60 or pharmacologic therapy prescribed within 12 months.
2a1.1 Numerator Statement: Patients who had a central DXA measurement ordered or performed at least once since age 60 or pharmacologic therapy prescribed within 12 months
2a1.4 Denominator Statement: All female patients aged 65 years and older
2a1.8 Denominator Exclusions: Except patients for whom central DXA measurement was not ordered or performed and pharmacologic therapy was not prescribed by reason of appropriate denominator exception, including Documentation of medical reason(s) for not ordering or performing a central DXA measurement or not prescribing pharmacologic therapy Documentation of patient reason(s) for not ordering or performing a central DXA measurement or not prescribing pharmacologic therapy Documentation of system reason(s) for not ordering or performing a central DXA measurement or not prescribing pharmacologic therapy
1.1 Measure Type: Process **2a1. 25-26 Data Source:** Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Paper Records **2a1.33 Level of Analysis:** Clinician : Group/Practice, Clinician : Individual **1.2-1.4 Is this measure paired with another measure?** No **De.3 If included in a composite, please identify the composite measure** (*title and NQF number if endorsed*): N/A

STAFF NOTES (*issues or questions regarding any criteria*)
Comments on Conditions for Consideration:
Is the measure untested? Yes☐ No☐   If untested, explain how it meets criteria for consideration for time-limited endorsement:
1a. Specific national health goal/priority identified by DHHS or NPP addressed by the measure (*check De.5*): 5. Similar/related endorsed or submitted measures (*check 5.1*):

Other Criteria:
Staff Reviewer Name(s):

1. IMPACT, OPPORTUNITY, EVIDENCE - IMPORTANCE TO MEASURE AND REPORT

Importance to Measure and Report is a threshold criterion that must be met in order to recommend a measure for endorsement. All three subcriteria must be met to pass this criterion. See guidance on evidence.
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: H☐ M☐ L☐ I☐
(*The measure directly addresses a specific national health goal/priority identified by DHHS or NPP, or some other high impact aspect of healthcare.*)

De.4 **Subject/Topic Areas** (*Check all the areas that apply)*:   Musculoskeletal, Musculoskeletal : Osteoporosis
De.5 **Cross Cutting Areas** (*Check all the areas that apply)*:   Functional Status, Safety

1a.1 **Demonstrated High Impact Aspect of Healthcare:** Affects large numbers, Patient/societal consequences of poor quality, Severity of illness

1a.2 **If "Other," please describe:**

1a.3 **Summary of Evidence of High Impact** (*Provide epidemiologic or resource use data)*:
Osteoporosis is the most common metabolic bone disease and is characterized by low bone mineral density and structural deterioration of bone tissue causing bone fragility and increasing one's risk of fractures (NIAMS, 2010).
It can occur at any age; however one's risk increases with age. About 44 million Americans live with either osteoporosis or osteopenia (lower than normal bone mineral density that increases risk of osteoporosis), and of this group 68% are women (NIAMS, 2010).

Currently in the US, the estimated national direct expenditures for osteoporosis and related fractures total approximately $14 billion annually (NIAMS, 2010). Since these expenditures do not include indirect costs such as lost productivity or wages, the true financial impact of osteoporosis is extremely underestimated. Experts predict that by 2025 osteoporosis will cost approximately $25.3 billion each year (NOF, 2010). Osteoporotic fractures are responsible for more than 432,000 hospital admissions, almost 2.5 million medical office visits, and about 180,000 nursing home admissions each year (PhysWeeklyArchives.com, March 2, 2009).

Primary osteoporosis often follows menopause in women while medications or other medical conditions and diseases can cause secondary osteoporosis. Many are unaware they have the disease until they break a bone; most commonly breaking a hip, the spine or a wrist. Broken bones are extremely dangerous for older adults. Nearly twenty percent of older adults who suffer a hip fracture will die within a year from complications either related to the break itself or the surgery needed to repair it. Many of those who survivors will never return to pre-fracture functional status which oftentimes forces them to need long-term nursing home care (National Osteoporosis Foundation, 2010). Osteoporosis causes nearly 1.5 million fractures each year including 300,000 hip fractures, 700,000 spinal fractures, 250,000 wrist fractures and over 300,000 other fractures (NIAMS, 2010). Those individuals who have had even a single fracture have a much higher risk of new fractures. Women who have had a history of vertebral fracture are four times more likely to experience a new fracture within the 15-year follow-up (Harvard Health, 2010).
Both the National Osteoporosis Foundation and the US Preventive Services Task Force agree that all women, 65 and older, should be screened routinely with bone mineral density tests. Despite these two group's strong recommendations and numerous public health campaigns, screening rates are still relatively low. A systematic review of 51 articles examining bone mineral density (BMD) testing trends from 1992 to 2002 found screening frequencies among at-risk patients ranged from 1% to 47%. Medicare claim trends for BMD testing among patients 65 and over increased by nearly 50% from 1999 to 2005, showing 30% of all female Medicare beneficiaries had received at least one BMD test. Although rates have increased over time, there is still room for improvement (Grover et al., 2009).
Burge et al. used modeling to predict the incident octeoporosis-related fractures and subsequent costs in the United States through the year 2025. At that time, annual fractures and costs are projected to rise by almost 50 percent. The most rapid growth is estimated for people 65-74 years of age, with an increase of greater than 87 percent. Furthermore, an increase of nearly 175 percent is projected for subpopulations such as Hispanics, African Americans and men (Burge, et al., 2007). Despite having a

lower fracture risk, older men tend to have worse outcomes after fracture and poorer treatment rates (Cawthon, 2011). One recent study found an increase in treatment rates for men and low treatment variability between race/ethnic groups in a healthcare system using electronic medical records. The electronic medical records helped identify care gaps and gave continued reminders to providers until the care gaps were closed (Navarro, et al., 2011). Another study developed a fracture liaison service (FLS) and was able to obtain a high level of persistence with osteoporosis treatment. The authors claimed that since follow-up and treatment renewal were under routine daily practice, these results underscore the importance of initial prescription conditions and highlights an interest in medical networks such as the FLS (Boudou, et al., 2011).

A significant risk has been reported in people of all ethnic backgrounds. Non-Hispanic Caucasian and Asian women aged 50 and older are at particular risk for osteoporosis and low bone mass. While, twenty percent of non-Hispanic Caucasian women aged 50 or older are estimated to have osteoporosis, women from other racial/ethnic backgrounds are also at risk for osteoporosis and low bone mass. Five percent of non-Hispanic black women over age 50 are estimated to have osteoporosis; an estimated additional 35% have low bone mass that puts them at risk of developing osteoporosis. Ten percent of Hispanic women aged 50 and older are estimated to have osteoporosis; an estimated additional 49% are estimated to have low bone mass. When compared with other ethnic/racial groups, risk is increasing most rapidly among Hispanic women. Osteoporosis is considered to be under recognized and under-treated in both Caucasian and African American women (National Osteoporosis Foundation, 2010).

There is a misconception that osteoporosis is only a concern for white women, which is delaying the prevention and treatment in other ethnic populations of women who currently believe they are not at risk for the disease. African-American and Hispanic women are less likely to believe they are at risk for osteoporosis and feel osteoporosis is not a major health concern as some other diseases (NIAMS, 2010). Prevention efforts should target all women, irrespective of their race/ethnicity, especially if they have multiple risk factors (Cauley, 2011).

1a.4 **Citations for Evidence of High Impact cited in 1a.3:** Boudou L, Gerbay B, Chopin F, Ollagnier E, Collet P, & Thomas T. (2011). Management of Osteoporosis in Fracture Liaison Service Associated With Long-Term Adherence to Treatment. Osteoporosis International; 22(7):2099-106.

Burge R, Dawson-Hughes B, Solomon DH, Wong JB, King A, Tosteson A. (2007). Incidence and economic burden of osteoporosisrelated fractures in the United States, 2005–2025. J Bone Miner Res. 22:465–475.

Cauley, J. (2011). Defining Ethnic and Racial Differences in Osteoporosic and Fragility Fractures. Clinical Orthopaedics & Related Research; 469(7):1891-9.

Cawthon, PM. (2011). Gender Differences in Osteoporosis and Fractures. Clinical Orthopaedics & Related Research; 469(7):1900-5.

Grover M, Anderson M, Gupta R, Haden M, Hartmark-Hill J, Morski LM, Sarmiento P, Dueck A. Increased Osteoporosis Screening Rates Associated with the Provision of a Preventive Health Examination. The Journal of the American Board of Family Medicine 22 (6): 655-662 (2009).

Harvard Health Publications. Harvard Medical School. Treating Osteoporotic fractures of the Spine. [online] Accessed at: http://www.health.harvard.edu/newsletters/Harvard_Womens_Health_Watch/2008/December/Treating _osteoporotic_fractures_of_the_spine. [viewed October 28, 2010]

National Institutes of Health. National Institute of Arthritis and Musculoskeletal and Skin Disorders. Osteoporosis: Overview. June 2010. [online] Accessed at: http://www.niams.nih.gov/Health_Info/Bone/Osteoporosis/overview.asp

National Institutes of Health. National Institute of Arthritis and Musculoskeletal and Skin Disorders. Osteoporosis and African American Women. June 2010 [online] Accessed at: www.niams.nih.gov/hi/topics/osteoporosis/opbkgr.htm

National Osteoporosis Foundation. About Osteoporosis > Bone Health Basics. [online] Accessed at: http://www.nof.org/aboutosteoporosis/bonebasics/whybonehealth [viewed October 25, 2010].

Navarro R, Greene D, Burchette R, Funahashi T & Dell R. (2011). Minimizing Disparities in Osteoporosis Care of Minorities with an Electronic Medical Record Plan. Clinical Orthopaedics & Related Research; 469(7):1931-5.

1b. Opportunity for Improvement: H☐ M☐ L☐ I ☐
(*There is a demonstrated performance gap - variability or overall less than optimal performance*)

1b.1 **Briefly explain the benefits (improvements in quality) envisioned by use of this measure:**
The benefits of screening for osteoporosis include the detection of lower bone density mass and the prevention of fractures, particularly in older women. The United States Preventive Task Force (USPSTF) found good evidence that the risk of osteoporosis and fractures increases with age and other factors, that bone density measurements accurately predict the risk of fractures in the short-term. The USPSTF found that there are at least moderate benefits of screening for women at increased risk by virtue of age, and recommends women aged 65 and older be screened routinely for osteoporosis (USPSTF 2010).

US Preventive Services Task Force. Screening for Osteoporosis: Recommendations and Rationale. July 2010.

1b.2 Summary of Data Demonstrating Performance Gap *(Variation or overall less than optimal performance across providers)*:
[*For Maintenance – Descriptive statistics for performance results for this measure - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.*]
Recent PQRI data also shows opportunity for improvement in this area.

2007 PQRI data. Mean: 33.83%. National clinical performance rates: 25thpercentile: 8.70%; 50th percentile: 26.69%, 75th percentile: 55.32%.

2008 PQRI data. Mean: 35.09%. National clinical performance rates: 10th percentile: 1.27%; 25th percentile: 7.81%, 50th percentile: 28.57%, 75th percentile: 52.50%, 90th percentile: 72.55%.

It is important to note that physicians participating in PQRI in 2007 represented a small proportion of the eligible physicians (1.00% for this measure) and therefore the measure performance rate may not accurately reflect the ability of the general physician population to attain quality performance; the performance gap may be greater than indicated by this data.

Performance among the small proportion of eligible physician who participate in PQRI is found to vary. As a result, opportunities for improvement exist for these early participants. In addition, continued reporting and tracking of measure performance and variation is required as familiarity with PQRI increases and an increasing number of physicians participate.

1b.3 Citations for Data on Performance Gap: [*For Maintenance – Description of the data or sample for measure results reported in 1b.2 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*]
Section 1b.2 references data from the most recent two years of measurement for PQRI. The data in Section 1b.2 includes percentiles and mean. There were 3,926 provider submissions for this measure/rate, representing 153,820 patients, in 2007, the most recent year for which both provider and patient data were available.

1b.4 Summary of Data on Disparities by Population Group: [*For Maintenance –Descriptive statistics for performance results for this measure by population group*]
The measure is not stratified by patient groups or cohorts that could potentially be affected by disparities in care. 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, and 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 without generating meaningful results. We believe that the measure specifications should NOT require this unless absolutely necessary since the data needed to determine disparities cannot be ascertained from the currently available sources.

