NATIONAL QUALITY FORUM

Measure Submission and Evaluation Worksheet 5.0

This form contains the information submitted by measure developers/stewards, organized according to NQF's measure evaluation criteria and process. The evaluation criteria, evaluation guidance documents, and a blank online submission form are available on the submitting standards web page.

NQF #: 0549   **NQF Project:** Pulmonary Project
(for Endorsement Maintenance Review) **Original Endorsement Date:** Aug 05, 2009 **Most Recent Endorsement Date:** Aug 05, 2009

BRIEF MEASURE INFORMATION
De.1 Measure Title: Pharmacotherapy Management of COPD Exacerbation (PCE)
Co.1.1 Measure Steward: National Committee for Quality Assurance
De.2 Brief Description of Measure: This measure assesses the percentage of COPD exacerbations for members 40 years of age and older who had an acute inpatient discharge or ED encounter on or between January 1–November 30 of the measurement year and who were dispensed appropriate medications. Two rates are reported. 1. Dispensed a systemic corticosteroid within 14 days of the event 2. Dispensed a bronchodilator within 30 days of the event Note: The eligible population for this measure is based on acute inpatient discharges and ED visits, not on members. It is possible for the denominator to include multiple events for the same individual.
2a1.1 Numerator Statement: This measure looks at the number of patients with an acute exacerbation related to COPD who were discharged and were dispensed medications following the discharge with appropriate medications. Two rates are reported for the numerator. Rate 1: Dispensed prescription for systemic corticosteroid (Table PCE-C) on or 14 days after the Episode Date. Rate 2: Dispensed prescription for a bronchodilator (Table PCE-D) on or 30 days after the Episode Date.
2a1.4 Denominator Statement: The eligible population for the measure includes all health plan members 40 years or older as of January 1 of the measurement year discharged from an inpatient setting (acute inpatient or ED) with a principal diagnosis of COPD
2a1.8 Denominator Exclusions: 1) Exclude any episodes on which the patient was transferred directly to an acute or nonacute care facility for any diagnosis. 2) Exclude inpatient ED Episodes on which the patient was readmitted to an acute or nonacute care facility for any diagnosis on or seven days after discharge.
1.1 Measure Type: Process **2a1. 25-26 Data Source:** Administrative claims, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Pharmacy **2a1.33 Level of Analysis:** Clinician : Group/Practice, Clinician : Individual, Clinician : Team, Facility, Health Plan, Integrated Delivery System, Population : National, Population : Regional **1.2-1.4 Is this measure paired with another measure?** No **De.3 If included in a composite, please identify the composite measure** (*title and NQF number if endorsed*): N/A

STAFF NOTES (*issues or questions regarding any criteria*)

Comments on Conditions for Consideration:
Is the measure untested?   Yes☐ No☐   If untested, **explain how it meets criteria for consideration for time-limited endorsement:**
1a. Specific national health goal/priority identified by DHHS or NPP addressed by the measure (*check De.5*): 5. Similar/related endorsed or submitted measures (*check 5.1*): Other Criteria:
Staff Reviewer Name(s):

1. IMPACT, OPPORTUITY, EVIDENCE - IMPORTANCE TO MEASURE AND REPORT

Importance to Measure and Report is a threshold criterion that must be met in order to recommend a measure for endorsement. All three subcriteria must be met to pass this criterion. See guidance on evidence.
Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. (evaluation criteria)

1a. High Impact: H☐ M☐ L☐ I☐
(*The measure directly addresses a specific national health goal/priority identified by DHHS or NPP, or some other high impact aspect of healthcare.*)

De.4 Subject/Topic Areas (*Check all the areas that apply*):   Pulmonary/Critical Care, Pulmonary/Critical Care : Chronic Obstructive Pulmonary Disease (COPD)
De.5 Cross Cutting Areas (*Check all the areas that apply*):   Population Health

1a.1 Demonstrated High Impact Aspect of Healthcare: Affects large numbers, A leading cause of morbidity/mortality, High resource use, Severity of illness

1a.2 If "Other," please describe:

1a.3 Summary of Evidence of High Impact (*Provide epidemiologic or resource use data*):
Chronic obstructive pulmonary disease (COPD) is the fourth leading cause of death in the United States (NCHS, 2005). It is also projected to rank third in global disease burden by 2020 (Snow, 2001; WHO, 2010). More than 12 million people in the U.S have been diagnosed with COPD, while another 12 million are not aware they have the disease (WHO, 2010). In 2005, the Centers for Disease Control and Prevention (CDC) analyzed data from the National Vital Statistics System (NVSS). The analysis demonstrated that an estimated 126,005 deaths among persons over the age of 25 years were attributed to COPD. This was a nearly 10 percent increase from 2000, which listed COPD as the underlying cause for 116,494 deaths.

COPD is also correlated to a significant economic burden. In 2002, the costs related to COPD were $18 billion (direct) and $14.1 billion (indirect) (Stewart, 2008). Additionally, in 2002 among community-dwelling Medicare beneficiaries diagnosed with COPD, 12% reported that they spent an average of $2,359 annually on prescription drugs and $21,488 on other related medical expenses (Stewart, 2008). Furthermore, excess health-care expenditures are estimated at nearly $6,000 annually for every COPD patient in the United States (Miller, 2005). In other developed countries, exacerbations of COPD account for the greatest burden on the health care system. In the European Union, the total direct costs attributed to respiratory disease are estimated to be about 6% of the total health care budget, with COPD accounting for 56% (38.6 billion Euros) of respiratory disease-related costs.

1a.4 Citations for Evidence of High Impact cited in 1a.3: American Lung Association. Epidemiology & Statistics Unit, Research and Program Services. Trends in Chronic Obstructive Bronchitis and Emphysema: Morbidity and Mortality, September 2007. American Lung Association; 2007, Available at: www.lungusa.org/atf/cf/%7B7A8D42C2-FCCA-4604-8ADE-7F5D5E762256%7D/TREND_COPD_SEPT07.PDF.

American Lung Association. Epidemiology & Statistics Unit, Research and Program Services. Trends in Chronic Obstructive Bronchitis and Emphysema: Morbidity and Mortality, September 2007. American Lung Association; 2007, Available at: www.lungusa.org/atf/cf/%7B7A8D42C2-FCCA-4604-8ADE- 7F5D5E762256%7D/TREND_COPD_SEPT07.PDF
CDC. Annual smoking-attributable mortality, years of potential life lost, and productivity losses---United States, 1997--2001. MMWR 2005; 54: 625-8.

Connors Jr. AF, Dawson NV, Thomas C, et al. Outcomes following acute exacerbation of severe chronic obstructive lung disease. The SUPPORT investigators (Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments). Am J Respir Crit Care Med. 1996;154(4):959-67.

DW Brown, JB Croft, PhD, KJ Greenlund, PhD, WH Giles, MD, Div of Adult and Community Health, National Center for Chronic Disease Prevention and Health Promotion, CDC. Deaths from Chronic Obstructive Pulmonary Disease – United States, 2000-2005.

European Respiratory Society. European Lung White Book: Huddersfield, European Respiratory Society Journals, Ltd; 2003.

Grasso ME, Weller WE, Shaffer TJ, Diette GB, Anderson GF. Capitation, managed care, and chronic obstructive pulmonary disease. Am J Respir Crit Care Med. 1998;158(1):133-38.

Miller JD, Foster T, Boulanger L, et al. Direct costs of COPD in the U.S.: an analysis of Medical Expenditure Panel Survey (MEPS) data. COPD 2005;2:311--8.

National Center for Health Statistics. Deaths: final data for 2001. Hyattsville (MD): US Department of Health and Human Services, CDC, 2003. Available at: http://www.cdc.gov/nchs/pressroom/03facts/mortalitytrends.htm.

Snow, V., S. Lascher, C. Mottur-Pilson. 2001. The evidence base for management of acute exacerbations of COPD: clinical practice guideline, part 1. Chest 119(4):1185-9.

Stewart BS-WL, Zuckerman I, Doshi J, Shea D, Shaffer T, Zhao L. Medication use by age and disabled Medicare beneficiaries across the spectrum of morbidity—A Chartbook: The Peter Lamy Center on Drug Therapy and Aging, University of Maryland School of Pharmacy; Baltimore, MD, 2007, Available at: www.pharmacy.umaryland.edu/lamy/Complete%20Chartbook%20w.%20cover.pdf.

Tinkelman D, Nordyke RJ, Isonaka S, George D, DesFosses K, Nonikov D. The impact of chronic obstructive pulmonary disease on long-term disability costs. J Manag Care Pharm. 2005;11(1):25-32. Available at: www.amcp.org/data/jmcp/Research_25-32.pdf.

U.S. Preventive Services Task Force. Screening for Chronic Obstructive Pulmonary Disease Using Spirometry: U.S. Preventive Services Task Force Recommendation. (2008)

World Health Organization. Chronic respiratory diseases: Burden. Updated 2009. http://www.who.int/respiratory/copd/burden/en/index.html (March 15, 2010)

1b. Opportunity for Improvement: H☐ M☐ L☐ I☐
(*There is a demonstrated performance gap - variability or overall less than optimal performance*)

1b.1 Briefly explain the benefits (improvements in quality) envisioned by use of this measure:
As stated within the financial and clinical importance regarding control of COPD, outstanding gaps and disparities in care lie in the following areas:
• Continued elevation of morbidity and mortality rates
• Lack of control over risk factors
• Implications of financial and disease burden (e.g., direct and indirect costs, absenteeism, number of episode-free days, rate of exacerbations, number of emergency department and outpatient visits, along with hospitalization days, with a COPD-related diagnosis, lab and imaging costs associated with COPD)
• Prevention and disease management as it pertains to co-morbidities
• Adherence to medication regimens

1b.2 Summary of Data Demonstrating Performance Gap *(Variation or overall less than optimal performance across providers)*:
[*For Maintenance* – *Descriptive statistics for performance results for this measure - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.*]
There is potential for improvement in COPD prevention and disease management. The majority of patients diagnosed with COPD would benefit significantly from early detection, spirometry testing, and annual influenza vaccination. Early detection can improve health outcomes by establishing effective treatment and disease management, such as prioritizing administration of flu and pneumonia vaccines (Lin, 2008). Spirometry-based screening for COPD can serve to prevent exacerbations by treating patients with previously undetected airflow obstruction. However, research has pointed out that even when smokers are shown their spirometry test results and provided guidance on cessation, this alone will not improve cessation rates. In terms of influenza

vaccination, while research suggests that pharmacologic therapy can prevent exacerbations, it has not been determined whether or not performance of spirometry testing is correlated with higher vaccination rates (USPSTF, 2008).

Another study suggested that pharmacologic therapy prevents exacerbations but does not affect hospitalizations or mortality among symptomatic individuals who have been smokers in the past (smokers who have 'severe' or 'very severe' COPD (FEV1 _50% of predicted)). However, research demonstrates that a combination of pharmacologic therapy and pulmonary rehabilitation improve respiratory-related health status measures. Evidence also shows that supplemental oxygen reduces mortality in individuals with resting hypoxia (USPSTF, 2008).

1b.3 Citations for Data on Performance Gap: [*For Maintenance – Description of the data or sample for measure results reported in 1b.2 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*]
Lin, K., B. Watkins, T. Johnson, J.A. Rodriguez, M.B. Barton. 2008. Screening for Chronic Obstructive Pulmonary Disease Using Spirometry: Summary of the Evidence for the U.S. Preventive Services Task Force. Ann Int Med 148(7):535-43.

1b.4 Summary of Data on Disparities by Population Group: [*For Maintenance –Descriptive statistics for performance results for this measure by population group*]
The measure is not stratified to detect disparities. NCQA has participated with IOM and others in attempting to include information on disparities in measure data collection. However, at the present time, this data, at all levels (claims data, paper chart review, and electronic records), is not coded in a standard manner, and is incompletely captured. There are no consistent standards for what entity (physician, group, plan, employer) should capture and report this data. While "requiring" reporting of the data could push the field forward, it has been our position that doing so would create substantial burden with inability to use the data because of its inconsistency. At the present time, we agree with the IOM report that disparities are best considered by the use of zip code analysis which has limited applicability in most reporting situations. At the health plan level, for HEDIS health plan data collection, NCQA does have extensive data related to our use of stratification by insurance status (Medicare, Medicaid and private-commercial) and would strongly recommend this process where the data base supporting the measurement includes this information. However, we believe that the measure specifications should NOT require this since the measure is still useful where the data needed to determine disparities cannot be ascertained from the data available.

1b.5 Citations for Data on Disparities Cited in 1b.4: [*For Maintenance – Description of the data or sample for measure results reported in 1b.4 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*]
N/A

1c. Evidence (*Measure focus is a health outcome OR meets the criteria for quantity, quality, consistency of the body of evidence.*)
Is the measure focus a health outcome?   Yes☐ No☐   If not a health outcome, rate the body of evidence.

Quantity: H☐ M☐ L☐ I☐   Quality: H☐ M☐ L☐ I☐   Consistency: H☐ M☐ L☐ I☐

Quantity	Quality	Consistency	Does the measure pass subcriterion1c?
M-H	M-H	M-H	Yes☐
L	M-H	M	Yes☐ IF additional research unlikely to change conclusion that benefits to patients outweigh harms: otherwise **No**☐
M-H	L	M-H	Yes☐ IF potential benefits to patients clearly outweigh potential harms: otherwise **No**☐
L-M-H	L-M-H	L	No ☐

Health outcome – rationale supports relationship to at least one healthcare structure, process, intervention, or service	Does the measure pass subcriterion1c? Yes☐ IF rationale supports relationship

1c.1 Structure-Process-Outcome Relationship *(Briefly state the measure focus, e.g., health outcome, intermediate clinical outcome, process, structure; then identify the appropriate links, e.g., structure-process-health outcome; process- health outcome; intermediate clinical outcome-health outcome)*:
Clinical practice guidelines and research both stipulate that appropriate distribution of medication and patience adherence to medication regimens are associated with improved health outcomes for individuals.

1c.2-3 Type of Evidence *(Check all that apply)*:
Clinical Practice Guideline

1c.4 Directness of Evidence to the Specified Measure *(State the central topic, population, and outcomes addressed in the body of evidence and identify any differences from the measure focus and measure target population)*:
Clinical practice guidelines and field research have both illustrated the significance of pharmacotherapy – which includes a combination of systemic corticosteroids and bronchodilators – in managing COPD-related symptoms. The evidence suggests that patients that are adherent to their prescribed medication regimens experience less severe and fewer exacerbations and thus experience an overall improved quality of life.

1c.5 Quantity of Studies in the Body of Evidence *(Total number of studies, not articles)*:

1c.6 Quality of Body of Evidence (*Summarize the certainty or confidence in the estimates of benefits and harms to patients across studies in the body of evidence resulting from study factors. Please address: a) study design/flaws; b) directness/indirectness of the evidence to this measure (e.g., interventions, comparisons, outcomes assessed, population included in the evidence); and c) imprecision/wide confidence intervals due to few patients or events*):

1c.7 Consistency of Results across Studies *(Summarize the consistency of the magnitude and direction of the effect):* The studies included evidence-based guidelines with and without systematic reviews/ evaluations, economic evaluations of medications, survey based research and retrospective studies. Research and studies consistently show that appropriate medication management could potentially prevent a significant proportion of COPD-related costs.

1c.8 Net Benefit *(Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms)*:
Even though COPD lung damage is irreversible, pharmacologic treatment for COPD is vital in preventing the occurrence and number of exacerbations thus improving the health status as well as the quality of life for COPD patients. Research literature consistently outlines the following benefits and harms.
Benefits:
• Decreased duration of hospital stays
• Less likelihood of treatment failure
• Reduction in the frequency and severity of exacerbations
• Maintenance of longer disease-free intervals
• Improved quality of life
Harms: Potential adverse effects of long-term medication use

1c.9 Grading of Strength/Quality of the Body of Evidence. Has the body of evidence been graded? No

1c.10 If body of evidence graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias:

1c.11 System Used for Grading the Body of Evidence: Other

1c.12 If other, identify and describe the grading scale with definitions: N/A

1c.13 Grade Assigned to the Body of Evidence:

1c.14 Summary of Controversy/Contradictory Evidence: N/A

1c.15 Citations for Evidence other than Guidelines*(Guidelines addressed below)*:
N/A

1c.16 Quote verbatim, the specific guideline recommendation *(Including guideline # and/or page #)*:
American College of Physicians (ACP)

• Recommended that spirometry should not be used to screen for airflow obstruction in asymptomatic individuals, including those with COPD risk factors.
• Evidence is insufficient to support widespread use of spirometry for testing adults with no respiratory symptoms, including those with current and past exposure to COPD risk factors.
• Evidence does not support periodic spirometry after initiation of therapy to monitor ongoing disease status or to modify therapy.
• Adding spirometry to clinical examination for individuals with respiratory symptoms, especially dyspnea, has demonstrated benefits.

American Thoracic Society (ATS)
• Recommended performing spirometry on all persons with tobacco exposure, a family history of chronic respiratory illness, or respiratory symptoms.

Global Initiative for Chronic Obstructive Lung Disease (GOLD)
• Recommends measurement of lung function to diagnose and categorize disease severity.
• Spirometry test results can have an important effect in future treatment of disease.

Institute for Clinical Systems Improvement (ICSI)
• Recommended using spirometry to confirm a COPD diagnosis and determine degree of airflow limitation.
• Uses the GOLD definition of COPD and recommends following spirometry use standards set by the American Thoracic Society (ATS).
• Recommended measuring pre- and post-bronchodilator spirometry to identify patients with partial reversibility of airflow obstruction.

National Lung Health Education Program (NLHEP)
• Recommended PCPs performing spirometry tests for patients aged 45 years and older if: a) who report smoking cigarettes (current smokers and those who quit during the previous year); b) who present respiratory symptoms such as chronic cough, sputum production, wheezing, or dyspnea on exertion; or c) who desire a global health assessment (risk assessment).

U.S. Preventive Services Task Force (USPSTF)
• Recommends against screening adults for COPD using spirometry. (Grade D)
• Concludes that there is at least moderate certainty that screening for COPD using spirometry has no net benefit.

1c.17 **Clinical Practice Guideline Citation:** American Thoracic Society (ATS). Standards for the Diagnosis and Management of Patients with COPD. New York: American Thoracic Society (ATS), 2004. 222 p.

Ferguson GT et al. Office Spirometry for Lung Health Assessment in Adults: A Consensus Statement Form. Rockville (MD): National Lung Health Education Program (NLHEP), 1999. 38 p.

Global Initiative for Chronic Obstructive Lung Disease (GOLD). Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. Bethesda (MD):Global Initiative for Chronic Obstructive Lung Disease, 2005. 115 p.

Institute for Clinical Systems Improvement (ICSI). Diagnosis and management of chronic obstructive pulmonary disease (COPD). Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2009 Jan. 51 p. [97 references]

National Collaborating Centre for Chronic Conditions, National Institute for Health and Clinical Excellence (NCCCC/NICE). Chronic obstructive pulmonary disease. National clinical guideline on management of chronic obstructive pulmonary disease in adults in primary and secondary care. Thorax 2004 Feb;59 Suppl 1:1-232.

Qaseem A, Snow V, Shekelle P, Sherif K, Wilt TJ, Weinberger S, Owens DK, Clinical Efficacy Assessment Subcommittee of the American College of Physicians. Diagnosis and management of stable chronic obstructive pulmonary disease: a clinical practice guideline from the American College of Physicians. Ann Intern Med 2007 Nov 6;147(9):633-8. [54 references]
U.S. Preventive Services Task Force. Screening for chronic obstructive pulmonary disease using spirometry: U.S. Preventive Services Task Force recommendation statement. Ann Intern Med 2008 Apr 1;148(7):529-34

1c.18 **National Guideline Clearinghouse or other URL:** http://guidelines.gov/content.aspx?id=15555&search=gold+copd; http://guidelines.gov/content.aspx?id=14439&search=icsi+copd; http://guidelines.gov/content.aspx?id=5061&search=copd; http://guidelines.gov/content.aspx?id=12233&search=copd; http://guidelines.gov/content.aspx?id=11652&search=copd; http://guidelines.gov/content.aspx?id=12233&search=uspstf+copd

1c.19 **Grading of Strength of Guideline Recommendation.** Has the recommendation been graded? No

1c.20 **If guideline recommendation graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias:**

1c.21 **System Used for Grading the Strength of Guideline Recommendation:** Other

1c.22 **If other, identify and describe the grading scale with definitions:** American College of Physicians´ Clinical Practice Guidelines Grading System
Quality of Evidence
High: Strong (Benefits Do or Do Not Clearly Outweigh Risks) or weak (Benefits, Risks, and Burdens Are Finely Balanced)
Moderate: Strong or weak
Low: Strong or weak
Insufficient evidence to determine net benefits or harms: I recommend

Global Initiative for Chronic Obstructive Lung Disease (GOLD)
A. Randomized controlled trials. Rich body of data. Evidence is from endpoints of well-designed randomized controlled trials that provide a consistent pattern of findings in the population for which the recommendation is made. Category A requires substantial numbers of studies involving substantial numbers of participants.
B. Randomized controlled trials. Limited data. Evidence is from endpoints of intervention studies that include only a limited number of patients, posthoc or subgroup analysis of randomized controlled trials, or meta analysis of randomized controlled trials. In general, Category B pertains when few randomized trials exist, they are small in size, they were undertaken in a population that differs from the target population of the recommendation, or the results are somewhat inconsistent.
C. Nonrandomized trials. Observational studies. Evidence is from outcomes of uncontrolled or nonrandomized trials or from observational studies.
D. Panel consensus. Judgment. This category is used only in cases where the provision of some guidance was deemed valuable but the clinical literature addressing the subject was deemed insufficient to justify placement in one of the other categories. The Panel Consensus is based on clinical experience or knowledge that does not meet the above listed criteria.

National Collaborating Centre for Chronic Conditions, National Institute for Health and Clinical Excellence (NCCCC/NICE)
• Ia: Evidence from systematic reviews or meta-analysis of randomized controlled trials
• Ib: Evidence from at least one randomized controlled trial
• IIa: Evidence from at least one controlled study without randomization
• IIb: Evidence from at least one other type of quasi-experimental study
• III: Evidence from non-experimental descriptive studies, such as comparative studies, correlation studies, and case-control studies
• IV: Evidence from expert committee reports or opinions and/or clinical experience of respected authorities
• NICE: Evidence from NICE guidelines or Health Technology Appraisal Programme
• HSC: Evidence from Health Service Circulars

United States Preventive Services Task Force (USPSTF)
• A: The USPSTF recommends the service. There is high certainty that the net benefit is substantial.
• B: The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.
• C: The USPSTF recommends against routinely providing the service. There may be considerations that support providing the service in an individual patient. There is moderate or high certainty that the net benefit is small.
• D: The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.
• I Statement: The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.

1c.23 Grade Assigned to the Recommendation:

1c.24 Rationale for Using this Guideline Over Others: NCQA convened an expert panel of diverse stakeholders to review the guidelines and evidence for this measure. The panel determined the measure was scientifically sound using the full body of evidence and guidelines for this measure concept.

Based on the NQF descriptions for rating the evidence, what was the <u>developer's assessment</u> of the quantity, quality, and consistency of the body of evidence?
1c.25 Quantity: High   1c.26 Quality: High 1c.27 Consistency: High

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Was the threshold criterion, *Importance to Measure and Report*, met?
(*1a & 1b must be rated moderate or high and 1c yes*)   Yes☐ No☐
Provide rationale based on specific subcriteria:

For a new measure if the Committee votes NO, then STOP.
For a measure undergoing endorsement maintenance, if the Committee votes NO because of 1b. (no opportunity for improvement), it may be considered for continued endorsement and all criteria need to be evaluated.

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2. RELIABILITY & VALIDITY - SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES

Extent to which the measure, <u>as specified</u>, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (<u>evaluation criteria</u>)
Measure testing must demonstrate adequate reliability and validity in order to be recommended for endorsement. Testing may be conducted for data elements and/or the computed measure score. Testing information and results should be entered in the appropriate field. Supplemental materials may be referenced or attached in item 2.1. See guidance on measure testing.

S.1 Measure Web Page *(In the future, NQF will require measure stewards to provide a URL link to a web page where current detailed specifications can be obtained)*. Do you have a web page where current detailed specifications for <u>this</u> measure can be obtained? No

S.2 If yes, provide web page URL:

2a. RELIABILITY. Precise Specifications and Reliability Testing: H☐ M☐ L☐ I☐

2a1. Precise Measure Specifications. (*The measure specifications precise and unambiguous.*)

2a1.1 Numerator Statement *(Brief, narrative description of the measure focus or what is being measured about the target population, e.g., cases from the target population with the target process, condition, event, or outcome)*:
This measure looks at the number of patients with an acute exacerbation related to COPD who were discharged and were dispensed medications following the discharge with appropriate medications. Two rates are reported for the numerator.
Rate 1: Dispensed prescription for systemic corticosteroid (Table PCE-C) on or 14 days after the Episode Date.
Rate 2: Dispensed prescription for a bronchodilator (Table PCE-D) on or 30 days after the Episode Date.

2a1.2 Numerator Time Window *(The time period in which the target process, condition, event, or outcome is eligible for inclusion)*:
The numerator is calculated over an 11-month intake period that begins on January 1 and ends on November 30 of the measurement year.

2a1.3 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, codes with descriptors, and/or specific data collection items/responses)*:
Health plans are required to count all qualifying prescriptions dispensed during the intake period to calculate each of the numerator rates using NDCs for each of the medications listed in Tables PCE-C and PCE-D below:
Table PCE-C: Systemic Corticosteroids:
betamethasone, dexamethasone, hydrocortisone, methylprednisolone, prednisolone, prednisone, triamcinolone

Table PCE-D: Bronchodialators:
Anticholinergic agents: albuterol-ipratropium, ipratropium, tiotropium

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Beta 2-agonists: albuterol, arformoterol, budesonide-formoterol, epinephrine, fluticasone-salmeterol, formoterol, levalbuterol, metaproterenol, pirbuterol, salmeterol, aminophylline, dyphylline
Methlyxanthines: dyphylline-guaifenesin, guaifenesin-theophylline, potassium iodide-theophylline, theophylline

2a1.4 Denominator Statement *(Brief, narrative description of the target population being measured)*:
The eligible population for the measure includes all health plan members 40 years or older as of January 1 of the measurement year discharged from an inpatient setting (acute inpatient or ED) with a principal diagnosis of COPD

2a1.5 Target Population Category *(Check all the populations for which the measure is specified and tested if any)*: Adult/Elderly Care, Populations at Risk

2a1.6 Denominator Time Window *(The time period in which cases are eligible for inclusion)*:
Episode date through 30 days after the Episode date during the measurement year.

2a1.7 Denominator Details (*All information required to identify and calculate the target population/denominator such as definitions, codes with descriptors, and/or specific data collection items/responses)*:
The denominator for this measure is based on acute inpatient discharges and ED visits, not on the number of members during the intake period. Member's episode dates are identified for inclusion in the denominator through the following administrative claim codes:
Table PCE-A: Codes to Indentify COPD: Chronic bronchitis (ICD-9 491), Emphysema (ICD-9 492), COPD (ICD-9 496)
Table PCE-B: Codes to Identify Visit Type: Acute Inpatient (UB Revenue 010x, 0110-0114, 0119, 0120-0124, 0129, 0130-0134, 0139, 0140-0144, 0149, 0150-0154, 0159, 016x, 020x-022x, 072x, 0987, ED Visit (CPT 99281-99285), (UB Revenue 045x, 0981)

2a1.8 Denominator Exclusions *(Brief narrative description of exclusions from the target population)*:
1) Exclude any episodes on which the patient was transferred directly to an acute or nonacute care facility for any diagnosis.
2) Exclude inpatient ED Episodes on which the patient was readmitted to an acute or nonacute care facility for any diagnosis on or seven days after discharge.

2a1.9 Denominator Exclusion Details *(All information required to identify and calculate exclusions from the denominator such as definitions, codes with descriptors, and/or specific data collection items/responses)*:
N/A

2a1.10 Stratification Details/Variables *(All information required to stratify the measure results including the stratification variables, codes with descriptors, definitions, and/or specific data collection items/responses)*:
N/A

2a1.11 Risk Adjustment Type *(Select type. Provide specifications for risk stratification in 2a1.10 and for statistical model in 2a1.13)*: No risk adjustment or risk stratification   **2a1.12 If "Other," please describe:**

2a1.13 Statistical Risk Model and Variables *(Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development should be addressed in 2b4.)*:
N/A

2a1.14-16 Detailed Risk Model Available at Web page URL (or attachment). Include coefficients, equations, codes with descriptors, definitions, and/or specific data collection items/responses. Attach documents only if they are not available on a webpage and keep attached file to 5 MB or less. NQF strongly prefers you make documents available at a Web page URL. Please supply login/password if needed:

2a1.17-18. Type of Score: Rate/proportion

2a1.19 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

2a1.20 Calculation Algorithm/Measure Logic*(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; aggregating data; risk adjustment; etc.)*:

Step 1 Identify all members who during the Intake Period had an acute inpatient discharge or an ED visit with a primary diagnosis of COPD (Table PCE-A). Use Table PCE-B to identify acute inpatient discharges and ED visits.

Step 2 Determine all COPD Episode Dates. For each member identified in step 1, identify all acute inpatient discharges and ED visits. Do not include ED visits that result in an inpatient admission.

Step 3 Test for transfers. Exclude Episode Dates on which the member was transferred directly to an acute or nonacute care facility for any diagnosis.

Step 4 Test for readmission and additional ED visits. Exclude Episode Dates when the member was readmitted to an acute or nonacute care facility for any diagnosis within 14 days after the Episode Date. Exclude Episode Dates when the member had an ED visit for any diagnosis within 14 days after the Episode Date.

Step 5 Calculate continuous enrollment. The member must be continuously enrolled without a gap in coverage from the Episode Date through 30 days after the Episode Date.

Step 6: calculate all prescriptions for a systemic corticosteroid (Table PCE-C) on or 14 days after the episode date. The organization may count systemic corticosteroids that are active on the relevant date.

Step 7: calculate all prescriptions for a bronchodilator (Table PCE-D) on or 30 days after the episode date. The organization may count bronchodilators that are active on the relevant date.

2a1.21-23 Calculation Algorithm/Measure Logic Diagram URL or attachment:

2a1.24 Sampling (Survey) Methodology. If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):
N/A

2a1.25 Data Source *(Check all the sources for which the measure is specified and tested)*. If other, please describe:
 Administrative claims, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Pharmacy

2a1.26 Data Source/Data Collection Instrument (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.*): NCQA collects HEDIS data directly from Health Management Organizations and Preferred Provider Organizations via a data submission portal - the Interactive Data Submission System (IDSS).

2a1.27-29 Data Source/data Collection Instrument Reference Web Page URL or Attachment: URL
http://www.ncqa.org/tabid/370/default.aspx

2a1.30-32 Data Dictionary/Code Table Web Page URL or Attachment:

2a1.33 Level of Analysis (*Check the levels of analysis for which the measure is specified and tested)*: Clinician : Group/Practice, Clinician : Individual, Clinician : Team, Facility, Health Plan, Integrated Delivery System, Population : National, Population : Regional

2a1.34-35 Care Setting *(Check all the settings for which the measure is specified and tested)*: Ambulatory Care : Clinician Office

2a2. Reliability Testing. (*Reliability testing was conducted with appropriate method, scope, and adequate demonstration of reliability.*)

2a2.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
HEDIS Health Plan performance data for 2010

2a2.2 Analytic Method *(Describe method of reliability testing & rationale)*:
Reliability was estimated by using the beta-binomial model. Beta-binomial is a better fit when estimating the reliability of simple pass/fail rate measures as is the case with most HEDIS® health plan measures. The beta-binomial model assumes the plan score is a binomial random variable conditional on the plan´s true value that comes from the beta distribution. The beta distribution is usually defined by two parameters, alpha and beta. Alpha and beta can be thought of as intermediate calculations to get to the needed variance estimates. The beta distribution can be symmetric, skewed or even U-shaped.

Reliability used here is the ratio of signal to noise. The signal in this case is the proportion of the variability in measured performance that can be explained by real differences in performance. A reliability of zero implies that all the variability in a measure is attributable to measurement error. A reliability of one implies that all the variability is attributable to real differences in performance. The higher the reliability score, the greater is the confidence with which one can distinguish the performance of one plan from another. A reliability score greater than or equal to 0.7 is considered very good.

2a2.3 Testing Results *(Reliability statistics, assessment of adequacy in the context of norms for the test conducted)*:
Reliability statistics for this measure were calculated using HEDIS health plan performance data for 2010. The results are as follows:

Bronchodilator
Commercial: 0.73505
Medicaid: 0.91743
Medicare: 0.91315

Systemic Coricosteroid:
Commercial: 0.73437
Medicaid: 0.9268
Medicare: 0.94303

2b. VALIDITY. Validity, Testing, <u>including all Threats to Validity</u>:   H☐ M☐ L☐ I☐

2b1.1 Describe how the measure specifications *(measure focus, target population, and exclusions)* **are consistent with the evidence cited in support of the measure focus** (*criterion 1c*) **and identify any differences from the evidence:**
The evidence is consistent with the focus and scope of this measure.

2b2. Validity Testing. (*Validity testing was conducted with appropriate method, scope, and adequate demonstration of validity.*)

2b2.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
In early 2005, the National Committee for Quality Assurance field tested a performance measure to assess for the timely and appropriate medication therapy management of exacerbations using both emergency department (ED) and hospital discharge claims data to identify COPD exacerbations. To further examine this issue, a two-center chart review study was conducted to validate the accuracy of using primary diagnosis codes to identify exacerbations.

2b2.2 Analytic Method *(Describe method of validity testing and rationale; if face validity, describe systematic assessment)*:
Investigators queried the Research Patient Data Registry (RPDR) database at two large teaching hospitals for Emergency Department (ED) patient's age = 55 between July 1, 2005 and June 30, 2006. Investigators identified candidate visits for COPD exacerbation by selecting those with ICD-9 codes of 491.2 (obstructive chronic bronchitis), 492.8 (other emphysema), 496 (chronic airway obstruction, not elsewhere classified) in the primary diagnosis field. Because the RPDR search engine includes separate

coding for the ED and the inpatient visit (for admitted patients), investigators carefully examined the records to ensure that the above ICD-9 codes corresponded to the actual ED visit.

Based on these selection criteria, investigators identified 462 eligible visits at Hospital A, and 182 at Hospital B, then randomly selected 100 unique patient-visits at each institution for detailed chart abstraction. Investigators used demographic data from the RPDR database. A standardized data abstraction form was used to collect clinical data (based on documentation in the ED chart), such as details of the current exacerbation, past medical history, home medications, respiratory-related variables and diagnostic tests, ED treatment (particularly inhaled bronchodilators, corticosteroids, and antibiotics), ED disposition, and discharge medications.

2b2.3 Testing Results *(Statistical results, assessment of adequacy in the context of norms for the test conducted; if face validity, describe results of systematic assessment)*:

In a validation test conducted in 2006 to determine the ability to capture COPD exacerbations in administrative claims data, Investigators reviewed a random sample of 200 charts from 2 different medical centers of which 193 of 200 randomly sampled patients were confirmed as having had a COPD exacerbation (i.e., 97%, with 95%CI: 93% to 99%) under the review of two independent physicians. These observations confirm the hypothesis that >90% of patients had a COPD exacerbation in last 7 days; 82-92% were treated with inhaled bronchodilator while in the ED; 68-87% were given systemic corticosteroids while still in the ED and 73-75% were admitted overnight to the hospital after their ED diagnosis of COPD exacerbation. These findings were reviewed by the Respiratory Measurement Advisory Panel (RMAP) and the results and the RMAP feedback were approved by the Committee on Performance Measurement (CPM) as appropriate specifications to include the measure in HEDIS.

POTENTIAL THREATS TO VALIDITY. (*All* *potential threats to validity were appropriately tested with adequate results.*)

2b3. Measure Exclusions. (*Exclusions were supported by the clinical evidence in 1c or appropriately tested with results demonstrating the need to specify them.*)

2b3.1 Data/Sample for analysis of exclusions *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:

Since the measure tracks discharges from the inpatient setting using administrative claims, members who are transferred to another care facility are excluded to prevent double counting of the same episode when patients are transferred between facilities.

2b3.2 Analytic Method (*Describe type of analysis and rationale for examining exclusions, including exclusion related to patient preference)*:

N/A

2b3.3 Results *(Provide statistical results for analysis of exclusions, e.g., frequency, variability, sensitivity analyses):*

N/A

2b4. Risk Adjustment Strategy. (*For outcome measures, adjustment for differences in case mix (severity) across measured entities was appropriately tested with adequate results.*)

2b4.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:

N/A

2b4.2 Analytic Method (*Describe methods and rationale for development and testing of risk model or risk stratification including selection of factors/variables)*:

N/A

2b4.3 Testing Results (*Statistical risk model: Provide quantitative assessment of relative contribution of model risk factors; risk model performance metrics including cross-validation discrimination and calibration statistics, calibration curve and risk decile plot, and assessment of adequacy in the context of norms for risk models. Risk stratification: Provide quantitative assessment of relationship of risk factors to the outcome and differences in outcomes among the strata)*:

N/A

2b4.4 If outcome or resource use measure is not risk adjusted, provide rationale and analyses to justify lack of adjustment: N/A

2b5. Identification of Meaningful Differences in Performance. (*The performance measure scores were appropriately analyzed and discriminated meaningful differences in quality.*)

2b5.1 Data/Sample *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:

The measure has been reported in HEDIS since 2008. Data analysis demonstrates that methods for scoring and analysis of the specified measure allow for identification of statistically significant and practically/clinically meaningful differences in performance. Findings from the first year analysis of HEDIS results are listed below:

•   Data Completeness: Overall, 65% of the submitting MCO and PPO plans from the three product lines were able to report a valid rate, whereas about 19% of the plans had less than 30 eligible members and therefore were not able to report. About 14% of plans chose not to report.

•   National Results: Overall: The national rate for systemic corticosteroid use was 48.3% (SD= 18.82), with a 10th-90th percentile range of 20.24%- 69.02%, whereas the rate for bronchodilator use was 65.96% (SD=17.94), with a 10th-90th percentile range of 41.07- 83.19%. National MCO plans performed higher than the national PPO plans in both systemic corticosteroid use and bronchodilator use.

•   Product lines: The performance rate for systemic corticosteroid use of Medicaid health plans is 53.2% (SD=13.59) whereas Medicare and Commercial plans registered a mean rate of 46.83% (SD=19.33) and 48.42% (19.33) respectively.
The Medicaid health plans showed a bronchodilator use mean performance rate of 74.96% whereas Medicare and Commercial reported a mean rate of 66.76% and 63% respectively.

•   Regional Results: Overall first year results showed moderate variability of performance between regions and between plans within a region for pharmacotherapy management of COPD exacerbations. The New England region was top performing in systemic corticosteroid use for Commercial and Medicaid plans, while the Pacific region was top performing for Medicare plans. South Central showed the lowest rate across the three product lines in systemic corticosteroid use.
The New England region was top in bronchodilator use performance rates for Commercial and Medicaid plans, while the Pacific region was top performing for Medicare plans. South Central showed the lowest rate for Commercial plans in bronchodilator use whereas lowest for Medicare plans was the Middle Atlantic region and lowest for Medicaid plans was South Atlantic. Overall, MCO plans performed higher than PPO plans in most of the regions.

•   Eligible Population and Prevalence: The Commercial plans median eligible population size was 120 members; the Medicaid plan median eligible population size was 202.5 and the Medicare plan eligible population size was 194.5. The mean eligible population prevalence for commercial plans was 1.26/1000 member years, Medicaid plans 4.23/1000 member years, and Medicare plans 22.06/1000 member years.

•   Health Plan Accreditation Status: The performance rate for accredited MCO and PPO plans was similar to that of the non-accredited plans for systemic corticosteroids use and bronchodilator use.

•   Comparison of First Year and Field Test Results: Overall, first year data and field test data were comparable. Bronchodilator use performance rates were higher than those for systemic corticosteroid use in both the field test and in the first year analysis.

2b5.2 Analytic Method *(Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance)*:

In October 2007, NCQA identified an issue of double counting when CPT codes were used in conjunction with UB Revenue codes to identify inpatient visits for the denominator. If an inpatient stay had multiple physician encounters associated with it this coding may have resulted in one stay counted in the denominator multiple times. This double counting was shown to have an impact on both performance rates and eligible population size.
Data from a sample of plans was examined to determine the effect on performance rates. The data showed a difference of 0.5-10 percentage points between the rates in either direction. Eligible population size was also affected by this adjustment with corrected eligible populations in the sample dropping about 70% overall, although the new eligible populations still met the minimum sample size requirement of greater than 30 events.

2b5.3 Results *(Provide measure performance results/scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*:

 The following Tables detail the rates for the measure as reported to NCQA as part of HEDIS health plan reporting. Each line o f business is reported separately for HEDIS and therefore they are kept separate in the tables below.
Table 1: Commercial Results for numerator 1-Systemic corticosteroid use
2010   2009   2008

	2010	2009	2008
N	121	129	147
MEAN	69.8	66.1	67
STDEV	7.5	8.73	8.4
STDERR	0.68	0.77	0.69
MIN	48.8	44.5	38
MAX	85.1	87.2	91.3
P10	60	53.6	58.3
P25	65.6	60.2	61.8
P50	70.6	65.7	67.5
P75	74.1	72.5	72.2
P90	78.4	77.3	76.3

Table 2: Commercial Results for numerator 2- Bronchodilator use

	2010	2009	2008	
N	121	129	147	
MEAN	77.8	78 7	6.1	
STDEV	7.47	7.72	7.56	
STDERR		0.68	0.68	0.62
MIN	58.3	48.7	54.1	
MAX	93	96.7	92.9	
P10	67.5	68.9	65.3	
P25	73.3	73.7	71.8	
P50	78.6	78.9	76.5	
P75	83.3	82.7	81.6	
P90	86.5	87.4	84.8	

Table 3: Medicaid Results for numerator 1-Systemic corticosteroid use

	2010	2009	2008	
N	82	83	77	
MEAN	65.3	61.8	61.7	
STDEV	11.6	12.7	12.6	
STDERR		1.29	1.4	1.43
MIN	37.5	25	16.9	
MAX	90.3	80.6	81.1	
P10	46.5	42.6	43.5	
P25	59.4	53.6	54.4	
P50	67.6	63.4	65.7	
P75	73.5	71.3	70.6	
P90	76.8	76.2	74.6	

Table 4: Medicaid Results for numerator 2- Bronchodilator use

	2010	2009	2008	
N	82	83	77	
MEAN	82.1	80.7	78.2	
STDEV	7.23	10.5	11.3	
STDERR		0.8	1.15	1.29
MIN	59.9	40.3	16.9	
MAX	96.8	96.8	92.2	
P10	71.1	64.5	63.3	
P25	77.5	76.5	73.7	
P50	84.3	84.1	82	
P75	87.1	87.7	85.7	
P90	89.3	90	87.8	

Table 5: Medicare Results for numerator 1- Systemic corticosteroid use

	2010	2009	2008	
N	236	226	227	
MEAN	66.6	60.9	60	
STDEV	10.1	13.3	14.7	
STDERR		0.66	0.88	0.98
MIN	17.4	4.6	2.82	
MAX	94.1	84.1	83.3	
P10	53.6	43.5	41.3	
P25	61.6	55.2	53.4	
P50	67.8	63.4	64.3	
P75	73.8	69.7	69.5	
P90	76.8	73.9	73.9	

Table 6: Medicare Results for numerator 2- Bronchodilator use

	2010	2009	2008	
N	236	226	227	
MEAN	78.2	76.2	74.1	
STDEV	8.44	9.92	12.5	
STDERR		0.55	0.66	0.83
MIN	51.7	28.2	18.4	
MAX	96	95.6	95	
P10	67.5	62.5	59.8	
P25	73.7	71.1	68.4	
P50	79.5	78.6	77.1	
P75	84.1	82.5	82.1	
P90	87.2	86.7	86.3	

2b6. Comparability of Multiple Data Sources/Methods. (*If specified for more than one data source, the various approaches result in comparable scores.*)

2b6.1 Data/Sample (*Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*):
Measure is collect through the use of administrative claims only.

2b6.2 Analytic Method (*Describe methods and rationale for testing comparability of scores produced by the different data sources specified in the measure*):
N/A

2b6.3 Testing Results (*Provide statistical results, e.g., correlation statistics, comparison of rankings; assessment of adequacy in the context of norms for the test conducted*):
N/A

2c. Disparities in Care: H☐ M☐ L☐ I☐ NA☐ (*If applicable, the measure specifications allow identification of disparities.*)

2c.1 If measure is stratified for disparities, provide stratified results (*Scores by stratified categories/cohorts*): The measure is not stratified to detect disparities. NCQA has participated with IOM and others in attempting to include information on disparities in measure data collection. However, at the present time, this data, at all levels (claims data, paper chart review, and electronic records), is not coded in a standard manner, and is incompletely captured. There are no consistent standards for what entity (physician, group, plan, employer) should capture and report this data. While "requiring" reporting of the data could push the field forward, it has been our position that doing so would create substantial burden with inability to use the data because of its inconsistency. At the present time, we agree with the IOM report that disparities are best considered by the use of geocoding analysis which has limited applicability in most reporting situations. At the health plan level, for HEDIS health plan data collection, NCQA does have extensive data related to our use of stratification by insurance status (Medicare, Medicaid and private-commercial) and would strongly recommend this process where the data base supporting the measurement includes this information. However, we believe that the measure specifications should NOT require this since the measure is still useful where

the data needed to determine disparities cannot be ascertained from the data available.

2c.2 If disparities have been reported/identified (e.g., in 1b), but measure is not specified to detect disparities, please explain:
N/A

2.1-2.3 Supplemental Testing Methodology Information:

Steering Committee: Overall, was the criterion, *Scientific Acceptability of Measure Properties*, met?
(*Reliability and Validity must be rated moderate or high*) Yes☐ No☐
Provide rationale based on specific subcriteria:

If the Committee votes No, STOP

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3. USABILITY

Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (**evaluation criteria**)

C.1 Intended Purpose/ Use *(Check all the purposes and/or uses for which the measure is intended)*: Public Reporting, Quality Improvement (Internal to the specific organization), Quality Improvement with Benchmarking (external benchmarking to multiple organizations)

3.1 Current Use *(Check all that apply; for any that are checked, provide the specific program information in the following questions)*: Public Reporting, Quality Improvement with Benchmarking (external benchmarking to multiple organizations), Quality Improvement (Internal to the specific organization)

3a. Usefulness for Public Reporting: H☐ M☐ L☐ I☐
(*The measure is meaningful, understandable and useful for public reporting.*)

3a.1. Use in Public Reporting - disclosure of performance results to the public at large *(If used in a public reporting program, provide name of program(s), locations, Web page URL(s)).* If not publicly reported in a national or community program, state the reason AND plans to achieve public reporting, potential reporting programs or commitments, and timeline, e.g., within 3 years of endorsement: **[**For *Maintenance* – *If not publicly reported, describe progress made toward achieving disclosure of performance results to the public at large and expected date for public reporting; provide rationale why continued endorsement should be considered.***]**
This measure is included in the Healthcare Effectiveness Data and Information Set (HEDIS) whose results may appear through venues such as the annual State of Healthcare Quality report, Quality Compass, America's Best Health Plans.

3a.2. Provide a rationale for why the measure performance results are meaningful, understandable, and useful for public reporting. If usefulness was demonstrated (e.g., focus group, cognitive testing), describe the data, method, and results: HEDIS measures adhere to the desirable attributes of scientific acceptability, feasibility and usability. The measures provide performance rates that are audited for consistency and accuracy. Continued annual data collection and analysis of performance rates between 2008 and 2011 continue to indicate there is variance in rates as well as significant room for improvement among plans.

3.2 Use for other Accountability Functions (payment, certification, accreditation). If used in a public accountability program, provide name of program(s), locations, Web page URL(s): This measure is included in NCQA´S Health Plan Accreditation measurement set.

3b. Usefulness for Quality Improvement: H☐ M☐ L☐ I☐
(*The measure is meaningful, understandable and useful for quality improvement.*)

3b.1. Use in QI. If used in quality improvement program, provide name of program(s), locations, Web page URL(s):
[For *Maintenance* – *If not used for QI, indicate the reasons and describe progress toward using performance results for*

improvement].
This measure is a measure in the Healthcare Effectiveness Data and Information Set (HEDIS) and is used in NCQA's Health Plan Accreditation program.

3b.2. Provide rationale for why the measure performance results are meaningful, understandable, and useful for quality improvement. If usefulness was demonstrated *(e.g., QI initiative),* describe the data, method and results:
Upon review of the field test results, public comment feedback and the recommendations from the RMAP, the Committee on Performance Measurement (CPM) approved the measure for HEDIS. NCQA continually collects feedback on HEDIS measures through its public Policy Clarification Support (PCS) system, through frequent educations presentations, and thorough the NQF endorsement review committees. HEDIS measure specifications are updated annually and external feedback from user experience in implementing the measures is seriously considered as part of this annual review. HEDIS measures also undergo a major re-evaluation on a regular three year cycle which can necessitate additional testing based on user experience feedback and analysis of results from a national multi-year implementation and reporting.

Overall, to what extent was the criterion, *Usability*, met? H☐ M☐ L☐ I☐
Provide rationale based on specific subcriteria:

4. FEASIBILITY

Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. **(evaluation criteria)**

4a. Data Generated as a Byproduct of Care Processes: H☐ M☐ L☐ I☐

4a.1-2 How are the data elements needed to compute measure scores generated? *(Check all that apply).*
Data used in the measure are:
generated by and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition,
Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims)

4b. Electronic Sources: H☐ M☐ L☐ I☐

4b.1 Are the data elements needed for the measure as specified available electronically *(Elements that are needed to compute measure scores are in defined, computer-readable fields)*: ALL data elements are in a combination of electronic sources

4b.2 If ALL data elements are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources:

4c. Susceptibility to Inaccuracies, Errors, or Unintended Consequences: H☐ M☐ L☐ I☐

4c.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measurement identified during testing and/or operational use and strategies to prevent, minimize, or detect. If audited, provide results:
NCQA recognizes that, despite the clear specifications defined for HEDIS measures, data collection and calculation methods may vary, and other errors may taint the results, diminishing the usefulness of HEDIS data for managed care organization (MCO) comparison. In order for HEDIS to reach its full potential, NCQA conducts an independent audit of HEDIS collection and reporting processes, as well as an audit of the data which are manipulated by those processes, in order to verify that HEDIS specifications are met. NCQA has developed a precise, standardized methodology for verifying the integrity of HEDIS collection and calculation processes through a two-part program consisting of an overall information systems capabilities assessment (IS standards) followed by an evaluation of the MCO´s ability to comply with HEDIS specifications (HD standards). NCQA-certified auditors using standard audit methodologies will help enable purchasers to make more reliable "apples-to-apples" comparisons between health plans.
The HEDIS Compliance Audit addresses the following functions:
1) information practices and control procedures
2) sampling methods and procedures
3) data integrity
4) compliance with HEDIS specifications
5) analytic file production
6) reporting and documentation

4d. Data Collection Strategy/Implementation: H☐ M☐ L☐ I☐

A.2 Please check if either of the following apply (*regarding proprietary measures*): Proprietary measure
4d.1 Describe what you have learned/modified 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 (*e.g., fees for use of proprietary measures*):
NCQA´s multi-stakeholder advisory panels examined an analysis of the measure after its first year of reporting. The measure was deemed appropriate for public reporting. NCQA has processes to ensure coding and specifications are clear and updated when needed.

Overall, to what extent was the criterion, *Feasibility*, met? H☐ M☐ L☐ I☐
Provide rationale based on specific subcriteria:

OVERALL SUITABILITY FOR ENDORSEMENT

Does the measure meet all the NQF criteria for endorsement? Yes☐ No☐
Rationale:

If the Committee votes No, STOP.
If the Committee votes Yes, the final recommendation is contingent on comparison to related and competing measures.

5. COMPARISON TO RELATED AND 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 before a final recommendation is made.

5.1 If there are related measures (*either same measure focus or target population)* **or competing measures** (*both the same measure focus and same target population*)**, list the NQF # and title of all related and/or competing measures:**
0577 : Use of Spirometry Testing in the Assessment and Diagnosis of COPD

5a. Harmonization

5a.1 If this measure has EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):
Are the measure specifications completely harmonized? Yes

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

5b. Competing Measure(s)

5b.1 If this measure has 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)*:

CONTACT INFORMATION

Co.1 Measure Steward (Intellectual Property Owner): National Committee for Quality Assurance, 1100 13th Street NW, Suite 1000, Washington, District Of Columbia, 20005

Co.2 Point of Contact: Bob, Rehm, Assistant Vice President, Performance Measurement, Rehm@ncqa.org, 202-955-1728-

Co.3 Measure Developer if different from Measure Steward: National Committee for Quality Assurance, 1100 13th Street NW, Suite 1000, Washington, District Of Columbia, 20005

Co.4 Point of Contact: Bob, Rehm, Assistant Vice President, Performance Measurement, Rehm@ncqa.org, 202-955-1728-	
Co.5 Submitter: Dawn, Alayon, MPH, CPH, Senior Health Care Analyst, alayon@ncqa.org, 202-955-3533-, National Committee for Quality Assurance	
Co.6 Additional organizations that sponsored/participated in measure development:	
Co.7 Public Contact: Bob, Assistant Vice President, Performance Measurement, 202-955-1728-, National Committee for Quality Assurance	

ADDITIONAL INFORMATION

Workgroup/Expert Panel involved in measure development
Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.
The Respiratory Measurement Advisory panel (RMAP) has guided NCQA staff through most of the measure development process. The RMAP provide methodological expertise as well as feedback from their respective organizations experiences in programming the measures. They evaluated the specified measures for accuracy and feasibility, assessed the content validity of measures, and reviewed field test results. RMAP membership consisted of a balanced group of experts, including representatives from academia, clinical research, provider and delivery organizations, and clinical practice. Note that, in addition to the RMAP, we also vetted these measures with a host of other stakeholders, as part of our regular HEDIS measure development process. Thus, our measures are the result of consensus from a broad and diverse group of stakeholders.
Respiratory Measurement Advisory Panel (RMAP) Members:
David Au, MD, MS, (CHAIR) Associate Prof. of Medicine/Investigator HSRD
Anne Fuhlbrigge, MD, Clinical Director, Division of Pulmonary and Critical Care Medicine
Christine Joseph, PhD, MPH, BSc, Associate Director of Research, Epidemiologist
Allan Luskin, MD, Physician Pulmonologist
Joannie Shen, MD, MPH, PhD, Medical Officer/Epidemiologist
Tom Stibolt, MD, Senior Physician
Sean Sullivan, PhD, Prof. & Director, Pharmaceutical Outcomes Research and Policy Program (PORPP) Adjunct Prof., Allergy Section, Dept. Medicine
Jerry Krishnan, MD, PhD, Prof. of Medicine & Public Health, Director of Population Health Sciences, AVP, Office of the VP for Health Affairs
Todd Lee, PharmD, PhD, Primary: Senior Investigator, Secondary: Associate Professor
Richard O´Connor, MD, Director, Dept. of Quality Management, Allergist/Immunologist

Ad.2 If adapted, provide title of original measure, NQF # if endorsed, and measure steward. Briefly describe the reasons for adapting the original measure and any work with the original measure steward:

Measure Developer/Steward Updates and Ongoing Maintenance
Ad.3 Year the measure was first released: 2008
Ad.4 Month and Year of most recent revision: 2009
Ad.5 What is your frequency for review/update of this measure? Approximately every 3 years, sooner if the clinical guidelines have changed significantly.
Ad.6 When is the next scheduled review/update for this measure? 08

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Ad.8 Disclaimers: These performance Measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications.

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Ad.9. Additional Information/Comments

Ad.9 Additional Information/Comments:
Date of Submission (*MM/DD/YY*): 10/18/2011