



## 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 #: 0541**

**Corresponding Measures:**

**De.2. Measure Title:** Proportion of Days Covered (PDC): 3 Rates by Therapeutic Category

**Co.1.1. Measure Steward:** Pharmacy Quality Alliance

**De.3. Brief Description of Measure:** The percentage of individuals 18 years and older who met the Proportion of Days Covered (PDC) threshold of 80 percent during the measurement year.

Report a rate for each of the following:

- Diabetes All Class (PDC-DR)
- Renin Angiotensin System Antagonists (PDC-RASA)
- Statins (PDC-STA)

A higher rate indicates better performance.

**1b.1. Developer Rationale:** This measure, Proportion of Days Covered (PDC): 3 Rates by Therapeutic Category, evaluates adherence to three therapeutic categories of medications aligned with three common chronic conditions: diabetes agents for diabetes, renin-angiotensin system antagonists (RASA) for hypertension, and statins for hyperlipidemia. Medication therapy is recommended as a mainstay of treatment for these conditions and clinical guidelines emphasize the importance of adherence to medications to achieve optimal outcomes.

More than 26 million American adults (9.8%) have diabetes.(1) For type 2 diabetes, the most common form, pharmacologic treatment can improve clinical outcomes, including reducing chronic kidney disease (CKD) progression, major cardiovascular events, and cardiovascular mortality.(2) Approximately 46% of American adults have hypertension(1) and RASA are recommended as initial therapy for many patients for cardiovascular risk reduction, particularly those with diabetes or CKD.(3,4) Approximately 30% of American adults have elevated LDL cholesterol(1) and statin therapy is recommended for treating hyperlipidemia and also for primary prevention of cardiovascular disease in several treatment guidelines.(2,5-7)

Recent studies support the body of evidence showing that medication adherence is correlated with improved clinical outcomes and decreased healthcare costs.(8) Medication adherence for diabetes, hypertension, and hyperlipidemia remains suboptimal(9) and multiple interventions may be used to improve adherence.(10,11)

1. Benjamin EJ, Muntner P, Alonso A, et al; American Heart Association Council on Epidemiology and Prevention Statistics Committee and Stroke Statistics Subcommittee. Heart Disease and Stroke Statistics-2019 Update: A Report From the American Heart Association. *Circulation*. 2019;139(10):e56-e528. doi: 10.1161/CIR.0000000000000659. PMID: 30700139.
2. American Diabetes Association. 9. Pharmacologic Approaches to Glycemic Treatment: Standards of Medical Care in Diabetes-2019. *Diabetes Care*. 2019;42(Suppl 1):S90-S102. PMID: 30559235.
3. Whelton PK, Carey RM, Aronow WS, et al. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: Executive Summary: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *J Am Soc Hypertens*. 2018;12:579.e1-579.e73. PMID: 30219548.
4. American Diabetes Association. 10. Cardiovascular Disease and Risk Management: Standards of Medical Care in Diabetes-2019. *Diabetes Care*. 2019;42(Suppl 1):S103-S123. PMID: 30559236.
5. Grundy SM, Stone NJ, Bailey AL, et al. 2018 AHA/ACC/AACVPR/AAPA/ABC/ACPM/ADA/AGS/APhA/ASPC/NLA/PCNA Guideline on

the Management of Blood Cholesterol. Circulation. 2018 Nov 10;CIR0000000000000625. PMID: 30586774.

6. Jellinger PS, Handelsman Y, Rosenblit PD, et al. AMERICAN ASSOCIATION OF CLINICAL ENDOCRINOLOGISTS AND AMERICAN COLLEGE OF ENDOCRINOLOGY GUIDELINES FOR MANAGEMENT OF DYSLIPIDEMIA AND PREVENTION OF CARDIOVASCULAR DISEASE. Endocr Pract. 2017; 23(Suppl 2):1-87. PMID: 28437620.

7. US Preventive Services Task Force, Bibbins-Domingo K, Grossman DC, Curry SJ, et al. Statin Use for the Primary Prevention of Cardiovascular Disease in Adults: US Preventive Services Task Force Recommendation Statement. JAMA. 2016; 316(19):1997-2007. PMID: 27838723.

8. Lloyd JT, Maresh S, Powers CA, Shrank WH, Alley DE. How Much Does Medication Nonadherence Cost the Medicare Fee-for-Service Program? Med Care. 2019;57:218-24. PMID: 30676355.

9. Ritchey M, Chang A, Powers C, et al. Vital Signs: Disparities in Antihypertensive Medication Nonadherence Among Medicare Part D Beneficiaries - United States, 2014. MMWR Morb Mortal Wkly Rep. 2016;65:967-76. PMID: 27632693.

10. Kini V, Ho PM. Interventions to Improve Medication Adherence: A Review. JAMA. 2018;320:2461-73. PMID: 30561486.

11. Viswanathan M, Golin CE, Jones CD, et al. Interventions to improve adherence to self-administered medications for chronic diseases in the United States: a systematic review. Ann Intern Med. 2012;157:785-95. PMID: 22964778.

**S.4. Numerator Statement:** The number of individuals who met the PDC threshold of 80 percent during the measurement year.

**S.6. Denominator Statement:** Individuals age 18 years and older as of the first day of the measurement year, with at least two prescription claims for medication(s) within a specific therapeutic category (Diabetes; RASA; Statins) on different dates of service during the treatment period and are continuously enrolled during the treatment period, which begins on the index prescription start date (IPSD) and extends through whichever comes first: the last day of the measurement year, death or disenrollment. The IPSD should occur at least 91 days before the end of the enrollment period.

Note: The IPSD is the earliest date of service for a target medication during the measurement year

Exclusions for the Diabetes rate:

- Individuals with one or more prescription claims for insulin during the treatment period (See Medication Table PDC-H: Insulin Exclusion)
- Individuals in hospice or with End-Stage Renal Disease

Exclusions for the RASA rate:

- Individuals with one or more prescription claims for the medication, sacubitril/valsartan during the treatment period (See Medication Table PDC-RASA-B: Sacubitril/Valsartan Exclusion)
- Individuals in hospice or with End-Stage Renal Disease

Exclusions for the Statins rate:

- Individuals in hospice or with End-Stage Renal Disease

**S.8. Denominator Exclusions:** Exclusions for the Diabetes rate:

- Individuals with one or more prescription claims for insulin during the treatment period (See Medication Table PDC-H: Insulin Exclusion)
- Individuals in hospice or with end-stage renal disease during the measurement year

Exclusions for the RASA rate:

- Individuals with one or more prescription claims for the medication, sacubitril/valsartan during the treatment period (See Medication Table PDC-RASA-B: Sacubitril/Valsartan Exclusion)
- Individuals in hospice or with End-Stage Renal Disease

Exclusions for the Statins rate:

- Individuals in hospice or with End-Stage Renal Disease

**De.1. Measure Type:** Process

**S.17. Data Source:** Claims, Enrollment Data

**S.20. Level of Analysis:** Health Plan

**IF Endorsement Maintenance – Original Endorsement Date:** Aug 05, 2009 **Most Recent Endorsement Date:** Oct 24, 2019

**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?** The measure is not paired/grouped

## 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

[Evidence\\_Submission\\_Form\\_PQA\\_PDC\\_040819\\_FV.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.

This measure, Proportion of Days Covered (PDC): 3 Rates by Therapeutic Category, evaluates adherence to three therapeutic categories of medications aligned with three common chronic conditions: diabetes agents for diabetes, renin-angiotensin system antagonists (RASA) for hypertension, and statins for hyperlipidemia. Medication therapy is recommended as a mainstay of treatment for these conditions and clinical guidelines emphasize the importance of adherence to medications to achieve optimal outcomes.

More than 26 million American adults (9.8%) have diabetes.(1) For type 2 diabetes, the most common form, pharmacologic treatment can improve clinical outcomes, including reducing chronic kidney disease (CKD) progression, major cardiovascular events, and cardiovascular mortality.(2) Approximately 46% of American adults have hypertension(1) and RASA are recommended as initial therapy for many patients for cardiovascular risk reduction, particularly those with diabetes or CKD.(3,4) Approximately 30% of American adults have elevated LDL cholesterol(1) and statin therapy is recommended for treating hyperlipidemia and also for primary prevention of cardiovascular disease in several treatment guidelines.(2,5-7)

Recent studies support the body of evidence showing that medication adherence is correlated with improved clinical outcomes and decreased healthcare costs.(8) Medication adherence for diabetes, hypertension, and hyperlipidemia remains suboptimal(9) and multiple interventions may be used to improve adherence.(10,11)

1. Benjamin EJ, Muntner P, Alonso A, et al; American Heart Association Council on Epidemiology and Prevention Statistics Committee and Stroke Statistics Subcommittee. Heart Disease and Stroke Statistics-2019 Update: A Report From the American Heart Association. *Circulation*. 2019;139(10):e56-e528. doi: 10.1161/CIR.0000000000000659. PMID: 30700139.
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6. Jellinger PS, Handelsman Y, Rosenblit PD, et al. AMERICAN ASSOCIATION OF CLINICAL ENDOCRINOLOGISTS AND AMERICAN COLLEGE OF ENDOCRINOLOGY GUIDELINES FOR MANAGEMENT OF DYSLIPIDEMIA AND PREVENTION OF CARDIOVASCULAR DISEASE. *Endocr Pract*. 2017; 23(Suppl 2):1-87. PMID: 28437620.
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10. Kini V, Ho PM. Interventions to Improve Medication Adherence: A Review. *JAMA*. 2018;320:2461-73. PMID: 30561486.
11. Viswanathan M, Golin CE, Jones CD, et al. Interventions to improve adherence to self-administered medications for chronic diseases in the United States: a systematic review. *Ann Intern Med*. 2012;157:785-95. PMID: 22964778.

**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.**

The PDC-3 Rates measure is used by the Centers for Medicare & Medicaid Services (CMS) in the Medicare Part D Star Ratings Program to evaluate prescription drug plans (both Medicare Advantage plans [MA-PDs] and stand-alone prescription drug plans [PDPs]). CMS has reported considerable variation in the measure rates among plans during the last 5 reporting years (2013-2017). This variation, as described below, demonstrates the performance gap and opportunity for health plans to improve adherence rates for the diabetes medications, renin angiotensin system antagonists (RASA), and statins.

#### PDC-Diabetes:

The mean rate has increased steadily over the last 5 reporting years (2013-2017), indicating overall improvement across plans.

- For MA-PDs, the mean rate improved from 76.8% in 2013 to 81.5% in 2017.
- For PDPs, the mean rate improved from 79.3% in 2013 to 83.4% in 2017.

The standard deviation has decreased modestly over the last 5 reporting years (2013-2017), indicating that the difference in rates between high and low performing plans has narrowed slightly.

- For MA-PDs, the standard deviation decreased from 5.9% in 2013 to 4.6% in 2017.
- For PDPs, the standard deviation decreased from 4.8% in 2013 to 3.6% in 2017.

The distribution of rates for 2013-2017 are summarized in the table below.

#### MA-PD

Values	2013	2014	2015	2016	2017
n	433	408	394	404	397
stddev	5.9%	6.1%	5.2%	5.0%	4.6%
mean	76.8%	77.4%	78.6%	80.1%	81.5%
min	56.0%	23.0%	48.0%	61.0%	61.0%
p10	69.0%	70.0%	72.0%	74.0%	75.0%
p20	72.0%	73.0%	74.0%	76.0%	78.0%
p25	73.0%	74.0%	75.0%	77.0%	79.0%
p30	74.0%	75.0%	76.0%	78.0%	80.0%
p40	76.0%	77.0%	78.0%	79.0%	81.0%
p50	77.0%	78.0%	79.0%	80.0%	82.0%
p60	78.0%	79.0%	81.0%	81.0%	83.0%
p70	80.0%	81.0%	81.0%	83.0%	84.0%
p75	80.0%	81.0%	82.0%	83.0%	85.0%
p80	82.0%	82.0%	83.0%	84.0%	85.0%
p90	84.0%	84.0%	84.0%	86.0%	87.0%
max	91.0%	94.0%	93.0%	98.0%	94.0%

IQR 7.0% 7.0% 7.0% 6.0% 6.0%

#### PDP

Values	2013	2014	2015	2016	2017
n	63	60	56	55	54
stddev	4.8%	4.7%	4.5%	3.9%	3.6%
mean	79.3%	79.7%	80.9%	81.9%	83.4%
min	66.0%	65.0%	68.0%	71.0%	72.0%
p10	74.0%	74.0%	75.0%	77.0%	80.0%
p20	76.0%	77.0%	79.0%	79.5%	81.0%
p25	77.0%	77.5%	79.5%	80.0%	82.0%
p30	77.0%	78.0%	80.0%	81.0%	82.0%
p40	79.0%	79.5%	80.0%	82.0%	82.0%
p50	80.0%	80.0%	81.0%	82.0%	83.0%
p60	81.0%	81.0%	81.0%	82.0%	84.0%
p70	82.0%	82.0%	83.0%	84.0%	84.0%
p75	83.0%	82.0%	83.0%	84.0%	85.0%
p80	83.0%	83.0%	84.0%	84.5%	86.0%
p90	84.0%	85.0%	86.0%	87.0%	89.0%
max	93.0%	95.0%	94.0%	91.0%	94.0%
IQR	6.0%	4.5%	3.5%	4.0%	3.0%

#### PDC-RASA:

The mean rate has increased steadily over the last 5 reporting years (2013-2017), indicating overall improvement across plans.

- For MA-PDs, the mean rate improved from 78.3% in 2013 to 83.4% in 2017.
- For PDPs, the mean rate improved from 81.1% in 2013 to 85.8% in 2017.

The standard deviation has decreased modestly over the last 5 reporting years (2013-2017), indicating that the difference in rates between high and low performing plans has narrowed slightly.

- For MA-PDs, the standard deviation decreased from 5.5% in 2013 to 4.3% in 2017.
- For PDPs, the standard deviation decreased from 4.5% in 2013 to 3.5% in 2017.

The distribution of rates for 2013-2017 are summarized in the table below.

#### MA-PD

Values	2013	2014	2015	2016	2017
n	447	425	406	415	415
stddev	5.5%	5.7%	4.9%	4.5%	4.3%
mean	78.3%	79.3%	80.6%	82.0%	83.4%
min	62.0%	34.0%	59.0%	67.0%	68.0%
p10	70.0%	72.0%	74.0%	76.0%	77.0%
p20	73.0%	75.0%	77.0%	78.0%	80.0%
p25	75.0%	76.0%	78.0%	79.0%	81.0%
p30	76.0%	77.0%	79.0%	80.0%	82.0%
p40	78.0%	79.0%	80.0%	82.0%	83.0%
p50	79.0%	80.0%	81.0%	83.0%	84.0%
p60	80.0%	81.0%	83.0%	83.0%	85.0%
p70	82.0%	83.0%	84.0%	85.0%	86.0%
p75	82.0%	83.0%	84.0%	85.0%	87.0%
p80	83.0%	84.0%	85.0%	86.0%	87.0%
p90	85.0%	85.0%	86.0%	87.0%	88.0%
max	92.0%	94.0%	90.0%	95.0%	93.0%
IQR	7.0%	7.0%	6.0%	6.0%	6.0%

## PDP

Values	2013	2014	2015	2016	2017
n	64	61	58	57	54
stddev	4.5%	4.1%	3.7%	3.8%	2.5%
mean	81.1%	81.6%	82.8%	84.1%	85.8%
min	68.0%	70.0%	72.0%	73.0%	80.0%
p10	75.0%	76.0%	77.0%	79.0%	82.0%
p20	77.0%	78.0%	81.0%	81.0%	84.0%
p25	79.0%	80.0%	82.0%	82.0%	84.0%
p30	80.0%	80.0%	82.0%	83.0%	85.0%
p40	81.0%	81.0%	82.0%	84.0%	85.0%
p50	82.0%	82.0%	83.0%	85.0%	86.0%
p60	83.0%	83.0%	84.0%	85.0%	86.0%
p70	84.0%	84.0%	85.0%	86.0%	87.0%
p75	84.0%	84.0%	85.0%	87.0%	88.0%
p80	85.0%	85.0%	86.0%	87.0%	88.0%
p90	86.0%	86.0%	88.0%	89.0%	89.0%
max	89.0%	91.0%	89.0%	90.0%	90.0%
IQR	5.0%	4.0%	3.0%	5.0%	4.0%

## PDC-Statins:

The mean rate has increased steadily over the last 5 reporting years (2013-2017), indicating overall improvement across plans.

- For MA-PDs, the mean rate improved from 74.0% in 2013 to 80.2% in 2017.

