NATIONAL QUALITY FORUM

Measure Evaluation 4.1
January 2010

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The sub-criteria and most of the footnotes from the evaluation criteria are provided in Word comments and will appear if your cursor is over the highlighted area (or in the margin if your Word program is set to show revisions in balloons). Hyperlinks to the evaluation criteria and ratings are provided in each section.

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

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

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

Evaluation ratings of the extent to which the criteria are met
C = Completely (unquestionably demonstrated to meet the criterion)
P = Partially (demonstrated to partially meet the criterion)
M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)
N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)
NA = Not applicable (only an option for a few sub-criteria as indicated)

(for NQF staff use) **NQF Review** #: PSM-026-10 **NQF Project:** Patient Safety Measures

MEASURE DESCRIPTIVE INFORMATION
De.1 **Measure Title:** Patient(s) with HIV infection taking antiretroviral medications that had a CBC in last 6 reported months.
De.2 **Brief description of measure:** This measure identifies HIV-infected persons, 2 years of age or older, taking antiretroviral medications that had at least one CBC test in last 6 months of the report period.
1.1-2 **Type of Measure:** process De.3 **If included in a composite or paired with another measure, please identify composite or paired measure** Does not apply
De.4 **National Priority Partners Priority Area:** safety De.5 **IOM Quality Domain**: safety De.6 **Consumer Care Need:** Staying Healthy

CONDITIONS FOR CONSIDERATION BY NQF	NQF Staff
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	
A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. *Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.* A.1 **Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)?** Yes A.2 **Indicate if Proprietary Measure** (*as defined in measure steward agreement*)**:** proprietary measure A.3 **Measure Steward Agreement:** agreement signed and submitted A.4 **Measure Steward Agreement attached:** Measure Steward Addendum_Ingenix 012010-	**A** Y☐ N☐

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

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. ***Measures must be judged to be important to measure and report*** *in order to be evaluated against the remaining criteria.* (evaluation criteria) **1a. High Impact**	Eval Rating
(for NQF staff use) **Specific NPP goal**:	
1a.1 **Demonstrated High Impact Aspect of Healthcare:** patient/societal consequences of poor quality 1a.2 1a.3 **Summary of Evidence of High Impact:** More than 1 million Americans are infected with HIV (1). Since 1996, the availability of highly active antiretroviral therapy (HAART) has been associated with significant declines in morbidity related to AIDS-related complications (1). As such, the use of HAART has increased over the past decade. HAART has been associated with a variety of adverse events (2). Often, these adverse events can be addressed through drug discontinuation or other interventions. Therefore, routine laboratory monitoring for specific adverse events is recommended (2). 1a.4 **Citations for Evidence of High Impact:** 1. CDC. HIV/AIDS in the United States. Available from the CDC Web site: http://www.cdc.gov/hiv/resources/factsheets/us.htm (Accessed January 8, 2010). 2. DHHS Panel on Guidelines for the use of Antiretroviral Agents in HIV-infected Adults and Adolescents. (December 1, 2009). Available from AIDSinfo Web site: http://aidsinfo.nih.gov/ (Accessed January 8, 2010).	**1a** C☐ P☐ M☐ N☐
1b. Opportunity for Improvement 1b.1 **Benefits (improvements in quality) envisioned by use of this measure:** CBC monitoring can identify the presence of a HAART-related adverse events. Identification of an adverse event can be addressed	**1b** C☐ P☐ M☐

through drug discontinuation or other interventions. This can prevent more serious adverse events, improve HAART compliance, and ultimately improve outcomes such as quality of life and viral control. **1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers:** Using a geographically diverse 15 million member benchmark database (this database represents predominately a commercial population less than 65 year of age) the compliance rate was 44.4 percent, indicating a clear gap in care and opportunity for care improvement. **1b.3 Citations for data on performance gap:** Ingenix EBM Connect benchmark results, September 2009 **1b.4 Summary of Data on disparities by population group:** None **1b.5 Citations for data on Disparities:**	**N**☐
1c. Outcome or Evidence to Support Measure Focus **1c.1 Relationship to Outcomes** (*For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population*)**:** The primary outcome is to improve the safety and efficacy of HAART. CBC monitoring allows detection or adverse events that can be managed with drug discontinuation or other interventions. This can prevent more serious adverse events, improve HAART compliance, and ultimately improve outcomes such as quality of life and viral control. **1c.2-3. Type of Evidence:** evidence based guideline **1c.4 Summary of Evidence** (*as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome*)**:** The Department of Health and Human Services (DHHS) Panel on Antiretroviral Guidelines for Adults and Adolescents (the Panel) is a working group of the Office of AIDS Research Advisory Council (OARAC). Annually, this group publishes guidelines for the management of patients infected with HIV. For the first time in November 2008, the guidelines stated specific recommendations for laboratory tests to obtain for HIV-infected patients at baseline and while receiving antiretroviral therapy to monitor for safety and treatment responses. These recommendations remained in the most recent December 2009 guidelines. The 2009 DHHS panel guidelines recommend a CBC with differential monitoring every 3-6 months for anyone on highly active antiretroviral therapy (HAART). The rationale is that monitoring will reduce preventable adverse events, improve HAART compliance, and ultimately improve outcomes such as quality of life and viral control. Since laboratory adverse events can be serious (e.g., anemia, life-threatening neutropenia), monitoring is an essential part of the care plan. **1c.5 Rating of strength/quality of evidence** (*also provide narrative description of the rating and by whom*)**:** There is no strength of evidence provided with this recommendation. This recommendation is baesd on consensus expert opinion. **1c.6 Method for rating evidence:** **1c.7 Summary of Controversy/Contradictory Evidence:** There is no controversial evidence related to this recommendation. **1c.8 Citations for Evidence** (*other than guidelines*)**:** DHHS guideline - see 1c.10	**1c** **C**☐ **P**☐ **M**☐ **N**☐

1c.9 Quote the Specific guideline recommendation (*including guideline number and/or page number***):** Table 3, page 6 states:"CBC w/ differential"..."every 3-6 months." **1c.10 Clinical Practice Guideline Citation:** DHHS Panel on Guidelines for the use of Antiretroviral Agents in HIV-infected Adults and Adolescents. (December 1, 2009). Available from AIDSinfo Web site: http://aidsinfo.nih.gov/ (Accessed January 8, 2010). **1c.11 National Guideline Clearinghouse or other URL:** http://aidsinfo.nih.gov/Guidelines/GuidelineDetail.aspx?MenuItem=Guidelines&Search=Off&GuidelineID=7&ClassID=1 **1c.12 Rating of strength of recommendation (***also provide narrative description of the rating and by whom***):** There is no strength of evidence provided with this recommendation. This recommendation is baesd on consensus expert opinion. **1c.13 Method for rating strength of recommendation** (*If different from* USPSTF system, *also describe rating and how it relates to USPSTF)***:** **1c.14 Rationale for using this guideline over others:** The DHHS Panel on Antiretroviral Guidelines for Adults and Adolescents is an internationally recognized group that provides comprehensive recommendations for the management of HIV-infected individuals. This is considered the gold standard guideline by U.S. providers who manage HIV-infected patients.	
TAP/Workgroup: What are the strengths and weaknesses in relation to the sub-criteria **for *Importance to Measure and Report?***	**1**
Steering Committee: Was the threshold criterion, *Importance to Measure and Report*, met? **Rationale:**	**1** **Y☐** **N☐**
2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES	
Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (evaluation criteria)	Eval Rating
2a. MEASURE SPECIFICATIONS	
S.1 Do you have a web page where current detailed measure specifications can be obtained? **S.2 If yes, provide web page URL:** **2a. Precisely Specified**	
2a.1 Numerator Statement (*Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome***):** Patients who are diagnosed with HIV infection and are taking an antiretroviral medication, who have had a CBC test during the following time period: last 180 days of the report period through 90 days after the end of the report period **2a.2 Numerator Time Window (***The time period in which cases are eligible for inclusion in the numerator***):** Last 180 days of the report period through 90 days after the end of the report period **2a.3 Numerator Details (***All information required to collect/calculate the numerator, including all codes, logic, and definitions***):** Patients who have had a test for CBC (code set PR0013) during the following time period: last 180 days of the report period through 90 days after the end of the report period Code Set Code Set Description Procedure Code PR0013 CBC 80050	**2a-specs** **C☐** **P☐** **M☐** **N☐**

PR0013	CBC	80055
PR0013	CBC	85021
PR0013	CBC	85022
PR0013	CBC	85023
PR0013	CBC	85024
PR0013	CBC	85025
PR0013	CBC	85027
PR0013	CBC	85031

2a.4 Denominator Statement (*Brief, text description of the denominator - target population being measured***):**
Patients two years of age or older who are diagnosed with HIV infection and who are being actively treated with an antiretroviral medication

2a.5 Target population gender: Male, Female
2a.6 Target population age range: Patients two years of age or older at the end of the report period

2a.7 Denominator Time Window (*The time period in which cases are eligible for inclusion in the denominator***):**
The 24 months prior to the end of the report period for confirmation that the patient had HIV infection; last 120 days of the report period through 90 days after the end of the report period for confirmation that the patient was actively taking antiretroviral medication

2a.8 Denominator Details (*All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions***):**
Criteria for inclusion in the denominator are as follows:
1. All males or females that are two years of age or older at the end of the report period
2. Patient must have been continuously enrolled in medical benefits throughout the 12 months prior to the end of the report period AND pharmacy benefit plan for 6 months prior to the end of the report period. The standard EBM Connect® enrollment break logic allows unlimited breaks in coverage of no more than 45 days and no breaks greater than 45 days.
3. The patient is listed in the Disease Registry Input File for this condition

OR

During the 24 months prior to the end of the report period, the patient has two or more of the following services or events, at least 14 days apart, with a diagnosis of HIV (code set DX0065):

- Professional Encounter code set (PR0107 or RV0107)
- Professional Supervision code set (PR0108)
- Facility Event – Confinement/Admission (i.e., hospital admission)
- Facility Event – Emergency Room
- Facility Event – Outpatient Surgery

4. The patient must have filled a prescription for an antiretroviral medication (code sets RX-2, RX-10, RX-18, RX-40, RX-47, RX-57, RX-67, RX-83, RX-86, RX-102, RX-103, RX-104, RX-112, RX-115, RX-129, RX-169, RX-206, RX-230, RX-404, RX-405) during the last 120 days of the report period through 90 days after the end of the report period, with a duration of treatment greater than 90 days.

Code Set	Code Set Description	Diagnosis Code
DX0065	HIV/AIDS	042
DX0065	HIV/AIDS	079.53
DX0065	HIV/AIDS	V08

Code Set	Code Set Description	Procedure Code
PR0107	Professional encounter	99201
PR0107	Professional encounter	99202
PR0107	Professional encounter	99203
PR0107	Professional encounter	99204
PR0107	Professional encounter	99205
PR0107	Professional encounter	99211
PR0107	Professional encounter	99212

PR0107	Professional encounter	99213
PR0107	Professional encounter	99214
PR0107	Professional encounter	99215
PR0107	Professional encounter	99217
PR0107	Professional encounter	99218
PR0107	Professional encounter	99219
PR0107	Professional encounter	99220
PR0107	Professional encounter	99221
PR0107	Professional encounter	99222
PR0107	Professional encounter	99223
PR0107	Professional encounter	99231
PR0107	Professional encounter	99232
PR0107	Professional encounter	99233
PR0107	Professional encounter	99234
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PR0107	Professional encounter	99241
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PR0107	Professional encounter	99245
PR0107	Professional encounter	99251
PR0107	Professional encounter	99252
PR0107	Professional encounter	99253
PR0107	Professional encounter	99254
PR0107	Professional encounter	99255
PR0107	Professional encounter	99261
PR0107	Professional encounter	99262
PR0107	Professional encounter	99263
PR0107	Professional encounter	99271
PR0107	Professional encounter	99272
PR0107	Professional encounter	99273
PR0107	Professional encounter	99274
PR0107	Professional encounter	99275
PR0107	Professional encounter	99281
PR0107	Professional encounter	99282
PR0107	Professional encounter	99283
PR0107	Professional encounter	99284
PR0107	Professional encounter	99285
PR0107	Professional encounter	99301
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PR0107	Professional encounter	99341

PR0107	Professional encounter	99342
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PR0107	Professional encounter	99392
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PR0107	Professional encounter	99395
PR0107	Professional encounter	99396
PR0107	Professional encounter	99397
PR0107	Professional encounter	99401
PR0107	Professional encounter	99402
PR0107	Professional encounter	99403
PR0107	Professional encounter	99404
PR0107	Professional encounter	99411
PR0107	Professional encounter	99412
PR0107	Professional encounter	99420
PR0107	Professional encounter	99429
PR0107	Professional encounter	S0270
PR0107	Professional encounter	S0271
PR0107	Professional encounter	S0272
PR0107	Professional encounter	S0273

Code Set	Code Set Description	Procedure Code
PR0108	Professional supervision	99321
PR0108	Professional supervision	99322
PR0108	Professional supervision	99323
PR0108	Professional supervision	99324
PR0108	Professional supervision	99325
PR0108	Professional supervision	99326
PR0108	Professional supervision	99327
PR0108	Professional supervision	99328
PR0108	Professional supervision	99331
PR0108	Professional supervision	99332
PR0108	Professional supervision	99333
PR0108	Professional supervision	99334
PR0108	Professional supervision	99335
PR0108	Professional supervision	99336
PR0108	Professional supervision	99337
PR0108	Professional supervision	99339
PR0108	Professional supervision	99340
PR0108	Professional supervision	99371
PR0108	Professional supervision	99372
PR0108	Professional supervision	99373
PR0108	Professional supervision	99374
PR0108	Professional supervision	99375

PR0108	Professional supervision 99377
PR0108	Professional supervision 99378
PR0108	Professional supervision 99379
PR0108	Professional supervision 99380
PR0108	Professional supervision 99441
PR0108	Professional supervision 99442
PR0108	Professional supervision 99443
PR0108	Professional supervision 99444
PR0108	Professional supervision G0179
PR0108	Professional supervision G0180
PR0108	Professional supervision G0181
PR0108	Professional supervision G0182

Code Set	Code Set Description	Revenue Code
RV0107	Professional encounter	0510
RV0107	Professional encounter	0511
RV0107	Professional encounter	0512
RV0107	Professional encounter	0513
RV0107	Professional encounter	0514
RV0107	Professional encounter	0515
RV0107	Professional encounter	0516
RV0107	Professional encounter	0517
RV0107	Professional encounter	0519
RV0107	Professional encounter	0520
RV0107	Professional encounter	0521
RV0107	Professional encounter	0522
RV0107	Professional encounter	0523
RV0107	Professional encounter	0524
RV0107	Professional encounter	0525
RV0107	Professional encounter	0526
RV0107	Professional encounter	0528
RV0107	Professional encounter	0529
RV0107	Professional encounter	0981
RV0107	Professional encounter	0983

Rx code set	Rx code set description	ndc
RX-2	Abacavir-containing medication	00173066100
RX-2	Abacavir-containing medication	00173066101
RX-2	Abacavir-containing medication	00173066400
RX-2	Abacavir-containing medication	00173069100
RX-2	Abacavir-containing medication	00173069120
RX-2	Abacavir-containing medication	00173074200
RX-2	Abacavir-containing medication	35356007506
RX-2	Abacavir-containing medication	35356007560
RX-2	Abacavir-containing medication	35356010906
RX-2	Abacavir-containing medication	35356010930
RX-2	Abacavir-containing medication	35356011606
RX-2	Abacavir-containing medication	35356011660
RX-2	Abacavir-containing medication	54569488300
RX-2	Abacavir-containing medication	54569519100
RX-2	Abacavir-containing medication	54569539000
RX-2	Abacavir-containing medication	54569559400
RX-2	Abacavir-containing medication	54868452200
RX-2	Abacavir-containing medication	54868452201
RX-2	Abacavir-containing medication	54868560000
RX-2	Abacavir-containing medication	68258915801

Rx code set	Rx code set description	ndc

RX-10	Amprenavir and Fosamprenavir	00173067200
RX-10	Amprenavir and Fosamprenavir	00173067900
RX-10	Amprenavir and Fosamprenavir	00173068700
RX-10	Amprenavir and Fosamprenavir	00173072100
RX-10	Amprenavir and Fosamprenavir	00173072700
RX-10	Amprenavir and Fosamprenavir	35356006706
RX-10	Amprenavir and Fosamprenavir	35356006760
RX-10	Amprenavir and Fosamprenavir	54569481300
RX-10	Amprenavir and Fosamprenavir	54569555000
RX-10	Amprenavir and Fosamprenavir	54868495400
RX-10	Amprenavir and Fosamprenavir	67263038760

Rx code set	Rx code set description	ndc
RX-18	Atazanavir (Reyataz)	00003362212
RX-18	Atazanavir (Reyataz)	00003362312
RX-18	Atazanavir (Reyataz)	00003362412
RX-18	Atazanavir (Reyataz)	00003363112
RX-18	Atazanavir (Reyataz)	35356006806
RX-18	Atazanavir (Reyataz)	35356006860
RX-18	Atazanavir (Reyataz)	35356011406
RX-18	Atazanavir (Reyataz)	35356011430
RX-18	Atazanavir (Reyataz)	35356020760
RX-18	Atazanavir (Reyataz)	54569553000
RX-18	Atazanavir (Reyataz)	54569553200
RX-18	Atazanavir (Reyataz)	54868485400
RX-18	Atazanavir (Reyataz)	54868485700
RX-18	Atazanavir (Reyataz)	54868583800
RX-18	Atazanavir (Reyataz)	54898485400
RX-18	Atazanavir (Reyataz)	67263023060
RX-18	Atazanavir (Reyataz)	68258914201

Rx code set	Rx code set description	ndc
RX-40	Didanosine	00087661443
RX-40	Didanosine	00087661543
RX-40	Didanosine	00087661643
RX-40	Didanosine	00087661743
RX-40	Didanosine	00087662443
RX-40	Didanosine	00087662643
RX-40	Didanosine	00087662743
RX-40	Didanosine	00087662843
RX-40	Didanosine	00087663241
RX-40	Didanosine	00087663341
RX-40	Didanosine	00087665001
RX-40	Didanosine	00087665101
RX-40	Didanosine	00087665201
RX-40	Didanosine	00087665301
RX-40	Didanosine	00087666515
RX-40	Didanosine	00087667117
RX-40	Didanosine	00087667217
RX-40	Didanosine	00087667317
RX-40	Didanosine	00087667417
RX-40	Didanosine	00555058801
RX-40	Didanosine	00555058901
RX-40	Didanosine	00555059001
RX-40	Didanosine	35356018630
RX-40	Didanosine	35356025930
RX-40	Didanosine	51129299902
RX-40	Didanosine	54569365700

RX-40	Didanosine	54569397100
RX-40	Didanosine	54569431300
RX-40	Didanosine	54569431301
RX-40	Didanosine	54569451400
RX-40	Didanosine	54569490500
RX-40	Didanosine	54569517600
RX-40	Didanosine	54569550400
RX-40	Didanosine	54569564200
RX-40	Didanosine	54569564300
RX-40	Didanosine	54868250200
RX-40	Didanosine	54868250202
RX-40	Didanosine	54868336400
RX-40	Didanosine	54868466600
RX-40	Didanosine	54868546400
RX-40	Didanosine	54868559500
RX-40	Didanosine	62584004611
RX-40	Didanosine	62584004621
RX-40	Didanosine	62584004811
RX-40	Didanosine	62584004821
RX-40	Didanosine	65862031030
RX-40	Didanosine	65862031130
RX-40	Didanosine	65862031230
RX-40	Didanosine	65862031330

Rx code set	Rx code set description	ndc
RX-47	Enfuvirtide	00004038039
RX-47	Enfuvirtide	35356020660
RX-47	Enfuvirtide	54569578100

Rx code set	Rx code set description	ndc
RX-57	Indinavir	00006057062
RX-57	Indinavir	00006057142
RX-57	Indinavir	00006057143
RX-57	Indinavir	00006057301
RX-57	Indinavir	00006057318
RX-57	Indinavir	00006057340
RX-57	Indinavir	00006057342
RX-57	Indinavir	00006057354
RX-57	Indinavir	00006057362
RX-57	Indinavir	00006057465
RX-57	Indinavir	16590006418
RX-57	Indinavir	16590006430
RX-57	Indinavir	16590006460
RX-57	Indinavir	16590006490
RX-57	Indinavir	21695036618
RX-57	Indinavir	35356013918
RX-57	Indinavir	35356013960
RX-57	Indinavir	52959050712
RX-57	Indinavir	52959050718
RX-57	Indinavir	52959050724
RX-57	Indinavir	52959050730
RX-57	Indinavir	54569862000
RX-57	Indinavir	54569862001
RX-57	Indinavir	54868411300
RX-57	Indinavir	55175520901
RX-57	Indinavir	55887023030
RX-57	Indinavir	55887023060
RX-57	Indinavir	55887023090

RX-57	Indinavir	58016069900
RX-57	Indinavir	58016069930
RX-57	Indinavir	58016069960
RX-57	Indinavir	58016069990
RX-57	Indinavir	62682101701

Rx code set	Rx code set description	ndc
RX-67	Lamivudine-containing medication	00173047001
RX-67	Lamivudine-containing medication	00173047100
RX-67	Lamivudine-containing medication	00173059500
RX-67	Lamivudine-containing medication	00173059502
RX-67	Lamivudine-containing medication	00173069100
RX-67	Lamivudine-containing medication	00173069120
RX-67	Lamivudine-containing medication	00173071400
RX-67	Lamivudine-containing medication	00173074200
RX-67	Lamivudine-containing medication	16590006106
RX-67	Lamivudine-containing medication	21695036706
RX-67	Lamivudine-containing medication	21695084606
RX-67	Lamivudine-containing medication	23490708706
RX-67	Lamivudine-containing medication	35356006530
RX-67	Lamivudine-containing medication	35356006624
RX-67	Lamivudine-containing medication	35356010906
RX-67	Lamivudine-containing medication	35356010930
RX-67	Lamivudine-containing medication	35356011606
RX-67	Lamivudine-containing medication	35356011660
RX-67	Lamivudine-containing medication	49999006206
RX-67	Lamivudine-containing medication	49999006210
RX-67	Lamivudine-containing medication	49999006260
RX-67	Lamivudine-containing medication	49999011906
RX-67	Lamivudine-containing medication	49999011960
RX-67	Lamivudine-containing medication	52959050802
RX-67	Lamivudine-containing medication	52959050804
RX-67	Lamivudine-containing medication	52959050806
RX-67	Lamivudine-containing medication	52959050808
RX-67	Lamivudine-containing medication	52959050814
RX-67	Lamivudine-containing medication	52959050815
RX-67	Lamivudine-containing medication	52959050860
RX-67	Lamivudine-containing medication	52959054602
RX-67	Lamivudine-containing medication	52959054603
RX-67	Lamivudine-containing medication	52959054604
RX-67	Lamivudine-containing medication	52959054606
RX-67	Lamivudine-containing medication	52959054608
RX-67	Lamivudine-containing medication	52959054610
RX-67	Lamivudine-containing medication	52959054614
RX-67	Lamivudine-containing medication	52959054615
RX-67	Lamivudine-containing medication	52959054620
RX-67	Lamivudine-containing medication	52959054628
RX-67	Lamivudine-containing medication	54569422100
RX-67	Lamivudine-containing medication	54569422101
RX-67	Lamivudine-containing medication	54569422102
RX-67	Lamivudine-containing medication	54569433300
RX-67	Lamivudine-containing medication	54569452400
RX-67	Lamivudine-containing medication	54569452401
RX-67	Lamivudine-containing medication	54569452402
RX-67	Lamivudine-containing medication	54569452403
RX-67	Lamivudine-containing medication	54569519100
RX-67	Lamivudine-containing medication	54569550100
RX-67	Lamivudine-containing medication	54569559400

RX-67	Lamivudine-containing medication	54868369300
RX-67	Lamivudine-containing medication	54868369302
RX-67	Lamivudine-containing medication	54868411400
RX-67	Lamivudine-containing medication	54868411406
RX-67	Lamivudine-containing medication	54868541600
RX-67	Lamivudine-containing medication	54868560000
RX-67	Lamivudine-containing medication	55045230803
RX-67	Lamivudine-containing medication	55045285606
RX-67	Lamivudine-containing medication	55175520706
RX-67	Lamivudine-containing medication	55289038904
RX-67	Lamivudine-containing medication	55289038906
RX-67	Lamivudine-containing medication	55289038914
RX-67	Lamivudine-containing medication	55289038920
RX-67	Lamivudine-containing medication	55887023130
RX-67	Lamivudine-containing medication	55887023160
RX-67	Lamivudine-containing medication	55887023190
RX-67	Lamivudine-containing medication	58016068900
RX-67	Lamivudine-containing medication	58016068930
RX-67	Lamivudine-containing medication	58016068960
RX-67	Lamivudine-containing medication	58016068990
RX-67	Lamivudine-containing medication	58016069800
RX-67	Lamivudine-containing medication	58016069830
RX-67	Lamivudine-containing medication	58016069860
RX-67	Lamivudine-containing medication	58016069890
RX-67	Lamivudine-containing medication	58016079500
RX-67	Lamivudine-containing medication	58016079530
RX-67	Lamivudine-containing medication	58016079560
RX-67	Lamivudine-containing medication	58016079590
RX-67	Lamivudine-containing medication	60760059504
RX-67	Lamivudine-containing medication	60760059514
RX-67	Lamivudine-containing medication	62682101606
RX-67	Lamivudine-containing medication	62682104801
RX-67	Lamivudine-containing medication	66267050906
RX-67	Lamivudine-containing medication	67263025860
RX-67	Lamivudine-containing medication	68030606001
RX-67	Lamivudine-containing medication	68030606401
RX-67	Lamivudine-containing medication	68030728301
RX-67	Lamivudine-containing medication	68115009006
RX-67	Lamivudine-containing medication	68258910801
RX-67	Lamivudine-containing medication	68258915801

Rx code set	Rx code set description	ndc
RX-83	Nelfinavir	35356011701
RX-83	Nelfinavir	49999043103
RX-83	Nelfinavir	52959028930
RX-83	Nelfinavir	54569454300
RX-83	Nelfinavir	54569454301
RX-83	Nelfinavir	54569454302
RX-83	Nelfinavir	54569454303
RX-83	Nelfinavir	54569454304
RX-83	Nelfinavir	54569454305
RX-83	Nelfinavir	54569454306
RX-83	Nelfinavir	54569557300
RX-83	Nelfinavir	54868394700
RX-83	Nelfinavir	54868506100
RX-83	Nelfinavir	55045268206
RX-83	Nelfinavir	55045268208
RX-83	Nelfinavir	55175520807

RX-83	Nelfinavir	55289047727
RX-83	Nelfinavir	60760001018
RX-83	Nelfinavir	60760001063
RX-83	Nelfinavir	63010001027
RX-83	Nelfinavir	63010001030
RX-83	Nelfinavir	63010001190
RX-83	Nelfinavir	63010002770
RX-83	Nelfinavir	68030728401

Rx code set	Rx code set description	ndc
RX-86	Non-nucleoside reverse transcriptase inhibitors	00009376103
RX-86	Non-nucleoside reverse transcriptase inhibitors	00009757601
RX-86	Non-nucleoside reverse transcriptase inhibitors	00054390558
RX-86	Non-nucleoside reverse transcriptase inhibitors	00054464721
RX-86	Non-nucleoside reverse transcriptase inhibitors	00054464725
RX-86	Non-nucleoside reverse transcriptase inhibitors	00054864725
RX-86	Non-nucleoside reverse transcriptase inhibitors	00056047030
RX-86	Non-nucleoside reverse transcriptase inhibitors	00056047330
RX-86	Non-nucleoside reverse transcriptase inhibitors	00056047492
RX-86	Non-nucleoside reverse transcriptase inhibitors	00056051030
RX-86	Non-nucleoside reverse transcriptase inhibitors	00597004601
RX-86	Non-nucleoside reverse transcriptase inhibitors	00597004660
RX-86	Non-nucleoside reverse transcriptase inhibitors	00597004661
RX-86	Non-nucleoside reverse transcriptase inhibitors	00597004724
RX-86	Non-nucleoside reverse transcriptase inhibitors	15584010101
RX-86	Non-nucleoside reverse transcriptase inhibitors	35356006406
RX-86	Non-nucleoside reverse transcriptase inhibitors	35356006430
RX-86	Non-nucleoside reverse transcriptase inhibitors	35356006990
RX-86	Non-nucleoside reverse transcriptase inhibitors	35356007106
RX-86	Non-nucleoside reverse transcriptase inhibitors	35356007160
RX-86	Non-nucleoside reverse transcriptase inhibitors	35356007224
RX-86	Non-nucleoside reverse transcriptase inhibitors	35356011506
RX-86	Non-nucleoside reverse transcriptase inhibitors	35356011530
RX-86	Non-nucleoside reverse transcriptase inhibitors	54569456100
RX-86	Non-nucleoside reverse transcriptase inhibitors	54569456101
RX-86	Non-nucleoside reverse transcriptase inhibitors	54569456200
RX-86	Non-nucleoside reverse transcriptase inhibitors	54569461100
RX-86	Non-nucleoside reverse transcriptase inhibitors	54569512200
RX-86	Non-nucleoside reverse transcriptase inhibitors	54569537400
RX-86	Non-nucleoside reverse transcriptase inhibitors	54569560200
RX-86	Non-nucleoside reverse transcriptase inhibitors	54569580500
RX-86	Non-nucleoside reverse transcriptase inhibitors	54868384400
RX-86	Non-nucleoside reverse transcriptase inhibitors	54868384401
RX-86	Non-nucleoside reverse transcriptase inhibitors	54868452000
RX-86	Non-nucleoside reverse transcriptase inhibitors	54868466800
RX-86	Non-nucleoside reverse transcriptase inhibitors	54868586400
RX-86	Non-nucleoside reverse transcriptase inhibitors	55289039203
RX-86	Non-nucleoside reverse transcriptase inhibitors	55289039263
RX-86	Non-nucleoside reverse transcriptase inhibitors	59676057001
RX-86	Non-nucleoside reverse transcriptase inhibitors	63010002036
RX-86	Non-nucleoside reverse transcriptase inhibitors	63010002118
RX-86	Non-nucleoside reverse transcriptase inhibitors	67263043460
RX-86	Non-nucleoside reverse transcriptase inhibitors	67263045836
RX-86	Non-nucleoside reverse transcriptase inhibitors	67263056830
RX-86	Non-nucleoside reverse transcriptase inhibitors	68258902001
RX-86	Non-nucleoside reverse transcriptase inhibitors	68258902101

Rx code set	Rx code set description	ndc

RX-102	Ritonavir	00074194063
RX-102	Ritonavir	00074663322
RX-102	Ritonavir	00074663330
RX-102	Ritonavir	00074949202
RX-102	Ritonavir	00074949254
RX-102	Ritonavir	35356013830
RX-102	Ritonavir	54569433500
RX-102	Ritonavir	54569461300
RX-102	Ritonavir	54569479200
RX-102	Ritonavir	54569565600
RX-102	Ritonavir	54868378200
RX-102	Ritonavir	54868378201
RX-102	Ritonavir	54868378202
RX-102	Ritonavir	54868378203

Rx code set	Rx code set description	ndc
RX-103	Lopinavir / Ritonavir	00074052260
RX-103	Lopinavir / Ritonavir	00074395646
RX-103	Lopinavir / Ritonavir	00074395977
RX-103	Lopinavir / Ritonavir	00074679922
RX-103	Lopinavir / Ritonavir	21695036212
RX-103	Lopinavir / Ritonavir	35356011160
RX-103	Lopinavir / Ritonavir	35356011201
RX-103	Lopinavir / Ritonavir	35356011230
RX-103	Lopinavir / Ritonavir	52959096812
RX-103	Lopinavir / Ritonavir	54569514200
RX-103	Lopinavir / Ritonavir	54569552500
RX-103	Lopinavir / Ritonavir	54569575200
RX-103	Lopinavir / Ritonavir	54868452400
RX-103	Lopinavir / Ritonavir	54868556600
RX-103	Lopinavir / Ritonavir	55045348201
RX-103	Lopinavir / Ritonavir	55289093118
RX-103	Lopinavir / Ritonavir	55289094712
RX-103	Lopinavir / Ritonavir	67263023212

Rx code set	Rx code set description	ndc
RX-104	Saquinavir	00004024451
RX-104	Saquinavir	00004024515
RX-104	Saquinavir	00004024648
RX-104	Saquinavir	54569424200
RX-104	Saquinavir	54569424201
RX-104	Saquinavir	54569424202
RX-104	Saquinavir	54569424203
RX-104	Saquinavir	54569456300
RX-104	Saquinavir	54569456301
RX-104	Saquinavir	54569566400
RX-104	Saquinavir	54868369900
RX-104	Saquinavir	54868369901
RX-104	Saquinavir	54868369902
RX-104	Saquinavir	54868411000
RX-104	Saquinavir	62682101802
RX-104	Saquinavir	62682101809

Rx code set	Rx code set description	ndc
RX-112	Stavudine	00003196401
RX-112	Stavudine	00003196501
RX-112	Stavudine	00003196601
RX-112	Stavudine	00003196701

RX-112	Stavudine	00003196801
RX-112	Stavudine	00378504091
RX-112	Stavudine	00378504191
RX-112	Stavudine	00378504291
RX-112	Stavudine	00378504391
RX-112	Stavudine	31722051560
RX-112	Stavudine	31722051660
RX-112	Stavudine	31722051760
RX-112	Stavudine	31722051860
RX-112	Stavudine	35356007460
RX-112	Stavudine	35356028560
RX-112	Stavudine	54569405300
RX-112	Stavudine	54569405400
RX-112	Stavudine	54569405401
RX-112	Stavudine	54569538700
RX-112	Stavudine	54569541200
RX-112	Stavudine	54569548000
RX-112	Stavudine	54868335200
RX-112	Stavudine	54868335201
RX-112	Stavudine	54868335300
RX-112	Stavudine	54868336000
RX-112	Stavudine	54868344800
RX-112	Stavudine	59762119001
RX-112	Stavudine	59762119101
RX-112	Stavudine	59762119201
RX-112	Stavudine	59762119301
RX-112	Stavudine	65862004660
RX-112	Stavudine	65862004760
RX-112	Stavudine	65862011160
RX-112	Stavudine	65862011260
RX-112	Stavudine	67253076120
RX-112	Stavudine	68115036006
RX-112	Stavudine	68258912601

Rx code set	Rx code set description	ndc
RX-115	Tenofovir-containing medication	15584010101
RX-115	Tenofovir-containing medication	35356006406
RX-115	Tenofovir-containing medication	35356006430
RX-115	Tenofovir-containing medication	35356007006
RX-115	Tenofovir-containing medication	35356007030
RX-115	Tenofovir-containing medication	35356007306
RX-115	Tenofovir-containing medication	35356007330
RX-115	Tenofovir-containing medication	52959096903
RX-115	Tenofovir-containing medication	54569533400
RX-115	Tenofovir-containing medication	54569558800
RX-115	Tenofovir-containing medication	54569580500
RX-115	Tenofovir-containing medication	54868466900
RX-115	Tenofovir-containing medication	54868514100
RX-115	Tenofovir-containing medication	55045348103
RX-115	Tenofovir-containing medication	61958040101
RX-115	Tenofovir-containing medication	61958070101
RX-115	Tenofovir-containing medication	67263026030
RX-115	Tenofovir-containing medication	67263045530
RX-115	Tenofovir-containing medication	68258900301

Rx code set	Rx code set description	ndc
RX-129	Zidovudine-containing medication	00054005221
RX-129	Zidovudine-containing medication	00081010793

RX-129	Zidovudine-containing medication	00081010855
RX-129	Zidovudine-containing medication	00081010856
RX-129	Zidovudine-containing medication	00081011318
RX-129	Zidovudine-containing medication	00093553006
RX-129	Zidovudine-containing medication	00173010793
RX-129	Zidovudine-containing medication	00173010855
RX-129	Zidovudine-containing medication	00173010856
RX-129	Zidovudine-containing medication	00173011318
RX-129	Zidovudine-containing medication	00173050100
RX-129	Zidovudine-containing medication	00173059500
RX-129	Zidovudine-containing medication	00173059502
RX-129	Zidovudine-containing medication	00173069100
RX-129	Zidovudine-containing medication	00173069120
RX-129	Zidovudine-containing medication	00378610691
RX-129	Zidovudine-containing medication	16590006106
RX-129	Zidovudine-containing medication	21695036918
RX-129	Zidovudine-containing medication	21695084606
RX-129	Zidovudine-containing medication	23490708706
RX-129	Zidovudine-containing medication	31722050960
RX-129	Zidovudine-containing medication	35356011606
RX-129	Zidovudine-containing medication	35356011660
RX-129	Zidovudine-containing medication	49999006206
RX-129	Zidovudine-containing medication	49999006210
RX-129	Zidovudine-containing medication	49999006260
RX-129	Zidovudine-containing medication	49999038618
RX-129	Zidovudine-containing medication	50962045010
RX-129	Zidovudine-containing medication	50962045205
RX-129	Zidovudine-containing medication	52959038706
RX-129	Zidovudine-containing medication	52959050906
RX-129	Zidovudine-containing medication	52959050912
RX-129	Zidovudine-containing medication	52959050918
RX-129	Zidovudine-containing medication	52959050920
RX-129	Zidovudine-containing medication	52959050924
RX-129	Zidovudine-containing medication	52959050928
RX-129	Zidovudine-containing medication	52959050930
RX-129	Zidovudine-containing medication	52959054602
RX-129	Zidovudine-containing medication	52959054603
RX-129	Zidovudine-containing medication	52959054604
RX-129	Zidovudine-containing medication	52959054606
RX-129	Zidovudine-containing medication	52959054608
RX-129	Zidovudine-containing medication	52959054610
RX-129	Zidovudine-containing medication	52959054614
RX-129	Zidovudine-containing medication	52959054615
RX-129	Zidovudine-containing medication	52959054620
RX-129	Zidovudine-containing medication	52959054628
RX-129	Zidovudine-containing medication	54569177200
RX-129	Zidovudine-containing medication	54569177201
RX-129	Zidovudine-containing medication	54569177202
RX-129	Zidovudine-containing medication	54569177203
RX-129	Zidovudine-containing medication	54569177204
RX-129	Zidovudine-containing medication	54569177205
RX-129	Zidovudine-containing medication	54569433400
RX-129	Zidovudine-containing medication	54569452400
RX-129	Zidovudine-containing medication	54569452401
RX-129	Zidovudine-containing medication	54569452402
RX-129	Zidovudine-containing medication	54569452403
RX-129	Zidovudine-containing medication	54569453800
RX-129	Zidovudine-containing medication	54569519100

RX-129	Zidovudine-containing medication	54868197400
RX-129	Zidovudine-containing medication	54868197402
RX-129	Zidovudine-containing medication	54868197403
RX-129	Zidovudine-containing medication	54868250401
RX-129	Zidovudine-containing medication	54868411400
RX-129	Zidovudine-containing medication	54868411406
RX-129	Zidovudine-containing medication	55045285606
RX-129	Zidovudine-containing medication	55045354901
RX-129	Zidovudine-containing medication	55175449401
RX-129	Zidovudine-containing medication	55175520706
RX-129	Zidovudine-containing medication	55289038904
RX-129	Zidovudine-containing medication	55289038906
RX-129	Zidovudine-containing medication	55289038914
RX-129	Zidovudine-containing medication	55289038920
RX-129	Zidovudine-containing medication	55887023130
RX-129	Zidovudine-containing medication	55887023160
RX-129	Zidovudine-containing medication	55887023190
RX-129	Zidovudine-containing medication	58016069000
RX-129	Zidovudine-containing medication	58016069018
RX-129	Zidovudine-containing medication	58016069030
RX-129	Zidovudine-containing medication	58016069060
RX-129	Zidovudine-containing medication	58016069090
RX-129	Zidovudine-containing medication	58016069800
RX-129	Zidovudine-containing medication	58016069830
RX-129	Zidovudine-containing medication	58016069860
RX-129	Zidovudine-containing medication	58016069890
RX-129	Zidovudine-containing medication	58016086400
RX-129	Zidovudine-containing medication	58016086430
RX-129	Zidovudine-containing medication	58016086460
RX-129	Zidovudine-containing medication	58016086490
RX-129	Zidovudine-containing medication	58864046230
RX-129	Zidovudine-containing medication	58864046260
RX-129	Zidovudine-containing medication	58864046293
RX-129	Zidovudine-containing medication	59762365001
RX-129	Zidovudine-containing medication	60760059504
RX-129	Zidovudine-containing medication	60760059514
RX-129	Zidovudine-containing medication	62682101501
RX-129	Zidovudine-containing medication	62682101502
RX-129	Zidovudine-containing medication	62682104801
RX-129	Zidovudine-containing medication	63304092060
RX-129	Zidovudine-containing medication	65862002460
RX-129	Zidovudine-containing medication	65862004824
RX-129	Zidovudine-containing medication	65862010701
RX-129	Zidovudine-containing medication	66267050906
RX-129	Zidovudine-containing medication	67253010910
RX-129	Zidovudine-containing medication	67253096124
RX-129	Zidovudine-containing medication	67263051401
RX-129	Zidovudine-containing medication	68030605901
RX-129	Zidovudine-containing medication	68030606501
RX-129	Zidovudine-containing medication	68030728301
RX-129	Zidovudine-containing medication	68115009006
RX-129	Zidovudine-containing medication	68258915801

Rx code set	Rx code set description	ndc
RX-169	Emtricitabine-containing medication	15584010101
RX-169	Emtricitabine-containing medication	35356006406
RX-169	Emtricitabine-containing medication	35356006430
RX-169	Emtricitabine-containing medication	35356007006

RX-169	Emtricitabine-containing medication	35356007030
RX-169	Emtricitabine-containing medication	35356020530
RX-169	Emtricitabine-containing medication	52959096903
RX-169	Emtricitabine-containing medication	54569552100
RX-169	Emtricitabine-containing medication	54569558800
RX-169	Emtricitabine-containing medication	54569580500
RX-169	Emtricitabine-containing medication	54868485300
RX-169	Emtricitabine-containing medication	54868514100
RX-169	Emtricitabine-containing medication	55045348103
RX-169	Emtricitabine-containing medication	61958060101
RX-169	Emtricitabine-containing medication	61958060201
RX-169	Emtricitabine-containing medication	61958070101
RX-169	Emtricitabine-containing medication	67263026030

Rx code set	Rx code set description	ndc
RX-206	Tipranavir	00597000201
RX-206	Tipranavir	00597000302

Rx code set	Rx code set description	ndc
RX-230	Darunavir	35356011301
RX-230	Darunavir	35356011330
RX-230	Darunavir	35356028460
RX-230	Darunavir	54569581400
RX-230	Darunavir	54868563100
RX-230	Darunavir	54868596900
RX-230	Darunavir	59676056001
RX-230	Darunavir	59676056101
RX-230	Darunavir	59676056201
RX-230	Darunavir	59676056301
RX-230	Darunavir	59676056401
RX-230	Darunavir	67263059060

Rx code set	Rx code set description	ndc
RX-404	Raltegravir	00006022761
RX-404	Raltegravir	35356011006
RX-404	Raltegravir	35356011060
RX-404	Raltegravir	54569603400
RX-404	Raltegravir	54868011700

Rx code set	Rx code set description	ndc
RX-405	Maraviroc	00069080760
RX-405	Maraviroc	00069080860
RX-405	Maraviroc	35356020860
RX-405	Maraviroc	35356020960
RX-405	Maraviroc	54569614300
RX-405	Maraviroc	54868580900
RX-405	Maraviroc	67263040260

2a.9 Denominator Exclusions (*Brief text description of exclusions from the target population***):** Does not apply

2a.10 Denominator Exclusion Details (*All information required to collect exclusions to the denominator, including all codes, logic, and definitions***):**
Does not apply

2a.11 Stratification Details/Variables (*All information required to stratify the measure including the stratification variables, all codes, logic, and definitions***):**
Does not apply

2a.12-13 Risk Adjustment Type: no risk adjustment necessary

2a.14 Risk Adjustment Methodology/Variables (*List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method***):**

2a.15-17 Detailed risk model available Web page URL or attachment:

2a.18-19 Type of Score: rate/proportion
2a.20 Interpretation of Score: better quality = higher score
2a.21 Calculation Algorithm (*Describe the calculation of the measure as a flowchart or series of steps***):**
1. Exclude members who meet denominator exclusion criteria
2. Assign a YES or NO result to remaining members based on numerator response
3. Rate = YES/[YES+NO]

2a.22 Describe the method for discriminating performance *(e.g., significance testing)*:
Our initial measure identified CBC monitoring in HIV-infected patients taking an AZT-containing HAART regimens (a subset of patient on HAART). Testing of this original measure nearly 1300 patients who met the denominator definition from a geographically diverse 15 million member benchmark database. Approximately 700 patients did not meet numerator compliance, indicating a significant population with patient safety gap in care. The subsequent compliance rate was 44.4 percent.

During the recent consultant panel review, this measure was revised based on the updated DHHS guidelines. Previous HIV/AIDS management guidelines recommended CBC testing for patients taking an AZT-containing HAART regimen. The more recent guidelines recommended CBC monitoring for any patient taking HAART. This measure was updated to reflect that change. This modification has been tested in our smaller CAT database. In this testing, 618 HIV-infected patients were identified based on our inclusion criteria and 94 meet the new denominator definition for this measure; the compliance rate was 42.6 percent. Benchmark results for this revised measure will be available in late 2010.

2a.23 Sampling (Survey) Methodology *If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate)*:
A 15 million patient population sample was chosen to analyze the potential patient safety gap in care. The sample was derived from more than 60 million patients based on criteria including national geographic representation, commercial health coverage and patient age less than 65.

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

2a.25 Data source/data collection instrument (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.***):**
Our data source is a proprietary Ingenix provider database that includes more than 60 million patients, over multiple years. It includes data from multiple payors. This measure specifically uses the following data from this database: member demographics, ICD-9 codes, revenue codes, CPT codes, place of service codes, and pharmacy claims.

2a.26-28 Data source/data collection instrument reference web page URL or attachment:

2a.29-31 Data dictionary/code table web page URL or attachment: Attachment Input Guide_NQF-633991711815337262.doc

2a.32-35 Level of Measurement/Analysis (*Check the level(s) for which the measure is specified and tested)*
Clinicians: Individual, Clinicians: Group, Can be measured at all levels, Health Plan, Integrated delivery system, Program: Disease management, Program: QIO, Facility/Agency, Multi-site/corporate chain, Population: states, Population: counties or cities

2a.36-37 Care Settings (*Check the setting(s) for which the measure is specified and tested)*
nursing home (NH) /Skilled Nursing Facility (SNF), Rehabilitation Facility, Ambulatory Care: Clinic, Ambulatory Care: Emergency Dept, Ambulatory Care: Hospital Outpatient

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

TESTING/ANALYSIS

2b. Reliability testing

2b.1 Data/sample *(description of data/sample and size)*: Reliability is tested by using multiple databases. There are three primary databases that we use: 1) a customer acceptance (CAT) database that includes approximately 4000 members who satisfy the condition confirmation criteria; 2) a one million member face validity testing (FVT) database that is geographically diverse; and 3) a 15 million member benchmark database that is geographically diverse. All databases represent predominately a commercial population less than 65 year of age.

2b.2 Analytic Method *(type of reliability & rationale, method for testing)*:
Quality assurance of each measure is accomplished through the testing using multiple methods and databases. Types of testing, data samples and volume vary to ensure the integrity of the measure. Rigorous development, analysis and testing processes are deployed for creating measure specifications. Software testing ensures the software is working as designed. Reliability and validity testing of measures is based on differing data samples and volume of members. National benchmarks are created on a large volume set of data representing members throughout the United States. All quality checks for all measure results must have consistent results and meet expected outcomes based on industry knowledge and experience.

Customer Acceptance Testing (CAT) is an important quality process. CAT ensures that the clinical measures are functioning as intended and that they generate accurate results for typical billing patterns. Using actual claims data a team of business analysts, nurses, and health services researchers conducts a detailed analysis of the output. For each clinical condition in the product (e.g., Diabetes Mellitus, Coronary Artery Disease, etc.) there is a set of CAT data with at least 4000 members who satisfy the condition confirmation criteria. This data is extracted from a large (50+ million member) multi-payer benchmark database and contains inpatient, outpatient, pharmacy, and laboratory data. The testing team analyzes claims from individual members and compares the creation of denominators (target population), numerators, and exclusions from this manual review process to output results from the quality measure.

Regression testing is the part of CAT that verifies the reliability of the product across software releases. For a new release the testing team confirms that every unchanged measure produces the same results as in previous releases, accounting for systematic changes to the software (e.g., code updates, logic changes, etc). Regression testing is conducted at multiple points throughout the software development cycle.

2b.3 Testing Results *(reliability statistics, assessment of adequacy in the context of norms for the test conducted)*:
Given the size of our benchmark database, it is the most reliable source for compliance results. Over 4200 members from the benchmark database met the denominator definition for this measure. The overall compliance rate was 44.4 percent.

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N☐

2c. Validity testing

2c.1 Data/sample *(description of data/sample and size)*: Our data sample for face validity testing includes a geographically diverse one million member database. Our data sample for benchmark testing includes a geographically diverse 15 million member database. Both databases represent predominately a commercial population less than 65 year of age.

2c.2 Analytic Method *(type of validity & rationale, method for testing)*:
Face Validity Testing (FVT) is the final testing step in the software release cycle. One million members are randomly selected from the large multi-payer benchmark database and their claims data is processed

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through the software. The Medical Director reviews the results to verify that: 1. Prevalence rates for a condition are comparable to nationally published rates 2. Compliance rates for a measure are comparable to the rates reported in the published literature or by other national sources (e.g. HEDIS). If no comparable sources are available, the rates are judged based on what is clinically reasonable. In addition, all results are reviewed for face validity by members of an external physician clinical consultant panel. A similar review of benchmark test results occurs in conjunction with a software release. With benchmark testing, 15 million members are randomly selected from the large multi-payer benchmark database and their claims data is processed through the software. Our claims-based measures have been validated using a chart review comparison process. This validation project is summarized below: Goal: evaluate the reliability of claims-based measure results using chart review as the gold standard Methods: The charts of 100 members from two clinics in one city were reviewed. Results from our claims-based measures were compared to information present in the chart. During this process, 726 measures were evaluated. Results: The overall error rate was less than 5%. The error rate varied depending on the type of claim required for numerator compliance and is summarized as follows: o The error rate was highest with medications, with an 11 percent error rate (2/18). From chart review, it was difficult to tell if this represented a real error, a medication sample was provided, or the prescription was never filled). o The error rate was 4 percent (14/318) for measures that required labs for numerator compliance. It was noted that a claims-based measure approach sometimes identified labs that were missing in chart review. o The error rate for office visit and specialty appointments was 2 percent (8/390). Of note, administrative claims was more likely than chart review to identify relevant office and specialty visits, particularly for appointments that occurred outside the clinic or network. o Errors were found related to coding in claims data, not due to the claims-based measures or methodology. These errors were not quantified. 2c.3 **Testing Results** *(statistical results, assessment of adequacy in the context of norms for the test conducted)*: Summarized in 2b3	
2d. Exclusions Justified 2d.1 **Summary of Evidence supporting exclusion(s):** This measure does not include any exclusions. 2d.2 **Citations for Evidence:** 2d.3 **Data/sample** *(description of data/sample and size)*: 2d.4 **Analytic Method** *(type analysis & rationale)*: 2d.5 **Testing Results** *(e.g., frequency, variability, sensitivity analyses)*:	**2d** C☐ P☐ M☐ N☐ NA☐
2e. Risk Adjustment for Outcomes/ Resource Use Measures 2e.1 **Data/sample** *(description of data/sample and size)*: This measure does not include risk adjustment.	**2e** C☐ P☐ M☐

2e.2 Analytic Method *(type of risk adjustment, analysis, & rationale)*: **2e.3 Testing Results** *(risk model performance metrics)*: **2e.4 If outcome or resource use measure is not risk adjusted, provide rationale:**	**N☐** **NA☐**
2f. Identification of Meaningful Differences in Performance **2f.1 Data/sample from Testing or Current Use** *(description of data/sample and size)*: Our benchmark data sample includes a geographically diverse 15 million member benchmark database. The database represents predominately a commercial population less than 65 year of age. **2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance** *(type of analysis & rationale)*: During benchmark testing, 15 million members are randomly selected from the large multi-payer benchmark database and their claims data is processed through the software. The Medical Director reviews the results to verify that: 1. Prevalence rates for a condition are comparable to nationally published rates 2. Compliance rates for a measure are comparable to the rates reported in the published literature or by other national sources (e.g. HEDIS). If no comparable sources are available, the rates are judged based on what is clinically reasonable. In addition, all results are systematically reviewed for face validity by members of an external physician clinical consultant panel. **2f.3 Provide Measure Scores from Testing or Current Use** *(description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*: Summarized in 2b3	**2f** **C☐** **P☐** **M☐** **N☐**
2g. Comparability of Multiple Data Sources/Methods **2g.1 Data/sample** *(description of data/sample and size)*: **2g.2 Analytic Method** *(type of analysis & rationale)*: **2g.3 Testing Results** *(e.g., correlation statistics, comparison of rankings)*:	**2g** **C☐** **P☐** **M☐** **N☐** **NA☐**
2h. Disparities in Care **2h.1 If measure is stratified, provide stratified results** *(scores by stratified categories/cohorts)*: **2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:**	**2h** **C☐** **P☐** **M☐** **N☐** **NA☐**
TAP/Workgroup: What are the strengths and weaknesses in relation to the sub-criteria **for *Scientific Acceptability of Measure Properties?***	**2**
Steering Committee: Overall, to what extent was the criterion, *Scientific Acceptability of Measure Properties*, met? **Rationale:**	***2*** **C☐** **P☐** **M☐** **N☐**
3. USABILITY	

Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (evaluation criteria)	Eval Rating
3a. Meaningful, Understandable, and Useful Information 3a.1 **Current Use:** in use 3a.2 **Use in a public reporting initiative (disclosure of performance results to the public at large)** (*If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years*)**:** Health plans, physicians (individuals and groups), care management, and other vendors/customers are using this measure on a national level. However, we do not know if this specific measure is being used as part of a public reporting initiative. 3a.3 **If used in other programs/initiatives (***If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years***):** Health plans, physicians (individuals and groups), care management, and other vendors/customers use many of our measures on a national level for quality improvement, disease management, and physician sharing programs. Customers are able to select their measures depending on their business needs. As such, we do not know which specific measures are used by our customers. **Testing of Interpretability** (*Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement*) 3a.4 **Data/sample** *(description of data/sample and size)***:** Results are summarized and reported by users/customers depending on their business need - we do not have access to this information. Because of us my multiple users/customers, there is no single data sample, methodology, or public reporting format. 3a.5 **Methods** *(e.g., focus group, survey, QI project)***:** 3a.6 **Results** *(qualitative and/or quantitative results and conclusions)***:**	**3a** C☐ P☐ M☐ N☐
3b/3c. Relation to other NQF-endorsed measures 3b.1 **NQF # and Title of similar or related measures:**	
(for NQF staff use) **Notes on similar/related endorsed or submitted measures:**	
3b. Harmonization If this measure is related to measure(s) already endorsed by NQF (e.g., same topic, but different target population/setting/data source or different topic but same target population): 3b.2 **Are the measure specifications harmonized? If not, why?**	**3b** C☐ P☐ M☐ N☐ NA☐
3c. Distinctive or Additive Value 3c.1 **Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:** 5.1 **Competing Measures If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), describe why it is a more valid or efficient way to measure quality:**	**3c** C☐ P☐ M☐ N☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the sub-criteria **for *Usability?***	**3**

Steering Committee: Overall, to what extent was the criterion, *Usability*, met? **Rationale:**	**3** **C☐** **P☐** **M☐** **N☐**
4. FEASIBILITY	
Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)	Eval Rating
4a. Data Generated as a Byproduct of Care Processes **4a.1-2 How are the data elements that are needed to compute measure scores generated?** coding/abstraction performed by someone other than person obtaining original information,	**4a** **C☐** **P☐** **M☐** **N☐**
4b. Electronic Sources **4b.1 Are all the data elements available electronically?** (*elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims*) Yes **4b.2 If not, specify the near-term path to achieve electronic capture by most providers.**	**4b** **C☐** **P☐** **M☐** **N☐**
4c. Exclusions **4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications?** No **4c.2 If yes, provide justification.**	**4c** **C☐** **P☐** **M☐** **N☐** **NA☐**
4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences **4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results.** It is possible that some CBC claims could be missed if obtained during a hospitalization. However, the guideline recommendation is for CBC testing every 3-6 months and numerator compliance for our measure will be met if the test was done during the last 6 months of the report period through 90 days after the report period (a 9 month total time period). We believe that our 9 month timeframe minimizes the likelihood that this error would impact the compliance results.	**4d** **C☐** **P☐** **M☐** **N☐**
4e. Data Collection Strategy/Implementation **4e.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data/missing data, timing/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues:** No modifications have been necessary based on testing or operational use of this measure. Modifications were made during the last consultant panel review based on the updated DHHS guidelines. Previous HIV/AIDS management guidelines recommended CBC testing for patients taking an AZT-containing HAART regimen. The more recent guidelines have recommended CBC monitoring for any patient taking HAART. This measure was updated to reflect that change. **4e.2 Costs to implement the measure** (*costs of data collection, fees associated with proprietary measures*)**:**	**4e** **C☐** **P☐** **M☐** **N☐**

We do not have access to this information. This would vary based on the customer/vendor, patient population, and programs/interventions associated with measure use. 4e.3 **Evidence for costs:** 4e.4 **Business case documentation:**	
TAP/Workgroup: What are the strengths and weaknesses in relation to the sub-criteria **for *Feasibility?***	**4**
Steering Committee: Overall, to what extent was the criterion, *Feasibility*, met? **Rationale:**	**4** **C☐** **P☐** **M☐** **N☐**
RECOMMENDATION	
(for NQF staff use) **Check if measure is untested and only eligible for time-limited endorsement.**	**Time-limited ☐**
Steering Committee: Do you recommend for endorsement? **Comments:**	**Y☐** **N☐** **A☐**

CONTACT INFORMATION

Co.1 **Measure Steward (Intellectual Property Owner)**
Co.1 **Organization**
Ingenix | 12125 Technology Drive | Eden Prairie | Minnesota | 55344

Co.2 **Point of Contact**
Kay | Schwebke, Medical Director | kay.schwebke@ingenix.com | 952-833-7154

Measure Developer If different from Measure Steward
Co.3 **Organization**
Ingenix | 12125 Technology Drive | Eden Prairie | Minnesota | 55344

Co.4 **Point of Contact**
Kay | Schwebke, Medical Director | kay.schwebke@ingenix.com | 952-833-7154

Co.5 **Submitter If different from Measure Steward POC**
Kay | Schwebke, Medical Director | kay.schwebke@ingenix.com | 952-833-7154- |Ingenix

Co.6 **Additional organizations that sponsored/participated in measure development**
This measure has been reviewed and supported by a quality subcommittee organized by the Infectious Diseases Society of America (IDSA) and consisting of IDSA members.

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.**
We have an external consultant panel that participates in the original literature search process, measure development, code set review, testing review, and maintenance processes. Panel members include the following:

NAME & Title Employer/Position
Alexander, Beth Pharm D, BCPS Assistant Professor, Augsburg College
Ayenew, Woubeshet, MD Hennepin Faculty Associates; Hennepin County Medical Center
Becker, Keith, MD Fairview Medical Center
Betcher, Susan, MD Allina Medical Clinic

Bruer, Paul, MD Comprehensive Ophthamology, LLC
Capecchi, Joseph, MD Allina Medical Clinic
Giesler, Janell, MD Allina Medical Clinic
Grabowski, Carol, MD Allina Medical Clinic
Hansen, Calvin, MD Iowa Health Physicians
Hargrove, Jody, MD Arthritis and Rheumatology Consultants
Hermann, Richard, MD Tufts - New England Medical Center
Jemming, Brian, Pharm D CentraCare Health System
Kohen, Jeffrey, MD Veterans Affairs Medical Center
McCarthy, Teresa, MD University of Minnesota, Department of Family Medicine & Community Health
McEvoy, Charlene, MD, MPH HealthPartners & HealthPartners Research Foundation; Assistant Professor of Medicine, University of Minnesota
McGee, Deanna, Pharm D, BCPS Retail Pharmacy
Ogle, Kathleen, MD Hennepin Faculty Associates; Hennepin County Medical Center: Assistant Professor of Medicine, University of Minnesota Medical School
Peter, Kathleen, MD Park Nicollet Medical Center
Pieper-Bigelow, Christina, MD Allina Medical Clinic
Redmon, Bruce, MD University of Minnesota Physicians
Scharpf, Steven, MD Mountain Valleys Health Centers
Weitz, Carol, MD Independent

Ad.2 If adapted, provide name of original measure:
Ad.3-5 If adapted, provide original specifications URL or attachment

Measure Developer/Steward Updates and Ongoing Maintenance
Ad.6 Year the measure was first released: 2006
Ad.7 Month and Year of most recent revision: 2009-03
Ad.8 What is your frequency for review/update of this measure? every 3 years at minimum
Ad.9 When is the next scheduled review/update for this measure? 2012-03

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Ad.11 -13 Additional Information web page URL or attachment:

Date of Submission (*MM/DD/YY*)**:** 01/22/2010

INGENIX®

Input Guide

Release 7.0, Technical Guide for Windows, February 2008

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What Input Files to Prepare

The following list specifies what input files you prepare for processing:

- The claims data file (required)
- The member data file (required)
- The member term data file (required)

Field Type Definitions and Input File Requirements

This chapter lists the field requirements for your input files. One of the attributes listed among the requirements is defined as "Type". There are four field types used to describe a field's value, and they are defined below.

Field Type	Definition
AlphaNum	A value made of letters and/or numbers. If a value of this type is made of numbers only, it will not be a value that can be operated on mathematically. For example, it would be inappropriate to subtract one procedure code from another procedure code even though both values may contain only numbers.
Num	A value made of numbers only, and which can logically be operated on mathematically. Age is an example of this type. One particular field, while not used in mathematical calculations, is defined in the EBM Connect software as such that it accepts only numeric values. (To enter a non-numeric value would cause EBM Connect processing to stop.) Therefore, this field is defined as Num. It is the Case ID field in the optional disease registry input file.
Date	A value which can be interpreted as a date value. Values should always use four-digit years but the format may vary otherwise.
DecNum	A value made of numbers and a decimal point. These values can also logically be operated on mathematically.

Claims Input File

The claims file contains detailed information on services that were billed or performed or otherwise rendered. The claims file includes:

- Medical claims, including medical services, facility services and clinic services
- Pharmacy claims, including billed prescriptions and drugs
- Lab claims, including lab test and results information

Field Name	Type	Length	Required or Optional
Family ID	AlphaNum	1-30	Always required for all claims
Patient ID	AlphaNum	0-2	Optional
Amount Paid	DecNum	1-11	Required for all claims
Amount Allowed	DecNum	0-11	Required for all claims
Procedure Code	AlphaNum	5	Required if there is no revenue code, NDC, or LOINC® code
Procedure Code Modifier	AlphaNum	2	Required for medical claims
Revenue Code	AlphaNum	0 or 4	Optional (applies to medical claims when used)
First Diagnosis Code	AlphaNum	5 or 6	Required for medical claims
Second Diagnosis Code	AlphaNum	0, 5 or 6	Optional (applies to medical claims when used)
Third Diagnosis Code	AlphaNum	0, 5 or 6	Optional (applies to medical claims when used)
Fourth Diagnosis Code	AlphaNum	0, 5 or 6	Optional (applies to medical claims when used)
First Date of Service	Date	8 or 10	Always required for all claims
Last Date of Service	Date	8 or 10	Required for all claims

Paid Date	Date	0, 8 or 10	Optional
Type of Service	AlphaNum	0-10	Optional
Provider ID	AlphaNum	1-20	Required for medical claims
Ordering Provider ID	AlphaNum	0-20	Optional
Provider Type	AlphaNum	1-10	Required for medical claims
Provider Specialty Type	AlphaNum	1-10	Required for medical claims
Provider Key	AlphaNum	1-20	Required for medical claims
NDC	AlphaNum	0 or 11	Required for Rx claims
Day Supply	Num	0-4	Required for Rx claims
Quantity Count	DecNum	0-10	Required for Rx claims
LOINC®	AlphaNum	0 or 7	Required for lab claims
Lab Test Result	AlphaNum	0-18	Required for lab claims
Place of Service	AlphaNum	1-10	Required for medical claims
Unique Record ID	AlphaNum	1-28	Required for all claims
Claim Number	AlphaNum	1-28	Required for all claims
Bill Type Frequency Indicator	Num	0 or 1	Optional
Patient Status	AlphaNum	1-2	Required for facility claims (involving admission or confinement).
Facility Type	AlphaNum	0-2	Optional
Bed Type	AlphaNum	0-1	Optional
First ICD-9 Procedure Code	AlphaNum	0, 4 or 5	Optional, but will impact results (applies to medical claims when used)
Second ICD-9 Procedure Code	AlphaNum	0, 4 or 5	Optional (see above)
Third ICD-9 Procedure Code	AlphaNum	0, 4 or 5	Optional (see above)
Fourth ICD-9 Procedure Code	AlphaNum	0, 4 or 5	Optional (see above)

Field Descriptions

Instructions for each input field are as follows:

Family ID

This field identifies all members of a family and can be any alphanumeric string.

Note: Remember that each Family ID (and Patient ID) listed in your claims input file must have a corresponding record in your member input data file and your member term data file.

Patient ID

This field identifies individual members within a family. If present, this field must be sorted within Family ID, so that all records for an individual are contiguous. If the Family ID uniquely identifies an individual, this field need not be specified (that is, its length in the dictionary will be zero).

Amount Paid

The amount paid for this claim line.

Amount Allowed

The allowed amount for this claim line. This amount typically represents the total amount reimbursed including deductibles, copays, coinsurance, insurer paid, etc.

Procedure Code

The procedure code must be one of:

- A procedure code specified in the Physician's Current Procedure Terminology, 4th Edition (CPT®-4 codes) defined by the American Medical Association, for the years 1997 and later.
- A procedure code specified by the HCFA Common Procedure Coding System, Level II code (HCPCS) defined by the Centers for Medicare and Medicaid Services (CMS) for the years 1999 and later.
- A National Uniform Billing Committee (NUBC) revenue code.

Note: When the NUBC code is entered in the Procedure Code field, it should be padded to the right with blanks because the Procedure Code field always occupies five characters.

- If your organization defines its own procedure codes and/or revenue codes, they must be mapped to standard procedure and revenue codes.

Procedure Code Modifier

Use this field to specify any procedure code modifier that accompanies the procedure code.

Revenue Code

The revenue code, if one was entered for the claim. Supported values in this field are NUBC revenue codes. If your organization defines its own revenue codes, they must be mapped to standard revenue codes.

The revenue code is an optional field, allowing you to define your input records so that you can place an NUBC revenue code and a CPT/HCPCS procedure code on a single record line.

For claim records that do not have a revenue code, leave the revenue code field blank.

First Diagnosis Code Through Fourth Diagnosis Code

Up to four diagnoses may be entered for each claim, but only the first is required.

If your organization defines its own diagnosis codes, they must be mapped to standard ICD-9 diagnosis codes.

First Date of Service and Last Date of Service

The first date and last date represented by the claim line. If you choose to use a date format with separators (such as YYYY/MM/DD or YYYY-MM-DD), the separators are ignored on input, so you can use any character as a separator. Valid formats include: YYYYMMDD, MMDDYYYY, DDMMYYYY, YYYY/MM/DD, MM/DD/ YYYY, and DD/MM/YYYY, where the separator can be any character.

Paid Date

This field is optional. This is the date the claim was paid. The format of the paid date must be the same as that used in the First and Last Date of Service.

Type of Service

This is an optional code which represents the type of service (TOS) performed for this claim. If no specific value is available for this field, it should be filled with blanks. If this field is not used (i.e., its length is set to zero in the configuration), non-pharmaceutical claims with no procedure code will be treated as ancillary records.

Provider ID

Provider identification number from the claim. Used to identify who performed the service.

Ordering Provider ID

This is an optional field. This is the identification number of the provider who ordered the service.

Provider Type

This code represents the type of provider who performed the service. Examples of provider types would be chiropractor, nurse practitioner, medical doctor, counselor, pharmacy, hospital or treatment facility.

Provider Specialty Type

This code represents the specialty of the provider who performed the service.

Provider Key

Unique number or code for a physician who has multiple provider IDs or specialties. A single health care provider may have multiple provider IDs in your input claims data, but this person or entity should have only one provider key.

NDC

If this is a pharmaceutical claim, this field should contain the drug's NDC code. For non-pharmaceutical claim records, the NDC field should be filled with blanks.

Day Supply

For pharmacy records, the number of days a filled prescription is expected to last. If you have no pharmacy records, the Days Supply is an optional field.

Quantity Count

Quantity of drug dispensed in metric units:

Each - solid oral dosage forms (tablet, capsule), powder filled (dry) vials, packets, patches, units of use packages, suppositories, bars.

Milliliter - (cc) liquid oral dosage forms, liquid filled vials, ampules, reconstituted oral products.

Grams - ointments, bulk powders (not IV).
If you have no pharmacy records, the Quantity Count is an optional field.

LOINC®

Logical Observation Identifiers Names and Codes (LOINC®). The LOINC Code is a universal identifier for a lab test for a particular analyte. The LOINC User's Guide and database can be found at www.regenstrief.org.

Enter a LOINC code if the record is a lab record. For non-lab records, leave the LOINC field blank.

If you have no lab records in your claims input, the LOINC code is optional.

Notes:

(1) When using lab results data that has not been mapped to a LOINC code, map the comparable vendor-specific test number provided by the laboratory vendor(s) to one of these default codes.

(2) This is a retired code which may be present on historical data, or which some laboratories may be continuing to use. Input record data with this code is included in the definition of this test.

Lab Test Result

If the record is a lab record, use this field to enter the result value of lab test. For non-lab records, this field should be blank.

If you have no lab records in your claims input, the Lab Test Result is optional.

Place of Service

Place of service (POS). You must map your internal POS codes to Centers for Medicare and Medicaid Services (CMS) standard POS codes.

Unique Record ID

This required field contains a unique identifier representing the service line from the claim. For medical services, this ID typically represents the service row from the CMS 1500 or CMS 1450/UB92 claim form.

Claim Number

A unique identifier used to link service lines for a specific claim submitted for a member. If a claim has multiple service lines, each service will have a unique record ID and the same claim number to represent the claim.

Bill Type Frequency Indicator

This optional field is used to indicate the disposition of confinements.

Patient Status

This field is required for facility claims. The contents will be the patient status indicator field from the NUBC UB-92 form. This field can denote whether the member died during a confinement.

Facility Type

This field is optional. Space for it is provided to allow for additional post grouping analysis. The contents will typically be the UB-92 facility type data value. This would allow records to be easily selected for diagnosis related grouping (DRG) based on the facility type.

Bed Type

If a value is present, this field acts as an additional discriminator in determining whether a Facility record extends an existing confinement or starts a new confinement.

First ICD-9 Procedure Code Through Fourth ICD-9 Procedure Code

If your claims have ICD-9 procedure codes, include them in your claims input file.

If a decimal point will appear in this field in your claim records, the length should be given as 5. If the decimal separator is not used, the length is 4. If these fields are unused, the length is zero.

Member Input File

The member data file contains the most current information about the member.

Field Descriptions

Field	Type	Length	Required or Optional
Family ID	AlphaNum	1-30	Required
Patient ID	AlphaNum	0-2	Optional
Patient Gender	AlphaNum	1	Required
Date of Birth	Date	8 or 10	Required
Member Beginning Eligibility Date	Date	0, 8 or 10	Optional
Member Ending Eligibility Date	Date	0, 8 or 10	Optional

Instructions for each input field are as follows:

Family ID

This field identifies all members of a family and can be any alphanumeric string. The records in the member file must be sorted first on the Family ID (together with Patient ID, if available) so that all records for an individual are contiguous.

Patient ID

This field identifies individual members within a family. If present, this field must be sorted within Family ID, so that all records for an individual are contiguous. If the Family ID uniquely identifies an individual, this field need not be specified (that is, its length in the dictionary will be zero).

Patient Gender and Date of Birth

The member's gender (F or M) and date of birth. If you choose to use a date format with separators (such as YYYY/MM/DD or YYYY-MM-DD), the separators are ignored on input, so you can use any character as a separator. Valid date formats include: YYYYMMDD, MMDDYYYY, DDMMYYYY, YYYY/MM/DD, MM/DD/YYYY, and DD/MM/YYYY, where the separator can be any character.

Member Beginning Eligibility Date and Ending Eligibility Date

The first date on which the member became covered under the plan and the last date of the member's coverage. If you choose to use a date format with separators (such as YYYY/MM/DD or YYYY-MM-DD), the separators are ignored on input, so you can use any character as a separator. Valid formats include: YYYYMMDD, MMDDYYYY, DDMMYYYY, YYYY/MM/DD, MM/DD/YYYY, and DD/MM/YYYY, where the separator can be any character.

Member Term Input File

The member term data file contains member coverage and term activity information. Plan coverage begin and end dates are required in order to correctly calculate the other fields in the member term file. There may be more than one record per individual member.

Field Descriptions

Field	Type	Length	Required or Optional
Family ID	AlphaNum	1-30	Required
Patient ID	AlphaNum	0-2	Optional
Member Beginning Eligibility Date	Date	8 or 10	Required
Member Ending Eligibility Date	Date	8 or 10	Required
Primary Care Provider	AlphaNum	20	Required
Provider Specialty Type	AlphaNum	1-10	Required
Medical Flag	AlphaNum	1	Required
Pharmacy Flag	AlphaNum	1	Required

Instructions for each input field are as follows:

Family ID

This field identifies all members of a family and can be any alphanumeric string. The records in the member term file must be sorted first on the Family ID (together with Patient ID, if available) so that all records for an individual are contiguous.

Patient ID

This field identifies individual members within a family.

Member Beginning Eligibility Date and Member Ending Eligibility Date

The first date on which the member became covered under the plan and the last date of the member's coverage. If you choose to use a date format with separators (such as YYYY/MM/DD or YYYY-MM-DD), the separators are ignored on input, so you can use any character as a separator. Valid formats include: YYYYMMDD, MMDDYYYY, DDMMYYYY, YYYY/MM/DD, MM/DD/YYYY, and DD/MM/YYYY, where the separator can be any character.

Primary Care Provider

The provider key for the member's primary care physician. A single health care physician may have multiple provider IDs in your input claims data, but this person should have only one provider key.

Provider Specialty Type

This code represents the specialty of the primary care physician.

Medical Flag

Identifies whether the member has medical coverage (Y or N).

Pharmacy Flag

Identifies whether the member has pharmacy coverage (Y or N).