1b.5 Citations for Data on Disparities Cited in 1b.4: [*For Maintenance – Description of the data or sample for measure results reported in 1b.4 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*]
N/A

1c. Evidence (*Measure focus is a health outcome OR meets the criteria for quantity, quality, consistency of the body of evidence.*)
Is the measure focus a health outcome?   Yes☐ No☐   If not a health outcome, rate the body of evidence.

Quantity: H☐ M☐ L☐ I☐   Quality: H☐ M☐ L☐ I☐   Consistency: H☐ M☐ L☐ I☐

Quantity	Quality	Consistency	Does the measure pass subcriterion1c?
M-H	M-H	M-H	Yes☐
L	M-H	M	Yes☐ IF additional research unlikely to change conclusion that benefits to patients outweigh harms: otherwise **No**☐
M-H	L	M-H	Yes☐ IF potential benefits to patients clearly outweigh potential harms: otherwise **No**☐

L-M-H	L-M-H	L	No ☐	
Health outcome – rationale supports relationship to at least one healthcare structure, process, intervention, or service			**Does the measure pass subcriterion1c?** Yes☐ IF rationale supports relationship	

1c.1 Structure-Process-Outcome Relationship *(Briefly state the measure focus, e.g., health outcome, intermediate clinical outcome, process, structure; then identify the appropriate links, e.g., structure-process-health outcome; process- health outcome; intermediate clinical outcome-health outcome)*:
As osteoporotic fractures are a major health issue for many older women, this measure seeks to ensure that appropriate, recommended testing and treatment is provided.

1c.2-3 Type of Evidence *(Check all that apply)*:
Clinical Practice Guideline

1c.4 Directness of Evidence to the Specified Measure *(State the central topic, population, and outcomes addressed in the body of evidence and identify any differences from the measure focus and measure target population)*:
The United States Preventive Services Task Force recommends that women age 65 and older receive routine screening for osteoporosis (USPSTF 2011).There are numerous advanced screening methods for osteoporosis, yet the rate for which postmenopausal women are receiving these screenings is very low. The Dual-energy x-ray absorptiometry (DEXA) is considered the "gold standard" bone density test used in screening for osteoporosis as it quantitatively calculates the photon absorption of the minerals in bone tissue. However, in a 2005 Medicare claims survey asking women 65 and older if they had been given a diagnostic bone mineral density (BMD) exam in the last year, only 12.9% reported they had (Sego, 2010).

Studies show the prevention of fractures and falls have an effect on the quality of life and physical functioning of elderly people. Osteoporotic patients with vertebral fractures had worse scores for domains of physical function and social function general health perception. Vertebral fractures and a low femoral BMD impair QOL perception (Romagnoli 2004).

According to a study conducted by Kaiser Permanente, insistent management of patients at risk for osteoporosis could reduce the rate of reported hip fractures in the United States by 25% (ScienceDaily, 2009).

1c.5 Quantity of Studies in the Body of Evidence *(Total number of studies, not articles)*: See USPSTF guideline report

1c.6 Quality of Body of Evidence (*Summarize the certainty or confidence in the estimates of benefits and harms to patients across studies in the body of evidence resulting from study factors. Please address: a) study design/flaws; b) directness/indirectness of the evidence to this measure (e.g., interventions, comparisons, outcomes assessed, population included in the evidence); and c) imprecision/wide confidence intervals due to few patients or events)*: High

1c.7 Consistency of Results across Studies *(Summarize the consistency of the magnitude and direction of the effect):*
Consistent

1c.8 Net Benefit *(Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms)*:
The USPSTF determined there was a positive net benefit for osteoporosis screening.

1c.9 Grading of Strength/Quality of the Body of Evidence. Has the body of evidence been graded? Yes

1c.10 If body of evidence graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: US Preventive Services Task Force (USPSTF): The USPSTF recommends screening for osteoporosis in women aged 65 years or older and in younger women whose fracture risk is equal to or greater than that of a 65-year-old white woman who has no additional risk factors. This is a B recommendation.

The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for osteoporosis in men. This is an I statement.

National Osteoporosis Foundation (NOF): In women age 65 and older and men age 70 and older, recommend bone mineral density (BMD) testing. In postmenopausal women and men age 50-69, recommend BMD testing when you have concern based on their risk factor profile.

American Association of Clinical Endocrinologists (AACE) recommends women age 65 years and older (Grade B, Best Evidence Level 2) and all younger postmenopausal women at increased risk of fracture be screened for osteoporosis (Grade C, Best Evidence Level 2).

1c.11 System Used for Grading the Body of Evidence: USPSTF

1c.12 If other, identify and describe the grading scale with definitions:

1c.13 Grade Assigned to the Body of Evidence: B

1c.14 Summary of Controversy/Contradictory Evidence: While the majority of individuals affected by osteoporosis are women, current studies are exploring the benefits of osteoporosis screening in males. Seven percent of non-Hispanic Caucasian and Asian men age 50 or older are estimated to have osteoporosis, while 35% are estimated to have low bone mass. Four percent of non-Hispanic black men age 50 and older are estimated to have osteoporosis, while 19% are estimated to have low bone mass. Three percent of Hispanic males age 50 or older are estimated to have osteoporosis, while 23% are estimated to have low bone mass (National Osteoporosis Foundation, 2010). Other strong predictors for increased risk of osteoporosis include age, low body weight, physical inactivity, and weight loss (Shekell 2007). Currently there only a limited number of studies publish which identify osteoporosis screening tools in men. A recent cost-effectiveness analysis using Markov modeling indicated universal DXA screening in men would not be cost effective (Schousboe 2006). Six out of 10 males have osteoporosis by age 65 years and early screening based on risk factors could prevent osteoporosis-related fractures. Currently, the American College of Physicians (ACP) recommends bone thickness measurement with DXA for men who have risk factors for osteoporosis and who are willing and able to take drugs (Qaseem 2008).