- For PDPs, the mean rate improved from 76.6% in 2013 to 82.7% in 2017.

The standard deviation has decreased modestly over the last 5 reporting years (2013-2017), indicating that the difference in rates between high and low performing plans has narrowed slightly.

- For MA-PDs, the standard deviation decreased from 7.1% in 2013 to 5.8% in 2017.

- For PDPs, the standard deviation decreased from 5.1% in 2013 to 4.3% in 2017.

The distribution of rates for 2013-2017 are summarized in the table below.

## MA-PD

Values	2013	2014	2015	2016	2017
n	446	426	408	417	416
stddev	7.1%	7.0%	6.4%	5.8%	5.8%
mean	74.0%	75.1%	76.7%	78.5%	80.2%
min	40.0%	21.0%	38.0%	51.0%	50.0%
p10	66.0%	67.0%	69.0%	71.0%	73.0%
p20	69.0%	71.0%	72.0%	74.0%	77.0%
p25	71.0%	72.0%	73.0%	76.0%	78.0%
p30	72.0%	73.0%	74.0%	76.0%	79.0%
p40	74.0%	75.0%	76.0%	78.0%	80.0%
p50	75.0%	76.0%	78.0%	79.0%	81.0%
p60	76.0%	78.0%	79.0%	81.0%	82.0%
p70	78.0%	79.0%	80.0%	82.0%	83.0%
p75	78.0%	80.0%	81.0%	82.0%	84.0%
p80	79.0%	81.0%	82.0%	83.0%	85.0%
p90	81.0%	82.0%	83.0%	85.0%	86.0%
max	92.0%	88.0%	94.0%	92.0%	92.0%
IQR	7.0%	8.0%	8.0%	6.0%	6.0%

## PDP

Values	2013	2014	2015	2016	2017
n	64	61	58	56	54
stddev	5.1%	5.1%	4.9%	4.4%	4.3%
mean	76.6%	77.7%	79.5%	80.8%	82.7%
min	53.0%	49.0%	54.0%	61.0%	59.0%
p10	72.0%	74.0%	75.0%	77.0%	79.0%
p20	74.0%	75.0%	77.0%	78.0%	81.0%
p25	75.0%	76.0%	78.0%	79.0%	81.0%
p30	75.0%	77.0%	78.0%	79.0%	82.0%
p40	77.0%	77.0%	79.0%	80.0%	82.0%
p50	77.5%	78.0%	80.0%	81.0%	83.0%
p60	78.0%	79.0%	81.0%	82.0%	83.0%
p70	79.0%	80.0%	82.0%	83.0%	84.0%
p75	80.0%	80.0%	82.0%	83.5%	85.0%
p80	80.0%	81.0%	83.0%	84.0%	86.0%
p90	81.0%	82.0%	85.0%	86.0%	87.0%
max	84.0%	86.0%	87.0%	88.0%	89.0%
IQR	5.0%	4.0%	4.0%	4.5%	4.0%

[IQR = interquartile range]

**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.**

N/A

**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.**

Data used for testing included the 2016 Medicare Research Identifiable Files (RIF) 5% national sample data and the 2017 Medicare Prescription Drug Event (PDE) 100% data.

- Medicare Research Identifiable Files (RIF) 5% national sample data (January 1 – December 31, 2016): This is a nationally representative 5% sample of the Medicare population, and includes data from 554 Medicare Advantage Prescription Drug (MAPD) plans and stand-alone Prescription Drug Plans (PDPs) covering all states. Of beneficiaries aged 18 years and older, the population included 2,203,754 individuals. After applying all inclusion and exclusion criteria, the Diabetes population included 268,737 individuals, the RASA population included 775,226 individuals and the Statins population included 872,736 individuals.

- Medicare Prescription Drug Event (PDE) 100% data (January 1 – December 31, 2017): This includes 100% of the Medicare population, and includes data from 705 MAPD and PDP plans, covering all states. Of beneficiaries aged 18 years and older, the population included 43,402,012 individuals. After applying all inclusion and exclusion criteria, the Diabetes population included 5,723,718 individuals, the RASA population included 17,547,859 individuals and the Statins population included 19,017,664 individuals.

In general, younger beneficiaries were less likely to be adherent compared to older beneficiaries; individuals identified as White or Asian were more likely to be adherent compared to Blacks or Hispanics; individuals with low income subsidy (LIS)/dual eligibility status were less likely to be adherent compared to those without LIS/dual eligibility status; and individuals with disability as the reason for Medicare entitlement were less likely to be adherent compared to those with other reasons for Medicare entitlement.

#### Diabetes Disparities Data

A comparison of measure rates by age groups - Diabetes

Age	2017 MAPD	2017 PDP	2016 MAPD	2016 PDP
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<65 years	75.9%	74.6%	78.6%	76.1%
65+ years	82.8%	83.5%	84.0%	84.1%

A comparison of measure rates by gender - Diabetes

Gender	2017 MAPD	2017 PDP	2016 MAPD	2016 PDP
Male	82.8%	83.7%	83.9%	84.2%
Female	80.9%	80.9%	82.5%	81.4%

A comparison of measure rates by race- Diabetes

Race	2017 MAPD	2017 PDP	2016 MAPD	2016 PDP
White	83.3%	83.9%	84.5%	84.2%
Black	75.1%	72.9%	76.4%	73.6%
Asian	85.2%	83.9%	87.1%	84.9%
Hispanic	78.7%	73.8%	81.5%	75.2%
Other/Unknown	83.4%	81.5%	84.5%	83.1%

A comparison of measure rates by LIS/dual eligibility status - Diabetes

LIS/Dual Status	2017 MAPD	2017 PDP	2016 MAPD	2016 PDP
LIS and/or Dual	80.3%	78.7%	81.2%	78.4%
Non-LIS/Non-Dual	82.4%	83.8%	83.9%	82.7%

A comparison of measure rates by Disability as a reason for Medicare entitlement status - Diabetes

Disability Status	2017 MAPD	2017 PDP	2016 MAPD	2016 PDP
Disability	78.0%	77.4%	77.0%	74.1%
Other	83.2%	83.8%	84.0%	84.1%

#### RASA Disparities Data

A comparison of measure rates by age groups - RASA

Age	2017 MAPD	2017 PDP	2016 MAPD	2016 PDP
<65 years	77.5%	75.3%	81.9%	79.3%
65+ years	85.2%	85.7%	87.8%	87.4%

A comparison of measure rates by gender - RASA

Gender	2017 MAPD	2017 PDP	2016 MAPD	2016 PDP
Male	84.1%	84.5%	87.0%	86.4%
Female	84.4%	84.5%	86.9%	86.1%

A comparison of measure rates by race- RASA

Race	2017 MAPD	2017 PDP	2016 MAPD	2016 PDP
White	85.6%	85.9%	88.1%	87.4%
Black	78.1%	75.9%	80.9%	77.9%
Asian	85.1%	83.4%	88.3%	85.4%
Hispanic	80.3%	75.3%	83.8%	78.0%
Other/Unknown	82.5%	80.1%	87.6%	85.2%

A comparison of measure rates by LIS/dual eligibility status - RASA

LIS/Dual Status	2017 MAPD	2017 PDP	2016 MAPD	2016 PDP
LIS and/or Dual	80.9%	79.3%	83.1%	80.3%
Non-LIS/Non-Dual	85.4%	86.4%	88.2%	88.4%

A comparison of measure rates by Disability as a reason for Medicare entitlement status - RASA

Disability Status	2017 MAPD	2017 PDP	2016 MAPD	2016 PDP
Disability	79.6%	78.4%	80.2%	76.9%
Other	85.6%	86.0%	87.8%	87.4%



## Statins Disparities Data

## A comparison of measure rates by age groups - Statins

Age	2017 MAPD	2017 PDP	2016 MAPD	2016 PDP
<65 years	75.1%	74.9%	77.3%	76.3%
65+ years	81.9%	82.8%	83.2%	82.4%

## A comparison of measure rates by gender - Statins

Gender	2017 MAPD	2017 PDP	2016 MAPD	2016 PDP
Male	82.3%	83.2%	83.6%	82.9%
Female	80.1%	80.8%	81.4%	80.5%

## A comparison of measure rates by race- Statins

Race	2017 MAPD	2017 PDP	2016 MAPD	2016 PDP
White	82.8%	83.3%	83.7%	82.8%
Black	73.2%	71.3%	75.2%	71.9%
Asian	81.6%	80.3%	84.0%	80.8%
Hispanic	73.1%	69.8%	75.9%	70.8%
Other/Unknown	81.1%	80.2%	82.9%	80.9%

## A comparison of measure rates by LIS/dual eligibility status - Statins

LIS/Dual Status	2017 MAPD	2017 PDP	2016 MAPD	2016 PDP
LIS and/or Dual	78.1%	78.0%	78.5%	76.8%
Non-LIS/Non-Dual	82.0%	83.3%	83.6%	83.2%

## A comparison of measure rates by Disability as a reason for Medicare entitlement status - Statins

Disability Status	2017 MAPD	2017 PDP	2016 MAPD	2016 PDP
Disability	77.1%	77.7%	75.6%	74.0%
Other	82.2%	82.9%	83.2%	82.5%

In addition to the above results, the CMS 2018 National Impact Assessment Quality Measures Report(1) examined disparities by income and race/ethnicity using 2015 PDP and MA-PD data for Statins, RASA, and Diabetes medications.

Comparison of measure rates by income (income determined using the median household income for the ZIP Code Tabulation Area): Medication adherence rates for low-income beneficiaries were lower than for the high income group for Statins and Diabetes.

## Comparison of measure rates by income group - Diabetes &amp; Statins

Income group	Diabetes - MAPD	Diabetes - PDP	Statins - MAPD	Statins - PDP
High	80.8%	82.7%	78.6%	81.6%
Med-High	79.6%	81.8%	78.0%	80.4%
Med-Low	78.9%	80.9%	76.8%	80.1%
Low	76.7%	79.1%	74.8%	77.1%

Comparison of measure rates by race/ethnicity: For all three therapeutics categories, all groups except Asians had lower rates of adherence than Whites.

## Comparison of measure rates by race/ethnicity - Diabetes

Race/Ethnicity	MAPD	PDP
White	80.2%	82.0%
Black/African American	71.4%	70.0%
Hispanic/Latino	73.0%	70.5%
Asian	79.8%	82.6%
Am Indian/Alaska native	73.1%	71.1%

## Comparison of measure rates by race/ethnicity - RASA

Race/Ethnicity	MAPD	PDP
White	82.0%	83.8%
Black/African American	74.8%	75.7%
Hispanic/Latino	74.9%	74.9%
Asian	81.8%	84.4%
Am Indian/Alaska native	76.8%	73.9%

## Comparison of measure rates by race/ethnicity - Statins

Race/Ethnicity	MAPD	PDP
White	78.5%	80.7%
Black/African American	69.1%	68.9%
Hispanic/Latino	69.9%	70.6%
Asian	77.0%	77.5%
Am Indian/Alaska native	74.3%	72.2%

1. 2018 National Impact Assessment of the Centers for Medicare & Medicaid Services (CMS) Quality Measures Report. Baltimore, MD: US Department of Health and Human Services, Centers for Medicare & Medicaid Services; February 28, 2018. Available at: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures/National-Impact-Assessment-of-the-Centers-for-Medicare-and-Medicaid-Services-CMS-Quality-Measures-Reports.html>

**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**

N/A

## 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):

Cardiovascular : Coronary Artery Disease, Cardiovascular : Hyperlipidemia, Cardiovascular : Hypertension, Endocrine : Diabetes

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

Safety, Safety : Medication

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

**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.)  
<https://www.pqaalliance.org/adherence-measures> Note: We do not have a measure-specific web page; however, this URL provides general information about PQA's PDC measures and additional information can be requested using a link at the bottom of the page.

**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: 2019\_PQA\_ESRD\_ICD\_Codes\_20190221.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.

2019 Spring Cycle - Endorsement Maintenance

- Value Sets (S.2b): Uploaded an updated value set file for the End-Stage Renal Disease exclusion.

- Testing form: Added a recommendation to apply sociodemographic risk adjustment to the PDC 3 Rates for use in the Medicare Part D quality program.

2018 Annual Update:

- Value Sets (S.2b): Created new value sets for the End-Stage Renal Disease exclusion.

- Denominator (S.6, S.7, S.8, S.9):

- Hospice and end-stage renal disease exclusions added to the three PDC measure rates.

- Sacubitril/valsartan exclusion added to the PDC-RASA rate only.

- Stratification (S.10): Added new stratification clarification (Commercial, Medicaid, Medicare (report each product line separately). This is consistent with PQA plan-level measures.

- Calculation Algorithm/Measure Logic (S.14): Updated measure logic to reflect addition of end-stage renal disease and hospice exclusions for the three PDC measure rates.

**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).

The number of individuals who met the PDC threshold of 80 percent during the measurement year.

**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 number of individuals who met the PDC threshold of 80 percent for medications within the specific therapeutic category (see Tables PDC-DR-A through Table PDC-DR-G: Diabetes Medications for the PDC-DR rate; see Table PDC-RASA-A: Renin Angiotensin

System (RAS) Antagonists for the PDC-RASA rate; see Table PCD-STA-A: Statins for the PDC-STA rate) during the measurement year. Follow the steps below for each patient to determine whether the patient meets the PDC threshold.

Step 1: Determine the individual's treatment period, defined as the Index Prescription Start Date to the end of the measurement year, disenrollment, or death.

Step 2: Within the treatment period, count the days the individual was covered by at least one drug in the class based on the prescription fill date and days of supply. If prescriptions for the same target drug (generic ingredient) overlap, then adjust the prescription start date to be the day after the previous fill has ended.\*

Step 3: Divide the number of covered days found in Step 2 by the number of days found in Step 1. Multiply this number by 100 to obtain the PDC (as a percentage) for each individual.

Step 4: Count the number of individuals who had a PDC of 80% or greater. This is the numerator.

\*Adjustment of overlap should also occur when there is overlap of a single drug product to a combination product containing the single drug or when there is an overlap of a combination product to another combination product where at least one of the target drugs is common.

Table PDC-DR-A through Table PDC-DR-G: Diabetes Medications

metformin (+/- alogliptin, canagliflozin, dapagliflozin, empagliflozin, ertugliflozin, glipizide, glyburide, linagliptin, pioglitazone, repaglinide, rosiglitazone, saxagliptin, sitagliptin)

chlorpropamide

glimepiride (+/- pioglitazone)

glipizide (+/- metformin)

glyburide (+/- metformin)

tolazamide

tolbutamide

pioglitazone (+/- alogliptin, glimepiride, metformin)

rosiglitazone (+/- metformin)

alogliptin (+/- metformin, pioglitazone)

linagliptin (+/- empagliflozin, metformin)

saxagliptin (+/- metformin, dapagliflozin)

sitagliptin (+/- metformin, ertugliflozin)

albiglutide

dulaglutide

exenatide

liraglutide

lixisenatide

semaglutide

nateglinide

repaglinide (+/- metformin)

canagliflozin (+/- metformin)

dapagliflozin (+/- metformin, saxagliptin)

empagliflozin (+/- metformin, linagliptin)

ertugliflozin (+/- sitagliptin, metformin)

NOTE: Active ingredients are limited to oral formulations only. Excludes nutritional supplement/dietary management combination products.

Table PDC-RASA-A: Renin Angiotensin System (RAS) Antagonists

aliskiren (+/- hydrochlorothiazide)

azilsartan (+/- chlorthalidone)

candesartan (+/- hydrochlorothiazide)

eprosartan (+/- hydrochlorothiazide)

irbesartan (+/- hydrochlorothiazide)

losartan (+/- hydrochlorothiazide)  
olmesartan (+/- amlodipine, hydrochlorothiazide)  
telmisartan (+/- amlodipine, hydrochlorothiazide)  
valsartan (+/- amlodipine, hydrochlorothiazide, nebivolol)  
benazepril (+/- amlodipine, hydrochlorothiazide)  
captopril (+/- hydrochlorothiazide)  
enalapril (+/- hydrochlorothiazide)  
fosinopril (+/- hydrochlorothiazide)  
lisinopril (+/- hydrochlorothiazide)  
moexipril (+/- hydrochlorothiazide)  
perindopril (+/- amlodipine)  
quinapril (+/- hydrochlorothiazide)  
ramipril  
trandolapril (+/- verapamil)

NOTE: Active ingredients are limited to oral formulations only. Excludes nutritional supplement/dietary management combination products.

Table PCD-STA-A: Statins

atorvastatin (+/- amlodipine, ezetimibe)  
fluvastatin  
lovastatin (+/- niacin)  
pitavastatin  
pravastatin  
rosuvastatin  
simvastatin (+/-ezetimibe, niacin)

NOTE: Active ingredients are limited to oral formulations only. Excludes nutritional supplement/dietary management combination products.

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

Individuals age 18 years and older as of the first day of the measurement year, with at least two prescription claims for medication(s) within a specific therapeutic category (Diabetes; RASA; Statins) on different dates of service during the treatment period and are continuously enrolled during the treatment period, which begins on the index prescription start date (IPSD) and extends through whichever comes first: the last day of the measurement year, death or disenrollment. The IPSD should occur at least 91 days before the end of the enrollment period.

Note: The IPSD is the earliest date of service for a target medication during the measurement year

Exclusions for the Diabetes rate:

- Individuals with one or more prescription claims for insulin during the treatment period (See Medication Table PDC-H: Insulin Exclusion)
- Individuals in hospice or with End-Stage Renal Disease

Exclusions for the RASA rate:

- Individuals with one or more prescription claims for the medication, sacubitril/valsartan during the treatment period (See Medication Table PDC-RASA-B: Sacubitril/Valsartan Exclusion)
- Individuals in hospice or with End-Stage Renal Disease

Exclusions for the Statins rate:

- Individuals in hospice or with End-Stage Renal Disease

**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).*

Individuals age 18 years and older as of the first day of the measurement year, with at least two prescription claims for medication(s) within a specific therapeutic category (see Tables PDC-DR-A through Table PDC-DR-G: Diabetes Medications for the PDC-DR rate; see Table PDC-RASA-A: Renin Angiotensin System (RAS) Antagonists for the PDC-RASA rate; see Table PCD-STA-A: Statins for the PDC-STA rate) on different dates of service during the treatment period and are continuously enrolled during the treatment period, which begins on the index prescription start date (IPSD) and extends through whichever comes first: the last day of the measurement year, death or disenrollment. The IPSD should occur at least 91 days before the end of the enrollment period.

Exclusions for the Diabetes rate:

- Individuals with one or more prescription claims for insulin during the treatment period (See Medication Table PDC-H: Insulin Exclusion)
- Individuals in hospice or with End-Stage Renal Disease

Exclusions for the RASA rate:

- Individuals with one or more prescription claims for the medication, sacubitril/valsartan during the treatment period (See Medication Table PDC-RASA-B: Sacubitril/Valsartan Exclusion)
- Individuals in hospice or with End-Stage Renal Disease

Exclusions for the Statins rate:

- Individuals in hospice or with End-Stage Renal Disease

Table PDC-DR-A through Table PDC-DR-G: Diabetes Medications

metformin (+/- alogliptin, canagliflozin, dapagliflozin, empagliflozin, ertugliflozin, glipizide, glyburide, linagliptin, pioglitazone, repaglinide, rosiglitazone, saxagliptin, sitagliptin)

chlorpropamide

glimepiride (+/- pioglitazone)

glipizide (+/- metformin)

glyburide (+/- metformin)

tolazamide

tolbutamide

pioglitazone (+/- alogliptin, glimepiride, metformin)

rosiglitazone (+/- metformin)

alogliptin (+/- metformin, pioglitazone)

linagliptin (+/- empagliflozin, metformin)

saxagliptin (+/- metformin, dapagliflozin)

sitagliptin (+/- metformin, ertugliflozin)

albiglutide

dulaglutide

exenatide

liraglutide

lixisenatide

semaglutide

nateglinide

repaglinide (+/- metformin)

canagliflozin (+/- metformin)

dapagliflozin (+/- metformin, saxagliptin)

empagliflozin (+/- metformin, linagliptin)

ertugliflozin (+/- sitagliptin, metformin)

NOTE: Active ingredients are limited to oral formulations only. Excludes nutritional supplement/dietary management combination products.

Table PDC-RASA-A: Renin Angiotensin System (RAS) Antagonists

aliskiren (+/- hydrochlorothiazide)

azilsartan (+/- chlorthalidone)

candesartan (+/- hydrochlorothiazide)

eprosartan (+/- hydrochlorothiazide)

irbesartan (+/- hydrochlorothiazide)  
losartan (+/- hydrochlorothiazide)  
olmesartan (+/- amlodipine, hydrochlorothiazide)  
telmisartan (+/- amlodipine, hydrochlorothiazide)  
valsartan (+/- amlodipine, hydrochlorothiazide, nebivolol)  
benazepril (+/- amlodipine, hydrochlorothiazide)  
captopril (+/- hydrochlorothiazide)  
enalapril (+/- hydrochlorothiazide)  
fosinopril (+/- hydrochlorothiazide)  
lisinopril (+/- hydrochlorothiazide)  
moexipril (+/- hydrochlorothiazide)  
perindopril (+/- amlodipine)  
quinapril (+/- hydrochlorothiazide)  
ramipril

trandolapril (+/- verapamil)

NOTE: Active ingredients are limited to oral formulations only. Excludes nutritional supplement/dietary management combination products.

Table PCD-STA-A: Statins

atorvastatin (+/- amlodipine)  
fluvastatin  
lovastatin (+/- niacin)  
pitavastatin  
pravastatin  
rosuvastatin

simvastatin (+/-ezetimibe, niacin)

NOTE: Active ingredients are limited to oral formulations only. Excludes nutritional supplement/dietary management combination products.

**S.8. Denominator Exclusions** *(Brief narrative description of exclusions from the target population)*

Exclusions for the Diabetes rate:

- Individuals with one or more prescription claims for insulin during the treatment period (See Medication Table PDC-H: Insulin Exclusion)
- Individuals in hospice or with end-stage renal disease during the measurement year

Exclusions for the RASA rate:

- Individuals with one or more prescription claims for the medication, sacubitril/valsartan during the treatment period (See Medication Table PDC-RASA-B: Sacubitril/Valsartan Exclusion)
- Individuals in hospice or with End-Stage Renal Disease

Exclusions for the Statins rate:

- Individuals in hospice or with End-Stage Renal Disease

**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.)*

Exclusions for the Diabetes rate:

- Individuals with one or more prescription claims for insulin during the treatment period (See Medication Table PDC-H: Insulin Exclusion)
- Individuals in hospice or with end-stage renal disease during the measurement year

Exclusions for the RASA rate:

- Individuals with one or more prescription claims for the medication, sacubitril/valsartan during the treatment period (See Medication Table PDC-RASA-B: Sacubitril/Valsartan Exclusion)
- Individuals in hospice or with end-stage renal disease during the measurement year



Exclusions for the Statins rate:

- Individuals in hospice or with end-stage renal disease during the measurement year

Hospice exclusion: Applies to PDC-DR, PDC-RASA, and PDC-STA

Individuals in hospice care at any time during the measurement year, identified with a hospice indicator from the enrollment database, where available (e.g., Medicare) or place of service code 34 where a hospice indicator is not available (e.g., Commercial, Medicaid).

End-Stage Renal Disease (ESRD) exclusion: Applies to PDC-DR, PDC-RASA, and PDC-STA

Individuals with an ESRD diagnosis at any time during the measurement year.

- See PQA ICD Value Set, ESRD Exclusion (file name, 2019\_PQA\_ESRD\_ICD\_Codes\_20190221.xlsx attached in S.2b.)

- An ESRD diagnosis is defined as having at least one claim with any of the listed ESRD diagnoses, including primary diagnosis or any other diagnosis fields during the measurement year.

- Medicare Data (if ICD codes not available): RxHCC 261 - Dialysis Status for Payment Years 2017 or 2018.

Insulin exclusion: Applies to PDC-DR

Individuals with one or more prescription claims for insulin during the treatment period (See Medication Table PDC-H: Insulin Exclusion)

Table PDC-H: Insulin Exclusion

insulin aspart (+/-insulin aspart protamine)

insulin degludec (+/- liraglutide)

insulin detemir

insulin glargine (+/- lixisenatide)

insulin glulisine

insulin isophane (+/- regular insulin)

insulin lispro (+/- insulin lispro protamine)

insulin regular (including inhalation powder)

Note: Active ingredients are limited to inhaled and injectable formulations only.

Sacubitril/valsartan exclusion: Applies to PDC-RASA

Individuals with one or more prescription claims for the medication, sacubitril/valsartan during the treatment period (See Medication Table PDC-RASA-B: Sacubitril/Valsartan Exclusion).

Table PDC-RASA-B: Sacubitril/Valsartan Exclusion

sacubitril/valsartan

**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.)

Commercial, Medicaid, Medicare (report each product line separately).

For Medicare, rates should be stratified by the following to allow health plans to identify disparities and understand how their patient population mix is affecting their risk-adjusted measure rates:

-Age (18-54; 55-64; 65-69; 70-74; 75-79; 80+)

-Gender (Male; Female)

-LIS/Dual Status (LIS and/or Dual eligible; Non-LIS/non-dual)

-Disability status (Disability as reason for Medicare entitlement; Other)

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

Statistical risk model

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.)

For EACH PDC rate, identify the Denominator:

Step 1: Identify the eligible population, which includes individuals 18 years and older as of the first day of the measurement year who are continuously enrolled during the treatment period. Exclude patients who dis-enroll and re-enroll in the same plan more than one day later (i.e., >1 day gap in enrollment) after a valid treatment period, but prior to the end of the measurement year.

Step 2: Identify those individuals in Step 1 that have two or more prescription claims for the target class of medication (either Diabetes medication; or RAS Antagonist; or Statin)

Step 3: Exclude any individual in hospice or with end-stage renal disease.

Step 3a: For the PDC-DR rate: Also exclude any individual with one or more prescription claims for insulin during the treatment period.

Step 3b: For the PDC-RASA rate: Also exclude any individual with one or more prescription claims for the medication sacubitril/valsartan during the treatment period.

For EACH PDC rate, calculate the Numerator:

Step 1: Determine the individual's treatment period, defined as the Index Prescription Start Date to the end of the measurement year, disenrollment or death.

Step 2: Within the treatment period, count the days the individual was covered by at least one drug in the class (Diabetes; RASA; Statins) based on the prescription fill date and days of supply. If prescriptions for the same target drug (generic ingredient) overlap, then adjust the prescription start date to be the day after the previous fill has ended.\*

Step 3: Divide the number of covered days found in Step 2 by the number of days found in Step 1. Multiply this number by 100 to obtain the PDC (as a percentage) for each individual.

Step 4: Count the number of individuals who had a PDC of 80% or greater for medications within the specific therapeutic category.

\*Adjustment of overlap should also occur when there is overlap of a single drug product to a combination product containing the single drug or when there is an overlap of a combination product to another combination product where at least one of the target drugs is common.

Measure Rate:

Report a rate for each of the following:

- Diabetes All Class (PDC-DR)
- Renin Angiotensin System Antagonists (PDC-RASA)
- Statins (PDC-STA)

Divide each numerator by the corresponding denominator and multiply by 100 to calculate each rate as a percentage.

Risk Adjustment (for Medicare- calculated separately for each therapeutic category)

-identify and categorize the variables for risk adjustment:

- Age (18-54; 55-64; 65-69; 70-74; 75-79; 80+)
- Gender (Male; Female)
- LIS/Dual Status (LIS and/or Dual eligible; Non-LIS/non-dual)
- Disability status (Disability as reason for Medicare entitlement; Other)

-Using a random-effects multivariable logistic regression model controlling for the plan-contract (generalized linear mixed model), the patient predicted probability of adherence is calculated after adjusting for the covariates identified above

-for each plan-contract, the expected measure rate is calculated as the average of the patient predicted probability of adherence based on the multivariable logistic regression model

-The risk-adjusted measure rate for each plan-contract is calculated as the ratio of the unadjusted measure scores to the expected score, multiplied by the aggregate unadjusted score for all Part D contracts.

**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.

N/A

**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.

N/A

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

If other, please describe in S.18.

Claims, Enrollment Data

**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.

Administrative claims (i.e., prescription claims), ICD codes, prescription drug hierarchical condition categories (RxHCC), enrollment data

**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)

Health Plan

**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.)

N/A

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

PQA\_0541\_testing\_attachment\_7.1\_040819\_FV.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.*

Yes

## 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.*

Yes - Updated information is included

## 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.

Other

If other: [Prescription claims and enrollment data](#)

### 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).

N/A

**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.

Prescription claims data is required for payment to health plans, so there is no extra burden or cost in the collection of the data. There have been no feasibility issues with the use of this measure.

**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).**

PQA develops and maintains numerous performance measures related to the medication use system. The measures are the proprietary property of PQA, and it is in the interest of PQA to protect and promote the appropriate use of the measures. PQA may approve an organization's use of the measures; however, no organization may use the measures without first obtaining permission from PQA prior to using the measures. Certain uses of the measures are only approved with a licensing agreement from PQA that specifies the terms of use and the licensing fee. PQA reserves the right to determine the conditions under which it will approve and/or license the measures.

Licenses are granted on a year-to-year basis. Licensees using PQA measures for commercial purposes are required to pay a fee. The licensing fee may be structured as a fixed annual amount or as a variable amount that is dependent on the volume of utilization of the measures.

## 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

#### Public Reporting

1. Name and sponsor: Centers for Medicare & Medicaid Services (CMS) Part C and Part D quality and performance measurement system (Star Ratings)

- Purpose: The Centers for Medicare & Medicaid Services (CMS) publishes the Star Ratings each year to assist beneficiaries in finding the best plan for them. The PDC measure (3 rates) is included in the Star Ratings. A plan can get a rating between 1 and 5 stars. A plan can get a rating between 1 and 5 stars, with 5 being the highest and 1 being the lowest rating. The purpose of this program is that the ratings will help consumers compare plans based on quality and performance.

- Geographic area, etc.: The Star Ratings program is national in scope. For the 2019 Stars Ratings, reflecting the 2017 measurement year, 471 plan contracts—including 417 MA-PDs and 54 PDPs—representing nearly 40 million beneficiaries were scored on the PDC 3 Rates measure.

#### Payment

1. Name and sponsor: Centers for Medicare & Medicaid Services (CMS) Part C and Part D quality and performance measurement system (Star Ratings)

- Purpose: The Centers for Medicare & Medicaid Services (CMS) publishes the Star Ratings each year to determine Medicare Advantage Quality Bonus Payments. The purpose of the Medicare Star Ratings program is to tie federal reimbursement to performance of Medicare Advantage plans. Bonus payments are made to Medicare Advantage plans based on ratings from performance and quality measures. Prescription Drug Plans (PDPs) have marketing advantages based on their Star Ratings.
- Geographic area, etc.: The Star Ratings program is national in scope. For the 2019 Star Ratings, reflecting the 2017 measurement year, 471 plan contracts—including 417 MA-PDs and 54 PDPs—representing nearly 40 million beneficiaries were scored on the PDC 3 Rates measure.

Quality Improvement (external benchmarking):

1. CMS Part C and Part D quality and performance measurement system (Star Ratings) (as above)
2. Name and sponsor: Integrated Healthcare Association (IHA)

- Purpose: The IHA is a California multi-stakeholder, non-profit association that promotes quality improvement, accountability and affordability of health care in California. IHA operates the Align. Measure. Perform. program.

- Geographic area, etc.: This program collects data and reports results on behalf of 12 health plans covering approximately 11.8 million members in California.

**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?)**

N/A

**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.)**

N/A

**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.**

PQA's measure development and maintenance is a transparent, consensus-driven process to draft, test, refine, endorse and maintain measures.

During the development phase, PQA selects partners to test its draft measures. For plan-level measures, testing partners often are PQA member health plans (i.e., those that would be measured) with expertise in performance measurement that also have access to the data sources needed to calculate the measure rates. Testing partners implement the technical specifications within their existing data sets and conduct analyses included in the testing plan. During this phase, PQA provides technical assistance to testers, and may refine specifications based on questions received, to further clarify specifications to support ease of future implementation.

Once implemented, PQA provides technical assistance to CMS, CMS contractors, and measure users directly, which may include the following:

- Providing timely responses to questions received;
- Reviewing de-identified data to verify measure rate calculations, as needed; and
- Webinars or other educational offerings as requested.

Additionally, the PDC 3 Rates measure scores are publicly reported through the Medicare Part D Star Ratings program. Through the data provided by CMS, Part D plans (Medicare Advantage [MA-PD] and stand-alone Prescription Drug Plans [PDP]) have visibility to their own performance on the measure as well as how their performance compares to other plans. The reporting is inclusive of all MA-PDs and PDPs, provided they meet the reporting requirements (e.g., meet the minimum denominator size of 30).

