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 #: 0405 NQF Project: Infectious Disease Project

(for Endorsement Maintenance Review)
Original Endorsement Date: Jul 31, 2008 Most Recent Endorsement Date: Jul 31, 2008 Last Updated Date: Sep 06, 2012

BRIEF MEASURE INFORMATION

De.1 Measure Title: HIV/AIDS: Pneumocystis jiroveci pneumonia (PCP) Prophylaxis

Co.1.1 Measure Steward: National Committee for Quality Assurance

De.2 Brief Description of Measure: Percentage of patients aged 6 weeks or older with a diagnosis of HIV/AIDS, who were prescribed Pneumocystis jiroveci pneumonia (PCP) prophylaxis

2a1.1 Numerator Statement: Numerator 1: Patients who were prescribed Pneumocystis jiroveci pneumonia (PCP) prophylaxis within 3 months of CD4 count below 200 cells/mm3

Numerator 2: Patients who were prescribed Pneumocystis jiroveci pneumonia (PCP) prophylaxis within 3 months of CD4 count below 500 cells/mm3 or a CD4 percentage below 15%

Numerator 3: Patients who were prescribed Pneumocystis jiroveci pneumonia (PCP) prophylaxis at the time of HIV diagnosis

Report a rate for each numerator (e.g., Numerator 1/Denominator 1, etc.) and a total rate (Total Numerator/Total Denominator)

2a1.4 Denominator Statement: Denominator 1. All patients aged 6 years and older with a diagnosis of HIV/AIDS and a CD4 count below 200 cells/mm3, who had at least two visits during the measurement year, with at least 90 days in between each visit; and,

Denominator 2. All patients aged 1 through 5 years of age with a diagnosis of HIV/AIDS and a CD4 count below 500 cells/mm3 or a CD4 percentage below 15%, who had at least two visits during the measurement year, with at least 90 days in between each visit; and,

Denominator 3. All patients aged 6 weeks through 12 months with a diagnosis of HIV, who had at least two visits during the measurement year, with at least 90 days in between each visit

Total denominator: The sum of the three denominators

2a1.8 Denominator Exclusions: Denominator 1 Exclusion: Patient did not receive PCP prophylaxis because there was a CD4 count above 200 cells/mm3 during the three months after a CD4 count below 200 cells/mm3

Denominator 2 Exclusion: Patient did not receive PCP prophylaxis because there was a CD4 count above 500 cells/mm3 or CD4 percentage above 15% during the three months after a CD4 count below 500 cells/mm3 or CD4 percentage below 15%

1.1 Measure Type: Process
2a1. 25-26 Data Source: Electronic Clinical Data : Electronic Health Record
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, OPPORTUITY, 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)*: Infectious Diseases, Infectious Diseases : Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS), Infectious Diseases : Respiratory
De.5 Cross Cutting Areas (*Check all the areas that apply)*:

1a.1 Demonstrated High Impact Aspect of Healthcare: A leading cause of morbidity/mortality, 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)*:
Approximately 1.2 million people in the U.S. age 13 and older are estimated to be living with HIV and as many as 20 percent of them are undiagnosed. (CDC, 2012) Despite strong efforts that have prevented significant increases in new cases of HIV/AIDS since 2006, an average of 50,000 people are newly infected each year, (CDC, Aug 2011) and although the number of deaths due to HIV/AIDS infection declined 7 percent from 2006-2009, (CDC, Feb 2011) it is still one of the top leading causes of death for black males and females and Hispanic/Latina females in the 35–44 age group. (CDC, 2012) These steady incidence rates and declining mortality rates mean more people than ever are living with HIV/AIDS; ensuring they receive recommended, high-quality care supports prevention efforts and significantly affects their ability to lead healthier lives. Preventing HIV and its related illness and death is a significant national health policy objective and 18 of the U.S. Healthy People 2020 goals are related to HIV prevention and treatment. (USDHHS, 2012)

Pneumocystis jiroveci pneumonia (PCP) is a common complication and a significant cause of morbidity and mortality for patients living with HIV. Without proper prophylaxis, patients with HIV/AIDS are at increased risk of developing PCP. (Lim, et al., 2012) Prior to widespread prevention efforts, up to 80 percent of AIDS patients developed PCP with a mortality rate of 20 to 40 percent. (Phair, et al., 1990) Adult and adolescent HIV patients are more likely to develop PCP if they have: CD4 cell count less than 200 cells/µL; CD4 cell percentage less than 14 %; higher plasma RNA; had previous episodes of PCP; or have oral thrush, recurrent bacterial pneumonia, or unintentional weight loss. (Kaplan, et al, 1998) Although prophylaxis treatment has become more widespread, a recent evaluation of a large health system's performance on HIV measures indicated the need for more consistent prescription of

prophylaxis for PCP. (Horberg, et al., 2011) In addition, a recent literature review found that anywhere from 45 to 55 percent of patients with known HIV do not receive any medical care over a 12-month period, and about 33 percent fail to receive care for up to 3 consecutive years. (Gardner, et al., 2011) These findings suggest a significant number of patients may not be receiving PCP prophylaxis. In addition, PCP prophylaxis has been found to be one of the most cost-effective treatments for patients with HIV/AIDS. (Walensky, et al. 2007)

1a.4 Citations for Evidence of High Impact cited in 1a.3: Centers for Disease Control and Prevention (CDC). HIV in the United States: At a Glance. National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention Division of HIV/AIDS Prevention. Last Updated March 12, 2012. Accessed May 14, 2012. http://www.cdc.gov/hiv/resources/factsheets/us.htm

Centers for Disease Control and Prevention (CDC). Estimates of New HIV Infections in the United States, 2006–2009. CDC Fact Sheet, August 2011. Accessed May 14, 2012. http://www.cdc.gov/nchhstp/newsroom/HIVIncidenceResources.html

Centers for Disease Control and Prevention (CDC). HIV Surveillance Report, 2009; vol. 21. Published February 2011. Accessed May 14, 2012. http://www.cdc.gov/hiv/surveillance/resources/reports/2009report/

Gardner EM, McLees MP, Steiner JF, et al. The Spectrum of Engagement in HIV Care and its Relevance to Test-and-Treat Strategies for Prevention of HIV Infection. Clin Infect Dis. 2011 March 15; 52(6): 793–800.

Horberg M, Hurley L, Towner W, et al. HIV quality performance measures in a large integrated health care system. AIDS Patient Care STDS. 2011 Jan;25(1):21-8.

Kaplan JE, Hanson DL, Navin TR, Jones JL. Risk factors for primary Pneumocystis carinii pneumonia in human immunodeficiency virus-infected adolescents and adults in the United States: reassessment of indications for chemoprophylaxis. J Infect Dis 1998;178:1126–32.

Lim PL, Zhou J, Ditangco RA, et al. Failure to prescribe pneumocystis prophylaxis is associated with increased mortality, even in the cART era: results from the Treat Asia HIV observational database. J Int AIDS Soc. 2012 Jan 26;15:1.

Phair J, Muñoz A, Detels R, Kaslow R, Rinaldo C, Saah A. The risk of Pneumocystis carinii pneumonia among men infected with human immunodeficiency virus type 1. Multicenter AIDS Cohort Study Group. N Engl J Med. 1990 Jan 18;322(3):161-5.

USDHHS. Healthy People 2020 Topics and Objectives Index. Last updated May 1, 2012. http://www.healthypeople.gov/2020/topicsobjectives2020/default.aspx.

Walensky RP, Freedberg KA, Weinstein MC, Paltiel, AD. Cost-Effectiveness of HIV Testing and Treatment in the United States. Clin Infect Dis. (2007) 45 (Supplement 4): S248-S254.

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:
Prophylaxis for pneumocytisis jiroveci (PCP) in patients with HIV is associated with important survival benefits. Patients not receiving PCP prophylaxis have a greater risk of developing an AIDS-defining illness, oral thrush, unexplained fever, and death.

Lim PL, Zhou J, Ditangco RA, et al. Failure to prescribe pneumocystis prophylaxis is associated with increased mortality, even in the cART era: results from the Treat Asia HIV observational database. J Int AIDS Soc. 2012 Jan 26;15:1.

Kaplan JE, Hanson DL, Navin TR, Jones JL. Risk factors for primary Pneumocystis carinii pneumonia in human immunodeficiency virus-infected adolescents and adults in the United States: reassessment of indications for chemoprophylaxis. J Infect Dis 1998;178:1126–32.

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.*]
CMS Physician Quality Reporting System:
This measure was used in the 2009 and 2010 CMS Physician Quality Reporting System (2011 data has been requested from CMS). For this measure, the average performance rate per eligible professional was 61.5% in 2009 and 75.8.2% in 2010. These numbers indicate there is a gap in care with significant room for improvement.

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*]
Centers for Medicare & Medicaid Services. 2010 Reporting Experience: Including Trends (2007-2011). Physician Quality Reporting System and Electronic Prescribing (eRx) Incentive Program. February 22, 2012. Accessed June 28, 2012. http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/index.html?redirect=/pqrs

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 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)*:
This is a process measure.
Administer PCP prophylaxis to patients with HIV/AIDS >> prevents patients with HIV from developing PCP >> reduces morbidity and mortality

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)*:
Clinical practice guidelines from the Centers for Disease Control and Prevention (CDC) recommend that HIV-infected adults and adolescents, including pregnant women and those on ART, should receive chemoprophylaxis against PCP if they have a CD4 count of <200 cells/μL (A-I) or a history of oropharyngeal candidiasis (A-II). Persons who have a CD4 cell percentage of <14% or a his¬tory of an AIDS-defining illness, but do not otherwise qualify, should also be considered for prophylaxis (B-II).

Another set of clinical practice guidelines from the CDC that focuses on children recommends prophylaxis for all HIV-infected children aged >6 years who have CD4 counts <200 cells/mm3 or CD4 <15%, for children aged 1–5 years with CD4 counts of <500 cells/mm3 or CD4 <15%, and for all HIV-infected infants aged <12 months regardless of CD4 count or percentage (A-II). Finally, they recommend that infants born to HIV-infected mothers should be considered for prophylaxis beginning at 4–6 weeks of age. HIV-infected infants should be administered prophylaxis until 1 year of age, at which time they should be reassessed on the basis of the age-specific CD4 count or percentage thresholds mentioned above (A-II).

1c.5 Quantity of Studies in the Body of Evidence *(Total number of studies, not articles)*: A total of 18 studies were cited in the CDC guidelines for adults and adolescents. Twelve were randomized control trials including 6,794 patients. Two studies were controlled prospective studies (no indication if patients were randomized) of 201 patients. There was one retrospective observational study of 155 patients and two cohort studies of more than 1065 patients. Details on one study could not be determined.
Twelve studies were cited in the CDC guidelines for pediatrics. There were five randomized control trials involving 2,537 patients, one clinical trial (undetermined if randomization occurred) of 140 patients, two retrospective observational studies of 19,956 patients, a cross-sectional study and a systematic review. Details on two studies could not be determined.

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*): The CDC recommendation on chemoprophylaxis against PCP for adults and adolescents with a CD4 cell count <200 cells/μL is based on strong evidence consisting of at least one properly-designed randomized, controlled trial. CDC's evidence in support of prophylaxis for adults and adolescents with a history of oropharyngeal candidiasis, who have a CD4 cell percentage of <14%, or a history of an AIDS-defining illness is moderate and based on at least one well-designed clinical trial without randomization, from cohort or case-controlled analytic studies (preferably from more than one center), or from multiple time-series studies, or dramatic results from uncontrolled experiments. The evidence supporting CDC's recommendations for prophylaxis in children is also moderate and based on at least one well-designed clinical trial without randomization, from cohort or case-controlled analytic studies (preferably from more than one center), or from multiple time-series studies, or dramatic results from uncontrolled experiments.

1c.7 Consistency of Results across Studies *(Summarize the consistency of the magnitude and direction of the effect):* The evidence cited in the CDC guidelines is consistent in showing the benefits of providing PCP prophylaxis for adults, adolescents, and pediatrics with HIV/AIDS.

1c.8 Net Benefit *(Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms)*:
CDC Prevention and Treatment of Opportunistic Infections in HIV-infected Adults and Adolescents Guidelines: The panel determined there was a positive net benefit for prevention of opportunistic infections in HIV-infected adults and adolescents.

CDC Prevention and Treatment of Opportunistic Infections in HIV-Exposed and -Infected Children Guidelines: The panel determined there was a positive net benefit for prevention of opportunistic infections in HIV-infected adults and adolescents.

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: CDC Adult/Adolescents Guidelines:
These guidelines were developed by a panel of specialists from the United States government and academic institutions. For each infection covered in the guidelines, a small group of specialists with content-matter expertise reviewed the literature for new information since the guidelines were last pub¬lished; they then proposed revised recommendations at a meeting held at NIH in June 2007. After those presentations and a discussion, the revised guidelines were further reviewed by the co-editors; by the Office of AIDS Research, NIH; by specialists at CDC; and by HIVMA of IDSA before final approval and publication. CDC and its planners and content specialists disclosed they had no finan¬cial interests or other relationships with the manufacturers of commercial products, suppliers of commercial services, or commercial supporters, with the exception of Constance Benson and King K. Holmes. Dr. Benson disclosed being on the Advisory Board for Merck, GlaxoSmithKline, and Boehringer Ingelheim; being a grant recipient for Gilead; and being a Data Safety Monitoring Board (DSMB) member for Achillion and JJR Australia. Her spouse also was a consultant for Merck, Gilead, Achillion, Monogram, and Vertex. Dr. Holmes disclosed being a DSMB member of Merck, receiving an honorarium at the 2005 Infectious Diseases Society of America Conference, and serving on the Mycology Research Laboratories scientific advisory board. However, their presentations did not include any discussion of the unlabeled use of a product or a product under investigational use.

CDC Pediatrics Guidelines:
The guidelines were developed by a panel of specialists in pediatric HIV infection and infectious diseases (the Pediatric Opportunistic Infections Working Group) from the U.S. government and academic institutions. For each OI, a pediatric specialist with content-matter expertise reviewed the literature for new information since the last guidelines were published; they then proposed revised recommendations at a meeting at the National Institutes of Health (NIH) in June 2007. After these presentations and discussions, the guidelines underwent further revision, with review and approval by the Working Group, and final endorsement by NIH, CDC, the HIV Medicine Association (HIVMA) of the Infectious Diseases Society of America (IDSA), the Pediatric Infectious Disease Society (PIDS), and the American Academy of Pediatrics (AAP). CDC and its planners and content specialists disclosed they had no financial interests or other relationships with the manufacturers of commercial products, suppliers of commercial services, or commercial supporters, with the exception of Kenneth Dominguez, who serves on Advisory Board for Committee on Pediatric AIDS (COPD) –Academy of Pediatrics and Kendel International, Inc. antiretroviral Pregnancy Registry and Peter Havens serves on the Advisory board for Abbott Laboratories, Grant Co. Investigator for Gilead, Merck, and Bristrol-Myers Squibb as well as a Grant Recipient for BI, GlaxoSmithKline, Pfizer, Tibotec and Orthobiotech.

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

1c.12 If other, identify and describe the grading scale with definitions: Rating Strength of recommendation: A: Both strong evidence for efficacy and substantial clinical benefit support recommendation for use. Should always be offered; B: Moderate evidence for efficacy—or strong evidence for efficacy but only limited clinical benefit—supports recommendation for use. Should generally be offered; C: Evidence for efficacy is insufficient to support a recommendation for or against use. Or evidence for efficacy might not outweigh adverse conse¬quences (e.g. drug toxicity, drug interactions) or cost of the treatment or alternative approaches. Optional; D: Moderate evidence for lack of efficacy or for adverse outcome supports a recommendation against use. Should generally not be offered; E: Good evidence for lack of efficacy or for adverse outcome supports a recommendation against use. Should never be offered. Rating Quality of the evidence supporting the recommendation: I: Evidence from at least one properly-designed randomized, controlled trial; II: Evidence from at least one well-designed clinical trial without randomization, from cohort or case-controlled analytic studies (preferably from more than one center), or from multiple time-series studies, or dramatic results from uncontrolled experiments; III: Evidence from opinions of respected authorities based on clinical experience, descriptive studies, or reports of expert committees.

1c.13 Grade Assigned to the Body of Evidence: A-I to A-II

1c.14 Summary of Controversy/Contradictory Evidence: None.

1c.15 Citations for Evidence other than Guidelines*(Guidelines addressed below)*:
N/A

1c.16 Quote verbatim, the specific guideline recommendation *(Including guideline # and/or page #)*:

[Strength of recommendation and quality of evidence are in parentheses, following each recommendation]

CDC Prevention and Treatment of Opportunistic Infections in HIV-infected Adults and Adolescents Guidelines (CDC, April 2009): HIV-infected adults and adolescents, including pregnant women and those on ART, should receive chemoprophylaxis against PCP if they have a CD4+ count of <200 cells/μL (A-I) or a history of oropharyngeal candidiasis (A-II). Persons who have a CD4+ cell percentage of <14% or a his¬tory of an AIDS-defining illness, but do not otherwise qualify, should be considered for prophylaxis (B-II).

CDC Prevention and Treatment of Opportunistic Infections in HIV-Exposed and -Infected Children (CDC, Sept. 2009): Chemoprophylaxis is highly effective in preventing PCP. Criteria for its use are based on the patient's age and CD4 count or percentage (A-II). Prophylaxis is recommended for all HIV-infected children aged >6 years who have CD4 counts <200 cells/mm3 or CD4 <15%, for children aged 1–5 years with CD4 counts of <500 cells/mm3 or CD4 <15%, and for all HIV-infected infants aged <12 months regardless of CD4 count or percentage.

Infants born to HIV-infected mothers should be considered for prophylaxis beginning at 4–6 weeks of age. HIV-infected infants should be administered prophylaxis until 1 year of age, at which time they should be reassessed on the basis of the age-specific CD4 count or percentage thresholds mentioned above (A-II).

1c.17 Clinical Practice Guideline Citation: Centers for Disease Control and Prevention (CDC), NIH, and the IDSA. Guidelines for Prevention and Treatment of Opportunistic Infections in HIV-Infected Adults and Adolescents. Morbidity and Mortality Weekly Report, vol. 58, April 10, 2009. Available at: http://www.aidsinfo.nih.gov/contentfiles/Adult_OI.pdf. Accessed May 25, 2012.

Centers for Disease Control and Prevention (CDC), NIH, IDSA, Pediatric Infectious Diseases Society, American Academy of Pediatrics. Guidelines for the Prevention and Treatment of Opportunistic Infections Among HIV-Exposed and HIV-Infected Children. Morbidity and Mortality Weekly Report, vol. 58, September 4, 2009. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr58e0826a1.htm. Accessed May 25, 2012.

1c.18 National Guideline Clearinghouse or other URL: http://www.aidsinfo.nih.gov/contentfiles/Adult_OI.pdf; http://www.cdc.gov/mmwr/preview/mmwrhtml/rr58e0826a1.htm

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: CDC Adult/Adolescents Guidelines, expert consensus with evidence review/ CDC Pediatrics Guidelines; expert consensus with evidence review

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

1c.22 If other, identify and describe the grading scale with definitions: CDC Guidelines Rating Method: Rating Strength of recommendation: A: Both strong evidence for efficacy and substantial clinical benefit support recommendation for use. Should always be offered; B: Moderate evidence for efficacy—or strong evidence for efficacy but only limited clinical benefit—supports recommendation for use. Should generally be offered; C: Evidence for efficacy is insufficient to support a recommendation for or against use. Or evidence for efficacy might not outweigh adverse conse¬quences (e.g. drug toxicity, drug interactions) or cost of the treatment or alternative approaches. Optional; D: Moderate evidence for lack of efficacy or for adverse outcome supports a recommendation against use. Should generally not be offered; E: Good evidence for lack of efficacy or for adverse outcome supports a recommendation against use. Should never be offered. Rating Quality of the evidence supporting the recommendation: I: Evidence from at least one properly-designed randomized, controlled trial; II: Evidence from at least one well-designed clinical trial without randomization, from cohort or case-controlled analytic studies (preferably from more than one center), or from multiple time-series studies, or dramatic results from uncontrolled experiments; III: Evidence from opinions of respected authorities based on clinical experience, descriptive studies, or reports of expert committees.

1c.23 Grade Assigned to the Recommendation: A-I to A-II

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 and PCPI 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 developer's assessment of the quantity, quality, and consistency of the body of evidence?
1c.25 Quantity: High 1c.26 Quality: Moderate1c.27 Consistency: Moderate
1c.28 Attach evidence submission form:
1c.29 Attach appendix for supplemental materials:

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.

