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 <u>submitting standards web page</u>.

NQF #: 0522 NQF Project: Population Health: Prevention Project
(for Endorsement Maintenance Review) Original Endorsement Date: Mar 31, 2009 Most Recent Endorsement Date: Mar 31, 2009
BRIEF MEASURE INFORMATION
De.1 Measure Title: Influenza Immunization Received for Current Flu Season (Home Health)
Co.1.1 Measure Steward: Centers for Medicare & Medicaid Services
De.2 Brief Description of Measure: Percentage of home health episodes of care during which patients received influenza immunization for the current flu season.
2a1.1 Numerator Statement: Number of home health episodes of care during which the patient a) received vaccination from the HHA or b) had received vaccination from HHA during earlier episode of care, or c) was determined to have received vaccination from another provider.
NOTE: Number of home health episodes of care during which the patient was offered and refused vaccine; AND Number of home health episodes of care during which the patient was determined to have medical contraindication(s) are computed separately and reported to agencies but are not reported publicly.
2a1.4 Denominator Statement: Number of home health episodes of care ending during the reporting period, other than those covered by generic or measure-specific exclusions.
2a1.8 Denominator Exclusions: Episodes which do not include any days during the flu season (October 1 - March 31). Episodes which ended with patient death. Episodes in which the patient does not meet the CDC guidelines for influenza vaccine.
1.1 Measure Type: Process 2a1. 25-26 Data Source: Electronic Clinical Data 2a1.33 Level of Analysis: Facility
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
STAFE NOTES (issues or questions regarding any criteria)

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 (<i>check De.5</i>): 5. Similar/related endorsed or submitted measures (<i>check 5.1</i>): Other Criteria:
Staff Reviewer Name(s):

NQF #0522 Influenza Immunization Received for Current Flu Season (Home Health)
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 <u>guidance on evidence</u> . 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 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 (<i>Provide epidemiologic or resource use data</i>): Influenza vaccination is recommended worldwide for older people to reduce morbidity and mortality. There are differential adverse impacts on older people from influenza, including higher rates of mortality, hospitalization and long term health effects, accounting for more than 60% of the influenza-related hospitalizations and 85% of the influenza-related deaths (1). There is at least one report that 10% of the winter time deaths represent influenza-related deaths (2) which is much less than previous reports (3)but explained by study design (lack of RCTs; over-reliance on cohort studies). One explanation is that providers do not use the entire influenza vaccination season to provide vaccination, generally using a two to three month time frame when there is a seven month influenza season (4;5).
1a.4 Citations for Evidence of High Impact cited in 1a.3: (1) Nichol KL. Influenza vaccination in the elderly: impact on hospitalisation and mortality. Drugs Aging 2005; 22(6):495-515. (2) Simonsen L, Reichert TA, Viboud C, Blackwelder WC, Taylor RJ, Miller MA. Impact of influenza vaccination on seasonal mortality in the US elderly population. Arch Intern Med 2005; 165(3):265-272. (3) Simonsen L, Taylor RJ, Viboud C, Miller MA, Jackson LA. Mortality benefits of influenza vaccination in elderly people: an ongoing controversy. Lancet Infect Dis 2007; 7(10):658-666. (4) Poland GA, Johnson DR. Increasing influenza vaccination rates: the need to vaccinate throughout the entire influenza season. Am J Med 2008; 121(7 Suppl 2):S3-10. (5) Stinchfield PK. Practice-proven interventions to increase vaccination rates and broaden the immunization season. Am J Med 2008; 121(7 Suppl 2):S11-S21.
1b. Opportunity for Improvement: H M L I C C 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: This measure meets the National Priorities Partnership (NPP) Goal of providing preventive services recommended by the U.S. Preventive Services Task Force. There is the potential to reduce illness, mortality and hospitalization by provision of IV, particularly for older home health care patients. TEP comments:
In December 2010, a Technical Expert Panel (TEP) was convened to review the analysis conducted on the home health measures that received NQF time limited endorsement. When asked to rate opportunity for improvement, the majority (9 of 11) of the TEP

members rated the measure as partially or completely meeting the criteria of sufficient variation in performance to justify continued measurement and public reporting.

1b.2 Summary of Data Demonstrating Performance Gap (Variation or overall less than optimal performance across providers): [For <u>Maintenance</u> – Descriptive statistics for performance results <u>for this measure</u> - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.]

Agency Avg: 66% Std Dev: 22% Skew: -0.93

Min: 0% 10th: 33% 25th: 54% 50th: 70% 75th: 81% 90th: 90% Max: 100%			
in 1b.2 ind OASIS-C (8,025) me million), si than 12 m	cluding nur data from et the ten e nce many onths of d	mber of measure Medicare certife episode threshoof the episode	mance Gap: [For Maintenance] – Description of the data or sample for measure results reported red entities; number of patients; dates of data; if a sample, characteristics of the entities included] ied agencies with at least 10 quality episodes to which the measure applies. 79% of agencies old for this measure. The measure applied to 42% of all quality episodes (1.22 million out of 2.89 is were outside the time parameters for the measure (i.e. outside of influenza season). As less ble for testing, we relaxed the public reporting constraint of 20 episodes per agency in 12 in 9 months.
for this me	e <u>asure</u> by p Rate by P 6 5 5 5 5 8	ata on Dispar copulation grou atient Race	ities by Population Group: [For <u>Maintenance</u> –Descriptive statistics for performance results up]
Observed <65 58% 65-75 65% 75-85 59% 85+ 70%	, 0	atient Age	
Observed Male 66% Female 66		atient Gender	
reported in included] OASIS-C (8,025) me million), si than 12 m	n 1b.4 inclosed the ten entry on the ten entry of the ten entry on the ten entry of the ten entry on the ten entry on the ten entry on the ten entry of the ten entry on the ten entry of the ten entry on the ten entry of the ten	uding number of Medicare certife episode threshoof the episode	ities Cited in 1b.4: [For <u>Maintenance</u> – Description of the data or sample for measure results of measured entities; number of patients; dates of data; if a sample, characteristics of the entities ited agencies with at least 10 quality episodes to which the measure applies. 79% of agencies old for this measure. The measure applied to 42% of all quality episodes (1.22 million out of 2.89 is were outside the time parameters for the measure (i.e. outside of influenza season). As less ble for testing, we relaxed the public reporting constraint of 20 episodes per agency in 12 in 9 months.
	•		health outcome OR meets the criteria for quantity, quality, consistency of the body of evidence.) tcome? 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	М-Н	Yes
L	М-Н	М	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
outcome, intermedia	process, s ate clinical	structure; then i outcome-heal	identify the appropriate lini th outcome):	the the measure focus, e.g., health outcome, intermediate clinical ks, e.g., structure-process-health outcome; process- health outcome; lization by provision of IV, particularly for older home health care
		dence (Check a , Evidence-bas		synthesis of research, Meta-analysis

- 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):
- There are no published reports of the number of home health care patients who receive influenza vaccination (IV) or suffer adverse effects from lack of IV. However, Nichol (1), in a systematic review, identifies that IV reduced medically confirmed influenza in community dwelling older people by a preponderance of evidence (12 of 13 studies reviewed and reported). In addition, IV was associated with reductions in hospitalizations (all hospitalizations, hospitalizations for respiratory conditions, hospitalizations for heart failure and cerebrovascular disease) as well as reductions in mortality from all-cause, respiratory causes and influenza causes. In a study by Nichol et al (9), IV was associated with "a 27% reduction in the risk of hospitalization for pneumonia or influenza (adjusted odds ratio, 0.73; 95% confidence interval [CI], 0.68 to 0.77) and a 48% reduction in the risk of death (adjusted odds ratio, 0.52; 95% CI, 0.50 to 0.55)" among a group of older HMO subscribers. IV is associated with a 33% reduction in lower respiratory tract infection rates among older community dwelling people in the Netherlands without comorbidities while there is no reduction for those with comorbid disease (10).
- 1c.5 Quantity of Studies in the Body of Evidence (*Total number of studies, not articles*): This submission is based on a previously submitted form which did not require this information.
- 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): This submission is based on a previously submitted form which did not require this information.
- 1c.7 Consistency of Results across Studies (Summarize the consistency of the magnitude and direction of the effect): This submission is based on a previously submitted form which did not require this information.
- 1c.8 **Net Benefit** (*Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit benefit over harms*):

This submission is based on a previously submitted form which did not require this information.

- 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: This submission is based on a previously submitted form which did not require this information.
- 1c.11 System Used for Grading the Body of Evidence: Other
- 1c.12 **If other, identify and describe the grading scale with definitions**: This submission is based on a previously submitted form which did not require this information.
- 1c.13 Grade Assigned to the Body of Evidence: Fair

1c.14 Summary of Controversy/Contradictory Evidence: There are two issues in the research literature regarding IV: "efficacy against influenza (reduction in laboratory-confirmed cases) or effectiveness against influenza-like illness(reduction in symptomatic cases) "(6). There are controversies within the research community with some researchers reporting little to no effectiveness of IV on outcomes while other researchers find evidence of effectiveness on varying outcomes. Jefferson et al (6), in a systematic review published in The Lancet, identified 20 studies of more than 3 million community dwelling older people and found that IV is ineffective in the prevention of influenza, influenza-like illness, and pneumonia, does not reduce hospitalization rates and death from respiratory disease but does reduce hospitalization for influenza and pneumonia and reduce all-cause mortality. The authors note the inability to control for pre-existing health states as the research studies used were not RCTs. A Cochrane review confirms the findings on the ineffectiveness of IV on influenza, influenza like illness and pneumonia among community dwelling older people (7). Well-matched vaccines (the vaccine closely matches the circulating influenza strain) were associated with reduced hospitalization for influenza and pneumonia and all-cause mortality. Knottnerus further identifies the ethical and practical issues in conducting RCTs for this topic and concludes that it is not feasible to do so (8).

1c.15 Citations for Evidence other than Guidelines (Guidelines addressed below):

- (1) Nichol KL. Influenza vaccination in the elderly: impact on hospitalisation and mortality. Drugs Aging 2005; 22(6):495-515.
- (2) Simonsen L, Reichert TA, Viboud C, Blackwelder WC, Taylor RJ, Miller MA. Impact of influenza vaccination on seasonal mortality in the US elderly population. Arch Intern Med 2005; 165(3):265-272.
- (3) Simonsen L, Taylor RJ, Viboud C, Miller MA, Jackson LA. Mortality benefits of influenza vaccination in elderly people: an ongoing controversy. Lancet Infect Dis 2007; 7(10):658-666.
- (4) Poland GA, Johnson DR. Increasing influenza vaccination rates: the need to vaccinate throughout the entire influenza season. Am J Med 2008; 121(7 Suppl 2):S3-10.
- (5) Stinchfield PK. Practice-proven interventions to increase vaccination rates and broaden the immunization season. Am J Med 2008; 121(7 Suppl 2):S11-S21.
- (6) Jefferson T, Rivetti D, Rivetti A, Rudin M, Di Pietrantonj C, Demicheli V. Efficacy and effectiveness of influenza vaccines in elderly people: a systematic review. Lancet 2005; 366(9492):1165-1174.
- (7) Rivetti D, Jefferson T, Thomas R, Rudin M, Rivetti A, Di Pietrantonj C et al. Vaccines for preventing influenza in the elderly. Cochrane Database Syst Rev 2006; 3:CD004876.
- (8) Knottnerus JA. Influenza vaccination in the elderly: current evidence and uncertainties. J Clin Epidemiol 2009; 62(7):675-676.
- (9) Nichol KL, Nordin JD, Nelson DB, Mullooly JP, Hak E. Effectiveness of influenza vaccine in the community-dwelling elderly. N Engl J Med 2007; 357(14):1373-1381.
- (10) Voordouw BC, Sturkenboom MC, Dieleman JP, Stijnen T, van der LJ, Stricker BH. Annual influenza vaccination in community-dwelling elderly individuals and the risk of lower respiratory tract infections or pneumonia. Arch Intern Med 2006; 166(18):1980-1985.
- 1c.16 Quote verbatim, the specific guideline recommendation (Including guideline # and/or page #): Routine influenza vaccination of all persons aged =6 months.
- 1c.17 Clinical Practice Guideline Citation: CDC. Prevention and Control of Influenza with Vaccines. Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2010.
- 1c.18 National Guideline Clearinghouse or other URL:

http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5908a1.htm?s cid=rr5908a1 e

- 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: This submission is based on a previously submitted form which did not require this information.

1c.23 Grade Assigned to the Recommendation: A - there is a high certainty that the net benefit is substantial.
1c.24 Rationale for Using this Guideline Over Others: The CDC's ACIP guidelines were used in the development of NQF's Immunization Standard Measure Specifications.
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: Moderate 1c.26 Quality: Moderate1c.27 Consistency: Moderate
Was the threshold criterion, <i>Importance to Measure and Report</i> , 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, <u>as specified</u> , 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 <u>guidance on measure testing</u> .
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.cms.gov/HomeHealthQualityInits/Downloads/HHQITechnicalDocOfMeasures.pdf
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): Number of home health episodes of care during which the patient a) received vaccination from the HHA or b) had received vaccination from HHA during earlier episode of care, or c) was determined to have received vaccination from another provider.
NOTE: Number of home health episodes of care during which the patient was offered and refused vaccine; AND Number of home health episodes of care during which the patient was determined to have medical contraindication(s) are computed separately and reported to agencies but are not reported publicly.
2a1.2 Numerator Time Window (The time period in which the target process, condition, event, or outcome is eligible for inclusion): CMS systems report data on episodes that include at least one day between October 1 and March 31, inclusive, and that end within a rolling 12 month period, updated quarterly.
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: Measure specifications follow National Voluntary Consensus Standards for Influenza and Pneumococcal Immunizations, Final Deliverable to CMS under
Contract # HHSM-500-2006-00027I – Task Order 0008: Adult Immunizations, published September 15, 2008

-(M1045) Reason Influenza Vaccine not Rec'd = 1 (Rec'd from another provider), or

-(M1045) Reason Influenza Vaccine not Rec'd = 2 (Rec'd previously from agency during this year's flu season)

2a1.4 Denominator Statement (Brief, narrative description of the target population being measured):

Number of home health episodes of care ending during the reporting period, other than those covered by generic or measure-specific exclusions.

- 2a1.5 Target Population Category (Check all the populations for which the measure is specified and tested if any):
- 2a1.6 **Denominator Time Window** (*The time period in which cases are eligible for inclusion*):

CMS systems report data on episodes that include at least one day between October 1 and March 31, inclusive, and that end within a rolling 12 month period, updated quarterly.

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):

Number of home health patient episodes of care, defined as:

A start/resumption of care assessment ((M0100) Reason for Assessment = 1 (Start of care) or 3 (Resumption of care)) paired with a corresponding discharge/transfer assessment ((M0100) Reason for Assessment = 6 (Transfer to inpatient facility – not discharged), 7 (Transfer to inpatient facility – discharged), 8 (Death at home), or 9 (Discharge from agency)), other than those covered by denominator exclusions.

2a1.8 **Denominator Exclusions** (Brief narrative description of exclusions from the target population):

Episodes which do not include any days during the flu season (October 1 - March 31). Episodes which ended with patient death. Episodes in which the patient does not meet the CDC guidelines for influenza vaccine.

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):

Measure Specific Exclusions:

Number of home health patient episodes of care where at end of episode:

- (M0100) Reason for Assessment = 8 (Death at home)

PLUS

Number of home health patient episodes of care where at end of episode:

- (M0100) Reason for Assessment = 6 or 7 (transfer to inpatient) or 9 (discharge) AND:
- (M1055) Reason Influenza Vaccine not Rec'd = 5 (not indicated, patient does not meet age/condition guidelines) PLUS

Number of home health patient episodes of care where (M0030) Start of Care Date or (M0032) Resumption of Care Date, and (M0906) Discharge/Transfer Date indicate no part of episode occurred during flu season (October 1 to March 31)

Generic Exclusions: Medicare-certified home health agencies are currently required to collect and submit OASIS data only for adult (aged 18 and over) non-maternity Medicare and Medicaid patients who are receiving skilled home health care. Therefore, maternity patients, patients less than 18 years of age, non-Medicare/Medicaid patients, and patients who are not receiving skilled home services are all excluded from the measure calculation. However, the OASIS items and related measures could potentially be used for other adult patients receiving services in a community setting, ideally with further testing. The publicly-reported data on CMS' Home Health Compare web site also repress cells with fewer than 20 observations, and reports for home health agencies in operation less than six months.

- 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 not stratified.
- 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 - process measure.

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.):

Calculation Algorithm contained in Technical Specifications available at: www.cms.gov/HomeHealthQualityInits/Downloads/HHQITechnicalDocOfMeasures.pdf

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):

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

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.): OASIS-C data set collected by Home Health Agency clinicians and submitted electronically to state data repositories.

2a1.27-29 Data Source/data Collection Instrument Reference Web Page URL or Attachment: URL https://www.cms.gov/HomeHealthQualityInits/Downloads/HHQIOASISCAllTimePoint.pdf

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

URL

https://www.cms.gov/OASIS/Downloads/oasisp200.zip

2a1.33 Level of Analysis (Check the levels of analysis for which the measure is specified and tested): Facility

2a1.34-35 Care Setting (Check all the settings for which the measure is specified and tested): Home Health

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):

All agencies with at least 20 quality episodes beginning and ending between 1/1/2010 and 12/31/2010 were included in the reliability analysis, because only information for agencies with at least 20 episodes is publicly reported. Of these, 8,224 agencies met the threshold for the measure Influenza Immunization Received. For the national analysis, a beta-binomial distribution was fitted using all agencies. For the HHR (hospital referral region) analysis described below, separate beta-binomials were fitted for each of 306 HHRs, using only those agencies in the HHR. It is worth noting that even the agencies that are in HRRs with only two agencies have high reliability scores, because these small HRR agencies tend to service many episodes relative to the rest of the country.

2a2.2 Analytic Method (Describe method of reliability testing & rationale):

Based on guidance received from NQF in April 2011, we conducted additional reliability analysis of this measure using the betabinomial method described in "The Reliability of Provider Profiling: A Tutorial" by John L. Adams. The beta-binomial method was developed for provider levelmeasures reported as rates, and it allows one to calculate an agency level "reliability score," interpreted as the percent of variance due to the difference in measure score among providers. Thus, a reliability score of .80 signifies that 80% of the variance is due to differences among providers, and 20% of the variance is due to measurement error or sampling uncertainty. A high reliability score implies that performance on a measure is unlikely to be due to measurement error or insufficient sample size, but rather due to true differences between the agency and other agencies. Each agency receives an agency specific reliability score which depends on both agency size, agency performance on the measure, and measure variance for the relevant comparison group of agencies.

In addition to calculating reliability scores at the national level, we also calculated agency reliability scores at the level of hospital referral regions (HRRs), because the HRR grouping more adequately captures the types of comparisons health care consumers are likely to make. HRRs are region designations determined in the Dartmouth Atlas of Health Care study, and they represent regional health care markets for tertiary medical care that generally requires the service of a major referral center. They are aggregated hospital service areas (HSAs) and thus aggregated local health care markets. The HRRs are used to determine categories of

sufficient size to make comparisons while still capturing the local set of HHA choices available to a beneficiary.

2a2.3 Testing Results (Reliability statistics, assessment of adequacy in the context of norms for the test conducted):

Distribution of Within National Reliability Scores

Mean 0.960

Min 0.809

10th 0.903

25th 0.945

50th 0.974

75th 0.989

90th 0.995

Max 1.00

The distribution of national reliability scores (percent of variance due to the difference in measure score among providers at the national level) shows that at least 75% of agencies have a reliability score greater than 0.945, implying that their performance can likely be distinguished from other agencies (i.e., performance on this measure is unlikely to be due to measurement error or insufficient sample size, but is instead due to true differences between the agency and other agencies as it substantially exceeds within agency variation).

Distribution of Within HHR Reliability Scores

Mean 0.924

Min 0.032

10th 0.817

25th 0.907

50th 0.958

75th 0.982

90th 0.992

Max 1.00

The distribution of HRR reliability scores (percent of variance due to the difference in measure score among providers at the HRR level) for this measure also shows that at least 75% of agencies have a reliability score greater than 0.907, suggesting that between agency variation substantially exceeds within agency variation.

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:

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):

OASIS-C quality episodes from 1/1/2010 – 9/30/2010 for all beneficiaries at Medicare Certified agencies. A 20% sample (about 500,000 episodes), chosen at random, was used to identify patient characteristics correlated to outcomes. A different 20% sample was used to validate the predictive models.

2b2.2 Analytic Method (Describe method of validity testing and rationale; if face validity, describe systematic assessment):

Two measures that could potentially be clinically related to Influenza Immunization Received were selected from measures that are currently calculated as part of the Outcome-based Quality Improvement and Potentially Avoidable Event home health reports. They were Acute Care Hospitalization and Improvement in Dyspnea. For each of these measures, preliminary prediction models using most of the Agency Patient-Related Characteristic Report variables except race were developed. Improvement in the outcome Acute Care Hospitalization, would be expected to be associated with "Influenza Immunization Received," because influenza is a well-known cause of morbidity, especially among older persons and those with multiple chronic diseases. Improvement in Dyspnea would be expected to be associated with "Influenza Immunization Received," because those likely to have dyspnea interfering with activity (the OASIS itemused to calculate the measure) are also those at higher risk for influenza - older people, those with functional impairment, and those with chronic diseases associated with dyspnea (e.g. asthma, COPD). A bivariate relationship (95% confidence interval using logistic regression) and the relationship between the measure and the preliminary risk adjusted target outcome measure (95% confidence interval using logistic regression) were computed. Predictive validity analysis was conducted at the individual quality episode level. Odds ratios for both a bivariate relationship between the process and outcome and for the multivariate relationship between the process, patient risk-factors, and the outcome were reported.

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):

The predictive validity analysis demonstrated the expected positive relationship with "Improvement in Dyspnea" and the predicted negative relationship with "Acute Care Hospitalization".

Improvement in Dyspnea v. Influenza Immunization Received - 95% CI (Odds Ratio)

Bivariate Relationship - 95% CI (Odds Ratio): 1.036 - 1.089

Risk Adjusted Outcome: 1.046 – 1.106

Expected Relationship? Yes

Acute Care Hospitalization v. Influenza Immunization Received - 95% CI (Odds Ratio)

Bivariate Relationship 95% CI (Odds Ratio) 0.817 - 0.848

Risk Adjusted Outcome: 0.787 - 0.820

Expected Relationship? Yes

The bivariate relationship results report the odds ratio calculated by including an indicator for "Influenza Immunization Received" as the only control variable in a logistic regression with each outcome (e.g. "Improvement in Dyspnea") as the dependent variable. The Improvement in Dyspnea 95% confidence interval [1.036 - 1.089] suggests that patients who have ever received the Influenza Vaccination have between 1.036 - 1.089 times the odds of improving in dyspnea than those who do not receive the assessment, significant at the p<0.05 level. In lay terms, a patient receiving the Influenza Immunization is more likely to improve in dyspnea than a patient who did not receive the Influenza Immunization.

Similarly, The "Acute Care Hospitalization" 95% confidence interval [0.817 - 0.848] suggests that patients who received the Influenza Immunization have between 0.817 - 0.848 times the odds of experiencing an acute care hospitalization than those who do not receive Influenza Vaccination, significant at the p<0.05 level. In lay terms, a patient receiving the Influenza Immunization is less likely to be hospitalized than a patient who has never received the Influenza Immunization .

To account for the possibility that the receiving Influenza Immunization is correlated with underlying patient characteristics, we also calculated a multivariate "risk adjusted" odds ratio. This odds ratio was calculated by including both the indicator for "Influenza Immunization Received" and a set of risk factors based on patient characteristics in a logistic regression with each outcome as the dependent variable. The risk adjusted Improvement in Dyspnea 95% confidence interval [1.046 – 1.106] suggests that after controlling for patient characteristics, patients who received the Influenza Immunization had between 1.046 – 1.106 times the odds of improving in dyspnea than those otherwise similar patients who did not receive the Influenza Immunization, significant at the p<0.05 level. Thus, risk adjustment slightly strengthened the relationship between Influenza Immunization Received and Improvement in Dyspnea. Similarly, risk adjustment slightly strengthened the relationship between Influenza Immunization Received and Acute Care Hospitalization.

The risk adjusted results are different from the bivariate results because differences in patient characteristics for those patients who received the Influenza Immunization versus those patients who have not are controlled for in the risk adjusted results. For example, if agencies are routinely less likely to provide the Influenza Immunization to patients who are acutely ill with a respiratory disorder, who are in turn unlikely to improve in dyspnea, that association would show up as an odds ratio of greater than one in the bivariate analysis. However, it would not affect the risk adjusted odds ratio. We chose to report both the bivariate and the risk adjusted odds ratios in part because risk adjustment models were still under development when this testing was conducted in November 2010.

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):

All quality episodes (2.89 million) from 1/1/2010 to 9/30/2010.

- 2.02 million episodes ending in discharge not to an inpatient facility;
- 855,705 episodes ending in transfer to an inpatient facility;
- 17,879 episodes ending in patient death at home.

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

Frequency of exclusions by type.

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

The exclusions are supported by sufficient frequency of occurrence so that results would be distorted without the exclusions:

% of quality episodes excluded: 57%

total of quality episodes excluded: 1,650,482

excluded due to type/timing of episode: 1,645,767

excluded due to patient condition/diagnosis (do not meet age/condition guidelines for IV): 4,715

Additionally, 17,879 episodes ended in patient death at home.

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):

NA - process measure

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

NA - process measure

2b4.3 **Testing Results** (<u>Statistical risk model</u>: 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. <u>Risk stratification</u>: Provide quantitative assessment of

relationship of risk factors to the outcome and differences in outcomes among the strata):

NA - process measure

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

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):

OASIS-C data from Medicare certified agencies with at least 10 quality episodes to which the measure applies. 79% of agencies (8,025) met the ten episode threshold for this measure. The measure applied to 42% of all quality episodes (1.22 million out of 2.89 million), since many of the episodes were outside the time parameters for the measure (i.e. outside of influenza season).

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

Difference in performance between 90th percentile agency and 10th percentile agency was calculated and reviewed by Technical Difference in performance between 90th percentile agency and 10th percentile agency was calculated and reviewed by Technical Expert Panel to identify magnitude of difference that might be considered meaningful.

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):

Agency Avg: 66%
Std Dev: 22%
Skew: -0.93
Min: 0%
10th: 33%
25th: 54%
50th: 70%

75th: 81% 90th: 90% Max: 100%

Meaningful Difference: 90th - 10th Percentile- 57% Meaningful Difference: 75th - 25th Percentile - 27%

TEP comments:

In December 2010, a Technical Expert Panel (TEP) was convened to review the analysis conducted on the home health measures that received NQF time limited endorsement. When asked to rate opportunity for improvement, the majority (9 of 11) of the TEP members rated this measure as partially or completely meeting the criteria of sufficient variation in performance to justify continued measurement and public reporting. TEP members commented that with an overall rate of 66%, and additional variance related to race/ethnicity there is significant opportunity for improvement.

- **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):

N/A - Single data source, OASIS C data reported to state OASIS data repositories.

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 - Single data source, OASIS C

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 - Single data source, OASIS C	
2c. Disparities in Care: H M L L 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): This measure is not currently stratified, as it is based on the National Voluntary Consensus Standards for Influenza and Pneumococcal Immunizations which are not stratified. Evidence of disparities in care exist, however. A review of the recent literature indicates there is evidence of disparities in care. A review of the recent literature indicates there is evidence of health disparities issues with African Americans and Hispanics reporting lower rates of IV (46% and 55%, respectively) than non-Hispanic whites (1). When controlling for insurance status and having a usual physician, African Americans were 17% less likely to receive IV (2). Fiscella and colleagues (3) identify that IV parity between whites, African Americans and Hispanics would reduce by mortality in African American older people by 1330 people and in Hispanic older people by 550 people, exceeding the number of deaths from homicides, suicides and motor vehicle accidents combined in these health disparate populations. Singleton and colleagues (4) found that concern about side effects and the patient not thinking they needed vaccine were the highest reported reasons for not receiving IV among older people. Hebert and colleagues (5) report that Hispanics were less likely to report knowledge of the importance of IV while African Americans were more resistant (i.e. concerned about side effects, thought the IV caused influenza). For older people who were not resistant to receiving IV, there were substantially more "missed opportunities" (seeing a health care provider and not receiving IV) for African Americans (14%) and Hispanics (17%) compared to whites (8%). Missed opportunities for vaccination was higher than refusals for "blacks, 26.9% versus 7.9%; Hispanics, 19.9% versus 12.1%; and white non-Hispanics, 16.2% versus 6.1%," indicating missed opportunities are a bigger issue than refusal to receive IV.

References

- (1) Pleis JR, Gentleman JF. Using the National Health Interview Survey: time trends in influenza vaccinations among targeted adults. Eff Clin Pract 2002; 5(3 Suppl):E3.
- (2) O'Malley AS, Forrest CB. Immunization disparities in older Americans: determinants and future research needs. Am J Prev Med 2006; 31(2):150-158.
- (3) Fiscella K, Dressler R, Meldrum S, Holt K. Impact of influenza vaccination disparities on elderly mortality in the United States. Prev Med 2007; 45(1):83-87.
- (4) Singleton JA, Santibanez TA, Wortley PM. Influenza and pneumococcal vaccination of adults aged > or = 65: racial/ethnic differences. Am J Prev Med 2005; 29(5):412-420.
- (5) Hebert PL, Frick KD, Kane RL, McBean AM. The causes of racial and ethnic differences in influenza vaccination rates among elderly Medicare beneficiaries. Health Serv Res 2005; 40(2):517-537.

Our analysis of measure scores did indicate care disparities for IV.

Observed Rate by Patient Race

White 69%

Black 57%

Hispanic 55%

Other 68%

Observed Rate by Patient Age

<65 58%

65-75 65%

75-85 59%

85+70%

Observed Rate by Patient Gender

Male 66%

Female 66%

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

Since this is a harmonized measure based on national standards and used in a number of care settings across HHS, we anticipate a need for follow-up with the standards group regarding whether there is sufficient evidence of health care disparities to indicate a potential need for stratification by race and ethnicity.

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): Public Reporting, 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):
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.]
Medicare Home Health Compare http://www.medicare.gov/HomeHealthCompare/search.aspx
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:
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): Home Health Quality Initiatives https://www.cms.gov/HomeHealthQualityInits/01_Overview.asp#TopOfPage
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 <u>Maintenance</u> – If not used for QI, indicate the reasons and describe progress toward using performance results for improvement].
3b.2. Provide rationale for why the measure performance results are meaningful, understandable, and useful for quality improvement. If usefulness was demonstrated (e.g., Ql initiative), describe the data, method and results:
Overall, to what extent was the criterion, <i>Usability</i> , 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): Yes
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: Inaccuracies may result either due to confusion/lack of training on the part of the clinician completing the OASIS or intentionally, to manipulate scores on quality measures. CMS has created and disseminated manuals and training materials to maximize accurate reporting of this data. Data accuracy could be audited through a review of claims related to immunizations. All home health agencies serving adult, non-maternity Medicare and/or Medicaid patients must submit their OASIS assessment data to their respective state OASIS repository in a standard format. The repository software passes each incoming OASIS assessment record through an extensive set of quality edits. These include internal range and logic checks that assure that assessment items include only allowable values and that they are consistent with each other. When there are significant errors in an assessment, it is not accepted by the repository and the erroneous data are not available to be included in any published quality information.
Data accuracy is also supported by the state survey process. Surveyors use OASIS to characterize each agency's caseload and to select sample patients to be interviewed. They also review and assess the accuracy of the agency's OASIS assessments. In addition, CMS payment contractors assess the accuracy of a sample of the OASIS assessments as part of their medical review processes. We are unable to provide results of these audit activities as we do not currently have access to the findings of the CMS surveyors, the data repository or CMS contractors regarding OASIS data accuracy.
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): No issues regarding availability of data, missing data, timing or frequency of data collection, patient confidentiality, time or cost of data collection, feasibility or implementation have become apparent since OASIS-C was implemented 1/1/2010.
Overall, to what extent was the criterion, <i>Feasibility</i> , met? H M L I Provide rationale based on specific subcriteria:
OVEDALL CUITADII ITVEOD ENDODOEMENT
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:

5a. Harmonization

- 5a.1 If this measure has EITHER the same measure focus OR the same target population as NOF-endorsed measure(s): Are the measure specifications completely harmonized?
- 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): N/A - Influenza Immunization Received measures the rate of influenza immunization in a different target population - home health patients.

CONTACT INFORMATION

- Co.1 Measure Steward (Intellectual Property Owner): Centers for Medicare & Medicaid Services, 7500 Security Boulevard, Mail Stop S3-01-02, Baltimore, Maryland, 21244-1850
- Co.2 Point of Contact: Edward Q., Garcia III, MHS, Health Policy Analyst, MMSNQF@hsag.com, 410-786-6738-
- Co.3 Measure Developer if different from Measure Steward: Acumen LLC, 500 Airport Blvd, Suite 365, Burlingame, California, 94010
- Co.4 Point of Contact: Keziah, Cook, PhD, kcook@acumenllc.com, 650-558-8882-247
- Co.5 Submitter: Deborah, Deitz, RN, BSN, Deborah_deitz@abtassoc.com, 617-520-3039-, Abt Associates Inc
- Co.6 Additional organizations that sponsored/participated in measure development:

Abt Associates, Inc.

Case Western Reserve University

University of Colorado at Denver, Division of Health Care Policy and Research

Co.7 Public Contact: Robin, Dowell, BSN, robin.dowell@cms.hhs.gov, 410-786-0060-, Centers for Medicare & 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.

In December 2010, a Technical Expert Panel (TEP) was convened to review the analysis conducted on the home health measures that received NQF time limited endorsement (including PPV Ever Received). The TEP was comprised of individuals selected by CMS for their expertise and perspectives related to the panel objectives, from a pool of individuals who were nominated in response to

the September 2010 Call for TEP notice.

2010 HH TLE Measure Review TEP Members:

Mary Carr RN, MPH - Associate Director for Regulatory Affairs, National Association of Home Care and Hospice

Rick Fortinsky, PhD- Professor of Medicine, Physicians Health Services Endowed Chair in Geriatrics and Gerontology, UConn Center for Health Services Research

Barbara Gage, PhD - Deputy Director of Aging, Disability, and Long-termCare, Post-Acute Care Research Lead, Research Triangle Institute

Margherita Labson, R.N., Executive Director for the Home Care Programat The Joint Commission

Steve Landers MD, MPH - Director, Center for Home Care and Community Rehabilitation, Cleveland Clinic

Bruce Leff, MD - Associate Director, Elder House Call Program,

Barbara McCann, MSW - Chief Industry Officer, Interim Health Care

Jennifer S. Mensik PhD, RN, NEA-BC, FACHE - Director, Clinical Practices and Research, Banner Health, Arizona and Western Regions

Dana Mukamel, Professor, Department of Medicine, Division of General Internal Medicine & Primary Care, University of California, Irvine & Senior Fellow, Health Policy Research Institute, Irvine, California

Robert J. Rosati Ph.D - Vice President, Clinical Informatics, Visiting Nurse Service of New York, Center for Home Care Policy and Research

Judy Sangl Sc.D. – Health Scientist Administrator, Agency for Healthcare Research and Quality (AHRQ), Center for Patient Safety and Quality Improvement (CQuIPS), Rockville, MD

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: Influenza Immunization Received for Current Flu Season

Measure Developer/Steward Updates and Ongoing Maintenance

Ad.3 Year the measure was first released: 2010

Ad.4 Month and Year of most recent revision:

Ad.5 What is your frequency for review/update of this measure? Annual

Ad.6 When is the next scheduled review/update for this measure? 06, 2012

Ad.7 Copyright statement:

Ad.8 Disclaimers:

Ad.9 Additional Information/Comments:

Date of Submission (MM/DD/YY): 07/13/2011