1c.15 Citations for Evidence other than Guidelines *(Guidelines addressed below)*:
Berg AO. Screening for osteoporosis in postmenopausal women: recommendations and rationale. Am J Nurs 2003 Jan;103(1):73-80.
Cauley, J. (2011). Defining Ethnic and Racial Differences in Osteoporosic and Fragility Fractures. Clinical Orthopaedics & Related Research; 469(7):1891-9.
Gourlay, M. Osteoporosis Screening: Mixed Messages in Primary Care. Am Fam Physician. 2009 Feb 1;79(3):189-190. [online] Accessed at: http://www.aafp.org/afp/2009/0201/p189.html
Harvard Health Publications. Harvard Medical School. Treating Osteoporotic fractures of the Spine. [online] Accessed at: http://www.health.harvard.edu/newsletters/Harvard_Womens_Health_Watch/2008/December/Treating _osteoporotic_fractures_of_the_spine. [viewed October 28, 2010]
Izoura KE, Alazraki N, Byrd-Sellers J, Tangpricha V, & Nanes MS. (2011). Inclusion of Fracture Assessment Tool Risk Scores and Treatment Recommendations in Bone Density Reports Does Not Change Physician Prescribing Behavior for Osteoporosis. American Journal of the Medical Sciences. [EPUB AHEAD OF PRINT].
National Institutes of Health. National Institute of Arthritis and Musculoskeletal and Skin Disorders. Osteoporosis and African American Women. June 2010 [online] Accessed at: www.niams.nih.gov/hi/topics/osteoporosis/opbkgr.htm
National Institutes of Health. National Institute of Arthritis and Musculoskeletal and Skin Disorders. Osteoporosis: Overview. June 2010. [online] Accessed at: http://www.niams.nih.gov/Health_Info/Bone/Osteoporosis/overview.asp
National Osteoporosis Foundation. About Osteoporosis > Bone Health Basics. [online] Accessed at: http://www.nof.org/aboutosteoporosis/bonebasics/whybonehealth [viewed October 25, 2010].

Nelson HD, Haney EM, Dana T, Bougatsos C, Chou R (2010). Screening for Osteoporosis: An Update for the U.S. Preventive Services Task Force.. Ann Intern Med. Accessed at: http://www.annals.org/content/early/2010/07/01/0003-4819-153-2-201007200-00262.short
PhysWeeklyArchives.com, March 2, 2009. Vol. XXVI, No. 9. [online] Accessed at: http://www.physweeklyarchives.com/article.asp?issueid=667&articleid=5555
Qaseem A., V. Snow, P. Shekelle, R. Hopkins Jr., M.A. Forciea, and D.K. Owens. Screening for Osteoporosis in Men: A Clinical Practice Guideline from the American College of Physicians. Annals of Internal Medicine 2008 148:680-684.

Romagnoli E, Carnevale V, Nofroni I et al. Quality of life in ambulatory postmenopausal women: the impact of reduced bone mineral density and subclinical vertebral fractures. Osteporos Int 2004;15:975-80.

Roy A, Heckman M & O'Connor M. (2011). Optimizing Screening for Osteoporosis in Patients With Fragility Hip Fracture. Clinical Orthopaedics & Related Research; 469(7):1925-30.

Sego, S. Osteoporosis Screening in Postmenopausal Women. The Clinical Advisor. October 1, 2010. [online] Accessed at: http://www.clinicaladvisor.com/osteoporosis-screening-in-postmenopausal-women/article/180145/#

Schousboe JT, Taylor BC, Fink HA, Bauer DC, Nyman JA, Kane RL, et al. Cost Effectiveness of universal bone densitometry followed by treatment of those with femoral neck T-score <-2.5 compared to no densitometry or treatment in elderly caucasian men with or without prior fracture. American Society of Bone and Mineral Research 28th Annual Meeting 2006; Abstract.

Shekelle P, Munjas B, Liu H, Paige N, and Zhou A. "Screening Men for Osteoporosis: Who & How." Department of Veterans Affairs. May 2007.

U.S. Preventive Services Task Force. Guide to clinical preventive services, 3rd edition. Periodic updates. Washington, DC: Office of Disease Prevention and Health Promotion; 2002.

USPSTF. Recommendations and Rationale: Screening for Osteoporosis in Postmenopausal Women. http://www.ahrq.gov/clinic/3rduspstf/osteoporosis/osteorr.htm

U.S. Preventive Services Task Force. Screening for osteoporosis: U.S. preventive services task force recommendation statement. Ann Intern Med 2011 Mar 1;154(5):356-64.

1c.16 Quote verbatim, <u>the specific guideline recommendation</u> *(Including guideline # and/or page #)*:
US Preventive Services Task Force (USPSTF): The USPSTF recommends screening for osteoporosis in women aged 65 years or older and in younger women whose fracture risk is equal to or greater than that of a 65-year-old white woman who has no additional risk factors. This is a B recommendation.
The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for osteoporosis in men. This is an I statement.

National Osteoporosis Foundation (NOF): In women age 65 and older and men age 70 and older, recommend bone mineral density (BMD) testing. In postmenopausal women and men age 50-69, recommend BMD testing when you have concern based on their risk factor profile.

American Association of Clinical Endocrinologists (AACE) recommends women age 65 years and older (Grade B, Best Evidence Level 2) and all younger postmenopausal women at increased risk of fracture be screened for osteoporosis (Grade C, Best Evidence Level 2).

1c.17 Clinical Practice Guideline Citation: U.S. Preventive Services Task Force. Screening for osteoporosis: U.S. preventive services task force recommendation statement. Ann Intern Med 2011 Mar 1;154(5):356-64.

National Osteoporosis Foundation. (2010). Clinician's guide to prevention and treat¬ment of osteoporosis. [online] Accessed at: http://www.nof.org/professionals/clinical-guidelines.

American Association of Clinical Endocrinol¬ogists. (2010). Medical guidelines for clini¬cal practice for the diagnosis and treatment of postmenopausal osteoporosis. [online] Accessed at: https://www.aace.com/publications/guidelines.

1c.18 National Guideline Clearinghouse or other URL: http://www.guideline.gov/content.aspx?id=25316 , http://www.nof.org/professionals/clinical-guidelines, https://www.aace.com/publications/guidelines

1c.19 Grading of Strength of Guideline Recommendation. Has the recommendation been graded? Yes

1c.20 If guideline recommendation graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: A—Strongly Recommended: The USPSTF recommends the service. There is high certainty that the net benefit is substantial., B—Recommended: 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—No Recommendation: 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.

1c.21 System Used for Grading the Strength of Guideline Recommendation: USPSTF

1c.22 If other, identify and describe the grading scale with definitions:

1c.23 Grade Assigned to the Recommendation:

1c.24 Rationale for Using this Guideline Over Others: It is NCQA policy to use guidelines that are evidence-based, applicable to physicians and other healthcare providers, and developed by a national specialty organization or government agency.

NCQA convened an expert panel of diverse stakeholders to review the guidelines and evidence for this measure. The panel determined the measure was scientifically sound using the full body of evidence and guidelines for this measure concept.

Based on the NQF descriptions for rating the evidence, what was the <u>developer's assessment</u> of the quantity, quality, and consistency of the body of evidence?
1c.25 Quantity: High   **1c.26** Quality: High**1c.27** Consistency: High

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Was the threshold criterion, *Importance to Measure and Report*, met?
(*1a & 1b must be rated moderate or high and 1c yes*)   Yes☐ No☐
Provide rationale based on specific subcriteria:

For a new measure if the Committee votes NO, then STOP.
For a measure undergoing endorsement maintenance, if the Committee votes NO because of 1b. (no opportunity for improvement), it may be considered for continued endorsement and all criteria need to be evaluated.

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2. RELIABILITY & VALIDITY - SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES

Extent to which the measure, <u>as specified</u>, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (<u>evaluation criteria</u>)
Measure testing must demonstrate adequate reliability and validity in order to be recommended for endorsement. Testing may be conducted for data elements and/or the computed measure score. Testing information and results should be entered in the appropriate field. Supplemental materials may be referenced or attached in item 2.1. See guidance on measure testing.

S.1 Measure Web Page *(In the future, NQF will require measure stewards to provide a URL link to a web page where current detailed specifications can be obtained)*. Do you have a web page where current detailed specifications for <u>this</u> measure can be obtained? No

S.2 If yes, provide web page URL:

2a. RELIABILITY. Precise Specifications and Reliability Testing: H☐ M☐ L☐ I ☐

2a1. Precise Measure Specifications. (*The measure specifications precise and unambiguous.*)

2a1.1 Numerator Statement *(Brief, narrative description of the measure focus or what is being measured about the target population, e.g., cases from the target population with the target process, condition, event, or outcome)*:
Patients who had a central DXA measurement ordered or performed at least once since age 60 or pharmacologic therapy prescribed within 12 months

2a1.2 Numerator Time Window *(The time period in which the target process, condition, event, or outcome is eligible for inclusion)*:
At least once within 12 months

2a1.3 Numerator Details *(All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, codes with descriptors, and/or specific data collection items/responses)*:
3095F: CPT Category II code: 3095F – Central Dual-energy X-Ray Absorptiometry (DXA) results documented, OR
3096F: Central Dual- energy X-Ray Absorptiometry (DXA) ordered, OR
4005F: Pharmacologic therapy (other than minerals/vitamins) for osteoporosis prescribed

2a1.4 Denominator Statement *(Brief, narrative description of the target population being measured)*:
All female patients aged 65 years and older

2a1.5 **Target Population Category** *(Check all the populations for which the measure is specified and tested if any)*: Adult/Elderly Care

2a1.6 **Denominator Time Window** *(The time period in which cases are eligible for inclusion)*:
At least once within 12 months

2a1.7 **Denominator Details** (*All information required to identify and calculate the target population/denominator such as definitions, codes with descriptors, and/or specific data collection items/responses)*:
All female patients aged 65 years and older, AND

Patient encounter during the reporting period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215

2a1.8 **Denominator Exclusions** *(Brief narrative description of exclusions from the target population)*:
Except patients for whom central DXA measurement was not ordered or performed and pharmacologic therapy was not prescribed by reason of appropriate denominator exception, including

Documentation of medical reason(s) for not ordering or performing a central DXA measurement or not prescribing pharmacologic therapy

Documentation of patient reason(s) for not ordering or performing a central DXA measurement or not prescribing pharmacologic therapy

Documentation of system reason(s) for not ordering or performing a central DXA measurement or not prescribing pharmacologic therapy

2a1.9 **Denominator Exclusion Details** *(All information required to identify and calculate exclusions from the denominator such as definitions, codes with descriptors, and/or specific data collection items/responses)*:
3096F or 3095F or 4005F with 1P: Documentation of medical reason(s) for not ordering or performing a central dual energy X-ray absorptiometry (DXA) measurement or not prescribing pharmacologic therapy for osteoporosis

3096F or 3095F or 4005F with 2P: Documentation of patient reason(s) for not ordering or performing a central dual energy X-ray absorptiometry (DXA) measurement or not prescribing pharmacologic therapy for osteoporosis

3096F or 3095F or 4005F with 3P: Documentation of system reason(s) for not ordering or performing a central dual energy X-ray absorptiometry (DXA) measurement or not prescribing pharmacologic therapy for osteoporosis

2a1.10 **Stratification Details/Variables** *(All information required to stratify the measure results including the stratification variables, codes with descriptors, definitions, and/or specific data collection items/responses)*:
N/A

2a1.11 **Risk Adjustment Type** *(Select type. Provide specifications for risk stratification in 2a1.10 and for statistical model in 2a1.13)*: No risk adjustment or risk stratification   **2a1.12** If "Other," please describe:

2a1.13 **Statistical Risk Model and Variables** *(Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development should be addressed in 2b4.)*:
N/A

2a1.14-16 **Detailed Risk Model Available at Web page URL** (or attachment). Include coefficients, equations, codes with descriptors, definitions, and/or specific data collection items/responses. Attach documents only if they are not available on a webpage and keep attached file to 5 MB or less. NQF strongly prefers you make documents available at a Web page URL. Please supply login/password if needed:

2a1.17-18. Type of Score: Rate/proportion

2a1.19 Interpretation of Score *(Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)*: Better quality = Higher score

2a1.20 Calculation Algorithm/Measure Logic*(Describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; aggregating data; risk adjustment; etc.)*:
Measure Calculation
For performance purposes, this measure is calculated by creating a fraction with the following components: Denominator, Numerator, and Exceptions.

Step 1: Determine the eligible population. The eligible population is all the patients aged 65 years and up.

Step 2: Determine number of patients meeting the denominator criteria as specified in Section 2a1.7 above.

Step 3: Determine the number of patients who meet the numerator criteria as specified in section 2a1.3 above. The numerator includes all patients in the denominator population who had a central DXA measurement ordered or performed at least once since age 60 or pharmacologic therapy prescribed within 12 months

Step 4: Test for patients with valid exceptions from Step 3. Patients for whom central DXA measurement was not ordered or performed and pharmacologic therapy was not prescribed are exceptions to the numerator criteria

Step 5: Calculate the rate by dividing the total from Step 4 by the total from Step 2

2a1.21-23 Calculation Algorithm/Measure Logic Diagram URL or attachment:
Attachment
PCPI Sample Calculation Algorithm-634534216735979569.pdf

2a1.24 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):
N/A

2a1.25 Data Source *(Check all the sources for which the measure is specified and tested)*. If other, please describe:
 Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Paper Records

2a1.26 Data Source/Data Collection Instrument (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.*): N/A

2a1.27-29 Data Source/data Collection Instrument Reference Web Page URL or Attachment:

2a1.30-32 Data Dictionary/Code Table Web Page URL or Attachment:

2a1.33 Level of Analysis (*Check the levels of analysis for which the measure is specified and tested)*: Clinician : Group/Practice, Clinician : Individual

2a1.34-35 Care Setting *(Check all the settings for which the measure is specified and tested)*: Ambulatory Care : Clinician Office

2a2. Reliability Testing. (*Reliability testing was conducted with appropriate method, scope, and adequate demonstration of reliability.*)

2a2.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
Reliability is whether two abstractors, reviewing the same data from the same data source, would come to the same conclusion as to the patient meeting the measure, not meeting the measure, or qualifying as an exception.

AAOS/AMA PCPI Testing Project: Testing was performed at a physician practice utilizing a hybrid paper record and EHR system and automated measure reporting from a registry. Two abstractors completed manual abstraction of paper medical records, as that is where osteoporosis documentation was found.

Sample: n=30 randomly-selected cases patients meeting the following criteria were identified

1. Female Patient
2. 65+ years at the time of the office visit
3. Patient had an Office Visit during a 12-month time period

2a2.2 Analytic Method *(Describe method of reliability testing & rationale)*:
Data was abstracted from a series of randomly selected patient records and used to calculate inter-rater reliability

Data analysis included:
• Kappa statistic for performance
• Reliability percentage

2a2.3 Testing Results *(Reliability statistics, assessment of adequacy in the context of norms for the test conducted)*:
Overall, this measure shows substantial agreement.

(Kappa statistic for performance (95% CI)**, Reliability %):
Denominator: kappa not calculable, 100%
Exception: kappa not calculable, 100%
Numerator: 0.77 (0.53 – 1.00), 90.0%
Overall: 0.77 (0.53 – 1.00), 90%

**Kappa: Strength of Agreement
0.00: Poor
0.01 – 0.20: Slight
0.21 – 0.40: Fair
0.41 – 0.60: Moderate
0.61 – 0.80: Substantial
0.81 – 0.99: Almost perfect

Landis, J.R. and Koch, G. G. (1977) "The measurement of observer agreement for categorical data" in Biometrics. Vol. 33, pp. 159—174

2b. VALIDITY. Validity, Testing, including all Threats to Validity: H☐ M☐ L☐ I☐

2b1.1 Describe how the measure specifications *(measure focus, target population, and exclusions)* **are consistent with the evidence cited in support of the measure focus (***criterion 1c***) and identify any differences from the evidence:**
The evidence is consistent with the focus and scope of this measure.

2b2. Validity Testing. (*Validity testing was conducted with appropriate method, scope, and adequate demonstration of validity.*)

2b2.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:

2b2.2 Analytic Method *(Describe method of validity testing and rationale; if face validity, describe systematic assessment)*:
During measure development, the NCQA and PCPI-convened expert work groups assess the face and content validity of each measure. The groups establish the measure's ability to capture what it is designed to capture using a consensus process that consists of input from multiple stakeholders, including practicing physicians and experts with technical measure expertise, as well as a review of additional input received through a public comment period.

2b2.3 Testing Results *(Statistical results, assessment of adequacy in the context of norms for the test conducted; if face validity, describe results of systematic assessment)*:
This measure was deemed valid by the expert panel.

POTENTIAL THREATS TO VALIDITY. (*All potential threats to validity were appropriately tested with adequate results.*)

2b3. Measure Exclusions. (*Exclusions were supported by the clinical evidence in 1c or appropriately tested with results demonstrating the need to specify them.*)

2b3.1 Data/Sample for analysis of exclusions *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
The effect of measure exceptions was conducted on the entire sample of patients included in the testing.

Sample: 30 randomly-selected cases patients meeting the following criteria were identified

1. Female Patient
2. 65+ years at the time of the office visit
3. Patient had an Office Visit during a 12-month time period

2b3.2 Analytic Method (*Describe type of analysis and rationale for examining exclusions, including exclusion related to patient preference*):
For the CMS PQRI program, exceptions were analyzed for frequency. For the AAOS/AMA PCPI Testing Project, there were no exceptions, per medical record review.

2b3.3 Results *(Provide statistical results for analysis of exclusions, e.g., frequency, variability, sensitivity analyses)*:
For the CMS PQRI program, the use of exceptions was moderately reliable. The exception rates for this measure 2.62% (2007) and 2.59% (2008). For the AAOS/AMA PCPI Testing Project, there were no exceptions found in this medical record review.

2b4. Risk Adjustment Strategy. (*For outcome measures, adjustment for differences in case mix (severity) across measured entities was appropriately tested with adequate results.*)

2b4.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
N/A

2b4.2 Analytic Method (*Describe methods and rationale for development and testing of risk model or risk stratification including selection of factors/variables*):
N/A

2b4.3 Testing Results (*Statistical risk model: Provide quantitative assessment of relative contribution of model risk factors; risk model performance metrics including cross-validation discrimination and calibration statistics, calibration curve and risk decile plot, and assessment of adequacy in the context of norms for risk models. Risk stratification: Provide quantitative assessment of relationship of risk factors to the outcome and differences in outcomes among the strata*):
N/A

2b4.4 If outcome or resource use measure is not risk adjusted, provide rationale and analyses to justify lack of adjustment: N/A

2b5. Identification of Meaningful Differences in Performance. (*The performance measure scores were appropriately analyzed*

and discriminated meaningful differences in quality.)

2b5.1 Data/Sample *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
This measure is also used in the CMS Physician Quality Reporting Initiative (PQRI), 190,248 cases were reported for the 2008 program (the most recent year for which data is available).

2b5.2 Analytic Method *(Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance)*:
For the CMS PQRI Program, the mean performance rate was calculated from 153,820 patients, in 2007, and 190,248, in 2008. For the AAOS/AMA PCPI Testing Project, manual abstraction was performed to calculate performance on the measure and compared to reporting from registry.

2b5.3 Results *(Provide measure performance results/scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*:
CMS PQRI program
2007 PQRI data. Mean: 33.83%. National clinical performance rates: 25th percentile: 8.70%; 50th percentile: 26.69%, 75th percentile: 55.32%.

2008 PQRI data. Mean: 35.09%. National clinical performance rates: 10th percentile: 1.27%; 25th percentile: 7.81%, 50th percentile: 28.57%, 75th percentile: 52.50%, 90th percentile: 72.55%.

AAOS/AMA PCPI Testing Project
Score on this measure: Mean: 73.3%

2b6. Comparability of Multiple Data Sources/Methods. (*If specified for more than one data source, the various approaches result in comparable scores.*)

2b6.1 Data/Sample *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
N/A

2b6.2 Analytic Method *(Describe methods and rationale for testing comparability of scores produced by the different data sources specified in the measure)*:
N/A

2b6.3 Testing Results *(Provide statistical results, e.g., correlation statistics, comparison of rankings; assessment of adequacy in the context of norms for the test conducted)*:
N/A

2c. Disparities in Care: H☐ M☐ L☐ I☐ NA☐ (*If applicable, the measure specifications allow identification of disparities.*)

2c.1 If measure is stratified for disparities, provide stratified results *(Scores by stratified categories/cohorts)*: The measure is not stratified by patient groups or cohorts that could potentially be affected by disparities in care nor are we aware of any existing research identifying disparities in care that may be relevant to this measure.

2c.2 If disparities have been reported/identified (e.g., in 1b), but measure is not specified to detect disparities, please explain:
We are not aware of any relevant disparities that have been identified.

2.1-2.3 Supplemental Testing Methodology Information:
Attachment
Osteoporosis Testing Summary for NQF.pdf

Steering Committee: Overall, was the criterion, *Scientific Acceptability of Measure Properties*, **met?**
(*Reliability and Validity must be rated moderate or high*) Yes☐ No☐

Provide rationale based on specific subcriteria:
If the Committee votes No, STOP

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**)

C.1 Intended Purpose/ Use *(Check all the purposes and/or uses for which the measure is intended)*:   Public Reporting, Quality Improvement (Internal to the specific organization)

3.1 Current Use *(Check all that apply; for any that are checked, provide the specific program information in the following questions)*: Public Reporting, Quality Improvement (Internal to the specific organization)

3a. Usefulness for Public Reporting: H☐ M☐ L☐ I☐
(*The measure is meaningful, understandable and useful for public reporting.*)

3a.1. **Use in Public Reporting - disclosure of performance results to the public at large** *(If used in a public reporting program, provide name of program(s), locations, Web page URL(s)).* If not publicly reported in a national or community program, state the reason AND plans to achieve public reporting, potential reporting programs or commitments, and timeline, e.g., within 3 years of endorsement: [*For Maintenance – If not publicly reported, describe progress made toward achieving disclosure of performance results to the public at large and expected date for public reporting; provide rationale why continued endorsement should be considered.*]
This measure is used in the CMS PQRI program claims option for 2007, 2008, and 2009, and registry option for 2009. Available at: https://www.cms.gov/PQRS/Downloads/PQRI2007ReportFinal12032008CSG.pdf 2008 PQRI Submission Data, Executive Summary. Available at: http://www.cms.hhs.gov/PQRI/Downloads/2008QualityDataCodeSubmissionErrorReportFinal04-03-09.pdf

3a.2. **Provide a rationale for why the measure performance results are meaningful, understandable, and useful for public reporting.** If usefulness was demonstrated (e.g., focus group, cognitive testing), describe the data, method, and results: The successful use in PQRI supports the feasibility and usability of the measure specification on a national scale and the results indicate that there is significant variation between the 10th and 90th (2008 data) percentiles as well as the results, indicating that there is room for improvement in this critical population prevention area.

3.2 **Use for other Accountability Functions (payment, certification, accreditation).** If used in a public accountability program, provide name of program(s), locations, Web page URL(s): This measure may be used in a Maintenance of Certification program.

3b. **Usefulness for Quality Improvement:** H☐ M☐ L☐ I☐
(*The measure is meaningful, understandable and useful for quality improvement.*)

3b.1. **Use in QI.** If used in quality improvement program, provide name of program(s), locations, Web page URL(s):
[*For Maintenance – If not used for QI, indicate the reasons and describe progress toward using performance results for improvement*].
The measure specifications are made freely available on the PCPI website and through the implementation efforts of medical specialty societies.

3b.2. **Provide rationale for why the measure performance results are meaningful, understandable, and useful for quality improvement.** If usefulness was demonstrated *(e.g., QI initiative),* describe the data, method and results:
The results from PQRI indicate that there is significant variation between the 10th and 90th percentiles (2008 data) as well as the results, indicating that there is room for improvement in this critical population prevention area.