2. RELIABILITY & VALIDITY - 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)
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 this measure can be obtained? Yes

S.2 If yes, provide web page URL: The NQF endorsed measure is available on AMA's website: http://www.ama-assn.org/apps/listserv/x-check/qmeasure.cgi?submit=PCPI

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)*:
Numerator 1: Patients who were prescribed Pneumocystis jiroveci pneumonia (PCP) prophylaxis within 3 months of CD4 count below 200 cells/mm3

Numerator 2: Patients who were prescribed Pneumocystis jiroveci pneumonia (PCP) prophylaxis within 3 months of CD4 count below 500 cells/mm3 or a CD4 percentage below 15%

Numerator 3: Patients who were prescribed Pneumocystis jiroveci pneumonia (PCP) prophylaxis at the time of HIV diagnosis

Report a rate for each numerator (e.g., Numerator 1/Denominator 1, etc.) and a total rate (Total Numerator/Total Denominator)

2a1.2 Numerator Time Window *(The time period in which the target process, condition, event, or outcome is eligible for inclusion)*:
12-month measurement period

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*:

2a1.4 Denominator Statement *(Brief, narrative description of the target population being measured)*:
Denominator 1. All patients aged 6 years and older with a diagnosis of HIV/AIDS and a CD4 count below 200 cells/mm3, who had at least two visits during the measurement year, with at least 90 days in between each visit; and,

Denominator 2. All patients aged 1 through 5 years of age with a diagnosis of HIV/AIDS and a CD4 count below 500 cells/mm3 or a CD4 percentage below 15%, who had at least two visits during the measurement year, with at least 90 days in between each visit; and,

Denominator 3. All patients aged 6 weeks through 12 months with a diagnosis of HIV, who had at least two visits during the measurement year, with at least 90 days in between each visit

Total denominator: The sum of the three denominators

2a1.5 Target Population Category *(Check all the populations for which the measure is specified and tested if any)*: Adult/Elderly Care, Children's Health, Populations at Risk

2a1.6 Denominator Time Window *(The time period in which cases are eligible for inclusion)*:
12-month measurement period

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)*:
Definition of “Medical Visit” - any visit with a health care professional who provides routine primary care for the patient with HIV/AIDS (may be a primary care physician, ob/gyn, pediatrician or infectious diseases specialist)

2a1.8 Denominator Exclusions *(Brief narrative description of exclusions from the target population)*:
Denominator 1 Exclusion: Patient did not receive PCP prophylaxis because there was a CD4 count above 200 cells/mm3 during the three months after a CD4 count below 200 cells/mm3

Denominator 2 Exclusion: Patient did not receive PCP prophylaxis because there was a CD4 count above 500 cells/mm3 or CD4 percentage above 15% during the three months after a CD4 count below 500 cells/mm3 or CD4 percentage below 15%

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)*:

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, Exclusions.

Step 1: Determine the eligible population. The eligible population is all patients, aged 6 weeks and older, with a diagnosis of HIV/AIDS.

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.

Step 4: Test for patients with valid exceptions from Step 3.

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-634770923023240700.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:
Electronic Clinical Data : Electronic Health Record

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/Clinic

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)*:
Measure Validity
The measure performance was calculated from data collected using two different methods of collection:
-Automated electronic health record report
-Visual inspection of the medical record by professional data abstractors to capture the data elements to manually construct the performance

The data source was electronic health records in the ambulatory care setting. The data sample came from four sites representing community health centers serving primarily low-income and uninsured patients with multiple, complex needs in the Midwest region. The sample consisted of 242 patient encounters. Visual inspection of the medical records was performed in 2009.

2a2.2 Analytic Method *(Describe method of reliability testing & rationale)*:
As referenced in the NQF Guidance on Measure Testing (2011), separate reliability testing of the data elements is not required if empirical validity testing of the data elements is conducted (e.g., if the validity of ICD-9 codes in administrative claims data as compared to clinical diagnoses in the medical record is demonstrated, then inter-coder or inter-abstractor reliability would not be required). Consequently, we are submitting validity testing results to demonstrate reliability for this measure.

Measure Validity
Data from a performance report for the measure automatically-generated from the electronic health record (designed to collect the necessary data elements to identify eligible cases and calculate the performance score) were compared to data elements found and scores calculated manually on visual inspection of the medical record by trained abstractors.

Data analysis included percent agreement at the denominator and numerator.

2a2.3 Testing Results *(Reliability statistics, assessment of adequacy in the context of norms for the test conducted)*:
Measure Validity
Below are the results when comparing electronic health record automated report to visual inspection of the medical record.
Automated calculation of performance=94.2%
Manual calculation of performance=95%
Percentage Point Difference between Automated and Manual=0%

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)*:
Measure Validity
The measure performance was calculated from data collected using two different methods of collection:
-Automated electronic health record report
-Visual inspection of the medical record by professional data abstractors to capture the data elements to manually construct the performance

The data source was electronic health records in the ambulatory care setting. The data sample came from four sites representing community health centers serving primarily low-income and uninsured patients with multiple, complex needs in the Midwest region. The sample consisted of 242 patient encounters. Visual inspection of the medical records was performed in 2009.

Face Validity
An expert panel was used to assess the face validity of this measure when it was re-evaluated in 2012. The full list of panel members is provided under the section Additional Information, Ad.1. Workgroup/Expert Panel Involved in Measure Development – 2012 (Measure Review) Panel.

2b2.2 Analytic Method *(Describe method of validity testing and rationale; if face validity, describe systematic assessment)*:
Measure Validity
Data from a performance report for the measure automatically-generated from the electronic health record (designed to collect the necessary data elements to identify eligible cases and calculate the performance score) were compared to data elements found and scores calculated manually on visual inspection of the medical record by trained abstractors.

Data analysis included percent agreement at the denominator and numerator.

Face Validity
Face validity of the measure score as an indicator of quality was systematically assessed as follows. After the measure was fully specified, the expert panel was asked to rate their agreement with the following statement:
The scores obtained from the measure as specified will provide an accurate reflection of quality and can be used to distinguish good and poor quality. Scale 1-5, where 1=Strongly Disagree; 3=Neither Agree or Disagree; 5=Strongly Agree.

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)*:
Measure Validity
Below are the results when comparing electronic health record automated report to visual inspection of the medical record.
Automated calculation of performance=94.2%
Manual calculation of performance=95%
Percentage Point Difference between Automated and Manual=0%

Face Validity
The results of the expert panel rating of the validity statement were as follows: N=6; Mean rating=3.33 and 50% of respondents either agree or strongly agree that this measure can accurately distinguish good and poor quality.

The results of the expert panel rating of the validity statement were as follows:
Frequency/Distribution of Ratings
1 (Strongly Disagree)-1 member
2-1 member
3 (Neither Agree or Disagree)-1 member
4-1 member
5 (Strongly Agree)-2 members

Face validity results reflected a few workgroup members believed that there should be a measure assessing persistence of PCP prophylaxis for children, since the guidelines recommend that HIV-infected infants should be administered prophylaxis until 1 year of age (A-II). However, the intent of this measure is not to assess persistence—the intent is to measure initiation of care. NCQA has decided to report a rate for each denominator/numerator, and a total rate.

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)*:
When this measure was updated in 2012, NCQA decided to add an exclusion to Denominator 1 and Denominator 2. This exclusion removes patients from the denominator who had a one-time blip in their CD4 count/percentage. If a patient has a follow-up CD4 count/percentage within 3 months of a CD4 count/percentage below threshold, then the patient is an exclusion. This exclusion was added after the measure was tested in 2009, so it has not been tested.

2b3.2 Analytic Method (*Describe type of analysis and rationale for examining exclusions, including exclusion related to patient preference)*:
N/A

2b3.3 Results *(Provide statistical results for analysis of exclusions, e.g., frequency, variability, sensitivity analyses):*
N/A

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)*:
CMS Physician Quality Reporting Initiative
In 2009, 74 eligible professionals reported this measure. In 2010, 87 eligible professionals reported this measure. This represented 935 total instances in 2010, and 706 total instances in 2009.

2b5.2 Analytic Method *(Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance)*:
CMS Physician Quality Reporting System:
For the CMS PQRS Program, the mean performance rate was calculated from 706 total instances in 2009, and 935 total instances in 2010.

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 Physician Quality Reporting System:
This measure was used in the 2009 and 2010 CMS Physician Quality Reporting System. The average performance rate was 61.5% in 2009 and 75.8% in 2010, indicating improved performance but a continued gap in performance.

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)*:
This measure has not been compared across data sources.

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. 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 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.

2c.2 If disparities have been reported/identified (e.g., in 1b), but measure is not specified to detect disparities, please explain:
N/A

2.1-2.3 Supplemental Testing Methodology Information:
Attachment
HIV_Measures_eMeasure_Testing_Data_PCP_Prophylaxis.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 Actual/Planned Use *(Check all the planned 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 was used in the CMS PQRS program in 2009, 2010, and 2011, and it will be included in the 2012 program.
http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/index.html?redirect=/pqrs.
It is also being considered for inclusion in CMS' Electronic Health Record (EHR) Incentive Program.

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 PQRS supports the feasibility and usability of the measure specification on a national scale and the results show substantial improvement (14%) in mean provider scores from 2009 to 2010, reflecting the value of public reporting. Also, a similar PCP prophylaxis measure is used by HIVQUAL-US, indicating that a measure with this focus is meaningful and useful for public reporting programs.

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 is being considered for inclusion in CMS' Electronic Health Record (EHR) Incentive Program. 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 Health Resources and Services Administration's (HRSA) HIV/AIDS Bureau (HAB) uses a similar measure in its Core Clinical Performance Measure Module (PMM). This module is a reporting tool that allows providers to compare their performance regionally and nationally to other providers, and supports quality improvement. Also, 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 successful use in PQRS supports the feasibility and usability of the measure specification on a national scale and the results show substantial improvement (14%) in scores from 2009 to 2010, reflecting providers' QI initiatives around HIV care. Also, a similar PCP prophylaxis measure is used by HAB's PMM, indicating that a measure with this focus is meaningful for quality improvement for this patient population.

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,
Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims), Abstracted from a record by someone other than person obtaining original information (e.g., chart abstraction for quality measure or registry)

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 are in a combination of electronic sources

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:
We are not aware of any unintended consequences related to this measurement.

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

A.2 Please check if either of the following apply (*regarding proprietary measures*): Proprietary measure
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)*:
As a result of our current review of the measures and our experience with the measures since 2008, we have learned and subsequently changed the NCQA/AMA-PCPI HIV/AIDS measures in the following ways.

- We have attempted to limit the number of exclusions/exceptions in these measures due to difficulties accurately capturing them in the health record.
- We have combined measures that address similar clinical areas (e.g., STD screening) into one measure to support feasibility and implementation.

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:

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?

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

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: National Committee for Quality Assurance, 1100 13th Street NW, Washington, District Of Columbia, 20005 Co.4 Point of Contact: Dawn, Alayon, MPH, CPH, alayon@ncqa.org, 202-955-3533-
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: Physician Performance Measures (Measures) and related data specifications have been 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). The Health Resources and Services Administration (HRSA) and the Infectious Diseases Society of America also participated in the development of this measure.
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. 2007-2008 (Measure Development) Panel The measure development panel helped guide development of this measure. Staff sought member feedback on all components of the measure (including denominator, numerator, exclusions). The panel met multiple times to achieve consensus on the measures and to address questions about the measure. Workgroup members Judith Aberg- Bellevue Hospital Center- New York University (co-chair) Michael Horberg- Santa Clara Medical Center (co-chair) Bruce Agins- New York State Department of Health AIDS Institute (NYSDOH) Steven Asch- RAND Health Communications Larry Bryant-Housingworks- Advocacy & Organizing Sophia Chang- California Healthcare Foundation Laura Cheever- Health Resources and Services Administration (HRSA) Antoine Douaihy- UPMC Mercy Arry Deiudonne- Center for Children- University Hospital Patricia Emmanuel- University of South Florida Marcy Fenton- LA County Department of Public Health Joel Gallant- Johns Hopkins University School of Medicine

Joseph Gathe- Texas Medical Center
Cyril Goshima- Hawaii AIDS Education and Training Center
Andrew Hamilton- Alliance of Chicago
Lisa Hischhorn- Harvard Medical School, JSI Research and Training Institute
Jan King- Los Angeles County Department of Health Services
W. Christopher Matthews- UC San Diego, Department of Medicine
James L. Raper- University of Alabama at Birmingham
Jennifer Read- National Institutes of Health (NIH)
Kimberly Smith- Rush University Medical Center
Alice Stek- University of Southern California
Valerie Stone- Harvard Medical School, Massachusetts General Hospital
Bob Tracy- Bob Tracy Consulting
Paul Voldberding- VAMC
Rochelle Walensky- Massachusetts General Hospital
Bruce Williams- University of New Mexico Health Sciences Center

Liaisons
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Dan Green- Centers for Medicare & Medicaid Services (CDC)
Deborah Willis-Fillinger- Health Resources and Services Administration (HRSA)
Magda Barini-Garcia- Health Resources and Services Administration (HRSA)
Lori DeLorenzo- Health Resources and Services Administration (HRSA)
Christine Lubinski- Infectious Diseases Society of America/ HIV Medicine Association
Jennifer Padberg- Infectious Diseases Society of America/ HIV Medicine Association

2012 (Measure Review) Panel
The measure review panel reviewed the existing measure against current clinical practice guidelines to ensure it reflected current evidence.

Workgroup members
Judith Aberg- New York University School of Medicine
Bruce Agins- New York State Department of Health AIDS Institute (NYSDOH)
Allison Agwu- Johns Hopkins Medical Institutions
Marc Foca- Columbia University
Rohan Hazra- National Institutes of Health (NIH)
Lisa Hirschhorn- Harvard Medical School, JSI Research and Training Institute
Gregory Lucas- Johns Hopkins University
Michael Horberg- Mid-Atlantic Permanente Group, PC
Vicki Peters- NYC Department of Health and Mental Hygiene
Alice Stek- University of Southern California School of Medicine
Bruce Williams- University of New Mexico Health Sciences Center

Liaisons
Laura Cheever- Health Resources and Services Administration (HRSA)
Anna Huang- Health Resources and Services Administration (HRSA)
Marlene Matosky- Health Resources and Services Administration (HRSA)
John Brooks- Centers for Disease Control and Prevention (CDC)
Abigail Viall- Centers for Disease Control and Prevention (CDC)
Pascale Wortley- Centers for Disease Control and Prevention (CDC)

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: N/A

Measure Developer/Steward Updates and Ongoing Maintenance
Ad.3 Year the measure was first released: 2008
Ad.4 Month and Year of most recent revision: 06, 2012
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? 2012

Ad.7 Copyright statement: This Measure, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposed, e.g., use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the Measures for commercial gain, or incorporation of the Measures into a product or service that is sold, licensed or distributed for commercial gain. Commercial uses of the Measures require a license agreement between the user and American Medical Association, (on behalf of the Consortium) or NCQA. Neither the AMA, NCQA, Consortium nor its members shall be responsible for any use of the Measure.

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

Ad.8 Disclaimers: These performance measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications.

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

Ad.9 Additional Information/Comments: N/A

Date of Submission (*MM/DD/YY*): 07/02/2012

Sample PCPI Calculation Algorithm

Calculation for Performance
For performance purposes, a measure is calculated by creating a fraction with the following components: Numerator, Denominator, and Denominator Exclusions.

Numerator (A) Includes:
Number of patients meeting numerator criteria
Denominator (PD) Includes:
Number of patients meeting criteria for denominator inclusion

Denominator Exclusions (C) Include:
Number of patients with valid medical, patient or system exclusions (where applicable; will differ by measure)

Performance Calculation

$$\frac{\text{A (\# of patients meeting numerator criteria)}}{\text{PD (\# patients in denominator) – C (\# patients with valid denominator exclusions)}}$$

If a measure does not allow for exclusion(s), it is calculated by creating a fraction with the following components: Numerator and Denominator.

Numerator (A) Includes:
Number of patients meeting numerator criteria
Denominator (PD) Includes:
Number of patients meeting criteria for denominator inclusion

$$\frac{\text{A (\# of patients meeting measure criteria)}}{\text{PD (\# of patients in denominator)}}$$

It is also possible to calculate the percentage of patients excluded overall, or excluded by medical, patient, or system reason where applicable:

Overall Exclusion Calculation

$$\frac{\text{C (\# of patients with any valid exclusion)}}{\text{PD (\# patients in denominator)}}$$

OR

Exclusion Calculation by Type

$$\frac{C_1 \text{ (\# patients with medical reason)}}{\text{PD (\# patients in denominator)}} \qquad \frac{C_2 \text{ (\# patients with patient reason)}}{\text{PD (\# patients in denominator)}} \qquad \frac{C_3 \text{ (\# patients with system reason)}}{\text{PD (\# patients in denominator)}}$$

eMeasure Title	HIV/AIDS: Pneumocystis jiroveci pneumonia (PCP) prophylaxis		
eMeasure Identifier (Measure Authoring Tool)	52	**eMeasure Version number**	0
NQF Number	0405	**GUID**	1cdd20de-5de9-4759-8a93-31f1f8baaaa2
Measurement Period	January 1, 20xx through December 31, 20xx		
Measure Steward	National Committee for Quality Assurance (NCQA)		
Measure Developer	National Committee for Quality Assurance (NCQA)/ and American Medical Association - convened Physician Consortium for Performance Improvement (AMA-PCPI)		
Endorsed By	National Quality Forum		
Description	Percentage of patients aged 6 weeks and older with a diagnosis of HIV/AIDS who were prescribed Pneumocystis jiroveci pneumonia (PCP) prophylaxis		
Copyright	(c) 2012 American Medical Association and National Committee for Quality Assurance. All Rights Reserved.		
Disclaimer	Physician Performance Measures (Measures) and related data specifications have been developed by the American Medical Association (AMA) - convened Physician Consortium for Performance Improvement(R) (the PCPI [TM]) and the National Committee for Quality Assurance (NCQA). These Measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications. The Measures, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, e.g., use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the Measures for commercial gain, or incorporation of the Measures into a product or service that is sold, licensed or distributed for commercial gain. Commercial uses of the Measures require a license agreement between the user and the AMA, (on behalf of the PCPI) or NCQA. Neither the AMA, NCQA, PCPI nor its members shall be responsible for any use of the Measures. THE MEASURES AND SPECIFICATIONS ARE PROVIDED “AS IS” WITHOUT WARRANTY OF ANY KIND. Limited proprietary coding is contained in the Measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. The AMA, NCQA, the PCPI and its members disclaim all liability for use or accuracy of any Current Procedural Terminology (CPT[R]) or other coding contained in the specifications. CPT (R) contained in the Measure specifications is copyright 2004-2011 American Medical Association. LOINC (R) copyright 2004-2011 Regenstrief Institute, Inc. This material contains SNOMED Clinical Terms (R) (SNOMED CT (R)) copyright 2004-2011 International Health Terminology		

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Measure Scoring	Proportion
Measure Type	Process
Stratification	None
Risk Adjustment	None
Rate Aggregation	None
Rationale	Although advances in the management of HIV and AIDS diseases have been made, Pneumocystis carinii pneumonia (PCP) remains an important complication and cause of morbidity. Without PCP prophylaxis, patients with HIV/AIDS are at increased risk of developing PCP, especially when CD4 cell counts fall 200mm3-250mm3 (Kaplan, 1998; Phair, 1990). PCP prophylaxis is very effective and has been demonstrated to prolong life. Data from Kaiser Permanente suggests that a gap exists between what is recommended for patients with HIV infection, and what is actually performed. According to 2005-2006 data from Kaiser Permanente California (both Northern and Southern), Georgia, and Oregon, only 71% of HIV-infected persons with a CD4<200mm3 received PCP prophylaxis (personal communication, 2007).
Clinical Recommendation Statement	HIV-infected adults and adolescents, including pregnant women and those on HAART, should receive chemoprophylaxis against PCP if they have a CD4+T lymphocyte count of <200/mL or a history of oropharyngeal candidiasis. (USPH/IDSA, 2002)
Improvement Notation	A higher score indicates better quality
Reference	Kaplan JE, Hanson DL, Navin TR, Jones JL. Risk factors for primary Pneumocystis carinii pneumonia in human immunodeficiency virus--infected adolescents and adults in the United States: reassessment of indications for chemoprophylaxis. The Journal of Infectious Diseases. 1998;178:1126-32.
Reference	Personal communication. Michael Horberg, MD, Director, HIV/AIDS Policy, Quality Improvement, Research, The Permanente Federation. 2007 Nov 6.
Reference	Phair J, Munoz A, Detels R, Kaslow R, Rinaldo C, Saah A. The risk of Pneumocystis carinii pneumonia among men infected with human immunodeficiency virus type 1. Multicenter AIDS Cohort Study Group. NEJM. 1990 Jan 18;322:161-65.
Definition	None
Guidance	Denominator 1: The CD4 count below 200 cells/mm3 must occur during the first nine months of the year. Denominator 2: The CD4 count below 500 cells/mm3 or the CD4 percentage below 15% must occur during the first nine months of the year. Once all denominators and numerators are calculated, a total

	rate should be calculated using the sum of the three denominators and the sum of the three numerators.
Transmission Format	TBD
Initial Patient Population	Denominator 1: All patients aged 6 years and older with a diagnosis of HIV/AIDS and a CD4 count below 200 cells/mm3 who had at least two visits during the measurement year, with at least 60 days in between each visit Denominator 2: All patients aged 1-5 years of age with a diagnosis of HIV/AIDS and a CD4 count below 500 cells/mm3 or a CD4 percentage below 15% who had at least two visits during the measurement year, with at least 60 days in between each visit Denominator 3: All patients aged 6 weeks to 12 months with a diagnosis of HIV who had at least two visits during the measurement year, with at least 60 days in between each visit
Denominator	Equals Initial Patient Population
Denominator Exclusions	None
Numerator	Numerator 1: Patients who were prescribed pneumocystis jiroveci pneumonia (PCP) prophylaxis within 3 months of CD4 count below 200 cells/mm3 Numerator 2: Patients who were prescribed pneumocystic jiroveci pneumonia (PCP) prophylaxis within 3 months of CD4 count below 500 cells/ mm3 or a CD4 percentage below 15% Numerator 3: Patients who were prescribed Pneumocystic jiroveci pneumonia (PCP) prophylaxis at the time of diagnosis of HIV
Numerator Exclusions	Not Applicable
Denominator Exceptions	Numerator 1: Patient did not receive PCP prophylaxis because there was a CD4 count above 200 cells/mm3 during the three months after a CD4 count below 200 cells/mm3 Numerator 2: Patient did not receive PCP prophylaxis because there was a CD4 count above 500 cells/mm3 or CD4 percentage above 15% during the three months after a CD4 count below 500 cells/mm3 or CD4 percentage below 15% Numerator 3: None
Measure Population	Not Applicable
Measure Observations	Not Applicable
Supplemental Data Elements	For every patient evaluated by this measure also identify payer, race, ethnicity, and gender.

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Population criteria

------ Population Criteria 1 ------

- **Initial Patient Population 1 =**
  - AND: "Patient Characteristic Birthdate: birth date" >= 6 year(s) starts before start of "Measurement Period"
  - AND: "Diagnosis, Active: HIV" starts before or during "Measurement Period"
  - AND: "Occurrence A of Encounter, Performed: HIV Visit" during "Measurement Period"
  - AND: "Occurrence B of Encounter, Performed: HIV Visit" during "Measurement Period"
  - AND: "Occurrence A of Laboratory Test, Result: CD4+ Count (result < 200 per mm3)" < 9 month(s) ends after start of "Measurement Period"
  - AND:
    - OR: "Occurrence B of Encounter, Performed: HIV Visit" >= 60 day(s) starts after end of "Occurrence A of Encounter, Performed: HIV Visit"
    - OR: "Occurrence B of Encounter, Performed: HIV Visit" >= 60 day(s) ends before start of "Occurrence A of Encounter, Performed: HIV Visit"
- **Denominator 1 =**
  - AND: "Initial Patient Population 1"
- **Denominator Exclusions 1=**
  - None
- **Numerator 1 =**
  - AND:
    - OR: "Medication, Order: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis" <= 3 month(s) starts after end of "Occurrence A of Laboratory Test, Result: CD4+ Count"
    - OR: "Medication, Active: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis" <= 3 month(s) starts after end of "Occurrence A of Laboratory Test, Result: CD4+ Count"
    - OR:
      - AND: "Occurrence A of Medication, Order: Dapsone and pyrimethamine" <= 3 month(s) starts after end of "Occurrence A of Laboratory Test, Result: CD4+ Count"
      - AND: "Occurrence A of Medication, Order: Leucovorin" <= 3 month(s) starts after end of "Occurrence A of Laboratory Test, Result: CD4+ Count"
      - AND: "Occurrence A of Medication, Order: Leucovorin" concurrent with "Occurrence A of Medication, Order: Dapsone and pyrimethamine"
    - OR:
      - AND: "Occurrence A of Medication, Active: Dapsone and pyrimethamine" <= 3 month(s) starts after end of "Occurrence A of Laboratory Test, Result: CD4+ Count"
      - AND: "Occurrence A of Medication, Active: Leucovorin" <= 3 month(s) starts after end of "Occurrence A of Laboratory Test, Result: CD4+ Count"
      - AND: "Occurrence A of Medication, Active: Leucovorin" concurrent with "Occurrence A of Medication, Active: Dapsone and pyrimethamine"
- **Denominator Exceptions 1 =**
  - AND: "Occurrence B of Laboratory Test, Result: CD4+ Count (result >= 200 per mm3)" <= 3 month(s) ends after end of "Occurrence A of Laboratory Test, Result: CD4+ Count"

------ Population Criteria 2 ------

- **Initial Patient Population 2 =**
  - AND: "Patient Characteristic Birthdate: birth date" >= 1 year(s) starts before start of "Measurement Period"
  - AND: "Patient Characteristic Birthdate: birth date" <= 5 year(s) starts before start of "Measurement Period"
  - AND: "Diagnosis, Active: HIV" starts before or during "Measurement Period"
  - AND: "Occurrence A of Encounter, Performed: HIV Visit" during "Measurement Period"
  - AND: "Occurrence B of Encounter, Performed: HIV Visit" during "Measurement Period"
  - AND:
    - OR: "Occurrence B of Encounter, Performed: HIV Visit" >= 60 day(s) starts after end of "Occurrence A of Encounter, Performed: HIV Visit"
    - OR: "Occurrence B of Encounter, Performed: HIV Visit" >= 60 day(s) ends before start of "Occurrence A of Encounter, Performed: HIV Visit"
  - AND:
    - OR: "Occurrence A of Laboratory Test, Result: CD4+ Count (result < 500 per mm3)" < 9 month(s) ends after start of "Measurement Period"
    - OR: "Occurrence A of Laboratory Test, Result: CD4+ Percentage (result < 15 %)" < 9 month(s) ends after start of "Measurement Period"
- **Denominator 2 =**
  - AND: "Initial Patient Population 2"
- **Denominator Exclusions 2=**
  - None
- **Numerator 2 =**
  - AND:
    - OR: "Medication, Order: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis" <= 3 month(s) starts after end of "Occurrence A of Laboratory Test, Result: CD4+ Count"
    - OR: "Medication, Order: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis" <= 3 month(s) starts after start of "Occurrence A of Laboratory Test, Result: CD4+ Percentage"
    - OR: "Medication, Active: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis" <= 3 month(s) starts after end of "Occurrence A of Laboratory Test, Result: CD4+ Count"
    - OR: "Medication, Active: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis" <= 3 month(s) starts after end of "Occurrence A of Laboratory Test, Result: CD4+ Percentage"
- **Denominator Exceptions 2 =**
  - AND:
    - OR: "Occurrence B of Laboratory Test, Result: CD4+ Count (result >= 500 per mm3)" <= 3 month(s) ends after end of "Occurrence A of Laboratory Test, Result: CD4+ Count"
    - OR: "Occurrence B of Laboratory Test, Result: CD4+ Percentage (result >= 15 %)" <= 3 month(s) ends after end of "Occurrence A of Laboratory Test, Result: CD4+ Percentage"

------ Population Criteria 3 ------

- **Initial Patient Population 3 =**
  - AND: FIRST: "Occurrence A of Diagnosis, Active: HIV" starts before or during "Measurement Period"
  - AND: "Patient Characteristic Birthdate: birth date" >= 6 week(s) starts before start of "Measurement Period"
  - AND: "Patient Characteristic Birthdate: birth date" < 1 year(s) starts before start of "Measurement Period"
  - AND: "Occurrence A of Encounter, Performed: HIV Visit" during "Measurement Period"
  - AND: "Occurrence B of Encounter, Performed: HIV Visit" during "Measurement Period"
  - AND:
    - OR: "Occurrence B of Encounter, Performed: HIV Visit" >= 60 day(s) starts after end of "Occurrence A of Encounter, Performed: HIV Visit"

        - OR: "Occurrence B of Encounter, Performed: HIV Visit" >= 60 day(s) ends before start of "Occurrence A of Encounter, Performed: HIV Visit"
- **Denominator 3 =**
    - AND: "Initial Patient Population 3"
- **Denominator Exclusions 3=**
    - None
- **Numerator 3 =**
    - AND:
        - OR: "Medication, Order: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis" starts during "Occurrence A of Diagnosis, Active: HIV"
        - OR: "Medication, Active: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis" starts during "Occurrence A of Diagnosis, Active: HIV"
- **Denominator Exceptions 3=**
    - None

Data criteria (QDM Data Elements)

- "Diagnosis, Active: HIV" using "HIV Grouping Value Set (2.16.840.1.113883.3.526.03.465)"
- "Encounter, Performed: HIV Visit" using "HIV Visit Grouping Value Set (2.16.840.1.113883.3.464.0003.01.02.0047)"
- "Laboratory Test, Result: CD4+ Count" using "CD4+ Count Grouping Value Set (2.16.840.1.113883.3.464.0003.21.02.0004)"
- "Laboratory Test, Result: CD4+ Percentage" using "CD4+ Percentage Grouping Value Set (2.16.840.1.113883.3.464.0003.21.02.0005)"
- "Medication, Active: Dapsone and pyrimethamine" using "Dapsone and pyrimethamine Grouping Value Set (2.16.840.1.113883.3.464.0003.96.02.0202)"
- "Medication, Active: Leucovorin" using "Leucovorin Grouping Value Set (2.16.840.1.113883.3.464.0003.96.02.0205)"
- "Medication, Active: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis" using "Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis Grouping Value Set (2.16.840.1.113883.3.464.0003.96.02.0076)"
- "Medication, Order: Dapsone and pyrimethamine" using "Dapsone and pyrimethamine Grouping Value Set (2.16.840.1.113883.3.464.0003.96.02.0202)"
- "Medication, Order: Leucovorin" using "Leucovorin Grouping Value Set (2.16.840.1.113883.3.464.0003.96.02.0205)"
- "Medication, Order: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis" using "Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis RxNorm Value Set (2.16.840.1.113883.3.464.0003.96.01.0076)"
- "Patient Characteristic Birthdate: birth date" using "birth date LOINC Value Set (2.16.840.1.113883.3.560.100.4)"

Reporting Stratification

- None

Supplemental Data Elements

- "Patient Characteristic Ethnicity: Ethnicity" using "Ethnicity CDC Value Set (2.16.840.1.114222.4.11.837)"
- "Patient Characteristic Gender: Gender" using "Gender HL7 (2.16.840.1.113883.5.1) Value Set (2.16.840.1.113883.1.11.1)"
- "Patient Characteristic Payer: Payer" using "Payer Source of Payment Typology Value Set (2.16.840.1.113883.221.5)"
- "Patient Characteristic Race: Race" using "Race CDC Value Set (2.16.840.1.114222.4.11.836)"

Measure Set	Not Applicable

Value Set Developer	Value Set OID	Last Modified	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
NCQA	2.16.840.1.113883.3.464.0003.121.12.1005	08/17/2012 02:26 PM	CD4+ Percentage	Laboratory Test	Grouping	Grouping	2.16.840.1.113883.3.464.1003.121.11.1009	CD4+ Percentage LOINC code list
NCQA	2.16.840.1.113883.3.464.1003.101.11.1005	07/26/2012 11:27 AM	Office Visit	Encounter	CPT	2011	99201	Office or other outpatient visit for the evaluation and management of a new patient, which requires these 3 key components: A problem focused history; A problem focused examination; Straightforward medical decision making. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are self limited or minor. Physicians typically spend 10 minutes face-to-face with the patient and/or family.
NCQA	2.16.840.1.113883.3.464.1003.101.11.1005	07/26/2012 11:27 AM	Office Visit	Encounter	CPT	2011	99202	Office or other outpatient visit for the evaluation and management of a new patient, which requires these 3 key components: An expanded problem focused history; An expanded problem focused examination; Straightforward medical decision making. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of low to moderate severity. Physicians typically spend 20 minutes face-to-face with the patient and/or family.
NCQA	2.16.840.1.113883.3.464.1003.101.11.1005	07/26/2012 11:27 AM	Office Visit	Encounter	CPT	2011	99203	Office or other outpatient visit for the evaluation and management of a new patient, which requires these 3 key components: A detailed history; A detailed examination; Medical decision making of low complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate severity. Physicians typically spend 30 minutes face-to-face with the patient and/or family.
NCQA	2.16.840.1.113883.3.464.1003.101.11.1005	07/26/2012 11:27 AM	Office Visit	Encounter	CPT	2011	99204	Office or other outpatient visit for the evaluation and management of a new patient, which requires these 3 key components: A comprehensive history; A comprehensive examination; Medical decision making of moderate complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 45 minutes face-to-face with the patient and/or family.
NCQA	2.16.840.1.113883.3.464.1003.101.11.1005	07/26/2012 11:27 AM	Office Visit	Encounter	CPT	2011	99205	Office or other outpatient visit for the evaluation and management of a new patient, which requires these 3 key components: A comprehensive history; A comprehensive examination; Medical decision making of high complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 60 minutes face-to-face with the patient and/or family.
NCQA	2.16.840.1.113883.3.464.1003.101.11.1005	07/26/2012 11:27 AM	Office Visit	Encounter	CPT	2011	99212	Office or other outpatient visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: A problem focused history; A problem focused examination; Straightforward medical decision making. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are self limited or minor. Physicians typically spend 10 minutes face-to-face with the patient and/or family.
NCQA	2.16.840.1.113883.3.464.1003.101.11.1005	07/26/2012 11:27 AM	Office Visit	Encounter	CPT	2011	99213	Office or other outpatient visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: An expanded problem focused history; An expanded problem focused examination; Medical decision making of low complexity. Counseling and coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of low to moderate severity. Physicians typically spend 15 minutes face-to-face with the patient and/or family.
NCQA	2.16.840.1.113883.3.464.1003.101.11.1005	07/26/2012 11:27 AM	Office Visit	Encounter	CPT	2011	99214	Office or other outpatient visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: A detailed history; A detailed examination; Medical decision making of moderate complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 25 minutes face-to-face with the patient and/or family.
NCQA	2.16.840.1.113883.3.464.1003.101.11.1005	07/26/2012 11:27 AM	Office Visit	Encounter	CPT	2011	99215	Office or other outpatient visit for the evaluation and management of an established patient, which requires at least 2 of these 3 key components: A comprehensive history; A comprehensive examination; Medical decision making of high complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 40 minutes face-to-face with the patient and/or family.
NCQA	2.16.840.1.113883.3.464.1003.101.11.1040	07/26/2012 11:17 AM	Outpatient Consultation	Encounter	CPT	2011	99241	Office consultation for a new or established patient, which requires these 3 key components: A problem focused history; A problem focused examination; and Straightforward medical decision making. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are self limited or minor. Physicians typically spend 15 minutes face-to-face with the patient and/or family.
NCQA	2.16.840.1.113883.3.464.1003.101.11.1040	07/26/2012 11:17 AM	Outpatient Consultation	Encounter	CPT	2011	99242	Office consultation for a new or established patient, which requires these 3 key components: An expanded problem focused history; An expanded problem focused examination; and Straightforward medical decision making. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of low severity. Physicians typically spend 30 minutes face-to-face with the patient and/or family.
NCQA	2.16.840.1.113883.3.464.1003.101.11.1040	07/26/2012 11:17 AM	Outpatient Consultation	Encounter	CPT	2011	99243	Office consultation for a new or established patient, which requires these 3 key components: A detailed history; A detailed examination; and Medical decision making of low complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate severity. Physicians typically spend 40 minutes face-to-face with the patient and/or family.
NCQA	2.16.840.1.113883.3.464.1003.101.11.1040	07/26/2012 11:17 AM	Outpatient Consultation	Encounter	CPT	2011	99244	Office consultation for a new or established patient, which requires these 3 key components: A comprehensive history; A comprehensive examination; and Medical decision making of moderate complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 60 minutes face-to-face with the patient and/or family.
NCQA	2.16.840.1.113883.3.464.1003.101.11.1040	07/26/2012 11:17 AM	Outpatient Consultation	Encounter	CPT	2011	99245	Office consultation for a new or established patient, which requires these 3 key components: A comprehensive history; A comprehensive examination; and Medical decision making of high complexity. Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Physicians typically spend 80 minutes face-to-face with the patient and/or family.
NCQA	2.16.840.1.113883.3.464.1003.101.11.1110	08/16/2012 04:15 PM	Preventive Care - Initial Office Visit, 0 to 17	Encounter	CPT	2011	99381	Initial comprehensive preventive medicine evaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, new patient; infant (age younger than 1 year)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1110	08/16/2012 04:15 PM	Preventive Care - Initial Office Visit, 0 to 17	Encounter	CPT	2011	99382	Initial comprehensive preventive medicine evaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, new patient; early childhood (age 1 through 4 years)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1110	08/16/2012 04:15 PM	Preventive Care - Initial Office Visit, 0 to 17	Encounter	CPT	2011	99383	Initial comprehensive preventive medicine evaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, new patient; late childhood (age 5 through 11 years)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1110	08/16/2012 04:15 PM	Preventive Care - Initial Office Visit, 0 to 17	Encounter	CPT	2011	99384	Initial comprehensive preventive medicine evaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, new patient; adolescent (age 12 through 17 years)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1115	07/26/2012 11:10 AM	Preventive Care Services-Initial Office Visit, 18 and Up	Encounter	CPT	2011	99385	Initial comprehensive preventive medicine evaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, new patient; 18-39 years
NCQA	2.16.840.1.113883.3.464.1003.101.11.1115	07/26/2012 11:10 AM	Preventive Care Services-Initial Office Visit, 18 and Up	Encounter	CPT	2011	99386	Initial comprehensive preventive medicine evaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, new patient; 40-64 years
NCQA	2.16.840.1.113883.3.464.1003.101.11.1115	07/26/2012 11:10 AM	Preventive Care Services-Initial Office Visit, 18 and Up	Encounter	CPT	2011	99387	Initial comprehensive preventive medicine evaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, new patient; 65 years and older
NCQA	2.16.840.1.113883.3.464.1003.101.11.1120	08/15/2012 10:03 AM	Preventive Care - Established Office Visit, 0 to 17	Encounter	CPT	2011	99391	Periodic comprehensive preventive medicine reevaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, established patient; infant (age younger than 1 year)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1120	08/15/2012 10:03 AM	Preventive Care - Established Office Visit, 0 to 17	Encounter	CPT	2011	99392	Periodic comprehensive preventive medicine reevaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, established patient; early childhood (age 1 through 4 years)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1120	08/15/2012 10:03 AM	Preventive Care - Established Office Visit, 0 to 17	Encounter	CPT	2011	99393	Periodic comprehensive preventive medicine reevaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, established patient; late childhood (age 5 through 11 years)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1120	08/15/2012 10:03 AM	Preventive Care - Established Office Visit, 0 to 17	Encounter	CPT	2011	99394	Periodic comprehensive preventive medicine reevaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, established patient; adolescent (age 12 through 17 years)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1125	07/26/2012 11:15 AM	Preventive Care Services - Established Office Visit, 18 and Up	Encounter	CPT	2011	99395	Periodic comprehensive preventive medicine reevaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, established patient; 18-39 years
NCQA	2.16.840.1.113883.3.464.1003.101.11.1125	07/26/2012 11:15 AM	Preventive Care Services - Established Office Visit, 18 and Up	Encounter	CPT	2011	99396	Periodic comprehensive preventive medicine reevaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, established patient; 40-64 years
NCQA	2.16.840.1.113883.3.464.1003.101.11.1125	07/26/2012 11:15 AM	Preventive Care Services - Established Office Visit, 18 and Up	Encounter	CPT	2011	99397	Periodic comprehensive preventive medicine reevaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, established patient; 65 years and older
NCQA	2.16.840.1.113883.3.464.1003.101.11.1216	08/16/2012 09:40 AM	Face-to-Face Interaction	Encounter	SNOMED-CT	07/2011	4525004	emergency department patient visit (procedure)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1216	08/16/2012 09:40 AM	Face-to-Face Interaction	Encounter	SNOMED-CT	07/2011	12843005	subsequent hospital visit by physician (procedure)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1216	08/16/2012 09:40 AM	Face-to-Face Interaction	Encounter	SNOMED-CT	07/2011	18170008	subsequent nursing facility visit (procedure)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1216	08/16/2012 09:40 AM	Face-to-Face Interaction	Encounter	SNOMED-CT	07/2011	19681004	nursing evaluation of patient and report (procedure)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1216	08/16/2012 09:40 AM	Face-to-Face Interaction	Encounter	SNOMED-CT	07/2011	87790002	follow-up inpatient consultation visit (procedure)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1216	08/16/2012 09:40 AM	Face-to-Face Interaction	Encounter	SNOMED-CT	07/2011	90526000	initial evaluation and management of healthy individual (procedure)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1216	08/16/2012 09:40 AM	Face-to-Face Interaction	Encounter	SNOMED-CT	07/2011	185349003	encounter for "check-up" (procedure)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1216	08/16/2012 09:40 AM	Face-to-Face Interaction	Encounter	SNOMED-CT	07/2011	185463005	visit out of hours (procedure)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1216	08/16/2012 09:40 AM	Face-to-Face Interaction	Encounter	SNOMED-CT	07/2011	185465003	weekend visit (procedure)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1216	08/16/2012 09:40 AM	Face-to-Face Interaction	Encounter	SNOMED-CT	07/2011	207195004	history and physical examination with evaluation and management of nursing facility patient (procedure)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1216	08/16/2012 09:40 AM	Face-to-Face Interaction	Encounter	SNOMED-CT	07/2011	270427003	patient-initiated encounter (procedure)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1216	08/16/2012 09:40 AM	Face-to-Face Interaction	Encounter	SNOMED-CT	07/2011	270430005	provider-initiated encounter (procedure)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1216	08/16/2012 09:40 AM	Face-to-Face Interaction	Encounter	SNOMED-CT	07/2011	308335008	patient encounter procedure (procedure)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1216	08/16/2012 09:40 AM	Face-to-Face Interaction	Encounter	SNOMED-CT	07/2011	390906007	follow-up encounter (procedure)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1216	08/16/2012 09:40 AM	Face-to-Face Interaction	Encounter	SNOMED-CT	07/2011	406547006	urgent follow-up (procedure)
NCQA	2.16.840.1.113883.3.464.1003.101.11.1216	08/16/2012 09:40 AM	Face-to-Face Interaction	Encounter	SNOMED-CT	07/2011	439708006	home visit (procedure)
NCQA	2.16.840.1.113883.3.464.1003.101.12.1047	08/16/2012 04:24 PM	HIV Visit	Encounter	Grouping	Grouping	2.16.840.1.113883.3.464.1003.101.11.1005	"Office Visit" CPT code list
NCQA	2.16.840.1.113883.3.464.1003.101.12.1047	08/16/2012 04:24 PM	HIV Visit	Encounter	Grouping	Grouping	2.16.840.1.113883.3.464.1003.101.11.1040	"Outpatient Consultation" CPT code list
NCQA	2.16.840.1.113883.3.464.1003.101.12.1047	08/16/2012 04:24 PM	HIV Visit	Encounter	Grouping	Grouping	2.16.840.1.113883.3.464.1003.101.11.1110	"Preventative Care - Initial Office Visit, 0 to 17" CPT code list
NCQA	2.16.840.1.113883.3.464.1003.101.12.1047	08/16/2012 04:24 PM	HIV Visit	Encounter	Grouping	Grouping	2.16.840.1.113883.3.464.1003.101.11.1115	"Preventative Care Services - Initial Office Visit, 18 and Up" CPT code list
NCQA	2.16.840.1.113883.3.464.1003.101.12.1047	08/16/2012 04:24 PM	HIV Visit	Encounter	Grouping	Grouping	2.16.840.1.113883.3.464.1003.101.11.1120	"Preventative Care - Established Office Visit, 0 to 17" CPT code list
NCQA	2.16.840.1.113883.3.464.1003.101.12.1047	08/16/2012 04:24 PM	HIV Visit	Encounter	Grouping	Grouping	2.16.840.1.113883.3.464.1003.101.11.1125	"Preventative Care Services - Established Office Visit, 18 and Up" CPT code list
NCQA	2.16.840.1.113883.3.464.1003.101.12.1047	08/16/2012 04:24 PM	HIV Visit	Encounter	Grouping	Grouping	2.16.840.1.113883.3.464.1003.101.11.1216	"Face-to-Face Interaction" SNOMED-CT code list
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	5810003	Human immunodeficiency virus (HIV) infection with infection by another virus (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	40780007	Human immunodeficiency virus I infection (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	48794007	Human immunodeficiency virus (HIV) infection with infectious mononucleosis-like syndrome (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	52079000	Congenital human immunodeficiency virus infection (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	62246005	Acquired immunodeficiency syndrome (AIDS)-like syndrome (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	62479008	Acquired immune deficiency syndrome (AIDS) (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	77070006	Acquired immunodeficiency syndrome (AIDS) with Salmonella infection (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	79019005	Human immunodeficiency virus II infection (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	86406008	Human immunodeficiency virus infection (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	87117006	Human immunodeficiency virus (HIV) infection with acute lymphadenitis (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	91947003	Asymptomatic human immunodeficiency virus infection (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	111880001	Acute HIV infection (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	186706006	Human immunodeficiency virus infection constitutional disease (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	186707002	Human immunodeficiency virus infection with neurological disease (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	186708007	Human immunodeficiency virus infection with secondary clinical infectious disease (disorder)

Value Set Developer	Value Set OID	Last Modified	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	186709004	Human immunodeficiency virus with secondary cancers (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	186717007	Human immunodeficiency virus (HIV) disease resulting in mycobacterial infection (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	186718002	Human immunodeficiency virus (HIV) disease resulting in cytomegaloviral disease (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	186719005	Human immunodeficiency virus (HIV) disease resulting in candidiasis (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	186721000	Human immunodeficiency virus (HIV) disease resulting in multiple infections (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	186723002	Human immunodeficiency virus (HIV) disease resulting in Burkitt's lymphoma (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	186725009	Human immunodeficiency virus (HIV) disease resulting in multiple malignant neoplasms (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	186726005	Human immunodeficiency virus (HIV) disease resulting in lymphoid interstitial pneumonitis (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	230180003	Human immunodefiency virus leukoencephalopathy (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	230201009	Human immunodeficiency virus myelitis (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	230598008	Neuropathy due to human immunodeficiency virus (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	235009000	Human immunodeficiency virus-associated periodontitis (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	235726002	Human immunodeficiency virus enteropathy (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	240103002	Human immunodeficiency virus myopathy (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	276666007	Congenital human immunodeficiency virus positive status syndrome (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	315019000	Human immunodeficiency virus (HIV) infection with aseptic meningitis (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	359791000	Acquired immunodeficiency syndrome (AIDS) with dermatomycosis (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	397763006	Human immunodefiency virus encephalopathy (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	398329009	Human immunodefiency virus encephalitis (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	402915006	Human immunodeficiency virus (HIV) seroconversion exanthem (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1005	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	SNOMED-CT	07/2011	402916007	Human immunodeficiency virus (HIV) seropositivity (disorder)
NCQA	2.16.840.1.113883.3.464.1003.120.11.1006	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	ICD-9	2011	042	Human immunodeficiency virus [HIV] disease
NCQA	2.16.840.1.113883.3.464.1003.120.11.1006	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	ICD-9	2011	V08	Asymptomatic human immunodeficiency virus [HIV] infection status
NCQA	2.16.840.1.113883.3.464.1003.120.11.1007	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	ICD-10	2011	B20	Human immunodeficiency virus [HIV] disease
NCQA	2.16.840.1.113883.3.464.1003.120.11.1007	08/13/2012 08:15 AM	HIV	Condition/Diagnosis/Problem	ICD-10	2011	Z21	Asymptomatic human immunodeficiency virus [HIV] infection status
NCQA	2.16.840.1.113883.3.464.1003.120.12.1003	08/13/2012 08:14 AM	HIV	Condition/Diagnosis/Problem	Grouping	Grouping	2.16.840.1.113883.3.464.1003.120.11.1005	"HIV" SNOMED-CT code list
NCQA	2.16.840.1.113883.3.464.1003.120.12.1003	08/13/2012 08:14 AM	HIV	Condition/Diagnosis/Problem	Grouping	Grouping	2.16.840.1.113883.3.464.1003.120.11.1006	"HIV " ICD-9-CM code list
NCQA	2.16.840.1.113883.3.464.1003.120.12.1003	08/13/2012 08:14 AM	HIV	Condition/Diagnosis/Problem	Grouping	Grouping	2.16.840.1.113883.3.464.1003.120.11.1007	"HIV " ICD-10-CM code list
NCQA	2.16.840.1.113883.3.464.1003.121.11.1006	08/17/2012 02:17 PM	CD4+ Count	Laboratory Test	LOINC	2011	24467-3	CD3+?CD4+? (T4 helper) cells [#/?volume] in Blood
NCQA	2.16.840.1.113883.3.464.1003.121.11.1006	08/17/2012 02:17 PM	CD4+ Count	Laboratory Test	LOINC	2011	32515-9	CD3+?CD4+? (T4 helper) cells [#/?volume] in Unspecified specimen
NCQA	2.16.840.1.113883.3.464.1003.121.11.1006	08/17/2012 02:17 PM	CD4+ Count	Laboratory Test	LOINC	2011	32532-4	CD3+?CD4+? (T4 helper) cells [#/?volume] in Bone marrow
NCQA	2.16.840.1.113883.3.464.1003.121.11.1006	08/17/2012 02:17 PM	CD4+ Count	Laboratory Test	LOINC	2011	40898-9	CD3+?CD4+? (T4 helper) cells [#/?volume] in Tissue
NCQA	2.16.840.1.113883.3.464.1003.121.11.1006	08/17/2012 02:17 PM	CD4+ Count	Laboratory Test	LOINC	2011	63450-1	CD3+?CD4+? (T4 helper) cells [#/?volume] in Cerebral spinal fluid
NCQA	2.16.840.1.113883.3.464.1003.121.11.1009	08/16/2012 05:07 PM	CD4+ Percentage	Laboratory Test	LOINC	2011	17822-8	CD3+?CD4+? (T4 helper) cells/?100 cells in Body fluid
NCQA	2.16.840.1.113883.3.464.1003.121.11.1009	08/16/2012 05:07 PM	CD4+ Percentage	Laboratory Test	LOINC	2011	32516-7	CD3+?CD4+? (T4 helper) cells/?100 cells in Unspecified specimen
NCQA	2.16.840.1.113883.3.464.1003.121.11.1009	08/16/2012 05:07 PM	CD4+ Percentage	Laboratory Test	LOINC	2011	32533-2	CD3+?CD4+? (T4 helper) cells/?100 cells in Bone marrow
NCQA	2.16.840.1.113883.3.464.1003.121.11.1009	08/16/2012 05:07 PM	CD4+ Percentage	Laboratory Test	LOINC	2011	40623-1	CD3+?CD4+? (T4 helper) cells/?100 cells in Bronchial specimen
NCQA	2.16.840.1.113883.3.464.1003.121.11.1009	08/16/2012 05:07 PM	CD4+ Percentage	Laboratory Test	LOINC	2011	43970-3	CD3+?CD4+? (T4 helper) cells/?100 cells in Cerebral spinal fluid
NCQA	2.16.840.1.113883.3.464.1003.121.11.1009	08/16/2012 05:07 PM	CD4+ Percentage	Laboratory Test	LOINC	2011	51300-2	CD3+?CD4+? (T4 helper) cells/?100 cells in Tissue
NCQA	2.16.840.1.113883.3.464.1003.121.11.1009	08/16/2012 05:07 PM	CD4+ Percentage	Laboratory Test	LOINC	2011	8123-2	CD3+?CD4+? (T4 helper) cells/?100 cells in Blood
NCQA	2.16.840.1.113883.3.464.1003.121.12.1004	08/17/2012 02:25 PM	CD4+ Count	Laboratory Test	Grouping	Grouping	2.16.840.1.113883.3.464.1003.121.11.1006	"CD4+ Count" LOINC code list
NCQA	2.16.840.1.113883.3.464.1003.196.11.1076	08/16/2012 05:09 PM	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Medication	RxNorm	2011	105297	Dapsone 50 MG Oral Tablet
NCQA	2.16.840.1.113883.3.464.1003.196.11.1076	08/16/2012 05:09 PM	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Medication	RxNorm	2011	142118	Sulfamethoxazole 100 MG / Trimethoprim 20 MG Oral Tablet
NCQA	2.16.840.1.113883.3.464.1003.196.11.1076	08/16/2012 05:09 PM	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Medication	RxNorm	2011	197384	Atovaquone 250 MG Oral Tablet
NCQA	2.16.840.1.113883.3.464.1003.196.11.1076	08/16/2012 05:09 PM	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Medication	RxNorm	2011	197557	Dapsone 100 MG Oral Tablet
NCQA	2.16.840.1.113883.3.464.1003.196.11.1076	08/16/2012 05:09 PM	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Medication	RxNorm	2011	197558	Dapsone 25 MG Oral Tablet
NCQA	2.16.840.1.113883.3.464.1003.196.11.1076	08/16/2012 05:09 PM	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Medication	RxNorm	2011	198229	Pyrimethamine 25 MG / Sulfadoxine 500 MG Oral Tablet
NCQA	2.16.840.1.113883.3.464.1003.196.11.1076	08/16/2012 05:09 PM	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Medication	RxNorm	2011	198334	Sulfamethoxazole 400 MG / Trimethoprim 80 MG Oral Tablet
NCQA	2.16.840.1.113883.3.464.1003.196.11.1076	08/16/2012 05:09 PM	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Medication	RxNorm	2011	198335	Sulfamethoxazole 800 MG / Trimethoprim 160 MG Oral Tablet
NCQA	2.16.840.1.113883.3.464.1003.196.11.1076	08/16/2012 05:09 PM	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Medication	RxNorm	2011	246252	Sulfamethoxazole 80 MG/ML / Trimethoprim 16 MG/ML Oral Suspension
NCQA	2.16.840.1.113883.3.464.1003.196.11.1076	08/16/2012 05:09 PM	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Medication	RxNorm	2011	308429	Atovaquone 150 MG/ML Oral Suspension
NCQA	2.16.840.1.113883.3.464.1003.196.11.1076	08/16/2012 05:09 PM	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Medication	RxNorm	2011	313134	Sulfamethoxazole 40 MG/ML / Trimethoprim 8 MG/ML Oral Suspension
NCQA	2.16.840.1.113883.3.464.1003.196.11.1076	08/16/2012 05:09 PM	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Medication	RxNorm	2011	313137	Sulfamethoxazole 80 MG/ML / Trimethoprim 16 MG/ML Injectable Solution
NCQA	2.16.840.1.113883.3.464.1003.196.11.1076	08/16/2012 05:09 PM	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Medication	RxNorm	2011	540153	Sulfamethoxazole 400 MG / Trimethoprim 800 MG Oral Tablet
NCQA	2.16.840.1.113883.3.464.1003.196.11.1076	08/16/2012 05:09 PM	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Medication	RxNorm	2011	607295	Dapsone 0.05 MG/MG Topical Gel
NCQA	2.16.840.1.113883.3.464.1003.196.11.1076	08/16/2012 05:09 PM	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Medication	RxNorm	2011	861597	Pentamidine Isethionate 50 MG/ML Inhalant Solution
NCQA	2.16.840.1.113883.3.464.1003.196.11.1076	08/16/2012 05:09 PM	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Medication	RxNorm	2011	861665	Pentamidine Isethionate 60 MG/ML Inhalant Solution
NCQA	2.16.840.1.113883.3.464.1003.196.11.1202	08/16/2012 05:11 PM	Dapsone and pyrimethamine	Medication	RxNorm	2011	105337	Dapsone 100 MG / Pyrimethamine 12.5 MG Oral Tablet
NCQA	2.16.840.1.113883.3.464.1003.196.11.1205	08/16/2012 05:12 PM	Leucovorin	Medication	RxNorm	2011	105691	Leucovorin 7.5 MG/ML Injectable Solution
NCQA	2.16.840.1.113883.3.464.1003.196.11.1205	08/16/2012 05:12 PM	Leucovorin	Medication	RxNorm	2011	197860	Leucovorin 10 MG Oral Tablet
NCQA	2.16.840.1.113883.3.464.1003.196.11.1205	08/16/2012 05:12 PM	Leucovorin	Medication	RxNorm	2011	197861	Leucovorin 15 MG Oral Tablet
NCQA	2.16.840.1.113883.3.464.1003.196.11.1205	08/16/2012 05:12 PM	Leucovorin	Medication	RxNorm	2011	197862	Leucovorin 25 MG Oral Tablet
NCQA	2.16.840.1.113883.3.464.1003.196.11.1205	08/16/2012 05:12 PM	Leucovorin	Medication	RxNorm	2011	197863	Leucovorin 5 MG Oral Tablet
NCQA	2.16.840.1.113883.3.464.1003.196.11.1205	08/16/2012 05:12 PM	Leucovorin	Medication	RxNorm	2011	237788	Leucovorin 20 MG/ML Injectable Solution
NCQA	2.16.840.1.113883.3.464.1003.196.11.1205	08/16/2012 05:12 PM	Leucovorin	Medication	RxNorm	2011	244197	Leucovorin 5 MG/ML Injectable Solution
NCQA	2.16.840.1.113883.3.464.1003.196.11.1205	08/16/2012 05:12 PM	Leucovorin	Medication	RxNorm	2011	250288	Leucovorin 3 MG/ML Injectable Solution
NCQA	2.16.840.1.113883.3.464.1003.196.11.1205	08/16/2012 05:12 PM	Leucovorin	Medication	RxNorm	2011	311282	Leucovorin 10 MG/ML Injectable Solution
NCQA	2.16.840.1.113883.3.464.1003.196.11.1205	08/16/2012 05:12 PM	Leucovorin	Medication	RxNorm	2011	388641	Leucovorin 25 MG/ML Injectable Solution
NCQA	2.16.840.1.113883.3.464.1003.196.12.1076	08/17/2012 02:32 PM	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Medication	Grouping	Grouping	2.16.840.1.113883.3.464.1003.196.11.1076	Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis code list
NCQA	2.16.840.1.113883.3.464.1003.196.12.1202	08/17/2012 02:33 PM	Dapsone and pyrimethamine	Medication	Grouping	Grouping	2.16.840.1.113883.3.464.1003.196.11.1202	"Dapsone and pyrimethamine" RxNorm code list
NCQA	2.16.840.1.113883.3.464.1003.196.12.1205	08/16/2012 05:15 PM	Leucovorin	Medication	Grouping	Grouping	2.16.840.1.113883.3.464.1003.196.11.1205	"Leucovorin" RxNorm code list
NQF	2.16.840.1.113883.3.560.100.4	09/20/2011 12:00 AM	birth date	Individual Characteristic	LOINC	2.36	21112-8	Birth date

Executive Summary: Pilot Feasibility Testing Report for HIV/AIDS Measures

The National Committee for Quality Assurance (NCQA) was subcontracted in 2011-2012 to specify two claims-based HIV measures for use in electronic health records (EHRs). This "respecification" process involved mapping the measures to NQF's Quality Data Model (QDM) and conforming to the HL7 Health Quality Measures Format (HQMF). A human readable version of the measure, as well as an .xml version of the measure and a value set spreadsheet, were created for each measure. The two measures that were respecified were HIV/AIDS: Medical Visits (NQF 403) and HIV/AIDS: Pneumocystis jiroveci pneumonia (PCP) Prophylaxis (NQF 405).

Once the measures were respecified, they underwent feasibility testing in EHR systems. The feasibility testing was conducted in 2012. The testing protocol was implemented by test sites in order to demonstrate basic technical feasibility, implementation feasibility, measure integrity and face validity for the respecified measures.

Three diverse clinical test sites were chosen to perform pilot testing to obtain maximum variability in practice size, patient volumes, and EHR vendor system utilization. The sites varied geographically: National urban, Midwest urban academic, Midwest urban/rural.

The project team defined an overarching pilot testing strategy that evaluated measures on:

- **Technical feasibility** evaluated whether the data necessary for measure calculation could be retrieved from an EHR.
- **Implementation feasibility** evaluated whether the data required per the measure was recorded consistently and accurately as part of clinical workflow, and the calculation of the measure did not introduce undue burden.
- **Integrity** evaluated to what extent the measure retained the originally stated intent of the measure. The Measure Integrity analysis evaluated each site's rating of measure integrity using a five-point Likert scale.
- **Face validity** evaluated to what extent the scores obtained from the measure as specified accurately would differentiate the quality of performance across providers. The Measure Face Validity analysis evaluated each site's rating of measure face validity using a five-point Likert scale.

Pneumocystis jiroveci pneumonia (PCP) Prophylaxis (NQF 405)

- *Technical feasibility*: Two test sites reported that 100% of data elements were feasible and rated this measure as technically feasible. One of the test sites noted concern regarding the data element of PCP ordered at time of HIV diagnosis which is currently not reliably captured as part of a new HIV diagnosis (see Table 1 below).
- *Implementation feasibility*: All three test sites reported this as feasible with regards to implementation feasibility (see Table 1 below).
- *Integrity*: All three sites rated that they strongly agreed or moderately agreed the measure retained its original intent (see Table 2 below).
- *Face validity*: All three test sites reported that they either strongly agreed or moderately agreed that the measure has face validity (see Table 3 below).

Table 1. Technical and Implementation Feasibility for NQF 0405 – HIV/AIDS: PCP Prophylaxis

Test Sites	Total # of Data Elements	# of Feasible Data Elements	Technical and Implementation Feasibility
Site 1	21	21	Feasible. Can do today.
Site 2	21	21	Feasible. Can do today.
Site 3	21	20	Feasible. Can do today.

Table 2. Measure Integrity for NQF 0405 – HIV/AIDS: PCP Prophylaxis

Test Sites	Integrity Score (1-5)
Site 1	5
Site 2	4
Site 3	5
Average Score	4.7

5= Strongly Agree; 4= Moderately Agree; 3= Neither Disagree Nor Agree; 2= Moderately Disagree; 1= Strongly Disagree

Table 3. Measure Face Validity for NQF 0405 – HIV/AIDS: PCP Prophylaxis

Test Sites	Integrity Score (1-5)
Site 1	5
Site 2	4
Site 3	4
Average Score	4.6

5= Strongly Agree; 4= Moderately Agree; 3= Neither Disagree Nor Agree; 2= Moderately Disagree; 1= Strongly Disagree