



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 #: 0086e

Corresponding Measures: 0086

De.2. Measure Title: Primary Open-Angle Glaucoma (POAG): Optic Nerve Evaluation

Co.1.1. Measure Steward: PCPI Foundation

De.3. Brief Description of Measure: Percentage of patients aged 18 years and older with a diagnosis of primary open-angle glaucoma (POAG) who have an optic nerve head evaluation during one or more office visits within 12 months

1b.1. Developer Rationale: Glaucoma is a group of diseases that damage the eye's optic nerve and can result in vision loss and blindness. In 2011, 2.71 million persons in the U.S. had primary open-angle glaucoma (POAG) and in 2050, an estimated 7.32 million persons will have POAG (1). Furthermore, a 2006 study estimated that the total financial burden of major visual disorders among U.S. residents aged 40 years or older was \$35.4 billion in 2004: \$16.2 billion in direct medical costs, \$11.1 billion in other direct costs, and \$8 billion in productivity losses. Of the direct medical costs, approximately \$2.9 billion was attributable to glaucoma (2). It is imperative that evidence-based care be delivered to all glaucoma patients.

According to the most recent guidelines, changes in the optic nerve are one of two characteristics which currently define progression and thus worsening of glaucoma disease status (the other characteristic is visual field). Examination of the optic nerve head (ONH) and retinal nerve fiber layer (RNFL) provides valuable structural information about glaucomatous optic nerve damage. Visible structural alterations of the ONH or RNFL and development of parapapillary choroidal atrophy in early glaucoma may precede the onset of visual field defects. Careful study of the optic disc neural rim for small hemorrhages is important because these hemorrhages sometimes herald focal disc damage and visual field loss, and they may signify ongoing optic nerve damage in patients with glaucoma (3). Despite evidence emphasizing the value of an optic nerve evaluation, there is a gap in documentation patterns of the optic nerve for both initial and follow-up care.

This measure is intended to promote examination and documentation of the structure and function of the optic nerve, and to monitor and detect disease progression among POAG patients. This measure should lead to the desired health outcome of preservation of one's visual function and ultimately the maintenance of quality of life for the patient.

1. Vajaranant, T. S., Wu, S., Torres, M., & Varma, R. (2012). The Changing Face of Primary Open-Angle Glaucoma in the United States: Demographic and Geographic Changes From 2011 to 2050. *American Journal of Ophthalmology*, 154(2). doi:10.1016/j.ajo.2012.02.024

2. Rein, D. B., Zhang, P., & Wirth, K. (2006). The Economic Burden of Major Adult Visual Disorders in the United States. *Archives of Ophthalmology*, 124(12), 1754-1760. doi:10.1001/archophth.124.12.1754

3. Prum, B. E., Rosenberg, L. F., Gedde, S. J., Mansberger, S. L., Stein, J. D., Moroi, S. E., . . . Williams, R. D. (2015). Primary Open-Angle Glaucoma Preferred Practice Pattern® Guidelines. *Ophthalmology*, 123(1). doi:10.1016/j.opththa.2015.10.053

S.4. Numerator Statement: Patients who have an optic nerve head evaluation during one or more office visits within 12 months

S.6. Denominator Statement: All patients aged 18 years and older with a diagnosis of primary open-angle glaucoma

S.8. Denominator Exclusions: Denominator Exceptions:

Documentation of medical reason(s) for not performing an optic nerve head evaluation

De.1. Measure Type: Process

S.17. Data Source: Electronic Health Records

S.20. Level of Analysis: Clinician : Group/Practice, Clinician : Individual

IF Endorsement Maintenance – Original Endorsement Date: [Nov 04, 2015](#) Most Recent Endorsement Date: [Nov 04, 2015](#)

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?

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

[2019_POAG_0086e_NQF_evidence_attachment_v7.1_FINAL-636911081626651784.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.

No

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.

