NATIONAL QUALITY FORUM

Measure Evaluation 4.1
December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the evaluation criteria are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized)**:** Complete all yellow highlighted areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all pink highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met
C = Completely (unquestionably demonstrated to meet the criterion)
P = Partially (demonstrated to partially meet the criterion)
M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)
N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)
NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) **NQF Review #:** NH-014-10 **NQF Project:** Nursing Homes 2010
MEASURE DESCRIPTIVE INFORMATION
De.1 **Measure Title:** Percent of Nursing Home Residents Who Were Assessed and Appropriately Given the Seasonal Influenza Vaccine (Short-Stay)
De.2 **Brief description of measure***:* The measure is based on data from MDS 3.0 assessments of nursing facility residents. The measure reports the percent of short-stay nursing facility residents who are assessed and appropriately given the seasonal influenza vaccination during the influenza season as reported on the target MDS assessment (which may be an OBRA admission, 5-day PPS, 14-day PPS, 30-day PPS, 60-day PPS, 90-day PPS or discharge assessment) during the selected quarter. Short-stay residents are those residents who are discharged within the first 100 days of the stay. The measure is restricted to the population that has short-term needs and does not include the population of residents with stays longer than 100 days. A separate quality measure has been submitted for the long-stay population. The specifications of the proposed measure mirror those of the harmonized measure endorsed by the National Quality Forum under measure number 0432 Influenza Vaccination of Nursing Home/Skilled Nursing Facility Residents. The NQF standard specifications were developed to achieve a uniform approach to measurement across settings and populations addressing who is included in the target denominator population, who is excluded, who is included in the numerator population, and time windows for measurement and vaccinations.
1.1-2 **Type of Measure:** Process De.3 **If included in a composite or paired with another measure, please identify composite or paired measure**
De.4 **National Priority Partners Priority Area:** Population health De.5 **IOM Quality Domain**: Safety De.6 **Consumer Care Need:**

CONDITIONS FOR CONSIDERATION BY NQF	

Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	**NQF Staff**
A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. *Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.* A.1 **Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)?** Yes A.2 **Indicate if Proprietary Measure** (*as defined in measure steward agreement*)**:** A.3 **Measure Steward Agreement:** Government entity and in the public domain - no agreement necessary A.4 **Measure Steward Agreement attached:**	**A** Y☐ N☐
B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. Yes, information provided in contact section	**B** Y☐ N☐
C. The intended use of the measure includes both public reporting and quality improvement. ►**Purpose:** Public reporting, Internal quality improvement	**C** Y☐ N☐
D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1**Testing:** Yes, fully developed and tested D.2 **Have NQF-endorsed measures been reviewed to identify if there are similar or related measures?** Yes	**D** Y☐ N☐
(for NQF staff use**) Have all conditions for consideration been met?** **Staff Notes to Steward** (*if submission returned*)**:**	**Met** Y☐ N☐
Staff Notes to Reviewers (*issues or questions regarding any criteria*)**:**	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. *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**	Eval Rating
(for NQF staff use) Specific NPP goal:	
1a.1 **Demonstrated High Impact Aspect of Healthcare:** Affects large numbers, Severity of illness, Leading cause of morbidity/mortality, Patient/societal consequences of poor quality 1a.2 1a.3 **Summary of Evidence of High Impact:** This is a very important measure of quality of care in the nursing facility. Morbidity and mortality related to influenza are often reported in conjunction with data regarding pneumonia, and together frequently lead to death in the elderly population. Using data collected by the Centers for Disease Control and Prevention (CDC), Gorina and colleagues found that, in 2004, pneumonia and	**1a** C☐ P☐ M☐ N☐

Comment [KP1]: 1a. The measure focus addresses:
- a specific national health goal/priority identified by NQF's National Priorities Partners; OR
- a demonstrated high impact aspect of healthcare (e.g., affects large numbers, leading cause of morbidity/mortality, high resource use (current and/or future), severity of illness, and patient/societal consequences of poor quality).

influenza was the seventh most common cause of death for persons aged 65 and older in the United States.(1) Almost 60,000 deaths in 2004 were caused by influenza and pneumonia and more than 85% of those were among the elderly.(1) Frail elderly are especially vulnerable and subject to complications of influenza. In the same year, approximately 123,000 death certificates identified influenza and pneumonia as a secondary cause of death.(1)

According to the CDC, more than 200,000 people are hospitalized in the United States each year as a result of complications from influenza.(2) The average hospital stay for these cases was approximately 5.3 days at a cost of $6,900 per stay.(3) Further, the death rate from influenza and pneumonia is nearly 130 times higher among persons aged 85 and older than among persons 45-54 years of age.(1)

Among adults aged 65 years and older, only 72.1% were vaccinated during the 2006-2007 influenza season, a much lower figure than the Healthy People 2010 target of 90% for this age group.(4, 5)

CMS currently uses MDS 2.0 data to publicly report an influenza vaccination quality measure (QM) for nursing facility residents. The first quarter 2007 statewide averages for the post-acute care population range from 56.9% to 85.4%, with a 73.2% national average.(6) According to the information currently available on Nursing Home Compare, the national average for the percent of short-stay residents given the influenza vaccine has increased to 82%.(7)

1a.4 Citations for Evidence of High Impact: 1. Gorina Y, Kelly T, Lubitz J, Hines Z. Trends in influenza and pneumonia among older persons in the United States. Hyattsville, MD: Centers for Disease Control and Prevention (CDC), National Center for Health Statistics, 2008.

2. CDC. Influenza E-brief: 2008-2009 flu facts for policymakers. September 2008. Available from http://www.cdc.gov/washington/pdf/flu_newsletter.pdf.

3. Milenkovic M, Russo CA, Elixhauser A. Hospital stays for influenza, 2004. Healthcare cost and utilization project. Statistical Brief #16. Rockville, MD: Agency for Healthcare Research and Quality, 2006.

4. CDC. State specific influenza vaccination coverage among adults – United States, 2006-2007 influenza season. MMWR. 2008;57(38):1033-9.

5. U.S. Department of Health and Human Services. Healthy people 2010. 2000. Available from http://www.health.gov/healthypeople.

6. Colorado Foundation for Medical Care. Environmental scan: review of the literature, clinical guidelines, and other sources of information pertinent to the CMS publicly reported nursing home quality measures. Englewood, CO: Colorado Foundation for Medical Care, 2007.

7. Available from http://www.medicare.gov/NHCompare/Include/DataSection/Questions/SearchCriteriaNEW.asp?version=default&browser=IE%7C6%7CWinXP&language=English&defaultstatus=0&pagelist=Home&CookiesEnabledStatus=True

1b. Opportunity for Improvement

1b.1 Benefits (improvements in quality) envisioned by use of this measure: This measure is intended to encourage nursing facilities to focus on this important aspect of clinical care by assessing residents on the status of their seasonal flu vaccine immunization and to provide immunization as appropriate.

1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers:
There is a demonstrated gap in performance in vaccination among adults aged 65 years and older. Although the influenza vaccine can be successful in preventing flu, vaccination rates remain low among nursing home residents,(1, 2) due in part to patient confusion, poor documentation of vaccination status, and availability of records from previous facilities.(3) Further, according to research, approximately 72.1% of the elderly were vaccinated during the 2006-2007 influenza season, which is below the Healthy People 2010 target of 90% for this age group.(3, 4)

1b
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Comment [KP2]: 1b. Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating considerable variation, or overall poor performance, in the quality of care across providers and/or population groups (disparities in care).

Comment [k3]: 1 Examples of data on opportunity for improvement include, but are not limited to: prior studies, epidemiologic data, measure data from pilot testing or implementation. If data are not available, the measure focus is systematically assessed (e.g., expert panel rating) and judged to be a quality problem.

In their analysis of quality measures using MDS data from the first quarter of 2006 (presented below), the University of Colorado found that this measure could be reported for 75.7% of facilities and had variability across facilities in the rates of influenza immunization. The quality measure varied from 35.7% at the 10th percentile to 98.1% at the 90th percentile.(5)

See attached Table 1: Measure Variability Across Facilities.

1b.3 Citations for data on performance gap:

1. Gorina Y, Kelly T, Lubitz J, Hines Z. Trends in influenza and pneumonia among older persons in the United States. Hyattsville, MD: Centers for Disease Control and Prevention (CDC), National Center for Health Statistics, 2008.

2. CDC. State specific influenza vaccination coverage among adults—United States, 2006-2007 influenza season. MMWR. 2008;57(38):1033-9.

3. Colorado Foundation for Medical Care. Environmental scan: review of the literature, clinical guidelines, and other sources of information pertinent to the CMS publicly reported nursing home quality measures. Englewood, CO: Colorado Foundation for Medical Care, 2007.

4. U.S. Department of Health and Human Services (HHS). Healthy people 2010. 2000. Available from http://www.health.gov/healthypeople.

5. Brega A, Goodrich G, Nuccio E, Hittle D. Transition of publicly reported nursing home quality measures to MDS 3.0—draft. Denver: Division of Health Care Policy and Research University of Colorado at Denver, 2008.

1b.4 Summary of Data on disparities by population group:

Racial segregation between nursing facilities has been shown to be a major factor in racial disparities in the nursing facility population, primarily for African Americans. In 2000, a study drawing on national MDS and Online Survey, Certification, and Reporting (OSCAR) data found that two-thirds of all black residents were living in just 10% of all facilities.(1) A 2002 survey of a stratified sample of 39 nursing facilities and 181 residential care/assisted living facilities in four states had similar findings.(2) Facilities serving African Americans have demonstrated a lower level of quality care than those serving whites with lower staff to resident ratios and higher deficiency ratings.(3) Minority groups in general and African Americans in particular have also had more limited access to nursing facility care than whites.(4) Among adults age 18 and over, there are higher rates of seasonal influenza vaccinations in rural areas (53.7%) compared to urban areas (47.1%) but there is no published information specific to the elderly or to nursing facility residents.(5)

A search of PubMed did not reveal any recently published research studies specifically related to racial and ethnic disparities for influenza immunization in nursing homes. However, differences in influenza vaccination between whites and non-white Medicare beneficiaries and Medicare beneficiaries in general have been documented.(6)

Bardenheier and colleagues conducted a study in 2004 to identify nursing facility resident-specific characteristics associated with vaccination coverage and at baseline. Results of their bivariate analysis showed that residents with cognitive, psychiatric, or neurologic problems were more likely to be vaccinated than those without these conditions. Results of the multilevel analysis also showed that the presence of cognitive deficits was one of the strongest resident characteristics associated with receipt of immunizations, controlling facility variation.(7)

1b.5 Citations for data on Disparities:

1. Smith D, Feng Z, Fennell M, Zinn J, Mor V. Separate and unequal: racial segregation and disparities in quality across U.S. nursing homes. Health Aff (Millwood). 2007;26(5):1448-558.

2. Howard D, Sloane P, Zimmerman S, Eckert J, Walsh J, Buie V, Taylor P, Koch G. Distribution of African Americans in residential care/assisted living and nursing homes: more evidence of racial disparity? Am J Public Health. 2002;92(8):1272-7.

3. Grabowski D. The admission of blacks to high-deficiency nursing homes. Med Care. 2004;42(5):456-64.
Smith D, Feng Z, Fennell M, Ainn J, Mor V. Separate and unequal: racial segregation and disparities in quality across U.S. nursing homes. Health Aff (Millwood). 2007;26(5):1448-558.

4. National Center for Health Statistics (NCHS). Health, United States, 1996–97, and injury chartbook. Hyattsville, MD: NCHS, 1997.

5. Centers for Disease Control/National Center for Health Statistics. Health, United States 2008 With Chartbook. Hyattsville, MD; 2009

6. Flowers F, Sinclair S, Figueiredo C. Racial and ethnic disparities in influenza and pneumococcal immunization rates among medicare beneficiaries. Washington, DC: AARP Public Policy Institute, 2008.

7. Bardenheier B, Shefer A, McKibben L, Roberts H, Bratzler D. Characteristics of long-term-care facility residents associated with receipt of influenza and pneumococcal vaccinations. Infect Control Hosp Epidemiol. 2004 Nov; 25(11):946-54.

1c. Outcome or Evidence to Support Measure Focus

1c.1 Relationship to Outcomes (*For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population*)**:** According to the environmental scan conducted by the Colorado Foundation for Medical Care, several expert organizations, such as the Advisory Committee on Immunization Practices, target influenza prevention through annual vaccination of nursing home residents and staff.(1, 2) Influenza vaccine can be cost-effective and successful in preventing influenza. However, despite evidence demonstrating the efficacy of the influenza vaccine coverage remains low among residents.(1) A study conducted in 2002 by Nichol and Goodman found that vaccination of healthy elderly person was associated with a 36% reduction in hospitalization for pneumonia or influenza (95% confidence interval [CI]: 2%-39%), an 18% reduction in hospitalization for all respiratory conditions (95% CI: -6% to 37%), and a 40% reduction in death (95% CI: 14%-38%). Vaccination was also associated with cost savings in all scenarios evaluated.(3)

1. Colorado Foundation for Medical Care. Environmental scan: review of the literature, clinical guidelines, and other sources of information pertinent to the CMS publicly reported nursing home quality measures. Englewood, CO: Colorado Foundation for Medical Care, 2007.

2. CDC. Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP), 2009. MMWR. 2009 July 31; 58(RR-08).

3. Nichol KL, Goodman M., Cost effectiveness of influenza vaccination for healthy persons between ages 65 and 74 years. Vaccine. 2002 May 15;20(Suppl 2):S21-4.

1c.2-3. Type of Evidence: Systematic synthesis of research

1c.4 Summary of Evidence (*as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome*)**:**
Vaccination of nursing facility residents against influenza is an important mechanism for reducing serious illness and mortality in nursing facilities. Therefore, it is important to increase the seasonal influenza vaccination rates among nursing home residents because, as research shows, high rates of influenza vaccination of nursing home residents coupled with vaccination among nursing home staff can prevent influenza outbreaks in nursing homes.(1) Further, as stated earlier, research shows that vaccination of healthy elderly persons against seasonal influenza is associated with a reduction in hospitalization for pneumonia or influenza illness.(2)

1. Shugarman LR, et al. The influence of staff and resident immunization rates on influenza-like illness outbreaks in nursing homes. J Am Med Dir Assoc. 2006;7(9):562-7.
2. Nichol KL, Goodman M., Cost effectiveness of influenza vaccination for healthy persons between ages 65 and 74 years. Vaccine. 2002 May 15;20(Suppl 2):S21-4.