Overall, to what extent was the criterion, *Usability*, met? H☐ M☐ L☐ I☐
Provide rationale based on specific subcriteria:

4. FEASIBILITY

Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance

measurement. (__evaluation criteria__)

4a. Data Generated as a Byproduct of Care Processes: H☐ M☐ L☐ I☐

4a.1-2 How are the data elements needed to compute measure scores generated? *(Check all that apply).*
Data used in the measure are:
generated by and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition

4b. Electronic Sources: H☐ M☐ L☐ I☐

4b.1 Are the data elements needed for the measure as specified available electronically *(Elements that are needed to compute measure scores are in defined, computer-readable fields)*: ALL data elements in electronic health records (EHRs)

4b.2 If ALL data elements are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources:

4c. Susceptibility to Inaccuracies, Errors, or Unintended Consequences: H☐ M☐ L☐ I☐

4c.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measurement identified during testing and/or operational use and strategies to prevent, minimize, or detect. If audited, provide results:
Any measure is susceptible to errors. Measures should be audited against known benchmark data to decrease errors.

4d. Data Collection Strategy/Implementation: H☐ M☐ L☐ I☐

A.2 Please check if either of the following apply (*regarding proprietary measures*):
4d.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 and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues *(e.g., fees for use of proprietary measures)*:
Costs to implement the measure have not been calculated; however, 3,926 physicians attempted to use the measure within the 2007 PQRI program, speaking to feasibility.

Overall, to what extent was the criterion, *Feasibility*, met? H☐ M☐ L☐ I☐
Provide rationale based on specific subcriteria:

OVERALL SUITABILITY FOR ENDORSEMENT

Does the measure meet all the NQF criteria for endorsement? Yes☐ No☐
Rationale:

If the Committee votes No, STOP.
If the Committee votes Yes, the final recommendation is contingent on comparison to related and competing measures.

5. COMPARISON TO RELATED AND COMPETING MEASURES

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure before a final recommendation is made.

5.1 If there are related measures *(either same measure focus or target population)* **or competing measures** *(both the same measure focus and same target population)*, **list the NQF # and title of all related and/or competing measures:**
0037 : Osteoporosis testing in older women

5a. Harmonization

5a.1 If this measure has EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):
Are the measure specifications completely harmonized? No

5a.2 If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden:

Measure 0046 is conducted at the physician level, and data collection is administered through administrative claims. The numerator focuses female patients aged 65 years and older who have a central dual-energy X-ray absorptiometry (DXA) measurement ordered or performed at least once since age 60 or pharmacologic therapy prescribed within 12 months.Measure 0037 is conducted at the health plan level, and data collection is administered through the Medicare Health Outcomes Survey, a patient reported survey. The numerator focuses on females aged 65 and order who received a bone density test (BMD) for osteoporosis.

5b. Competing Measure(s)

5b.1 If this measure has both the same measure focus and the same target population as NQF-endorsed measure(s): Describe why this measure is superior to competing measures *(e.g., a more valid or efficient way to measure quality);* **OR provide a rationale for the additive value of endorsing an additional measure.** *(Provide analyses when possible)*:

CONTACT INFORMATION

Co.1 Measure Steward (Intellectual Property Owner): National Committee for Quality Assurance, 1100 13th Street NW, Suite 1000, Washington, District Of Columbia, 20005

Co.2 Point of Contact: Bob, Rehm, Assistant Vice President, Performance Measurement, Rehm@ncqa.org, 202-955-1728-

Co.3 Measure Developer if different from Measure Steward: American Academy of Family Physicians, 11400 Tomahawk Creek Parkway, Leawood, Georgia~18:Illinois~18:Illinois~21:Kansas~37:New York, 66211-2672

Co.4 Point of Contact: Bob, Rehm, Assistant Vice President, Performance Measurement, Rehm@ncqa.org, 202-955-1728-

Co.5 Submitter: Dawn, Alayon, MPH, CPH, Senior Health Care Analyst, alayon@ncqa.org, 202-955-3533-, National Committee for Quality Assurance

Co.6 Additional organizations that sponsored/participated in measure development:
This measure was developed with the cooperation of the American Academy of Family Physicians, the National Committee for Quality Assurance and the American Medical Association.

Co.7 Public Contact: Bob, Rehm, Assistant Vice President, Performance Measurement, Rehm@ncqa.org, 202-955-1728-, National Committee for Quality Assurance

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.
Osteoporosis Work Group Members

Co-Chairs:
Steven M. Petak, MD, JD, FACE, Texas Institute for Reproductive Medicine and Endocrinology, Houston, TX
Kenneth G. Saag, MD, MSc, Associate Professor, Director, Center for Education and Research on Therapeutics (CERTs) of Musculoskeletal Disorders, Division of Clinical Immunology and Rheumatology, University of Alabama at Birmingham,

Work Group Members:
Robert A. Adler, MD, RICVAMC, Chief, Endocrinology and Metabolism, Richmond, VA
H. Chris Alexander, III, MD, MACRhe, FACP, Independent Contractor, Medical Expert Witness, Social Security Administration, Office of Hearings and Appeals, Earlysville, VA
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Tomas Griebling, Dept. of Urology, Univ. of Kansas, Kansas City, KS
Madhavi Vemireddy, MD, SVP, Clinical Research and Development, ActiveHealth Management, New York City, New York
David A. Wong, MD, MSc, FRCS(C), Denver Spine Center, Denver, CO
Facilitators: Tim Kresowik, MD, Professor of Surgery, University of Iowa, Department of Surgery, Iowa City, IA

Ad.2 If adapted, provide title of original measure, NQF # if endorsed, and measure steward. Briefly describe the reasons for adapting the original measure and any work with the original measure steward:

Measure Developer/Steward Updates and Ongoing Maintenance
Ad.3 Year the measure was first released: 2006
Ad.4 Month and Year of most recent revision: 2006
Ad.5 What is your frequency for review/update of this measure? Every three years, or sooner if clinical guidelines are updated
Ad.6 When is the next scheduled review/update for this measure? 2013

Ad.7 Copyright statement: Physician Performance Measures (Measures) and related data specifications, developed by the American Medical Association (AMA) in collaboration with the Physician Consortium for Performance Improvement (the Consortium) and the National Committee for Quality Assurance (NCQA) pursuant to government sponsorship under subcontract 6205-05-054 with Mathematica Policy Research, Inc. under contract 500-00-0033 with Centers for Medicare & Medicaid Services.

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Ad.8 Disclaimers:
Ad.9 Additional Information/Comments:
Date of Submission (*MM/DD/YY*): 10/05/2011