**National Quality Forum**

**Measure missing data in MSF 6.5 from MSF 5.0**

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| **NQF #:** 2111 **NQF Project:** Neurology Project |

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| **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**](http://www.qualityforum.org/docs/measure_evaluation_criteria.aspx)**)**  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](http://www.qualityforum.org/Measuring_Performance/Improving_NQF_Process/Measure_Testing_Task_Force.aspx). |
| **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)***:**  Pilot testing of the measure was conducted by two large Medicare Advantage-Prescription Drug (MA-PD) plans using data for services provided in 2011. One plan had 105, 870 members with 81,639 members 65 years and older, and 4,288 members qualifying for the denominator (i.e. 65 years and older continuously enrolled, having either a diagnosis of dementia or a drug marker for dementia). The other MA-PD plan had 1,235,989 members, with 6323 members qualifying for the denominator.  An additional analysis was conducted for a retiree population within an employer-sponsored health plan also using data from 2011. This plan had 440,088 members, all of which were 65 years and older. 31,578 members qualified for the denominator (i.e. they were 65 years and older continuously enrolled, having either a diagnosis of dementia or a drug marker for dementia).  **New Information January 2016**  Additional testing was conducted using Centers for Medicaid & Medicare (CMS) 2013 Part D contract data. This data included both Medicare Advantage-Prescription Drug (MA-PD) plans and Medicare Prescription Drug Plans (PDP). There were 731 contracts (measured entities) in the analysis, which included 652 MA-PD contracts and 79 PDP contracts. Over 35 million Medicare beneficiaries were enrolled in prescription drug plans in 2013. This includes 22.5 million in MA-PD plans and 12.8 million in PDP plans. Overall, 3,625,024 members qualitied for the denominator, 1,054,990 in MA-PD contracts, and 2,625,090 in PDP contracts.  **2a2.2 Analytic Method** *(Describe method of reliability testing & rationale)***:**  A.Testing was done to determine the reliability & validity of comorbid psychoses diagnosis codes (in the numerator) over the span of two years (the measurement year and year prior). This was done to understand whether there is under reporting of psychosis diagnoses over time (i.e., once someone has been diagnosed with psychosis, will it stop showing up in claims over time?)  B.Besides criteria for age and continuous enrollment, the denominator requires patients to have dementia. Given that dementia is under diagnosed and not always consistently recorded, the measure allows for either a diagnosis of dementia or a medication marker for dementia (2 or more prescriptions claims and >60 days supply for a cholinesterase inhibitor or an NMDA receptor antagonist). The two MA-PD plans recorded how often each of the requirements was met.  C.In addition, this measure is built on pharmacy claims data. Several studies have evaluated the reliability & validity of prescription claims data, including:  Kirking DM, Ammann MA, Harrington CA. Comparison of Medical Records and Prescription Claims Files in Documenting Prescription Medication Therapy," J Pharmacoepi. 1996, 5(1):3-15.  Choo PW, Rand CS, Inue TS, et al. Validation of patient reports, automated pharmacy records, and pill counts with electronic monitoring of adherence to antihypertensive therapy. Med Care 1999;37:846-57.  Kwon A, Bungay KM, Pei Y, et al. Antidepressant use: concordance between self-report and claims records. Med Care 2003;41:368-74.  Saunders K, Simon G, Bush T, Grothaus L. Validation of pharmacy records in drug exposure assessment. J Clin Epidemiol 1997;50:619-25.  **New Information January 2016**  A mixed effect logistic regression was used with varying intercept to determine whether variation in measure rates across Medicare Part D contracts is statistically significant. Beneficiaries’ numerator status (i.e., whether the beneficiary was in the numerator of the measure rate) was modeled based on the varying contract mean. A likelihood-ratio (LR) test was also performed to determine if a model with random effects would fit the data better than a standard logistic regression model without random effects.  **2a2.3 Testing Results** *(Reliability statistics, assessment of adequacy in the context of norms for the test conducted)***:**  A.Results of the evaluation of comorbid psychoses diagnosis codes showed that of those patients in the numerator (taking antipsychotic medications without psychoses diagnosis in 2011), only 2.70% had diagnosis of schizophrenia or bipolar disorder prior to 2011.  The presence of schizophrenia in persons older than 65 years is very low. It is estimated that roughly 0.5% of people older than age 65 years have schizophrenia (Howard R, et al. Late-onset schizophrenia and very-late-onset schizophrenia-like psychosis: an international consensus. Am J Psychiatry 2000;157:172-8.) The testing of this measure showed that 0.32% and 0.5% of patients with a diagnosis or medication marker for dementia also had a diagnosis for schizophrenia or bipolar disease.  B.Results of the dementia code and medication marker analysis are as follows:  Number of subjects w/ diagnosis code for dementia:  MA-PD Plan 1: 2,574  MA-PD Plan 2: 1,898  Number of subjects w/ medication marker for dementia (2 or more rx, >60 ds)  MA-PD Plan 1: 3,121  MA-PD Plan 2: 5,758  Number of subjects with both diagnosis code for dementia and medication marker  MA-PD Plan 1: 1,411  MA-PD Plan 2: 1,311  Number of subjects that have either a diagnosis code or a drug marker for dementia (this is denominator)  MA-PD Plan 1: 4,288  MA-PD Plan 2: 6,323  This analysis shows that use of both dementia diagnosis codes and drug markers for dementia produce a more accurate representation of patients with dementia in the denominator. Further analysis by MA-PD plan 1 showed that only 53.72% of patients who took anti-dementia medications actually had diagnosis of dementia in claims data.  Data from two Medicare Advantage health plans showed the percentage of persons age 65 years older with continuous enrollment in the health plan and with a diagnosis code and/or a medication marker for dementia was 5.3% and 7.2%. These are lower rates than the estimate of 13% of persons age 65 and older having Alzheimer’s disease and in line with evidence that dementia is underreported. The rates also seem reasonably valid given that Medicare Advantage plans tend to have mostly younger (<75 years) patients and fewer severely debilitated patients when compared to traditional Medicare (Parts A/B). Only 6% of Alzheimer’s disease patients are aged 65 to 74 years (Alzheimer´s Association. 2012  citation 2 - 1a.4 Citations for Evidence)  C.The reliability and validity of prescription claims data has been evaluated in the literature. Kwon et. al. found high concordance between self-report and pharmacy claims data for anti-depressant medication use (agreement 85%, kappa .069). Most discordant cases could be resolved and not related to “errors” in self-report or claims data. Kirking et. al found in a study comparing prescription drug claims to medication use documented in medical records, that there were significantly more prescriptions documented in claims data as compared with corresponding medical records, which was even more apparent for high medication users vs. non-high users. A review by Lau et. al indicated that many studies have shown that pharmacy claims are more complete than medical records and are of high quality.  **New Information January 2016**  The results of the mixed effect logistic regression model are outlined in Table 1.  **Table 1**. Mixed Effect Logistic Regression Model, Antipsychotic Use in Persons with Dementia measure rate comparison across 731 Part D contracts   |  | **Coefficient** | **Standard Error** | **Z** | **p-value** | | --- | --- | --- | --- | --- | | Intercept | -1.989 | 0.013 | -152.72 | <0.001 | |  | **Estimate** | **Standard Error** | **95% Confidence Interval** | | | Random Effects | 0.302 | 0.011 | 0.281 | 0.324 |     The p-value for the likelihood ratio test was <0.001.    The standard deviation of the intercept term is different from 0 (0.302), as supported by the 95%CI, which we can interpret to mean that measure rates do vary at the contract level. Additionally, the likelihood ratio test shows that the varying intercept model (which allows measure rates to vary across contracts) fits the observed data better than a standard logistic regression model without random effects (which restricts all contracts to have the same average measure rate) with the p-value of <0.001, significant at alpha=0.05.  These results indicate that the rate variations at the contract level are statistically significant, which allows for discrimination between high performing plans and low performing plans. Based on these results, the measure is considered to be reliable. |
| **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 measure’s specifications are consistent with the evidence cited to support the measure (both in terms of the body of evidence & clinical practice guidelines). That is, the evidence shows that prescribing antipsychotic medications to elderly patients with dementia is potentially inappropriate given the increased risk of morbidity and mortality (i.e., poor outcomes). The measure looks at the percentage of dementia patients 65 years and older who are receiving an antipsychotic. In addition, given that some patients with dementia may have comorbid psychoses (for which the prescription of an antipsychotic may be warranted), the measure does account for this in the numerator. |
| **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)***:**  See section 2a2.1., Data Sample for Reliability Testing.  **2b2.2 Analytic Method** *(Describe method of validity testing and rationale; if face validity, describe systematic assessment)***:**  A. Testing was done to determine the reliability & validity of comorbid psychoses diagnosis codes (in the numerator) over the span of two years (the measurement year and year prior). This was done to understand whether there is under reporting of psychosis diagnoses over time (i.e., once someone has been diagnosed with psychosis, will it stop showing up in claims over time?)  B. Besides criteria for age and continuous enrollment, the denominator requires patients to have dementia. Given that dementia is under diagnosed and not always consistently recorded, the measure allows for either a diagnosis of dementia or a medication marker for dementia (2 or more prescriptions claims and >60 days supply for a cholinesterase inhibitor or an NMDA receptor antagonist). The two MA-PD plans recorded how often each of the requirements was met.  C. In addition, this measure is built on pharmacy claims data. As mentioned in the reliability section, there have been several studies that examined the reliability & validity of prescription claims data.  Kirking DM, Ammann MA, Harrington CA. Comparison of Medical Records and Prescription Claims Files in Documenting Prescription Medication Therapy," J Pharmacoepi. 1996, 5(1):3-15.  Choo PW, Rand CS, Inue TS, et al. Validation of patient reports, automated pharmacy records, and pill counts with electronic monitoring of adherence to antihypertensive therapy. Med Care 1999;37:846-57.  Kwon A, Bungay KM, Pei Y, et al. Antidepressant use: concordance between self-report and claims records. Med Care 2003;41:368-74.  Saunders K, Simon G, Bush T, Grothaus L. Validation of pharmacy records in drug exposure assessment. J Clin Epidemiol 1997;50:619-25.  D. The measure has been tested for face validity (i.e., whether it appears to measure what it intends to measure) through review by PQA’s Quality Metrics Expert Panel, PQA’s full membership, and the health plans who pilot tested the measure.  **New Information** **January 2016**  **Process to Identify ICD-9 to ICD-10 Conversion**  **Goal Statement:** The goal was to take advantage of the more specific code set to form a new version of the measure, but fully consistent with the original intent. Methods To map ICD-9 to ICD-10, PQA staff used the following website: <https://www.aapc.com/icd-10/codes/>. This lookup tool is based on the CMS general equivalence mappings (GEMs): (<http://www.cms.gov/Medicare/Coding/ICD10/2015-ICD-10-CM-and-GEMs.html>). Although many codes in ICD-9-CM map directly to codes in ICD-10, in some cases, a clinical analysis was required to determine which code or codes should be selected. Key term searches for additional relevant codes not identified with the mapping process were conducted using the CMS ICD-10 lookup tool (<http://www.cms.gov/medicare-coverage-database/staticpages/icd-10-code-lookup.aspx>). The CMS Chronic Condition Data Warehouse (CCW) for Alzheimer’s Disease and related disorders and senile dementia (<https://www.ccwdata.org/web/guest/home)> was also consulted to determine completeness of the code list.  Measure Update Panel Review  The PQA Measure Update (MU) Panel reviewed the mapped codes and additional codes identified using key terms. Panel members also suggested additional codes based on the intent of the measure, for review. The MU Panel was instructed to review the codes to determine if the code maintained the intent of the measure. The MU Panel provided recommendations first via email, and then arrived at consensus following discussions over the course of 2 meetings.  Expert Opinion  Following the MU Panel recommendations, PQA staff sought additional expert advice to review the code list. Ryan Carnahan PharmD, MS, Associate Professor, University of Iowa College of Public Health, Department of Epidemiology, has significant expertise in this area. Dr. Carnahan served as a member on the National Quality Forum committee, Prioritizing Measure Gaps Project, Alzheimer Disease and Related Dementias. Dr. Carnahan reviewed the code lists. He was in agreement with the MU Panel’s recommendation and provided a few additional suggestions.  Quality Metrics Expert Panel Review  The final step in the review process was to provide the recommendations of the MU Panel and Dr. Carnahan to the PQA Quality Metrics Expert Panel (QMEP). The QMEP’s composition reflects PQA’s membership and includes individuals with clinical or other technical expertise related to quality measurement. The QMEP is charged with:   * Reviewing recommendations from the MU Panel; * Evaluating measure concepts proposed by PQA measure development teams; * Reviewing comments from PQA members to determine necessary modifications to draft measures and/or variations to consider during testing; * Reviewing the results of testing of draft measures; *and* * Making final recommendations to the PQA membership regarding endorsement or retirement of measures.   The QMEP voted unanimously to approve the MU Panel/expert opinion recommendations for mapping ICD-9 to ICD-10 in the measure Antipsychotic Use in Persons with Dementia.  **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)***:**  A. Results of the evaluation of comorbid psychoses diagnosis codes showed that of those patients in the numerator (taking antipsychotic medications without psychoses diagnosis in 2011), only 2.70% had diagnosis of schizophrenia or bipolar disorder prior to 2011.  B. Results of the dementia code and medication marker analysis is as follows:  Number of subjects w/ diagnosis code for dementia:  MA-PD Plan 1: 2,574  MA-PD Plan 2: 1,898  Number of subjects w/ medication marker for dementia (2 or more rx, >60 ds)  MA-PD Plan 1: 3,121  MA-PD Plan 2: 5,758  Number of subjects with both diagnosis code for dementia and medication marker  MA-PD Plan 1: 1,411  MA-PD Plan 2: 1,311  Number of subjects that have either a diagnosis code or a drug marker for dementia (this is denominator)  MA-PD Plan 1: 4,288  MA-PD Plan 2: 6,323  This analysis shows that use of both dementia diagnosis codes and drug markers for dementia produce a more accurate representation of patients with dementia in the denominator. Further analysis by MA-PD plan 1 showed that only 53.72% of patients who took anti-dementia medications actually had diagnosis of dementia in claims data.  **Information Updated January 2016 (information provided to NQF in November 2012)**  The following italicized information regarding the validity of the measure was submitted to NQF in November of 2012, but was not included in the original testing document. We are adding this information here to ensure all information for the validity criteria is contained in the Measure Testing document:  *Given that the medication markers for dementia are highly-specific to dementia, it is appropriate to use these markers to supplement the diagnosis codes for dementia for identification of the denominator population. When using the combination of medication marker and dementia diagnosis code, we found a fairly consistent rate dementia patients across the numerous Medicare contracts (average of 4.6% ; range of 3.4% to 5.9%). As noted earlier, the percentage of the population included in our dementia measure is not intended to replicate the overall rate of dementia in the general population since we are focused on a subset of dementia patients who do not have a diagnosis indicating psychoses or behavioral disturbance.*  C. The reliability and validity of prescription claims data has been evaluated in the literature. Kwon et. al. found high concordance between self-report and pharmacy claims data for anti-depressant medication use (agreement 85%, kappa .069). Most discordant cases could be resolved and not related to “errors” in self-report or claims data. Kirking et. al found in a study comparing prescription drug claims to medication use documented in medical records, that there were significantly more prescriptions documented in claims data as compared with corresponding medical records, which was even more apparent for high medication users vs. non-high users. A review by Lau et. al indicated that many studies have shown that pharmacy claims are more complete than medical records and are of high quality.  D. Face Validity:  PQA’s Quality Metrics Expert Panel (QMEP) (which contains members who have backgrounds in pharmacy, medicine, research, quality improvement and measures development) reviewed the measure prior to testing to ensure scientifically soundness and usefulness. The QMEP considered whether the age criteria, the inclusion of specific ICD-9 codes as appropriate indications for use of the antipsychotic, and stepwise construction of the measure calculation. The QMEP reviewed the results of the measure testing and found the measure to be feasible. Rates of antipsychotic use in persons with dementia varied between health plans testing the measure and there appeared to be significant room for improvement. The QMEP voted unanimously to recommend that PQA members consider the measure for endorsement.  PQA members (which include organizations such as large pharmacy chains, health plans, quality organizations and pharmaceutical companies, etc. See http://www.pqaalliance.org/members.htm for the full list) were notified prior to the PQA Annual Meeting in June 2012, of the opportunity to consider and vote for the performance measure during the meeting. Members received the measure description, key points and evidence, and measure specifications. During the PQA Business meeting, the measure was reviewed and there was open discussion of the measure. Nearly all of PQA members had a representative at the Annual meeting and were present for the vote (~75 of 88 member organizations present). The membership voted on the whether to endorse the measure, Antipsychotic Use in Persons with Dementia. The vote was 67% in favor of endorsement.  The measure was also reviewed and tested by 3 different organizations who confirmed that it had face validity. In addition, in particular, the plans were asked and confirmed in the positive after testing that they were able to accurately and easily identify the subset of patients who are in long term care facilities when they received the medications for dementia or psychoses. |
| **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)***:**  N/A  **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)***:**  See information listed under section 2a2.1. Reliability Data Sample.  **New Information January 2016**  See information listed under section 2a2.1. Reliability Data Sample- New information December 2015  **2b5.2 Analytic Method** *(Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance)***:**  The health plans were asked to pilot test the measure, generating the numerator, denominator and performance rate, along with further analysis to address additional research questions.  **New Information January 2016**  To assess significant differences in measure rates, we used 2013 Medicare Part D data for 736 plan contracts, and calculated the distribution mean, median, standard deviation, and interdecile range. These statistics are reported below in 2b5.3 Tables 1 and 2.  **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)*:  1st MA-PD: Numerator: 588 Denominator: 4,288 Performance Rate: 13.70%  2nd MA-PD: Numerator: 1008 Denominator: 6,323 Performance Rate: 15.90%  Employer sponsored health plan: Numerator: 5,827 Denominator: 31,578 Performance Rate: 18.45%  Given the evidence (literature) indicates that use of antipsychotics in patients with dementia is linked to poor outcomes (increased morbidity and mortality), these pilot test results would indicate there is variation in care and room for improvement.  **Information Updated January 2016 (information provided to NQF in November 2012)**  The following italicized Information regarding the meaningful differences in performance of the measure was submitted to NQF in November of 2012, but was not included in the original testing document. We are adding this information here to ensure all information for the validity criteria is contained in the Measure Testing document:  *For the 2011 Medicare data, the performance rate varied across the individual contracts from 10.2% to 20.3% with an average of 13.9% and standard deviation of 3.7%. Thus, there is variation in performance across the Medicare contracts with some of the contracts having a rate that is nearly 2 standard deviations above the average.*  **New Information January 2016**  **Table 1. Variation in Measure Rates -2013 Medicare Part D data**   | Mean | Median | Standard Deviation | | --- | --- | --- | | 12.83% | 12.1% | 5.79% |     **Table 2. Interdecile Range of Measure Rates -2013 Medicare Part D data**   |  |  | | --- | --- | | Minimum | 0.00% | | 10th Percentile | 7.73% | | 20th Percentile | 9.31% | | 30th Percentile | 10.32% | | 40th Percentile | 11.28% | | 50th Percentile | 12.07% | | 60th Percentile | 12.95% | | 70th Percentile | 14.02% | | 80th Percentile | 15.40% | | 90th Percentile | 19.36% | | Maximum | 47.95% | | Interdecile Range | 14.16% | |
| **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)***:**  See information listed under section 2a2.1. Reliability Data Sample.  **2b6.2 Analytic Method** *(Describe methods and rationale for testing comparability of scores produced by the different data sources specified in the measure)***:**  Besides criteria for age and continuous enrollment, the denominator requires patients to have dementia. Given that dementia is under diagnosed and not always consistently recorded in the medical record, the measure allows for either a diagnosis of dementia or a medication marker for dementia (2 or more prescriptions claims and >60 days supply for a cholinesterase inhibitor or an NMDA receptor antagonist). The two MA-PD plans recorded how often each of the requirements was met.  **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)***:**  Number of subjects w/ diagnosis code for dementia:  MA-PD Plan 1: 2,574  MA-PD Plan 2: 1,898  Number of subjects w/ medication marker for dementia (2 or more rx, >60 ds)  MA-PD Plan 1: 3,121  MA-PD Plan 2: 5,758  Number of subjects with both diagnosis code for dementia and medication marker  MA-PD Plan 1: 1,411  MA-PD Plan 2: 1,311  Number of subjects that have either a diagnosis code or a drug marker for dementia (this is denominator)  MA-PD Plan 1: 4,288  MA-PD Plan 2: 6,323  This analysis shows that use of both dementia diagnosis codes and drug markers for dementia produce a more accurate representation of patients with dementia in the denominator. Further analysis by MA-PD plan 1 showed that only 53.72% of patients who took anti-dementia medications actually had diagnosis of dementia in claims data. |
| **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 currently stratified for disparities.    **2c.2 If disparities have been reported/identified (e.g., in 1b), but measure is not specified to detect disparities, please explain:**  Although the measure is not currently stratified for disparities, disparities have been identified with regard to antipsychotic prescribing and nursing home status. In 2013 CMS will be requiring the use of an identifier to indicate whether patients are ambulatory or in a long term care facility. This identifier will aid in the stratification of the measure by these characteristics. |
| **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*) Ye**s **No**  **Provide rationale based on specific subcriteria:** |
| **If the Committee votes No, STOP** |

**New Information January 2016**

SDS Risk Adjustment

* **What were the patient-level sociodemographic (SDS) variables that were available and analyzed in the data or sample used?** For example, patient-reported data (e.g., income, education, language), proxy variables when SDS data are not collected from each patient (e.g. census tract), or patient community characteristics (e.g. percent vacant housing, crime rate).

The Antipsychotic Use in Persons with Dementia measure is a process measure, and there is no conceptual basis for risk adjustment of sociodemographic variables. No SDS variables were analyzed for risk adjustment of this measure.

* **Describe the conceptual/clinical and statistical methods and criteria used to select patient factors (clinical factors or sociodemographic factors) used in the statistical risk model or for stratification by risk**(*e.g., potential factors identified in the literature and/or expert panel; regression analysis; statistical significance of p<0.10; correlation of x or higher; patient factors should be present at the start of care*)

N/A

* **What were the statistical results of the analyses used to select risk factors?**

 N/A

* **Describe the analyses and interpretation resulting in the decision to select SDS factors (e.g. prevalence of the factor across measured entities, empirical association with the outcome, contribution of unique variation in the outcome, assessment of between-unit effects and within-unit effects)**

N/A