1c
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1c.5 Rating of strength/quality of evidence (*also provide narrative description of the rating and by whom*)**:**
The body of evidence supporting this measure has not been rated.

Rating: C=Completely; P=Partially; M=Minimally; N=Not at all; NA=Not applicable

Comment [k4]: 1c. The measure focus is:
•an outcome (e.g., morbidity, mortality, function, health-related quality of life) that is relevant to, or associated with, a national health goal/priority, the condition, population, and/or care being addressed;
OR
•if an intermediate outcome, process, structure, etc., there is **evidence** that supports the specific measure focus as follows:
oIntermediate outcome – evidence that the measured intermediate outcome (e.g., blood pressure, Hba1c) leads to improved health/avoidance of harm or cost/benefit.
oProcess – evidence that the measured clinical or administrative process leads to improved health/avoidance of harm and
if the measure focus is on one step in a multi-step care process, it measures the step that has the greatest effect on improving the specified desired outcome(s).
oStructure – evidence that the measured structure supports the consistent delivery of effective processes or access that lead to improved health/avoidance of harm or cost/benefit.
oPatient experience – evidence that an association exists between the measure of patient experience of health care and the outcomes, values and preferences of individuals/ the public.
oAccess – evidence that an association exists between access to a health service and the outcomes of, or experience with, care. ... [1]

Comment [k5]: 4 Clinical care processes typically include multiple steps: assess → identify problem/potential problem → choose/plan intervention (with patient input) → provide intervention → evaluate impact on health status. If the measure focus is one step in such a multi-step process, the step with the greatest effect on the desired outcome should be selected as the focus of measurement. For example, although assessment of immunization status and recommending immunization are necessary steps, they are not sufficient to achieve the desired impact on health status – patients must be vaccinated to achieve immunity. This does not preclude consideration of measures of preventive screening interventions where there is a strong link with desired outcomes (e.g., mammography) or measures for multiple care processes that affect a single outcome.

Comment [k6]: 3 The strength of the body of evidence for the specific measure focus should be systematically assessed and rated (e.g., USPSTF grading system http://www.ahrq.gov/clinic/uspstf07/methods/benefit.htm). If the USPSTF grading system was not used, the grading system is explained including how it relates to the USPSTF grades or why it does not. However, evidence is not limited to quantitative studies and the best type of evidence depends upon the question being studied (e.g., randomized controlled trials appropriate for studying drug efficacy are not well suited for complex system changes). When qualitative studies are used, appropriate qualitative research criteria are used to judge the strength of the evidence.

1c.6 Method for rating evidence:

1c.7 Summary of Controversy/Contradictory Evidence: No contradictory evidence has been identified.

1c.8 Citations for Evidence (*other than guidelines***):** 1. Colorado Foundation for Medical Care. Environmental scan: review of the literature, clinical guidelines, and other sources of information pertinent to the CMS publicly reported nursing home quality measures. Englewood, CO: Colorado Foundation for Medical Care, 2007.

2. Nichol KL, Goodman M., Cost effectiveness of influenza vaccination for healthy persons between ages 65 and 74 years. Vaccine. 2002 May 15;20(Suppl 2):S21-4.

3. Shugarman LR, et al. The influence of staff and resident immunization rates on influenza-like illness outbreaks in nursing homes. J Am Med Dir Assoc. 2006;7(9):562-7.

4. CDC. Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP), 2009. MMWR. 2009 July 31; 58(RR-08).

5. CDC. CDC says "Take 3" actions to fight the flu. January 12, 2010. http://www.cdc.gov/flu/protect/preventing.htm

1c.9 Quote the Specific guideline recommendation (*including guideline number and/or page number***):** CDC. Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP), 2009. MMWR. 2009 July 31; 58(RR-08).

1c.10 Clinical Practice Guideline Citation: Fiore AE, Shay DK, Broder K, Iskander JK, Uyeki TM, Mootrey G, Bresee JS, Cox NJ, Centers for Disease Control and Prevention. Prevention and control of seasonal influenza with vaccines: recommendations of the Advisory Committee on Immunization Practices (ACIP), 2009. MMWR Recomm Rep. 2009 Jul 31;58(RR-8):1-52.

1c.11 National Guideline Clearinghouse or other URL: http://www.guideline.gov/summary/summary.aspx?doc_id=15198&nbr=007456&string=influenza+AND+vaccination#s25 and http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5808a1.htm

1c.12 Rating of strength of recommendation (*also provide narrative description of the rating and by whom***):** The body of evidence supporting this recommendation has not been rated.

1c.13 Method for rating strength of recommendation (*If different from* USPSTF system*, also describe rating and how it relates to USPSTF)***:**

1c.14 Rationale for using this guideline over others: This is the relevant guideline listed with the National Guideline Clearinghouse that addresses immunization against influenza.

TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Importance to Measure and Report*? **1**

Steering Committee: Was the threshold criterion, *Importance to Measure and Report***, met? 1**
Rationale:
Y☐ N☐

2. 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)

Eval Rat

Comment [k7]: USPSTF grading system **http://www.ahrq.gov/clinic/uspstf/grades.htm**: **A -** The USPSTF recommends the service. There is high certainty that the net benefit is substantial. **B -** The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial. **C -** The USPSTF recommends against routinely providing the service. There may be considerations that support providing the service in an individual patient. There is at least moderate certainty that the net benefit is small. Offer or provide this service only if other considerations support the offering or providing the service in an individual patient. **D -** The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits. **I -** The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.

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2a. MEASURE SPECIFICATIONS	
S.1 Do you have a web page where current detailed measure specifications can be obtained? **S.2 If yes, provide web page URL:** **2a. Precisely Specified**	
2a.1 Numerator Statement (*Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome***):** The numerator is the number of residents in the denominator who meet any of the following criteria for the most recently completed influenza season: (1) those who received the influenza vaccine during the most recent influenza season, either in the facility or outside the facility; (2) the number who were offered and declined the influenza vaccine; or (3) the number who were ineligible due to contraindication(s) (i.e., anaphylactic hypersensitivity to eggs or other components of the vaccine, history of Guillain-Barré Syndrome within 6 weeks after a previous influenza vaccination, or bone marrow transplant within the past 6 months). **2a.2 Numerator Time Window (***The time period in which cases are eligible for inclusion in the numerator***):** the annual influenza season as defined by the Centers for Disease Control and Prevention (CDC) **2a.3 Numerator Details (***All information required to collect/calculate the numerator, including all codes, logic, and definitions***):** Residents are counted if they are short-stay residents, defined as residents whose length of stay is less than or equal to to 100 days. Short-stay residents are included in the numerator if they meet any of the following criteria for the most recently completed influenza season: (1) received the influenza vaccine during the most recent influenza season, either in the facility (O250.A=1) or outside the facility (O0250.C=2); or (2) were offered and declined the influenza vaccine (O0250.C=4); or (3) were ineligible due to contraindication(s) (00250.C=3). Included in the numerator are short-stay residents who meet the criteria on the target MDS 3.0 assessment (which may be an OBRA admission [A0310.A=01], PPS [A0310.B=1,2,3,4,5,6,7], or discharge assessment [A0310.F=10,11] during the influenza reporting period as defined by the Centers for Dieases Control and Prevention.	
2a.4 Denominator Statement (*Brief, text description of the denominator - target population being measured***):** The denominator consists of all residents in the short-stay seasonal influenza vaccination sample with a target MDS 3.0 assessment (which may be an OBRA admission, 5-day PPS, 14-day PPS, 30-day PPS, 60-day PPS, 90-day PPS, or discharge assessment) during the vaccination reporting period. This measure is based on the NQF's National Voluntary Standards for Influenza and Pneumococcal Immunizations. The NQF standard includes resident refusal and ineligibility in both the denominator and the numerator. This is a change from the currently used nursing facility quality measure. **2a.5 Target population gender:** Female, Male **2a.6 Target population age range:** The target population includes short-stay residents of all ages admitted to the nursing facility. **2a.7 Denominator Time Window (***The time period in which cases are eligible for inclusion in the denominator***):** the annual influenza season as defined by the Centers for Disease Control and Prevention (CDC) **2a.8 Denominator Details (***All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions***):** Residents are counted if they are short-stay residents, defined as residents whose length of stay is less than or equal to 100 days. The short-stay seasonal influenza vaccination sample includes residents meeting any of the following conditions: (1) the resident has an OBRA admission assessment (A0310.A=01) or PPS assessment (A0310.B=1,2,3,4,5,6,7) with an entry date (A1600) during the influenza season; or (2) the resident has a discharge assessment (A0310.F-10 or 11) with a discharge date (A2000) during the influenza season and an entry date (A1600) before or equal to 100 days.	**2a-specs** C☐ P☐ M☐ N☐
2a.9 Denominator Exclusions (*Brief text description of exclusions from the target population***):** Residents are	

Comment [KP8]: 2a. The measure is well defined and precisely specified so that it can be implemented consistently within and across organizations and allow for comparability. The required data elements are of high quality as defined by NQF's Health Information Technology Expert Panel (HITEP) .

Comment [k9]: 11 Risk factors that influence outcomes should not be specified as exclusions.
12 Patient preference is not a clinical exception to eligibility and can be influenced by provider interventions.

excluded from the denominator if they were not in the facility (item O0250.C =1) during the annual influenza season (as defined by the Centers for Disease Control and Prevention). Facilities with fewer than 20 residents are excluded from public reporting due to small sample size.

2a.10 **Denominator Exclusion Details (***All information required to collect exclusions to the denominator, including all codes, logic, and definitions***):**

2a.11 **Stratification Details/Variables (***All information required to stratify the measure including the stratification variables, all codes, logic, and definitions***):**
This is not applicable.

2a.12-13 **Risk Adjustment Type:** No risk adjustment necessary

2a.14 **Risk Adjustment Methodology/Variables (***List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method***):**
This is not applicable.

2a.15-17 **Detailed risk model available Web page URL or attachment:**

2a.18-19 **Type of Score:** Ratio
2a.20 **Interpretation of Score:**
2a.21 **Calculation Algorithm (***Describe the calculation of the measure as a flowchart or series of steps***):**
For each eligible facility, the number of short-stay residents meeting the numerator criteria and the number of (non-excluded) residents meeting the denominator criteria are counted. The facility-observed score for the measure is a prevalence score calculated as the number of residents in the facility meeting the criteria for inclusion in the numerator divided by all non-excluded residents in the denominator.

2a.22 **Describe the method for discriminating performance** *(e.g., significance testing)***:**
Because the computed scores are not estimates, but include all residents who meet the measure criteria, in terms of discriminating performance, the computed scores can be used to make valid comparisons.

2a.23 **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)*:
This is not applicable.

2a.24 **Data Source (***Check the source(s) for which the measure is specified and tested)*
Electronic clinical data

2a.25 **Data source/data collection instrument (***Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.***):**
Nursing Home Minimum Data Set 3.0

2a.26-28 **Data source/data collection instrument reference web page URL or attachment:** URL
http://www.cms.hhs.gov/NursingHomeQualityInits/25_NHQIMDS30.asp#TopOfPage

2a.29-31 **Data dictionary/code table web page URL or attachment:** URL
http://www.cms.hhs.gov/NursingHomeQualityInits/25_NHQIMDS30.asp#TopOfPage

2a.32-35 **Level of Measurement/Analysis** (*Check the level(s) for which the measure is specified and tested)*
Population: national, Facility/Agency

2a.36-37 **Care Settings (***Check the setting(s) for which the measure is specified and tested)*
Nursing home (NH) /Skilled Nursing Facility (SNF)

2a.38-41 **Clinical Services** (*Healthcare services being measured, check all that apply*)

TESTING/ANALYSIS	
2b. Reliability testing	**2b**

Comment [KP10]: 2b. Reliability testing demonstrates the measure results are repeatable, producing the same results a high proportion of the time when assessed in the same population in the same time period.

2b.1 Data/sample *(description of data/sample and size)*: The testing did not include the updated specs, which increase the number of residents who might be counted in the numerator and denominator. We indicated that the measures were tested because this change does not affect the underlying items and their reliability, nor the reportability or usability of the quality measure. In addition, it is unlikely that the variability across facilities would be accounted for based on whether individuals who refused to be vaccinated or had medical contraindications to vaccination are included in the numerator and denominator.

The underlying MDS 3.0 items used to construct this measure did not change. However, the numerator specifications for the proposed measure have changed by the inclusion, in both the numerator and the denominator, of residents who refused the vaccine or have contraindications. This was done to harmonize the measure with the NQF measure. Three major tests of the reliability of the current influenza immunization measure have been conducted. First, the MDS 2.0 measure items and the existing quality measure were tested in the Data Assessment and Verification (DAVE 2) project conducted by Abt Associates.(1) This project used a nationwide sample of randomly selected nursing facilities using MDS assessments for the period April 1 to December 31, 2006.(1) DAVE 2 performed 173 two-stage reviews. The sample size (number of reviews) was 94 for the influenza vaccination QI/QM.

Second, the University of Colorado used national facility-level quality measure data from 2003 Quarter 3 (Q3) through 2006 Q3 came from the Quality Improvement and Evaluation System (QIES) MDS Express Reports on the Centers for Medicare & Medicaid Services (CMS) intranet; OSCAR data related to facility characteristics (e.g., state, resident census, number of beds, staffing) and certification survey results were downloaded from QIES Workbench.(2) A 10% random sample of all Medicare-certified nursing facilities was also downloaded from MDS assessment records and used to address specific questions regarding the influenza and pneumonia vaccination quality measures. The file contained data for all post-acute care and chronic care residents for a sample of 1,603 facilities. Analyses were based on complete MDS data from January 2005 through March 2006, as well as nearly complete data for April 2006 and partial data for May and June 2006.

Third, testing of the reliability of MDS 3.0 data items underlying the influenza immunization quality measure and a comparison with the MDS 2.0 quality measure items were conducted by RAND as part of the MDS 3.0 development process.(3) A representative sample of for-profit and not-for-profit facilities and hospital-based and freestanding facilities was recruited for the study, which included 71 community nursing homes in 8 states, 19 Veterans Affairs (VA) nursing homes, and 1,180 nursing home residents for the influenza quality measure.

1. Abt Associates, Inc.; Stepwise Systems, Inc.; Qualidigm. Data Assessment and Verification (DAVE 2) project—MDS two-stage discrepancy findings, April–December 2006. Cambridge, MA: Abt Associates, Inc, 2007.

2. Brega A, Hittle D, Goodrich G, Kramer A, Conway K, Levy C. Empirical review of publicly reported nursing home quality measures. Denver: Division of Health Care Policy and Research University of Colorado at Denver; Abt Associates, Inc, 2007.

3. Saliba D, Buchanan J. Development and validation of a revised nursing home assessment tool: MDS 3.0. Contract No. 500-00-0027/Task Order #2. Santa Monica, CA: Rand Corporation, Apr 2008. Available from http://www.cms.hhs.gov/NursingHomeQualityInits/Downloads/MDS30FinalReport.pdf.

2b.2 Analytic Method *(type of reliability & rationale, method for testing)*:
Three sets of analytic methods were used. First, in the DAVE 2 Project, trained nurse reviewers selected a current resident with a recent assessment performed by the nursing home (NH) within the last 14 days.(1) In the first stage of this review, the nurse reviewer conducted a blind reassessment of the resident using standard MDS 2.0 assessment and coding procedures (examination of the medical record; observation of the resident; interview of staff, resident, and family; and use of coding criteria). In the second stage of this assessment (Stage 2), the DAVE 2 nurse reviewer's assessment was compared with the corresponding nursing facility assessment, and each discrepancy was reconciled, with the nursing facility assessor and the nurse reviewer agreeing on the appropriate response. In addition to data entering the facility MDS code, the DAVE 2 code, and the reconciled code into the MDS-QC data entry software, the DAVE 2 nurse reviewer entered a "reason code" to attribute the cause of the discrepancy, per MDS item reviewed, to an established list of reasons.

C☐ P☐ M☐ N☐

Comment [k11]: 8 Examples of reliability testing include, but are not limited to: inter-rater/abstractor or intra-rater/abstractor studies; internal consistency for multi-item scales; test-retest for survey items. Reliability testing may address the data items or final measure score.

Second, to evaluate reliability, the University of Colorado used the QM-level and item-level discrepancy rates reported by the DAVE 2 project. They also examined measure stability, which is related to reliability. To accomplish this they examined the percentage of facilities that had a change in ranking from one quarter to the next of at least three deciles.(2) This indicator of stability was computed for each of the 12 pairs of adjacent quarters for which data were available (2003 Q3 through 2006 Q3).

Third, the national test of MDS 3.0 items examined agreement between assessors (reliability).(3) Quality Improvement Organizations (QIOs) were employed to identify gold-standard (research) nurses and recruit community nursing facilities to participate in the national evaluation. The gold-standard nurses were trained in the MDS 3.0 instrument and, in turn, trained a facility nurse from each participating nursing facility in their home states. Residents participating in the test were selected to capture a representative sample of short- and long-stay residents. Quality measures using the MDS 2.0 and the MDS 3.0 items were calculated and then compared, with correlations and Kappas calculated.

1. Abt Associates, Inc.; Stepwise Systems, Inc.; Qualidigm. Data Assessment and Verification (DAVE 2) project—MDS two-stage discrepancy findings, April–December 2006. Cambridge, MA: Abt Associates, Inc, 2007.

2. Brega A, Hittle D, Goodrich G, Kramer A, Conway K, Levy C. Empirical review of publicly reported nursing home quality measures. Denver: Division of Health Care Policy and Research University of Colorado at Denver; Abt Associates, Inc, 2007.

3. Saliba D, Buchanan J. Development and validation of a revised nursing home assessment tool: MDS 3.0. Contract No. 500-00-0027/Task Order #2. Santa Monica, CA: Rand Corporation, Apr 2008. Available from http://www.cms.hhs.gov/NursingHomeQualityInits/Downloads/MDS30FinalReport.pdf.

2b.3 Testing Results *(reliability statistics, assessment of adequacy in the context of norms for the test conducted)*:
The DAVE 2 Project found a moderate two-stage discrepancy rate of 13.1% for the current influenza measure and the associated MDS 2.0 item.(1) The Retrospective Medical Record Review rate was lower.

According to the University of Colorado findings, the influenza immunization measure for short-stay residents received ratings of "guarded" for the dimensions of both validity and reliability.(2) In their empirical review of the quality measures, Brega and colleagues found that length of stay has an impact on the triggering rates for the vaccination measures. They did not report on the stability of the influenza immunization measure because the measure had not been in use long enough at the time of their analysis.

The national pilot test of the MDS 3.0 items conducted by Saliba and Buchanan showed good reliability. The kappa statistic for gold-standard nurse to gold-standard nurse agreement was .989 for influenza vaccine given and the kappa for gold-standard nurse to facility nurse agreement was .941.(3)

1. Abt Associates, Inc.; Stepwise Systems, Inc.; Qualidigm. Data Assessment and Verification (DAVE 2) project—MDS two-stage discrepancy findings, April–December 2006. Cambridge, MA: Abt Associates, Inc, 2007.

2. Brega A, Hittle D, Goodrich G, Kramer A, Conway K, Levy C. Empirical review of publicly reported nursing home quality measures. Denver: Division of Health Care Policy and Research University of Colorado at Denver; Abt Associates, Inc, 2007.

3. Saliba D, Buchanan J. Development and validation of a revised nursing home assessment tool: MDS 3.0. Contract No. 500-00-0027/Task Order #2. Santa Monica, CA: Rand Corporation, Apr 2008. Available from http://www.cms.hhs.gov/NursingHomeQualityInits/Downloads/MDS30FinalReport.pdf.

2c. Validity testing

2c.1 Data/sample *(description of data/sample and size)*: The data came from two sources: national facility-level quality measure data from 2003 Q3 through 2006 Q3 came from the QIES MDS Express Reports on the CMS intranet; OSCAR data related to facility characteristics (e.g., state, resident census, number of beds, staffing) and certification survey results were downloaded from QIES Workbench. A 10% random sample of all Medicare-certified nursing facilities was also downloaded from MDS assessment records. Analyses were based on

2c
C ☐
P ☐
M ☐
N ☐

Comment [KP12]: 2c. Validity testing demonstrates that the measure reflects the quality of care provided, adequately distinguishing good and poor quality. If face validity is the only validity addressed, it is systematically assessed.

complete MDS data from January 2005 through March 2006, as well as nearly complete data for April 2006 and partial data for May and June 2006.

2c.2 **Analytic Method** *(type of validity & rationale, method for testing)*:
The analysis evaluated measure validity in a number of ways; to examine the expected positive influence of public reporting on quality of care, an assessment of the degree to which quality measure flu vaccination rates have improved over time; to evaluate convergent validity, an assessment of the correlation of the quality measure with all other measures; and to determine whether the vaccination rate was influenced by factors that are unrelated to facility quality, an evaluation of seasonal variations in triggering rates across the 13 quarters of data. The analysis also computed descriptive statistics and conducted a one-way analysis of variance (ANOVA) for the measure to examine the amount of variance in triggering rates explained by the state in which a facility was located.

2c.3 **Testing Results** *(statistical results, assessment of adequacy in the context of norms for the test conducted)*:
According to the University of Colorado findings, the influenza measure for short-stay residents received a rating of guarded for validity testing. Results show the influenza vaccination measures are very well correlated with each other and the pneumonia vaccination measure (r ranges from 0.58 to 0.81), providing evidence of convergent validity. The short-stay measure also showed variability across states, as indicated in the table below by an inter-quartile range of 5% or more, or a percent of variance explained by the state ANOVA of 10% or more.

See attached Table 2: Correlation of Vaccination Measures, and Table 3: Measure Variability across States

2d. Exclusions Justified

2d.1 **Summary of Evidence supporting exclusion(s):**
Only facilities with less than 20 residents are excluded from public reporting due to small sample size.

2d.2 **Citations for Evidence:**
This is not applicable.

2d.3 **Data/sample** *(description of data/sample and size)*: This is not applicable.

2d.4 **Analytic Method** *(type analysis & rationale)*:
This is not applicable.

2d.5 **Testing Results** *(e.g., frequency, variability, sensitivity analyses)*:
This is not applicable.

2d C☐ P☐ M☐ N☐ NA☐

2e. Risk Adjustment for Outcomes/ Resource Use Measures

2e.1 **Data/sample** *(description of data/sample and size)*: This is not applicable.

2e.2 **Analytic Method** *(type of risk adjustment, analysis, & rationale)*:
This is not applicable.

2e.3 **Testing Results** *(risk model performance metrics)*:
This is not applicable.

2e.4 **If outcome or resource use measure is not risk adjusted, provide rationale:** The proposed measure is a process measure, and it is not risk adjusted.

2e C☐ P☐ M☐ N☐ NA☐

2f. Identification of Meaningful Differences in Performance

2f.1 **Data/sample from Testing or Current Use** *(description of data/sample and size)*: The data came from two sources: national facility-level quality measure data from 2003 Q3 through 2006 Q3 came from the QIES MDS Express Reports on the CMS intranet; OSCAR data related to facility characteristics (e.g., state, resident census, number of beds, staffing) and certification survey results were downloaded from QIES Workbench. A 10% random sample of all Medicare-certified nursing facilities was also downloaded from MDS assessment

2f C☐ P☐ M☐ N☐

Comment [k13]: 9 Examples of validity testing include, but are not limited to: determining if measure scores adequately distinguish between providers known to have good or poor quality assessed by another valid method; correlation of measure scores with another valid indicator of quality for the specific topic; ability of measure scores to predict scores on some other related valid measure; content validity for multi-item scales/tests. Face validity is a subjective assessment by experts of whether the measure reflects the quality of care (e.g., whether the proportion of patients with BP < 140/90 is a marker of quality). If face validity is the only validity addressed, it is systematically assessed (e.g., ratings by relevant stakeholders) and the measure is judged to represent quality care for the specific topic and that the measure focus is the most important aspect of quality for the specific topic.

Comment [KP14]: 2d. Clinically necessary measure exclusions are identified and must be:
•supported by evidence of sufficient frequency of occurrence so that results are distorted without the exclusion;
AND
•a clinically appropriate exception (e.g., contraindication) to eligibility for the measure focus;
AND
•precisely defined and specified:
–if there is substantial variability in exclusions across providers, the measure is specified so that exclusions are computable and the effect on the measure is transparent (i.e., impact clearly delineated, such as number of ca ... [2]

Comment [k15]: 10 Examples of evidence that an exclusion distorts measure results include, but are not limited to: frequency of occurrence, sensitivity analyses with and without the exclusion, and variability of exclusions across providers.

Comment [KP16]: 2e. For outcome measures and other measures (e.g., resource use) when indicated:
•an evidence-based risk-adjustment strategy (e.g., risk models, risk stratification) is specified and is based on patient clinical factors that influence the measured outcome (but not disparities in care) and are present at start of care;[Error! Bookmark not defined.] OR rationale/data support no risk adjustment.

Comment [k17]: 13 Risk models should not obscure disparities in care for populations by including factors that are associated with differences/inequalities in care such as race, socioeconomic status, gender (e.g., poorer treatment outcomes of African American men with prostate cancer, inequalities in treatment for CVD risk factors between men and women). It is preferable to stratify measures by race and socioeconomic status rather than adjusting out differences.

Comment [KP18]: 2f. Data analysis demonstrates that methods for scoring and analysis of the specified measure allow for identification of statistically significant and practically/clinically meaningful differences in performance.

records. Analyses were based on complete MDS data from January 2005 through March 2006, as well as nearly complete data for April 2006 and partial data for May and June 2006.

2f.2 **Methods to identify statistically significant and practically/meaningfully differences in performance** *(type of analysis & rationale)*:
Because the computed scores are not estimates, but include all residents who meet the measure criteria, in terms of discriminating performance, the computed scores can be used to make valid comparisons.

2f.3 **Provide Measure Scores from Testing or Current Use** *(description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*:
In their analysis of quality measures using MDS data from the first quarter of 2006 (presented below), the University of Colorado found that this measure could be reported for 75.7% of facilities and had a fair amount of variability across facilities in the rates of influenza immunization. The quality measure varied from 35.7% at the 10th percentile to 98.1% at the 90th percentile. For 1,228 facilities, the mean triggering rate was 72.9% with a standard deviation of 23.5%.

See attached Table 1. Measure Variability Across Facilities.

Comment [k19]: 14 With large enough sample sizes, small differences that are statistically significant may or may not be practically or clinically meaningful. The substantive question may be, for example, whether a statistically significant difference of one percentage point in the percentage of patients who received smoking cessation counseling (e.g., 74% v. 75%) is clinically meaningful; or whether a statistically significant difference of $25 in cost for an episode of care (e.g., $5,000 v. $5,025) is practically meaningful. Measures with overall poor performance may not demonstrate much variability across providers.

2g. Comparability of Multiple Data Sources/Methods

2g.1 **Data/sample** *(description of data/sample and size)*: This is not applicable.

2g.2 **Analytic Method** *(type of analysis & rationale)*:
This is not applicable.

2g.3 **Testing Results** *(e.g., correlation statistics, comparison of rankings)*:
This is not applicable.

2g C☐ P☐ M☐ N☐ NA☐

Comment [KP20]: 2g. If multiple data sources/methods are allowed, there is demonstration they produce comparable results.

2h. Disparities in Care

2h.**1 If measure is stratified, provide stratified results** *(scores by stratified categories/cohorts)*: The measure is not stratified.

2h.2 **If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:**
While MDS 3.0 collects data on the resident's race and other characteristics, there are no current plans to stratify the measure. As noted in the NQF's Report on Voluntary Consensus Standards for Influenza and Pneumococcal Immunizations, a comprehensive measure can be stratified to allow examination of a particular patient group of interest (e.g., diagnosis of chronic obstructive pulmonary disease) without creating multiple versions of the same measure.(1) However, the ultimate goal is to vaccinate all recommended populations, including the elderly and nursing facility residents, which is what the measure is intended to capture.

1. National Quality Forum. National voluntary consensus standards for influenza and pneumococcal immunizations. December 2008. Available from http://www.qualityforum.org/Publications/2008/12/National_Voluntary_Consensus_Standards_for_Influenza_and_Pneumococcal_Immunizations.aspx

2h C☐ P☐ M☐ N☐ NA☐

Comment [KP21]: 2h. If disparities in care have been identified, measure specifications, scoring, and analysis allow for identification of disparities through stratification of results (e.g., by race, ethnicity, socioeconomic status, gender);OR rationale/data justifies why stratification is not necessary or not feasible.

TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Scientific Acceptability of Measure Properties*?

2

Steering Committee: Overall, to what extent was the criterion, *Scientific Acceptability of Measure Properties*, **met?**
Rationale:

2 C☐ P☐ M☐ N☐

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)

Eval Rating

3a. Meaningful, Understandable, and Useful Information

3a.1 **Current Use:** In use

3a.2 **Use in a public reporting initiative (disclosure of performance results to the public at large)** (*If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years*)**:**
Nursing Home Compare
http://www.medicare.gov/NHCompare/Include/DataSection/Questions/SearchCriteriaNEW.asp?version=default&browser=IE%7C6%7CWinXP&language=English&defaultstatus=0&pagelist=Home&CookiesEnabledStatus=True

3a.3 **If used in other programs/initiatives (***If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years***):**
CMS expects that the proposed quality measure will be used by nursing facilities as a tool to increase facilities' seasonal influenza vaccination rates.

Testing of Interpretability (*Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement*)
3a.4 **Data/sample** *(description of data/sample and size)***:** A recent study examined whether consumers could accurately interpret the quality information given for all the measures reported by Nursing Home Compare.(1) Although the influenza measure was not specifically included in the analysis, the study showed that, overall, data for the measures posted on Nursing Home Compare are understood by consumers. Because the proposed short-stay seasonal influenza vaccination quality measure is based upon the current measure, with only slight changes, we anticipate the proposed measure will also be understood by consumers.

Data were collected from 4,754 family members of nursing facility residents.

1. Castle N. The Nursing Home Compare report card: consumers' use and understanding. J Aging Soc Policy. 2009;21(2), 187-208.

3a.5 **Methods** *(e.g., focus group, survey, QI project)***:**
A comprehension index was used to examine whether the information contained in Nursing Home Compare for each quality measure was understood by family members.

3a.6 **Results** *(qualitative and/or quantitative results and conclusions)***:**
The study found that 31% of the consumers used the Internet in choosing a nursing facility, 12% recalled using Nursing Home Compare, and in general, the consumers' comprehension index scores were high, indicating good understanding although this specific measure was not reported.

3a C☐ P☐ M☐ N☐

3b/3c. Relation to other NQF-endorsed measures

3b.1 **NQF # and Title of similar or related measures:**
This measure replaces NQF # 0432: Influenza Vaccination of Nursing Home/Skilled Nursing Facility Residents.

(for NQF staff use) **Notes on similar/related** endorsed **or submitted measures:**

3b. Harmonization
If this measure is related to measure(s) already endorsed by NQF (e.g., same topic, but different target population/setting/data source or different topic but same target population):
3b.2 **Are the measure specifications harmonized? If not, why?**
Yes. The measure specifications are harmonized. They correspond to the specifications in the 2008 NQF National Voluntary Consensus Standards for Influenza and Pneumococcal Immunizations Report. The specifications are updated to reflect the changes in MDS 3.0.

3b C☐ P☐ M☐ N☐

Comment [KP22]: 3a. Demonstration that information produced by the measure is meaningful, understandable, and useful to the intended audience(s) for both public reporting (e.g., focus group, cognitive testing) and informing quality improvement (e.g., quality improvement initiatives). An important outcome that may not have an identified improvement strategy still can be useful for informing quality improvement by identifying the need for and stimulating new approaches to improvement.

Comment [KP23]: 3b. The measure specifications are harmonized with other measures, and are applicable to multiple levels and settings.

Comment [k24]: 16 Measure harmonization refers to the standardization of specifications for similar measures on the same topic (e.g., *influenza immunization* of patients in hospitals or nursing homes), or related measures for the same target population (e.g., eye exam and HbA1c for *patients with diabetes*), or definitions applicable to many measures (e.g., age designation for children) so that they are uniform or compatible, unless differences are dictated by the evidence. The dimensions of harmonization can include numerator, denominator, exclusions, and data source and collection instructions. The extent of harmonization depends on the relationship of the measures, the evidence for the specific measure focus, and differences in data sources.

	NA ☐
3c. Distinctive or Additive Value **3c.1 Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:** The current measure is being retired due to the change in the data source. The proposed measure will replace it and is harmonized to the NQF Voluntary Consensus Standards for Influenza and Pneumococcal Immunizations. **5.1 If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality:**	**3c** **C**☐ **P**☐ **M**☐ **N**☐ **NA**☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Usability*?	**3**
Steering Committee: Overall, to what extent was the criterion, *Usability*, met? **Rationale:**	**3** **C**☐ **P**☐ **M**☐ **N**☐
4. FEASIBILITY	
Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)	Eval Rating
4a. Data Generated as a Byproduct of Care Processes **4a.1-2 How are the data elements that are needed to compute measure scores generated?** Data generated as byproduct of care processes during care delivery (Data are generated and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition), Coding/abstraction performed by someone other than person obtaining original information (E.g., DRG, ICD-9 codes on claims, chart abstraction for quality measure or registry)	**4a** **C**☐ **P**☐ **M**☐ **N**☐
4b. Electronic Sources **4b.1 Are all the data elements available electronically?** (*elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims*) No **4b.2 If not, specify the near-term path to achieve electronic capture by most providers.** Not applicable.	**4b** **C**☐ **P**☐ **M**☐ **N**☐
4c. Exclusions **4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications?** No **4c.2 If yes, provide justification.**	**4c** **C**☐ **P**☐ **M**☐ **N**☐ **NA**☐
4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences **4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results.**	**4d** **C**☐ **P**☐ **M**

Comment [KP25]: 3c. Review of existing endorsed measures and measure sets demonstrates that the measure provides a distinctive or additive value to existing NQF-endorsed measures (e.g., provides a more complete picture of quality for a particular condition or aspect of healthcare, is a more valid or efficient way to measure).

Comment [KP26]: 4a. For clinical measures, required data elements are routinely generated concurrent with and as a byproduct of care processes during care delivery. (e.g., BP recorded in the electronic record, not abstracted from the record later by other personnel; patient self-assessment tools, e.g., depression scale; lab values, meds, etc.)

Comment [KP27]: 4b. The required data elements are available in electronic sources. If the required data are not in existing electronic sources, a credible, near-term path to electronic collection by most providers is specified and clinical data elements are specified for transition to the electronic health record.

Comment [KP28]: 4c. Exclusions should not require additional data sources beyond what is required for scoring the measure (e.g., numerator and denominator) unless justified as supporting measure validity.

Comment [KP29]: 4d. Susceptibility to inaccuracies, errors, or unintended consequences and the ability to audit the data items to detect such problems are identified.

Abt Associates' DAVE 2 Project found that 13% of the time the current Influenza Immunization measure was triggered differently by different assessors.(1) Part of this may be because definitions for the currently reported measure are misunderstood, or the assessors leave the items blank when they should be completed. The changes made to the MDS 3.0 regarding the vaccine items were relatively minor; however, these minor changes reportedly improved the clarity of the items.(2) Further, in a reliability test of the revised MDS 3.0 items, Saliba and Buchanan reported a kappa statistic for gold-standard nurse to gold-standard nurse agreement was .989 for influenza vaccine given and the kappa for gold-standard nurse to facility nurse agreement was .941.(2)

The proposed short-stay influenza immunization measure has been harmonized; it conforms to the measure specifications as identified by the NQF measure number 0432.(3)

1. Abt Associates, Inc.; Stepwise Systems, Inc.; Qualidigm. Data Assessment and Verification (DAVE 2) project—MDS two-stage discrepancy findings, April–December 2006. Cambridge, MA: Abt Associates, Inc, 2007.

2. Saliba D, Buchanan J. Development and validation of a revised nursing home assessment tool: MDS 3.0. Contract No. 500-00-0027/Task Order #2. Santa Monica, CA: Rand Corporation, Apr 2008. Available from http://www.cms.hhs.gov/NursingHomeQualityInits/Downloads/MDS30FinalReport.pdf.

3. National Quality Forum. National voluntary consensus standards for influenza and pneumococcal immunizations. December 2008. Available from http://www.qualityforum.org/Publications/2008/12/National_Voluntary_Consensus_Standards_for_Influenza_and_Pneumococcal_Immunizations.aspx

☐ N ☐

4e. Data Collection Strategy/Implementation

4e.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/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues:
The data collection method is already in operational use, and there are no issues with these areas.

4e.2 Costs to implement the measure (*costs of data collection, fees associated with proprietary measures*)**:**
Data are collected as part of an existing process with no additional cost.

4e.3 Evidence for costs:
This is not applicable.

4e.4 Business case documentation: The proposed measure relies on data from the MDS 3.0. As there is no change in the data collection method for the MDS 3.0 as compared with its predecessor, the MDS 2.0, we do not anticipate any additional burden to nursing facilities. MDS 2.0, and soon to be MDS 3.0, data are collected as part of an existing, federally mandated process used for payment and quality monitoring purposes.

4e C☐ P☐ M☐ N☐

Comment [KP30]: 4e. Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, etc.) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use).

TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Feasibility*? **4**

Steering Committee: Overall, to what extent was the criterion, *Feasibility*, met?
Rationale:

4 C☐ P☐ M☐ N☐

RECOMMENDATION

(for NQF staff use) **Check if measure is untested and only eligible for time-limited endorsement.** **Time-limited** ☐

Steering Committee: Do you recommend for endorsement? **Y**☐

Comments:	**N** ☐ **A** ☐

CONTACT INFORMATION

Co.1 Measure Steward (Intellectual Property Owner)
Co.1 Organization
Centers for Medicare & Medicaid Services, 7500 Security Boulevard, Mail Stop S3-02-01, Baltimore, Maryland, 21244-1850

Co.2 Point of Contact
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Measure Developer If different from Measure Steward
Co.3 Organization
RTI International, 1440 Main Street, Suite 310, Waltham, Massachusetts, 02451-1623

Co.4 Point of Contact
Roberta, Constantine, RN, MBA, PhD, rconstantine@rti.org, 781-434-1711-

Co.5 Submitter If different from Measure Steward POC
Roberta, Constantine, RN, MBA, PhD, rconstantine@rti.org, 781-434-1711-, RTI International

Co.6 Additional organizations that sponsored/participated in measure development

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.
See attached Table 4: Nursing Home Quality Measures Technical Expert Panel (January 2009) for list of workgroup or panel member names and organizations.

This technical expert panel met over 2 days in January 2009 to review the environmental scan of the current quality measures and make recommendations regarding their transition from MDS 2.0 to MDS 3.0.

Ad.2 If adapted, provide name of original measure:
Ad.3-5 If adapted, provide original specifications URL or attachment

Measure Developer/Steward Updates and Ongoing Maintenance
Ad.6 Year the measure was first released: 2002
Ad.7 Month and Year of most recent revision: 02, 2010
Ad.8 What is your frequency for review/update of this measure? Every 3 years
Ad.9 When is the next scheduled review/update for this measure? 02, 2013

Ad.10 Copyright statement/disclaimers:

Ad.11 -13 Additional Information web page URL or attachment: Attachment Seasonal influenza Vaccine Short Stay tables_FINAL.doc

Date of Submission (*MM/DD/YY*)**:** 10/08/2010

Page 5: [1] Comment [k4] **Karen Pace** **10/5/2009 8:59:00 AM**

1c. The measure focus is:

- an outcome (e.g., morbidity, mortality, function, health-related quality of life) that is relevant to, or associated with, a national health goal/priority, the condition, population, and/or care being addressed;

OR

- if an intermediate outcome, process, structure, etc., there is **evidence** that supports the specific measure focus as follows:
  - Intermediate outcome – evidence that the measured intermediate outcome (e.g., blood pressure, Hba1c) leads to improved health/avoidance of harm or cost/benefit.
  - Process – evidence that the measured clinical or administrative process leads to improved health/avoidance of harm and
    if the measure focus is on one step in a multi-step care process, it measures the step that has the greatest effect on improving the specified desired outcome(s).
  - Structure – evidence that the measured structure supports the consistent delivery of effective processes or access that lead to improved health/avoidance of harm or cost/benefit.
  - Patient experience – evidence that an association exists between the measure of patient experience of health care and the outcomes, values and preferences of individuals/ the public.
  - Access – evidence that an association exists between access to a health service and the outcomes of, or experience with, care.
  - Efficiency – demonstration of an association between the measured resource use and level of performance with respect to one or more of the other five IOM aims of quality.

Page 11: [2] Comment [KP14] **Karen Pace** **10/5/2009 8:59:00 AM**

2d. Clinically necessary measure exclusions are identified and must be:

- supported by evidence of sufficient frequency of occurrence so that results are distorted without the exclusion;

AND

- a clinically appropriate exception (e.g., contraindication) to eligibility for the measure focus;

AND

- precisely defined and specified:
  - if there is substantial variability in exclusions across providers, the measure is specified so that exclusions are computable and the effect on the measure is transparent (i.e., impact clearly delineated, such as number of cases excluded, exclusion rates by type of exclusion);

if patient preference (e.g., informed decision-making) is a basis for exclusion, there must be evidence that it strongly impacts performance on the measure and the measure must be specified so that the information about patient preference and the effect on the measure is transparent (e.g., numerator category computed separately, denominator exclusion category computed separately).