



IRF-PAI-based Quality Measures for IRF Quality Reporting Program

User's Manual

Version 1.0

Current as of September 8, 2015

Prepared for:
The Centers for Medicare & Medicaid Services
under Contract No. HHSM-500- 2013-13015I
(RTI Project No. 0214077.001.000.006.002)

[This page intentionally left blank.]

IRF-PAI-BASED QUALITY MEASURES FOR THE IRF QUALITY REPORTING PROGRAM

CONTENTS

Chapter 1 Quality Measure Record Selection Methodology 1
 Section 1: Definitions 1

Chapter 2 Record Selection and Measures Calculation 2
 Section 1: Selection For Each QM Sample..... 2
 Section 2: Measures Calculation..... 4

Chapter 3 IRF-PAI Quality Measures Logical Specifications..... 8
 Table 3-1: The Percent of Residents or Patients with Pressure Ulcers that are New or Worsened (Short-Stay) (NQF #0678)..... 9
 Table 3-2: The Percent of Residents or Patients Who Were Assessed and Appropriately Given the Seasonal Influenza Vaccine (Short-Stay) (NQF #0680) 10
 Table 3-2a: The Percent of Residents or Patients Who Received the Seasonal Influenza Vaccine (Short-Stay) (NQF #0680)..... 11
 Table 3-2b: The Percent of Residents or Patients Who Were Offered and Declined the Seasonal Influenza Vaccine (Short-Stay) (NQF #0680)..... 12
 Table 3-2c: The Percent of Residents or Patients Who Did Not Receive, Due to Medical Contraindication the Seasonal Influenza Vaccine (Short-Stay) (NQF #0680) 13

Appendix A: Model Parameters..... A-1

[This page intentionally left blank.]

Chapter 1

Quality Measure Record Selection Methodology

The purpose of this section is to present definitions used to describe the methodology employed by the Centers for Medicare and Medicaid Services (CMS) to select assessment records that are used to compute the Quality Measures (QMs) from data collected by Inpatient Rehabilitation Facilities (IRFs) and submitted to CMS using the Inpatient Rehabilitation Facility-Patient Assessment Instrument (IRF-PAI) under the IRF Quality Reporting Program (IRF QRP).

Section 1: Definitions

Target period: The span of time that defines the QM reporting period (e.g., a calendar year for the quality measure Percent of Residents or Patients with New or Worsened Pressure Ulcers [NQF¹ #0678]).

Sort order: The patient's records included in the target period must be sorted by the following:

- Provider Internal ID
- Resident Internal ID
- Discharge Date (descending): This will cause records to appear in reverse chronological order so that the most recent records appear first.

Stay: The period of time between a patient's date of admission into an IRF and date of discharge from the IRF. A stay, thus defined, will include a patient stay during a set of contiguous days in an IRF, and will include program interruptions lasting up to 3 calendar days.

¹ NQF: National Quality Forum

Chapter 2

Record Selection and Measures Calculation

The first section below describes the selection of records for each QM for the IRF QRP. The second section describes how each QM is calculated for IRF QRP.

Section 1: Selection for Each QM Sample

Percent of Residents or Patients with Pressure Ulcers that Are New or Worsened (Short-Stay) (NQF #0678)

The eligible records for this QM are selected as follows:

1. The target period for this measure is a 12-month (four quarters) period. **The measure is calculated quarterly, using a rolling 12 months (four quarters) of data. For public display,** rates would be displayed based on four rolling quarters of data and would initially be reported using discharges from January 1, 2015, through December 31, 2015, for calculation. As each quarter advances, CMS would add the subsequent quarter and remove the earliest quarter. For example, initially we would use data from discharges occurring from January 1, 2015, through December 31, 2015. The next quarter, we would display performance data using discharges that occurred between April 1, 2015 and March 31, 2016, etc.
2. IRFs have up to 4.5 months after the discharge date ends to submit corrected data to CMS for QM calculations. Each year, the data are due at the following four time points: February 15, May 15, August 15, and November 15. Measure calculations could be run sooner than 4.5 months after the end of the target period since IRFs submit data to CMS per the IRF prospective payment system (PPS) requirements. An IRF can submit data to CMS to meet the IRF PPS requirements and then submit corrections to the Quality Indicator section of the IRF PAI prior to the 4.5-month deadline. Therefore, to include any data corrected by an IRF, IRF QM calculations should be run 4.5 months after the end of the 12-month period.
3. Select all IRF-PAI records with a discharge date (Item 40 on IRF-PAI) within the selected target period.
4. Exclude all records in which the patient is not discharged alive (Item 44C = 0 on IRF-PAI if patient is not discharged alive).
5. For each IRF-PAI record (i.e., IRF stay) within each IRF, do the following:
 - a. Order the stay records according to the sort order defined on the previous page.
 - b. Scan the sorted records.
 - c. Select all records that meet the patient stay definition on the previous page and whose discharge date is within the target period. These are ***target period patient stay records***. If a patient has multiple patient stay records with a discharge date within the target period, then include each qualifying patient stay in the measure.

6. Apply the QM definition (Table 3-1) to the eligible target period patient stay records.

Percent of Residents or Patients Who Were Assessed and Appropriately Given the Seasonal Influenza Vaccine (Short-Stay) (NQF #0680)

The sample for this QM is selected as follows:

1. The target period for this measure is the influenza vaccination season: October 1 through March 31 (i.e., October 1, 2014, through March 31, 2015, for the 2014-2015 influenza vaccination season).
2. The measure includes all patients with 1 or more days in the IRF during the target period. Select all IRF-PAI records with an admission date (Item 12 on IRF-PAI) **or** a discharge date (Item 40 on IRF-PAI) within the target period; **or** with the admission date (item 12 on IRF-PAI) before the target period and the discharge date (Item 40 on IRF-PAI) after the target period, such that the stay includes 1 or more days in the IRF during the target period.

For example, the record of a patient admitted to an IRF on March 31 will be selected based on the admission date, regardless of the discharge date. The record of a patient discharged from an IRF on October 1 will be selected based on the discharge date, regardless of the admission date. The record of a patient admitted on September 30 and discharged on April 1 will be selected because the stay includes 1 or more days in the IRF during the target period. The measure is calculated once per year.

3. For each patient within each IRF, do the following:
 - a. Order the stay-level records according to the sort order defined above.
 - b. Scan the sorted records.
 - c. Select the patient stay-level records that meet all of the following conditions:
 - i. Patient was in the IRF 1 or more days during the target period based on admission date **or** discharge date (i.e., either the admission date, the discharge date, or both the admission and discharge date fall within the target period of October 1 to March 31) or the admission and discharge date.
 - ii. The discharge date is on or after October 1 of the most recently completed influenza vaccination season AND on or before March 31 of the most recently completed influenza vaccination season;

OR

The admission date is on or after October 1 of the most recently completed influenza vaccination season AND on or before March 31 of the most recently completed influenza vaccination season;

OR

The admission date is before October 1 of the most recently completely influenza season AND the discharge date is after March 31 of the most recently completed influenza season.

- iii. If the patient has multiple patient stay records during the target period, then include each influenza vaccination assessment from all qualifying patient stays in the measure.
 - d. If no qualifying record is found for a patient, then the patient is excluded from the measure.
4. Apply the QM definitions (Tables 3-2, 3-2a, 3-2b, and 3-2c) to the qualifying influenza vaccination assessment records.

Section 2: Measures Calculation

Percent of Residents or Patients with Pressure Ulcers that Are New or Worsened (Short-Stay) (NQF #0678)

Using the definitions in Table 3-1, the following steps are used to calculate the measure:

1. Calculate the facility observed score (steps 1.1 through 1.3)

1.1. Calculate the denominator count (See Table 3-1):

Calculate the total number of patients with an IRF-PAI assessment in the measure target period who do not meet the exclusion criteria.

1.2. Calculate the numerator count (See Table 3-1):

Calculate the total number of patients whose IRF-PAI assessment indicates one or more new or worsened pressure ulcers (Stage 2 to 4) at discharge since admission.

1.3. Calculate the facility's observed score:

Divide the facility's numerator count by its denominator count to obtain the facility's observed score; that is, divide the result of step 1.2 by the result of step 1.1.

2. Calculate the expected score for each patient (steps 2.1 and 2.2)

2.1. Determine presence or absence of the pressure ulcer covariates (Table 3-1) for each patient:

Assign covariate values (COV), either '0' for covariate condition not present or '1' for covariate condition present, for each patient for each of the four covariates as reported on the admission data on IRF-PAI.

2.2. Calculate the expected score for each patient with the following formula:

$$[1] \text{ Patient-level expected QM score} = 1 / [1 + e^{-x}]$$

Where e is the base of natural logarithms and X is a linear combination of the constant and the logistic regression coefficients times the covariate scores (from Formula [2], below).

$$[2] \text{ QM triggered (yes} = 1, \text{ no} = 0) = B_0 + B_1 * COV_1 + B_2 * COV_2 + B_3 * COV_3 + B_4 * COV_4$$

Where B_0 is the logistic regression constant, B_1 is the logistic regression coefficient for the first covariate of functional limitation (where applicable), COV_1 is the patient-level score for the first covariate of functional limitation; B_2 is the logistic regression coefficient for the second covariate of bowel incontinence, and COV_2 is the patient-level score for the second covariate of bowel incontinence (where applicable); B_3 is the logistic regression coefficient for the third covariate of diabetes or peripheral vascular disease/peripheral artery disease (PVD/PAD) (where applicable), COV_3 is the patient-level score for the third covariate of diabetes or PVD/PAD; B_4 is the logistic regression coefficient for the fourth covariate of low body mass index (BMI), and COV_4 is the patient level score for the fourth covariate of low BMI (where applicable). See Appendix A for the regression constant and regression coefficients. The regression constant and regression coefficients are numbers obtained through statistical logistic regression analysis.

3. Calculate the facility expected score (step 3.1)

3.1. Once an expected QM score has been calculated for all patient stays for the IRF setting, calculate the mean facility-level expected QM score using all patient-level expected scores.

4. Calculate the facility-level adjusted score (step 4.1)

4.1. Calculate the facility-level adjusted score based on the:

Facility-level observed QM score (step 1.3),

Facility-level average expected QM score (step 3.1), and

*National average observed QM score.

* *The national observed QM mean for the target period October 1, 2014, through March 31, 2015, is available in Appendix A.*

The calculation of the adjusted score uses the following equation:

$$[3] Adj = 1/[1 + e^{-y}]$$

Where:

Adj is the facility-level adjusted QM score, and

$$y = (\text{Ln}(\text{Obs}/(1 - \text{Obs})) - \text{Ln}(\text{Exp}/(1 - \text{Exp})) + \text{Ln}(\text{Nat}/(1 - \text{Nat})))$$

Obs is the facility-level observed QM rate,

Exp is the facility-level expected QM rate,

Nat is the national observed QM rate,

Ln indicates a natural logarithm, and

e is the base of natural logarithms.

Percent of Residents or Patients Who Were Assessed and Appropriately Given the Seasonal Influenza Vaccine (Short-Stay) (NQF #0680)

Using the definitions in Tables 3-2, 3-2a, 3-2b, and 3-2c, the following steps are used to calculate the measure:

1. Identify Excluded Records (excluded stays):

1.1 Patient's age on selected influenza vaccination assessment is 179 days or less. Calculate the age in days using the discharge date or the last date of the influenza vaccination season (March 31 of relevant year), whichever comes first in time. Patients who are 180 days old or more based on this age calculation are included in the measure. Patients who are 179 days old or less based on this age calculation are excluded from the measure.

2. Calculate the denominator count:

Calculate the total number of stays with an IRF-PAI assessment in the measure target period that do not meet the exclusion criteria.

3. Calculate the facility's overall numerator:

Calculate total number of discharges meeting any of the following criteria on the selected IRF-PAI:

1. Patient received the influenza vaccine during the most recent influenza season, either in the facility (O0250A = [1]) or outside the facility (O0250C = [2]); or
 2. Patient was offered and declined the influenza vaccine (O0250C = [4]); or
 3. Patient was ineligible due to medical contraindication(s) (O0250C = [3]).
4. Calculate the facility's three numerator counts:
- 4.1. Numerator 1: Calculate the total number of discharges for which patient received the influenza vaccine during the most recent influenza season, either in the facility (O0250A = [1]) or outside the facility (O0250C = [2]).
 - 4.2. Numerator 2: Calculate the total number of discharges for which patient was offered and declined the influenza vaccine (O0250C = [4]).
 - 4.3. Numerator 3: Calculate the total number of discharges for which patient was ineligible due to medical contraindication(s) (O0250C = [3]).
5. Calculate the facility's overall observed score:
- Divide facility's overall numerator count (step 3) by its denominator count (step 2) (refer to Table 3-2 for measure specifications).
6. Calculate the facility's observed scores for each numerator count:
- 6.1. Divide facility's numerator 1 count (step 4.1) by its denominator count (step 2) to obtain the facility's observed score associated with numerator 1 (refer table 3-2a for measure specifications).
 - 6.2. Divide facility's numerator 2 count (step 4.2) by its denominator count (step 2) to obtain the facility's observed score associated with numerator 2 (refer to Table 3-2b for measure specifications).
 - 6.3. Divide facility's numerator 3 count (step 4.3) by its denominator count (step 2) to obtain the facility's observed score associated with numerator 3 (refer to Table 3-2c for measure specifications).

Chapter 3

IRF-PAI Quality Measures Logical Specifications

Table 3-1
Percent of Residents or Patients with Pressure Ulcers that Are New or Worsened (Short-Stay) (NQF #0678)1

MEASURE DESCRIPTION	MEASURE SPECIFICATIONS ²	COVARIATES
<p>This measure reports the percentage of patients with Stage 2, Stage 3 or Stage 4 pressure ulcers that are new or worsened pressure ulcers since admission.</p> <p>The measure is calculated by reviewing a patient's IRF-PAI pressure ulcer discharge assessment data for reports of Stage 2-4 pressure ulcers that were not present or were at a lesser stage at the time of the admission assessment.</p>	<p>Numerator Patients for whom the discharge assessment indicates one or more new or worsened Stage 2, Stage 3 or Stage 4 pressure ulcers: 1. M0300B4 (new or worsened Stage 2 pressure ulcers) > 0, <i>or</i> 2. M0300C4 (new or worsened Stage 3 pressure ulcers) > 0, <i>or</i> 3. M0300D4 (new or worsened Stage 4 pressure ulcers) > 0.</p> <p>Denominator Patients with IRF-PAI patient stay records during the target period, except those with exclusions. Note: IRF-PAI records are only submitted to CMS for Medicare patients.</p> <p>Exclusions</p> <ol style="list-style-type: none"> 1. Patient stay is excluded if M0300B4 = [-] and M0300C4 = [-] and M0300D4 = [-] on the discharge assessment. 2. Patient stay that ends with patient expiration (Item 44C = [0]) is excluded from the measure. <p>Additional Exclusion for Future Public Reporting Program IRFs with denominator counts of less than 20 in the sample will be excluded from public reporting owing to small sample size.</p>	<p>Data for each covariate is derived from the IRF-PAI admission assessment data included in the target patient stay records.</p> <ol style="list-style-type: none"> 1. Indicator of minimal assistance or more assistance for the functional mobility item Transfers: Bed, Chair, Wheelchair (FIM® item 39I): Covariate = [1] (yes) if 39I = [0,1,2,3,4] ([0] = Activity did not occur, [1] = Total assistance, [2] = Maximal assistance, [3] = Moderate assistance, [4] = Minimal assistance) Covariate = [0] (no) if 39I = [5, 6, 7, -] ([5] = Supervision, [6] = Modified independence (Device), [7] = Complete independence (Timely, Safely), [-] = No response available) 2. Indicator of any bowel incontinence in the past 7 days (Item 32): Covariate = [1] (yes) if item 32 [1, 2, 3, 4, 5] ([1] = Five or more accidents in the past 7 days, [2] = Four accidents in the past 7 days, [3] = Three accidents in the past 7 days, [4] = Two accidents in the past 7 days, [5] = One accident in the past 7 days) Covariate = [0] (no) if item 32 = [6, 7, -] ([6] = No accidents; uses device such as an ostomy, [7] = No accidents, [-]=No response available) 3. Have peripheral vascular disease or peripheral arterial disease or diabetes: Covariate = [1] (yes) if one or more of the following are true: a. I0900A = [1] b. I0900B = [1] c. I2900A = [1] Covariate = [0] (no) if I0900A = [0,-] AND I0900B = [0,-] AND I2900A = [0,-] ([0]=No, [-] = No response available) 4. Indicator of low body mass index (BMI) , based on height (Item 25A) and weight (Item 26A): Covariate = [1] (yes) if BMI ≥ [12.0] AND ≤ [19.0] Covariate = [0] (no) if BMI > [19.0] Covariate = [0] (no) if 25A = [-] OR 26A = [-] OR BMI < [12.0] ([-] = No response available) <p>Where: BMI = (weight * 703 / height²) = ([26A] * 703) / (25A²) and the resulting value is rounded to one decimal.</p>

¹ This measure is NQF-endorsed for use in the IRF setting (<http://www.qualityforum.org/QPS/0678>) (in addition to Long Term Care Hospital and Skilled Nursing Facility/Nursing Home (SNF/NH) settings) and finalized for reporting by IRFs under the IRF QRP (*Federal Register* 78 (6 August 2013): 47903-47919. Web. <http://www.gpo.gov/fdsys/pkg/FR-2013-08-06/pdf/2013-18770.pdf> and *Federal Register* 79 (6 August 2014): 45908-45918. Web. <http://www.gpo.gov/fdsys/pkg/FR-2014-08-06/pdf/2014-18447.pdf>. The use of the words “resident” and “short-stay” in the title of this measure refer to the use of this measure in the SNF/NH setting. CMS’s use of these words does not imply that the IRF patient is a “resident” or that a stay in an IRF is a “short stay.”

² IRF-PAI Version 1.3 became effective on October 1, 2014. A copy of IRF-PAI V 1.3 is included in Section 8 of the IRF-PAI Training Manual V 1.3.

Table 3-2
Percent of Residents or Patients Who Were Assessed and Appropriately Given the Seasonal Influenza Vaccine
(Short-Stay)
(NQF #0680)¹

Measure Description	Measure Specifications ²	Covariates
<p>This measure reports the percentage of patients who are assessed and appropriately given the influenza vaccine during the most recent influenza vaccination season.</p>	<p>Numerator</p> <p>Patients meeting any of the following criteria on the selected influenza vaccination assessment:</p> <ol style="list-style-type: none"> 1. Patient received the influenza vaccine during the most recent influenza vaccination season either in the facility (O0250A = 1) or outside the facility (O0250C = 2) (computed and reported separately); or 2. Patient was offered and declined the influenza vaccine (O0250C = 4) (computed and reported separately); or 3. Patient was ineligible due to medical contraindication(s) (O0250C = 3) (computed and reported separately). <p>Denominator</p> <p>All patients with a selected influenza vaccination assessment during the target period (i.e., influenza vaccination period), except those with exclusions. Note: IRF-PAI assessments are only submitted to CMS for Medicare patients.</p> <p>Exclusions</p> <p>Patient's age on selected influenza vaccination assessment is 179 days or less. Calculate the age in days using the discharge date or the last date of the influenza vaccination season (March 31 of relevant year), whichever comes first in time. Patients who are 180 days old or more by this calculation are included in the measure. Patients who are 179 days old or less by this calculation are excluded from the measure.</p> <p>Additional Exclusion for Future Public Reporting Program</p> <p>IRFs with denominator counts of less than 20 in the sample will be excluded from public reporting owing to small sample size.</p>	<p style="text-align: center;">Not applicable.</p>

¹ This measure is NQF-endorsed for use in the IRF setting (<http://www.qualityforum.org/QPS/0680>) (in addition to Long Term Care Hospital and Skilled Nursing Facility/Nursing Home (SNF/NH) settings) and finalized for reporting by IRFs under the IRF QRP (*Federal Register* 78 (6 August 2013): 47903-47919. Web. <http://www.gpo.gov/fdsys/pkg/FR-2013-08-06/pdf/2013-18770.pdf> and *Federal Register* 79 (6 August 2014): 45908-45918. Web. <http://www.gpo.gov/fdsys/pkg/FR-2014-08-06/pdf/2014-18447.pdf>. The use of the words "resident" and "short-stay" in the title of this measure refer to the use of this measure in the SNF/NH home setting. CMS's use of these words does not imply that the IRF patient is a "resident" or that a stay in an IRF is a "short stay."

² A copy of IRF-PAI V 1.3, including items for patient influenza vaccination measure, is included in Section 8 of the IRF-PAI Training Manual V 1.3.

Table 3-2a
Percent of Residents or Patients Who Received the Seasonal Influenza Vaccine (Short-Stay)
(NQF #0680)¹

Measure Description	Measure Specifications ²	Covariates
<p>This measure reports the percentage of patients who received the influenza vaccination during the most recent influenza season.</p> <p>The measure score is computed and reported for the three numerator components separately. The patient influenza vaccination measure is calculated only once per year.</p>	<p>Numerator</p> <p>Patients meeting the following criteria on the selected influenza vaccination assessment:</p> <ol style="list-style-type: none"> 1. Patient received the influenza vaccine during the most recent influenza vaccination season, either in the facility (O0250A = 1) or outside the facility (O0250C = 2) (computed and reported separately). <p>Denominator</p> <p>All patients with a selected influenza vaccination assessment during the target period (i.e., influenza vaccination period), except those with exclusions. Note: IRF-PAI assessments are only submitted to CMS for Medicare patients.</p> <p>Exclusions</p> <p>Patient's age on selected influenza vaccination assessment is 179 days or less. Calculate the age in days using the discharge date or the last date of the influenza vaccination season (March 31 of relevant year), whichever comes first in time. Patients who are 180 days old or more by this calculation are included in the measure. Patients who are 179 days old or less by this calculation are excluded from the measure.</p> <p>Additional Exclusion for Future Public Reporting Program</p> <p>IRFs with denominator counts of less than 20 in the sample will be excluded from public reporting owing to small sample size.</p>	<p align="center">Not applicable.</p>

¹ This measure is NQF-endorsed for use in the IRF setting (<http://www.qualityforum.org/QPS/0680>) (in addition to Long Term Care Hospital and Skilled Nursing Facility/Nursing Home (SNF/NH) settings) and finalized for reporting by IRFs under the IRF QRP (*Federal Register* 78 (6 August 2013): 47903-47919. Web. <http://www.gpo.gov/fdsys/pkg/FR-2013-08-06/pdf/2013-18770.pdf> and *Federal Register* 79 (6 August 2014): 45908-45918. Web. <http://www.gpo.gov/fdsys/pkg/FR-2014-08-06/pdf/2014-18447.pdf>. The use of the words "resident" and "short-stay" in the title of this measure refer to the use of this measure in the SNF/NH home setting. CMS's use of these words does not imply that the IRF patient is a "resident" or that a stay in an IRF is a "short stay."

² A copy of IRF-PAI V 1.3, including items for patient influenza vaccination measure, is included in Section 8 of the IRF-PAI Training Manual V 1.3.

Table 3-2b
Percent of Residents or Patients Who Were Offered and Declined the Seasonal Influenza Vaccine (Short-Stay)
(NQF #0680)¹

Measure Description	Measure Specifications ²	Covariates
<p>This measure reports the percentage of patients who are offered and declined the influenza vaccination during the most recent influenza season.</p> <p>The measure score is computed and reported for the three numerator components separately. The patient influenza vaccination measure is calculated only once per year.</p>	<p>Numerator</p> <p>Patients meeting the following criteria on the selected influenza vaccination assessment:</p> <ol style="list-style-type: none"> 1. Patient was offered and declined the influenza vaccine (O0250C = 4) (computed and reported separately) <p>Denominator</p> <p>All patients with a selected influenza vaccination assessment during the target period (i.e., influenza vaccination period), except those with exclusions. Note: IRF-PAI assessments are only submitted to CMS for Medicare patients.</p> <p>Exclusions</p> <p>Patient's age on selected influenza vaccination assessment is 179 days or less. Calculate the age in days using the discharge date or the last date of the influenza vaccination season (March 31 of relevant year), whichever comes first in time. Patients who are 180 days old or more by this calculation are included in the measure. Patients who are 179 days old or less by this calculation are excluded from the measure.</p> <p>Additional Exclusion for Future Public Reporting Program</p> <p>IRFs with denominator counts of less than 20 in the sample will be excluded from public reporting owing to small sample size.</p>	<p align="center">Not applicable.</p>

¹ This measure is NQF-endorsed for use in the IRF setting (<http://www.qualityforum.org/QPS/0680>) (in addition to Long Term Care Hospital and Skilled Nursing Facility/Nursing Home (SNF/NH) settings) and finalized for reporting by IRFs under the IRF QRP (*Federal Register* 78 (6 August 2013): 47903-47919. Web. <http://www.gpo.gov/fdsys/pkg/FR-2013-08-06/pdf/2013-18770.pdf> and *Federal Register* 79 (6 August 2014): 45908-45918. Web. <http://www.gpo.gov/fdsys/pkg/FR-2014-08-06/pdf/2014-18447.pdf>). The use of the words "resident" and "short-stay" in the title of this measure refer to the use of this measure in the SNF/NH home setting. CMS's use of these words does not imply that the IRF patient is a "resident" or that a stay in an IRF is a "short stay."

² A copy of IRF-PAI V 1.3, including items for patient influenza vaccination measure, is included in Section 8 of the IRF-PAI Training Manual V 1.3.

Table 3-2c
Percent of Residents or Patients Who Did Not Receive, Due to Medical Contraindication, the Seasonal Influenza Vaccine (Short-Stay) (NQF #0680)¹

Measure Description	Measure Specifications ²	Covariates
<p>This measure reports the percentage of patients who did not receive, due to medical contraindication, the influenza vaccination during the most recent influenza season.</p> <p>The measure score is computed and reported for the three numerator components separately. The patient influenza vaccination measure is calculated only once per year.</p>	<p>Numerator</p> <p>Patients meeting the following criteria on the selected influenza vaccination assessment:</p> <ol style="list-style-type: none"> 1. Patient was ineligible due to medical contraindication(s) (O0250C = 3) (computed and reported separately). <p>Denominator</p> <p>All patients with a selected influenza vaccination assessment during the target period (i.e., influenza vaccination period), except those with exclusions. Note: IRF-PAI assessments are only submitted to CMS for Medicare patients.</p> <p>Exclusions</p> <p>Patient's age on selected influenza vaccination assessment is 179 days or less. Calculate the age in days using the discharge date or the last date of the influenza vaccination season (March 31 of relevant year), whichever comes first in time. Patients who are 180 days old or more by this calculation are included in the measure. Patients who are 179 days old or less by this calculation are excluded from the measure.</p> <p>Additional Exclusion for Future Public Reporting Program</p> <p>IRFs with denominator counts of less than 20 in the sample will be excluded from public reporting owing to small sample size.</p>	<p align="center">Not applicable.</p>

¹ This measure is NQF-endorsed for use in the IRF setting (<http://www.qualityforum.org/QPS/0680>) (in addition to Long Term Care Hospital and Skilled Nursing Facility/Nursing Home (SNF/NH) settings) and finalized for reporting by IRFs under the IRF QRP (*Federal Register* 78 (6 August 2013): 47903-47919. Web. <http://www.gpo.gov/fdsys/pkg/FR-2013-08-06/pdf/2013-18770.pdf> and *Federal Register* 79 (6 August 2014): 45908-45918. Web. <http://www.gpo.gov/fdsys/pkg/FR-2014-08-06/pdf/2014-18447.pdf>). The use of the words "resident" and "short-stay" in the title of this measure refer to the use of this measure in the SNF/NH home setting. CMS's use of these words does not imply that the IRF patient is a "resident" or that a stay in an IRF is a "short stay."

² A copy of IRF-PAI V 1.3, including items for patient influenza vaccination measure, is included in Section 8 of the IRF-PAI Training Manual V 1.3.

Appendix A: Model Parameters

Percent of Residents or Patients with Pressure Ulcers that Are New or Worsened (Short-Stay) (NQF #0678)

The purpose of this appendix is to present the logistic regression coefficients used in the risk adjustment calculations that were applied to the risk-adjusted QM.

This appendix presents the model parameters that were estimated for the risk-adjusted QM, the Percent of Patients with Pressure Ulcers That Are New or Worsened (NQF #0678) for the following time period:

- The **Target Period** is October 1, 2014, through March 31, 2015.*

LOGISTIC REGRESSION COEFFICIENTS

The logistic regression coefficients presented in Table B.1 are based on calculations for two quarters of data (Oct 1, 2014-March 31, 2015).

Table B.1

IRF Logistic Regression Coefficients for Percent of Patients or Residents with Pressure Ulcers that Are New or Worsened Using Incomplete Data (NQF #0678)*

Constant (Intercept)	Patient-Level Covariates
-6.8182	1. Covariate 1 (Functional Limitation): 1.744 2. Covariate 2 (Bowel Incontinence): 0.5165 3. Covariate 3 (Diabetes or PVD/PAD): 0.496 4. Covariate 4 (Low BMI): 0.6619

*Data collection for items needed to calculate BMI began during the last quarter of 2014 and the corrections deadline for the last quarter of CY 2014 was May 15, 2015. Therefore, analysis included in Table B.1 is based on only two quarters of data (October 1, 2014, through March 31, 2015). The information will be updated in the next manual release.

NATIONAL OBSERVED MEAN

1. Calculate national mean QM score (steps 1.1 through 1.3)

1.1. Calculate the denominator count:

Count the total number of patients with an IRF-PAI assessment in the measure target period retained after exclusions, and sum for the nation.

1.2. Calculate the numerator count:

Count the total number of patients whose IRF-PAI assessment indicates one or more new or worsened pressure ulcers (Stage 2 to 4) at discharge since admission, and sum for the nation.

1.3. Calculate national mean observed QM score:

Divide the numerator count by its denominator count to obtain the nation's observed score; that is, divide the result of step 1.2 by the result of step 1.1.

The national observed QM means are updated for each target period. The IRF national observed mean for the target period October 1, 2014, through March 31, 2015, is **0.008831167**.

COMPARISON GROUP

CMS will make the final decision regarding the appropriate comparison group to use for this measure. State-level comparison groups are not recommended because of the small number of IRFs in several states. Regional and national comparison groups could be considered.