



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 #: 1536

Corresponding Measures:

De.2. Measure Title: Cataracts: Improvement in Patient's Visual Function within 90 Days Following Cataract Surgery

Co.1.1. Measure Steward: American Academy of Ophthalmology

De.3. Brief Description of Measure: Percentage of patients aged 18 years and older who had cataract surgery and had improvement in visual function achieved within 90 days following the cataract surgery

1b.1. Developer Rationale: The benefits are to enhance improvement of visual function of patients receiving cataract surgery. The primary indication for surgery is visual function that no longer meets the patient's needs and for which cataract surgery provides a reasonable likelihood of improved vision.

S.4. Numerator Statement: Patients 18 years and older in sample who had improvement in visual function achieved within 90 days following cataract surgery, based on completing a pre-operative and post-operative visual function instrument

S.6. Denominator Statement: All patients aged 18 years and older in sample who had cataract surgery

S.8. Denominator Exclusions:

De.1. Measure Type: Outcome

S.17. Data Source: Instrument-Based Data

S.20. Level of Analysis: Clinician : Individual

IF Endorsement Maintenance – Original Endorsement Date: Jan 31, 2012 **Most Recent Endorsement Date:** Jan 31, 2012

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? Composite measure including existing PQRI measures Measures 191 – 20/40 or better visual acuity within 90 days following cataract surgery and 192 – complications within 30 days of cataract surgery requiring additional surgical procedures, and another new measure: Cataracts: Patient Satisfaction within 90 Days Following Cataract Surgery

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

[1536_Evidence_MSF5.0_Data-635629873257082037-636426399558333442.doc](#)

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.

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.

The benefits are to enhance improvement of visual function of patients receiving cataract surgery. The primary indication for surgery is visual function that no longer meets the patient's needs and for which cataract surgery provides a reasonable likelihood of improved vision.

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.*

This is an outcome of surgery indicator of direct relevance and import to patients, their families and referring providers. The available evidence suggests that cataract surgery achieves this in about 90% of patients. While the potential for improvement is seemingly small, the volume of cataract surgery in the U.S. of over 2.8 million surgeries means that the impact could affect more than 280,000 patients per year. Ideally, performance on this indicator would be as high as possible, with lower rates suggestive of opportunities for improvement.

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.

1. Monestam E, Wachtmeister L. Impact of cataract surgery on visual acuity and subjective functional outcomes: a population-based study in Sweden. *Eye* 1999; 13:711-19.
2. Steinberg EP, Tielsch JM, Schein OD, et al. National study of cataract surgery outcomes. Variation in 4-month postoperative outcomes as reflected in multiple outcome measures. *Ophthalmology* 1994; 101:1131-40; discussion 1140-1.
3. Lundström M, Brege KG, Florén I, et al. Impaired visual function after cataract surgery assessed using the Catquest questionnaire. *J Cataract Refract Surg* 2000; 26:101-8.
4. Lum F, Schein O, Schachat AP, et al. Initial two years of experience with the AAO National Eyecare Outcomes Network (NEON) cataract surgery database. *Ophthalmology* 2000; 107:691-7.
5. Lum F, Schachat AP, Jampel HD. The development and demise of a cataract surgery database. *The Joint Commission Journal on Quality Improvement* 2002; 28:108-114.
6. Mozaffarieh M, Krepler K, Heinzl H et al. Visual function, quality of life and patient satisfaction after ophthalmic surgery: a comparative study. *Ophthalmologica* 2004; 218:26-30.

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.*

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

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):

Elderly

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.)

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)

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:

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.

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.

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.

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.

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 18 years and older in sample who had improvement in visual function achieved within 90 days following cataract surgery,

based on completing a pre-operative and post-operative visual function instrument

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).

Patients 18 years and older in sample who had an improvement in their visual function achieved within 90 days following cataract surgery

Patients in sample who completed a pre-operative and post-operative visual function instrument, and with the CPT Procedure Codes (with or without modifiers): 66840, 66850, 66852, 66920, 66930, 66940, 66982, 66983, 66984

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

All patients aged 18 years and older in sample who had cataract surgery

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).

