



Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to sub criterion 1b).

Brief Measure Information

NQF #: 1659

Corresponding Measures:

De.2. Measure Title: Influenza Immunization

Co.1.1. Measure Steward: The Joint Commission

De.3. Brief Description of Measure: Inpatients age 6 months and older discharged during October, November, December, January, February or March who are screened for influenza vaccine status and vaccinated prior to discharge if indicated.

1b.1. Developer Rationale: Up to 1 in 5 people in the United States get influenza every season (CDC, Key Facts 2015). Each year an average of approximately 226,000 people in the US are hospitalized with complications from influenza and between 3,000 and 49,000 die from the disease and its complications (Thompson 2003). Combined with pneumonia, influenza is the nation's 8th leading cause of death (Heron 2012). Up to two-thirds of all deaths attributable to pneumonia and influenza occur in the population of patients that have been hospitalized during flu season regardless of age (Fedson 2000).

The Advisory Committee on Immunization Practices (ACIP) recommends seasonal influenza vaccination for all persons 6 months of age and older to highlight the importance of preventing influenza. Vaccination is associated with reductions in influenza among all age groups (Kostova 2013).

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

- Centers for Disease Control and Prevention. (2015). Key facts about influenza and the influenza vaccine, October 2015. Available at: <http://www.cdc.gov/flu/keyfacts.htm>. Accessed October 14, 2015
- Fedson DS, Houck PM, Bratzler DW. Hospital-based influenza and pneumococcal vaccination: Sutton's Law applied to prevention. *Infect Control Hosp Epi.* 2000;21:692-699.
- Heron M (2015). Deaths: Leading Causes for 2012. *National Vital Statistics Reports*; vol 64 no 10. Hyattsville, MD: National Center for Health Statistics. 2015.
- Kostova D, Reed C, Finelli L, Cheng P, Gargiullo PM, Shay DK, Singleton JA, Meltzer MI, Lu P, Joseph S. (2013). Influenza Illness and Hospitalizations Averted by Influenza Vaccination in the United States, 2005–2011. *PLoS One.* 2013; 8(6): e66312.
- Thompson WW, Shay DK, Weintraub E, Brammer L, Cox N, Anderson LJ, Fukuda. Mortality associated with influenza and respiratory syncytial virus in the United States. *JAMA.* 2003 January 8; 289 (2): 179-186.

S.4. Numerator Statement: Inpatient discharges who were screened for influenza vaccine status and were vaccinated prior to discharge if indicated.

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

S.8. Denominator Exclusions: The following patients are excluded from the denominator:

- Patients less than 6 months of age
- Patients who expire prior to hospital discharge
- Patients with an organ transplant during the current hospitalization (Appendix_A.Table 12.10 Organ Transplant codes.xls)
- Patients for whom vaccination was indicated, but supply had not been received by the hospital due to problems with vaccine production or distribution
- Patients who have a Length of Stay greater than 120 days
- Patients who are transferred or discharged to another acute care hospital
- Patients who leave Against Medical Advice (AMA)

De.1. Measure Type: [Process](#)
 S.17. Data Source: [Claims, Other, Paper Medical Records](#)
 S.20. Level of Analysis: [Facility](#)

IF Endorsement Maintenance – Original Endorsement Date: [May 02, 2012](#) Most Recent Endorsement Date: [Jan 23, 2017](#)

IF this measure is included in a composite, NQF Composite#/title:

IF this measure is paired/grouped, NQF#/title:

De.4. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results? [N/A](#)

1. Evidence, Performance Gap, Priority – Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. ***Measures must be judged to meet all sub criteria to pass this criterion and be evaluated against the remaining criteria.***

1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form

[1659_IMM-2_evidence_attachment.docx](#)

1a.1 For Maintenance of Endorsement: Is there new evidence about the measure since the last update/submission?

Do not remove any existing information. If there have been any changes to evidence, the Committee will consider the new evidence. Please use the most current version of the evidence attachment (v7.1). Please use red font to indicate updated evidence.

1b. Performance Gap

Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating:

- considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or
- Disparities in care across population groups.

1b.1. Briefly explain the rationale for this measure (e.g., how the measure will improve the quality of care, 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 answer the composite questions.

Up to 1 in 5 people in the United States get influenza every season (CDC, Key Facts 2015). Each year an average of approximately 226,000 people in the US are hospitalized with complications from influenza and between 3,000 and 49,000 die from the disease and its complications (Thompson 2003). Combined with pneumonia, influenza is the nation's 8th leading cause of death (Heron 2012). Up to two-thirds of all deaths attributable to pneumonia and influenza occur in the population of patients that have been hospitalized during flu season regardless of age (Fedson 2000).

The Advisory Committee on Immunization Practices (ACIP) recommends seasonal influenza vaccination for all persons 6 months of age and older to highlight the importance of preventing influenza. Vaccination is associated with reductions in influenza among all age groups (Kostova 2013).

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

- Centers for Disease Control and Prevention. (2015). Key facts about influenza and the influenza vaccine, October 2015. Available at: <http://www.cdc.gov/flu/keyfacts.htm>. Accessed October 14, 2015
- Fedson DS, Houck PM, Bratzler DW. Hospital-based influenza and pneumococcal vaccination: Sutton's Law applied to prevention. *Infect Control Hosp Epi.* 2000;21:692-699.
- Heron M (2015). Deaths: Leading Causes for 2012. *National Vital Statistics Reports*; vol 64 no 10. Hyattsville, MD: National Center for Health Statistics. 2015.
- Kostova D, Reed C, Finelli L, Cheng P, Gargiullo PM, Shay DK, Singleton JA, Meltzer MI, Lu P, Joseph S. (2013). Influenza Illness and Hospitalizations Averted by Influenza Vaccination in the United States, 2005–2011. *PLoS One.* 2013; 8(6): e66312.

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

1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis. *(This is required for maintenance of endorsement. 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 sub-criterion on improvement (4b1) under Usability and Use.*

Performance data for IMM-2 based on cases submitted to the CMS clinical data warehouse by participating hospitals starting with the 2011-2012 influenza season through the 2014-2015 influenza season are reported in the table below. The denominator column (A) reflects the total number of cases submitted across all hospitals during the period; the numerator (column B) reflects the number of submitted cases across all hospitals that qualify for the numerator. These two counts are used to calculate the national rate shown in column C. Column D displays the number of hospitals reporting on the measure that period. The mean is Column E is the average hospital score, and Columns G – K show the distribution of scores across hospitals.

While the national rate and mean rates for IMM-2 have improved over time, there remains room for improvement at the 25th percentile and 10th percentiles. For example, in the 2014-2015 flu season, at nearly 10% of hospitals, 1 in 5 indicated cases were not vaccinated. Furthermore, as demonstrated in 1b.4, disparities exist based on race, ethnicity, and gender.

A	B	C	D	E	F	G	H	I	J	K			
Flu Season	Denom	Num.	Natl Rate		Number of Hosp.	Mean	SD		90th PCTL	75th PCTL	50th		
PCTL 25th PCTL		10th PCTL											
2011-2012	849,204		730,423		0.8601	3,669	0.8452	0.1674	0.9805	0.9537	0.898	0.8017	0.6491
2012-2013	1,617,684		1,462,091		0.9038	3,774	0.8848	0.1456	0.9901	0.9726	0.9348	0.8569	0.7185
2013-2014	1,545,809		1,440,780		0.9321	3,801	0.9150	0.1269	0.9964	0.9853	0.9577	0.9000	0.7948
2014-2015	1,572,215		1,480,414		0.9416	3,874	0.9237	0.1244	0.9978	0.9880	0.9652	0.9145	0.8198

1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.

1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability. *(This is required for maintenance of endorsement. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included.) For measures that show high levels of performance, i.e., “topped out”, disparities data may demonstrate an opportunity for improvement/gap in care for certain sub-populations. This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.*

To identify if there are gaps or disparities in care related to the IMM-2 measure we conducted an analysis of IMM-2 outcomes based on ethnicity, race, and gender. Analysis was performed using CHI Square probability testing conducted in SAS version 9.3 for Windows. While the overall 94.16% pass rate was for the 1,572,215 cases submitted in the 2014-2015 influenza season, statistically significant differences were noted based on population group analysis demonstrating this measure has additional room for improvement with specific populations of patients.

Ethnicity:

Based on this analysis there is a statically significant association with patients identified as being Hispanic (90.89%) having lower vaccination rates than non-Hispanics (94.44%) (p < 0.0001).

Race:

The analysis revealed American Indian or Alaska Native (83.97%), Black or African American (93.19%), and race Undetermined (90.11%) (p < 0.0001) and Native Hawaiian or Pacific Islander (94.06%) (p = 0.0367) are significantly less likely than those identified as White (94.76%) to be screened and vaccinated. There was no statistical difference between rates for White and Asian races.

Gender:

Analysis based on gender revealed Males (94.05%) have a statistically significant lower probability of being screened and vaccinated

than Females (94.24%) (p <0.0001).

1b.5. If no or limited data on disparities from the measure as specified is reported in 1b.4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations. Not necessary if performance data provided in 1b.4

2. Reliability and Validity—Scientific Acceptability of Measure Properties

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. **Measures must be judged to meet the sub criteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.**

2a.1. Specifications The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability. eMeasures should be specified in the Health Quality Measures Format (HQMF) and the Quality Data Model (QDM).

De.5. Subject/Topic Area (check all the areas that apply):

De.6. Non-Condition Specific(check all the areas that apply):

Primary Prevention

De.7. Target Population Category (Check all the populations for which the measure is specified and tested if any):

Children, Elderly, Populations at Risk, Populations at Risk : Dual eligible beneficiaries, Populations at Risk : Individuals with multiple chronic conditions, Populations at Risk : Veterans, Women

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.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228775436944>

S.2a. If this is an eMeasure, HQMF specifications must be attached. Attach the zipped output from the eMeasure authoring tool (MAT) - if the MAT was not used, contact staff. (Use the specification fields in this online form for the plain-language description of the specifications)

This is not an eMeasure Attachment:

S.2b. Data Dictionary, Code Table, or Value Sets (and risk model codes and coefficients when applicable) must be attached. (Excel or csv file in the suggested format preferred - if not, contact staff)

Attachment Attachment: Appendix_A.Table_12.10_Organ_Transplant_ICD-10__ICD-9_codes.xls

S.2c. Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

Attachment:

S.2d. Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

S.3.1. For maintenance of endorsement: Are there changes to the specifications since the last updates/submission. If yes, update the specifications for S1-2 and S4-22 and explain reasons for the changes in S3.2.

S.3.2. For maintenance of endorsement, please briefly describe any important changes to the measure specifications since last measure update and explain the reasons.

ICD-9 codes have been replaced with ICD-10 codes for organ transplant due to implementation of ICD-10. ICD-9 code for influenza vaccination (99.52) does not have an equivalent ICD-10 code specific to influenza vaccination. This code was removed from the measure with the transition to ICD-10 and not replaced. Identification of influenza vaccine being given in the hospital is now based on chart abstraction.

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) DO NOT include the rationale for the measure.

IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

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

S.5. 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, time period for data collection, 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 (S.14).

The following are included in the numerator:

- Patients who received the influenza vaccine during this inpatient hospitalization
- Patients who received the influenza vaccine during the current year's flu season but prior to the current hospitalization
- Patients who were offered and declined the influenza vaccine
- Patients who have an allergy/sensitivity to the influenza vaccine, anaphylactic latex allergy or anaphylactic allergy to eggs, or for whom the vaccine is not likely to be effective because of bone marrow transplant within the past 6 months, or history of Guillian-Barre Syndrome within 6 weeks after a previous influenza vaccination

Data Elements required for the numerator:

- ICD-10-CM Other Diagnosis Codes
- ICD-10-PCS Other Procedure Codes
- ICD-10-CM Principal Diagnosis Code
- ICD-10-PCS Principal Procedure Code
- Influenza Vaccination Status

S.6. Denominator Statement (Brief, narrative description of the target population being measured)

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

S.7. Denominator Details (All information required to identify and calculate the target population/denominator such as definitions, time period for data collection, 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 target population is identified. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

Data Elements required for the denominator:

- Admission Date
- Birthdate
- Discharge Date
- Discharge Disposition
- ICD-10-PCS Other Procedure Codes
- ICD-10-PCS Principal Procedure Code

S.8. Denominator Exclusions (Brief narrative description of exclusions from the target population)

The following patients are excluded from the denominator:

- Patients less than 6 months of age
- Patients who expire prior to hospital discharge
- Patients with an organ transplant during the current hospitalization (Appendix_A.Table 12.10 Organ Transplant codes.xls)

- Patients for whom vaccination was indicated, but supply had not been received by the hospital due to problems with vaccine production or distribution
- Patients who have a Length of Stay greater than 120 days
- Patients who are transferred or discharged to another acute care hospital
- Patients who leave Against Medical Advice (AMA)

S.9. Denominator Exclusion Details *(All information required to identify and calculate exclusions from the denominator such as definitions, time period for data collection, 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.)*

To determine the length of stay, the admission date and discharge date are entered. If the result of the calculation subtracting the admission date from the discharge date is greater than 120 days the patient is excluded from the measure.

The patient's date of birth is entered. If the calculation result of the admission date minus the birth date is less than 6 months the patient is excluded from the measure.

Patients who had an organ transplant during the current hospitalization are excluded based on having an ICD-10 PCS Principal or Other Procedure Code assigned as having occurred during the current hospitalization. If the patient has at least one code from the list on Appendix_A.Table 12.10 Organ Transplant codes.xls assigned for the current hospitalization they are excluded.

Discharge Disposition is a manually abstracted data element. If documentation in the patient's medical record is consistent with the criteria specified in the Discharge Disposition data element for discharge to an acute care facility, patient expired prior to hospital discharge, or the patient left against medical advice the patient is excluded from the measure.

The Influenza Vaccination Status is a manually abstracted data element for the measure. Allowable Value 6 may be selected if there is documentation in the medical record reflecting the hospital has ordered the influenza vaccine but has not yet received it based on problems with vaccine production or distribution. If this value is selected the measure algorithm will exclude the patient from the measure.

S.10. Stratification Information *(Provide all information required to stratify the measure results, if necessary, including the stratification variables, definitions, specific data collection items/responses, code/value sets, and the risk-model covariates and coefficients for the clinically-adjusted version of the measure when appropriate – 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.)*

Measure is not stratified.

S.11. Risk Adjustment Type (Select type. Provide specifications for risk stratification in measure testing attachment)

No risk adjustment or risk stratification

If other:

S.12. Type of score:

Rate/proportion

If other:

S.13. 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

S.14. Calculation Algorithm/Measure Logic *(Diagram or 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; time period for data, aggregating data; risk adjustment; etc.)*

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

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

Variable Key: Patient Age

1. Start processing. Run cases that are included in the Global Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.
2. Calculate Patient Age. Patient Age, in years, is equal to the Admission Date minus the Birthdate. Use the month and day portion of admission date and birthdate to yield the most accurate age. Only cases with valid Admission Date and Birthdate will pass

the critical feedback messages into the measure specific algorithms.

3. Check Patient Age
 - a. If the Patient Age is less than 6 months old, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
 - b. If the Patient Age is greater than or equal to 6 months, continue processing and proceed to ICD-10-PCS Principal or Other Procedure Codes.
4. Check ICD-10-PCS Principal or Other Procedure Codes
 - a. If at least one of ICD-10-PCS Principal or Other Procedure Codes is on Appendix_A.Table 12.10 Organ Transplant codes.xls the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
 - b. If all of ICD-10-PCS Principal or Other Procedure Codes are missing or none of ICD-10-PCS Principal or Other Procedure Codes is on Appendix_A.Table 12.10 Organ Transplant codes.xls, continue processing and check Discharge Disposition.
5. Check Discharge Disposition
 - a. If Discharge Disposition equals 4, 6, or 7 the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
 - b. If Discharge Disposition equals 1, 2, 3, 5, or 8 continue processing and proceed to Discharge Date.
 - c. If Discharge Disposition is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
6. Check Discharge Date. Note: 'yyyy' refers to the specific year of discharge.
 - a. If the Discharge Date is 04-01-yyyy through 09-30-yyyy, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
 - b. If the Discharge Date is 10-01-yyyy through 03-31-yyyy, continue processing and proceed to Influenza Vaccination Status.
7. Check Influenza Vaccination Status
 - a. If Influenza Vaccination Status is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Influenza Vaccination Status equals 6, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
 - c. If Influenza Vaccination Status equals 1, 2, 3, 4, or 5, continue processing and recheck Influenza Vaccination Status.
8. Recheck Influenza Vaccination Status
 - a. If Influenza Vaccination Status equals 5, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
 - b. If Influenza Vaccination Status equals 1, 2, 3, or 4 the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

S.15. Sampling (If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)

IF an instrument-based performance measure (e.g., PRO-PM), identify whether (and how) proxy responses are allowed.

Sampling

Hospitals have the option to sample from their population, or submit their entire population. Hospitals whose Initial Patient Population size is less than the minimum number of cases per quarter/month for the measure cannot sample.

Population and Sampling

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

Sampling Approaches

Hospitals that choose to sample must ensure that the sampled data represent their Initial Patient Population by using either the simple random sampling or systematic random sampling methods and that the sampling techniques are applied consistently within a quarter. For example, monthly samples for a measure set, stratum, or sub-population must use consistent sampling techniques across the quarterly submission period.

- Simple random sampling - selecting a sample size (n) from a population of size (N) in such a way that every case has the same chance of being selected.
- Systematic random sampling - selecting every kth record from a population of size N in such a way that a sample size of n is

obtained, where k is less than or equal to N/n . The first sample record (i.e., the starting point) must be randomly selected before taking every k th record. This is a two-step process:

1. Randomly select the starting point by choosing a number between one and k using a table of random numbers or a computer-generated random number; and
2. Then select every k th record thereafter until the selection of the sample size is completed.

Each hospital is ultimately responsible that sampling techniques applied for their hospital adhere to the sampling requirements outlined in the manual.

Quarterly Sampling

Hospitals performing quarterly sampling for Global must ensure that its Initial Patient Population and sample size meet the following conditions:

Quarterly Sample Size Based on Hospital's Initial Patient Population Size for the Global Measures

Average Quarterly

Initial Patient Population Size "N" Minimum Required

Sample Size

"n"

= 1530 306

765 – 1529 20% of Initial Patient Population size

153 – 764 153

6 – 152 No sampling; 100% Initial Patient Population required

0 - 5 Submission of patient level data is encouraged but not required:

- CMS: if submission occurs, 1 – 5 cases of the Initial Patient Population may be submitted
- The Joint Commission: if submission occurs, 100% Initial Patient Population required

Monthly Sampling

Hospitals performing monthly sampling for Global must ensure that its Initial Patient Population and sample size meet the following conditions:

Monthly Sample Size Based on Hospital's Global Initial Patient Population Size Measures

Average Monthly

Initial Patient Population Size "N" Minimum Required

Sample Size

"n"

= 510 102

255 – 509 20% of Initial Patient Population size

51 – 254 51

< 51 No sampling; 100% Initial Patient Population required

S.16. Survey/Patient-reported data (*If measure is based on a survey or instrument, provide instructions for data collection and guidance on minimum response rate.*)

Specify calculation of response rates to be reported with performance measure results.

S.17. Data Source (*Check ONLY the sources for which the measure is SPECIFIED AND TESTED*).

If other, please describe in S.18.

Claims, Other, Paper Medical Records

S.18. Data Source or Collection Instrument (*Identify the specific data source/data collection instrument (e.g. name of database, clinical registry, collection instrument, etc., and describe how data are collected.)*)

IF instrument-based, identify the specific instrument(s) and standard methods, modes, and languages of administration.

An electronic data collection tool is made available from vendors or facilities can download the free CMS Abstraction & Reporting Tool (CART). Paper tools for manual abstraction, which are posted on www.QualityNet.org, are also available for the CART tool.

These tools are posted on www.QualityNet.org.

S.19. Data Source or Collection Instrument (available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

Available at measure-specific web page URL identified in S.1

S.20. Level of Analysis (Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)

Facility

S.21. Care Setting (Check ONLY the settings for which the measure is SPECIFIED AND TESTED)

Inpatient/Hospital

If other:

S.22. 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.)

2. Validity – See attached Measure Testing Submission Form

[1659_IMM-2_testing_attachment.docx](#)

2.1 For maintenance of endorsement

Reliability testing: If testing of reliability of the measure score was not presented in prior submission(s), has reliability testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.

2.2 For maintenance of endorsement

Has additional empirical validity testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.

2.3 For maintenance of endorsement

Risk adjustment: For outcome, resource use, cost, and some process measures, risk-adjustment that includes social risk factors is not prohibited at present. Please update sections 1.8, 2a2, 2b1, 2b4.3 and 2b5 in the Testing attachment and S.140 and S.11 in the online submission form. NOTE: These sections must be updated even if social risk factors are not included in the risk-adjustment strategy. You MUST use the most current version of the Testing Attachment (v7.1) -- older versions of the form will not have all required questions.

3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

3a. Byproduct of Care Processes

For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

3a.1. Data Elements Generated as Byproduct of Care Processes.

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

If other:

3b. Electronic Sources

The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.

3b.1. To what extent are the specified data elements available electronically in defined fields (*i.e., data elements that are needed to compute the performance measure score are in defined, computer-readable fields*) Update this field for **maintenance of endorsement**.

Some data elements are in defined fields in electronic sources

3b.2. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources. For **maintenance of endorsement**, if this measure is not an eMeasure (eCQM), please describe any efforts to develop an eMeasure (eCQM).

Currently, this measure is a chart abstracted measure. CMS is currently exploring the possibility of specifying this measure as an eCQM.

3b.3. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL. Please also complete and attach the NQF Feasibility Score Card.

Attachment:

3c. Data Collection Strategy

Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, costs associated with fees/licensing of proprietary measures) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use). For eMeasures, a feasibility assessment addresses the data elements and measure logic and demonstrates the eMeasure can be implemented or feasibility concerns can be adequately addressed.

3c.1. Required for maintenance of endorsement. Describe difficulties (as a result of testing and/or operational use of the measure) regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.

IF instrument-based, consider implications for both individuals providing data (patients, service recipients, respondents) and those whose performance is being measured.

Since becoming a global measure in 2011 (no longer tied to PN-7) the specifications were reviewed every six months and modified as indicated. Questions from facilities regarding the measure are monitored monthly to capture trends or themes that may indicate edits may be required for the measure. With the change from ICD-9 to ICD-10 codes it was discovered an ICD-9 code specific to administration of an influenza vaccine did not have an equivalent ICD-10 code that was specific to administration of the influenza vaccine. Patients with one of these general vaccine administration codes in their medical record would automatically pass the measure even if chart abstraction revealed the patient had actually received a vaccine other than the influenza vaccine. Changes were made to the measure specifications and algorithm removing the ability to automatically pass the measure based on an immunization code being assigned in the current medical record.

3c.2. Describe any fees, licensing, or other requirements to use any aspect of the measure as specified (*e.g., value/code set, risk model, programming code, algorithm*).

N/A

4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

4a. Accountability and Transparency

Performance results are used in at least one accountability application within three years after initial endorsement and are publicly reported within six years after initial endorsement (or the data on performance results are available). If not in use at the time of initial endorsement, then a credible plan for implementation within the specified timeframes is provided.

4.1. Current and Planned Use

NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported

within 6 years of initial endorsement in addition to performance improvement.

Specific Plan for Use	Current Use (for current use provide URL)
	<p>Public Reporting Hospital Compare https://www.medicare.gov/hospitalcompare/search.html</p> <p>Payment Program Annual Payment Update https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier3&cid=1138900291659</p> <p>Regulatory and Accreditation Programs The Joint Commission Accreditation https://www.jointcommission.org/accreditation/hospitals.aspx</p>

4a1.1 For each CURRENT use, checked above (update for maintenance of endorsement), provide:

- Name of program and sponsor
- Purpose
- Geographic area and number and percentage of accountable entities and patients included
- Level of measurement and setting

Public Reporting

Medicare.gov Hospital Compare, sponsored by CMS. Public reporting of CMS national quality measures. Geographic area includes all participating hospitals in the United States. Can compare up to 3 facilities at one time.

Payment Program

Annual Payment Update (APU), sponsored by CMS. IMM-2 is one of the clinical processes of care measures that hospitals are required to report to participate in and be eligible for the CMS APU.

Regulatory and Accreditation Programs

Joint Commission Accreditation, The Joint Commission. IMM-2 is one of the chart abstracted measure sets that can be submitted for purposes of Joint Commission Accreditation.

Quality Improvement with Benchmarking

QualityNet Benchmarks of Care, sponsored by CMS. Includes national performance of select CMS national quality measures for a rolling year. Facilities can compare themselves to the national benchmark numbers. Geographic area includes all participating hospitals in the United States.

4a1.2. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing) what are the reasons? (e.g., Do policies or actions of the developer/steward or accountable entities restrict access to performance results or impede implementation?)

4a1.3. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement. (Credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.)

4a2.1.1. Describe how performance results, data, and assistance with interpretation have been provided to those being measured or other users during development or implementation.
How many and which types of measured entities and/or others were included? If only a sample of measured entities were included, describe the full population and how the sample was selected.

4a2.1.2. Describe the process(es) involved, including when/how often results were provided, what data were provided, what educational/explanatory efforts were made, etc.

4a2.2.1. Summarize the feedback on measure performance and implementation from the measured entities and others described in 4d.1.

Describe how feedback was obtained.

4a2.2.2. Summarize the feedback obtained from those being measured.

4a2.2.3. Summarize the feedback obtained from other users

4a2.3. Describe how the feedback described in 4a2.2.1 has been considered when developing or revising the measure specifications or implementation, including whether the measure was modified and why or why not.

Improvement

Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated. If not in use for performance improvement at the time of initial endorsement, then a credible rationale describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4b1. Refer to data provided in 1b but do not repeat here. Discuss any progress on improvement (trends in performance results, number and percentage of people receiving high-quality healthcare; Geographic area and number and percentage of accountable entities and patients included.)

If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4b2. Unintended Consequences

The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

4b2.1. Please explain any unexpected findings (positive or negative) during implementation of this measure including unintended impacts on patients.

Since becoming a global measure in 2011 no unintended or negative consequences have been identified.

4b2.2. Please explain any unexpected benefits from implementation of this measure.

5. Comparison to Related or Competing Measures

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure.

5. Relation to Other NQF-endorsed Measures

Are there related measures (conceptually, either same measure focus or target population) or competing measures (conceptually both the same measure focus and same target population)? If yes, list the NQF # and title of all related and/or competing measures.

Yes

5.1a. List of related or competing measures (selected from NQF-endorsed measures)

0038 : Childhood Immunization Status (CIS)

0039 : Flu Vaccinations for Adults Ages 18 and Older

0041 : Preventive Care and Screening: Influenza Immunization

0226 : Influenza Immunization in the ESRD Population (Facility Level)

0431 : INFLUENZA VACCINATION COVERAGE AMONG HEALTHCARE PERSONNEL

0522 : Influenza Immunization Received for Current Flu Season (Home Health)

0680 : Percent of Residents Who Were Assessed and Appropriately Given the Seasonal Influenza Vaccine (Short Stay)

0681 : Percent of Residents Assessed and Appropriately Given the Seasonal Influenza Vaccine (Long Stay)

5.1b. If related or competing measures are not NQF endorsed please indicate measure title and steward.

5a. Harmonization of Related Measures

The measure specifications are harmonized with related measures;

OR

The differences in specifications are justified

5a.1. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):

Are the measure specifications harmonized to the extent possible?

No

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

Measures focus on different patient populations based on age, health conditions or location (e.g., home health, physician office, short term skilled, long term stay, acute care hospital, etc.). There are some differences in Exclusions and Inclusions specific to the population. These differences are in part based upon procedures that may be performed in an acute care hospital that would not be performed in a skilled setting or physician office setting. Additionally IMM-2 excludes cases in which the vaccine has been ordered but it has not yet been received. We've found in the past that there have been some seasons in which the vaccine became available much later than expected and seasons in which there were shortages. We prefer to exclude these cases if there is documentation in the chart to support either of these scenarios

5b. Competing Measures

The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);

OR

Multiple measures are justified.

5b.1. If this measure conceptually addresses both the same measure focus and the same target population as NQF-endorsed measure(s):

Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible.)

Multiple measures are justified because they each focus on a different patient population. A single measure could not capture the variability inherent in these different populations.

IMM-2 is the only measure that focuses on patients in the acute care hospital setting.

Appendix

A.1 Supplemental materials may be provided in an appendix. All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.

No appendix Attachment:

Contact Information

Co.1 Measure Steward (Intellectual Property Owner): The Joint Commission
Co.2 Point of Contact: Susan, Yendro, syendro@jointcommission.org, 410-786-7214-
Co.3 Measure Developer if different from Measure Steward: Telligen
Co.4 Point of Contact: Bob, Dickerson, bdickerson@telligen.com, 630-792-5079-

Additional Information

Ad.1 Workgroup/Expert Panel involved in measure development

Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.

Carolyn Bridges, MD, MPH Associate Director of Adult Immunizations,
Immunization Services Division,
National Center for Immunization and Respiratory Diseases,
Centers for Disease Control and Prevention
Atlanta, GA 30329
Ph 404-639-8689

Faruque Ahmed, MD Lead Epidemiologist,
National Center for Immunization and Respiratory Diseases,
Centers for Disease Control and Prevention
Atlanta, GA 30329
Ph 404-639-8827
Fax 404-639-8614

Debra Blog, MD, MPH Director,
Bureau of Immunizations
New York State Department of Health
Empire State Plaza, Corning Tower – Rm 649
Albany, NY 12237
Ph. 518-473-4437
Fax 518-474-1495

Megan C. Lindley, MPH
Deputy Associate Director for Science
Immunization Services Division
National Center for Immunization and Respiratory Disease
Centers for Disease Control and Prevention
Atlanta, GA 30329
Ph 404-639-8717

Dennis Murray, MD, FAAP, FIDSA
Chief, Infectious Diseases
Medical College of Georgia Children's Medical Center
Chief, Pediatric Infectious Diseases
Assoc. Medical Director, CMC Performance Improvement
Georgia Health Sciences Health System
Fellow, Pediatric Infectious Diseases Society
Member, National Network for Immunization Information
Augusta, GA
Ph 706-721-4725

Dale Bratzler, DO, MPH
Professor and Associate Dean
Health Sciences Center

The University of Oklahoma
Oklahoma City, OK 73126
Ph 504-271-8001

The Technical Expert Panel (TEP) provided guidance regarding updates to the measure during the annual review process.

Measure Developer/Steward Updates and Ongoing Maintenance

Ad.2 Year the measure was first released: 2011

Ad.3 Month and Year of most recent revision: 10, 2014

Ad.4 What is your frequency for review/update of this measure? Annually

Ad.5 When is the next scheduled review/update for this measure? 10, 2016

Ad.6 Copyright statement: This measure does not have a copyright.

Ad.7 Disclaimers:

Ad.8 Additional Information/Comments: