**Quality ID #493 (CBE 3620): Adult Immunization Status**

**2024 COLLECTION TYPE:**
MIPS CLINICAL QUALITY MEASURES (CQMS)

**MEASURE TYPE:**
Process

**DESCRIPTION:**
Percentage of patients 19 years of age and older who are up-to-date on recommended routine vaccines for influenza; tetanus and diphtheria (Td) or tetanus, diphtheria and acellular pertussis (Tdap); zoster; and pneumococcal.

**INSTRUCTIONS:**
This measure is to be submitted a minimum of once per performance period for all patients 19 years of age and older on the date of the encounter. This measure may be submitted by Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the quality actions described in the measure for patients age 19 years of age and older based on the services provided and the measure-specific denominator coding.

**NOTE:** Patient encounters for this measure conducted via telehealth (including but not limited to encounters coded with GQ, GT, 95, POS 02, POS 10) are allowable.

**This measure will be calculated with 4 performance rates:**
1. Percentage of patients (19 years of age and older on the date of the encounter) who received an influenza vaccine on or between July 1 of the year prior to the measurement period and June 30 of the measurement period
2. Percentage of patients (19 years of age and older on the date of the encounter) who received at least 1 tetanus and diphtheria (Td) vaccine or 1 tetanus, diphtheria, and pertussis (Tdap) vaccine between 9 years prior to the encounter and the end of the measurement period
3. Percentage of patients (50 years of age and older on the date of the encounter) who received 2 doses of the herpes zoster recombinant vaccine anytime on or after the patients' 50th birthday
4. Percentage of patients (66 years of age or older on the date of the encounter) who were administered any pneumococcal conjugate vaccine or polysaccharide vaccine, on or after their 60th birthday and before the end of the measurement period

Submission of the four performance rates is required for this measure. A weighted average, which is the sum of the performance numerator values divided by the sum of performance denominator values, will be used to calculate performance.

**Measure Submission Type:**
Measure data may be submitted by individual MIPS eligible clinicians, groups, or third-party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third-party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third-party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

**DENOMINATOR (SUBMISSION CRITERIA 1):**
Patients 19 years of age and older on the date of the encounter with a visit during the measurement period
DENOMINATOR NOTE: *Signifies that this CPT Category I code is a non-covered service under the Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for MIPS CQMs.

Denominator Criteria (Eligible Cases 1):
Patients age 19 and older on the date of the encounter
AND
AND NOT
DENOMINATOR EXCLUSION:
In hospice or using hospice services during the measurement period (HCPCS): M1167

NUMERATOR (SUBMISSION CRITERIA 1):
Patients in Denominator 1 who received an influenza vaccine on or between July 1 of the year prior to the measurement period and June 30 of the measurement period

NUMERATOR NOTE: Patient reported vaccine receipt, when recorded in the medical record, is acceptable for meeting the numerator.

Numerator Options:

Performance Met: Patient received an influenza vaccine on or between July 1 of the year prior to the measurement period and June 30 of the measurement period (M1168)

OR

Denominator Exception: Documentation of medical reason(s) for not administering influenza vaccine (e.g., prior anaphylaxis due to the influenza vaccine) (M1169)

OR

Performance Not Met: Patient did not receive an influenza vaccine on or between July 1 of the year prior to the measurement period and June 30 of the measurement period (M1170)

DENOMINATOR (SUBMISSION CRITERIA 2):
Patients 19 years of age and older on the date of the encounter with a visit during the measurement period

DENOMINATOR NOTE: *Signifies that this CPT Category I code is a non-covered service under the Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for MIPS CQMs.

Denominator Criteria (Eligible Cases 2):
Patients age 19 and older on the date of the encounter
AND
AND NOT
DENOMINATOR EXCLUSION:
In hospice or using hospice services during the measurement period (HCPCS): M1167

NUMERATOR (SUBMISSION CRITERIA 2):
Patients in Denominator 2 who received at least 1 Td vaccine or 1 Tdap vaccine between 9 years prior to the encounter and the end of the measurement period

NUMERATOR NOTE: Patient reported vaccine receipt, when recorded in the medical record, is acceptable for meeting the numerator.

Numerator Options:
Performance Met: Patient received at least one Td vaccine or one Tdap vaccine between nine years prior to the encounter and the end of the measurement period (M1171)

OR
Denominator Exception: Documentation of medical reason(s) for not administering Td or Tdap vaccine (e.g., prior anaphylaxis due to the Td or Tdap vaccine or history of encephalopathy within seven days after a previous dose of a Td-containing vaccine) (M1172)

OR
Performance Not Met: Patient did not receive at least one Td vaccine or one Tdap vaccine between nine years prior to the encounter and the end of the measurement period (M1173)

DENOMINATOR (SUBMISSION CRITERIA 3):
Patients 50 years of age and older on the date of the encounter with a visit during the measurement period

DENOMINATOR NOTE: *Signifies that this CPT Category I code is a non-covered service under the Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for MIPS CQMs.

Denominator Criteria (Eligible Cases 3):
AND NOT
DENOMINATOR EXCLUSION:
In hospice or using hospice services during the measurement period (HCPCS): M1167

NUMERATOR (SUBMISSION CRITERIA 3):
Patients in Denominator 3 who received 2 doses of the herpes zoster recombinant vaccine anytime on or after the patients’ 50th birthday

NUMERATOR NOTE: Patient reported vaccine receipt, when recorded in the medical record, is acceptable for meeting the numerator.
Numerator Options:
Performance Met: Patient received at least two doses of the herpes zoster recombinant vaccine (at least 28 days apart) anytime on or after the patient’s 50th birthday before or during the measurement period (M1174)

OR

Denominator Exception: Documentation of medical reason(s) for not administering zoster vaccine (e.g., prior anaphylaxis due to the zoster vaccine) (M1175)

OR

Denominator Exception: Documentation that administration of second recombinant zoster vaccine could not occur during the performance period due to the recommended 2-6 month interval between doses (i.e., first dose received after October 31) (M1238)

OR

Performance Not Met: Patient did not receive two doses of the herpes zoster recombinant vaccine (at least 28 days apart) anytime on or after the patient’s 50th birthday before or during the measurement period (M1176)

DENOMINATOR (SUBMISSION CRITERIA 4):
Patients 66 years of age or older on the date of the encounter with a visit during the measurement period

DENOMINATOR NOTE: *Signifies that this CPT Category I code is a non-covered service under the Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for MIPS CQMs.

Denominator Criteria (Eligible Cases 4):
Patients age 66 and older on the date of the encounter
AND
AND NOT
DENOMINATOR EXCLUSION:
In hospice or using hospice services during the measurement period (HCPCS): M1167

NUMERATOR (SUBMISSION CRITERIA 4):
Patients in Denominator 4 who were administered any pneumococcal conjugate vaccine or polysaccharide vaccine, on or after their 60th birthday and before the end of the measurement period

NUMERATOR NOTE: The measure provides credit for adults 66 years of age and older who have received any pneumococcal vaccine on or after the patient’s 60th birthday.

Patient reported vaccine receipt, when recorded in the medical record, is acceptable for meeting the numerator.

Numerator Options:
Performance Met: Patient received any pneumococcal conjugate or polysaccharide vaccine on or after their 60th birthday
and before the end of the measurement period (M1177)

**Denominator Exception:**
- Documentation of medical reason(s) for not administering pneumococcal vaccine (e.g., prior anaphylaxis due to the pneumococcal vaccine) (M1178)

**Performance Not Met:**
- Patient did not receive any pneumococcal conjugate or polysaccharide vaccine, on or after their 60th birthday and before or during measurement period (M1179)

**RATIONALE:**
For adults, the Advisory Committee on Immunization Practices (ACIP) recommends routine vaccination against influenza, tetanus, diphtheria and pertussis for all adults, while vaccines for zoster and pneumococcal disease are recommended for older adults (Murthy, et al. 2022). These vaccines are recommended to prevent serious diseases. Healthy People 2020, which provides science-based, 10-year national objectives for improving the health of all Americans, recommends increasing the percentage of adults who are vaccinated against influenza, zoster and pneumococcal disease (U.S. Department of Health and Human Services [HHS], 2017)

Estimates of national vaccination coverage are available through the National Health Interview Survey (NHIS), in which a sample of adults self-report receipt of vaccines. In 2015, 45 percent of adults 19 and older reported that they received the influenza vaccine during the 2014–2015 flu season, well below the Healthy People 2020 target of 70 percent (Williams et al. 2017). 64 percent of adults 65 and older reported having ever received any pneumococcal vaccine, which is below the Healthy People 2020 target of 90 percent (HHS, 2017). In 2015, 31 percent of adults ages 60 and older reported ever receiving the zoster vaccine (HHS, 2017). Although zoster vaccine coverage meets the Healthy People 2020 target of 30 percent coverage, 70 percent of adults are not receiving this recommended vaccination. Although there is no corresponding Healthy People 2020 goal for routine Td or Tdap vaccination among adults, only 62 percent reported receiving any tetanus toxoid-containing vaccination during the past 10 years (HHS, 2017).

There are evidence-based practices for improving adult vaccination coverage. Health care providers can routinely assess patients’ vaccination history, implement reminder-recall systems, use standing-order programs and analyze practice- or provider-specific vaccination rates (HHS, 2017). In addition, providing easy access and convenience for adult vaccination (such as walk-in visits or extended hours) within and outside of the health care setting is important for increasing adult vaccine uptake (Ventola, 2016). Leveraging health information technology to share immunization data among patients, providers, pharmacies, retail clinics and public health agencies and registries is also a key strategy for tracking patients’ immunization history and keeping them up to date on vaccines (America’s Health Insurance Plans, 2015).

**References:**
CLINICAL RECOMMENDATION STATEMENTS:
The Advisory Committee on Immunization Practices recommends annual influenza vaccination; and tetanus, diphtheria and acellular pertussis (Tdap) and/or tetanus and diphtheria (Td) vaccine; herpes zoster vaccine; and pneumococcal vaccine for adults at various ages.

Reference:
2024 Clinical Quality Measure Flow for Quality ID #493 (CBE 3620):  
Adult Immunization Status  
Submission Criteria One

Disclaimer: Refer to the measure specification for specific coding and instructions to submit this measure.

![Diagram of the measure flow process]

**Data Completeness Met**

- **Numerator:**
  - Patient received an influenza vaccine on or between July 1 of the year prior to the measurement period and June 30 of the measurement period
  - Data Completeness Met + Performance Met (M1168 or equivalent) (40 patients)
  - Data Completeness Met + Denominator Exception (M1169 or equivalent) (10 patients)

**Data Completeness Met + Denominator Exception**

- Data Completeness Met + Performance Not Met (M1170 or equivalent) (20 patients)

**Data Completeness Not Met**

- Data Completeness Not Met Quality Data Code or equivalent not submitted (10 patients)

### Sample Calculation: Submission Criteria One

- **Data Completeness =** Performance Met (a1=40 patients) + Denominator Exception (b1=10 patients) + Performance Not Met (c1=20 patients) = 70 patients = 87.50% Eligible Population/Denominator (d1=80 patients) = 80 patients

- **Performance Rate =** Performance Met (a1=40 patients) = 40 patients = 66.67%

Data Completeness Numerator (70 patients) - Denominator Exception (b1=10 patients) = 60 patients

*See the posted measure specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Patient-Periodic
**Submission Criteria Two**

**Numerator**
- Patient received at least one Td vaccine or one Tdap vaccine between nine years prior to the encounter and the end of the measurement period
  - Yes
  - No

**Denominator Exclusion**
- In hospice or using hospice services during the measurement period: M1167 or equivalent
  - Yes
  - No

**Start**

**Denominator**
- Patients age 19 and older on the date of the encounter
  - Yes
  - No

**Not included in Eligible Population/Denominator**

**Sample Calculation:** Submission Criteria Two

**Data Completeness**
\[ \text{Performance Met (a}^2=40 \text{ patients}) + \text{Denominator Exception (b}^2=10 \text{ patients}) + \text{Performance Not Met (c}^2=20 \text{ patients)} \]
\[ = \text{70 patients} \]
\[ = \frac{70}{80} \times 100 \% = 87.50\% \]

**Performance Rate**
\[ \frac{\text{Performance Met (a}^2=40 \text{ patients)}}{\text{Performance Rate}} \]
\[ = \frac{40}{80} \times 100 \% = 66.67\% \]

NOTE: Submission Frequency: Patient-Periodic

*See the posted measure specification for specific coding and instructions to submit this measure.

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The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification.
Submission Criteria Three

**Start**

- **Data Completeness Not Met**
  - Quality Data Code or equivalent not submitted (10 patients)

- **Data Completeness Met + Denominator Exception**
  - M1175 or equivalent (5 patients)

- **Data Completeness Met + Performance Met**
  - M1174 or equivalent (40 patients)

- **Data Completeness Met + Performance Not Met**
  - M1176 or equivalent (20 patients)

**Numerator**

- **Yes**
  - Yes
  - Yes
  - Yes
  - Patients age 50 and older on the date of the encounter
  - Documentation of medical reason(s) for not administering zoster vaccine (e.g., prior anaphylaxis due to the zoster vaccine)
  - Documentation that administration of second recombinant zoster vaccine could not occur during the performance period due to the recommended 2-6 month interval between doses (i.e., first dose received after October 31)
  - Patient did not receive at least two doses of the herpes zoster recombinant vaccine (at least 28 days apart) anytime on or after the patient's 50th birthday before or during the measurement period

- **Yes**
  - Yes
  - Yes
  - Denominator Exception: In hospice or using hospice services during the measurement period: M1167 or equivalent

**Denominator**

- **No**
  - Not included in Eligible Population/Denominator
  - Denominator Exclusion
    - No
    - In hospice or using hospice services during the measurement period: M1167 or equivalent
    - Include in Eligible Population/Denominator (80 patients)

**SAMPLE CALCULATION: SUBMISSION CRITERIA THREE**

Data Completeness =

- Performance Met (a=40 patients) + Denominator Exceptions (b+b=10 patients) + Performance Not Met (c=20 patients) = 70 patients = 87.50%
- Eligible Population/Denominator (d=80 patients) = 80 patients

Performance Rate =

- Performance Met (a=40 patients) = 40 patients = 66.67%
- Data Completeness Numerator (70 patients) - Denominator Exceptions (b+b=10 patients) = 60 patients

*See the posted measure specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Patient-Periodic
Submission Criteria Four

**Data Completeness Not Met**

- Quality Data Code or equivalent not submitted (10 patients)

**Data Completeness Met + Performance Met**

- M1177 or equivalent (40 patients)

**Data Completeness Met + Denominator Exception**

- M1178 or equivalent (10 patients)

**Data Completeness Met + Performance Not Met**

- M1179 or equivalent (20 patients)

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**SAMPLE CALCULATION: SUBMISSION CRITERIA FOUR**

\[
\text{Data Completeness} = \frac{\text{Performance Met} (a^4=40 \text{ patients}) + \text{Denominator Exception} (b^5=10 \text{ patients}) + \text{Performance Not Met} (c^6=20 \text{ patients})}{\text{Eligible Population/Denominator} (d^4=80 \text{ patients})} = 70 \text{ patients} = 87.50\%
\]

\[
\text{Performance Rate} = \frac{\text{Performance Met} (a^4=40 \text{ patients})}{\text{Data Completeness Numerator} (70 \text{ patients}) - \text{Denominator Exception} (b^5=10 \text{ patients})} = 40 \text{ patients} = 66.67\%
\]

*See the posted measure specification for specific coding and instructions to submit this measure.

**NOTE:** Submission Frequency: Patient-Periodic
### OVERALL SAMPLE CALCULATIONS:

<table>
<thead>
<tr>
<th>Term</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Data Completeness</td>
<td>Performance Met ((a_1 + a_2 + a_3 + a_4 = 160)) + Denominator Exceptions ((b_1 + b_2 + b_3 + b_4 + b_5 = 40)) + Performance Not Met ((c_1 + c_2 + c_3 + c_4 = 80)) = 280 patients = 87.50%</td>
</tr>
<tr>
<td>Overall Performance Rate</td>
<td>Performance Met ((a_1 + a_2 + a_3 + a_4 = 160)) = 160 patients = 66.67%</td>
</tr>
<tr>
<td>Data Completeness Numerator</td>
<td>280 patients</td>
</tr>
<tr>
<td>Denominator Exceptions</td>
<td>240 patients</td>
</tr>
</tbody>
</table>

*See the posted measure specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Patient-Periodic
2024 Clinical Quality Measure Flow Narrative for Quality ID #493 (CBE 3620):
Adult Immunization Status

Disclaimer: Refer to the measure specification for specific coding and instructions to submit this measure.

Multiple Performance Rates

Submission Criteria One:

1. Start with Denominator

2. Check Patients age 19 and older on the date of the encounter:
   a. If Patients age 19 and older on the date of the encounter equals No, do not include in Eligible Population/Denominator. Stop processing.
   b. If Patient age 19 and older on the date of the encounter equals Yes, proceed to check Patient encounter during the performance period as listed in Denominator*.

3. Check Patient encounter during the performance period as listed in Denominator*:
   a. If Patient encounter during the performance period as listed in Denominator* equals No, do not include in Eligible Population/Denominator. Stop processing.
   b. If Patient encounter during the performance period as listed in Denominator* equals Yes, proceed to check In hospice or using hospice services during the measurement period.

4. Check In hospice or using hospice services during the measurement period:
   a. If In hospice or using hospice services during the measurement period equals Yes, do not include in Eligible Population/Denominator. Stop processing.
   b. If In hospice or using hospice services during the measurement period equals No, include in Eligible Population/Denominator.

5. Denominator Population:
   • Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d1 equals 80 patients in the Sample Calculation.

6. Start Numerator

7. Check Patient received an influenza vaccine on or between July 1 of the year prior to the measurement period and June 30 of the measurement period:
   a. If Patient received an influenza vaccine on or between July 1 of the year prior to the measurement period and June 30 of the measurement period equals Yes, include in Data Completeness Met and Performance Met.
      • Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a1 equals 40 patients in Sample Calculation
b. If Patient received an influenza vaccine on or between July 1 of the year prior to the measurement period and June 30 of the measurement period equals No, proceed to check Documentation of medical reason(s) for not administering influenza vaccine (e.g., prior anaphylaxis due to the influenza vaccine).

8. Check Documentation of medical reason(s) for not administering influenza vaccine (e.g., prior anaphylaxis due to the influenza vaccine):
   a. If Documentation of medical reason(s) for not administering influenza vaccine (e.g., prior anaphylaxis due to the influenza vaccine) equals Yes, include in Data Completeness Met and Denominator Exception.
      • Data Completeness Met and Denominator Exception is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b1 equals 10 patients in the Sample Calculation.
   b. If Documentation of medical reason(s) for not administering influenza vaccine (e.g., prior anaphylaxis due to the influenza vaccine) equals No, proceed to check Patient did not receive an influenza vaccine on or between July 1 of the year prior to the measurement period and June 30 of the measurement period.

9. Check Patient did not receive an influenza vaccine on or between July 1 of the year prior to the measurement period and June 30 of the measurement period:
   a. If Patient did not receive an influenza vaccine on or between July 1 of the year prior to the measurement period and June 30 of the measurement period equals Yes, include in Data Completeness Met and Performance Not Met.
      • Data Completeness Met and Performance Not Met letter is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c1 equals 20 patients in the Sample Calculation.
   b. If Patient did not receive an influenza vaccine on or between July 1 of the year prior to the measurement period and June 30 of the measurement period equals No, proceed to check Data Completeness Not Met.

10. Check Data Completeness Not Met:
    • If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

**Sample Calculations: Submission Criteria One**

Data Completeness equals Performance Met (a1 equals 40 patients) plus Denominator Exception (b1 equals 10 patients) plus Performance Not Met (c1 equals 20 patients) divided by Eligible Population/Denominator (d1 equals 80 patients). All equals 70 patients divided by 80 patients. All equals 87.50 percent.

Performance Rate equals Performance Met (a1 equals 40 patients) divided by Data Completeness Numerator (70 patients) minus Denominator Exception (b1 equals 10 patients). All equals 40 patients divided by 60 patients. All equals 66.67 percent.

*See the posted measure specification for specific coding and instructions to submit this measure.

Note: Submission Frequency: Patient-Periodic
The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification.

**Submission Criteria Two:**

1. Start with Denominator

2. Check Patients age 19 and older on the date of the encounter:
   a. If Patients age 19 and older on the date of the encounter equals No, do not include in Eligible Population/Denominator. Stop processing.
   b. If Patients age 19 and older on the date of the encounter equals Yes, proceed to check Patient encounter during the performance period as listed in Denominator*.

3. Check Patient encounter during the performance period as listed in Denominator*:
   a. If Patient encounter during the performance period as listed in Denominator* equals No, do not include in Eligible Population/Denominator. Stop processing.
   b. If Patient encounter during the performance period as listed in Denominator* equals Yes, proceed to check In hospice or using hospice services during the measurement period.

4. Check In hospice or using hospice services during the measurement period:
   a. If In hospice or using hospice services during the measurement period equals Yes, do not include in Eligible Population/Denominator. Stop processing.
   b. If In hospice or using hospice services during the measurement period equals No, include in Eligible Population/Denominator.

5. Denominator Population:
   - Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.

6. Start Numerator

7. Check Patient received at least one Td vaccine or one Tdap vaccine between nine years prior to the encounter and the end of the measurement period:
   a. If Patient received at least one Td vaccine or one Tdap vaccine between nine years prior to the encounter and the end of the measurement period equals Yes, include in Data Completeness Met and Performance Met.
      - Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 40 patients in the Sample Calculation.
   b. If Patient received at least one Td vaccine or one Tdap vaccine between nine years prior to the encounter and the end of the measurement period equals No, proceed to check Documentation of medical reason(s) for not administering Td or Tdap vaccine (e.g., prior anaphylaxis due to the Td or Tdap vaccine or history of encephalopathy within seven days after a previous dose of a Td-containing vaccine).
8. Check **Documentation of medical reason(s) for not administering Td or Tdap vaccine (e.g., prior anaphylaxis due to the Td or Tdap vaccine or history of encephalopathy within seven days after a previous dose of a Td-containing vaccine):**

   a. If **Documentation of medical reason(s) for not administering Td or Tdap vaccine (e.g., prior anaphylaxis due to the Td or Tdap vaccine or history of encephalopathy within seven days after a previous dose of a Td-containing vaccine)** equals Yes, include in **Data Completeness Met and Denominator Exception.**

      • **Data Completeness Met and Denominator Exception** is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter \( b^2 \) equals 10 patients in the Sample Calculation.

   b. If **Documentation of medical reason(s) for not administering Td or Tdap vaccine (e.g., prior anaphylaxis due to the Td or Tdap vaccine or history of encephalopathy within seven days after a previous dose of a Td-containing vaccine)** equals No, proceed to check **Patient did not receive at least one Td vaccine or one Tdap vaccine between nine years prior to the encounter and the end of the measurement period.**

9. Check **Patient did not receive at least one Td vaccine or one Tdap vaccine between nine years prior to the encounter and the end of the measurement period:**

   a. If **Patient did not receive at least one Td vaccine or one Tdap vaccine between nine years prior to the encounter and the end of the measurement period** equals Yes, include in **Data Completeness Met and Performance Not Met.**

      • **Data Completeness Met and Performance Not Met** is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter \( c^2 \) equals 20 patients in the Sample Calculation.

   b. If **Patient did not receive at least one Td vaccine or one Tdap vaccine between nine years prior to the encounter and the end of the measurement period** equals No, proceed to check **Data Completeness Not Met.**

13. Check **Data Completeness Not Met:**

   • If **Data Completeness Not Met**, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

**Sample Calculations: Submission Criteria Two**

Data Completeness equals Performance Met \( (a^2 \text{ equals } 40 \text{ patients}) \) plus Denominator Exception \( (b^2 \text{ equals } 10 \text{ patients}) \) plus Performance Not Met \( (c^2 \text{ equals } 20 \text{ patients}) \) divided by Eligible Population/Denominator \( (d^2 \text{ equals } 80 \text{ patients}) \). All equals 70 patients divided by 80 patients. All equals 87.50 percent.

Performance Rate equals Performance Met \( (a^2 \text{ equals } 40 \text{ patients}) \) divided by Data Completeness Numerator \( (70 \text{ patients}) \) minus Denominator Exception \( (b^2 \text{ equals } 10 \text{ patients}) \). All equals 40 patients divided by 60 patients. All equals 66.67 percent.

*See the posted measure specification for specific coding and instructions to submit this measure.

Note: Submission Frequency: Patient-Periodic

The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification.
Submission Criteria Three:

1. Start with Denominator

2. Check Patients age 50 and older on the date of the encounter:
   a. If Patients age 50 and older on the date of the encounter equals No, do not include in Eligible Population/Denominator. Stop processing.
   b. If Patients age 50 and older on the date of the encounter equals Yes, proceed to check Patient encounter during the performance period as listed in Denominator*.

3. Check Patient encounter during the performance period as listed in Denominator*:
   a. If Patient encounter during the performance period as listed in Denominator* equals No, do not include in Eligible Population/Denominator. Stop processing.
   b. If Patient encounter during the performance period as listed in Denominator* equals Yes, proceed to check In hospice or using hospice services during the measurement period.

4. Check In hospice or using hospice services during the measurement period:
   a. If In hospice or using hospice services during the measurement period equals Yes, do not include in Eligible Population/Denominator. Stop processing.
   b. If In hospice or using hospice services during the measurement period equals No, include in Eligible Population/Denominator.

5. Denominator Population:
   - Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d³ equals 80 patients in the Sample Calculation.

6. Start Numerator

7. Check Patient received at least two doses of the herpes zoster recombinant vaccine (at least 28 days apart) anytime on or after the patient's 50th birthday before or during the measurement period:
   a. If Patient received at least two doses of the herpes zoster recombinant vaccine (at least 28 days apart) anytime on or after the patient's 50th birthday before or during the measurement period equals Yes, include in Data Completeness Met and Performance Met.
      • Data Completeness Met and Performance Met is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a³ equals 40 patients in Sample Calculation.
   b. If Patient received at least two doses of the herpes zoster recombinant vaccine (at least 28 days apart) anytime on or after the patient's 50th birthday before or during the measurement period equals No, proceed to check Documentation of medical reason(s) for not administering zoster vaccine (e.g., prior anaphylaxis due to the zoster vaccine).

8. Check Documentation of medical reason(s) for not administering zoster vaccine (e.g., prior anaphylaxis due to the zoster vaccine):
a. If Documentation of medical reason(s) for not administering zoster vaccine (e.g., prior anaphylaxis due to the zoster vaccine) equals Yes, include in Data Completeness Met and Denominator Exception.

- Data Completeness Met and Denominator Exception is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b3 equals 5 patients in the Sample Calculation.

b. If Documentation of medical reason(s) for not administering zoster vaccine (e.g., prior anaphylaxis due to the zoster vaccine) equals No, proceed to check Documentation that administration of second recombinant zoster vaccine could not occur during the performance period due to the recommended 2-6 month interval between doses (i.e., first dose received after October 31).

9. Check Documentation that administration of second recombinant zoster vaccine could not occur during the performance period due to the recommended 2-6 month interval between doses (i.e., first dose received after October 31):

a. If Documentation that administration of second recombinant zoster vaccine could not occur during the performance period due to the recommended 2-6 month interval between doses (i.e., first dose received after October 31) equals Yes, include in Data Completeness Met and Denominator Exception.

- Data Completeness Met and Denominator Exception is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b3 equals 5 patients in the Sample Calculation.

b. If Documentation that administration of second recombinant zoster vaccine could not occur during the performance period due to the recommended 2-6 month interval between doses (i.e., first dose received after October 31) equals No, proceed to check Patient did not receive at least two doses of the herpes zoster recombinant vaccine (at least 28 days apart) anytime on or after the patient’s 50th birthday before or during the measurement period.

10. Check Patient did not receive at least two doses of the herpes zoster recombinant vaccine (at least 28 days apart) anytime on or after the patient’s 50th birthday before or during the measurement period:

a. If Patient did not receive at least two doses of the herpes zoster recombinant vaccine (at least 28 days apart) anytime on or after the patient’s 50th birthday before or during the measurement period equals Yes, include in Data Completeness Met and Performance Not Met.

- Data Completeness Met and Performance Not Met is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c3 equals 20 patients in the Sample Calculation.

b. If Patient did not receive at least two doses of the herpes zoster recombinant vaccine (at least 28 days apart) anytime on or after the patient’s 50th birthday before or during the measurement period equals No, proceed to check Data Completeness Not Met.

11. Check Data Completeness Not Met:

- If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.
Sample Calculations: Submission Criteria Three

Data Completeness equals Performance Met (a equals 40 patients) plus Denominator Exceptions (b plus c equals 10 patients) plus Performance Not Met (d equals 20 patients) divided by Eligible Population/Denominator (d equals 80 patients). All equals 70 patients divided by 80 patients. All equals 87.50 percent.

Performance Rate equals Performance Met (a equals 40 patients) divided by Data Completeness Numerator (70 patients) minus Denominator Exceptions (b plus c equals 10 patients). All equals 40 patients divided by 60 patients. All equals 66.67 percent.

*See the posted measure specification for specific coding and instructions to submit this measure.

Note: Submission Frequency: Patient-Periodic

The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification.

Submission Criteria Four:

1. Start with Denominator

2. Check Patients age 66 and older on the date of the encounter:
   a. If Patients age 66 and older on the date of the encounter equals No, do not include in Eligible Population/Denominator. Stop processing.
   b. If Patients age 66 and older on the date of the encounter equals Yes, proceed to check Patient encounter during the performance period as listed in Denominator*.

3. Check Patient encounter during the performance period as listed in Denominator*:
   a. If Patient encounter during the performance period as listed in Denominator* equals No, do not include in Eligible Population/Denominator. Stop processing.
   b. If Patient encounter during the performance period as listed in Denominator* equals Yes, proceed to check In hospice or using hospice services during the measurement period.

4. Check In hospice or using hospice services during the measurement period:
   a. If In hospice or using hospice services during the measurement period equals Yes, do not include in Eligible Population/Denominator. Stop processing.
   b. If In hospice or using hospice services during the measurement period equals No, include in Eligible Population/Denominator.

5. Denominator Population:
   - Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.

6. Start Numerator

7. Check Patient received any pneumococcal conjugate or polysaccharide vaccine on or after their 60th birthday and before the end of the measurement period:
a. If Patient received any pneumococcal conjugate or polysaccharide vaccine on or after their 60th birthday and before the end of the measurement period equals Yes, include in Data Completeness Met and Performance Met.

- Data Completeness Met and Performance Met is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a^4 equals 40 patients in the Sample Calculation.

b. If Patient received any pneumococcal conjugate or polysaccharide vaccine on or after their 60th birthday and before the end of the measurement period equals No, proceed to check Documentation of medical reason(s) for not administering pneumococcal vaccine (e.g., prior anaphylaxis due to the pneumococcal vaccine).

8. Check Documentation of medical reason(s) for not administering pneumococcal vaccine (e.g., prior anaphylaxis due to the pneumococcal vaccine):

a. If Documentation of medical reason(s) for not administering pneumococcal vaccine (e.g., prior anaphylaxis due to the pneumococcal vaccine) equals Yes, include in Data Completeness Met and Denominator Exception.

- Data Completeness Met and Denominator Exception is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b^5 equals 10 patients in the Sample Calculation.

b. If Documentation of medical reason(s) for not administering pneumococcal vaccine (e.g., prior anaphylaxis due to the pneumococcal vaccine) equals No, proceed to check Patient did not receive any pneumococcal conjugate or polysaccharide vaccine on or after their 60th birthday and before or during the measurement period.

9. Check Patient did not receive any pneumococcal conjugate or polysaccharide vaccine on or after their 60th birthday and before or during the measurement period:

a. If Patient did not receive any pneumococcal conjugate or polysaccharide vaccine on or after their 60th birthday and before or during the measurement period equals Yes, include in Data Completeness Met and Performance Not Met.

- Data Completeness Met and Performance Not Met is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c^4 equals 20 patients in the Sample Calculation.

b. If Patient did not receive any pneumococcal conjugate or polysaccharide vaccine on or after their 60th birthday and before or during the measurement period equals No, proceed to check Data Completeness Not Met.

10. Check Data Completeness Not Met:

- If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

Sample Calculations: Submission Criteria Four

Data Completeness equals Performance Met (a^4 equals 40 patients) plus Denominator Exception (b^5 equals 10 patients) plus Performance Not Met (c^4 equals 20 patients) divided by Eligible Population/Denominator (d^4 equals 80 patients). All equals 70 patients divided by 80 patients. All equals 87.50 percent.
Performance Rate equals Performance Met (a^4 equals 40 patients) divided by Data Completeness Numerator (70 patients) minus Denominator Exception (b^5 equals 10 patients). All equals 40 patients divided by 60 patients. All equals 66.67 percent.

*See the posted measure specification for specific coding and instructions to submit this measure.

Note: Submission Frequency: Patient-Periodic

The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification.

**Overall Sample Calculations:**

Overall Data Completeness equals Performance met (a^1 plus a^2 plus a^3 plus a^4 equals 160) plus Denominator Exceptions (b^1 plus b^2 plus b^3 plus b^4 plus b^5 equals 40) plus Performance Not Met (c^1 plus c^2 plus c^3 plus c^4 equals 80) divided by Eligible Population Denominator (d^1 plus d^2 plus d^3 plus d^4 equals 320). All equals 280 patients divided by 320 patients. All equals 87.50 percent.

Overall Performance Rates equal Performance Met (a^1 plus a^2 plus a^3 plus a^4 equals 160) divided by Data Completeness Numerator (280) minus Denominator Exceptions (b^1 plus b^2 plus b^3 plus b^4 equals 40). All equals 160 patients divided by 240 patients. All equals 66.67 percent.

*See the posted measure specification for specific coding and instructions to submit this measure.

Note: Submission Frequency: Patient-Periodic

The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification.