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 #: 0404 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: CD4 Cell Count or Percentage Performed

Co.1.1 Measure Steward: National Committee for Quality Assurance

De.2 Brief Description of Measure: Percentage of patients aged six months and older with a diagnosis of HIV/AIDS, with at least two CD4 cell counts or percentages performed during the measurement year at least 3 months apart

2a1.1 Numerator Statement: Patients with at least two CD4 cell counts or percentages performed during the measurement year at least 3 months apart

2a1.4 Denominator Statement: All patients aged 6 months and older with a diagnosis of HIV/AIDS, who had at least two medical visits during the measurement year, with at least 90 days between each visit

2a1.8 Denominator Exclusions: None

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)
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)

Untreated HIV infection is characterized by progressive depletion of CD4 T lymphocyte cell count (CD4), leading to the development of AIDS-defining conditions. (Babiker, et al., 2012) Monitoring CD4 cell count in HIV patients is one of the key factors in deciding whether to initiate antiretroviral therapy (ART) and prophylaxis for opportunistic infections, and it is the strongest predictor of subsequent disease progression and survival. (Mellors, et al., 1997; Egger, et al., 2002) Clinical guidelines recommend monitoring HIV patient CD4 count at entry to care, every 3 to 6 months following antiretroviral therapy (ART), and every 6 to 12 months in stable patients with suppressed viral load. (DHHS, 2012) In HIV-infected children younger than 5 years of age, CD4 percentage is preferred for monitoring immune status, whereas absolute CD4 count can be used in older children. (Dunn, 2003) 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) Therefore, a measure of testing frequency is important to ensuring patients receive this crucial assessment.

1a.4 Citations for Evidence of High Impact cited in 1a.3:
Babiker AG, Emery S, Fätkenheuer G, et al. Considerations in the rationale, design and methods of the Strategic Timing of AntiRetroviral Treatment (START) study. Clin Trials. 2012 Apr 30; Epub ahead of print.

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/

Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the use of antiretroviral agents in HIV-1-infected adults and adolescents. March 2012. Department of Health and Human Services. Available at http://www.aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf. Accessed June 11, 2012.

Dunn D; HIV Paediatric Prognostic Markers Collaborative Study Group. Short-term risk of disease progression in HIV-1-infected children receiving no antiretroviral therapy or zidovudine monotherapy: a meta-analysis. Lancet. 2003 Nov 15;362(9396):1605-11.

Egger M, May M, Chêne G, Phillips AN, et al. Prognosis of HIV-1-infected patients starting highly active antiretroviral therapy: a collaborative analysis of prospective studies. Lancet. 2002 Jul 13;360(9327):119-29.

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.

Mellors JW, Muñoz A, Giorgi JV, Margolick et al. Plasma viral load and CD4+ lymphocytes as prognostic markers of HIV-1 infection. Ann Intern Med. 1997 Jun 15;126(12):946-54.

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

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:
Physicians who regularly monitor CD4 count in HIV patients can detect if levels decrease and then adjust treatment, including antiretroviral therapy and prophylaxis for opportunistic infections, to raise CD4 counts, prevent HIV disease progression and mortality, and prevent opportunistic infections. (Mellors, 1997)

Mellors JW, et al. Plasma viral load and CD4+ lymphocytes as prognostic markers of HIV-1 infection. Ann Intern Med. 1997 Jun 15;126(12):946-54.

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. For this measure, the average performance rate per eligible professional was 76.8% in 2009 and 83.9% in 2010. These numbers indicate there is a gap in care with 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.
Measure CD4 >> Assess/interpret value >> Diagnose/identify problem >> Identify treatment options (e.g., prophylaxis for opportunistic infections, change/initiation of antiretroviral therapy) >> Administer the appropriate treatment >> Impact on CD4 >> Reduce contraction of opportunistic infections >> Reduce morbidity/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 Department of Health and Human Services (DHHS, 2012) recommend that CD4 counts be monitored every 3–4 months to (1) determine when to start ART in untreated patients, (2) assess immunologic response to ART, and (3) assess the need for initiation or discontinuation of prophylaxis for opportunistic infections (A-I). Patients with a stable viral load and a CD4 count well above the threshold for opportunistic infection risk may have their CD4 count monitored every 6 to 12 months. DHHS guidelines on antiretroviral therapy in pediatrics (2011) recommend that CD4 percentage or count should be measured at the time of diagnosis of HIV infection and at least every 3-4 months thereafter (A-II). The HIV Medicine Association of the Infectious Diseases Society of America (HIVMA) (2009) recommends that CD4 cell counts should be monitored both to assess the efficacy of antiretroviral therapy and to determine the need for prophylaxis against opportunistic infections (A-I).

1c.5 Quantity of Studies in the Body of Evidence *(Total number of studies, not articles)*: A total of seven studies were cited in the DHHS (2012) adult and adolescent guidelines. Five of the studies were cohort studies of 16,446 patients and two were case control studies including 48 patients. Eight studies were cited in the DHHS (2011) pediatrics guidelines. One study was a randomized control trial involving 377 infants. Three studies were large cohort studies including a total of 1,566 patients. Three studies were meta-analyses using data from the HIV Paediatric Prognostic Markers Collaborative Study and the Concerted Action on Sero-Conversion to AIDS and Death in Europe Collaboration, both of which consist of cohort and randomized control trials. Information on one of the cited studies in these guidelines could not be determined. The HIVMA (2009) guidelines cited the DHHS (2012) guidelines as supporting evidence.

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 DHHS (2012) recommendation of monitoring CD4 counts in adults and adolescents every 3–4 months is supported by strong evidence based on one or more randomized trials with clinical outcomes and/or validated laboratory endpoints. DHHS's (2012) recommendation of monitoring CD4 counts every 6 to 12 months in adult and adolescent patients with a stable viral load and a CD4 count well above the threshold for opportunistic infection risk is based on expert opinion. There is good evidence consisting of at least one properly designed randomized, controlled trial supporting HIVMA's (2009) recommendation. The DHHS (2011) recommendation on antiretroviral therapy in pediatrics is based on expert opinion.

1c.7 Consistency of Results across Studies *(Summarize the consistency of the magnitude and direction of the effect):* The evidence cited in the DHHS and HIVMA guidelines is consistent in showing the benefits of continuously monitoring CD4 counts in 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)*:
DHHS guidelines: The panels determined there was a positive net benefit for regular CD4 monitoring of adult, adolescent, and pediatric patients with HIV/AIDS.

HIVMA guidelines: The HIVMA determined there was a positive net benefit for regular CD4 monitoring of patients with HIV/AIDS.

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: DHHS Adult and Adolescent Guideline:
These guidelines were developed by the DHHS Panel on Antiretroviral Guidelines for Adults and Adolescents (a Working Group of the Office of AIDS Research Advisory Council). The Panel is composed of more than 30 voting members who have expertise in HIV care and research. The U.S. government representatives include at least 1 representative from each of the following DHHS agencies: CDC, FDA, HRSA, and NIH. These members are appointed by their respective agencies. Approximately 2/3 of the Panel members are nongovernmental scientific members. There are 4–5 community members with knowledge in HIV treatment and care. Members who do not represent U.S. government agencies are selected after an open announcement to call for nominations. Each member serves on the Panel for a 4-year term, with an option to be reappointed for an additional term. All members of the Panel submit a written financial disclosure annually reporting any association with manufacturers of antiretroviral drugs or diagnostics used for management of HIV infections.

DHHS Pediatrics Guideline:
These guidelines were developed by the DHHS Panel on Antiretroviral Therapy and Medical Management of HIV-Infected Children convened by the National Resource Center at the Francois-Xavier Bagnoud Center (FXBC), UMDNJ, HRSA, and NIH. The Panel is composed of approximately 25 voting members who have expertise in the management of HIV infection in infants, children, and adolescents. Members include representatives from the Committee on Pediatric AIDS of the American Academy of Pediatrics and community representatives with knowledge of pediatric HIV infection. The Panel also includes at least 1 representative from each of the following DHHS agencies: CDC, FDA, HRSA, and the NIH. A representative from the Canadian Pediatric AIDS Research Group participates as a nonvoting, ex officio member of the Panel. The U.S. government representatives are appointed by their respective agencies; nongovernmental members are selected by the Panel after an open announcement to call for nominations. Each member serves on the Panel for a 3-year term with an option for reappointment. All members of the Panel submit a written financial disclosure annually, reporting any association with manufacturers of antiretroviral drugs or diagnostics used for management of HIV infections.

HIVMA Guideline:
A panel of experts composed of specialists in internal medicine, pediatrics, infectious diseases, obstetrics, and gynecology prepared the 2009 update to these guidelines. All members of the panel participated in the preparation and review of the draft guidelines and feedback from external peer reviewers was obtained. These guidelines were reviewed and cleared by the CDC and the IDSA Standards and Practice Guidelines Committee. All members of the Expert Panel complied with the IDSA policy on conflicts of interest, which requires disclosure of any financial or other interest that might be construed as constituting an actual,

potential, or apparent conflict. Members of the Expert Panel were provided with the IDSA's conflict of interest disclosure statement and asked to identify ties to companies developing products that might be affected by promulgation of the guidelines. Information was requested regarding employment, consultancies, stock ownership, honoraria, research funding, expert testimony, and membership on company advisory committees. The Panel made decisions on a case-by-case basis as to whether an individual's role should be limited as a result of a conflict. No limiting conflicts were identified.

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

1c.12 If other, identify and describe the grading scale with definitions: DHHS Adult/Adolescent and Pediatrics Grading Scale: Strength of Recommendation: A: Strong recommendation for the statement; B: Moderate recommendation for the statement; C: Optional recommendation for the statement. Quality of Evidence: I: One or more randomized trials with clinical outcomes and/or validated laboratory endpoints; II: One or more well-designed, nonrandomized trials or observational cohort studies with long-term clinical outcomes; III: Expert opinion

HIVMA Grading Scale:
Strength of recommendation: Grade A - Good evidence to support a recommendation for use; Grade B - Moderate evidence to support a recommendation for use; Grade C - Poor evidence to support a recommendation. Quality of evidence: Level I - Evidence from at least 1 properly designed randomized, controlled trial; Level II - Evidence from at least 1 well-designed clinical trial, without randomization; from cohort or case-controlled analytic studies (preferably from 11 center); from multiple time series; or from dramatic results of uncontrolled experiments; Level 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-III (for every 3-4 months); CIII (for every 6-12 months)

1c.14 Summary of Controversy/Contradictory Evidence: According to the DHHS Adult/Adolescent Guidelines for the treatment of HIV, (DHHS, 2012), "in general, CD4 counts should be monitored every 3–4 months to: (1) determine when to start ART in untreated patients, (2) assess immunologic response to ART, and (3) assess the need for initiation or discontinuation of prophylaxis for opportunistic infections (A-I)." However, patients who are receiving antiretroviral therapy, have consistently suppressed viral loads, and whose CD4 count is well above the threshold for opportunistic infection risk, may have their CD4 count monitored less frequently (every 6 to 12 months) (C-III). Therefore, NCQA believes that CD4 monitoring every 6 months (instead of every 3-4 months) is a more appropriate measure for the total HIV population.

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]

HIVMA Guideline (Aberg, 2009):
CD4 cell counts should be monitored both to assess the efficacy of antiretroviral therapy and to determine the need for prophylaxis against opportunistic infections (A-I).

DHHS Adult/Adolescent Guideline (DHHS, 2012):
In general, CD4 counts should be monitored every 3–4 months to: (1) determine when to start ART in untreated patients, (2) assess immunologic response to ART, and (3) assess the need for initiation or discontinuation of prophylaxis for opportunistic infections (A-I).

The CD4 cell count response to ART varies widely, but a poor CD4 response is rarely an indication for modifying a virologically suppressive antiretroviral regimen. In patients with consistently suppressed viral loads who have already experienced ART-related immune reconstitution, the CD4 cell count provides limited information, and frequent testing may cause unnecessary anxiety in patients with clinically inconsequential fluctuations. Thus, for the patient on a suppressive regiment whose CD4 cell count has increased well above the threshold for opportunistic infection risk, the CD4 count can be measured less frequently than the viral load. In such patients, CD4 count may be monitored every 6 to 12 months, unless there are changes in the patient's clinical status,

such as new HIV-associated clinical symptoms or initiation of treatment with interferon, corticosteroids, or anti-neoplastic agents (C-III).

DHHS Pediatrics Guideline (DHHS, 2011):
CD4 percentage or count should be measured at the time of diagnosis of HIV infection and at least every 3-4 months thereafter (A-III). In children younger than 5 years of age, CD4 percentage is preferred for monitoring immune status because of age-related changes in absolute CD4 count in this age group (A-II).

1c.17 Clinical Practice Guideline Citation: Aberg JA, Kaplan JE, Libman H, Emmanuel P, Anderson JR, Stone VE, Oleske JM, Currier JS, Gallant JE; HIV Medicine Association of the Infectious Diseases Society of America. Primary care guidelines for the management of persons infected with human immunodeficiency virus: 2009 update by the HIV medicine Association of the Infectious Diseases Society of America. Clin Infect Dis. 2009 Sep 1;49(5):651-81. Available at http://www.uphs.upenn.edu/bugdrug/antibiotic_manual/idsahivprimarycare2009.pdf. Accessed May 25, 2012.

Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the use of antiretroviral agents in HIV-1-infected adults and adolescents. March 2012. Department of Health and Human Services. Available at http://www.aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf. Accessed June 11, 2012.

Panel on Antiretroviral Therapy and Medical Management of HIV-Infected Children. Guidelines for the Use of Antiretroviral Agents in Pediatric HIV Infection. Department of Health and Human Services. August 11, 2011; pp 1-268. Available at http://aidsinfo.nih.gov/ContentFiles/PediatricGuidelines.pdf. Accessed May 25, 2012.

1c.18 National Guideline Clearinghouse or other URL:
http://www.uphs.upenn.edu/bugdrug/antibiotic_manual/idsahivprimarycare2009.pdf;
http://www.aidsinfo.nih.gov/ContentFiles/AdultandAdolescentGL.pdf;http://aidsinfo.nih.gov/ContentFiles/PediatricGuidelines.pdf

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: HIVMA Guidelines, expert consensus with evidence review/ DHHS Adutl/Adolescent Guidelines; expert consensus with evidence review/ DHHS 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: HIVMA Grading Scale:
Strength of recommendation: Grade A - Good evidence to support a recommendation for use; Grade B - Moderate evidence to support a recommendation for use; Grade C - Poor evidence to support a recommendation. Quality of evidence: Level I - Evidence from at least 1 properly designed randomized, controlled trial; Level II - Evidence from at least 1 well-designed clinical trial, without randomization; from cohort or case-controlled analytic studies (preferably from 11 center); from multiple time series; or from dramatic results of uncontrolled experiments; Level III - Evidence from opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.

DHHS Adult/Adolescent and Pediatrics Grading Scales:
Strength of Recommendation: A - Strong recommendation for the statement; B - Moderate recommendation for the statement; C - Optional recommendation for the statement. Quality of Evidence: I - One or more randomized trials with clinical outcomes and/or validated laboratory endpoints; II - One or more well-designed, nonrandomized trials or observational cohort studies with long-term clinical outcomes; III - Expert opinion.

1c.23 Grade Assigned to the Recommendation: A-I to -AIII (for every 3-4 months); C-III (for every 6-12 months)

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: High1c.27 Consistency: High
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)*:
Patients with at least two CD4 cell counts or percentages performed during the measurement year at least 3 months apart

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*:
The medical record must include the date of the CD4 counts or percentages and the results or findings.

2a1.4 Denominator Statement *(Brief, narrative description of the target population being measured)*:
All patients aged 6 months and older with a diagnosis of HIV/AIDS, who had at least two medical visits during the measurement year, with at least 90 days between each visit

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 year

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)*:
None

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)*:
N/A

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.

Step 1: Determine the eligible population. The eligible population is all the patients, aged 6 months 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. The numerator includes all patients in the denominator population who had a CD4 cell count or percentage performed at least once every 6

months.

Step 4: Calculate the rate by dividing the total from Step 3 by the total from Step 2.

2a1.21-23 Calculation Algorithm/Measure Logic Diagram URL or attachment:
Attachment
PCPI_Sample_Calculation_Algorithm-634771031423103164.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):
This measure is not based on a sample or survey.

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 1,465 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=80.5%
Manual calculation of performance=90%
Percentage Point Difference between Automated and Manual=9%

The difference between scores results likely resulted from some confusion about the numerator inclusion criteria – which codes should be used and the timing of the CD4 counts.

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 1,465 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=80.5%
Manual calculation of performance=90%
Percentage Point Difference between Automated and Manual=9%

The difference between scores results likely resulted from some confusion about the numerator inclusion criteria – which codes should be used and the timing of the CD4 counts.

Face Validity
The results of the expert panel rating of the validity statement were as follows: N=8; Mean rating=4.00 and 75.0% 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)-0 members
2-2 members
3(Neither Agree or Disagree)-0 members
4-2 members
5(Strongly Agree)-4 members

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)*:
There are no exclusions in this measure.

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 System:
The following information is from the 2009 and 2010 CMS Physician Quality Reporting System. In 2009, 92 eligible providers reported this measure, and in 2010, 96 eligible providers reported this measure. This represented 1,298 total instances in 2009, and 2,101 total instances in 2010.

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 1,298 total instances in 2009, and 2,101 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:
For this measure, the average performance rate per eligible professional was 76.8% in 2009 and 83.9% in 2010. These numbers indicate there is continued room for improvement.

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

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

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

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

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

2c.1 If measure is stratified for disparities, provide stratified results *(Scores by stratified categories/cohorts)*: The measure is not stratified by patient groups or cohorts that could potentially be affected by disparities in care. 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:

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. (2011 data has been requested from CMS). It will also be included in the program in 2012.
http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/index.html?redirect=/pqrs

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 (7%) in mean provider scores from 2009 to 2010. While higher levels of performance are closing the gap in care, there remains room for improvement. Additionally, while this measure is not yet in widespread use in PQRS, we expect that with increasing incentives for reporting there will be an increase in the use of this and all the PQRS measures to leverage improvements in care. A similar CD4 monitoring 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 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 (7%) in scores from 2009 to 2010, reflecting provider's QI initiatives around HIV care. Also, a similar CD4 count 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:
0568 : APPROPRIATE FOLLOW-UP FOR PATIENTS WITH HIV

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? Yes

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)*:
Having spoken with the measure steward for NQF #0568 (Health Benchmarks-IMS Health), it is our understanding that they will not be submitting the measure for re-endorsement.

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
Brigid Krezek- American College of Obstetricians and Gynecologists
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

Liaison
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?

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

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

Text Description for eSpecification

Measure Title	HIV/AIDS: CD4 Cell Count or Percentage Performed
Measure #	0404
Measure Description	Percentage of patients aged 6 months and older with a diagnosis of HIV/AIDS, with at least two CD4 cell counts or percentages performed during the measurement year at least 3 months apart
Measurement Period	Twelve consecutive months
Initial Patient Population	Patients aged 6 months and older with a diagnosis of HIV/AIDS, who had at least two medical visits during the measurement year, with at least 90 days between each visit
Denominator Statement	Equals Initial Patient Population
Numerator Statement	Patients with at least two CD4 cell counts or percentages performed during the measurement year at least 3 months apart
Denominator Exceptions	None

Data Elements for eSpecification

QDM* Standard Category	QDM* Data Type	Standard Terminology	Constraints	Value Set Name	Value of Data Element	Data Source	Comments/Rationale
Initial Patient Population							
Individual Characteristic	Patient Characteristic	LN	starts before the start of measurement period	Date of Birth		Electronic Health Record (EHR)	
Individual Characteristic	Patient Characteristic	Calculated	starts before start of measurement period	Age	>=6 months	Electronic Health Record (EHR)	Measurement start date minus Date of Birth must be greater than or equal to 6 months.
Condition/Diagnosis/ Problem	Diagnosis, Active	SNOMED-CT, ICD-9-CM, ICD-10-CM	starts before or during measurement period	HIV		Electronic Health Record (EHR)	
Encounter	Encounter, Performed	CPT, SNOMED-CT	occurs during measurement period	HIV Visit		Electronic Health Record (EHR)	HIV Visit value set consists of following value sets: Office Visit; Outpatient Consultation; Preventive Care - Initial Office Visit, 0 to 17; Preventive Care Services-Initial Office Visit, 18 and Up; Preventive Care - Established Office Visit, 0 to 17; Preventive Care Services - Established Office Visit, 18 and Up; and Face-to-Face Interaction.
Numerator							
Laboratory Test	Laboratory Test, Result	LOINC	occurs during measurement period	CD4+ Count		Electronic Health Record (EHR)	Result must be present in EHR.

QDM* Standard Category	QDM* Data Type	Standard Terminology	Constraints	Value Set Name	Value of Data Element	Data Source	Comments/Rationale
Supplemental Data Elements							
Individual Characteristic	Patient Characteristic	Administrative Sex	occurs during measurement period	ONC Admini-strative Sex		Electronic Health Record (EHR)	The Supplemental Data Elements (SDE) are collected for the purpose of stratifying results in an effort to highlight disparities.
Individual Characteristic	Patient Characteristic	CDC	occurs during measurement period	Race		Electronic Health Record (EHR)	The Supplemental Data Elements (SDE) are collected for the purpose of stratifying results in an effort to highlight disparities.
Individual Characteristic	Patient Characteristic	CDC	occurs during measurement period	Ethnicity		Electronic Health Record (EHR)	The Supplemental Data Elements (SDE) are collected for the purpose of stratifying results in an effort to highlight disparities.
Individual Characteristic	Patient Characteristic	Source of Payment Typology	occurs during measurement period	Payer		Electronic Health Record (EHR)	The Supplemental Data Elements (SDE) are collected for the purpose of stratifying results in an effort to highlight disparities.

*The Quality Data Model (QDM), version 2.1, was developed by the National Quality Forum (NQF)

eSpecification
HIV/AIDS: CD4 Cell Count or Percentage Performed

Value Set OID	Measure Component	Standard Concept	Standard Category	Taxonomy	Code	Code Descriptor
2.16.840.1.113883.3.560.100.4	IPP	Date of Birth	Individual Characteristic	LOINC	21112-8	Birth date
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	5810003	Human immunodeficiency virus (HIV) infection with infection by another virus (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	40780007	Human immunodeficiency virus I infection (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	48794007	Human immunodeficiency virus (HIV) infection with infectious mononucleosis-like syndrome (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	52079000	Congenital human immunodeficiency virus infection (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	62246005	Acquired immunodeficiency syndrome (AIDS)-like syndrome (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	62479008	Acquired immune deficiency syndrome (AIDS) (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	77070006	Acquired immunodeficiency syndrome (AIDS) with Salmonella infection (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	79019005	Human immunodeficiency virus II infection (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	86406008	Human immunodeficiency virus infection (disorder)

Value Set OID	Measure Component	Standard Concept	Standard Category	Taxonomy	Code	Code Descriptor
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	87117006	Human immunodeficiency virus (HIV) infection with acute lymphadenitis (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	91947003	Asymptomatic human immunodeficiency virus infection (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	111880001	Acute HIV infection (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	186706006	Human immunodeficiency virus infection constitutional disease (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	186707002	Human immunodeficiency virus infection with neurological disease (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	186708007	Human immunodeficiency virus infection with secondary clinical infectious disease (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	186709004	Human immunodeficiency virus with secondary cancers (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	186717007	Human immunodeficiency virus (HIV) disease resulting in mycobacterial infection (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	186718002	Human immunodeficiency virus (HIV) disease resulting in cytomegaloviral disease (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	186719005	Human immunodeficiency virus (HIV) disease resulting in

Value Set OID	Measure Component	Standard Concept	Standard Category	Taxonomy	Code	Code Descriptor
						candidiasis (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	186721000	Human immunodeficiency virus (HIV) disease resulting in multiple infections (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	186723002	Human immunodeficiency virus (HIV) disease resulting in Burkitt's lymphoma (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	186725009	Human immunodeficiency virus (HIV) disease resulting in multiple malignant neoplasms (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	186726005	Human immunodeficiency virus (HIV) disease resulting in lymphoid interstitial pneumonitis (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	230180003	Human immunodefiency virus leukoencephalopathy (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	230201009	Human immunodeficiency virus myelitis (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	230598008	Neuropathy due to human immunodeficiency virus (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	235009000	Human immunodeficiency virus-associated periodontitis (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	235726002	Human immunodeficiency virus enteropathy (disorder)

Value Set OID	Measure Component	Standard Concept	Standard Category	Taxonomy	Code	Code Descriptor
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	240103002	Human immunodeficiency virus myopathy (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	276666007	Congenital human immunodeficiency virus positive status syndrome (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	315019000	Human immunodeficiency virus (HIV) infection with aseptic meningitis (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	359791000	Acquired immunodeficiency syndrome (AIDS) with dermatomycosis (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	397763006	Human immunodefiency virus encephalopathy (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	398329009	Human immunodefiency virus encephalitis (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	402915006	Human immunodeficiency virus (HIV) seroconversion exanthem (disorder)
2.16.840.1.113883.3.464.1003.120.11.1005	IPP	HIV	Condition/Diagnosis/Problem	SNOMED-CT	402916007	Human immunodeficiency virus (HIV) seropositivity (disorder)
2.16.840.1.113883.3.464.1003.120.11.1006	IPP	HIV	Condition/Diagnosis/Problem	ICD-9-CM	042	Human immunodeficiency virus [HIV] disease
2.16.840.1.113883.3.464.1003.120.11.1006	IPP	HIV	Condition/Diagnosis/Problem	ICD-9-CM	V08	Asymptomatic human immunodeficiency virus [HIV] infection status
2.16.840.1.113883.3.464.1003.120.11.1007	IPP	HIV	Condition/Diagnosis/Problem	ICD-10-CM	B20	Human immunodeficiency virus [HIV] disease

Value Set OID	Measure Component	Standard Concept	Standard Category	Taxonomy	Code	Code Descriptor
2.16.840.1.113883.3.464.1003.120.11.1007	IPP	HIV	Condition/Diagnosis/Problem	ICD-10-CM	Z21	Asymptomatic human immunodeficiency virus [HIV] infection status
2.16.840.1.113883.3.464.1003.101.11.1005	IPP	Office Visit	Encounter	CPT	99201	NA
2.16.840.1.113883.3.464.1003.101.11.1005	IPP	Office Visit	Encounter	CPT	99202	NA
2.16.840.1.113883.3.464.1003.101.11.1005	IPP	Office Visit	Encounter	CPT	99203	NA
2.16.840.1.113883.3.464.1003.101.11.1005	IPP	Office Visit	Encounter	CPT	99204	NA
2.16.840.1.113883.3.464.1003.101.11.1005	IPP	Office Visit	Encounter	CPT	99205	NA
2.16.840.1.113883.3.464.1003.101.11.1005	IPP	Office Visit	Encounter	CPT	99212	NA
2.16.840.1.113883.3.464.1003.101.11.1005	IPP	Office Visit	Encounter	CPT	99213	NA
2.16.840.1.113883.3.464.1003.101.11.1005	IPP	Office Visit	Encounter	CPT	99214	NA
2.16.840.1.113883.3.464.1003.101.11.1005	IPP	Office Visit	Encounter	CPT	99215	NA
2.16.840.1.113883.3.464.1003.101.11.1040	IPP	Outpatient Consultation	Encounter	CPT	99241	NA
2.16.840.1.113883.3.464.1003.101.11.1040	IPP	Outpatient Consultation	Encounter	CPT	99242	NA
2.16.840.1.113883.3.464.1003.101.11.1040	IPP	Outpatient Consultation	Encounter	CPT	99243	NA
2.16.840.1.113883.3.464.1003.101.11.1040	IPP	Outpatient Consultation	Encounter	CPT	99244	NA
2.16.840.1.113883.3.464.1003.101.11.1040	IPP	Outpatient Consultation	Encounter	CPT	99245	NA
2.16.840.1.113883.3.464.1003.101.11.1110	IPP	Preventive Care - Initial Office Visit, 0 to 17	Encounter	CPT	99381	NA
2.16.840.1.113883.3.464.1003.101.11.1110	IPP	Preventive Care - Initial Office Visit, 0 to 17	Encounter	CPT	99382	NA
2.16.840.1.113883.3.464.1003.101.11.1110	IPP	Preventive Care - Initial Office Visit, 0 to 17	Encounter	CPT	99383	NA
2.16.840.1.113883.3.464.1003.101.11.1110	IPP	Preventive Care - Initial Office Visit, 0 to 17	Encounter	CPT	99384	NA

Value Set OID	Measure Component	Standard Concept	Standard Category	Taxonomy	Code	Code Descriptor
2.16.840.1.113883.3.464.1003.101.11.1115	IPP	Preventive Care Services-Initial Office Visit, 18 and Up	Encounter	CPT	99385	NA
2.16.840.1.113883.3.464.1003.101.11.1115	IPP	Preventive Care Services-Initial Office Visit, 18 and Up	Encounter	CPT	99386	NA
2.16.840.1.113883.3.464.1003.101.11.1115	IPP	Preventive Care Services-Initial Office Visit, 18 and Up	Encounter	CPT	99387	NA
2.16.840.1.113883.3.464.1003.101.11.1120	IPP	Preventive Care - Established Office Visit, 0 to 17	Encounter	CPT	99391	NA
2.16.840.1.113883.3.464.1003.101.11.1120	IPP	Preventive Care - Established Office Visit, 0 to 17	Encounter	CPT	99392	NA
2.16.840.1.113883.3.464.1003.101.11.1120	IPP	Preventive Care - Established Office Visit, 0 to 17	Encounter	CPT	99393	NA
2.16.840.1.113883.3.464.1003.101.11.1120	IPP	Preventive Care - Established Office Visit, 0 to 17	Encounter	CPT	99394	NA
2.16.840.1.113883.3.464.1003.101.11.1125	IPP	Preventive Care Services - Established	Encounter	CPT	99395	NA

Value Set OID	Measure Component	Standard Concept	Standard Category	Taxonomy	Code	Code Descriptor
		Office Visit, 18 and Up				
2.16.840.1.113883.3.464.1003.101.11.1125	IPP	Preventive Care Services - Established Office Visit, 18 and Up	Encounter	CPT	99396	NA
2.16.840.1.113883.3.464.1003.101.11.1125	IPP	Preventive Care Services - Established Office Visit, 18 and Up	Encounter	CPT	99397	NA
2.16.840.1.113883.3.464.1003.101.11.1216	IPP	Face-to-Face Interaction	Encounter	SNOMED-CT	4525004	emergency department patient visit (procedure)
2.16.840.1.113883.3.464.1003.101.11.1216	IPP	Face-to-Face Interaction	Encounter	SNOMED-CT	12843005	subsequent hospital visit by physician (procedure)
2.16.840.1.113883.3.464.1003.101.11.1216	IPP	Face-to-Face Interaction	Encounter	SNOMED-CT	18170008	subsequent nursing facility visit (procedure)
2.16.840.1.113883.3.464.1003.101.11.1216	IPP	Face-to-Face Interaction	Encounter	SNOMED-CT	19681004	nursing evaluation of patient and report (procedure)
2.16.840.1.113883.3.464.1003.101.11.1216	IPP	Face-to-Face Interaction	Encounter	SNOMED-CT	87790002	follow-up inpatient consultation visit (procedure)
2.16.840.1.113883.3.464.1003.101.11.1216	IPP	Face-to-Face Interaction	Encounter	SNOMED-CT	90526000	initial evaluation and management of healthy individual (procedure)
2.16.840.1.113883.3.464.1003.101.11.1216	IPP	Face-to-Face Interaction	Encounter	SNOMED-CT	185349003	encounter for "check-up" (procedure)
2.16.840.1.113883.3.464.1003.101.11.1216	IPP	Face-to-Face Interaction	Encounter	SNOMED-CT	185463005	visit out of hours (procedure)
2.16.840.1.113883.3.464.1003.101.11.1216	IPP	Face-to-Face Interaction	Encounter	SNOMED-CT	185465003	weekend visit (procedure)
2.16.840.1.113883.3.464.1003.101.11.1216	IPP	Face-to-Face Interaction	Encounter	SNOMED-CT	207195004	history and physical examination with evaluation and management of nursing facility patient (procedure)
2.16.840.1.113883.3.464.1003.101.11.1216	IPP	Face-to-Face	Encounter	SNOMED-CT	270427003	patient-initiated

Value Set OID	Measure Component	Standard Concept	Standard Category	Taxonomy	Code	Code Descriptor
		Interaction				encounter (procedure)
2.16.840.1.113883.3.464.1003.101.11.1216	IPP	Face-to-Face Interaction	Encounter	SNOMED-CT	270430005	provider-initiated encounter (procedure)
2.16.840.1.113883.3.464.1003.101.11.1216	IPP	Face-to-Face Interaction	Encounter	SNOMED-CT	308335008	patient encounter procedure (procedure)
2.16.840.1.113883.3.464.1003.101.11.1216	IPP	Face-to-Face Interaction	Encounter	SNOMED-CT	390906007	follow-up encounter (procedure)
2.16.840.1.113883.3.464.1003.101.11.1216	IPP	Face-to-Face Interaction	Encounter	SNOMED-CT	406547006	urgent follow-up (procedure)
2.16.840.1.113883.3.464.1003.101.11.1216	IPP	Face-to-Face Interaction	Encounter	SNOMED-CT	439708006	home visit (procedure)
2.16.840.1.113883.3.464.1003.121.11.1006	N	CD4+ Count	Laboratory Test	LOINC	24467-3	CD3+CD4+ (T4 helper) cells [#/volume] in Blood
2.16.840.1.113883.3.464.1003.121.11.1006	N	CD4+ Count	Laboratory Test	LOINC	32515-9	CD3+CD4+ (T4 helper) cells [#/volume] in Unspecified specimen
2.16.840.1.113883.3.464.1003.121.11.1006	N	CD4+ Count	Laboratory Test	LOINC	32532-4	CD3+CD4+ (T4 helper) cells [#/volume] in Bone marrow
2.16.840.1.113883.3.464.1003.121.11.1006	N	CD4+ Count	Laboratory Test	LOINC	40898-9	CD3+CD4+ (T4 helper) cells [#/volume] in Tissue
2.16.840.1.113883.3.464.1003.121.11.1006	N	CD4+ Count	Laboratory Test	LOINC	63450-1	CD3+CD4+ (T4 helper) cells [#/volume] in Cerebral spinal fluid

eSpecification
HIV/AIDS: CD4 Cell Count or Percentage Performed
Supplemental Data Elements (SDE) Value Sets

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
National Library of Medicine	2.16.840.1.113762.1.4.1	ONC Administrative Sex	Individual Characteristic	Administrative Sex	HL7 v2.5	F	Female
National Library of Medicine	2.16.840.1.113762.1.4.1	ONC Administrative Sex	Individual Characteristic	Administrative Sex	HL7 v2.5	M	Male
National Library of Medicine	2.16.840.1.113762.1.4.1	ONC Administrative Sex	Individual Characteristic	Administrative Sex	HL7 v2.5	U	Unknown
CDC NCHS	2.16.840.1.114222.4.11.836	Race	Individual Characteristic	CDC	1.0	1002-5	American Indian or Alaska Native
CDC NCHS	2.16.840.1.114222.4.11.836	Race	Individual Characteristic	CDC	1.0	2028-9	Asian
CDC NCHS	2.16.840.1.114222.4.11.836	Race	Individual Characteristic	CDC	1.0	2054-5	Black or African American
CDC NCHS	2.16.840.1.114222.4.11.836	Race	Individual Characteristic	CDC	1.0	2076-8	Native Hawaiian or Other Pacific Islander
CDC NCHS	2.16.840.1.114222.4.11.836	Race	Individual Characteristic	CDC	1.0	2106-3	White
CDC NCHS	2.16.840.1.114222.4.11.836	Race	Individual Characteristic	CDC	1.0	2131-1	Other Race
CDC NCHS	2.16.840.1.114222.4.11.837	Ethnicity	Individual Characteristic	CDC	1.0	2135-2	Hispanic or Latino
CDC NCHS	2.16.840.1.114222.4.11.837	Ethnicity	Individual Characteristic	CDC	1.0	2186-5	Not Hispanic or Latino
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	1	MEDICARE

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	2	MEDICAID
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3	OTHER GOVERNMENT (Federal/State/Local) (excluding Department of Corrections)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	4	DEPARTMENTS OF CORRECTIONS
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	5	PRIVATE HEALTH INSURANCE
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	6	BLUE CROSS/BLUE SHIELD
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	7	MANAGED CARE, UNSPECIFIED(to be used only if one can't distinguish public from private)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	8	NO PAYMENT from an Organization/Agency/Program/Private Payer Listed
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	9	MISCELLANEOUS/OTHER
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	11	Medicare (Managed Care)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	12	Medicare (Non-managed Care)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	19	Medicare Other

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	21	Medicaid (Managed Care)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	22	Medicaid (Non-managed Care Plan)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	23	Medicaid/SCHIP
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	24	Medicaid Applicant
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	25	Medicaid - Out of State
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	29	Medicaid Other
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	31	Department of Defense
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	32	Department of Veterans Affairs
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	33	Indian Health Service or Tribe
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	34	HRSA Program
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	35	Black Lung

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	36	State Government
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	37	Local Government
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	38	Other Government (Federal, State, Local not specified)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	39	Other Federal
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	41	Corrections Federal
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	42	Corrections State
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	43	Corrections Local
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	44	Corrections Unknown Level
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	51	Managed Care (Private)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	52	Private Health Insurance - Indemnity
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	53	Managed Care (private) or private health insurance (indemnity), not otherwise specified

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	54	Organized Delivery System
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	55	Small Employer Purchasing Group
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	59	Other Private Insurance
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	61	BC Managed Care
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	62	BC Indemnity
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	63	BC (Indemnity or Managed Care) - Out of State
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	64	BC (Indemnity or Managed Care) - Unspecified
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	69	BC (Indemnity or Managed Care) - Other
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	71	HMO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	72	PPO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	73	POS

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	79	Other Managed Care, Unknown if public or private
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	81	Self-pay
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	82	No Charge
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	83	Refusal to Pay/Bad Debt
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	84	Hill Burton Free Care
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	85	Research/Donor
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	89	No Payment, Other
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	91	Foreign National
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	92	Other (Non-government)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	93	Disability Insurance
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	94	Long-term Care Insurance

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	95	Worker's Compensation
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	96	Auto Insurance (no fault)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	98	Other specified (includes Hospice - Unspecified plan)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	99	No Typology Code available for payment source
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	111	Medicare HMO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	112	Medicare PPO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	113	Medicare POS
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	119	Medicare Managed Care Other
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	121	Medicare FFS
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	122	Drug Benefit
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	123	Medicare Medical Savings Account (MSA)

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	129	Medicare Non-managed Care Other
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	211	Medicaid HMO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	212	Medicaid PPO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	213	Medicaid PCCM (Primary Care Case Management)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	219	Medicaid Managed Care Other
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	311	TRICARE (CHAMPUS)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	312	Military Treatment Facility
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	313	Dental --Stand Alone
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	321	Veteran care--Care provided to Veterans
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	322	Non-veteran care
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	331	Indian Health Service - Regular

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	332	Indian Health Service - Contract
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	333	Indian Health Service - Managed Care
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	334	Indian Tribe - Sponsored Coverage
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	341	Title V (MCH Block Grant)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	342	Migrant Health Program
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	343	Ryan White Act
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	349	Other
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	361	State SCHIP program (codes for individual states)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	362	Specific state programs (list/ local code)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	369	State, not otherwise specified (other state)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	371	Local - Managed care

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	372	FFS/Indemnity
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	379	Local, not otherwise specified (other local, county)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	381	Federal, State, Local not specified managed care
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	382	Federal, State, Local not specified - FFS
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	389	Federal, State, Local not specified - Other
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	511	Commercial Managed Care - HMO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	512	Commercial Managed Care - PPO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	513	Commercial Managed Care - POS
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	514	Exclusive Provider Organization
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	515	Gatekeeper PPO (GPPO)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	519	Managed Care, Other (non HMO)

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	521	Commercial Indemnity
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	522	Self-insured (ERISA) Administrative Services Only (ASO) plan
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	523	Medicare supplemental policy (as second payer)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	529	Private health insurance—other commercial Indemnity
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	611	BC Managed Care - HMO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	612	BC Managed Care - PPO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	613	BC Managed Care - POS
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	619	BC Managed Care - Other
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	821	Charity
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	822	Professional Courtesy
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	823	Hispanic or Latino

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	951	Worker's Comp HMO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	953	Worker's Comp Fee-for-Service
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	954	Worker's Comp Other Managed Care
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	959	Worker's Comp, Other unspecified
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3111	TRICARE Prime--HMO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3112	TRICARE Extra--PPO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3113	TRICARE Standard - Fee For Service
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3114	TRICARE For Life--Medicare Supplement
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3115	TRICARE Reserve Select
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3116	Uniformed Services Family Health Plan (USFHP) -- HMO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3119	Department of Defense - (other)

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3121	Enrolled Prime--HMO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3122	Non-enrolled Space Available
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3123	TRICARE For Life (TFL)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3211	Direct Care--Care provided in VA facilities
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3212	Indirect Care--Care provided outside VA facilities
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3221	Civilian Health and Medical Program for the VA (CHAMPVA)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3222	Spina Bifida Health Care Program (SB)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3223	Children of Women Vietnam Veterans (CWVV)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3229	Other non-veteran care
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3711	HMO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3712	PPO

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3713	POS
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3811	Federal, State, Local not specified - HMO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3812	Federal, State, Local not specified - PPO
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3813	Federal, State, Local not specified - POS
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	3819	Federal, State, Local not specified - not specified managed care
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	9999	Unavailable / Unknown
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	32121	Fee Basis
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	32122	Foreign Fee/Foreign Medical Program(FMP)
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	32123	Contract Nursing Home/Community Nursing Home
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	32124	State Veterans Home
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	32125	Sharing Agreements

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
PHDSC	2.16.840.1.114222.4.11.3591	Payer	Individual Characteristic	Source of Payment Typology	4.0	32126	Other Federal Agency

Measure Title: HIV/AIDS: CD4 Cell Count or Percentage Performed
Measure Description: Percentage of patients aged 6 months and older with a diagnosis of HIV/AIDS, with at least two CD4 cell counts or percentages performed during the measurement year at least 3 months apart
Measurement Period: 12 Consecutive Months

Phase	Identify Patients in the Intial Patient Population (IPP)	Identify Patients in the Denominator (D)	Identify Patients in Numerator (N)	Identify Patients who have valid Denominator Exceptions (E)
	PATIENT AGE 6 months and older AND DIAGNOSIS, Active HIV AND ENCOUNTER, performed Two or more HIV Visits during measurement year with at least 90 days between each visit	All Patients Identified Within the Initial Patient Population	LABORATORY TEST, Result At least 2 CD4 Cell Counts during the measurement year that are at least 3 months apart	None