Glaucoma is a group of diseases that damage the eye's optic nerve and can result in vision loss and blindness. In 2011, 2.71 million persons in the U.S. had primary open-angle glaucoma (POAG) and in 2050, an estimated 7.32 million persons will have POAG (1). Furthermore, a 2006 study estimated that the total financial burden of major visual disorders among U.S. residents aged 40 years or older was \$35.4 billion in 2004: \$16.2 billion in direct medical costs, \$11.1 billion in other direct costs, and \$8 billion in productivity losses. Of the direct medical costs, approximately \$2.9 billion was attributable to glaucoma (2). It is imperative that evidence-based care be delivered to all glaucoma patients.

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2. Rein, D. B., Zhang, P., & Wirth, K. (2006). The Economic Burden of Major Adult Visual Disorders in the United States. *Archives of*

Ophthalmology, 124(12), 1754-1760. doi:10.1001/archophth.124.12.1754

3. Prum, B. E., Rosenberg, L. F., Gedde, S. J., Mansberger, S. L., Stein, J. D., Moroi, S. E., . . . Williams, R. D. (2015). Primary Open-Angle Glaucoma Preferred Practice Pattern® Guidelines. Ophthalmology, 123(1). doi:10.1016/j.ophtha.2015.10.053

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.*

2012 PQRS Experience Report

2012 is the most recent year for which PQRS Experience Report measure data is available. The average performance rates on Primary Open-Angle Glaucoma (POAG): Optic Nerve Evaluation, over the last several years are as follows:

2009: 95.9%

2010: 95.2%

2011: 95.5%

2012: 95.4%

It is important to note that PQRS was a voluntary reporting program, with approximately 36% of eligible professionals participating using any reporting option in 2012, and performance rates may not be nationally representative.

Center for Medicare and Medicaid Services. 2012 Reporting Experience Including Trends. Available:

[http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/index.html?redirect=/PQRS/2012 PQRS Experience Report](http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/index.html?redirect=/PQRS/2012%20PQRS%20Experience%20Report)

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Center for Medicare and Medicaid Services. 2012 Reporting Experience Including Trends. Available:

[http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/index.html?redirect=/PQRS/POAG 0086e: EHR](http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/index.html?redirect=/PQRS/POAG%200086e%20EHR)

2016 EHR data from the PQRS program was provided to the PCPI by CMS for the purposes of testing the measure.

The data are analyzed for the time period January 2016 through December 2016 and include 2,061,607 quality events. The mean performance rate is 0.87, the standard deviation is 0.18, the minimum is 0.002, the maximum is 1.00, and the interquartile range is 0.15 (0.99 – 0.84). Performance Scores by Decile: (1st,0.67; 2nd,0.81; 3rd,0.87; 4th,0.90; 5th,0.94; 6th, 0.96; 7th,0.98; 8th,0.99; 9th,1.00; 10th,1.00)

Historical PQRS data from the PQRS Experience Report does not differentiate between EHR, Claims, and Registry average performance rates. Performance scores over time are for 2013: 0.95, 2014: 0.94, 2015: 0.91.

CMS published the following data in its 2017 Quality Payment Program Experience Report (1) and 2016 PQRS Reporting Experience Report (2), for Primary Open-Angle Glaucoma (POAG): Optic Nerve Evaluation. Experience report data does not differentiate among EHR, Registry, and Claims average performance rates. It is important to note that PQRS was a voluntary reporting program which is reflected in the reporting rate among those eligible to report on this measure. In some cases, the reporting rate was as low as 37% for this measure. We also know that participation in the program overall was suboptimal, with 72% of eligible professionals using any method to participate in PQRS, in 2016. The performance scores listed below are not consistently derived from a nationally representative sample.

Year / Modality / Average Performance Rate

2017 QPP 90.17%

2016 PQRS 91.6%

2015	PQRS	91%
2014	PQRS	94%
2013	PQRS	95.4%

Year / Modality / Reporting Rate (percentage of those eligible to report on measure)

2017	QPP	85.06%
2016	PQRS	36.9%
2015	PQRS	43.7%
2014	PQRS	44.5%
2013	PQRS	38.1%

(1) 2017 Quality Payment Program Reporting Experience. Available at: <https://qpp-cm-prod-content.s3.amazonaws.com/uploads/492/2017%20QPP%20Experience%20Report%20Appendix.zip>.

(2) 2016 Reporting Experience Including Trends (2007-2016), Physician Quality Reporting System. Available at: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/Downloads/2016-Appendix.xlsx>.

We also received average performance rates from the American Optometric Association (AOA) Measures and Outcomes Registry for Eyecare (MORE) Registry/QCDR, for this measure:

Year/Modality/Average Performance Rate

2018	QCDR	75%
2017	QCDR	53%

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.

In an analysis of a physician-led, team-based care model for treating glaucoma, records of 591 patients with newly diagnosed glaucoma were assessed retrospectively, amongst two three-year periods, for the completion of 9 American Academy of Ophthalmology (AAO) Preferred Practice Pattern (PPP) recommended metrics. The primary outcome was the percent of patients with completion of each examination component. The study looked at testing completed within three visits of initial glaucoma diagnosis at Mayo Clinic Health System and found that ophthalmologists had poor adherence to measuring the cup to disk ratio at 79.6% from 2005 to 2007 and 83.6% in 2008-2010. (1)

In a sample of 300 charts (3650 visits) which included optic disc examination results by clinical, photographic, and imaging techniques, physicians varied dramatically in their adherence to the American Academy of Ophthalmology Preferred Practice Pattern on open-angle glaucoma, performing disc evaluations and imaging on 90 percent of open-angle glaucoma patients. The study also cited that the annualized rate for recording the cup-to-disc status was once yearly or more in 66% of patients. The study concluded that physician adherence to practice guidelines varied substantially, and therefore scoring systems for physician behavior have promise in measuring outcome improvements related to better care. (2)

(1) Winkler, N., Damento, G., Khanna, S., Hodge, D. and Khanna, C. (2017). Analysis of a Physician-led, Team-based Care Model for the Treatment of Glaucoma. *Journal of Glaucoma*, 26(8), pp.702-707.

(2) Quigley, H. A., Friedman, D. S., & Hahn, S. R. (2007). Evaluation of Practice Patterns for the Care of Open-angle Glaucoma Compared with Claims Data. *Ophthalmology*, 114(9), 1599-1606. doi:10.1016/j.ophtha.2007.03.042

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.

While this measure is included in a federal reporting program, the program does not provide disparities data to analyze and report. In Section 1b.5 below, we provide disparities data reported in the literature.

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

A retrospective longitudinal cohort study looked at 21,766 adults with newly diagnosed open-angle glaucoma (OAG) between 2007-2011 and enrolled in either Medicaid or a large U.S. managed care network. The study concluded that Medicaid beneficiaries with OAG received substantially less glaucoma testing compared to those who had commercial health insurance. Specifically, the proportions of beneficiaries with commercial health insurance, with newly diagnosed OAG, who underwent visual field testing, fundus photography, or other ocular imaging were 63%, 22%, and 54% respectively. On the other hand, the proportions of Medicaid beneficiaries to receive those same tests to monitor OAG were 35%, 19%, and 30% respectively. Compared to those with commercial health insurance, Medicaid recipients were 234% more likely to not receive any glaucoma testing in the 15 months following initial diagnosis (OR=3.34, CI:3.07-3.63). (1) At the same time, Black Americans age 40 and older are at the highest risk of developing open-angle glaucoma, compared with people of other races (2) and comprise 21% of the Medicaid population (3), indicating racial disparities amongst those who receive glaucoma testing following initial diagnosis.

A case-control study of individuals with glaucoma or suspected glaucoma, at a county hospital, found racial disparities among those who adhered to consistent clinician follow-up visits. Of the “cases” (defined in the study as inconsistent follow-up), 27.6%, 40.8%, and 7.9% were Black, Latino, and White, respectively. (4)

A retrospective cohort study of glaucoma patients and individuals who had cupping of the optic disc, who were enrolled at a large managed care organization, found that women were 24% less likely to undergo treatment than men (odds ratio, 0.76; 95% confidence interval, 0.71-0.80). Note that the logistic regression model adjusted for glaucoma status, age, region, clinician seen at initial visit, and index date. (5)

(1) Elam, A. R., Andrews, C., Musch, D. C., Lee, P. P., & Stein, J. D. (2017). Large Disparities in Receipt of Glaucoma Care between Enrollees in Medicaid and Those with Commercial Health Insurance. *Ophthalmology*, 124(10), 1442-1448.

doi:10.1016/j.ophtha.2017.05.003.

(2) NIH National Eye Institute. Glaucoma, Open-angle. (2010). Retrieved from <https://nei.nih.gov/eyedata/glaucoma>.

(3) Kaiser Family Foundation. Medicaid Enrollment by Race/Ethnicity. (2017, December 12). Retrieved from <https://www.kff.org/state-category/medicaid-chip/medicaid-beneficiaries/>.

(4) Murakami Y, Lee BW, Duncan M, et al. (2011). Racial and Ethnic Disparities in Adherence to Glaucoma Follow-up Visits in a County Hospital Population. *Arch Ophthalmol*, 129(7), 872–878. doi:10.1001/archophthalmol.2011.163.

(5) Friedman, D. S., Nordstrom, B., Mozaffari, E., & Quigley, H. A. (2005). Variations in Treatment among Adult-Onset Open-Angle Glaucoma Patients. *Ophthalmology*, 112(9), 1494-1499. doi:10.1016/j.ophtha.2005.02.010.

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):

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.)

The measure specifications are attached to this submission. Additional measure details may be found at: eCQI Resource Center <https://ecqi.healthit.gov/eligible-professional-eligible-clinician-ecqms>. Value set details at VSAC: <https://vsac.nlm.nih.gov/>.

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 an eMeasure Attachment: CMS143v7-636824051990744198.zip

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: CMS143_NQF0086_ValueSets_20180917.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.

Supporting guidelines and coding value sets included in the measure are reviewed on an annual basis. This annual review has resulted in the removal of coding related to 'unspecified eye,' as these codes were determined by clinical experts to have low yield and to represent poor documentation practices.

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).

Patients who have an optic nerve head evaluation during one or more office visits within 12 months

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).

Time Period for Data Collection: At least once during the measurement period

GUIDANCE:

Optic nerve head evaluation includes examination of the cup to disc ratio and identification of optic disc or retinal nerve abnormalities. Both of these components of the optic nerve head evaluation are examined using ophthalmoscopy.

The measure, as written, does not specifically require documentation of laterality. Coding limitations in particular clinical terminologies do not currently allow for that level of specificity (ICD-10-CM includes laterality, but ICD-9-CM and SNOMED-CT do not uniformly include this distinction). Therefore, at this time, it is not a requirement of this measure to indicate laterality of the diagnoses, findings or procedures. Available coding to capture the data elements specified in this measure has been provided. It is assumed that the eligible professional or eligible clinician will record laterality in the patient medical record, as quality care and clinical documentation should include laterality.

HQMF eCQM developed and is attached to this submission in fields S.2a and S.2b.

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

All patients aged 18 years and older with a diagnosis of primary open-angle glaucoma

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).

Time Period for Data Collection: 12 consecutive months

HQMF eCQM developed and is attached to this submission in fields S.2a and S.2b.

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

Denominator Exceptions:

Documentation of medical reason(s) for not performing an optic nerve head evaluation

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.)

Time Period for Data Collection: During the encounter within the 12-month period

Exceptions are used to remove a patient from the denominator of a performance measure when the patient does not receive a therapy or service AND that therapy or service would not be appropriate due to patient-specific reasons. The patient would otherwise meet the denominator criteria. Exceptions are not absolute, and are based on clinical judgment, individual patient characteristics, or patient preferences. The PCPI exception methodology uses three categories of reasons for which a patient may be removed from the denominator of an individual measure. These measure exception categories are not uniformly relevant across all measures; for each measure, there must be a clear rationale to permit an exception for a medical, patient, or system reason. For measure Primary Open-Angle Glaucoma (POAG): Optic Nerve Evaluation, exceptions may include medical reason(s) for not performing an optic nerve head evaluation. Although this methodology does not require the external reporting of more detailed exception data, the PCPI recommends that physicians document the specific reasons for exception in patients' medical records for purposes of optimal patient management and audit-readiness. The PCPI also advocates the systematic review and analysis of each physician's exceptions data to identify practice patterns and opportunities for quality improvement.

HQMF eCQM developed and is attached to this submission in fields S.2a and S.2b.

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.)

Consistent with CMS' Measures Management System Blueprint and national recommendations put forth by the IOM (now NASEM) and NQF to standardize the collection of race and ethnicity data, we encourage the results of this measure to be stratified by race, ethnicity, administrative sex, and payer.

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.)

To calculate performance rates:

1. Find the patients who meet the initial population (ie, the general group of patients that a set of performance measures is designed to address).
2. From the patients within the initial population criteria, find the patients who qualify for the denominator (ie, the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial population and denominator are identical.
3. From the patients within the denominator, find the patients who meet the numerator criteria (ie, the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator.
4. From the patients who did not meet the numerator criteria, determine if the provider has documented that the patient meets any criteria for exception when denominator exceptions have been specified [for this measure: medical reason(s) for not performing an optic nerve head evaluation]. If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. --Although the exception cases are removed from the denominator population for the performance calculation, the exception rate (ie, percentage with valid exceptions) should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure.

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.

Not applicable. The measure is not based on a sample.

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.

Not applicable. The measure is not based on a survey.

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

If other, please describe in S.18.

Electronic Health Records

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.

Not applicable

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, Clinician : Individual

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

Other, Outpatient Services, Post-Acute Care

If other: Domiciliary

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.)

Not applicable. The measure is not a composite.

2. Validity – See attached Measure Testing Submission Form

v2_0086e_nqf_testing-attachment_7.1-636849651196863236.docx,0086e_MAR282019_nqf_testing-attachment_7.1_Final.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.

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.

Generated or collected by and used by healthcare personnel during the provision of care (e.g., blood pressure, lab value, diagnosis, depression score), Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims), Abstracted from a record by someone other than person obtaining original information (e.g., chart abstraction for quality measure or registry)

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 health records (EHRs)

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.

We have not identified an areas of concern or made any modifications as a result of testing and operational use of the measure in relation to data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, and other feasibility issues unless otherwise noted.

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).

Limited proprietary coding is contained in the Measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. The AMA, the PCPI and its members disclaim all liability for use or accuracy of any Current Procedural Terminology (CPT®) or other coding contained in the specifications.

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)
	Public Reporting Merit-based Incentive Payment System (MIPS) https://qpp.cms.gov/mips/quality-measures Payment Program Merit-based Incentive Payment System (MIPS) https://qpp.cms.gov/mips/quality-measures IRIS™ Registry (Intelligent Research in Sight) http://www.aao.org/iris-registry MORE Registry (Measures and Outcomes Registry for Eyecare) https://www.aoa.org/more Quality Improvement (external benchmarking to organizations) IRIS™ Registry (Intelligent Research in Sight)

http://www.aao.org/iris-registry MORE Registry (Measures and Outcomes Registry for Eyecare) https://www.aao.org/more
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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

Merit-based Incentive Payment System (MIPS)-Sponsored by the Centers for Medicare and Medicaid Services (CMS). Prior to 2016, this measure was used for Eligible Providers (EPs) in the Physician Quality Reporting System (PQRS). As of 2017, PQRS has been replaced by the Merit-based Incentive Payment System (MIPS). MIPS is a national performance-based payment program that uses performance scores across several categories to determine payment rates for EPs. MIPS takes a comprehensive approach to payment by basing consideration of quality on a set of evidence-based measures that were primarily developed by clinicians, thus encouraging improvement in clinical practice and supporting advances in technology that allow for easy exchange of information.

According to the CY 2019 Quality Payment Program final rule, CMS intends to “make all measures under MIPS quality performance category available for public reporting on Physician Compare in the transition year of the Quality Payment Program, as technically feasible.” These measures include those reported via all available submission methods for MIPS-eligible clinicians and groups. This measure has now been included in Physician Compare and Performance Rates will be available in 2019.

The IRIS® Registry (Intelligent Research in Sight) sponsored by the American Academy of Ophthalmology. This is an electronic health record-based comprehensive eye disease and condition registry. It is a centralized data repository and reporting tool that can analyze patient data to produce easy-to-interpret national and inter-practice benchmark reports and provide scientific information to improve public health. The reports can validate the quality of care ophthalmologists provide and pinpoint opportunities for improvement. Eligible physicians who sign up and meet the reporting requirements can use the IRIS Registry to report clinical quality data to the Merit-Based Incentive Payment System. The IRIS Registry will automatically extract and submit data for MIPS quality measures to the Centers for Medicare & Medicaid Services on behalf of practices integrated with their EHR. Additionally, CMS has confirmed that the IRIS Registry is considered a Clinical Data Registry and a Public Health Registry for the purpose of providing Promoting Interoperability performance points, because of its public health and population health data analyses to improve care.

The Measures and Outcomes Registry for Eyecare (MORE) registry is a qualified clinical data registry (QCDR) sponsored by the American Optometric Association. AOA MORE is the nations’ first optometric-focused registry. The primary initial goals of the registry are to assist eye-care practices in improving the quality of care, and to submit quality measures to the Medicare Merit-Based Incentive Payment System (MIPS). As of April 2018, AOA MORE was able to attest and submit data for over 600 optometrists and more than 7,492 AOA members are registered with MORE.

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?)

The PCPI strongly encourages the use of its measures in quality improvement and accountability initiatives and promotes their use in public reporting programs. Measures developed by the PCPI, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, e.g., use by health care providers in connection with their practices. As a measure developer, we work with measure implementers as opportunities arise to encourage and facilitate the integration of PCPI measures in their programs.

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.)

Not applicable.

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.

The PCPI measure development and maintenance process is a rigorous, evidence-based process that has been refined and standardized since the PCPI's inception in 2000. Throughout its tenure, the PCPI has conducted its measure development and maintenance process with strict adherence to several key principles, including the following which underscore the role those being measured have played in the development and maintenance process and in providing feedback based on measure implementation:

Collaborative Approach to Measure Development

PCPI measures are developed and maintained through cross-specialty, multi-disciplinary technical expert panels. Representatives of relevant clinical specialties are invited to participate in our expert panels to advise us throughout the measure development process and as questions arise during measure implementation. Additionally, other health care providers and stakeholders participate in our panels as equal contributors to the measure development process. The PCPI also strives to include on its panels individuals representing the perspectives of patients, consumers, private health plans, and employers. Liaisons from key measure development organizations, including The Joint Commission and NCQA, at times participate in the PCPI's measure development process to ensure measure harmonization. Measure methodologists and coding and informatics experts are also considered important members of the expert panel. This broad-based approach to measure development maximizes the input from those being measured and other stakeholders to develop evidence-based, feasible and clinically meaningful measures.

Public Comment Period

Input from a wide range of stakeholders is integral to the measure development process. To invite other perspectives and expertise beyond the expert panels and particularly from those providers and facilities that will implement these measures, the PCPI submits the measures for public comment. All measures are released for a 30-day public and PCPI member comment period. All comments are reviewed by the technical expert panel to determine whether measure modifications are needed based on comments received.

Feedback Mechanisms

The PCPI has a dedicated mechanism set up to receive measure-related comments and questions from implementers. As comments and questions are received, they are shared with appropriate staff for follow up. If comments or questions require expert input, these are shared with the PCPI's technical expert panels to determine if measure modifications may be warranted. Additionally, for PCPI measures included in federal reporting programs, there is a system that has been set up to elicit timely feedback and responses from PCPI staff in consultation with technical expert panel members, as appropriate.

Feasibility Assessments

The PCPI solicits feedback on measure feasibility in the following domains: data availability, data accuracy, data standards, and workflow to guide future modifications to the measure. During this process, we may receive recommendations to improve the experience of those implementing and reporting on this measure and we follow up on any questions or concerns received by those completing the feasibility assessment. Doing so addresses any issues with interpretation and serves as an important step in the measure development process.

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.

See description in Section 4a2.1.1 above.

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 described in Section 4a2.1.1, the PCPI invites feedback through various mechanisms. We obtain input from our topic-specific technical expert panels during the measure development and during the annual maintenance process. Additionally, the PCPI obtains feedback via an online public comment and an email-based process set up to receive measure inquiries from implementers.

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

During the development of this measure, comments were received during the public comment period. An overarching theme from clinicians was a request to clarify what is considered an adequate examination of the optic nerve.

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

Other users expressed concern over the age range of this measure, and that patients younger than 65 may not be covered by

Medicare.

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.

As a result of clinician feedback to clarify what is considered an adequate examination of the optic nerve, guidance was added to offer further clarity around the intent, while also allowing physicians to use their discretion in selecting the tools to perform optic nerve evaluation.

In response to the concern over age range, the PCPI responded that this measure was developed to align with the clinical practice guidelines, and for implementation and adoption by physicians, payers, and other interested groups to improve quality of care. Although use in the Medicare program may further limit the patient population to patients over 65, it is possible that other groups would apply the measure to patients over 18 years of age, if appropriate.

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.

This measure is intended to promote examination and documentation of the structure and function of the optic nerve, to monitor and detect disease progression among POAG patients. CMS data report a 5 percent decrease in the average performance rate of this measure, from 2013 through 2017. However, reporting rates represent but one facet of the quality improvement process.

While the PCPI creates measures with an ultimate goal of improving the quality of care, measurement is a mechanism to drive improvement but does not equate improvement. Measurement can help identify opportunities for improvement with actual improvement requiring making changes to health care processes and/or structure. In order to promote improvement, quality measurement systems need to provide feedback to front-line clinical staff in as close to real time as possible and at the point of care whenever possible. (1)

1. Conway PH, Mostashari F, Clancy C. The future of quality measurement for improvement and accountability. JAMA. 2013 Jun 5;309(21):2215-6.

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 received reports of unexpected findings resulting from the implementation of this measure. The PCPI has various mechanisms in place for measure users to provide feedback and to identify issues related to the maintenance and implementation of this measure. We convene several topic-specific technical expert panels comprised of various stakeholders including those being measured to advise us regarding any unexpected findings and actions that can be taken to mitigate them.

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

Not applicable.

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)

0563 : Primary Open-Angle Glaucoma: Reduction of Intraocular Pressure by 15% or Documentation of a Plan of Care

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

N/A

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.)

Although the populations are similar, NQF #0563 measures the reduction in intraocular pressure from the pre-intervention level, while NQF #0086e measures the evaluation of the optic nerve to establish glaucoma disease status and presence of optic nerve damage. This measure intends to monitor, detect, and prevent disease progression among POAG patients. In addition, degeneration of the optic nerve, even while intraocular pressure remains in the normal range, can occur amongst a subtype of open-angle glaucoma patients (normal or low-tension glaucoma). This measure would capture those patients, whereas NQF #0563 would not apply to that patient group. Additionally, NQF #0086e is electronically specified, further distinguishing the two measures.

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): PCPI Foundation

Co.2 Point of Contact: Samantha, Tierney, samantha.tierney@thepcpi.org, 312-224-6071-

Co.3 Measure Developer if different from Measure Steward: PCPI Foundation

Co.4 Point of Contact: [Samantha, Tierney, samantha.tierney@thepcpi.org](mailto:Samantha.Tierney@thepcpi.org), 312-224-6071-

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.

PCPI measures are developed and maintained under the aegis of topic-specific technical expert panels (TEPs). The PCPI TEPs are comprised of clinicians and other healthcare professionals representing medical specialty societies and other stakeholders. The TEPs provide clinical expertise as well as advise on methodologic questions and review the measures annually to ensure accuracy and adherence to the most current evidence.

Eye Care TEP members include:

John Thompson, MD – TEP Co-Chair

Murray Fingeret, OD

David B. Glasser, MD

Richard Hellman, MD

Mathew W. MacCumber, MD, PhD

Zachary S. McCarty, OD

Parag D. Parekh, MD

Marc Piccolo, OD

Thomas A. Wong, OD

Measure Developer/Steward Updates and Ongoing Maintenance

Ad.2 Year the measure was first released: 2006

Ad.3 Month and Year of most recent revision: 04, 2019

Ad.4 What is your frequency for review/update of this measure? Supporting guidelines, specifications, and coding for this measure are reviewed annually

Ad.5 When is the next scheduled review/update for this measure? 04, 2020

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Ad.7 Disclaimers: The Measures are not clinical guidelines, do not establish a standard of medical care, and have not been tested for all potential applications.

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PCPI encourages use of the Measures by other health care professionals, where appropriate.

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Ad.8 Additional Information/Comments:

