



## 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 #:** 0279

**Corresponding Measures:**

**De.2. Measure Title:** Community Acquired Pneumonia Admission Rate (PQI 11)

**Co.1.1. Measure Steward:** Agency for Healthcare Research and Quality

**De.3. Brief Description of Measure:** Discharges with a principal diagnosis of community acquired bacterial pneumonia per 100,000 population, age 18 or older. Excludes sickle cell or hemoglobin-S admissions, other indications of immunocompromised state admissions, obstetric admissions, and transfers from other institutions.

[NOTE: The software provides the rate per population. However, common practice reports the measure as per 100,000 population. The user must multiply the rate obtained from the software by 100,000 to report admissions per 100,000 population.]

**1b.1. Developer Rationale:** This indicator is intended to identify hospitalizations for pneumonia, either specified as bacterial or unspecified organism. With access to high quality care, early intervention and appropriate pharmaceutical treatment this condition can often be managed on an outpatient basis.

**S.4. Numerator Statement:** Discharges, for patients ages 18 years and older, with a principal ICD-10-CM diagnosis code for bacterial pneumonia (ACSBACD).

[NOTE: By definition, discharges with a principal diagnosis of bacterial pneumonia are precluded from an assignment of MDC 14 by grouper software. Thus, obstetric discharges should not be considered in the PQI rate, though the AHRQ QI™ software does not explicitly exclude obstetric cases.]

**S.6. Denominator Statement:** Population ages 18 years and older in metropolitan area\* or county. Discharges in the numerator are assigned to the denominator based on the metropolitan area or county of the patient residence, not the metropolitan area or county of the hospital where the discharge occurred.

\*The term "metropolitan area" (MA) was adopted by the U.S. Census in 1990 and referred collectively to metropolitan statistical areas (MSAs), consolidated metropolitan statistical areas (CMSAs), and primary metropolitan statistical areas (PMSAs). In addition, "area" could refer to either 1) FIPS county, 2) modified FIPS county, 3) 1999 OMB Metropolitan Statistical Area, or 4) 2003 OMB Metropolitan Statistical Area. Micropolitan Statistical Areas are not used in the QI software.

**S.8. Denominator Exclusions:** Not applicable.

**De.1. Measure Type:** Outcome

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

**S.20. Level of Analysis:** Facility

**IF Endorsement Maintenance – Original Endorsement Date:** Nov 15, 2007 **Most Recent Endorsement Date:** Jan 17, 2017

**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?** n/a

**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**

[PQI11\\_NQF\\_0279\\_Measure\\_Evidence\\_Form\\_161207.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.

**1b. Performance Gap**

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

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

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

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

This indicator is intended to identify hospitalizations for pneumonia, either specified as bacterial or unspecified organism. With access to high quality care, early intervention and appropriate pharmaceutical treatment this condition can often be managed on an outpatient basis.

**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 table is also included in the supplemental files.

Table 1. Reference Population Rate and Distribution of County Performance for PQI 11

Overall Reference Population Rate

Year	Number of Counties	Number of Events
(Numerator)a	Population at Risk	
(Denominator)a	Observed Rate	
Per 1,000a		

2009	3,137	702,634	232,379,612	3.0236
2010	3,141	668,530	234,909,365	2.8459
2011	3,144	678,908	237,419,828	2.8595
2012	3,141	638,091	237,830,861	2.683
2013	3,140	550,294	240,482,275	2.2883

Distribution of County-level Observed Rates in Reference Population Per 1,000

Year	Number of Counties(p=percentile)b	Mean	SD	p5	p25	Median	p75	p95
2009	3,137	5.20	25.36	0.05	2.53	3.91	5.83	10.92
2010	3,141	5.26	30.93	0.05	2.38	3.78	5.57	10.06
2011	3,144	5.24	30.91	0.08	2.40	3.73	5.55	10.11
2012	3,141	4.59	30.89	0.10	2.03	3.27	4.74	8.25
2013	3,140	3.28	2.43	0.02	1.68	2.99	4.48	7.59

Source: HCUP State Inpatient Databases (SID). Healthcare Cost and Utilization Project (HCUP). 2009-2013. Agency for Healthcare Research and Quality, Rockville, MD. [www.hcup-us.ahrq.gov/sidoverview.jsp](http://www.hcup-us.ahrq.gov/sidoverview.jsp). (AHRQ QI Software Version 6.0)

aThe observed rate refers to the total rate for all observations included in the reference population data (numerator) divided by the

total combined eligible population of all counties included in the reference population data (denominator). Note: Observations from counties with rates outside of 1.5\*interquartile range are excluded as outliers.

bThe distribution of area rates reports the mean and standard deviation (SD) of the observed rates for all counties included in the dataset, as well as the observed rate for counties in the 5th, 25th, 50th (median), 75th, and 95th percentile. Note: Counties with rates outside of 1.5\*interquartile range are excluded as outliers.

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

n/a

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

This table is also included in the supplemental files.

Table 2. Admission Rates per 1,000 (PQI 11), by patient and hospital characteristics, 2013

Patient/hospital characteristic	Estimate	Std Error	p-value	(Ref Grp = *)	Lower	95% CL	Upper
95% CL							
Total U.S.	228.46	0.3068			227.85	229.06	
Patient Characteristics							
Age Groups:							
18-39*	65.75	0.6612			64.45	67.04	
40-64	184.14	0.5186	<.001		183.12	185.15	
65 and over	346.51	0.4670	<.001		345.60	347.43	
Gender:							
Male*	241.55	0.4640			240.64	242.46	
Female	218.28	0.4090	<.001		217.48	219.08	
Patient Zip Code Median Income							
First quartile (lowest income)	329.72	1.0955	<.001		327.57	331.86	
Second quartile	280.84	0.7294	<.001		279.41	282.27	
Third quartile	238.88	0.6304	<.001		237.65	240.12	
Fourth quartile (highest income)*	189.72	0.4304			188.87	190.56	
Location of patient residence (NCHS):							
Rural	352.65	2.1849	<.001		348.37	356.94	
Urban*	225.95	0.3098			225.35	226.56	
Location of Care:							
Northeast*	182.813	0.701			181.44	184.19	
Midwest	285.255	0.652	<.001		283.98	286.53	
South	242.848	0.507	<.001		241.86	243.84	
West	187.330	0.657	<.001		186.04	188.62	

Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2013, and AHRQ Quality Indicators, version 6.0.

Rates are adjusted by age and gender using the AHRQ QI PQI Reference Population for 2013 as the standard population; when reporting is by age, the adjustment is by gender only; when reporting is by gender, the adjustment is by age only.

NCHS - National Center for Health Statistics designation for urban-rural locations.

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

n/a

## 2. Reliability and Validity—Scientific Acceptability of Measure Properties

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. **Measures must be judged to meet the sub criteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.**

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

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

Respiratory, Respiratory : Pneumonia

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

Primary Prevention

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

Populations at Risk

**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.)

[http://www.qualityindicators.ahrq.gov/Modules/pqi\\_resources.aspx](http://www.qualityindicators.ahrq.gov/Modules/pqi_resources.aspx)

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

This is not an eMeasure Attachment:

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

Attachment Attachment: [PQI\\_11\\_Community\\_Acquired\\_\\_Pneumonia\\_Admission\\_Rate.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.

As standard protocol, the AHRQ QI program annually updates all measures with Fiscal Year coding changes, refinements based on stakeholder input, refinements to improve specificity and sensitivity based on additional analyses, and necessary software changes. In addition, approximately every two years, AHRQ updates the risk adjustment parameter estimates and composite weights based on the most recent year of data (i.e., the most current reference population possible). The refined measures are tested and confirmed to be valid and reliable prior to release of the updated software.

**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).*

Discharges, for patients ages 18 years and older, with a principal ICD-10-CM diagnosis code for bacterial pneumonia (ACSBACD).

[NOTE: By definition, discharges with a principal diagnosis of bacterial pneumonia are precluded from an assignment of MDC 14 by grouper software. Thus, obstetric discharges should not be considered in the PQI rate, though the AHRQ QI™ software does not explicitly exclude obstetric cases.]

**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).*

Community acquired bacterial pneumonia diagnosis codes: (ACSBACD)

J13 - Pneumonia due to Streptococcus pneumoniae  
J14 - Pneumonia due to Hemophilus influenzae  
J15211 - Pneumonia due to Methicillin susceptible Staphylococcus aureus  
J15212 - Pneumonia due to Methicillin resistant Staphylococcus aureus  
J153 - Pneumonia due to streptococcus, group B  
J154 - Pneumonia due to other streptococci  
J157 - Pneumonia due to Mycoplasma pneumoniae  
J159 - Unspecified bacterial pneumonia  
J160 - Chlamydial pneumonia  
J168 - Pneumonia due to other specified infectious organisms  
J180 - Bronchopneumonia, unspecified organism  
J181 - Lobar pneumonia, unspecified organism  
J188 - Other pneumonia, unspecified organism  
J189 - Pneumonia, unspecified organism

Sickle cell anemia or HB-S disease diagnosis codes: (ACSBACD)

D570- Hb-SS disease with crisis, unspecified  
D5701 - Hb-SS disease with acute chest syndrome  
D5702 - Hb-SS disease with splenic sequestration  
D571 - Sickle-cell disease without crisis  
D5720 - Sickle-cell/Hb-C disease without crisis  
D57211 - Sickle-cell/Hb-C disease with acute chest syndrome  
D57212 - Sickle-cell/Hb-C disease with splenic sequestration  
D57219 - Sickle-cell/Hb-C disease with crisis, unspecified  
D5740 - Sickle-cell thalassemia without crisis  
D57411 - Sickle-cell thalassemia with acute chest syndrome  
D57412 - Sickle-cell thalassemia with splenic sequestration  
D57419 - Sickle-cell thalassemia with crisis, unspecified  
D5780 - Other sickle-cell disorders without crisis  
D57811 - Other sickle-cell disorders with acute chest syndrome  
D57812 - Other sickle-cell disorders with splenic sequestration  
D57819 - Other sickle-cell disorders with crisis, unspecified

Appendix A – Admission Codes for Transfers

Appendix C – Immunocompromised State Diagnosis and Procedure Codes

(See attached technical specifications, Appendix A, and Appendix C for detailed list of codes.)

Exclude cases:

- transfer from a hospital (different facility) (Appendix A)

- transfer from a Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF) (Appendix A)
- transfer from another health care facility (Appendix A)
- with any-listed ICD-10-CM diagnosis codes for sickle cell anemia or HB-S disease (ACSBA2D)
- with any-listed ICD-10-CM diagnosis codes (Appendix C) or any-listed ICD-10-PCS procedure codes for immunocompromised state (Appendix C)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), principal diagnosis (DX1=missing), or county (PSTCO=missing)

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

Population ages 18 years and older in metropolitan area\* or county. Discharges in the numerator are assigned to the denominator based on the metropolitan area or county of the patient residence, not the metropolitan area or county of the hospital where the discharge occurred.

\*The term “metropolitan area” (MA) was adopted by the U.S. Census in 1990 and referred collectively to metropolitan statistical areas (MSAs), consolidated metropolitan statistical areas (CMSAs), and primary metropolitan statistical areas (PMSAs). In addition, “area” could refer to either 1) FIPS county, 2) modified FIPS county, 3) 1999 OMB Metropolitan Statistical Area, or 4) 2003 OMB Metropolitan Statistical Area. Micropolitan Statistical Areas are not used in the QI software.

**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).

Not applicable.

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

Not applicable.

**S.9. Denominator Exclusion Details** (All information required to identify and calculate exclusions from the denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)

Not applicable.

**S.10. Stratification Information** (Provide all information required to stratify the measure results, if necessary, including the stratification variables, definitions, specific data collection items/responses, code/value sets, and the risk-model covariates and coefficients for the clinically-adjusted version of the measure when appropriate – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b.)

Not applicable.

**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 = Lower 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.)

Risk adjustment is not currently included in the ICD-10-CM/PCS v2018 of the AHRQ QI specifications, due to the transition to ICD-10-

CM/PCS (October 1, 2015). At least one full year of data coded in ICD-10-CM/PCS is needed in order to develop robust risk adjustment models. A full year of ICD-10-CM/PCS coded all-payer data will not be available until mid-2019. AHRQ will announce an anticipated date as soon as one is known.

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

IF an instrument-based performance measure (e.g., PRO-PM), identify whether (and how) proxy responses are allowed.  
n/a

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

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

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

If other, please describe in S.18.

Claims

**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.

While the measure is tested and specified using data from the Healthcare Cost and Utilization Project (HCUP) (see section 1.1 and 1.2 of the measure testing form), the measure specifications and software are specified to be used with any ICD-9-CM- or ICD-10-CM/PCS coded administrative billing/claims/discharge dataset.

**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)

Available at measure-specific web page URL identified in S.1

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

Facility

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

Inpatient/Hospital

If other:

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

n/a

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

[PQI11\\_NQF\\_0279\\_Measure\\_Testing\\_Form\\_161207.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.

### 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.

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

If other:

#### 3b. Electronic Sources

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

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

ALL data elements are in defined fields in electronic claims

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

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

Attachment:

#### 3c. Data Collection Strategy

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

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

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

Because the indicator is based on readily available administrative billing and claims data and U.S. Census data, feasibility is not an issue.

The AHRQ QI software has been publicly available at no cost since 2001; Users have over ten years of experience using the AHRQ QI software in SAS and Windows.

**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).**



There are no fees. Software is freely available from the AHRQ Quality Indicators website (<http://www.qualityindicators.ahrq.gov/>).

## 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)
	<p>Public Reporting</p> <p>Arizona Department of Health Services, AZ Hospital Compare, MONAHRQ website  <a href="http://pub.azdhs.gov/hospital-discharge-stats/2011/Methodology.html">http://pub.azdhs.gov/hospital-discharge-stats/2011/Methodology.html</a></p> <p>Connecticut Department of Health Services, CT Hospital Compare, MONAHRQ website  <a href="http://ctmonahrq.ct.gov/2012/index.html#/resources/AboutQualityRatings">http://ctmonahrq.ct.gov/2012/index.html#/resources/AboutQualityRatings</a></p> <p>Maine Health Data Organization (MHDO), MONAHRQ Website  <a href="http://gateway.maine.gov/mhdo/monahrq/Methodology.html">http://gateway.maine.gov/mhdo/monahrq/Methodology.html</a></p> <p>Nevada Compare Care, MONAHRQ website  <a href="http://nevadacomparecare.net/">http://nevadacomparecare.net/</a></p> <p>Oklahoma State Department of Health, MONAHRQ  <a href="https://www.phin.state.ok.us/ahrq/MONAHRQ%202010/Methodology.html">https://www.phin.state.ok.us/ahrq/MONAHRQ%202010/Methodology.html</a></p> <p>Utah Department of Health, MONAHRQ website  <a href="https://health.utah.gov/myhealthcare/monahrq/">https://health.utah.gov/myhealthcare/monahrq/</a></p> <p>Virginia Health Information, MONAHRQ website  <a href="http://www.vhi.org/MONAHRQ/default.asp?yr=2013">http://www.vhi.org/MONAHRQ/default.asp?yr=2013</a></p> <p>Washington State, MONAHRQ website  <a href="http://www.wamonahrq.net/MONAHRQ_5p0_WA_2012/index.html#/resources/Definitions">http://www.wamonahrq.net/MONAHRQ_5p0_WA_2012/index.html#/resources/Definitions</a></p> <p>California Office of Statewide Health Planning and Development, Healthcare Information Division  <a href="http://oshpd.ca.gov/HID/Products/PatDischargeData/AHRQ/">http://oshpd.ca.gov/HID/Products/PatDischargeData/AHRQ/</a></p> <p>Connecticut, Office of Health Care Access  <a href="http://www.ct.gov/dph/lib/dph/ohca/publications/2010/prev_hosp_report01-2010.pdf">http://www.ct.gov/dph/lib/dph/ohca/publications/2010/prev_hosp_report01-2010.pdf</a></p> <p>Houston and Harris County State of Health Partners  <a href="http://houstonstateofhealth.org/soh_doc/">http://houstonstateofhealth.org/soh_doc/</a></p> <p>Department of Health and Human Services (DHHS), Health Indicators Warehouse (HIW)  <a href="http://www.healthindicators.gov/Resources/Initiatives/CMS/Prevention-Quality-Indicators-Report_20/Indicator/Report">http://www.healthindicators.gov/Resources/Initiatives/CMS/Prevention-Quality-Indicators-Report_20/Indicator/Report</a></p> <p>Northwest Hospital and Medical Center  <a href="http://www.nwhospital.org/downloads/pdfs/Northwest-Hospital-CHNA-2013.pdf">http://www.nwhospital.org/downloads/pdfs/Northwest-Hospital-CHNA-2013.pdf</a></p> <p>Arizona Department of Health Services, AZ Hospital Compare, MONAHRQ website  <a href="http://pub.azdhs.gov/hospital-discharge-stats/2011/Methodology.html">http://pub.azdhs.gov/hospital-discharge-stats/2011/Methodology.html</a></p> <p>Connecticut Department of Health Services, CT Hospital Compare, MONAHRQ website</p>

	<p> <a href="http://ctmonahrq.ct.gov/2012/index.html#/resources/AboutQualityRatings">http://ctmonahrq.ct.gov/2012/index.html#/resources/AboutQualityRatings</a>            Maine Health Data Organization (MHDO), MONAHRQ Website  <a href="http://gateway.maine.gov/mhdo/monahrq/Methodology.html">http://gateway.maine.gov/mhdo/monahrq/Methodology.html</a>            Nevada Compare Care, MONAHRQ website  <a href="http://nevadacomparecare.net/">http://nevadacomparecare.net/</a>            Oklahoma State Department of Health, MONAHRQ  <a href="https://www.phin.state.ok.us/ahrq/MONAHRQ%202010/Methodology.html">https://www.phin.state.ok.us/ahrq/MONAHRQ%202010/Methodology.html</a>            Utah Department of Health, MONAHRQ website  <a href="https://health.utah.gov/myhealthcare/monahrq/">https://health.utah.gov/myhealthcare/monahrq/</a>            Virginia Health Information, MONAHRQ website  <a href="http://www.vhi.org/MONAHRQ/default.asp?yr=2013">http://www.vhi.org/MONAHRQ/default.asp?yr=2013</a>            Washington State, MONAHRQ website  <a href="http://www.wamonahrq.net/MONAHRQ_5p0_WA_2012/index.html#/resources/Definitions">http://www.wamonahrq.net/MONAHRQ_5p0_WA_2012/index.html#/resources/Definitions</a>            California Office of Statewide Health Planning and Development, Healthcare Information Division  <a href="http://oshpd.ca.gov/HID/Products/PatDischargeData/AHRQ/">http://oshpd.ca.gov/HID/Products/PatDischargeData/AHRQ/</a>            Connecticut, Office of Health Care Access  <a href="http://www.ct.gov/dph/lib/dph/ohca/publications/2010/prev_hosp_report01-2010.pdf">http://www.ct.gov/dph/lib/dph/ohca/publications/2010/prev_hosp_report01-2010.pdf</a>            Houston and Harris County State of Health Partners  <a href="http://houstonstateofhealth.org/soh_doc/">http://houstonstateofhealth.org/soh_doc/</a>            Department of Health and Human Services (DHHS), Health Indicators Warehouse (HIW)  <a href="http://www.healthindicators.gov/Resources/Initiatives/CMS/Prevention-Quality-Indicators-Report_20/Indicator/Report">http://www.healthindicators.gov/Resources/Initiatives/CMS/Prevention-Quality-Indicators-Report_20/Indicator/Report</a>            Northwest Hospital and Medical Center  <a href="http://www.nwhospital.org/downloads/pdfs/Northwest-Hospital-CHNA-2013.pdf">http://www.nwhospital.org/downloads/pdfs/Northwest-Hospital-CHNA-2013.pdf</a> </p> <p>           Payment Program            CMS Medicare FFS Physician Feedback Program/Value-Based Payment Modifiers and Quality and Resource Use Reports (QRUR)  <a href="http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/2011-ACSC-Outcomes-Measures.pdf">http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/2011-ACSC-Outcomes-Measures.pdf</a>            CMS Medicare FFS Physician Feedback Program/Value-Based Payment Modifiers and Quality and Resource Use Reports (QRUR)  <a href="http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/2011-ACSC-Outcomes-Measures.pdf">http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/2011-ACSC-Outcomes-Measures.pdf</a> </p> <p>           Quality Improvement (external benchmarking to organizations)            West Jefferson Medical Center  <a href="http://www.wjmc.org/docs/WJMC-Secondary-Data-Profile-09-23-2013.pdf">http://www.wjmc.org/docs/WJMC-Secondary-Data-Profile-09-23-2013.pdf</a> </p>
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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

**Public Reporting:**

Arizona Department of Health Services, AZ Hospital Compare, MONAHRQ website

Hospital quality ratings from all hospitals in Arizona.

<http://pub.azdhs.gov/hospital-discharge-stats/2011/Methodology.html>

Connecticut Department of Health Services, CT Hospital Compare, MONAHRQ website

Hospital quality ratings from all hospitals in Connecticut.

<http://ctmonahrq.ct.gov/2012/index.html#/resources/AboutQualityRatings>

Maine Health Data Organization (MHDO), MONAHRQ Website

Hospital quality ratings from all hospitals in Maine.

<http://gateway.maine.gov/mhdo/monahrq/Methodology.html>

Nevada Compare Care, MONAHRQ website

Hospital quality ratings from most hospitals in Nevada: Quality reporting on hospitals across the state of Nevada Under NV Regulation R151-8 this transparency website presents hospital quality and utilization information.

<http://nevadacomparecare.net/>

Oklahoma State Department of Health, MONAHRQ

Compares quality ratings on hospitals across Oklahoma.

<https://www.phin.state.ok.us/ahrq/MONAHRQ%202010/Methodology.html>

Utah Department of Health, MONAHRQ website

Hospital quality ratings from all hospitals in Utah.

<https://health.utah.gov/myhealthcare/monahrq/>

Virginia Health Information, MONAHRQ website

Compares quality ratings on hospitals across Virginia.

<http://www.vhi.org/MONAHRQ/default.asp?yr=2013>

Washington State, MONAHRQ website

Information system of inpatient care utilization, quality, and potentially avoidable stays in Washington State's community hospitals.

[http://www.wamonahrq.net/MONAHRQ\\_5p0\\_WA\\_2012/index.html#/resources/Definitions](http://www.wamonahrq.net/MONAHRQ_5p0_WA_2012/index.html#/resources/Definitions)

California Office of Statewide Health Planning and Development, Healthcare Information Division

OSHPD Patient Discharge Data from all hospitals in California, totaling over 4 million records annually.

<http://oshpd.ca.gov/HID/Products/PatDischargeData/AHRQ/>

Connecticut, Office of Health Care Access

Preventable Hospitalizations in Connecticut: A Current Assessment of Access to Community Health Services: 2004-2009 state- and county-level hospital admission rate data from most hospitals in CT.

[http://www.ct.gov/dph/lib/dph/ohca/publications/2010/prev\\_hosp\\_report01-2010.pdf](http://www.ct.gov/dph/lib/dph/ohca/publications/2010/prev_hosp_report01-2010.pdf)

Houston and Harris County State of Health Partners

State of Health Annual Report patterned after HCPHES Annual Report.

[http://houstonstateofhealth.org/soh\\_doc/](http://houstonstateofhealth.org/soh_doc/)

Department of Health and Human Services (DHHS), Health Indicators Warehouse (HIW)

Purpose of the HIW is to: Provide a single, user-friendly, source for national, state, and community health indicators; Facilitate harmonization of indicators across initiatives; Link indicators with evidence-based interventions.

[http://www.healthindicators.gov/Resources/Initiatives/CMS/Prevention-Quality-Indicators-Report\\_20/Indicator/Report](http://www.healthindicators.gov/Resources/Initiatives/CMS/Prevention-Quality-Indicators-Report_20/Indicator/Report)

Northwest Hospital and Medical Center

Community Health Needs Assessment (CHNA) required by federal law and Patient Protection and Affordable Health Care Act.

<http://www.nwhospital.org/downloads/pdfs/Northwest-Hospital-CHNA-2013.pdf>

Quality Improvement:

West Jefferson Medical Center

Reports indicators of potentially avoidable hospitalizations associated with the parish in which it is located, and compared those indicators with state-level indicators.

<http://www.wjmc.org/docs/WJMC-Secondary-Data-Profile-09-23-2013.pdf>

**Payment Programs:**

CMS Medicare FFS Physician Feedback Program/Value-Based Payment Modifiers and Quality and Resource Use Reports (QRUR)<sup>1</sup> Program includes measures of Ambulatory Care Sensitive Conditions (ACSC), used by Physicians receiving Medicare FFS payment modifiers.

<http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/2011-ACSC-Outcomes-Measures.pdf>

<sup>1</sup>The numerator of PQI 11 is used in this program. The denominator and risk adjustment is modified to meet specific program requirements.

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

n/a

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

n/a

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

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

The Agency for Healthcare Research and Quality (AHRQ) provides free software, in both SAS and Windows format, to calculate the AHRQ Quality Indicators. Users may use their own hospital administrative data to calculate the QIs using this software.

In addition, AHRQ provides technical assistance to users through a QI User Support email address, [QISupport@ahrq.hhs.gov](mailto:QISupport@ahrq.hhs.gov). AHRQ triages, troubleshoots and responds to technical inquiries related to methodology and rationale behind the indicator and general questions related to the use of the software. During a calendar year, AHRQ typically provides technical support to over 1,000 queries.

**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.**

The AHRQ QI software is updated annually. Technical support is available on an on-going basis. No data updates are necessary; users apply the AHRQ QIs to their own hospital administrative data.

**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.**

Feedback is obtained from users through a variety of channels, in particular through a technical assistance support service described above. In addition, AHRQ incorporates input on QI implementation from technical workgroups convened to support QI development and maintenance, stakeholder committees such as NQF standing committees, and peer-reviewed or other research publications.

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

See the response to 4a2.2.1.

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

See the response to 4a2.2.1.

**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.**

The AHRQ Quality Indicators are updated annually, including updating indicator technical specifications in accordance with the latest coding guidance; suggestions from users and other stakeholders obtained through Technical Assistance, committees, or workgroups; and the latest clinical and scientific research. AHRQ regularly reviews these sources, identifies possible indicator updates, and prioritizes updates for each indicator and software update based on expected impact on users.

#### 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.**

n/a

#### 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.**

During a structured clinical panel review, panelists postulated that some uses of this indicator could disincentive care for high risk individuals. However, no evidence of this unintended consequence has arisen during actual use of the indicator. Rather, identification of high rates can help to target populations most in need of intervention.

Panelists in the same structured review and subsequent expert panel review noted that treatment of bacterial pneumonia in observation care may substitute for inpatient treatment, that this substitution may be systematic between areas and that this will impact the rate of the indicator. During a literature review, we identified no studies that specifically examined observation stays as a substitute for inpatient care. In a retrospective analysis of a 2002-2011 large administrative claims database of commercially insured individuals in the USA, pneumonia was one of the most common short inpatient stay diagnoses that may be impacted by the so-called CMS "2 midnight rule".<sup>1</sup> A retrospective analysis of observation stays from three distinct data source: 2010 Atlanta hospitals protocol driven observation units, 2010 Georgia hospitals for observation units (including protocol-driven, discretionary care and all bed locations), and 2009-10 National Hospital Ambulatory Medical Care Survey (NHAMCS) for similarly diverse of observation units found that pneumonia was the 10th and 11th most common diagnosis in two of the three study settings.<sup>2</sup>

1. Overman RA, Freburger JK, Assimon MM, Li X, Brookhart MA. Observation stays in administrative claims databases: underestimation of hospitalized cases. *Pharmacoepidemiology and drug safety*. Sep 2014;23(9):902-910.

2. Ross MA, Hockenberry JM, Mutter R, Barrett M, Wheatley M, Pitts SR. Protocol-driven emergency department observation units offer savings, shorter stays, and reduced admissions. *Health Aff (Millwood)*. Dec 2013;32(12):2149-2156.

**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.

No

<p><b>5.1a. List of related or competing measures (selected from NQF-endorsed measures)</b></p> <p><b>5.1b. If related or competing measures are not NQF endorsed please indicate measure title and steward.</b></p>
<p><b>5a. Harmonization of Related Measures</b>          The measure specifications are harmonized with related measures;  <b>OR</b>          The differences in specifications are justified</p> <p><b>5a.1. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):</b>  <b>Are the measure specifications harmonized to the extent possible?</b></p> <p><b>5a.2. If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.</b></p>
<p><b>5b. Competing Measures</b>          The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);  <b>OR</b>          Multiple measures are justified.</p> <p><b>5b.1. If this measure conceptually addresses both the same measure focus and the same target population as NQF-endorsed measure(s):</b>  <b>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.)</b></p>

<p><b>Appendix</b></p> <p><b>A.1 Supplemental materials may be provided in an appendix.</b> 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.  <a href="#">Attachment Attachment: PQI11_NQF0279_Supplemental_Files_161205_v2.pdf</a></p>
<p><b>Contact Information</b></p> <p><b>Co.1 Measure Steward (Intellectual Property Owner):</b> <a href="#">Agency for Healthcare Research and Quality</a>  <b>Co.2 Point of Contact:</b> <a href="#">Carol Stocks</a>, <a href="mailto:Carol.Stocks@ahrq.hhs.gov">Carol.Stocks@ahrq.hhs.gov</a>  <b>Co.3 Measure Developer if different from Measure Steward:</b>  <b>Co.4 Point of Contact:</b></p>
<p><b>Additional Information</b></p> <p><b>Ad.1 Workgroup/Expert Panel involved in measure development</b>  <b>Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.</b>  <a href="#">The following panelists participated in a 2009 structured panel review of the Agency for Healthcare Research and Quality Prevention Quality Indicators, which focused on evaluating expansion of the indicators to alternative denominator populations. The panel used a modified Delphi approach to evaluate the indicators, using a method that combined a nominal group technique and a Delphi technique.<sup>1</sup> All panelists rated the indicators and received feedback from other panelists. The panelists participated in a conference call to discuss the indicators and the discussion was summarized and distributed to the group before final rating. Some panelists</a></p>

requested that their affiliation with this report remain anonymous, and this list is therefore a partial representation of the individuals that comprised the panels in their entirety.

1. Davies S, McDonald KM, Schmidt E, Geppert J, Romano PS. Expanding the uses of AHRQ's Prevention Quality Indicators: Validity from the clinician perspective. Med Care. Aug 2011; 49(8): 679-685.

Sandra G. Adams, MD, MS, FCCP  
Pulmonary & Critical Care Medicine  
South Texas Veterans Health Care System  
University of Texas Health Science Center  
San Antonio, Texas  
Nominated by American College of Chest Physicians

Wilbert S. Aronow, MD, FACC, FAHA, AGSF, FCCP  
Geriatric Medicine, Cardiology  
Westchester Medical Center  
New York Medical College  
Valhalla, New York  
Nominated by The American Geriatrics Society

John D. Birkmeyer, MD, FACS  
Surgery  
University of Michigan Hospital  
Ann Arbor, Michigan  
Nominated by American College of Surgeons

James H. Black, III, MD  
Vascular Surgery  
Johns Hopkins Hospital  
Johns Hopkins University  
Baltimore, Maryland  
Nominated by Society for Vascular Surgery

Cynthia Boyd, MD  
Geriatric Medicine  
Johns Hopkins Hospital, Bayview Medical Center  
Johns Hopkins University  
Baltimore, Maryland  
Nominated by The American Geriatrics Society

Suzanne Bradley, MD  
Geriatric Medicine and Infectious Diseases  
Veterans Affairs Ann Arbor Healthcare System  
University of Michigan  
Ann Arbor, Michigan  
Nominated by The American Geriatrics Society

Vickie Brown, RN, MPH, CIC  
Hospital Epidemiology  
University of North Carolina Hospital  
Chapel Hill, North Carolina  
Nominated by Association for Professionals in Infection Control and Epidemiology

John Buckley, MD, MPH  
Pulmonary & Critical Care Medicine



Henry Ford Hospital  
Wayne State University  
Detroit, Michigan  
Nominated by Society of General Internal Medicine

Pauline M. Camacho, MD, FACE  
Division of Endocrinology and Metabolism  
Loyola University Medical Center  
Loyola Stritch School of Medicine  
Maywood/Chicago, Illinois  
Nominated by American Academy of Clinical Endocrinologists

Dickson Cheung, MD, MBA, MPH  
Emergency Medicine  
Sky Ridge Medical Center  
Lone Tree, Colorado  
Nominated by American College of Emergency Physicians

Leslie Davis, MSN, RN, ANP-C  
Division of Cardiology  
Department of Medicine  
University of North Carolina  
Chapel Hill, North Carolina  
Nominated by American Academy of Nurse Practitioners

Barbara DeBaun, MSN, RN, CIC  
Improvement Advisor  
Beacon, Bay Area Patient Safety Collaborative  
Bay Area Counties, California  
Nominated by Association for Professionals in Infection Control and Epidemiology

Gregory J. Dehmer, MD, FACC, FSCAI  
Interventional Cardiology  
Scott & White Healthcare  
Texas A&M University Health Science Center  
Temple, Texas  
Nominated by American College of Cardiology

Shawkat Dhanani, MD, MPH  
Geriatric Medicine  
Veterans Affairs Greater Los Angeles Healthcare System  
University of California at Los Angeles  
Los Angeles, California  
Nominated by The American Geriatrics Society

Michelle Farber, RN, CIC  
Infection Prevention and Control  
Mercy Community Hospital  
Coon Rapids, Minnesota  
Nominated by Association for Professionals in Infection Control and Epidemiology

Amy Fendrich, MD  
Internal Medicine  
Memorial Regional Hospital Primary Care Clinics  
Dania Beach, Florida

Nominated by American Public Health Association, Medical Care Section

Carlos M. Ferrario, MD, FAHA, FASA, FACC  
Cardiology  
Wake Forest University Health Science Center  
Winston-Salem, North Carolina  
Nominated by American College of Cardiology

John E. Gardella, MD, MBA, FCCP, FHM  
Hospital Medicine  
Presbyterian Hospital, Novant Health  
Charlotte, North Carolina  
Nominated by Society of Hospital Medicine

Eric Gertner, MD, MPH, FACP  
Internal Medicine  
Lehigh Valley Hospital  
Penn State College of Medicine  
Allentown, Pennsylvania  
Nominated by American College of Physicians

James M. Gill, MD, MPH  
Family Medicine  
Delaware Valley Outcomes Research  
Jefferson Medical College  
Wilmington, Delaware  
Nominated by American Public Health Association, Medical Care Section

Louis Gilleran, MD, MPH, FACPM  
Preventive Aerospace Medicine  
Naval Medical Center San Diego  
San Diego, California  
Nominated by American Public Health Association, Medical Care Section

Christopher Gonzalez, MD, MBA  
Urology  
Northwestern University Medical Center  
Chicago, Illinois  
Nominated by American Urological Association

Michael K. Gould, MD, MS  
Pulmonary and Critical Care Medicine  
Veterans Affairs Palo Alto Health Care System  
Stanford University  
Palo Alto, California  
Nominated by American Thoracic Society

George Grunberger, MD, FACP, FACE  
Diabetes, Endocrinology  
Grunberger Diabetes Institute  
Wayne State University  
Bloomfield Hills & Detroit, Michigan  
Nominated by American Academy of Clinical Endocrinologists

A. Seiji Hayashi, MD, MPH

Family Medicine  
Unity Health Care, Inc.  
George Washington University  
Washington, DC  
Nominated by American Public Health Association, Medical Care Section

Richard Hellman, MD, FACP, FACE  
Clinical Endocrinology  
North Kansas City Hospital  
University of Missouri, Kansas City School of Medicine  
Kansas City, Missouri  
Nominated by American Academy of Clinical Endocrinologists

Steve J. Hodges, MD  
Surgery, Pediatric Urology  
Wake Forest University Health Sciences  
Institute for Regenerative Medicine  
Winston-Salem, North Carolina  
Nominated by American College of Surgeons (by proxy through Dr. Anthony Atala)

Mary Johnson, MS, RD, CDE, BC-ADM  
Diabetes Quality and Education  
Geisinger Health System  
Central Pennsylvania  
Nominated by American Dietetic Association

Jeanette Kalupa, MSN, ACNP-BC, APNP  
Acute Care Nurse Practitioner, Hospitalist  
Cogent Healthcare  
Aurora St. Luke's Medical Center  
Milwaukee, Wisconsin  
Nominated by American Academy of Nurse Practitioners

Marjorie L. King, MD, FACC, FAACVPR  
Cardiology  
Helen Hayes Hospital  
Columbia University  
West Haverstraw, New York  
Nominated by American College of Cardiology

Jerry A. Krishnan, MD, PhD  
Pulmonary and Critical Care Medicine  
University of Chicago, Asthma and COPD Center  
Chicago, Illinois  
Nominated by American Thoracic Society

Geoffrey Lamb, MD  
Internal Medicine  
Froedtert Hospital  
Medical College of Wisconsin  
Milwaukee, Wisconsin  
Nominated by Society of General Internal Medicine

Gene Lambert, MD, MBA  
Hospital Medicine

Massachusetts General Hospital  
Harvard University  
Boston, Massachusetts  
Nominated by Society of Hospital Medicine

David E. Lanfear, MD, MS, FACC  
Cardiology  
Henry Ford Hospital  
Wayne State University  
Detroit, Michigan  
Nominated by American College of Cardiology

Karen Lasser, MD, MPH  
Primary Care, Internal Medicine  
Boston University, Medical Center  
Boston, Massachusetts  
Nominated by Society of General Internal Medicine

Susan Lee, MS, NP-C, FAANP  
Family Medicine, Internal Medicine  
Bloomington Hospital  
Bloomington, Indiana  
Nominated by American Academy of Nurse Practitioners

Edgar V. Lerma, MD  
Nephrology  
Associates in Nephrology, S.C.  
University of Illinois at Chicago  
Chicago, Illinois  
Nominated by The American Society of Nephrology

James T. Li, MD, PhD  
Internal Medicine, Allergy  
Mayo Clinic, College of Medicine  
Rochester, Minnesota  
Nominated by American Academy of Allergy Asthma and Immunology

Jenny J. Lin, MD  
Internal Medicine  
Mount Sinai Medical Center  
Mount Sinai Medical School  
New York, New York  
Nominated by Society of General Internal Medicine

Frank LoGerfo, MD  
Vascular Surgery  
Beth Israel Deaconess Hospital  
Harvard Medical School  
Boston, Massachusetts  
Nominated by Society for Vascular Surgery

John J. Lopez, MD, FACC  
Interventional Cardiology  
Loyola University Medical Center  
Stritch School of Medicine, Loyola University

Maywood, Illinois  
Nominated by American College of Cardiology

Thomas D. MacKenzie, MD, MSPH  
Internal Medicine  
Denver Health  
University of Colorado  
Denver, Colorado  
Nominated by Society of General Internal Medicine

William Marston, MD  
Vascular Surgery  
University of North Carolina  
Chapel Hill, North Carolina  
Nominated by Society for Vascular Surgery

Helmut Meisl, MD, FACEP  
Emergency Medicine  
Good Samaritan Hospital  
San Jose, California  
Nominated by American College of Emergency Physicians

Mark L. Metersky, MD, FCCP  
Pulmonary and Critical Care Medicine  
University of Connecticut, Health Center  
Farmington, Connecticut  
Nominated by American College of Chest Physicians

Lena M. Napolitano, MD, FACS, FCCM  
Surgery  
University of Michigan  
Ann Arbor, Michigan  
Nominated by American College of Surgeons

John A. Parker, Jr., MD  
Family Medicine  
Marshall University  
Huntington, West Virginia  
Nominated by American Academy of Family Physicians

Jay I. Peters, MD, FCCP  
Chief Pulmonary & Critical Care Medicine  
University of Texas Health Science Center  
San Antonio, Texas  
Nominated by American College of Chest Physicians

Michael P. Phelan, MD, FACEP  
Emergency Medicine  
Cleveland Clinic  
Cleveland, Ohio  
Nominated by American College of Emergency Physicians

Mark Potter, MD  
Family Medicine  
University of Illinois at Chicago, Medical Center

Chicago, Illinois  
Nominated by American Academy of Family Physicians

Carol Rasmussen, MSN, NP-C, CDE  
Diabetes Program  
Exodus Healthcare  
Magna, Utah  
Nominated by American Association of Diabetes Educators

H. David Reines, MD, FACS  
Surgery  
Inova Fairfax Hospital  
Virginia Commonwealth University  
Falls Church, Virginia  
Nominated by American College of Surgeons

Barry Saver, MD, MPH  
Family Medicine  
University of Massachusetts Memorial  
Worcester, Massachusetts  
Nominated by American Academy of Family Physicians

Douglas J.E. Schuerer, MD, FACS, FCCM  
Acute and Critical Care Surgery  
Barnes Jewish Hospital  
Washington University  
St. Louis, Missouri  
Nominated by American College of Surgeons

June Schulz, RRT, FAACVPR  
Respiratory Care, Pulmonary Rehabilitation  
Sanford University of South Dakota Medical Center  
University of South Dakota  
Sioux Falls, South Dakota  
Nominated by American Association of Cardiovascular and Pulmonary Rehabilitation

Kristine M. Thompson, MD  
Emergency Medicine  
Mayo Clinic  
Jacksonville, Florida  
Nominated by American College of Emergency Physicians

Francesca J. Torriani, MD, FIDSA  
Infectious Disease, Epidemiology  
University of California at San Diego  
San Diego, California  
Nominated by Infectious Disease Association of California

Dace L. Trence, MD, FACE  
Division of Metabolism, Endocrinology, and Nutrition  
University of Washington Medical Center  
Seattle, Washington  
Nominated by American Academy of Clinical Endocrinologists

Arjun K. Venkatesh, MD, MBA

<p>Emergency Medicine Brigham and Women's Hospital, Massachusetts General Hospital Harvard University Boston, Massachusetts Nominated by American College of Emergency Physicians</p> <p>Raoul Wolf, MBBCh, FCCP, FAAAAI Allergy and Clinical Immunology La Rabida Chidrens Hospital, Comer University of Chicago Chicago, Illinois Nominated by American College of Chest Physicians</p>
<p><b>Measure Developer/Steward Updates and Ongoing Maintenance</b> <b>Ad.2 Year the measure was first released:</b> 2007 <b>Ad.3 Month and Year of most recent revision:</b> 11, 2007 <b>Ad.4 What is your frequency for review/update of this measure?</b> Annually <b>Ad.5 When is the next scheduled review/update for this measure?</b> 12, 2015</p>
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