



## Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to sub criterion 1b).

### Brief Measure Information

**NQF #: 1880**

**Corresponding Measures:**

**De.2. Measure Title:** [Adherence to Mood Stabilizers for Individuals with Bipolar I Disorder](#)

**Co.1.1. Measure Steward:** [Centers for Medicare & Medicaid Services](#)

**De.3. Brief Description of Measure:** [Percentage of individuals at least 18 years of age as of the beginning of the measurement period with bipolar I disorder who had at least two prescription drug claims for mood stabilizer medications and had a Proportion of Days Covered \(PDC\) of at least 0.8 for mood stabilizer medications during the measurement period \(12 consecutive months\).](#)

**1b.1. Developer Rationale:** [We envision several important benefits related to quality improvement with the implementation of this measure. Specifically, the measure will help providers to identify patients with bipolar I disorder who are not adherent \(at a critical threshold of 0.8 or greater\) with long-term treatment with mood stabilizer medications. Guidelines from the American Psychiatric Association \(APA\) and the National Institute for Clinical Excellence \(NICE\) emphasize the importance of treatment adherence and uninterrupted mood stabilizer medication regimens to prevent symptoms and relapse. Furthermore, this measure will encourage providers to develop interventions to improve adherence for this high-risk population. Improved medication adherence among individuals with bipolar I disorder would be expected to result in better control of the initial episode, the prevention of relapse to the initial episode, and the recurrence of new manic or depressive episodes, and as a result, lower mental health-related hospitalization rates and lower suicide rates. APA recommends that pharmacotherapy must be applied in ways that yield good tolerability and do not predispose the patient to nonadherence. Adoption of this performance measure has the potential to improve the quality of care for individuals with bipolar I disorder and, therefore, advance the quality of care in the area of mental health, a priority area identified by the National Priorities Partnership.](#)

**S.4. Numerator Statement:** [Individuals with bipolar I disorder who had at least two prescription drug claims for mood stabilizer medications and have a PDC of at least 0.8 for mood stabilizer medications.](#)

**S.6. Denominator Statement:** [Individuals at least 18 years of age as of the beginning of the measurement period with bipolar I disorder and at least two prescription drug claims for mood stabilizer medications during the measurement period \(12 consecutive months\).](#)

**S.8. Denominator Exclusions:** [Not Applicable](#)

**De.1. Measure Type:** [Process](#)

**S.17. Data Source:** [Claims](#)

**S.20. Level of Analysis:** [Clinician : Group/Practice, Health Plan, Integrated Delivery System, Population : Regional and State](#)

**IF Endorsement Maintenance – Original Endorsement Date:** [Mar 04, 2014](#) **Most Recent Endorsement Date:** [Oct 26, 2018](#)

**IF this measure is included in a composite, NQF Composite#/title:**

**IF this measure is paired/grouped, NQF#/title:**

**De.4. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results?** [Not Applicable. This measure is not paired.](#)

### 1. Evidence, Performance Gap, Priority – Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and

improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. **Measures must be judged to meet all sub criteria to pass this criterion and be evaluated against the remaining criteria.**

**1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form**

[1880\\_Adherence\\_to\\_Mood\\_Stabilizers\\_Evidence-636614622893231844.docx](#)

**1a.1 For Maintenance of Endorsement: Is there new evidence about the measure since the last update/submission?**

Do not remove any existing information. If there have been any changes to evidence, the Committee will consider the new evidence. Please use the most current version of the evidence attachment (v7.1). Please use red font to indicate updated evidence.

Yes

**1b. Performance Gap**

Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating:

- considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or
- Disparities in care across population groups.

**1b.1. Briefly explain the rationale for this measure (e.g., how the measure will improve the quality of care, the benefits or improvements in quality envisioned by use of this measure)**

*If a COMPOSITE (e.g., combination of component measure scores, all-or-none, any-or-none), SKIP this question and answer the composite questions.*

We envision several important benefits related to quality improvement with the implementation of this measure. Specifically, the measure will help providers to identify patients with bipolar I disorder who are not adherent (at a critical threshold of 0.8 or greater) with long-term treatment with mood stabilizer medications. Guidelines from the American Psychiatric Association (APA) and the National Institute for Clinical Excellence (NICE) emphasize the importance of treatment adherence and uninterrupted mood stabilizer medication regimens to prevent symptoms and relapse. Furthermore, this measure will encourage providers to develop interventions to improve adherence for this high-risk population. Improved medication adherence among individuals with bipolar I disorder would be expected to result in better control of the initial episode, the prevention of relapse to the initial episode, and the recurrence of new manic or depressive episodes, and as a result, lower mental health-related hospitalization rates and lower suicide rates. APA recommends that pharmacotherapy must be applied in ways that yield good tolerability and do not predispose the patient to nonadherence. Adoption of this performance measure has the potential to improve the quality of care for individuals with bipolar I disorder and, therefore, advance the quality of care in the area of mental health, a priority area identified by the National Priorities Partnership.

**1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis. (This is required for maintenance of endorsement. Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.**

**TESTING RESULTS BASED ON MEDICARE DATA**

FMQAI (now HSAG) analyzed Medicare administrative data from eight states and calculated measure rates as part of the testing of this measure. Although our results suggest better adherence in the Medicare population than some published studies (described below), we still identified substantial performance gaps and wide variation in adherence to mood stabilizer medications with a PDC of 0.8 or greater among persons with bipolar I disorder across states, Part D Plans, Accountable Care Organizations (ACOs), and physician groups. The overall measure rate across eight states was 67.2%, indicating that 1 of 3 individuals with bipolar I disorder taking mood stabilizer medications has an adherence rate less than 0.8. The measure rates for the eight states ranged from 60.8% to 77.4%, and the rates among plans with at least 30 individuals in the denominator ranged from 53.4% to 77.1%, ACOs with at least 30 individuals in the denominator ranged from 51.0% to 77.0%, and physician groups with at least 30 individuals in the denominator had more variability than the other units analyzed, ranging from 44.3% to 90.5%.

**1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.**

Eight studies (Bagalman et al., 2010; Berger et al., 2012; Hajda et al., 2015; Hong et al., 2011; Lage et al., 2009; Lang et al., 2011; Lew et al., 2006; Rascati et al., 2011) demonstrate low rates of adherence among individuals with bipolar I disorder who are prescribed mood stabilizer medications. These low adherence rates were corroborated by the results of measure testing conducted by FMQAI (now HSAG) of Medicare data, which also showed considerable variation among providers. Both the low rates of adherence and variation among providers indicate a performance gap in the treatment of individuals with bipolar I disorder. Reported rates of

adherence to mood stabilizer medications (defined as a PDC or MPR of 0.8 or greater) among persons with bipolar I disorder range from 16% to 76% in these studies. The published studies and the testing results are described below.

#### SUMMARY OF PUBLISHED STUDIES ON VARIATION IN PERFORMANCE

BAGALMAN ET AL. (2010): This study used 2000-2005 claims data for 1,258 commercially insured persons with bipolar disorder to estimate adherence. About one third (35.7%) were classified as adherent (MPR of at least 0.8), based on the 12 months following an index prescription.

BERGER ET AL. (2012): This study was a retrospective cohort analysis of administrative data on 84 patients with bipolar disorder hospitalized between 2001 and 2008 (mean age of 45 years) (Berger et al., 2012). During the six months following the hospitalization for bipolar disorder, only 15.5% of these patients had an MPR of over 80% for the antipsychotic medication initially prescribed at the time of discharge. An additional 26% had switched to another antipsychotic agent by 6 months.

HAJDA ET AL. (2015): This study was a cross sectional study of 33 outpatients with bipolar disorder who completed a scale to estimate treatment adherence. The study found that more than half (57.6%) of the patients with bipolar disorder had discontinued medication previously. The risk of the discontinuation of medication was higher in patients who were young and single. The rate of current adherence was significantly negatively correlated with self-stigma.

HONG ET AL. (2011): This study was a prospective observational study that followed 1,341 patients (18 years and older) with bipolar disorder for 21 months after a manic/mixed episode in 2002-2004. In this study, 76.4% of patients were classified as adherent to a bipolar disorder medication (antipsychotics, anticonvulsants, and/or lithium), based on a psychiatrist's assessment.

LAGE ET AL. (2009): This study was a retrospective analysis of claims data for commercial health plans on 7,769 patients with bipolar disorder who were 18-64 years of age. In this study, the mean MPR for antipsychotics was 41.7%, with 61.9% of patients having an MPR =0.50 and 78.7% having an MPR =0.75.

LANG ET AL. (2011): This study was a retrospective cohort analysis of 2004-2007 claims for 9,410 Medicaid patients with bipolar I disorder (mean age of 38 years). In this study, 60% of Medicaid patients were nonadherent (MPR less than 0.8) to antipsychotic medications during the year following their first antipsychotic prescription based on claims data.

LEW ET AL. (2006): This study was a retrospective analysis of prescription and medical claims for a large managed care organization representing commercial health plan members. An estimated 45.2% of 1,399 patients had an adherence rate of at least 0.80 to traditional mood-stabilizing therapy (lithium, valproate, carbamazepine, lamotrigine, or oxcarbazepine).

RASCATI ET AL. (2011): This study analyzed 2002-2008 Medicaid claims data for 2,446 Medicaid patients with bipolar disorder to assess adherence rates for second-generation antipsychotic (SGA) medications. Of those receiving a prescription, 58% were adherent (MPR of at least 0.8) during the 12 months following the first prescription.

#### CONCLUSION

Estimates of adherence to mood stabilizer medications among individuals with bipolar I disorder from recently published studies and our testing results suggest a clear performance gap. For reference, the published studies reported the adherence rates to mood stabilizer medications (defined as PDC or MPR of 0.8 or greater), ranging from 16% to 76%. The measure rate for the eight states based on Medicare data ranged from 60.8% to 77.4%. These rates represent performance gaps, variation, and opportunities for improvement in the treatment of individuals with bipolar I disorder.

#### References:

Bagalman, E., Yu-Isenberg, K. S., Durden, E., Crivera, C., Dirani, R., and Bunn, W. B. 3rd. (2010). Indirect costs associated with nonadherence to treatment for bipolar disorder. *J Occup Environ Med*, 52(5), 478-85.

Berger, A., Edelsberg, J., et al. (2012). Medication adherence and utilization in patients with schizophrenia or bipolar disorder receiving aripiprazole, quetiapine, or xiprasidone at hospital discharge: A retrospective cohort study. *BMC Psychiatry*, 12, 99.

Hajda, M., Kamaradova, D., Latalova, K., Prasko, J., Ociskova, M., Mainerova, B., Cinculova, A., Vrbova, K., Kubinek, R., and Tichackova, A. Self-stigma, treatment adherence, and medication discontinuation in patients with bipolar disorders in remission -

cross sectional study. *Activitas Nervosa Superior Rediviva*, 57 (1-2), 6-11. Epub 2015 Apr 1.

Hong, J., Reed, C., Novick, D., Haro, J. M., and Aguado, J. (2011). Clinical and economic consequences of medication non-adherence in the treatment of patients with a manic/mixed episode of bipolar disorder: Results from the European Mania in Bipolar Longitudinal Evaluation of Medication (EMBLEM) study. *Psychiatry Res*, 190(1), 110-4. Epub 2011 May 14.

Lage, M. and Hassan, M. (2009). The relationship between antipsychotic medication adherence and patient outcomes among individuals diagnosed with bipolar disorder: a retrospective study. *Ann Gen Psychiatry*, 8, 7.

Lang, K., Korn, J., Muser, E., Choi, J. C., Abouzaid, S., and Menzin, J. (2011). Predictors of medication nonadherence and hospitalization in Medicaid patients with bipolar I disorder given long-acting or oral antipsychotics. *J Med Econ*, 14(2), 217-26. Epub 2011 Mar 4.

Lew, K. H., Chang, E. Y., et al. (2006). The effect of medication adherence on health care utilization in bipolar disorder. *Managed Care Interface*, 19(9), 41-46.

Rascati, K., Richards, K., et al. (2011). Adherence, persistence of use, and costs associated with second-generation antipsychotics for bipolar disorder. *Psychiatric Services*, 62(9), 1032-1040.

**1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability.** *(This is required for maintenance of endorsement. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included.) For measures that show high levels of performance, i.e., "topped out", disparities data may demonstrate an opportunity for improvement/gap in care for certain sub-populations. This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.*

#### TESTING RESULTS BASED ON MEDICARE DATA

We analyzed 2007-2008 claims data for 27,798 Medicare beneficiaries with bipolar I disorder. A consistent pattern was observed with adherence rates for mood stabilizer medications being substantially lower among African-American and Hispanic persons with bipolar I disorder compared with White persons. For all age groups combined, the adherence rates (i.e., proportion of days covered of at least 0.8) for all ages were 55.3% and 62.6% for African-American and Hispanic persons, respectively, and 68.6% for White persons. The adherence rates were lower among African-American and Hispanic persons than among White persons in every age group, except 65-74 and 85 and older, in which African-American rates were higher than White rates. However, African-American rates were lower than Hispanic rates in some age groups (i.e., 25-44, 45-64, and 75-84 years), and higher in all other age groups (i.e., 18-24, 65-74, and 85+ years).

**1b.5. If no or limited data on disparities from the measure as specified is reported in 1b.4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations. Not necessary if performance data provided in 1b.4**

#### SUMMARY OF PUBLISHED STUDIES ON DISPARITIES BY POPULATION GROUP

The four studies described in this section (Garcia, et al., 2016; Rascati et al., 2011; Sajatovic et al., 2006; Zeber et al., 2011) reported higher adherence rates among White persons with bipolar I disorder than among African-American and Hispanic persons with bipolar I disorder. One recent study also found age and education to be associated with adherence rates.

GARCIA ET AL. (2016): This systematic review found age, race, and education to be associated with adherence rates. Younger patients were less adherent than older patients, African-American patients had lower adherence rates than White patient, and patients with lower levels of education had poorer adherence. The review found economic and transportation barriers hinder patient's adherence to treatment.

RASCATI ET AL. (2011): This study assessed adherence rates to second-generation antipsychotic (SGA) medications among 2,446 Medicaid patients with bipolar disorder based on 2002-2008 Medicaid claims data. African-American and Hispanic patients were more likely than White patients to have poor adherence (MPR less than 0.8) to second-generation antipsychotic medication during the 12 months following the first prescription (odds ratio=1.97 and 1.35, respectively).

SAJATOVIC ET AL. (2006): Based on a retrospective analysis of adherence data on 26,986 veterans with a bipolar disorder diagnosis who were prescribed an antipsychotic medication during fiscal year 2003, Sajatovic et al. (2006) reported counts of patients by

adherence and ethnicity. Based on these data, Whites had higher adherence rates than African-Americans and Hispanics: 55%, 38%, and 50% of Whites, African-Americans, and Hispanics, respectively, were fully adherent (MPR of at least 0.8) with antipsychotic medication; 21%, 25%, and 22%, respectively, were partially adherent (MPR of at least 0.5 and less than 0.8); and 24%, 37%, and 28%, respectively, were non-adherent (MPR less than 0.5).

ZEBER ET AL. (2011): In a cross-sectional population-based study of 435 VA patients with bipolar disorder, poor adherence was found to be self-reported more often by ethnic minorities (i.e., primarily African-Americans) (60%) than White veterans (42%). In addition, a higher percentage of two minority groups reported missing some recent medication doses (39%), compared to 23% of White patients ( $p < 0.01$  on both adherence measures).

## CONCLUSION

In regard to age-related disparities, adherence rates were lower among persons 18-64 years of age than among those 65 years of age and over. This pattern of lower adherence rates in younger persons was consistent for White and African-American persons and for all age groups except a higher rate among Hispanic persons 45-64 years of age.

## References:

Garcia, S., Martínez-Cengotitabengoa, M., López-Zurbano, S., et al. (2016). Adherence to antipsychotic medication in bipolar disorder and schizophrenic patients: A systematic review. *Journal of Clinical Psychopharmacology*, 36(4), 355-371.

Rascati, K., Richards, K., et al. (2011). Adherence, persistence of use, and costs associated with second-generation antipsychotics for bipolar disorder. *Psychiatric Services*, 62(9), 1032-1040.

Sajatovic, M., Valenstein, M., Blow, F. C., Ganoczy, D., and Ignacio, R. V. (2006). Treatment adherence with antipsychotic medications in bipolar disorder. *Bipolar Disord*, 8, 232-241.

Zeber, J. E., Miller, A. L., Copeland, L. A., McCarthy, J. F., Zivin, K., Valenstein, M., et al. (2011). Medication adherence, ethnicity, and the influence of multiple psychosocial and financial barriers. *Adm Policy Mental Health*, 38(2), 86-95.

## 2. Reliability and 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. ***Measures must be judged to meet the sub criteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.***

**2a.1. Specifications** The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability. eMeasures should be specified in the Health Quality Measures Format (HQMF) and the Quality Data Model (QDM).

**De.5. Subject/Topic Area** (check all the areas that apply):

**De.6. Non-Condition Specific**(check all the areas that apply):

Disparities Sensitive

**De.7. Target Population Category** (Check all the populations for which the measure is specified and tested if any):

Elderly, Populations at Risk, Populations at Risk : Dual eligible beneficiaries

**S.1. Measure-specific Web Page** (Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials. Do not enter a URL linking to a home page or to general information.)

Not Applicable

**S.2a. If this is an eMeasure**, HQMF specifications must be attached. Attach the zipped output from the eMeasure authoring tool (MAT) - if the MAT was not used, contact staff. (Use the specification fields in this online form for the plain-language description of the specifications)

This is not an eMeasure Attachment:

**S.2b. Data Dictionary, Code Table, or Value Sets** (and risk model codes and coefficients when applicable) must be attached. (Excel or csv file in the suggested format preferred - if not, contact staff)

Attachment Attachment: NQF\_1880\_Code\_Tables\_2018\_Final.xlsx

**S.2c.** Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

No, this is not an instrument-based measure Attachment:

**S.2d.** Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

Not an instrument-based measure

**S.3.1. For maintenance of endorsement:** Are there changes to the specifications since the last updates/submission. If yes, update the specifications for S1-2 and S4-22 and explain reasons for the changes in S3.2.

Yes

**S.3.2. For maintenance of endorsement,** please briefly describe any important changes to the measure specifications since last measure update and explain the reasons.

- Updated NDCs as of March 9, 2018
- Added medications with FDA approval for the treatment of bipolar I disorder: cariprazine, quetiapine fumarate (Seroquel)
- Removed medications lacking FDA approval for the treatment of bipolar I disorder: fluphenazine, haloperidol, molindone, perphenazine, pimozide, prochlorperazine, thioridazine, thiothixene, trifluoperazine, clozapine, iloperidone, paliperidone, fluphenazine decanoate, haloperidol decanoate, olanzapine pamoate, paliperidone palmitate
- Added the following code to the value set for identifying bipolar I disorder: F30.8 (other manic episodes)

**S.4. Numerator Statement** (Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome) DO NOT include the rationale for the measure.

IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

Individuals with bipolar I disorder who had at least two prescription drug claims for mood stabilizer medications and have a PDC of at least 0.8 for mood stabilizer medications.

**S.5. Numerator Details** (All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

IF an OUTCOME MEASURE, describe how the observed outcome is identified/counted. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

The numerator is defined as individuals with a PDC of 0.8 or greater.

The PDC is calculated as follows:

PDC NUMERATOR

The PDC numerator is the sum of the days covered by the days' supply of all prescription drug claims for all mood stabilizer medications. The period covered by the PDC starts on the day the first prescription is filled (index date) and lasts through the end of the measurement period, or death, whichever comes first. For prescriptions drug claims with a days' supply that extends beyond the end of the measurement period, count only the days for which the drug was available to the individual during the measurement period. If there are claims for the same drug (generic name) on the same date of service, keep the claim with the largest days' supply. If claims for the same drug (generic name) overlap, then adjust the prescription start date to be the day after the previous fill has ended.

PDC DENOMINATOR

The PDC denominator is the number of days from the first prescription drug claim date through the end of the measurement period, or death date, whichever comes first.



**S.6. Denominator Statement** (Brief, narrative description of the target population being measured)

Individuals at least 18 years of age as of the beginning of the measurement period with bipolar I disorder and at least two prescription drug claims for mood stabilizer medications during the measurement period (12 consecutive months).

**S.7. Denominator Details** (All information required to identify and calculate the target population/denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)

IF an OUTCOME MEASURE, describe how the target population is identified. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

Target population meets the following conditions:

1. Continuously enrolled in Medicare Part D with no more than a one-month gap in enrollment during the measurement year;
2. Continuously enrolled in Medicare Part A and Part B with no more than a one-month gap in Part A enrollment and no more than a one-month gap in Part B enrollment during the measurement year; and,
3. No more than one month of HMO (Health Maintenance Organization) enrollment during the measurement year.

**IDENTIFICATION OF BIPOLAR I DISORDER**

Individuals with bipolar I disorder are identified by having a diagnosis of bipolar I disorder within the inpatient or outpatient claims data. Individuals must have:

At least two encounters with a diagnosis of bipolar I disorder with different dates of service in an outpatient setting, emergency department setting, or non-acute inpatient setting during the measurement period;

OR

At least one encounter with a diagnosis of bipolar I disorder in an acute inpatient setting during the measurement period.

**CODES USED TO IDENTIFY BIPOLAR I DISORDER DIAGNOSIS**

Codes used to identify bipolar I disorder are included in the attached Excel worksheet of codes (NQF\_1880\_Code Tables\_2018 Final) under the tab NQF\_1880\_Bipolar\_ICD9-10.

**TABLE 1. BIPOLAR I DISORDER DIAGNOSIS**

ICD-9-CM: 296.0x, 296.1x, 296.4x, 296.5x, 296.6x, 296.7

ICD-10-CM: F30.10, F30.11, F30.12, F30.13, F30.2, F30.3, F30.4, F30.8, F30.9, F31.0, F31.10, F31.11, F31.12, F31.13, F31.2, F31.30, F31.31, F31.32, F31.4, F31.5, F31.60, F31.61, F31.62, F31.63, F31.64, F31.70, F31.71, F31.72, F31.73, F31.74, F31.75, F31.76, F31.77, F31.78, F31.89, F31.9

**CODES USED TO IDENTIFY ENCOUNTER TYPE**

Codes used to identify encounters are under tab NQF\_1880\_Encounter\_types.

**TABLE 2.1. OUTPATIENT SETTING**

Current Procedural Terminology (CPT): 98960-98962, 99078, 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99341-99345, 99347-99350, 99385-99387, 99395-99397, 99401-99404, 99411, 99412, 99429, 99510

HCPCS: G0155, G0176, G0177, G0409-G0411, G0463, H0002, H0004, H0031, H0034-H0037, H0039, H0040, H2000, H2001, H2010-H2020, M0064, S0201, S9480, S9484, S9485, T1015

UB-92 revenue: 0510, 0511, 0513, 0516-0517, 0519-0523, 0526-0529, 0770, 0771, 0779, 0900-0905, 0907, 0911-0917, 0919, 0982, 0983

OR

CPT: 90791, 90792, 90832-90834, 90836-90840, 90845, 90847, 90849, 90853, 90863, 90867-90870, 90875, 90876, 90880, 99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99291

WITH

Place of Service (POS): 03, 05, 07, 09, 11, 12, 13, 14, 15, 20, 22, 24, 33, 49, 50, 52, 53, 71, 72

TABLE 2.2. EMERGENCY DEPARTMENT SETTING

CPT: 99281-99285

UB-92 revenue: 0450, 0451, 0452, 0456, 0459, 0981

OR

CPT: 90791, 90792, 90832-90834, 90836-90840, 90845, 90847, 90849, 90853, 90863, 90867-90870, 90875, 90876, 99291

WITH

POS: 23

TABLE 2.3. NON-ACUTE INPATIENT SETTING

CPT: 99304-99310, 99315, 99316, 99318, 99324-99328, 99334-99337

HCPCS: H0017-H0019, T2048

UB-92 revenue: 0118, 0128, 0138, 0148, 0158, 0190-0194, 0199, 0524, 0525, 0550-0552, 0559, 0660-0663, 0669, 1000, 1001, 1003-1005

OR

CPT: 90791, 90792, 90832-90834, 90836-90840, 90845, 90847, 90849, 90853, 90863, 90867-90870, 90875, 90876, 99291

WITH

POS: 31, 32, 56

TABLE 2.4. ACUTE INPATIENT SETTING

UB-92 revenue: 0100, 0101, 0110-0114, 0119-0124, 0129-0134, 0139-0144, 0149-0154, 0159, 0160, 0164, 0167, 0169, 0200-0204, 0206-0209, 0210-0214, 0219, 0720-0724, 0729, 0987

OR

CPT: 90791, 90792, 90832-90834, 90836-90840, 90845, 90847, 90849, 90853, 90863, 90867-90870, 90875, 90876, 99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99291

WITH

POS: 21, 51

IDENTIFICATION OF PRESCRIPTION DRUG CLAIMS FOR MOOD STABILIZER MEDICATION

Individuals with at least two prescription drug claims for any of the following mood stabilizer medications (Table 3: Mood Stabilizer Medications) or long-acting injectable antipsychotic medications (see Table 4: Long-acting injectable antipsychotic medications). The National Drug Center (NDC) identifier for medications included in the measure denominator are listed in tab NQF\_1880\_Mood\_Stabilizers of the attached Excel workbook. Obsolete drug products are excluded from National Drug Codes (NDCs) with an inactive date more than six years prior to the beginning of the measurement period or look-back period.

MOOD STABILIZER MEDICATIONS

TABLE 3. MOOD STABILIZER MEDICATIONS

Active ingredients listed below are limited to oral, buccal, sublingual, and translingual formulations only.



Anticonvulsants:  
carbamazepine  
divalproex sodium  
lamotrigine  
valproic acid

Atypical Antipsychotics:  
aripiprazole  
asenapine  
cariprazine  
lurasidone  
olanzapine  
quetiapine  
quetiapine fumarate (Seroquel)  
risperidone  
ziprasidone

Phenothiazine/Related Antipsychotics:  
chlorpromazine  
loxapine succinate

Other Antipsychotics:  
olanzapine-fluoxetine

Lithium Salts:  
lithium carbonate  
lithium citrate

#### TABLE 4: LONG-ACTING INJECTABLE ANTIPSYCHOTIC MEDICATIONS

The following are the long-acting (depot) injectable antipsychotic medications. The route of administration includes all injectable and intramuscular formulations of the medications listed below.

Atypical Antipsychotic Medications:  
aripiprazole (J0401)  
risperidone microspheres (J2794)

Note: Since the days' supply variable is not reliable for long-acting injections in administrative data, the days' supply is imputed as listed below for the long-acting (depot) injectable antipsychotic medications billed under Medicare Part D and Part B:

aripiprazole (J0401) – 28 days' supply  
risperidone microspheres (J2794) – 14 days' supply

**S.8. Denominator Exclusions** *(Brief narrative description of exclusions from the target population)*  
Not Applicable

**S.9. Denominator Exclusion Details** *(All information required to identify and calculate exclusions from the denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)*  
Not Applicable

**S.10. Stratification Information** *(Provide all information required to stratify the measure results, if necessary, including the stratification variables, definitions, specific data collection items/responses, code/value sets, and the risk-model covariates and*

*coefficients for the clinically-adjusted version of the measure when appropriate – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b.)*

Depending on the operational use of the measure, measure results may be stratified by:

- State
- Accountable Care Organization (ACOs)\*
- Plan
- Physician Group\*\*
- Age – Divided into six categories: 18-24, 25-44, 45-64, 65-74, 75-84, and 85+ years
- Race/Ethnicity
- Dual Eligibility

\*ACO attribution methodology is based on where the beneficiary is receiving the plurality of his/her primary care services and subsequently assigned to the participating providers.

\*\*See Calculation Algorithm/Measure Logic S.14 below for physician group attribution methodology used for this measure.

**S.11. Risk Adjustment Type** (Select type. Provide specifications for risk stratification in measure testing attachment)

No risk adjustment or risk stratification

If other:

**S.12. Type of score:**

Rate/proportion

If other:

**S.13. Interpretation of Score** (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)

Better quality = Higher score

**S.14. Calculation Algorithm/Measure Logic** (Diagram or describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; time period for data, aggregating data; risk adjustment; etc.)

Target Population: Individuals at least 18 years of age as of the beginning of the measurement period who have met the enrollment criteria for Medicare Parts A, B, and D.

Denominator: Individuals at least 18 years of age as of the beginning of the measurement period with bipolar I disorder and at least two prescription drug claims for mood stabilizer medications during the measurement period (12 consecutive months).

CREATE DENOMINATOR:

1. Pull individuals who are 18 years of age or older as of the beginning of the measurement period.
2. Include individuals who were continuously enrolled in Medicare Part D coverage during the measurement period, with no more than a one-month gap in enrollment during the measurement period, or up until their death date if they died during the measurement period.
3. Include individuals who had no more than a one-month gap in Medicare Part A enrollment, no more than a one-month gap in Part B enrollment, and no more than one month of HMO (Health Maintenance Organization) enrollment during the current measurement period (fee-for-service [FFS] individuals only).
4. Of those individuals identified in Step 3, keep those who had:  
At least two encounters with a diagnosis of bipolar I disorder with different dates of service in an outpatient setting, emergency department setting, or non-acute inpatient setting during the measurement period;  
OR  
At least one encounter with a diagnosis of bipolar I disorder in an acute inpatient setting during the measurement period.
5. Of the individuals identified in Step 4, extract Medicare Part D claims for a mood stabilizer during the measurement period. Attach the drug ID and the generic name to the dataset.
6. For the individuals identified in Step 5, exclude those who did not have at least two prescription drug claims for any mood stabilizer on different dates of service (identified by having at least two Medicare Part D claims with the specific codes) during the measurement period.

Numerator: Individuals with bipolar I disorder who had at least two prescription drug claims for mood stabilizer medications and have a PDC of at least 0.8 for mood stabilizer medications.

#### CREATE NUMERATOR:

For the individuals in the denominator, calculate the PDC for each individual according to the following methods:

1. Determine the individual's medication therapy period, defined as the index prescription date through the end of the measurement period, or death, whichever comes first. The index date is the service date (fill date) of the first prescription drug claim for a mood stabilizer medication in the measurement period.
2. Within the medication therapy period, count the days the individual was covered by at least one drug in the mood stabilizer medication class based on the prescription drug claim service date and days of supply.
  - a. Sort and de-duplicate Medicare Part D claims for mood stabilizers by beneficiary ID, service date, generic name, and descending days' supply. If prescriptions for the same drug (generic name) are dispensed on the same date of service for an individual, keep the dispensing with the largest days' supply.
  - b. Calculate the number of days covered by mood stabilizer therapy per individual.
    - i. For prescription drug claims with a days' supply that extends beyond the end of the measurement period, count only the days for which the drug was available to the individual during the measurement period.
    - ii. If claims for the same drug (generic name) overlap, then adjust the latest prescription start date to be the day after the previous fill has ended.
    - iii. If claims for different drugs (different generic names) overlap, do not adjust the prescription start date.
3. Calculate the PDC for each individual. Divide the number of covered days found in Step 2 by the number of days in the individual's medication therapy period found in Step 1.

An example of SAS code for Steps 1-3 was adapted from Pharmacy Quality Alliance (PQA) and is also available at the URL: <http://www2.sas.com/proceedings/forum2007/043-2007.pdf>.

4. Of the individuals identified in Step 3, count the number of individuals with a calculated PDC of at least 0.8 for the mood stabilizers. This is the numerator.

#### PHYSICIAN GROUP ATTRIBUTION:

Physician group attribution was adapted from Generating Medicare Physician Quality Performance Measurement Results (GEM) Project: Physician and Other Provider Grouping and Patient Attribution Methodologies (<http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/GEM/downloads/GEMMethodologies.pdf>). The following is intended as guidance and reflects only one of many methodologies for assigning individuals to a medical group. Please note that the physician group attribution methodology excludes patients who died, even though the overall measure does not.

##### I. Identify Physician and Medical Groups

1. Identify all Tax Identification Numbers (TINs)/National Provider Identification (NPI) combinations from all Medicare Part B claims in the measurement year and the prior year. Keep records with valid NPIs. Valid NPIs have 10 numeric characters (no alpha characters).
2. For valid NPIs, pull credentials and specialty code(s) from the CMS provider tables.
3. Create one record per NPI with all credentials and all specialties. A provider may have more than one specialty.
4. Attach TIN to NPI, keeping only those records with credentials indicating a physician (MD or DO), physician assistant (PA), or nurse practitioner (NP).
5. Identify medical group TINs: Medical group TINs are defined as TINs that had physician, physician assistant, or nurse practitioner provider specialty codes on at least 50% of Medicare Part B carrier claim line items billed by the TIN during the measurement year or prior year. (The provider specialty codes are listed after Patient Attribution.)
  - a. Pull Part B records billed by TINs identified in Step 4 during the measurement year and prior year.
  - b. Identify claims that had the performing NPI (npi\_prfrmng) in the list of eligible physicians/TINs, keeping those that match by TIN, performing NPI, and provider state code.
  - c. Calculate the percentage of Part B claims that match by TIN, npi\_prfrmng, and provider state code for each TIN, keeping those TINs with percentages greater than or equal to 50%.
  - d. Delete invalid TINs. Examples of invalid TINs are defined as having the same value for all nine digits or values of 012345678, 012345678, 123456789, 987654321, or 87654321.
6. Identify TINs that are not solo practices.
  - a. Pull Part B records billed by physicians identified in Step 4 for the measurement year and/or prior year.

- b. Count unique NPIs per TIN.
- c. Keep only those TINs having two or more providers.
- d. Delete invalid TINs. Examples of invalid TINs are defined as having the same value for all nine digits or values of 012345678, 012345678, 123456789, 987654321, or 87654321.
- 7. Create final group of TINs from Step 5 and Step 6 (TINs that are medical groups and are not solo practices).
- 8. Create file of TINs and NPIs associated with those TINs. These are now referred to as the medical group TINs.
- 9. Determine the specialty of the medical group (TIN) to be used in determining the specialty of nurse practitioners and physician assistants. The plurality of physician providers in the medical group determines the specialty of care for nurse practitioners and physician assistants.
  - a. From the TIN/NPI list created in Step 8, count the NPIs per TIN/specialty.
  - b. The specialty with the maximum count is assigned to the medical group.

## II. Identify Individual Sample and Claims

- 10. Create individual sample.
  - a. Pull individuals with 11+ months of Medicare Parts A, B, and D during the measurement year.
  - b. Verify the individual did not have any months with Medicare as secondary payer. Remove individuals with BENE\_PRMRY\_PYR\_CD not equal to one of the following:
    - A = working-age individual/spouse with an employer group health plan (EGHP)
    - B = End Stage Renal Disease (ESRD) in the 18-month coordination period with an EGHP
    - G = working disabled for any month of the year
  - c. Verify the individual resides in the U.S., Puerto Rico, Virgin Islands, or Washington D.C.
  - d. Exclude individuals who enter the Medicare hospice at any point during the measurement year.
  - e. Exclude individuals who died during the measurement year.
- 11. For individuals identified in Step 10, pull office visit claims that occurred during the measurement year and in the six months prior to the measurement year.
  - a. Office visit claims have CPT codes of 99201-99205, 99211-99215, and 99241-99245.
  - b. Exclude claims with no np\_i\_prfrmng.
- 12. Attach medical group TIN to claims by NPI.

## III. Patient Attribution

- 13. Pull all Medicare Part B office claims from Step 12 with specialties indicating primary care or psychiatry (see list of provider specialties and specialty codes below). Attribute each individual to at most one medical group TIN for each measure.
  - a. Evaluate specialty on claim (HSE\_B\_HCFA\_PRVDR\_SPCLTY\_CD) first. If specialty on claim does not match any of the measure-specific specialties, then check additional specialty fields.
  - b. If the provider specialty indicates nurse practitioners or physician assistants (code 50 or code 97), then assign the medical group specialty determined in Step 9.
- 14. For each individual, count claims per medical group TIN. Keep only individuals with two or more E&M claims.
- 15. Attribute the individual to the medical group TIN with the most claims. If a tie occurs between medical group TINs, attribute the TIN with the most recent claim.
- 16. Attach the medical group TIN to the denominator and numerator files by individual.

### Provider Specialties and Specialty Codes

Provider specialties and specialty codes include only physicians, physician assistants, and nurse practitioners for physician grouping, TIN selection, and patient attribution. The provider specialty codes and the associated provider specialty are shown below:

- 01—General practice\*
- 02—General surgery
- 03—Allergy/immunology
- 04—Otolaryngology
- 05—Anesthesiology
- 06—Cardiology
- 07—Dermatology
- 08—Family practice\*
- 09—Interventional pain management
- 10—Gastroenterology

11—Internal medicine\*  
 12—Osteopathic manipulative therapy  
 13—Neurology  
 14—Neurosurgery  
 16—Obstetrics/gynecology\*  
 18—Ophthalmology  
 20—Orthopedic surgery  
 22—Pathology  
 24—Plastic and reconstructive surgery  
 25—Physical medicine and rehabilitation  
 26—Psychiatry\*  
 28—Colorectal surgery  
 29—Pulmonary disease  
 30—Diagnostic radiology  
 33—Thoracic surgery  
 34—Urology  
 36—Nuclear medicine  
 37—Pediatric medicine  
 38—Geriatric medicine\*  
 39—Nephrology  
 40—Hand surgery  
 44—Infectious disease  
 46—Endocrinology  
 50—Nurse practitioner\*  
 66—Rheumatology  
 70—Multi-specialty clinic or group practice\*  
 72—Pain management  
 76—Peripheral vascular disease  
 77—Vascular surgery  
 78—Cardiac surgery  
 79—Addiction medicine  
 81—Critical care (intensivists)  
 82—Hematology  
 83—Hematology/oncology  
 84—Preventive medicine\*  
 85—Maxillofacial surgery  
 86—Neuropsychiatry\*  
 90—Medical oncology  
 91—Surgical oncology  
 92—Radiation oncology  
 93—Emergency medicine  
 94—Interventional radiology  
 97—Physician assistant\*  
 98—Gynecologist/oncologist  
 99—Unknown physician specialty  
 Other—NA  
 \*Provider specialty codes specific to this measure

**S.15. Sampling** *(If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)*

IF an instrument-based performance measure (e.g., PRO-PM), identify whether (and how) proxy responses are allowed.  
 This measure does not use a sample or survey.

**S.16. Survey/Patient-reported data** *(If measure is based on a survey or instrument, provide instructions for data collection and guidance on minimum response rate.)*

Specify calculation of response rates to be reported with performance measure results.

**S.17. Data Source** (Check *ONLY* the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in S.18.

Claims

**S.18. Data Source or Collection Instrument** (Identify the specific data source/data collection instrument (e.g. name of database, clinical registry, collection instrument, etc., and describe how data are collected.)

IF instrument-based, identify the specific instrument(s) and standard methods, modes, and languages of administration.

For measure calculation in the Medicare product line, the following Medicare files were required:

- Denominator tables
- Prescription drug benefit (Part D) coverage tables
- Beneficiary file
- Institutional claims (Part A)
- Non-institutional claims (Part B)—physician carrier/non-DME
- Prescription drug benefit (Part D) claims

For ACO attribution, the following were required:

- Denominator tables for Parts A and B enrollment
- Prescription drug benefit (Part D) coverage tables
- Beneficiary file
- Institutional claims (Part A)
- Non-institutional claims (Part B)—physician carrier/non-DME
- Prescription drug benefit (Part D) claims

For physician group attribution, the following were required:

- Non-institutional claims (Part B)—physician carrier/non-DME
- Denominator tables to determine individual enrollment
- Beneficiary file or coverage table to determine hospice benefit and Medicare as secondary payor status
- CMS physician and physician specialty tables
- National Plan and Provider Enumeration System (NPPES) database

**S.19. Data Source or Collection Instrument** (available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

No data collection instrument provided

**S.20. Level of Analysis** (Check *ONLY* the levels of analysis for which the measure is SPECIFIED AND TESTED)

Clinician : Group/Practice, Health Plan, Integrated Delivery System, Population : Regional and State

**S.21. Care Setting** (Check *ONLY* the settings for which the measure is SPECIFIED AND TESTED)

Outpatient Services

If other:

**S.22. COMPOSITE Performance Measure** - Additional Specifications (Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.)

## 2. Validity – See attached Measure Testing Submission Form

1880\_Adherence\_to\_Mood\_Stabilizers\_Testing-636582869208053114.docx

### 2.1 For maintenance of endorsement

Reliability testing: If testing of reliability of the measure score was not presented in prior submission(s), has reliability testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.

Yes

## 2.2 For maintenance of endorsement

Has additional empirical validity testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.

No

## 2.3 For maintenance of endorsement

Risk adjustment: For outcome, resource use, cost, and some process measures, risk-adjustment that includes social risk factors is not prohibited at present. Please update sections 1.8, 2a2, 2b1,2b4.3 and 2b5 in the Testing attachment and S.140 and S.11 in the online submission form. NOTE: These sections must be updated even if social risk factors are not included in the risk-adjustment strategy. You MUST use the most current version of the Testing Attachment (v7.1) -- older versions of the form will not have all required questions.

No - This measure is not risk-adjusted

## 3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

### 3a. Byproduct of Care Processes

For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

#### 3a.1. Data Elements Generated as Byproduct of Care Processes.

Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims)

If other:

### 3b. Electronic Sources

The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.

**3b.1. To what extent are the specified data elements available electronically in defined fields (i.e., data elements that are needed to compute the performance measure score are in defined, computer-readable fields)** Update this field for **maintenance of endorsement**.

ALL data elements are in defined fields in electronic claims

**3b.2. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources.** For **maintenance of endorsement**, if this measure is not an eMeasure (eCQM), please describe any efforts to develop an eMeasure (eCQM).

**3b.3. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL. Please also complete and attach the NQF Feasibility Score Card.**

Attachment:

### 3c. Data Collection Strategy

Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, costs associated with fees/licensing of proprietary measures) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use). For eMeasures, a feasibility assessment addresses the data elements and measure logic and demonstrates the eMeasure can be implemented or feasibility concerns can be adequately addressed.

**3c.1. Required for maintenance of endorsement.** Describe difficulties (as a result of testing and/or operational use of the measure) regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.



**IF instrument-based, consider implications for both individuals providing data (patients, service recipients, respondents) and those whose performance is being measured.**

Testing demonstrated that the data required were available and accessible. Issues affecting feasibility regarding missing data were not identified. The cost of data collection is negligible, since the administrative data (collected by CMS primarily for billing purposes) are used as the data source for this measure. Other feasibility/implementation issues were not identified.

#### DATA COLLECTION

Testing was conducted with the CMS administrative claims data. No additional data collection was conducted.

#### AVAILABILITY OF DATA

Testing was conducted with the CMS administrative claims data. The data were readily available and accessible.

#### MISSING DATA

No threats to the validity of this measure were identified using a limited analysis designed to address missing data (Reference Validity Testing Section 2b2.2).

#### TIMING AND FREQUENCY OF DATA COLLECTION

Testing was conducted with the CMS administrative claims data. Data sources needed to implement the measure are collected by CMS in a timely manner.

#### SAMPLING

Not Applicable

#### PATIENT CONFIDENTIALITY

Not Applicable

#### TIME AND COST OF DATA COLLECTION

The administrative data (collected by CMS primarily for billing purposes) are used as the data source for this measure. Therefore, the cost of data collection is negligible.

#### OTHER FEASIBILITY/IMPLEMENTATION ISSUES

Not Applicable

**3c.2. Describe any fees, licensing, or other requirements to use any aspect of the measure as specified (e.g., value/code set, risk model, programming code, algorithm).**

Proprietary coding is contained in the attached list of codes. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets.

Current Procedural Terminology (CPT) codes copyright 2018 American Medical Association. All rights reserved. CPT is a trademark of the AMA. No fee schedules, basic units, relative values or related listings are included in CPT. The AMA assumes no liability for the data contained herein. Applicable FARS/DFARS restrictions apply to government use.

The American Hospital Association holds a copyright to the Uniform Bill Codes ("UB") contained in the measure specifications. The UB Codes in the HEDIS specifications are included with the permission of the AHA. The UB Codes contained in the HEDIS specifications may be used by health plans and other health care delivery organizations for the purpose of calculating and reporting HEDIS measure results or using HEDIS measure results for their internal quality improvement purposes. All other uses of the UB Codes require a license from the AHA. Anyone desiring to use the UB Codes in a commercial Product(s) to generate HEDIS results, or for any other commercial use, must obtain a commercial use license directly from the AHA. To inquire about licensing, contact [ub04@healthforum.com](mailto:ub04@healthforum.com).

## 4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals

or populations.

#### 4a. Accountability and Transparency

Performance results are used in at least one accountability application within three years after initial endorsement and are publicly reported within six years after initial endorsement (or the data on performance results are available). If not in use at the time of initial endorsement, then a credible plan for implementation within the specified timeframes is provided.

##### 4.1. Current and Planned Use

*NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement in addition to performance improvement.*

Specific Plan for Use	Current Use (for current use provide URL)

##### 4a1.1 For each CURRENT use, checked above (update for maintenance of endorsement), provide:

- Name of program and sponsor
- Purpose
- Geographic area and number and percentage of accountable entities and patients included
- Level of measurement and setting

New York State Delivery System Reform Incentive Payment (DSRIP) Program: The measure is publicly reported (though not required) in New York State's Delivery System Reform Incentive Payment (DSRIP) Program, and is included in the Value Based Payment (VBP) Quality Measure Set for the Health and Recovery Plan (HARP) subpopulation. As of 2016, 45,000 individuals were enrolled in HARP. HARP is a specialized managed care program for adult individuals with Severe Mental Illness (SMI) or Substance Use Disorder (SUD) that began its rollout in New York State on October 1, 2015. For HARP, the VBP pilot was implemented in two health plans at two different providers. This measure was selected as clinically relevant, reliable, valid, and feasible; however, it is currently not required to report. Pay for reporting measures are intended to be used by the Managed Care Organizations (MCOs) to incentivize VBP Contractors for reporting data to monitor quality of care delivered to members under a VBP contract. Incentives for reporting should be based on timeliness, accuracy, and completeness of data.

Substance Abuse and Mental Health Services Administration (SAMHSA) Section 223 Demonstration Program: This program is authorized under Section 223 of the Protecting Access to Medicare Act (PAMA). Program activities aim to integrate behavioral health with physical health care, increase consistent use of evidence-based practices, and improve access to high-quality care. Participating states in the demonstration program certify community behavioral health clinics that meet federally developed criteria emphasizing accessible and high-quality care. The certified community behavioral health clinics (CCBHCs) are compensated for services through a prospective payment system (PPS).

**4a1.2. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing) what are the reasons?** (e.g., Do policies or actions of the developer/steward or accountable entities restrict access to performance results or impede implementation?)

**4a1.3. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement.** (Credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.)

**4a2.1.1. Describe how performance results, data, and assistance with interpretation have been provided to those being measured or other users during development or implementation.**

**How many and which types of measured entities and/or others were included? If only a sample of measured entities were included, describe the full population and how the sample was selected.**

New York State DSRIP Program: This measure began being piloted for the HARP subpopulation in 2017 with results being reported (though not required) in 2018. The New York State Department of Health website provides a library of resources for providers and health plans including the technical specifications manual, webinars, and information about the advisory groups involved. The state

also holds workshops to explain the VBP process and expectations.

**SAMHSA Section 223 Demonstration Program:** In 2015, the Department of Health and Human Services (HHS) awarded CCBHC planning grants (Phase I) to 24 states, and eight of those states were selected to participate in the demonstration program (Phase II) to improve access to high-quality behavioral health programs. The CCBHC demonstration program and PPS are designed to work within the scope of state Medicaid Plans and to apply specifically to individuals who are Medicaid enrollees. The eligible population in these states includes all behavioral health clinic (BHC) consumers served by a BHC provider.

**4a2.1.2. Describe the process(es) involved, including when/how often results were provided, what data were provided, what educational/explanatory efforts were made, etc.**

**New York State DSRIP Program:** This measure is not required to be reported. Information on the process are provided in New York State's, 2018 Value Based Payment Reporting Requirements Technical Specifications Manual. Medicaid Managed Care Organizations with Level 1 or higher value-based contracting arrangements or MCOs with a VBP Pilot contract are required to report. Plans will electronically submit patient-level detail files and patient attribution files via secure file transfer on August 1, 2018. New York State provides VBP contractors and MCOs with a dynamic data and analytics tool that provides cost and outcome information of the different VBP arrangements, by MCO, by geography and by provider(s), including potentially shared savings.

**SAMHSA Section 223 Demonstration Program:** Certified community behavioral health clinics and their states are required to collect 21 of 32 quality measures for the demonstration program. This measure is not required to be reported. For each demonstration year (the measurement year), quality measures and metrics are submitted within nine months for CCBHCs, and within 12 months for states. CCBHC-lead data and measures are reported to their designated state agency, and state-lead data and measures are reported to SAMHSA by email. SAMHSA will share the data with CMS for the purposes of Quality Bonus Payments and with the Office of the Assistant Secretary for Planning and Evaluation (ASPE) for the purposes of evaluation. Data is reported by using the data reporting templates, and relaying on the major specifications and instructions for those templates found in the Technical Specifications and Resource Manual. SAMHSA's technical assistance (e.g. webinars, guidance documents) is designed to help states and clinics collect, analyze and report the data for each measure. Clarifications related to quality measures and data reporting are provided on the SAMHSA website, and additional questions are submitted by email.

**4a2.2.1. Summarize the feedback on measure performance and implementation from the measured entities and others described in 4d.1.**

**Describe how feedback was obtained.**

**New York State DSRIP Program:** The program is in its first pilot year and performance has not yet been reported. The state receives feedback on quality measure feasibility, reporting, and calculation from a VBP Measure Support Task Force, including professionals from various Managed Care Organizations (MCOs), VBP Pilot Contractors, State Agencies, along with other professionals with experience in quality measurement and health information technology. They also receive input from a Clinical Advisory Group that evaluates feedback from VBP Contractors, MCOs, and stakeholders, any significant changes in evidence base of underlying measures and/or conceptual gaps in the measurement program. Feedback from these groups is not publicly available at this time.

**SAMHSA Section 223 Demonstration Program:** For the purposes of continuous quality improvement, behavioral health clinics (BHCs) submit data and measure results to the state. Ongoing refinement of the system at both the state and BHC level is achieved through state feedback to the BHC regarding the data and measure results, and BHC internal feedback and adjustment regarding both data and results. Feedback from these groups is not publicly available at this time.

**4a2.2.2. Summarize the feedback obtained from those being measured.**

**New York State DSRIP Program:** No feedback specific to this measure is currently available.

**SAMHSA Section 223 Demonstration Program:** No feedback specific to this measure is currently available.

**4a2.2.3. Summarize the feedback obtained from other users**

This measure recently went through a re-evaluation process. During that process, feedback on the measure was obtained from measure advisory panels including NCQA's Pharmacy Panel and NCQA's Behavioral Health Measure Advisory Panel. These panels recommended adding medications which are FDA approved for the treatment of bipolar I disorder and removing medications which are not FDA approved for the treatment of bipolar I disorder.

**4a2.3. Describe how the feedback described in 4a2.2.1 has been considered when developing or revising the measure**

**specifications or implementation, including whether the measure was modified and why or why not.**

Based on the feedback obtained from NCQA's Pharmacy Panel and NCQA's Behavioral Health Measure Advisory Panel (described 4a2.2.3) the following measure changes were implemented:

1. Add the following FDA approved medications to the measure as recommended by the pharmacy panel and BHMAP:
  - Cariprazine
  - Quetiapine fumarate (Seroquel)
2. Remove the following off-label medications from the measure as recommended by the pharmacy panel and internal review of FDA labels (these medications were included in the original measure specification):
  - Fluphenazine
  - Haloperidol
  - Molindone
  - Perphenazine
  - Pimozide
  - Prochlorperazine
  - Thioridazine
  - Thiothixene
  - Trifluoperazine
  - Clozapine
  - Iloperidone
  - Paliperidone
  - Fluphenazine decanoate
  - Haloperidol decanoate
  - Olanzapine pamoate
  - Paliperidone palmitate
3. Add the following code to the value set for identifying bipolar I disorder in the measure: F30.8 (other manic episodes).

**Improvement**

Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated. If not in use for performance improvement at the time of initial endorsement, then a credible rationale describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

**4b1. Refer to data provided in 1b but do not repeat here. Discuss any progress on improvement (trends in performance results, number and percentage of people receiving high-quality healthcare; Geographic area and number and percentage of accountable entities and patients included.)**

**If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.**

New York State DSRIP Program: Performance data is not publicly available for this measure.

SAMHSA Section 223 Demonstration Program: Performance data is not publicly available for this measure.

We envision this measure will help providers to identify patients with bipolar I disorder who are not adherent (at a critical threshold of 0.8 or greater) with long-term treatment with mood stabilizer medications and target interventions to improve medication adherence.

**4b2. Unintended Consequences**

The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

**4b2.1. Please explain any unexpected findings (positive or negative) during implementation of this measure including unintended impacts on patients.**

There were no identified unintended findings for this measure during testing and none have been brought to our attention since

implementation.

**4b2.2. Please explain any unexpected benefits from implementation of this measure.**

No unexpected benefits.

## 5. Comparison to Related or Competing Measures

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

### 5. Relation to Other NQF-endorsed Measures

Are there related measures (conceptually, either same measure focus or target population) or competing measures (conceptually both the same measure focus and same target population)? If yes, list the NQF # and title of all related and/or competing measures.

Yes

#### 5.1a. List of related or competing measures (selected from NQF-endorsed measures)

0003 : Bipolar Disorder: Assessment for diabetes

0109 : Bipolar Disorder and Major Depression: Assessment for Manic or hypomanic behaviors

0110 : Bipolar Disorder and Major Depression: Appraisal for alcohol or chemical substance use

0111 : Bipolar Disorder: Appraisal for risk of suicide

0112 : Bipolar Disorder: Level-of-function evaluation

0541 : Proportion of Days Covered (PDC): 3 Rates by Therapeutic Category

0542 : Adherence to Chronic Medications

0543 : Adherence to Statin Therapy for Individuals with Cardiovascular Disease

0545 : Adherence to Statins for Individuals with Diabetes Mellitus

0580 : Bipolar antimanic agent

1879 : Adherence to Antipsychotic Medications for Individuals with Schizophrenia

1927 : Cardiovascular Health Screening for People With Schizophrenia or Bipolar Disorder Who Are Prescribed Antipsychotic Medications

1932 : Diabetes Screening for People With Schizophrenia or Bipolar Disorder Who Are Using Antipsychotic Medications (SSD)

#### 5.1b. If related or competing measures are not NQF endorsed please indicate measure title and steward.

Adherence to Antipsychotic Medications for Individuals with Schizophrenia. NCQA is measure steward.

### 5a. Harmonization of Related Measures

The measure specifications are harmonized with related measures;

**OR**

The differences in specifications are justified

#### 5a.1. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):

Are the measure specifications harmonized to the extent possible?

Yes

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

The measure specifications are harmonized with the related measure, Adherence to Antipsychotic Medications for Individuals with Schizophrenia (NQF #1879) and the NCQA version of the same measure (Adherence to Antipsychotic Medications for Individuals with Schizophrenia), where possible. The methodology used to calculate adherence in these measures is proportion of days covered (PDC) which is calculated the same in all three measures. The methodology used to identify the denominator population is also calculated the same in all three measures, with the exception of the clinical conditions which is the target of the measure. The data collection burden is identical for the measures. The only differences between Adherence to Mood Stabilizers for Individuals with Bipolar I Disorder (NQF #1880), Adherence to Antipsychotic Medications for Individuals with Schizophrenia (NQF #1879), and the related NCQA measure are: (1) the clinical codes used to identify the different populations in each measure (NQF #1880 – individuals with bipolar I disorder; NQF #1879 and NCQA measure– individuals with schizophrenia); (2) the medications includes in

each measure (NQF #1880- mood stabilizers; NQF #1879 and the NCQA measure– antipsychotics); and, (3) an exclusion for dementia which is included in NQF #1879 and the NCQA measure but not in NQF #1880. The rationale for these difference is due to the different clinical focus of each measure. There is no impact on interpretability since the measures clearly identify the disparate clinical focus. During development the measure developers worked to harmonize this measure with other measures which were NQF-endorsed at the time of development. The section below is from the original submission of the measure for initial endorsement and refers to measures which are no longer NQF-endorsed. We are including this language to demonstrate the efforts of the measure developers to harmonize this measure with other measures. MEASURES WITH WHICH THE MEASURE IS HARMONIZED. The measure has been harmonized where feasible with NQF #0542, #0543, #0545, #0541, #1879, #1927, and #1932 MEASURES WITH WHICH THE MEASURE IS NOT HARMONIZED. The measure specifications of the measure are not harmonized with the following NQF-endorsed measures that have the same measure focus (use of mood stabilizers among patients with Bipolar Disorder): NQF #0580 Bipolar antimanic agent. DIFFERENCES BETWEEN MEASURE 1880 AND MEASURE 0580. One NQF-endorsed measure (NQF #0580) focuses on a similar concept, but differs from this measure in two important ways. First, the NQF-endorsed measure includes individuals with newly diagnosed bipolar disorder and major depressive disorder. However, this measure includes all individuals with bipolar I disorder, not just those who are newly diagnosed, and does not include individuals with major depressive disorder. Second, the NQF-endorsed measure identifies the percentage of eligible individuals who have received at least 1 prescription for a mood-stabilizing agent during the measurement year, while this measure measures the percentage of eligible individuals with a proportion of days covered (PDC) for mood stabilizer medications greater than 0.8 during the measurement year. RATIONALE. This measure is an improved measure that adds value because it measures adherence to mood stabilizer treatment for individuals with bipolar I disorder. In contrast, the NQF measure (NQF# 0580) is linked to a one-time prescription for mood stabilizer treatment. IMPACT ON INTERPRETABILITY AND DATA COLLECTION BURDEN. Differences have not been identified concerning the data collection burden between Measure 1880 and Measure 0580. However, interpretability for Measure 1880 (as compared to NQF #0580) is improved because Measure 1880 focuses on adherence rather than a single prescription, and Measure 1880 is harmonized with the majority of adherence measures for other chronic diseases in the NQF portfolio and those that are being publicly reported by CMS.

#### 5b. Competing Measures

The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);

OR

Multiple measures are justified.

**5b.1. If this measure conceptually addresses both the same measure focus and the same target population as NQF-endorsed measure(s):**

**Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible.)**

*This measure does not address both the same measure focus and population as another NQF-endorsed measure.*

## Appendix

**A.1 Supplemental materials may be provided in an appendix.** All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.

**No appendix Attachment:**

## Contact Information

**Co.1 Measure Steward (Intellectual Property Owner):** Centers for Medicare & Medicaid Services

**Co.2 Point of Contact:** Elizabeth, Ricksecker, Elizabeth.Ricksecker@cms.hhs.gov, 410-786-6723-

**Co.3 Measure Developer if different from Measure Steward:** National Committee for Quality Assurance

**Co.4 Point of Contact:** Kristen, Swift, swift@ncqa.org, 202-955-5174-

## Additional Information

**Ad.1 Workgroup/Expert Panel involved in measure development**

**Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.**

*Behavioral Health Measure Advisory Panel (BHMAP) – advised on the re-evaluation:*

1. Katherine Bradley, MD, MPH, Kaiser Permanente Washington Health Research Institute
2. Christopher Dennis, MD, MBA, FAPA, Chief Behavioral Health Officer, Landmark Health
3. Ben Druss, MD, MPH, Professor, Emory University
4. Frank A. Ghinassi, PhD, ABPP, President and CEO, Rutgers University Behavioral Health Care
5. Connie Horgan, ScD, Professor and Director, Institute for Behavioral Health, Brandeis University
6. Laura Jacobus-Kantor, PhD, Chief, Quality, Evaluation and Performance, SAMHSA HHS
7. Jeffrey Meyerhoff, MD, National Medical Director for Medicare and Retirement, Optum Behavioral Solutions
8. Harold Pincus, MD, Professor and Vice Chair--Department of Psychiatry, College of Physicians and Surgeons, Co-Director, Irving Institute for Clinical and Translational Research, Columbia University, Director of Quality and Outcomes Research, New York – Presbyterian Hospital
9. Michael Schoenbaum, PhD, Senior Advisor for Mental Health Services, Epidemiology and Economics, National Institute of Mental Health
10. John Straus, MD, Medical Director Special Projects, Massachusetts Behavioral Health Partnership A Beacon Health Options Company
11. William Wood, MD, PhD, Manager, Medical Director Behavioral Health, Anthem, Inc.

HEDIS Expert Pharmacy Panel – advised on the re-evaluation:

1. Linda DeLaet, PharmD, Kaiser Permanente
2. Gerry Hobson, RPh, Cerner Multum
3. Chronis H. Manolis, RPh, UPMC Health Plan
4. Cathrine Misquitta, PharmD, MBA, BCPS, CGP, FCSHP, Health Net Pharmaceutical Services
5. Kevin Mark, MD, Wisconsin First, Inc.

FMQAI (now HSAG) TEP - advised on the original measure development and testing:

1. Jill S. Borchert, Pharm.D., BCPS, Professor, Pharmacy Practice and PGY1 Residency Program Director, Midwestern University, Chicago College of Pharmacy
2. Anne Burns, RPh, Vice President, Professional Affairs, American Pharmacists Association
3. Jannet Carmichael, Pharm.D., FCCP, FAPhA, BCPS, VISN 21 Pharmacy Executive, VA Sierra Pacific Network
4. Marshall H. Chin, MD, MPH, Professor of Medicine, University of Chicago
5. Jay A. Gold, MD, JD, MPH, Senior Vice President and Medicare Chief Medical Officer, MetaStar, Inc.
6. David Nau, Ph.D., R.Ph., CPHQ, Senior Director of Research and Performance Measurement, PQA, Inc.
7. N. Lee Rucker, M.S.P.H., Senior Strategic Policy Advisor, AARP - Public Policy Institute
8. Marissa Schlaifer, MS, RPh, Director of Pharmacy Affairs Academy of Managed Care Pharmacy
9. Brad Tice, Pharm.D., Chief Clinical Officer, PharmMD Solutions, LLC
10. Jennifer K. Thomas, Pharm.D., Manager, Pharmacy Services, Delmarva Foundation for Medical Care/Delmarva Foundation of the District of Columbia
11. Darren Triller, Pharm.D., Director, Pharmacy Services, IPRO
12. Neil Wenger, MD, Professor of Medicine, UCLA Department of Medicine, Division of General Internal Medicine and Health Services Research
13. Edward Eisenberg, Vice President and Chief Medical Officer, Medicare, Medco Health Solutions; Franklin Lakes, NJ
14. Douglas Bell, Associate Professor in Residence, UCLA Department of Medicine, Division of General Internal Medicine and Health Services Research; Los Angeles, CA

**Measure Developer/Steward Updates and Ongoing Maintenance**

**Ad.2 Year the measure was first released:**

**Ad.3 Month and Year of most recent revision:** 04, 2018

**Ad.4 What is your frequency for review/update of this measure?** Annual

**Ad.5 When is the next scheduled review/update for this measure?** 04, 2019

**Ad.6 Copyright statement:** Not Applicable

**Ad.7 Disclaimers:** Not Applicable

**Ad.8 Additional Information/Comments:** Not Applicable