**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.**

As stated in 4a2.1.1., CMS provides the measure scores and ratings on the PDC 3 Rates measure through the Medicare Part D Star Ratings program. Plans receive their scores and ratings twice annually:

- End of August/early September: Plan preview period for Part C & D Star Ratings; and
- October: Part C & D Star Ratings go live on medicare.gov.

PQA does not provide data or measure scores; however, as the measure steward, PQA provides technical assistance to support accurate implementation of the measure specifications.

As PQA receives feedback from measure users via a web form or email (measureuse@PQAalliance.org). PQA staff then provide timely (i.e., 24-48 hours) responses to all inquiries by email, telephone or webinar. Frequently asked questions and other recommendations are reviewed by PQA staff and brought to the Measure Update Panel (MUP), which then determines whether refinements or clarifications to the specifications are needed.

Furthermore, CMS shares all comments related to PQA measures included in their quality programs -- including those specific to the PDC 3 Rates measure -- that they receive in response to proposed rules and the Part D draft Call Letter, which are released on an annual basis. Comments then are reviewed by PQA staff and brought to the Measure Update Panel (MUP), which then determines whether refinements or clarifications to the specifications are needed.

Additionally, high performing plans are invited to present during PQA's Annual Meeting and during PQA's Quality Forum webinars, to highlight their quality improvement interventions that have been effective in showing improvement in PQA measures used in the Part D Star Ratings, including the PDC 3 Rates measure.

**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.**

As PQA receives feedback from measure users via a web form or email (measureuse@PQAalliance.org), and also from CMS.

Feedback from measured entities:

Health plans recommended the following changes to the PDC 3 Rates measure:

- Exclude individuals in hospice care from all three measure rates;
- Exclude individuals with end-stage renal disease from all three measure rates;
- Exclude individuals with 1 or more prescription claims for sacubitril/valsartan for the PDC-RASA rate;
- Revise the enrollment criteria to not allow any gaps in enrollment for all three measure rates; and
- Consider sociodemographic (SDS) risk adjustment for all three measure rates.

Feedback from others:

- PQA's Patient and Caregiver Advisory Panel (PCAP) recommended that individuals in hospice care be excluded from all three measure rates.

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

Health plans recommended the following changes to the PDC 3 Rates measure:

- Exclude individuals in hospice care from all three measure rates;
- Exclude individuals with end-stage renal disease from all three measure rates;
- Exclude individuals with 1 or more prescription claims for sacubitril/valsartan for the PDC-RASA rate; and
- Revise the enrollment criteria to not allow any gaps in enrollment for all three measure rates; and
- Consider sociodemographic (SDS) risk adjustment for all three measure rates.

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

PQA's Patient and Caregiver Advisory Panel (PCAP) recommended individuals with end-stage renal disease and those in hospice care be excluded from all three measure rates.

Based on recommendations from NQF to consider performance measures for SDS risk adjustment, as well as recommendations from health plans, PQA convened the risk adjustment advisory panel (RAAP) to determine which PQA measures should be considered for risk adjustment, as well as the risk factors and valid risk adjustment methodology. The RAAP decided, based on



literature review and empirical evidence, that the PDC 3-rates measure was most appropriate for SDS risk adjustment, and as a first step to apply it to the Medicare program, as this is used in a national quality payment program.

**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.**

During measure development:

- Performance measures that are recommended by the QMEP for endorsement consideration by PQA membership are posted on the PQA web site for member review, written comments are requested, and a webinar for member organizations is held to address comments and questions. This process allows stakeholders to discuss their views on the measures in advance of the voting period. PQA member organizations vote on endorsement of performance measures.

For revisions:

- After endorsement, PQA leverages a multi-stakeholder panel, the Measure Update Panel (MUP), to consider feedback for potential measure revisions. As stated in 4a2.1.2, feedback received from measure users is shared with the MUP. Material changes – those that affects the measure result – are also evaluated and approved by PQA’s Quality Metrics Expert Panel (QMEP). This process, which engages diverse stakeholders -- including measured entities, ensures feedback is reviewed and applied based on consensus and evidence.

Based on feedback received on the PDC-3 Rates measure, PQA’s MUP and QMEP considered the following recommendations:

**1. Revise specifications to exclude individuals in hospice care from the PDC-3 Rates measure**

- Both the MUP and QMEP voted in favor of making this change, because adherence to most chronic therapies does not necessarily align with the therapeutic goals and balance of risk and benefits for individuals in hospice care.  
- Additionally, in 2015, the PQA Patient & Caregiver Advisory Panel recommended that hospice should generally be an exclusion for PQA measures unless the measures are directly relevant to, and align with, the therapeutic goals for individuals in hospice care.

**2. Revise specifications to exclude individuals with end-stage renal disease (ESRD) from the PDC 3 Rates measure**

- Both the MUP and QMEP voted in favor of making this change because adherence to diabetes, hypertension, and statin medications may not be accurately reflected in pharmacy claims data due to frequent dosage and medication adjustments. Furthermore, there is a lack of direct evidence that statin treatment is beneficial in dialysis patients.

**3. Revise specifications to exclude individuals with 1 or more prescription claims for sacubitril/valsartan from the PDC-RASA rate only**

- Both the MUP and QMEP voted in favor of making this change to the PDC-RASA rate because this product, although it includes a RASA (i.e., valsartan), is only indicated for treating heart failure (and the RASA rate is intended to evaluate adherence to medications used for treating hypertension).

**4. Revise the enrollment criteria to not allow any gaps in enrollment for the PDC 3 Rates measure**

- PQA convened a Technical Expert Panel (TEP) to review the continuous enrollment criteria. The TEP recommended not allowing any gap in enrollment for the PDC measure because allowing gaps could contribute to false negatives being included in the numerator.  
- The QMEP voted in favor of making this change to the continuous enrollment criteria for the PDC 3 Rates measure.

**5. Consider sociodemographic (SDS) risk adjustment for the PDC 3 Rates measure**

- Based on recommendations from NQF to consider performance measures for SDS risk adjustment, as well as comments received from health plans, PQA convened its risk adjustment advisory panel (RAAP) to determine which PQA measures should be considered for risk adjustment. The RAAP decided, based on literature review and empirical evidence, that the PDC 3 Rates measure was most appropriate for SDS risk adjustment in the Medicare Part D Star Ratings, a national quality payment program.  
- Based on the work of the RAAP, as well as a study conducted in collaboration with CMS, PQA has recommended that the PDC 3-rates measure be SDS risk adjusted.

The five changes listed above, now are reflected in the PDC 3 Rates measure specifications.

**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.**

As stated above, the PDC-3 Rates measure is used by CMS in the Medicare Part D Star Ratings Program to evaluate Medicare prescription drug plans. CMS has reported considerable variation across plans during the last 5 reporting years (2013-2017). This variation demonstrates the performance gap and opportunity for health plans to improve adherence rates for all three rates.

**PDC-Diabetes Rate:**

The mean rate has increased steadily over the last 5 reporting years (2013-2017), indicating overall improvement across plans.

- For MA-PDs, the mean rate improved from 76.8% in 2013 to 81.5% in 2017.
- For PDPs, the mean rate improved from 79.3% in 2013 to 83.4% in 2017.

The standard deviation has decreased modestly over the last 5 reporting years (2013-2017), indicating that the difference in rates between high and low performing plans has narrowed slightly.

- For MA-PDs, the standard deviation decreased from 5.9% in 2013 to 4.6% in 2017.
- For PDPs, the standard deviation decreased from 4.8% in 2013 to 3.6% in 2017.

**PDC-RASA Rate:**

The mean rate has increased steadily over the last 5 reporting years (2013-2017), indicating overall improvement across plans.

- For MA-PDs, the mean rate improved from 78.3% in 2013 to 83.4% in 2017.
- For PDPs, the mean rate improved from 81.1% in 2013 to 85.8% in 2017.

The standard deviation has decreased modestly over the last 5 reporting years (2013-2017), indicating that the difference in rates between high and low performing plans has narrowed slightly.

- For MA-PDs, the standard deviation decreased from 5.5% in 2013 to 4.3% in 2017.
- For PDPs, the standard deviation decreased from 4.5% in 2013 to 3.5% in 2017.

**PDC-Statins Rate:**

The mean rate has increased steadily over the last 5 reporting years (2013-2017), indicating overall improvement across plans.

- For MA-PDs, the mean rate improved from 74.0% in 2013 to 80.2% in 2017.
- For PDPs, the mean rate improved from 76.6% in 2013 to 82.7% in 2017.

The standard deviation has decreased modestly over the last 5 reporting years (2013-2017), indicating that the difference in rates between high and low performing plans has narrowed slightly.

- For MA-PDs, the standard deviation decreased from 7.1% in 2013 to 5.8% in 2017.
- For PDPs, the standard deviation decreased from 5.1% in 2013 to 4.3% in 2017.

The Medicare Part D Star Ratings program is national in scope. For the 2019 Stars Ratings, reflecting the 2017 measurement year, 471 plan contracts—including 417 MA-PDs and 54 PDPs—representing nearly 40 million beneficiaries were scored on the PDC-3 Rates measure.

**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.**

We have not identified any unexpected findings.

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

As stated in the CMS 2018 Impact Assessment Report, patient impact analyses and cost estimates were conducted for the PDC-3 Rates measure for PDPs and MA-PDs (2011–2015). Health care costs avoided based on patient impacts were estimated at \$4.2 billion–\$26.9 billion.

Patient Impact (Increased # of patients adherent to the medication from baseline)

- Statins: 2.8 million
- RASA: 2.5 million
- Diabetes: 520,000

Costs Avoided (Health care costs avoided based on patient impacts)

- Statins: \$1.5 billion–\$3.3 billion
- RASA: \$2.1 billion–\$19.8 billion
- Diabetes: \$659.5 million–\$3.8 billion
- Total: \$4.2 billion–\$26.9 billion

1. 2018 National Impact Assessment of the Centers for Medicare & Medicaid Services (CMS) Quality Measures Report. Baltimore, MD: US Department of Health and Human Services, Centers for Medicare & Medicaid Services; February 28, 2018. Available at: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures/National-Impact-Assessment-of-the-Centers-for-Medicare-and-Medicaid-Services-CMS-Quality-Measures-Reports.html>

## 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)

1879 : Adherence to Antipsychotic Medications for Individuals with Schizophrenia

1880 : Adherence to Mood Stabilizers for Individuals with Bipolar I Disorder

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

N/A

### 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.

Although the measures address adherence using the same methodology (i.e., proportion of days covered [PDC]), they have different areas of focus and different target populations.

### 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.)**

N/A

## 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):** Pharmacy Quality Alliance  
**Co.2 Point of Contact:** Lynn, Pezzullo, lpezzullo@pqaalliance.org, 703-347-7963-  
**Co.3 Measure Developer if different from Measure Steward:** Pharmacy Quality Alliance  
**Co.4 Point of Contact:** Lynn, Pezzullo, lpezzullo@pqaalliance.org, 703-347-7963-

## 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.**

PQA is a consensus-based membership organization. PQA members represent a diverse group of stakeholders with expertise in clinical, quality improvement, measure development, administrative claims and other types of data. This performance measure was developed by the PQA membership in 2008.

PQA's Measure Update Panel (MUP) reviews PQA-endorsed measures regularly. The MUP's charge is to:

- evaluate PQA-endorsed measures to identify the need for updates to reflect current evidence, guidelines and standards;
- identify new medications that have entered the marketplace and medications that have been discontinued, which impact NDC lists and therefore a change to the measure specifications; and
- update and revise PQA endorsed measures to improve clarity, consistency, and harmonization, when appropriate, with other measures.

Members of the MUP that completed the most recent review of this measure, along with the organization each represents, include:

Amber Baybayan, OutcomesMTM  
 Chris Beets, Cigna-Healthspring  
 Kristen Borowski, Bristol Myers Squibb  
 Holly Budlong, Fairview  
 Vanessa Campbell, UPMC  
 Pauline Chan, California Department of Health Care Services  
 Chris Chan, Inland Empire Health Plan  
 Rebecca Chater, Omnicell  
 Sheena Cherian, PerformRx  
 Mark Conklin, Pharmacy Quality Solutions  
 Laurin Dixon, Humana  
 Jeff Durthaler, Centers for Disease Control  
 Elizabeth Gozdzia, Aetna  
 Anna Hall, Enhanced Medication Services  
 Bethany Holderread, University of Oklahoma

Anna Legreid Dopp American Society of Health-System Pharmacists  
 Kevin Leung, Anthem  
 Robert Lipsy, MMC University of AZ  
 Marsha Moore, CVS Health  
 Madeline Ritchie, Academy of Managed Care Pharmacy  
 Victoria Romo-LeTourneau, Sanofi  
 Maria Scarlatos, Merck  
 Kathleen Shoemaker, Premier  
 Nancy Tan, Astellas  
 Eleni Theodoropoulos, URAC  
 Tony Trahan, New York State Office of Mental Health  
 Iris Young, Kaiser Permanente

The MUP's recommendations then are reviewed by PQA's Quality Metrics Expert Panel (QMEP). The QMEP members that considered and approved revisions to this measure, along with the organization each represents, include:

Ben Banahan, University of MS  
 Amanda Brummel, Fairview  
 Steven Burch, Sunovion  
 Lynn Deguzman, Kaiser Permanente  
 Jessica Frank, OutcomesMTM  
 Shellie Keast, University of OK  
 Alice Lee Martin, CMS  
 Jenny Lo Ciganic, University of Florida  
 Tripp Logan, MedHere Today  
 Jeff Pohler, Enhanced Medication Services  
 Christopher Powers, Healthspring  
 Dan Rehrauer, HealthPartners  
 Steve Riddle, Wolters Kluwer Health  
 Craig Schilling, AstraZeneca  
 David Stauffer, Walgreens  
 Stephanie Taylor, Anthem  
 Christi Teigland, Inovalon  
 Jennifer Van Meter, Novartis  
 Jenny Weber, Humana

Keith Widmer, Express ScriptsPQA is a consensus-based membership organization. PQA members represent a diverse group of stakeholders with different expertise in clinical, quality improvement and prescription drug data. This performance measure was developed by PQA membership and tested in 2008.

The Measure Update Committee reviews PQA endorsed measures annually. The Committee's role is to evaluate the measure in light of any new evidence or medications and to address any questions posed to PQA regarding the measure within the past year. The Measure Update Committee reviewed this measure in 2013. Members of that Committee and the organization that they represent include:

Alice Lee-Martin	CMS
Amber Baybayan	OutcomesMTM
Annet Arakelian	Am. Society of Health-System Pharmacists (ASHP)
Brandy Stiles	United American Insurance Company
Cameron James	HealthSpring
Crystal Chang	SCAN Health Plan
David Mostellar	Wellcare
Deb Devereaux	Gorman Health Group
Deirdre Smith	Catalina Health Resource
Greg Moore	Express Scripts, Inc.
Hany Abdelaal	VNSNY CHOICE Plan
Iris Morant	PharmPix
Jeff Bulp	First DataBank

Jeff Pohler	UnitedHealth Group
Jenny Weber	Humana
Joel Montavon	Catamaran
Joseph Gruber	ActualMeds Corporation
Karen Stockl	UnitedHealth Group
Kevin Leung	Amerigroup
Kevin Masci	Target
Kinya Ono	Applied Research Works
Kristian Marquez	Inovalon, Inc.
Kristin Garnett	CVS/Caremark
Lorraine Fletcher	Catamaran
Maria Osborne	American Pharmacists Association (APhA)
Meghan Kelly	Medication Management Systems
Michelle Juhanson	PerformRx
Mike Gaisbauer	United American Insurance Company
Mitzi Wasik	Coventry Health Care
Pat daCosta	RelayHealth
Patrick Gleason	Prime Therapeutics
Paul Miner	Gilead Sciences
Peter Mikhail	Academy of Managed Care Pharmacy
Rick Mohall	Rite Aid
Rose Mulligan	PerformRx
Shannon Harrison	Highmark
Shekar Mehta	Am Society of Health-System Pharmacists
Steven Friedman	PDX, Inc.
Sue Vansomphone	Kaiser Permanente
Tim Weippert	National Association of Chain Drug Stores
Tori Erxleben	PharmMD
Trina Clark	GlaxoSmithKline

**Measure Developer/Steward Updates and Ongoing Maintenance****Ad.2 Year the measure was first released:** 2009**Ad.3 Month and Year of most recent revision:** 09, 2018**Ad.4 What is your frequency for review/update of this measure?** Annually**Ad.5 When is the next scheduled review/update for this measure?** 08, 2019

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**Ad.7 Disclaimers:****Ad.8 Additional Information/Comments:**