

Specifications

Descriptive Information

De.1. Measure Type *(Patient-reported outcomes include HRQoL/functional status, symptom/burden, experience with care, health-related behavior.)**

Process

De.2. Measure Title*

Percent of Residents or Patients Who Were Assessed and Appropriately Given the Seasonal Influenza Vaccine (short stay)

De.3. Brief description of measure (including type of score, measure focus, target population, timeframe, e.g., Percentage of adult patients aged 18-75 years receiving one or more HbA1c tests per year)

The measure reports the percentage of short-stay residents or patients who are assessed and appropriately given the seasonal influenza vaccine during the most recently-completed influenza vaccination season (IVS). The IVS is defined as beginning on October 1, or when the vaccine first becomes available, and ends on March 31 of the following year. This measure is based on the NQF's National Voluntary Standards for Influenza and Pneumococcal Immunizations. The measure is the aggregate of three separately calculated submeasures to reflect the process by which a resident or patient is assessed and appropriately given the influenza vaccination during the current or most recent influenza season.

The three submeasures are as follows:

- residents or patients who received the influenza vaccine during the most recently completed influenza season, either in the facility/hospital or outside the facility/hospital (NQF #0680a);
- residents or patients who were offered and declined the seasonal influenza vaccine (NQF #0680b);
- residents or patients who were ineligible to receive the seasonal influenza vaccine due to contraindication(s) (e.g., anaphylactic hypersensitivity to eggs or other components of the vaccine, see <http://www.cdc.gov/flu/professionals/vaccination/vax-summary.htm>) (NQF #0680c).

The denominator consists of patients or short-stay residents 180 days of age or older on the target date of assessment who were in the facility/hospital for at least one day during the most recently-completed IVS. The measure is based on data from the Minimum Data Set (MDS) assessments of nursing home residents, Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI) assessments for Inpatient Rehabilitation Facility (IRF) patients, and the Long-Term Care Hospital (LTCH) Continuity Assessment Record & Evaluation (CARE) Data Set Version assessments of LTCH patients.

Data are collected in each of these three settings using standardized items across the three assessment instruments. For the nursing homes, the measure is limited to short-stay residents, identified as residents who have had 100 or fewer days of nursing home care. For the LTCHs, this measure will include all patients, irrespective of a patient's length of stay. For IRFs, this measure will include all Medicare Part A and Part C patients, irrespective of a patient's length of stay.

Measure Specifications

S.1. Measure-specific Web Page *(Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials. Do not enter a URL linking to a home page or to general information.) **

<https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/NHQIQualityMeasures.html>; please see “MDS 3.0 QM User’s Manual” in Downloads section at the bottom of the page.

<https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/IRF-Quality-Reporting/Technical-Information.html>; please see “IRF QM User Manual” in Downloads section at the bottom of the page.

<https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/LTCH-Quality-Reporting/LTCH-Quality-Reporting-Measures-Information.html>; please see “LTCH QM User Manual” in Downloads section at the bottom of the page.

S.4. Numerator Statement *(Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome)*

IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm.

The numerator for the overall measure (NQF #0680) is the number of residents or patients in the denominator sample who, during the numerator time window, meet any one of the following criteria: (1) those who received the seasonal influenza vaccine during the most recently-completed influenza vaccination season, either in the facility/hospital or outside the facility/hospital (NQF #0681a); (2) those who were offered and declined the seasonal influenza vaccine (NQF #0681b); or (3) those who were ineligible due to contraindication(s) (NQF #0681c). The numerator time window coincides with the most recently-completed seasonal influenza vaccination season (which begins on October 1, or when the vaccine first becomes available, and ends on March 31 of the following year).

Each criterion in the numerator is also computed and reported separately as a submeasure, alongside the overall numerator calculated as the aggregate of the three submeasure numerators.

S.5. Time Period for Data *(What is the time period in which data will be aggregated for the measure, e.g., 12 mo, 3 years, look back to August for flu vaccination? Note if there are different time periods for the numerator and denominator.)*

The time period for the data is the most recently-completed seasonal influenza vaccination season (which begins on October 1, or when the influenza vaccine is available, and ends on March 31 of the following year).

S.6. 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, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)*

IF an OUTCOME MEASURE, describe how the observed outcome is identified/counted. Calculation of the risk-adjusted outcome should be described in the calculation algorithm.

The numerator for the overall measure (NQF #0680) includes all patients or short-stay residents in the denominator sample who, during the numerator time window, meet one of three criteria: (1) received the seasonal influenza vaccine during the most recent influenza vaccination season, either inside or outside the facility/hospital, (2) were offered and declined the vaccine, (3) were ineligible due to medical contraindications.

For each setting (i.e., nursing homes, inpatient rehabilitation facilities, and long-term care hospitals), the numerator components are also computed and reported separately as a submeasure.

Specifications for the three provider type assessment tools are listed below:

MDS: Residents are counted if they are short-stay residents, defined as residents whose length of stay is less than or equal to 100 days. Short-stay residents are included in the numerator for the overall measure (NQF #0680) if they meet any of the following criteria during the numerator time window: (1) received the influenza vaccine during the most recent influenza vaccine season, either in the facility (O0250A=1) or outside the facility (O0250C=2) (also computed and reported separately as a submeasure); or (2) offered and declined the influenza vaccine (O0250C=4) (also computed and reported separately as a submeasure); or (3) ineligible due to medical contraindication(s) (O0250C=3) (also computed and reported separately as a submeasure). Included in the numerator are short-stay residents who meet the criteria on the selected MDS assessment. The record selected will be the record with the latest target date that meets all of the following conditions: (1) it has a qualifying reason for assessment (OBRA (A0310A=01,02,03,04,05,06), PPS (A0310B=01,02,03,04,05,06) or discharge assessment (A0310F=10, 11), (2) the target date is on or after October 1st of the most recently completed influenza season, and (3) the entry date is on or before March 31st of the most recently completed influenza season.

LTCH CARE Data Set: Patients are included in the numerator for the overall measure (NQF #0680) for patient stays that meet any of the following criteria during the numerator time window: (1) received the influenza vaccine during the most recent influenza vaccination season, either in the facility (O250A=1) or outside the facility (O0250C=2) (also computed and reported separately as a submeasure); or (2) offered and declined the influenza vaccine (O0250C=4) (also computed and reported separately as a submeasure); or (3) ineligible due to medical contraindication(s) (O0250C=3) (also computed and reported separately as a submeasure). Included in the numerator are patients who meet the criteria on the LTCH CARE Data Set admission assessment (A0250=01), discharge or expired patient assessment (A0250=10, 11, 12) during the denominator time window.

IRF-PAI: Patients are included in the numerator for the overall measure (NQF #0680) for stays that meet any one of the following criteria during the numerator time window: (1) received the influenza vaccine during the most recently-completed influenza vaccine season, either in the facility (O0250A = 1) or outside the facility (O0250C =2); or (2) offered and declined the influenza vaccine (O0250C = 4) (also computed and reported separately as a submeasure); or (3) ineligible due to medical contraindication(s) (O0250C = 3) (also computed and reported separately as a submeasure). Included in the numerator are patients who meet the criteria based on data reported on the IRF-PAI assessments during the denominator time window. Note: IRF-PAI assessments are only submitted to CMS for Medicare Part A and Part C patients.

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

IF an OUTCOME MEASURE, state the target population for the outcome. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.18).

The denominator consists of patients or short-stay residents 180 days of age and older on the target date of the assessment who were in the facility/hospital for at least one day during the denominator time window. The denominator time window is defined as the most recently-completed influenza vaccination season, which begins on October 1 and ends on March 31 of the following year. For IRF and LTCH, the QM is based on patient stays with discharge assessments. An IRF or LTCH patient with multiple stays during the denominator time window (IVS) will

be included more than once in the QM. If a nursing home resident has more than one episode during the denominator time window only the more recent episode is included in this QM.

Note: The IRF-PAI data are submitted for Medicare Part A and Part C patients only.

S.8. Target Population Category (*Check all the populations for which the measure is specified and tested if any*):

- | | |
|--|---|
| <input type="checkbox"/> Children's Health | <input type="checkbox"/> Populations at Risk : Individuals with multiple chronic conditions |
| <input type="checkbox"/> Maternal Health | <input type="checkbox"/> Populations at Risk : Veterans |
| <input type="checkbox"/> Populations at Risk : Populations at Risk | <input checked="" type="checkbox"/> Senior Care |
| <input type="checkbox"/> Populations at Risk : Dual eligible beneficiaries | |

S.9. Denominator Details (*All information required to identify and calculate the target*

population/denominator such as definitions, specific data collection items/responses, code/value sets –

Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b

The denominator time window, is defined as the most recently-completed influenza vaccination season (IVS), which begins on October 1 and ends on March 31 of the following year. Measure specifications for the three assessment tools are listed below. For IRF and LTCH, the QM is based on stays with admission and discharge assessments. An IRF or LTCH patient with multiple stays during the denominator time window (IVS) will be included more than once in the QM. If a nursing home resident has more than one episode during the denominator time window only the more recent episode is included in this QM.

MDS (in use in Nursing Homes/Skilled Nursing Facilities): 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 sample includes residents, aged 180 days or older, meeting the following conditions: the resident has an OBRA assessment (A0310A=01,02,03,04,05,06) or PPS assessment (A0310B=01,02,03,04,05,06) or discharge assessment (A0310F=10, 11) with an assessment reference date on or after the start of the denominator time window and an entry date (A1600) on or before the end of the denominator time window.

LTCH CARE Data Set (in use in Long-Term Care Hospitals): Patient stays are included in the sample if patients are 180 days of age or older at discharge and have a stay that includes 1 or more days in the LTCH during the denominator time window. Stays must meet either of the following conditions: (1) a stay with an admission date (A0220) *or* a planned or unplanned (A0250 = 10, 11) discharge date (A0270) *or* an expired patient assessment (A0250 = 12) within the denominator time window; or (2) a stay with the admission date (A0220) before the denominator time window and a planned or unplanned discharge (A0250 = 10, 11) with discharge or date (A0270) or a patient expired assessment (A0250 = 12) with date of death (A0270) after the denominator time window.

IRF-PAI (in use in Inpatient Rehabilitation Facilities): Patient stays are included in the sample if patients are 180 days or older and have a stay that includes 1 or more days in the IRF during the denominator time window (the IVS). Patient stays must meet any of the following conditions: (1) the patient has an admission assessment with an entry date (item 12) during the denominator time window; (2) the patient has a discharge assessment with a discharge date (Item 40) during the denominator time window; or (3) the patient has an admission with an entry date (item 12) before the denominator time window and a discharge date (item 40) after the denominator time window.

S.10. Denominator Exclusions *(Brief narrative description of exclusions from the target population)*

Residents or patients whose age is less than 180 days of age on the target date of selected influenza vaccination assessment are excluded. Nursing homes with denominator counts of less than 20 residents and IRFs and LTCHs with less than 20 stays in the sample will be suppressed from public reporting owing to small sample size.

S.11. Denominator Exclusion Details *(All information required to identify and calculate exclusions from the denominator such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)*

See S.10

S.12. Stratification Details/Variables *(All information required to stratify the measure results including the stratification variables, definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b)*

This is not applicable.

S.13. Risk Adjustment Type *(Select type. Provide specifications for risk stratification in S.12 and for statistical model in S.14-15)*

- No risk adjustment or risk stratification
- Statistical risk model
- Stratification by risk category/subgroup
- Other (specify)

S.14. Identify the statistical risk model method and variables *(Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development and testing should be addressed with measure testing under Scientific Acceptability)*

This is not applicable.

S.15. Detailed risk model specifications *(must be in attached data dictionary/code list Excel or csv file. Also indicate if available at measure-specific URL identified in S.1.)*

Note: Risk model details (including coefficients, equations, codes with descriptors, definitions), should be provided on a separate worksheet in the suggested format in the Excel or csv file with data dictionary/code lists at S.2b.

- Available in attached Excel or csv file
- Provided in response box S.15a

S.16. Type of score: (Please select one of the following options)

- Count
- Rate/proportion
- Ratio
- Categorical , e.g., yes/no
- Continuous variable, e.g., average
- Other (specify):

S.17. 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
- Better quality = lower score
- Better quality = score within a defined interval
- Passing score defines better quality

S.18. 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.)*

For each setting the calculation algorithm for the overall measure and submeasures a-c are:

Step 1: Identify the total number of residents or patients meeting the denominator criteria.

Step 2: For the first submeasure (NQF #0680a: Percent of Residents or Patients Who Received the Seasonal Influenza Vaccine (short stay)):

Step 2a: Identify the total number of patients or short-stay residents who received the seasonal influenza vaccine during the current or most recently completed influenza season, either in the facility (O0250A= [1]) or outside the facility (O0250C = [2]).

Step 2b: Divide the results of Step 2a by the result of Step 1.

Step 3: For the second submeasure (NQF #0680b: Percent of Residents or Patients Who Offered and Declined the Seasonal Influenza Vaccine (short stay)):

Step 3a: Identify the total number of patients or short-stay residents who were offered and declined the seasonal influenza vaccine (O0250C = [4]).

Step 3b: Divide the results of Step 3a by the result of Step 1.

Step 4: For the third submeasure (NQF #0680c: Percent of Residents or Patients Who Did Not Receive, Due to Medical Contraindication, the Seasonal Influenza Vaccine (short stay)):

Step 4a: Identify the total number of patients or short-stay residents who were ineligible due to medical contraindication(s) (O0250C = [3]).

Step 4b: Divide the results of Step 4a by the result of Step 1.

Step 5: For the overall measure (NQF #0680: Percent of Residents or Patients Assessed and Appropriately Given the Seasonal Influenza Vaccine (short stay)):

Step 5a: Aggregate Step 2a, 3a, and 4a [Sum the total number of short-stay residents or patients who met any one of the following criteria: who received the seasonal influenza vaccine during the current or most recently completed influenza season, either in the facility (O0250A= [1]) or outside the facility (O0250C = [2]); OR who were offered and declined the seasonal influenza vaccine (O0250C = [4]); OR who were ineligible due to medical contraindication(s) (O0250C = [3]).]

Step 5b: Divide the results of Step 5a by the result of Step 1.

S.23. Data Source (Check ONLY the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in 2a1.26.

- | | |
|---|---|
| <input type="checkbox"/> Administrative claims | <input type="checkbox"/> Healthcare Provider Survey |
| <input checked="" type="checkbox"/> Electronic Clinical Data : Electronic Clinical Data | <input type="checkbox"/> Management Data |
| <input type="checkbox"/> Electronic Clinical Data : Electronic Health Record | <input type="checkbox"/> Paper Medical Records |
| <input type="checkbox"/> Electronic Clinical Data : Imaging/Diagnostic Study | <input type="checkbox"/> Patient Reported Data/Survey |
| <input type="checkbox"/> Electronic Clinical Data : Laboratory | <input type="checkbox"/> Other |
| <input type="checkbox"/> Electronic Clinical Data : Pharmacy | |
| <input type="checkbox"/> Electronic Clinical Data : Registry | |

S.26. Level of Analysis (Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)

- | | |
|---|---|
| <input type="checkbox"/> Clinician : Individual | <input type="checkbox"/> Population : Community |
| <input type="checkbox"/> Clinician : Group/Practice | <input type="checkbox"/> Population : County or City |
| <input type="checkbox"/> Clinician : Team | <input checked="" type="checkbox"/> Population : National |
| <input checked="" type="checkbox"/> Facility | <input type="checkbox"/> Population : Regional |
| <input type="checkbox"/> Health Plan | <input type="checkbox"/> Population : State |
| <input type="checkbox"/> Integrated Delivery System | |

S.27. Care Setting (Check ONLY the settings for which the measure is SPECIFIED AND TESTED)

- | | |
|---|--|
| <input type="checkbox"/> Ambulatory Care : Ambulatory Surgery Center (ASC) | <input type="checkbox"/> Hospital/Acute Care Facility |
| <input type="checkbox"/> Ambulatory Care : Clinician Office/Clinic | <input type="checkbox"/> Imaging Facility |
| <input type="checkbox"/> Ambulatory Care : Outpatient Rehabilitation | <input type="checkbox"/> Laboratory |
| <input type="checkbox"/> Ambulatory Care : Urgent Care | <input type="checkbox"/> Pharmacy |
| <input type="checkbox"/> Behavioral Health/Psychiatric : Inpatient | <input checked="" type="checkbox"/> Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility |
| <input type="checkbox"/> Behavioral Health/Psychiatric : Outpatient Dialysis Facility | <input checked="" type="checkbox"/> Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility |
| <input type="checkbox"/> Emergency Medical Services/Ambulance | <input checked="" type="checkbox"/> Post Acute/Long Term Care Facility : Long Term Acute Care Hospital |
| <input type="checkbox"/> Home Health | <input type="checkbox"/> Other |
| <input type="checkbox"/> Hospice | |

S.28. COMPOSITE Performance Measure - Additional Specifications (Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.)

This is not applicable.

Importance

Importance to Measure and Report is a threshold criterion that must be met in order to recommend a measure for endorsement. All three subcriteria must be met to pass this criterion. See guidance on evidence.

Opportunity for Improvement (Measure evaluation criterion 1a)

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

IF a COMPOSITE (e.g. combination of component measure scores, all-or-none, any-or-none), SKIP this question and provide rationale for composite in question 1d.3 on the composite tab.

This measure is intended to encourage nursing homes, IRFs and LTCHs to focus on this important aspect of clinical care by assessing residents or patients on their seasonal influenza immunization status and providing immunization, as deemed clinically appropriate.

Influenza poses a substantial health threat to elderly populations. According to the CDC, pneumonia and influenza were together the seventh most common cause of death for people aged 65 and older in the United States in 2013 (U.S. Centers for Disease Control and Prevention, 2015). Morbidity and mortality data related to influenza are often reported in conjunction with data regarding pneumonia. In 2009, influenza and pneumonia combined caused 43,465 deaths in people over the age of 65, with 638 deaths caused from influenza alone. In addition to being at risk for primary illness, frail elderly are especially vulnerable and subject to complications of influenza.

Pop-Vicas et al. estimated that there were 130,000 deaths and 77,000 pneumonia and influenza hospitalizations of long-stay NH residents during the 32 non-summer weeks (Pop-Vicas, 2015).

According to the CDC, more than 200,000 people are hospitalized in the United States each year as a result of complications from influenza (Centers for Disease Control and Prevention, 2008). The average hospital stay was approximately 5.3 days at a cost of \$6,900 per stay (Milenkovic et al., 2006). Further, the death rate per 100,000 persons from influenza among Americans aged 65-74 was 29.5, 103.7 for those aged 75-84, and 441.0 for those 85 and older. The death rate for influenza and pneumonia in people 65 to 74 years old is 2.4 times that of a person 55 to 64; and for a person over the age of 85, the death rate is 36.1 times that (Xu et al, 2016).

Influenza vaccination is an effective preventative measure against influenza and related hospitalization and death. A 2014 meta-analysis of the cumulative research on the effectiveness of influenza vaccination in institutionalized older adults indicates that seasonal vaccination reduces clinical outcomes such as pneumonia (VE: 37%, 95% confidence interval [CI]: 18%–53%, $p = .001$) and death due to pneumonia or influenza (VE: 34%, CI: 10%–53%, $p = .01$) (Chan, et al., 2014). In 2015, CDC estimated that flu vaccination during the 2012-2013 flu season averted 357,220 medically attended cases of influenza (CI 69,905, - 1,188,338) and 57,990 hospitalizations (CI, 11,242 – 192,327; 7.1% of all hospitalizations, CI, 1.3–19.2%), among adults aged 65 and older (CDC, 2015). Based on data from the 2008-2009 immunization vaccination season, the US nursing home influenza vaccine coverage rate ranged from 49% to 82% with a median rate of 72.7% (Bardenheier,2012).

Because influenza is particularly threatening to people with comorbidities, nursing home residents, who are likely to have comorbidities, are especially susceptible to adverse outcomes of influenza. Nursing home residents frequently have two or more chronic conditions which, together with immunosenescence, make them more susceptible to influenza infection (Fulop, et al. 2009).

- Bardenheier, B., Wortley, P., Shefer, A., McCauley, M. M., & Gravenstein, S. (2012). Racial inequities in receipt of influenza vaccination among nursing home residents in the United States, 2008-2009: a pattern of low overall coverage in facilities in which most residents are black. *J Am Med Dir Assoc*, 13(5), 470-476.
- CDC. (10 Dec. 2015) Estimated Influenza Illnesses and Hospitalizations Averted by Vaccination — United States, 2014–15 Influenza Season. <http://www.cdc.gov/flu/about/disease/2014-15.htm>.
- CDC. Health, United States, 2014 with Special Feature on Adults Aged 55-64. May 2015. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics.
- CDC. Influenza E-brief: 2008-2009 flu facts for policymakers. September 2008. Available from http://www.cdc.gov/washington/pdf/flu_newsletter.pdf.
- CDC. State specific influenza vaccination coverage among adults – United States, 2006 2007 influenza season. *MMWR*. 2008;57(38):1033-9.
- Chan, T. C., Fan-Ngai Hung, I., Ka-Hay Luk, J., Chu, L. W., & Hon-Wai Chan, F. (2014). Effectiveness of influenza vaccination in institutionalized older adults: a systematic review. *J Am Med Dir Assoc*, 15(3), 226.e221-226. doi:10.1016/j.jamda.2013.10.008
- 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.
- Fulop, T., Pawelec, G., Castle, S., & Loeb, M. (2009). Immunosenescence and vaccination in nursing home residents. *Clin Infect Dis*, 48(4), 443-448. doi:10.1086/596475
- 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.
- 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.
- Pop-Vicas A, R. M., Gozalo PL, Gravenstein S, Mor V. (2015). Estimating the Effect of Influenza Vaccination on Nursing Home Residents' Morbidity and Mortality. *Journal of American Geriatrics Society*, 63(9), 1798-1804.
- Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP), 2009. *MMWR*. 2009 July 31; 58(RR-08). 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=TrueCDC>.

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

Xu J, Murphy S L, Kochanek K D, Bastian B A. "Deaths: Final Data for 2013." National Vital Statistics Report, Vol. 64, No. 2. Centers for Disease Control and Prevention (CDC), Division of Vital Statistics, 2016

1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis. (This is required for endorsement maintenance. Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include). This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.

Please see tables 1-3 below.

Table 1. Nursing Home-Level Distribution of NQF #0680 and Submeasures, for NQF #0680, Percent of Residents or Patients Who Were Assessed and Appropriately Given the Seasonal Influenza Vaccine (short stay) 2014–2015 IVS

QM	n	Mean Score (%)	SD (%)	IQR (%)	Min (%)	10th Percentile (%)	25th Percentile (%)	50th Percentile (%)	75th Percentile (%)	90th Percentile (%)	Max (%)	NHs with Perfect Scores (n)	NHs with Perfect Scores (%)
Overall (NQF #0680)													
NHs with ≥ 20 Episodes	13,929	80.6	18.5	19.2	0	54.3	74.3	86.8	93.5	97.3	100	498	3.6
Received Influenza Vaccine (NQF #0680a)													
NHs with ≥ 20 Episodes	13,929	59.5	21.6	30.2	0	26.2	45.6	64.4	75.9	83.3	100	NA	NA
Offered and Declined Influenza Vaccine (NQF #0680b)													
NHs with ≥ 20 Episodes	13,929	19.9	16.8	16.2	0	3.9	8.8	15.5	25	43	100	NA	NA
Medical Contraindication (NQF #0680c)													
NHs with ≥ 20 Episodes	13,929	1.3	2.8	1.7	0	0	0	0.5	1.7	3.2	77.7	NA	NA

Minimum reportability restrictions applied in second part of this analysis (i.e., exclude nursing homes with fewer than 20 episodes)

NOTES: *n* = number of facilities. SD = standard deviation. IQR = interquartile range. NH = nursing home. Perfect score means that all residents or patients in the facility during the IVS were assessed and appropriately given the seasonal influenza vaccine.

SOURCE: RTI analysis of MDS 3.0 and CMS data, 2013–2015. (Program reference: NHQM MN10 and NHQM MN09)

Table 2. Inpatient Rehabilitation Facility-Level Distribution of NQF #0680 and Submeasures, for NQF #0680, Percent of Residents or Patients Who Were Assessed and Appropriately Given the Seasonal Influenza Vaccine (short stay) 2014–2015 IVS

QM	<i>n</i>	Mean Score (%)	SD (%)	IQR (%)	Min (%)	10th Percentile (%)	25th Percentile (%)	50th Percentile (%)	75th Percentile (%)	90th Percentile (%)	Max (%)	IRFs with Perfect Scores (<i>n</i>)	IRFs with Perfect Scores (%)
Overall (NQF #0680)													
IRFs with ≥ 20 Stays	1,103	91.1	13.5	8.8	0.0	79.4	89.6	95.5	98.4	100.0	100.0	141	12.8
Received Influenza Vaccine (NQF #0680a)													
IRFs with ≥ 20 Stays	1,103	67.2	15.8	14.7	0.0	48.4	62.2	70.7	76.9	81.9	100.0	N/A	N/A
Offered and Declined Influenza Vaccine (NQF #0680b)													
IRFs with ≥ 20 Stays	1,103	22.0	12.7	11.3	0.0	10.3	15.0	19.8	26.3	34.2	96.2	N/A	N/A
Medical Contraindication (NQF #0680c)													
IRFs with ≥ 20 Stays	1,103	1.9	5.2	1.9	0.0	0.0	0.0	1.0	1.9	3.6	92.3	N/A	N/A

Minimum reportability restrictions applied in this analysis (i.e., excluded IRFs with fewer than 20 stays)

NOTE: *n* = number of facilities. SD = standard deviation. IQR = interquartile range. Perfect score means that all residents or patients in the facility during the IVS were assessed and appropriately given the seasonal influenza vaccine.

SOURCE: RTI analysis of IRF-PAI v1.2 data, 2014–2015. (Program reference: SXMGMNT MN01)

Table 3. Long-Term Care Hospital-Level Distribution of NQF #0680 and Submeasures, for NQF #0680, Percent of Residents or Patients Who Were Assessed and Appropriately Given the Seasonal Influenza Vaccine (short stay) 2014–2015 IVS

QM	n	Mean Score (%)	SD (%)	IQR (%)	Min (%)	10th Percentile (%)	25th Percentile (%)	50th Percentile (%)	75th Percentile (%)	90th Percentile (%)	Max (%)	LTCHs with Perfect Scores (n)	LTCHs with Perfect Scores (%)
Overall (NQF #0680)													
LTCHs with ≥ 20 Stays	402	73.5	26.5	27.7	0.0	31.9	64.3	84.0	92.0	96.2	100.0	4	<0.1
Received Influenza Vaccine (NQF #0680a)													
LTCHs with ≥ 20 Stays	402	55.6	22.1	25.7	0	20.9	45	62.7	70.7	78	100	N/A	N/A
Offered and Declined Influenza Vaccine (NQF #0680b)													
LTCHs with ≥ 20 Stays	402	14.7	10.7	12.9	0	1.2	7.4	13.7	20.3	26.6	88.2	N/A	N/A
Medical Contraindication (NQF #0680c)													
LTCHs with ≥ 20 Stays	402	3.7	7.4	2.9	0	0	0.8	1.9	3.7	6.8	83.3	N/A	N/A

Minimum reportability restrictions applied in this analysis (i.e., excluded LTCHs with fewer than 20 stays)

NOTES: N = number of facilities. SD = standard deviation. IQR = interquartile range. Perfect score means that all residents or patients in the facility during the IVS were assessed and appropriately given the seasonal influenza vaccine.

SOURCE: RTI analysis of LTCH CARE Data Set 2.01 data, 2014–2015. (RTI programming reference: NMJ001).