Denominator (Eligible Population): All patients aged 18 years and older in sample who had cataract surgery

- CPT Procedure Codes (with or without modifiers): 66840, 66850, 66852, 66920, 66930, 66940, 66982, 66983, 66984

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

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.)

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.)

This measure can be stratified into two major groups: those patients with ocular co-morbidities and those patients without ocular co-morbidities. An improvement in visual function after cataract surgery would be expected in both groups, however the magnitude of the difference would vary by group. The Cataract Patient Outcomes Research Team found that an important preoperative patient characteristic that was independently associated with failure to improve on one of the outcomes measured (including the VF-14) was ocular comorbidity. The authors explained that this was expected, because it is reasonable to assume that other diseases that impair visual function would be correlated with a reduced improvement in functional status. The National Eye Care Outcomes Network also found that there were differences in the mean postoperative VF-14 scores across groups of patients with and without ocular co-morbidities, as seen in the table below. The study involving the Rasch-scaled short version of the VF-14 also found differences between the preoperative and postoperative visual function test scores and differences between preoperative and postoperative visual function tests, as seen below.

National Eyecare Outcomes Network

Mean VF-14 (postoperative)

- Total 92.7
- With ocular comorbidity 89.9

- Without ocular comorbidity 94.6

Rasch-Scaled Short Version of the VF-14

Patients without Ocular Comorbidity - Preop VF-8R - 68.87

Postop VF-8R - 86.22

Mean Diff = 17.35

Patients with Ocular Comorbidity - Preop VF-8R - 67.71

Postop VF-8R - 81.58

Mean Diff = 13.87

A list of codes for comorbidities can be found in the AMA PCPI measure for 20/40 visual acuity after cataract surgery:

Acute and subacute iridocyclitis	364.00
Acute and subacute iridocyclitis	364.01
Acute and subacute iridocyclitis	362.02
Acute and subacute iridocyclitis	364.03
Acute and subacute iridocyclitis	364.04
Acute and subacute iridocyclitis	364.05
Amblyopia	368.01
Amblyopia	368.02
Amblyopia	368.03
Burn confined to eye and adnexa	940.0
Burn confined to eye and adnexa	940.1
Burn confined to eye and adnexa	940.2
Burn confined to eye and adnexa	940.3
Burn confined to eye and adnexa	940.4
Burn confined to eye and adnexa	940.5
Burn confined to eye and adnexa	940.9
Cataract secondary to ocular disorders	366.32
Cataract secondary to ocular disorders	366.33
Certain types of iridocyclitis	364.21
Certain types of iridocyclitis	364.22
Certain types of iridocyclitis	364.23
Certain types of iridocyclitis	364.24
Certain types of iridocyclitis	364.3
Choroidal degenerations	363.43
Choroidal detachment	363.72
Choroidal hemorrhage and rupture	363.61
Choroidal hemorrhage and rupture	363.62
Choroidal hemorrhage and rupture	363.63
Chorioretinal scars	363.30
Chorioretinal scars	363.31
Chorioretinal scars	363.32
Chorioretinal scars	363.33
Chorioretinal scars	363.35
Chronic iridocyclitis	364.10
Chronic iridocyclitis	364.11
Cloudy cornea	371.01
Cloudy cornea	371.02
Cloudy cornea	371.03
Cloudy cornea	371.04
Corneal edema	371.20
Corneal edema	371.21

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Corneal edema	371.22	
Corneal edema	371.23	
Corneal edema	371.43	
Corneal edema	371.44	
Corneal opacity and other disorders of cornea		371.00
Corneal opacity and other disorders of cornea		371.03
Corneal opacity and other disorders of cornea		371.04
Degenerative disorders of globe	360.20	
Degenerative disorders of globe	360.21	
Degenerative disorders of globe	360.23	
Degenerative disorders of globe	360.24	
Degenerative disorders of globe	360.29	
Degeneration of macula and posterior pole	362.50	
Degeneration of macula and posterior pole	362.51	
Degeneration of macula and posterior pole	362.52	
Degeneration of macula and posterior pole	362.53	
Degeneration of macula and posterior pole	362.54	
Degeneration of macula and posterior pole	362.55	
Degeneration of macula and posterior pole	362.56	
Degeneration of macula and posterior pole	362.57	
Disseminated chorioretinitis and disseminated retinochoroiditis		363.10
Disseminated chorioretinitis and disseminated retinochoroiditis		363.11
Disseminated chorioretinitis and disseminated retinochoroiditis		363.12
Disseminated chorioretinitis and disseminated retinochoroiditis		363.13
Disseminated chorioretinitis and disseminated retinochoroiditis		363.14
Disseminated chorioretinitis and disseminated retinochoroiditis		363.15
Diabetic retinopathy	362.01	
Diabetic retinopathy	362.02	
Diabetic retinopathy	362.03	
Diabetic retinopathy	362.04	
Diabetic retinopathy	362.05	
Diabetic retinopathy	362.06	
Diabetic macular edema	362.07	
Disorders of optic chiasm	377.51	
Disorders of optic chiasm	377.52	
Disorders of optic chiasm	377.53	
Disorders of optic chiasm	377.54	
Disorders of visual cortex	377.75	
Focal chorioretinitis and focal retinochoroiditis		363.00
Focal chorioretinitis and focal retinochoroiditis		363.01
Focal chorioretinitis and focal retinochoroiditis		363.03
Focal chorioretinitis and focal retinochoroiditis		363.04
Focal chorioretinitis and focal retinochoroiditis		363.05
Focal chorioretinitis and focal retinochoroiditis		363.06
Focal chorioretinitis and focal retinochoroiditis		363.07
Focal chorioretinitis and focal retinochoroiditis		363.08
Glaucoma	365.10	
Glaucoma	365.11	
Glaucoma	365.12	
Glaucoma	365.13	
Glaucoma	365.14	
Glaucoma	365.15	
Glaucoma	365.20	
Glaucoma	365.21	

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Glaucoma	365.22	
Glaucoma	365.23	
Glaucoma	365.24	
Glaucoma	365.31	
Glaucoma	365.32	
Glaucoma	365.51	
Glaucoma	365.52	
Glaucoma	365.59	
Glaucoma associated with congenital anomalies, dystrophies, and systemic syndromes	365.41	
Glaucoma associated with congenital anomalies, dystrophies, and systemic syndromes	365.42	
Glaucoma associated with congenital anomalies, dystrophies, and systemic syndromes	365.43	
Glaucoma associated with congenital anomalies, dystrophies, and systemic syndromes	365.44	
Glaucoma associated with congenital anomalies, dystrophies, and systemic syndromes	365.60	
Glaucoma associated with congenital anomalies, dystrophies, and systemic syndromes	365.61	
Glaucoma associated with congenital anomalies, dystrophies, and systemic syndromes	365.62	
Glaucoma associated with congenital anomalies, dystrophies, and systemic syndromes	365.63	
Glaucoma associated with congenital anomalies, dystrophies, and systemic syndromes	365.64	
Glaucoma associated with congenital anomalies, dystrophies, and systemic syndromes	365.65	
Glaucoma associated with congenital anomalies, dystrophies, and systemic syndromes	365.81	
Glaucoma associated with congenital anomalies, dystrophies, and systemic syndromes	365.82	
Glaucoma associated with congenital anomalies, dystrophies, and systemic syndromes	365.83	
Glaucoma associated with congenital anomalies, dystrophies, and systemic syndromes	365.89	
Glaucoma associated with congenital anomalies, dystrophies, and systemic syndromes	365.9	
Hereditary corneal dystrophies	371.50	
Hereditary corneal dystrophies	371.51	
Hereditary corneal dystrophies	371.52	
Hereditary corneal dystrophies	371.53	
Hereditary corneal dystrophies	371.54	
Hereditary corneal dystrophies	371.55	
Hereditary corneal dystrophies	371.56	
Hereditary corneal dystrophies	371.57	
Hereditary corneal dystrophies	371.58	
Hereditary choroidal dystrophies	363.50	
Hereditary choroidal dystrophies	363.51	
Hereditary choroidal dystrophies	363.52	
Hereditary choroidal dystrophies	363.53	
Hereditary choroidal dystrophies	363.54	
Hereditary choroidal dystrophies	363.55	
Hereditary choroidal dystrophies	363.56	
Hereditary choroidal dystrophies	363.57	
Hereditary retinal dystrophies	362.70	
Hereditary retinal dystrophies	362.71	
Hereditary retinal dystrophies	362.72	
Hereditary retinal dystrophies	362.73	
Hereditary retinal dystrophies	362.74	
Hereditary retinal dystrophies	362.75	
Hereditary retinal dystrophies	362.76	
High myopia	360.20	
High myopia	360.21	
Injury to optic nerve and pathways	950.0	
Injury to optic nerve and pathways	950.1	
Injury to optic nerve and pathways	950.2	
Injury to optic nerve and pathways	950.3	
Injury to optic nerve and pathways	950.9	

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Keratitis 370.03	
Moderate or severe impairment, better eye, profound impairment lesser eye	369.10
Moderate or severe impairment, better eye, profound impairment lesser eye	369.11
Moderate or severe impairment, better eye, profound impairment lesser eye	369.12
Moderate or severe impairment, better eye, profound impairment lesser eye	369.13
Moderate or severe impairment, better eye, profound impairment lesser eye	369.14
Moderate or severe impairment, better eye, profound impairment lesser eye	369.15
Moderate or severe impairment, better eye, profound impairment lesser eye	369.16
Moderate or severe impairment, better eye, profound impairment lesser eye	369.17
Moderate or severe impairment, better eye, profound impairment lesser eye	369.18
Nystagmus and iothet irregular eye movements	379.51
Open wound of eyeball	871.0
Open wound of eyeball	871.1
Open wound of eyeball	871.2
Open wound of eyeball	871.3
Open wound of eyeball	871.4
Open wound of eyeball	871.5
Open wound of eyeball	871.6
Open wound of eyeball	871.7
Open wound of eyeball	871.9
Optic atrophy	377.10
Optic atrophy	377.11
Optic atrophy	377.12
Optic atrophy	377.13
Optic atrophy	377.14
Optic atrophy	377.15
Optic atrophy	377.16
Optic neuritis	377.30
Optic neuritis	377.31
Optic neuritis	377.32
Optic neuritis	377.33
Optic neuritis	377.34
Optic neuritis	377.39
Other background retinopathy and retinal vascular changes	362.12
Other background retinopathy and retinal vascular changes	362.16
Other background retinopathy and retinal vascular changes	362.18
Other corneal deformities	371.70
Other corneal deformities	371.71
Other corneal deformities	371.72
Other corneal deformities	371.73
Other disorders of optic nerve	377.41
Other disorders of sclera	379.11
Other disorders of sclera	379.12
Other endophthalmitis	360.11
Other endophthalmitis	360.12
Other endophthalmitis	360.13
Other endophthalmitis	360.14
Other endophthalmitis	360.19
Other retinal disorders	362.81
Other retinal disorders	362.82
Other retinal disorders	362.83
Other retinal disorders	362.84
Other retinal disorders	362.85
Other retinal disorders	362.89

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Other and unspecified forms of chorioretinitis and retinochoroiditis	363.20
Other and unspecified forms of chorioretinitis and retinochoroiditis	363.21
Other and unspecified forms of chorioretinitis and retinochoroiditis	363.22
Prior penetrating keratoplasty	371.60
Prior penetrating keratoplasty	371.61
Prior penetrating keratoplasty	371.62
Profound impairment, both eyes	369.00
Profound impairment, both eyes	369.01
Profound impairment, both eyes	369.02
Profound impairment, both eyes	369.03
Profound impairment, both eyes	369.04
Profound impairment, both eyes	369.05
Profound impairment, both eyes	369.06
Profound impairment, both eyes	369.07
Profound impairment, both eyes	369.08
Purulent endophthalmitis	360.00
Purulent endophthalmitis	360.01
Purulent endophthalmitis	360.02
Purulent endophthalmitis	360.03
Purulent endophthalmitis	360.04
Retinal detachment with retinal defect	361.00
Retinal detachment with retinal defect	361.01
Retinal detachment with retinal defect	361.02
Retinal detachment with retinal defect	361.03
Retinal detachment with retinal defect	361.04
Retinal detachment with retinal defect	361.05
Retinal detachment with retinal defect	361.06
Retinal detachment with retinal defect	361.07
Retinal vascular occlusion	362.31
Retinal vascular occlusion	362.32
Retinal vascular occlusion	362.35
Retinal vascular occlusion	362.36
Retinopathy of prematurity	362.21
Scleritis and episcleritis	379.04
Scleritis and episcleritis	379.05
Scleritis and episcleritis	379.06
Scleritis and episcleritis	379.07
Scleritis and episcleritis	379.09
Separation of retinal layers	362.41
Separation of retinal layers	362.42
Separation of retinal layers	362.43
Uveitis	360.11
Uveitis	360.12
Visual field defects	368.41

References:

1. Schein OD, Steinberg EP, Cassard SD et al. Predictors of outcome in patients who underwent cataract surgery. *Ophthalmology* 1995; 102:817-23.
2. Lum F, Schachat AP, Jampel HD. The development and demise of a cataract surgery database. *Jt Comm J Qual Improv.* 2002 Mar;28(3):108-14.
3. Gothwal VK, Wright TA, Lamoureux EL, Pesudovs K. Measuring outcomes of cataract surgery using the Visual Function Index-14. *J Cataract Refract Surg* 2010; 36:1181-8.

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.)

The calculation of the measure would be determination of the number of patients in the sample who demonstrated improvement in visual function based on the pre-operative and post-operative visual function instrument over the number of patients in the sample who had cataract surgery.

Currently in the scientific literature, there is no well-established method to define a threshold or interval that indicates improvement on the VF-8R. The Rasch scale has found to be more sensitive to change than the VF-14 in longitudinal studies and has a different scale for scoring than the VF-14. The VF-14 is based on summative scoring, which has no rationale for how numerical values are assigned and how a summary score is produced, and does not give a sense of the degree of change. The Rasch model is based on Item Response theory, which is based on item difficulty in relationship to an individual's ability and weighs the overall score accordingly, providing a gain in precision. Thus any difference between the pre-operative and post-operative scores on the VF-8R would indicate an improvement in functional activities. The average difference found between pre-operative and post-operative assessment on the VF-8R was 15.39 (Standard error = 2.66).

In the literature, there have been two studies looking at the clinically important differences for the VF-14 index. One study found that the minimal clinically important difference was 15.57; another study found that the minimally clinically important difference was 5.5.

References:

1. Bilbao A, Quintana JM, Escobar A et al. Responsiveness and Clinically Important Differences for the VF-14 Index, SF-36 and Visual Acuity in Patients Undergoing Cataract Surgery. *Ophthalmology* 2009; 116:418-424.
2. Las Hayas C, Bilbao A, Quintana J et al. A comparison of standard scoring versus Rasch scoring of the Visual Function-14 in patients with cataracts. *IOVS* 2011 in press.

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.

For this physician-level measure, it is anticipated to be used as a group or composite measure. Utilizing a sample, work in the field has indicated that a sample size of 30 patients would be adequate for typical practice sizes. Based on the Central Limit Theorem, the distribution of an average will tend to be normal with a sample size of 30. This is also the sample size utilized for CMS measure group reporting in PQRS. Therefore, a sample size of 30 patients is proposed. This would make the burden manageable on physicians' practices and patients and optimize the response rates. The American Academy of Ophthalmology has a registry for PQRS measures. This survey instrument could be incorporated into the registry and patients could access the web portal in order to enter their results of the visual function instrument. Other options could be provided for mail and phone administered surveys. This would alleviate any concerns of bias being introduced by having the patient fill it out in the physician's office.

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

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

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

If other, please describe in S.18.

[Instrument-Based 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.

The data collection instrument is specified as an assessment tool that has been appropriately validated for the population for which it being used. Examples of tools for visual function assessment include, but are not limited to: National Eye Institute-Visual Function Questionnaire (VFQ), the Visual Function (VF)-14, the modified VF-8, the Activities of Daily Vision Scale (ADVS), the Catquest and the modified Catquest-9. For this measure, we are proposing the Rasch-scaled short version of the VF-14, otherwise referred to as the VF-8R hereafter.

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)

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

[Clinician : Individual](#)

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

[Outpatient Services](#)

If other:

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

2. Validity – See attached Measure Testing Submission Form

[1536_MeasureTesting_MSIF5.0_Data-635629873265974037-636426399559427192.doc](#)

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.

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.

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.

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: [Survey](#)

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.

No

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).
[A web-based survey instrument could be used and results uploaded into a data registry. Paper survey instruments could be scanned and incorporated into a data registry. The registry could calculate the results and provide these results as feedback to the physicians and as quality measures to the CMS PQRS.](#)

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.

[There is a burden upon the office practice to survey patients pre and post cataract surgery. The majority of these patients are elderly, and they may require assistance/prompting in responding to the surveys. This then will entail time taken out by the practice staff. The follow-up survey also requires close attention. Therefore, we have proposed a minimal sampling size of 30, which will reduce the burden on physicians' practice and optimize the response rates. The survey would be administered by a third party \(a registry for reporting of PQRS measures sponsored by the American Academy of Ophthalmology\) to prevent or minimize bias which might be introduced if it is an in-office paper survey with questions asked by the office staff. Options would be provided to the patient, either online survey, mail survey or phone survey, depending on their preferences and abilities, because these patients are elderly and have visual impairment.](#)

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).

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	
Payment Program	
Quality Improvement (Internal to the specific organization)	

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

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

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

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

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

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.

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.

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

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

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.

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.

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.

This is reliant on patient's assessment of their status prior to and after cataract surgery, and therefore, any errors or biases in their self-evaluations. Also, there could be unintended consequences that surgeons would tend to avoid operating on candidate patients likely not to report improved visual function because of pre-existing ocular diseases. To mitigate the risk of the latter unintended consequence, we are proposing a sample size of 30. There is also the potential for biases introduced if the patient fills out the survey in the physician's office or is contacted by the physician's office to follow up on the survey. One strategy to minimize this bias is to have the visual function instrument administered through a third party, e.g., the Academy's data registry which could provide a web portal for patients to fill out the visual function instruments or other options such as a mail or phone administered survey.

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

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.

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

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?

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

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.)

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.

Attachment:

Contact Information

Co.1 Measure Steward (Intellectual Property Owner): [American Academy of Ophthalmology](#)

Co.2 Point of Contact: [Flora, Lum, flum@aao.org, 415-561-8592-](#)

Co.3 Measure Developer if different from Measure Steward: [American Academy of Ophthalmology](#)

Co.4 Point of Contact: [Flora, Lum, flum@aao.org, 415-561-8592-](#)

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.

[Priscilla Arnold, MD; David Chang, MD, Kevin Miller, MD, John Thompson, MD, Leon Herndon, MD](#)

[The group developed and reviewed the measure specifications](#)

Measure Developer/Steward Updates and Ongoing Maintenance Ad.2 Year the measure was first released: 2010 Ad.3 Month and Year of most recent revision: 12, 2010 Ad.4 What is your frequency for review/update of this measure? Every 3 years Ad.5 When is the next scheduled review/update for this measure? 12, 2013
Ad.6 Copyright statement: Copyright by the American Academy of Ophthalmology 2010 Ad.7 Disclaimers:
Ad.8 Additional Information/Comments: