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 #: 1659 NQF Project: Population Health: Prevention Project
(for Endorsement Maintenance Review) Original Endorsement Date: Most Recent Endorsement Date:
BRIEF MEASURE INFORMATION
De.1 Measure Title: Influenza Immunization
Co.1.1 Measure Steward: Centers for Medicare and Medicaid Services
De.2 Brief Description of Measure: Inpatients age 6 months and older discharged during October, November, December, January, February or March who are screened for influenza vaccine status and vaccinated prior to discharge if indicated.
2a1.1 Numerator Statement: Inpatient discharges who were screened for influenza vaccine status and were vaccinated prior to discharge if indicated.
2a1.4 Denominator Statement: Inpatients age 6 months and older discharged during the months on October, November, December, January, February or March.
2a1.8 Denominator Exclusions: Excluded patients consist of the following; Patients who expire prior to hospital discharge and patients with an organ transplant during the current hospitalization. See the 2a1.9 for ICD-9 and ICD-10 tables for transplants.
1.1 Measure Type: Process 2a1. 25-26 Data Source: Administrative claims, Paper Records 2a1.33 Level of Analysis: Facility, Population : National, Population : Regional, Population : State 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)*: Prevention, Prevention : Immunization, Prevention : Screening
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

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

1a.3 Summary of Evidence of High Impact *(Provide epidemiologic or resource use data)*:
Up to 1 in 5 people in the United States get influenza every season (CDC, Key Facts). Each year an average of approximately 226,000 people in the US are hospitalized with complications from influenza and between 3,000 and 49,000 die from the disease and its complications (Thompson WW, JAMA). Combined with pneumonia, influenza is the nation's 8th leading cause of death (Minino, 2004 National Center for Health Statistics). Up to two-thirds of all deaths attributable to pneumonia and influenza occur in the population of patients that have been hospitalized during flu season regardless of age (Fedson). The Advisory Committee on Immunization Practices (ACIP) recommends seasonal influenza vaccination for all persons 6 months of age and older to highlight the importance of preventing influenza. Vaccination is associated with reductions in influenza among all age groups (CDC Press Release February 24, 2010).

The influenza vaccination is the most effective method for preventing influenza virus infection and its potentially severe complications. Screening and vaccination of inpatients is recommended, but hospitalization is an underutilized opportunity to provide vaccination to persons 6 months of age or older.

1a.4 Citations for Evidence of High Impact cited in 1a.3: CDC. Key facts about influenza and the influenza vaccine, August 2006. Available at: http://www.cdc.gov/flu/keyfacts.htm. Accessed August 11, 2007.

Thompson WW, Shay DK, Weintraub E, Brammer L, Cox N, Anderson LJ, Fukuda. Mortality associated with influenza and respiratory syncytial virus in the United States. JAMA. 2003 January 8; 289 (2): 179-186.

Minino Am, Heron MP, Smith BL. Deaths: Preliminary Data for 2004. National vital statistics reports; vol 54 no 19. Hyattsville, MD: National Center for Health Statistics. 2006

Fedson DS, Houck PM, Bratzler DW. Hospital-based influenza and pneumococcal vaccination: Sutton's Law applied to prevention. Infect Control Hosp Epi. 2000;21:692-699.

Centers for Disease Control and Prevention. Prevention and control of Influenza with vaccines. Recommendations of the Advisory Committee on Immunization Practices (ACIP), MMWR Early Release 2010:59 July 29, 2010: 1-61.

CDC. Newsroom press release February 24, 2010. CDC's Advisory Committee on Immunization Practices (ACIP) Recommends Universal Annual Influenza Vaccination [Internet Cited 2010 March 3]. Available from http://www.cdc/media/pressrel/2010/r100224.htm.

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:
Improvement for this measure is noted as an increase in rate. A rate of 100% means that all patients discharged from the hospital (discharges from October through March), 6 months of age and older were screened for seasonal influenza immunization status and were vaccinated prior to discharge if indicated. The numerator captures two activities: screening and the intervention of vaccine administration when indicated. As a result, patients who had documented contraindications to the vaccine, patients who were offered and declined the vaccine and patients who received the vaccine during the current year's influenza season but prior to the current hospitalization are captured as numerator events. The goal is to vaccinate all patients discharged from October through March in order to decrease the spread of the influenza viral infection.

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.*]

It has long been demonstrated that Influenza vaccination is underutilized even among hospitalized. In a 2000 commentary article Fedson et al. emphasized the importance of influenza and pneumococcal vaccination among hospitalized patients (Fedson). Using a large national sample of 107,311 Medicare patients discharged in 1998 and 1999, Bratzler et al. found that these patients were poorly screened for influenza and pneumococcal vaccination. Among patients who were unvaccinated prior to admission, only three percent received Influenza vaccine before hospital discharge (CDC). The rates of influenza vaccination screening among hospitalized patients have progressively improved since those early observations. However, as shown on data posted on CMS Hospital Compare website, there is still a sizable number of providers whose rate of Influenza vaccination rates are less than optimal. The most recent CMS national rate was 92.7 (1Q2010).

Fedson DS, Houck PM, Bratzler DW. Hospital-based influenza and pneumococcal vaccination: Sutton's Law applied to prevention. Infect Control Hosp Epi. 2000;21:692-699.

CDC. Prevention and control of seasonal Influenza with vaccines. Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2009 :55 (RR 08); 1-52.

http://www.cms.gov/HospitalQualityInits/11_HospitalCompare.asp

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*]

Fedson DS, Houck PM, Bratzler DW. Hospital-based influenza and pneumococcal vaccination: Sutton's Law applied to prevention. Infect Control Hosp Epi. 2000;21:692-699.

CDC. Prevention and control of seasonal Influenza with vaccines. Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2009 :55 (RR 08); 1-52.

http://www.cms.gov/HospitalQualityInits/11_HospitalCompare.asp

1b.4 Summary of Data on Disparities by Population Group: [*For Maintenance –Descriptive statistics for performance results for this measure by population group*]

Using a large national sample of over one million patients discharged with a diagnosis of pneumonia, Hausmann et al. identified disparities across racial/ethnic groups in a number of performance measures (Hausmann). Influenza vaccination/screening rate among white patients was clearly much larger (62.3%) than among African-American (48.2%) and Hispanic (48.7%). These differences remained statistically significant even after adjusting for many other factors through multivariate and multi-level analysis (Hausmann).

Hausmann LR, Ibrahim SA, Mehrotra A, Nsa W, Bratzler DW, Mor MK, Fine MJ. Racial and ethnic disparities in pneumonia treatment and mortality. Med Care 2009; 47:1009-1017.

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*]

Hausmann LR, Ibrahim SA, Mehrotra A, Nsa W, Bratzler DW, Mor MK, Fine MJ. Racial and ethnic disparities in pneumonia treatment and mortality. Med Care 2009; 47:1009-1017.

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)*:
The goal of this measure is to reduce the number of individuals infected with the influenza virus each year. According to the Centers for Disease Control and Prevention, annual influenza vaccination is the most effective method for preventing influenza virus infection and its complications.

Centers for Disease Control and Prevention (CDC). Prevention and Control of Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2010. MMWR. 2010;59(early release)1-62

1c.2-3 Type of Evidence *(Check all that apply)*:
Clinical Practice Guideline, Selected individual studies (rather than entire body of evidence)

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)*:
The majority of published evidence demonstrates that influenza vaccination saves lives and decreases illness.

1c.5 Quantity of Studies in the Body of Evidence *(Total number of studies, not articles)*: The Cochrane review examined 50 reports involving over 70,000 healthy adults (16-65 years), 51 studies involving 294,159 healthy children (under 16 years) and 75 studies involving 1,348 participants over 65 years.

Jefferson T, Di Pietrantonj C, Rivetti A, Bawazeer GA, Al-Ansary LA, Ferroni E. Vaccines for preventing influenza in healthy adults. Cochrane Database of Systematic Reviews 2010, Issue 7.Art. No.: CD001269.DOI: 10.1002/14651858.CD001269.pub4

Jefferson T, Rivetti A, Harndon AR, Di Pietrantonj C, Demicheli V. Vaccines for preventing influenza in healthy children. Cochrane Database of Systematic Reviews 2008, Issue 2. Art. No.:CD004879. DOI: 10.1002/14651858.CD004879.pub3

Jefferson T, Di Pietrantonj C, Al-Ansary LA, Ferroni E, Thorning S, Thomas RE. Vaccines for preventing influenza in the elderly. Cochrane Database of Systematic Reviews 2010, Issue 2. Art. No.: CD004876. DOI: 10. 1002/14651858.CD004876.pub3

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*): For healthy adults (16-65), of the 50 reports in the Cochrane review, 40 were clinical trials involving over 70,000 individuals; 8 were comparative non-RCTs and 2 were reprts of harms.

With respect to the agegroup under 16 years, there were 51 studies involving 294,159 individuals examined in the Cochrane review. Of these 16 studies were RCT and 18 were cohort studies.

With respect to individuals 65 years and older, there were 75 studies (only 1 RCT assessing efficacy and effectiveness) but the sample sizes were very small (total 1,348) and did not provide reliable results.

Jefferson T, Di Pietrantonj C, Rivetti A, Bawazeer GA, Al-Ansary LA, Ferroni E. Vaccines for preventing influenza in healthy adults. Cochrane Database of Systematic Reviews 2010, Issue 7.Art. No.: CD001269.DOI: 10.1002/14651858.CD001269.pub4

Jefferson T, Rivetti A, Harndon AR, Di Pietrantonj C, Demicheli V. Vaccines for preventing influenza in healthy children. Cochrane Database of Systematic Reviews 2008, Issue 2. Art. No.:CD004879. DOI: 10.1002/14651858.CD004879.pub3

Jefferson T, Di Pietrantonj C, Al-Ansary LA, Ferroni E, Thorning S, Thomas RE. Vaccines for preventing influenza in the elderly. Cochrane Database of Systematic Reviews 2010, Issue 2. Art. No.: CD004876. DOI: 10. 1002/14651858.CD004876.pub3

1c.7 Consistency of Results across Studies *(Summarize the consistency of the magnitude and direction of the effect):* For healthy adults (16-65), influenza vaccines have a modest effect in reducing influenza symptoms and working days lost.

Influenza vaccines are efficatious in children older than two but little evidence is available for children under two.

The available evidence for individuals 65 and older is of poor quality and provides no guidance for regarding safety, efficacy or effectiveness of infleunza in this specific group.

Jefferson T, Di Pietrantonj C, Rivetti A, Bawazeer GA, Al-Ansary LA, Ferroni E. Vaccines for preventing influenza in healthy adults. Cochrane Database of Systematic Reviews 2010, Issue 7.Art. No.: CD001269.DOI: 10.1002/14651858.CD001269.pub4

Jefferson T, Di Pietrantonj C, Rivetti A, Bawazeer GA, Al-Ansary LA, Ferroni E. Vaccines for preventing influenza in healthy adults. Cochrane Database of Systematic Reviews 2010, Issue 7.Art. No.: CD001269.DOI: 10.1002/14651858.CD001269.pub4

Jefferson T, Di Pietrantonj C, Al-Ansary LA, Ferroni E, Thorning S, Thomas RE. Vaccines for preventing influenza in the elderly. Cochrane Database of Systematic Reviews 2010, Issue 2. Art. No.: CD004876. DOI: 10. 1002/14651858.CD004876.pub3

1c.8 Net Benefit *(Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms)*:
Influenza epidemics and pandemics have a huge impact on society and individuals. The weight and scope of the burden of influenza varies with the age and underlying health of the patient. The disease imposes a significant burden on all individuals, but hospitalization and treatment occur more frequently in high-risk patients (the elderly and those with certain underlying medical conditions); patient populations that are increasing in size. Escalating medical costs have increased the need to quantify the burden of influenza. Estimates of the cost of influenza in the USA, France and Germany have shown that indirect costs can be five– to 10–fold higher than direct costs. Other intangible costs associated with influenza include impaired performance, which can reduce reaction times, and adverse effects on the quality of life of patients and their families. Increasing the rates of Influenza vaccination can only have a positive benefit and holds the opportunity to decrease death and financial loss worldwide.

Szucs T. The Socio-economic burden of Influenza. Journal of Antimicrobial Chemotherapy. 1999. Vol 44,Issue Supp 2.pp 11-14

1c.9 Grading of Strength/Quality of the Body of Evidence. Has the body of evidence been graded? Yes

1c.10 If body of evidence graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: N/A (Only answered Yes to 1c.9 to be able to submit the measure. The body of evidence was not graded)

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

1c.12 If other, identify and describe the grading scale with definitions: The body of evidence was not graded.

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

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

1c.15 Citations for Evidence other than Guidelines*(Guidelines addressed below)*:
Benowitz I, Esposito DB, Gracey KD, Shapiro ED, Vazquez M. Influenza vaccine given to pregnant women reduces hospitalization due to influenza in their infants. CID. December 2010; 51 (12): 1355-1361.

Fedson DS, Houck PM, Bratzler DW. Hospital-based influenza and pneumococcal vaccination: Sutton's Law applied to prevention. Infect Control Hosp Epi. 2000;21:692-699.

Mandell LA, Wunderink RG, Anzueta A, Bartlett JG, Infectious Diseases Society of America; American Thoracic Society. Infectious Diseases Society of America/American Thoracic Society consensus guidelines on the management of community-acquired pneumonia in adults. Clin Infect Dis. 2007 March 1;44 Suppl 2:S27-72.

Minino Am, Heron MP, Smith BL. Deaths: Preliminary Data for 2004. National vital statistics reports; vol 54 no 19. Hyattsville, MD: National Center for Health Statistics. 2006.

Nichol KL, Wourenma J, von Sternberg T. Benefits of Influenza Vaccination for Low-, Intermediate-, and High-Risk Senior Citizens. Arch Intern Med. 1998;158:1769.

Nichol KL, Nordin J, Mullooly J, et al. Influenza Vaccination and Reduction in Hospitalizations for Cardiac Disease and Stroke among the Elderly. N Engl J Med. 2003;348:1322-1332.

Thompson WW, Shay DK, Weintraub E, Brammer L, Cox N, Anderson LJ, Fukuda. Mortality associated with influenza and respiratory syncytial virus in the United States. JAMA. 2003 January 8; 289 (2): 179-186.

1c.16 Quote verbatim, the specific guideline recommendation *(Including guideline # and/or page #)*:
There is an entire MMWR devoted to the prevention and control of influenza. "Influenza vaccine is recommended for all persons 6 months of age and greater who do not have contraindications to vaccination."

Centers for Disease Control and Prevention (CDC). Prevention and Control of Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2010. MMWR. 2010;59(early release)page 2

1c.17 Clinical Practice Guideline Citation: Centers for Disease Control and Prevention (CDC). Prevention and Control of Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2010. MMWR. 2010;59(early release)1-62

1c.18 National Guideline Clearinghouse or other URL: http://www.cdc.gov/mmwr/pdf/rr/rr59e0729.pdf

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: There was not a system for grading the body of evidence, as it was not graded.

1c.23 Grade Assigned to the Recommendation: N/A

1c.24 Rationale for Using this Guideline Over Others: There are other guidelines that make similiar recommendations regarding vaccination for influenza. However, the CDC guideline is devoted entirely to Influenza prevention and control. Most other guidleines reference the CDC guideline in regards to influenza vaccination.

Based on the NQF descriptions for rating the evidence, what was the developer's assessment of the quantity, quality, and consistency of the body of evidence?
1c.25 Quantity: High 1c.26 Quality: High1c.27 Consistency: High

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.

2. RELIABILITY & 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. (evaluation criteria)
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 this measure can be obtained? Yes

S.2 If yes, provide web page URL:
http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1141662756099

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)*:
Inpatient discharges who were screened for influenza vaccine status and were vaccinated prior to discharge if indicated.

2a1.2 Numerator Time Window *(The time period in which the target process, condition, event, or outcome is eligible for inclusion)*:
The time period included in this measure is the arrival time to the hospital for inpatients through discharge from the hospital during the same stay. This measure is only used during the seasonal influenza season, October-March, defined by the Centers for Disease Control and Prevention (CDC) in the MMWR Early Release, July 29th, 2010/Volume 59.

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*:
The following patients are included in the numerator; Patients who received influenza vaccine during this hospitalization, Patients who received influenza vaccine during the current year´s flu season but prior to the current hospital, Patients who were offered and declined the influenza vaccine during this hospitalization and Patients who have an allergy/sensitivity to the vaccine or the vaccine is not likely to be effective due to the following; hypersensitivity to eggs or other componant(s) of the vaccine, history of Guillain-Barre Syndrome within 6 weeks after a previous influenza vaccination, bone marrow transplants within the past 6 months, anaphalactic latex allergy.

The data elements needed for the numerator are:
Influenza Vaccination Status
ICD-9-CM Other Procedure Code
ICD-9-CM Principal Procedure Code

2a1.4 Denominator Statement *(Brief, narrative description of the target population being measured)*:
Inpatients age 6 months and older discharged during the months on October, November, December, January, February or March.

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

2a1.6 Denominator Time Window *(The time period in which cases are eligible for inclusion)*:
The time period included in this measure is the arrival time to the hospital for inpatients through discharge from the hospital during the same stay. This measure is only used during the seasonal influenza season, October-March, defined by the Centers for Disease Control and Prevention (CDC) in the MMWR Early Release, July 29th, 2010/Volume 59.

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)*:
All inpatients 6 months of age and older, discharged in October, November, December, January, February or March with the exception of the following; Patients who expire prior to hospital discharge and patients who have an organ transplant during the current hospitalization. See the 2a1.9 for ICD-9 and ICD-10 tables for transplants.

The following data elements are needed for the denominator; Admission Date, Birthdate, Discharge Date, Discharge Disposition, ICD-9-CM Other Diagnosis Codes, ICD-9-CM Principal Diagnosis Codes (or ICD-10-CM Principal or Other depending)

2a1.8 Denominator Exclusions *(Brief narrative description of exclusions from the target population)*:
Excluded patients consist of the following; Patients who expire prior to hospital discharge and patients with an organ transplant during the current hospitalization. See the 2a1.9 for ICD-9 and ICD-10 tables for transplants.

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)*:
Excluded patients consist of the following; Patients who expire prior to hospital discharge and patients with an organ transplant during the current hospitalization. The attached ICD-9 and ICD-10 tables for transplants.

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)*:
The allowable values are the stratification and are as follows;
1. Patients who received influenza vaccine during this hospitalization = PASS
2. Patients who receive influenza vaccine during the current year´s flu season but prior to this hospitalization = PASS
3. Patients who were offered and declined the influenza vaccine during this hospitalization = PASS
4. Patients who have an allergy/sensitivity to the vaccine or the vaccine is not likely to be effective due to the following; hypersensitivity to eggs or other componant(s) of the vaccine, history of Guillain-Barre Syndrome within 6 weeks after a previous influenza vaccination, bone marrow transplants within the past 6 months or anaphylactic latex allergy = PASS
5. None of the above/Not documented/UTD = FAILURE

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.)*:
Numerator: Inpatient discharges who were screened for Influenza vaccine status and were vaccinated prior to discharge if

indicated.

Denominator: Acute care hospitalized inpatients age 6 months and older discharged during October, November, December, January, February or March.

Variable Key: Patient Age

1. Start processing. Run cases that are included in the Global Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.

2. Calculate Patient Age. Patient Age, in years, is equal to the Admission Date minus the Birthdate. Use the month and day portion of admission date and birthdate to yield the most accurate age. Only cases with valid Admission Date and Birthdate will pass the front end edits into the measure specific algorithms.

3. Check Patient Age
a. If the Patient Age is less than 6 months old, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
b. If the Patient Age is greater than or equal to 6 months, continue processing and proceed to ICD-9-CM Principal or Other Diagnosis Codes.

4. Check ICD-9-CM Principal or Other Diagnosis Codes
a. If at least one of ICD-9-CM Principal or Other Diagnosis Codes is on Table 15.5 the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
b. If none of the ICD-9-CM Principal or Other Diagnosis Codes is on Table 15.5, continue processing and check Discharge Disposition.

5. Check Discharge Disposition
a. If Discharge Disposition equals 6, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
b. If Discharge Disposition equals 1, 2, 3, 4, 5, 7, or 8 continue processing and proceed to Discharge Date.
c. If Discharge Disposition is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
6. Check Discharge Date. Note: 'yyyy' refers to the specific year of discharge.
a. If the Discharge Date is 04-01-yyyy through 09-30-yyyy, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
b. If the Discharge Date is 10-01-yyyy through 03-31-yyyy, continue processing and proceed to ICD-9-CM Principal or Other Procedure Code.

7. Check ICD-9-CM Principal or Other Procedure Codes
a. If at least one of the ICD-9-CM Principal or Other Procedure Codes is on Table 12.9 the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
b. If all of the ICD-9-CM Principal or Other Procedure Codes are missing or none are on Table 12.9, continue processing and proceed to Influenza Vaccination Status.

8. Check Influenza Vaccination Status
a. If Influenza Vaccination Status is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
b. If Influenza Vaccination Status equals 6, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
c. If Influenza Vaccination Status equals 1, 2, 3, 4, or 5, continue processing and recheck Influenza Vaccination Status.
9. Recheck Influenza Vaccination Status
a. If Influenza Vaccination Status equals 5, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

b. If Influenza Vaccination Status equals 1, 2, 3, or 4 the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

2a1.21-23 Calculation Algorithm/Measure Logic Diagram URL or attachment:
Attachment
2zzk_IMM2.doc
N/A

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):
Sampling vs Not Sampling
Hospitals whose Initial Patient Population size is less than the minimum number of cases per quarter/month for the measure cannot sample.

Population and Sampling
An "Initial Patient Population" refers to all patients (Medicare and non-Medicare) who share a common set of specified, administratively derived data elements, with a length of stay less than or equal to 120 days (Admission Date minus Discharge Date less than or equal to 120 days). Hospitals that choose to sample have the option of sampling quarterly or sampling monthly. The sample size requirements for each of these options are described in turn. Hospitals need to use the next highest whole number when determining their required sample size.

Hospitals can use either the simple random sampling or systematic random sampling methods and the sampling techniques need to be applied consistently within a quarter.
• Simple random sampling - selecting a sample size (n) from a population of size (N) in such a way that every case has the same chance of being selected.
• Systematic random sampling - selecting every kth record from a population of size N in such a way that a sample size of n is obtained, where k is less than or equal to N/n. The first sample record (i.e., the starting point) must be randomly selected before taking every kth record. This is a two-step process:
1. Randomly select the starting point by choosing a number between one and k using a table of random numbers or a computer-generated random number; and
2. Then select every kth record thereafter until the selection of the sample size is completed.

Sample Size Requirements
Quarterly Sample Size
Hospital's Measure Average Quarterly
Initial Patient Population "N" Minimum Required
Sample Size
"n"
> 1551 311
391 - 1550 20% of the Initial Patient Population
78 - 390 78
6 - 77 No sampling; 100% of the Initial Patient Population is required
0 - 5 Submission of patient level data is encouraged but not required:
CMS: if submission occurs, 1 – 5 cases of the Initial Patient Population may be submitted
The Joint Commission: if submission occurs, 100% Initial Patient Population required

Monthly Sample Size
Hospital's Measure Average Monthly
Initial Patient Population
"N" Minimum Required
Sample Size
"n"

>516 104
131-515 20% of the Initial Patient Population
26-130 26
< 26 No sampling; 100% of the Initial Patient Population is required

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

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.*): Patient medical record can be collected using the CMS Abstraction & Reporting Tool (CART).

2a1.27-29 Data Source/data Collection Instrument Reference Web Page URL or Attachment: URL
http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier3&cid=1135267770141
N/A

2a1.30-32 Data Dictionary/Code Table Web Page URL or Attachment:
URL
http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1141662756099
N/A Please see Ad.9 for the Transplant Table ICD-9 and ICD-10 codes

2a1.33 Level of Analysis (*Check the levels of analysis for which the measure is specified and tested)*: Facility, Population : National, Population : Regional, Population : State

2a1.34-35 Care Setting *(Check all the settings for which the measure is specified and tested)*: Hospital/Acute Care Facility

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)*:
Since 2005, CMS has conducted on a regular basis through its contractor " the Clinical Data Abstraction Center (CDAC)" various reliability tests of data elements involved in the assessment of several performance, including Influenza Immunization for patients 50 years of age and older. Each month, CDAC randomly selects a national sample of 80 cases that had been previously abstracted by hospitals and submitted to the Clinical Data Warehouse. The medical charts for these 80 cases are re-abstracted by CDAC abstractors and compared to the data submitted by the hospitals. The annual sample amounts to 960 cases (12 * 80 per month).

2a2.2 Analytic Method *(Describe method of reliability testing & rationale)*:
The CDAC creates a monthly Project Level Accuracy Report. The report examined agreement between assessors (reliability). Accuracy is calculated as the raw agreement rate of both the original abstractor and the reabstractor with the adjudicated gold standard data. The overall accuracy is the aggregate agreement rate (adjusted for computer mismatches) across all data elements in all cases in the sample.

2a2.3 Testing Results *(Reliability statistics, assessment of adequacy in the context of norms for the test conducted)*:
The most current accuracy result (May, 2011) showed a high agreement rate for all data elements for Influenza Immunization for inpatient discharges. For example, the agreement rates for two major data elements, pneumonia principal diagnosis code and Influenza Vaccination Status, were 98.61% and 95%, respectively.

2b. VALIDITY. Validity, Testing, including all Threats to Validity: 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 measure specifications come directly from the MMWR, Prevention and Control of Influenza with Vaccines, July 29th, 2010 which states that all patients 6 months and older should be vaccinated. We only have one group of patients that are excluded from out population, patients who have an organ transplant during the current hospital visit. This recommendation was taken from the Guidelines for Vaccination of Solid Organ Transplant Candidates and Recipient. Although this recommendation was not in the

ACIP guidelines it was supported by 100% our Technical Expert Panel, which had 3 representatives from the Immunization Services Division, National Center for Immunization and Respiratory Diseases at the Centers for Disease Control and Prevention.

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)*:
This measure is similar to an existing measure that has been implemented on a national level over the last ten years, starting from a CMS national project in 1998-2001. The existing database for hospitalized patients in the last six years comprises almost the universe of patients hospitalized for pneumonia in the United States, approximately one million claims a year since 2005. Potential underrepresentation due to sampling has not been an issue.

2b2.2 Analytic Method *(Describe method of validity testing and rationale; if face validity, describe systematic assessment)*:
This measure has face validity. A group of national experts reviewed the measure and evidence and all agreed that high measure scores will relate to higher quality.
Regarding the individual data elements, the abstractors have direct access to the medical record, which is the most authoritative source to extract the required information. The definitions of individual data elements have been constantly revised and clarified to avoid ambiguity. They are compiled in a "Manual Specification" document that is posted to various internet websites (CMS, Joint Commission, etc.). After ten years of clarification the likelihood of systematic error when assessing individual data elements should be minimal.

Regarding the overall assessment of the measure using a series of exclusion and inclusion criteria to estimate the denominator (eligible patients) and the numerator (those who received the recommended care), an elaborate analytic algorithm has been developed and repeatedly tested over the past five or six years. On a quarterly basis, the national database is analyzed by two independent teams of statisticians/programmers who compare their results against each other.

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)*:
As indicated earlier, the national database of the existing similar measure is analyzed by two independent teams of statisticians/programmers (located at two different sites) and their results are validated against each other. The matching rate has been 100% over the last five years. A very tiny number of mismatches that were observed on occasion were due to accidental programming glitches not as a result of the measure algorithm itself; and they were always promptly corrected to reach the perfect 100% matching rate between the two independent teams of analysts.
For each quarter, a dedicated contractor with CMS randomly selects five submitted cases from each hospital for re-abstraction. This process was started in 2003. For the last 6 years, the validation score for the data elements were consistently over 90. The validation score for 2010 was 94.3.

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)*:
There are only 2 populations that are excluded from this measure: Patients who expired during the hospitalization and Patients who had an organ transplant during the hospitalization. We exclude patients who expire during the hospitalization, as they are no longer at risk for anything. Organ transplants are excluded because they are under intensive immunosuppressive therapy and their immunologic response is almost nil.

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)*:
This measure does not require any risk adjustment.

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: This is a process measure and not an outcome measure which may require risk adjustment.

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)*:
We have not performed any analysis at this time. From past experience we usually use our professional/clinical judgement to determine meaningful differences in performance. Once measure results are obtained, analysts will review any variations in performance quarterly. Variations are discussed with subject matter experts and medical director to determine cause.

2b5.2 Analytic Method *(Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance)*:
Our plan will be to determine the realistic achievable national benchmark/target rate. Those providers whose rates are below the national achievable benchmark would be considered to have less than optimal performance. The national benchmark will be determined using the ABC methodolgy developed by the University of Alabama. Because this analysis are usually based on an extremely large sample size (hundreds of thousands), the conventional statistical significance (P-value < 0.05)is usually not relevant in our interpretation of the data.

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)*:
No results at this time.

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)*:
Not applicable because the plan at this time is to use only one data source: the direct abstraction of medical records.

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 designed to provide stratified results.

2c.2 If disparities have been reported/identified (e.g., in 1b), but measure is not specified to detect disparities, please explain:
Although the measure was not designed to identify disparities, similiar measures in the past have identified some indication of disparities across race/ethnic groups (Hausman et al). Effors will be made to identify disparities across demographic groups and provider type, i.e., large vs small hospitals, urban vs. rural hospitals, etc.

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

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)*: Payment Program, Public Reporting, Quality Improvement (Internal to the specific organization), Quality Improvement with Benchmarking (external benchmarking to multiple organizations), Regulatory and Accreditation Programs

3.1 Current Use *(Check all that apply; for any that are checked, provide the specific program information in the following questions)*: Public Reporting, Payment Program, Regulatory and Accreditation Programs, 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.*]
Currently, PN-7, which is this measure with a smaller population, i.e., ´patients 50 and older with a diagnosis of PN´ is included in the Centers for Medicare and Medicaid (CMS) Hospital Value-based Purchasing Program which is a nation-wide program. In order for hospitals to receive thier Annual Payment Update from CMS, they agree to report thier data and have their measure rates reported on Hospital Compare. This expanded measure will be incuded in this same program beginning 1/1/2012. Details regarding this program can be found at the following URL, https://www.cms.gov/HospitalQualityInits/08_HospitalRHQDAPU.asp.

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: PN-7, the current measure with a smaller population, i.e., ´patients 50 and older with a diagnosis of PN´ has been reported publicly on Hospital Compare since fourth quarter 2003. CMS conducts annual consumer testing of the language on Hospital Compare to ensure clarity and ease of interpretation of the information posted publicly.

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): Currently, PN-7, which is this measure with a smaller population, i.e.,

´patients 50 and older with a diagnosis of PN´ is included in the Centers for Medicare and Medicaid (CMS) Hospital Value-based Purchasing Program which is a nation-wide program. In order for hospitals to receive thier Annual Payment Update from CMS, they agree to report thier data and have their measure rates reported on Hospital Compare. This expanded measure will be incuded in this same program beginning 1/1/2012. Details regarding this program can be found at the following URL, https://www.cms.gov/HospitalQualityInits/08_HospitalRHQDAPU.asp.
The current measure, PN-7, is currently used in the accreditation process for The Joint Commission. This expanded measure will used in the same way.

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*].
Currently, PN-7, which is this measure with a smaller population, i.e., ´patients 50 and older with a diagnosis of PN´ is included in the Centers for Medicare and Medicaid (CMS) Hospital Value-based Purchasing Program which is a nation-wide program. In order for hospitals to receive thier Annual Payment Update from CMS, they agree to report thier data and have their measure rates reported on Hospital Compare. This expanded measure will be incuded in this same program beginning 1/1/2012. Details regarding this program can be found at the following URL, https://www.cms.gov/HospitalQualityInits/08_HospitalRHQDAPU.asp.

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:
PN-7, the current measure with a smaller population, i.e., ´patients 50 and older with a diagnosis of PN´ has been reported publicly on Hospital Compare since fourth quarter 2003. CMS conducts annual consumer testing of the language on Hospital Compare to ensure clarity and ease of interpretation of the information posted publicly. The higher the score the better a facility is doing. If a facility is not scoring as high as they would like to score, they can see where they have failures, thus knowing where improvement is needed.

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:
Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims), Abstracted from a record by someone other than person obtaining original information (e.g., chart abstraction for quality measure or registry)

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)*: Some data elements are in 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:
Since the instructions for obtaining the data are written by the measure developers, interpretation of data elements will always be a factor, as they are interpreted by over 4,000 hospitals across the nation. However, since basically the same data element has been

used by PN-7 since 1999, we feel the data element at this point in time is in very good shape.
No unintended consequences have been identified for PN-7 or this new measure.

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

A.2 Please check if either of the following apply (*regarding proprietary measures*):
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)*:
Specifications (including codes and data elements) are modified every 6 months according to feedback received from clinicians and hospital staff collecting data for PN-7. Data is available in the medical redord and there are no feasability or implementation issues identified.
In the past we learned that missing data was an issue. The algorithms were altered to address this issue. If a case is submitted to the CMS Clinical Data Warehouse that has any data elements missing, they are rejected, i.e., sent back to the submitter to give them the opportunity to complete the missing element.

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:
0039 : Flu Shots for Adults Ages 50 and Over
0040 : Flu Shot for Older Adults
0041 : Influenza Immunization
0149 : Influenza vaccination
0226 : Influenza Immunization in the ESRD Population (Facility Level)
0227 : Influenza Immunization
0522 : Influenza Immunization Received for Current Flu Season

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? No

5a.2 If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden:
There are some differences in Exclusions and Inclusions specific to the facility, i.e., Nursing Home/Skilled Nursing Facility vs. Acute Care Hospital such as age, pregnancy, organ transplant during hospitlaization. There are also some age differences, as there our measure follows the latest ACIP recommendations and some of the others have not yet updated their measures. Also, not all of the measures use the same timeframe we use, October through March which is recomended by ACIP. We also exclude cases in which the vaccine has been ordered but it has not yet been received. We´ve found in the past that there have been some seasons in which the vaccine went out much later than expected and seasons in which there were shortages. We prefer to exclude these cases if there is docuentation in the chart to support either of these scenarios.

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)*: The current measure, PN-7, that this measure is expanding upon is the only inpatient measure that looks at influenza vaccination status. Many of the other measures only look at patiens with a specific condition, i.e., DM or ESRD and our measure looks at the global population discharged from the hospital and does ot focus on any specific group. Other measures only look at older adults or just younger patients and our measure looks at all patients 6 monts and older.

CONTACT INFORMATION
Co.1 Measure Steward (Intellectual Property Owner): Centers for Medicare and Medicaid Services, 7500 Security Boulevard, Mail Stop S3-01-02, Baltimore, Maryland, 21244-1850 Co.2 Point of Contact: Kristie, Baus, MS, RN, kristie.baus@cms.hhs.gov, 410-786-8161-
Co.3 Measure Developer if different from Measure Steward: Centers for Medicare and Medicaid Services, 7500 Security Boulevard, Mail Stop S3-01-02, Baltimore, Maryland, 21244-1850 Co.4 Point of Contact: Kristie, Baus, MS, RN, kristie.baus@cms.hhs.gov, 410-786-8161-
Co.5 Submitter: Joanie, McPhetridge, M.Ed., jmcphetridge@ofmq.com, 405-302-3293-, Oklahoma Foundation for Medical Quality
Co.6 Additional organizations that sponsored/participated in measure development: The Joint Commission, Centers for Disease Control and Prevention and the New York State Department of Health provided input regarding the development of this measure.
Co.7 Public Contact: Kristie, Baus, MS, RN, kristie.baus@cms.hhs.gov, 410-786-8161-, Centers for Medicare and Medicaid Services

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. Carolyn Bridges, MD, MPH Associate Director of Adult Immunizations, Immunization Services Division, National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention Atlanta, GA Ph 404-639-8689 Matthew Moore, MD, MPH Captain, USPHS Centers for Disease Control and Prevention 1600 Clifton Road, MS C-23 Atlanta, GA 30333 Ph 404-639-4887 Fax 404-639-3970 Faruque Ahmed, MD Lead Epidemiologist, National Center for Immunization and Respiratory Diseases,

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Fax 518-474-1495

After the measures were expanded outside of patients with a diagnosis of pneumonia the Technical Expert Panel (TEP)was formed. The TEP provided guidance and approval for the measure drafts as well as the product submitted today.

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: These measures were adapted and expanded from the CMS Influenza Vaccination measure, NQF 0149. NQF 0149 only included patients with pneumonia. This measure was expanded to include all patients at risk for influenza infection.

Measure Developer/Steward Updates and Ongoing Maintenance
Ad.3 Year the measure was first released: 2011
Ad.4 Month and Year of most recent revision:
Ad.5 What is your frequency for review/update of this measure? Every six months
Ad.6 When is the next scheduled review/update for this measure? 09, 2011

Ad.7 Copyright statement:

Ad.8 Disclaimers:

Ad.9 Additional Information/Comments: Table 12.10 ICD-9 Organ Transplant During Current Hospitalization

Code	Shortened Description
06.94	Thyroid Tissue Reimplantation
06.95	Parathyroid Tissue Reimplantation
07.94	Transplantation of Thymus
33.50	Lung Transplant, NOS
33.51	Unilateral Lung Transplantation
33.52	Bilateral Lung Transplantation
33.6	Combined Heart- Lung Transplantation
37.51	Heart Transplantation
41.00	Bone Marrow Transplant, NOS
41.01	Autologous Bone Marrow Transplant Without Purging
41.02	Allogeneic Bone Marrow Transplant With Purging
41.03	Allogeneic Bone Marrow Transplant Without Purging
41.04	Autologous Hematopoietic Stem Cell Transplant Without Purging
41.05	Allogeneic Hematopoietic Stem Cell Transplant Without Purging
41.06	Cord Blood Stem Cell Transplant
41.07	Autologous Hematopoietic Stem Cell Transplant With Purging
41.08	Allogeneic Hematopoietic Stem Cell Transplant With Purging
41.09	Autologous Bone Marrow Transplant With Purging
41.94	Transplantation of Spleen
46.97	Transplant of Intestine
55.69	Other Kidney Transplantation
50.51	Auxiliary Liver Transplant
50.59	Other Liver Transplant

65.92 Transplantation of Ovary 55.61 Renal Autotransplantation 52.80 Pancreatic Transplant, NOS 52.81 Reimplantation of Pancreatic Tissue 52.82 Homotransplant of Pancreas 52.83 Heterotransplant of Pancreas 52.84 Autotransplantation of cells of Islets of Langerhans 52.85 Allotransplantation of cells of Islets of Langerhans 52.86 Transplantation of cells of Islets of Langerhans, NOS 65.72 Other Reimplantation of Ovary ICD-10s available upon request.
Date of Submission (*MM/DD/YY*): 07/07/2011