

Quality ID #394: Immunizations for Adolescents

2026 COLLECTION TYPE:

MERIT-BASED INCENTIVE PAYMENT SYSTEM (MIPS) CLINICAL QUALITY MEASURE (QCM)

MEASURE TYPE:

Process

DESCRIPTION:

The percentage of adolescents 13 years of age who had one dose of meningococcal vaccine (serogroups A, C, W, Y or A, C, W, Y, B), one tetanus, diphtheria toxoids and acellular pertussis (Tdap) vaccine, and have completed the Human Papillomavirus (HPV) vaccine series by their 13th birthday.

INSTRUCTIONS:

Reporting Frequency:

This measure is to be submitted a minimum of once per performance period for denominator eligible cases as defined in the denominator criteria.

Intent and Clinician Applicability:

This measure is intended to reflect the quality of services provided for patients 13 years of age and older who received adolescent immunizations. There is no diagnosis associated with this measure. Performance for this measure is not limited to the performance period. This measure may be submitted by Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the quality actions as defined by the numerator based on the services provided and the measure-specific denominator coding.

Measure Strata and Performance Rates:

This measure contains four strata defined by a single submission criteria.

This measure produces four performance rates.

This measure will be calculated with 4 performance rates:

- 1) Patients who had one dose of meningococcal vaccine (serogroups A, C, W, Y or A, C, W, Y, B), on or between the patient's 10th and 13th birthdays.
- 2) Patients who had one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays.
- 3) Patients who have completed the HPV vaccine series with different dates of service on or between the patient's 9th and 13th birthdays.
- 4) All patients who are compliant for Meningococcal (serogroups A, C, W, Y), Tdap and HPV during the specified timeframes.

For accountability reporting in the CMS MIPS program, the rate for Submission Criteria 4 is used for performance.

Implementation Considerations:

For the purposes of MIPS implementation of this measure, this patient-process measure is submitted a minimum of once per patient during the performance period. The most advantageous quality data code (QDC) will be used if the measure is submitted more than once.

Telehealth:

TELEHEALTH ELIGIBLE: This measure is appropriate for and applicable to the telehealth setting. Patient encounters conducted via telehealth using encounter code(s) found in the denominator encounter criteria are allowed for this measure. Therefore, if the patient meets all denominator criteria for a telehealth encounter, it would be appropriate to include them in

the denominator eligible patient population. Telehealth eligibility is at the measure level for inclusion within the denominator eligible patient population and based on the measure specification definitions which are independent of changes to coding and/or billing practices.

Measure Submission:

The quality data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this collection type for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. The coding provided to identify the measure criteria: Denominator or Numerator, may be an example of coding that could be used to identify patients that meet the intent of this clinical topic. When implementing this measure, please refer to the 'Reference Coding' section to determine if other codes or code languages that meet the intent of the criteria may also be used within the medical record to identify and/or assess patients. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

DENOMINATOR (SUBMISSION CRITERIA FOR ALL RATES):

Adolescents who turn 13 years of age during the measurement period.

DENOMINATOR NOTE:

The same denominator is used for all rates.

Denominator Criteria (Eligible Cases):

Patients who turn 13 years of age during the measurement period

AND

Patient encounter during the performance period (CPT or HCPCS): 98000, 98001, 98002, 98003, 98004, 98005, 98006, 98007, 98008, 98009, 98010, 98011, 98012, 98013, 98014, 98015, 98016, 99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, 99341, 99342, 99344, 99345, 99347, 99348, 99349, 99350, G0402

AND NOT

DENOMINATOR EXCLUSION:

Patients who use hospice services any time during the measurement period: G9761

NUMERATOR (PERFORMANCE RATE 1):

Adolescents who had one dose of meningococcal vaccine (serogroups A, C, W, Y or A, C, W, Y, B), on or between the patient's 10th and 13th birthdays.

Numerator Options:

Performance Met:

Patient had one dose of meningococcal vaccine (serogroups A, C, W, Y or A, C, W, Y, B) on or between the patient's 10th and 13th birthdays (**G9414**)

OR

Denominator Exception:

Patient had anaphylaxis due to the meningococcal vaccine any time on or before the patient's 13th birthday (**M1160**)

OR

Performance Not Met:

Patient did not have one dose of meningococcal vaccine (serogroups A, C, W, Y or A, C, W, Y, B), on or between the patient's 10th and 13th birthdays (**G9415**)

NUMERATOR (PERFORMANCE RATE 2):

Adolescents who had one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays.

Numerator Options:

Performance Met:

Patient had one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays (G9416)

OR

Denominator Exception:

Patient had anaphylaxis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday (M1161)

OR

Denominator Exception:

Patient had encephalitis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday (M1162)

OR

Performance Not Met:

Patient did not have one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays (G9417)

NUMERATOR (PERFORMANCE RATE 3):

Adolescents who completed the HPV vaccine series on or between the patient's 9th and 13th birthdays.

Numerator Options:

Performance Met:

Patient had at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays (G9762)

OR

Denominator Exception:

Patient had anaphylaxis due to the HPV vaccine any time on or before the patient's 13th birthday (M1163)

OR

Performance Not Met:

Patient did not have at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays (G9763)

NUMERATOR (PERFORMANCE RATE 4):

Adolescents who are numerator compliant for Rates 1, 2 and 3.

RATIONALE:

This measure assesses the percentage of adolescents 13 years of age who had one dose of meningococcal vaccine, one tetanus, diphtheria toxoids and acellular pertussis (Tdap) vaccine, and have completed the human papillomavirus (HPV) vaccine series by their 13th birthday. The measure calculates a rate for each vaccine and two combination rates. This measure follows the Advisory Committee on Immunization Practices (ACIP) guidelines for immunizations.^{[1],[2],[3]}

These vaccines are available for adolescents to prevent them from acquiring serious diseases and help protect against disease in populations that lack immunity, such as infants, the elderly and individuals with chronic conditions.

CLINICAL RECOMMENDATION STATEMENTS:

The Advisory Committee on Immunization Practices (ACIP) recommends routine HPV vaccination for adolescents at age 11 or 12 years; vaccination may be given starting at age 9 years. In a two-dose schedule of HPV vaccine, the minimum interval between the first and second doses is 5 months. Persons who initiated vaccination with 9vHPV, 4vHPV or 2vHPV before their 15th birthday and received 2 doses of any HPV vaccine at the recommended dosing schedule (0, 6–12 months), or received three doses of any HPV vaccine at the recommended dosing schedule (0, 1–2, 6 months), are considered adequately vaccinated (Meites, Kempe, and Markowitz 2016).

ACIP recommends a single dose of the Tdap vaccine be administered at age 11 or 12 years (Liang et al. 2018).

ACIP recommends routine vaccination with a quadrivalent meningococcal conjugate vaccine for adolescents aged 11 or 12 years, with a booster dose at age 16 years (Mbaeyi et al. 2020). In certain situations, a pentavalent vaccine may be administered to persons aged 10 years and older when both a quadrivalent meningococcal conjugate vaccine and meningococcal B vaccine are indicated at the same visit (Collins et al. 2024).

REFERENCES:

Meites, E., A. Kempe, L.E. Markowitz. 2016. "Use of a 2-Dose Schedule for Human Papillomavirus Vaccination—Updated Recommendations of the Advisory Committee on Immunization Practices." *MMWR Morb Mortal Wkly Rep* 65:1405–08. DOI: 10.15585/mmwr.mm6549a5.

Havers, F.P., P.L. Moro, P. Hunter, S. Hariri, H. Bernstein. 2020. "Use of Tetanus Toxoid, Reduced Diphtheria Toxoid, and Acellular Pertussis Vaccines: Updated Recommendations of the Advisory Committee on Immunization Practices—United States, 2019." *MMWR Morb Mortal Wkly Rep* 69:77–83.

Mbaeyi, S.A., C.H. Bozio, J. Duffy et al. 2020. "Meningococcal Vaccination: Recommendations of the Advisory Committee on Immunization Practices, United States, 2020." *MMWR Recomm Rep* 69(No. RR-9):1–41. <http://dx.doi.org/10.15585/mmwr.rr6909a1>

Meites, E., A. Kempe, L.E. Markowitz. 2016. "Use of a 2-Dose Schedule for Human Papillomavirus Vaccination—Updated Recommendations of the Advisory Committee on Immunization Practices." *MMWR Morb Mortal Wkly Rep* 65:1405–08. DOI: 10.15585/mmwr.mm6549a5.

Liang, J.L., T. Tiwari, P. Moro, N.E. Messonnier, A. Reingold, M. Sawyer, T.A. Clark. 2018. "Prevention of Pertussis, Tetanus, and Diphtheria with Vaccines in the United States: Recommendations of the Advisory Committee on Immunization Practices (ACIP)." *MMWR Morb Mortal Wkly Rep* 67(2):1–44. DOI: 10.15585/mmwr.rr6702a1.

Mbaeyi, S.A., C.H. Bozio, J. Duffy, et al. 2020. "Meningococcal Vaccination: Recommendations of the Advisory Committee on Immunization Practices, United States, 2020." *MMWR Recomm Rep* 69(No. RR-9):1–41. DOI: <http://dx.doi.org/10.15585/mmwr.rr6909a1>.

Collins, J.P., Crowe, S.J., Ortego-Sanchez, I.R., et al. 2024. "Use of Pfizer Pentavalent Meningococcal Vaccine Among Persons Aged ≥10 years: Recommendations of the Advisory Committee on Immunization Practices, United States, 2023." *MMWR Morb Mortal Wkly Rep* 73:345-350. DOI: <http://dx.doi.org/10.15585/mmwr.mm7315a4>.

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2026 Clinical Quality Measure Flow for Quality ID #394: Immunizations for Adolescents Multiple Performance Rates

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

ACCOUNTABILITY REPORTING IN THE CMS MIPS PROGRAM: SAMPLE CALCULATIONS

Overall Data Completeness (Performance Rate 4)*=

$$\frac{\text{Performance Met (a)=40 patients} + \text{Performance Not Met (c)=30 patients}}{\text{Eligible Population / Denominator (d)=80 patients}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

Overall Performance Rate (Performance Rate 4)*=

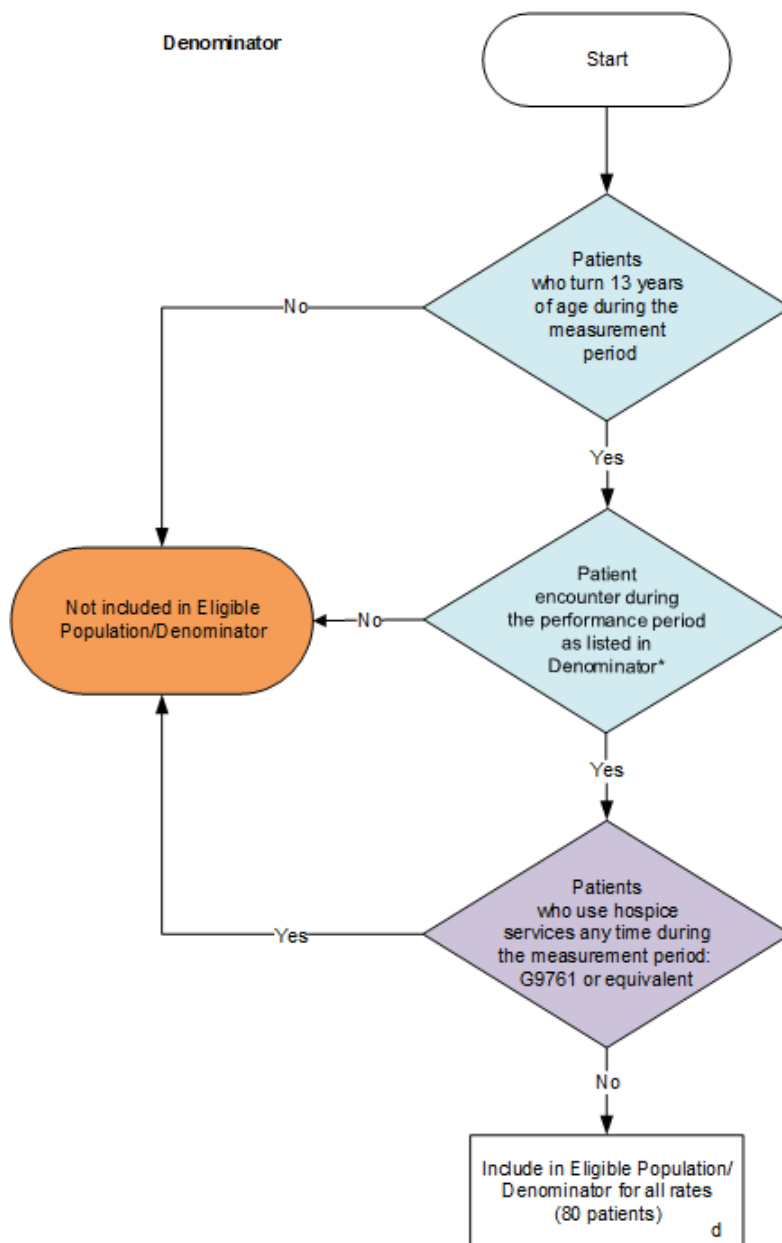
$$\frac{\text{Performance Met (a)=40 patients}}{\text{Data Completeness Numerator (70 patients)}} = \frac{40 \text{ patients}}{70 \text{ patients}} = 57.14\%$$

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

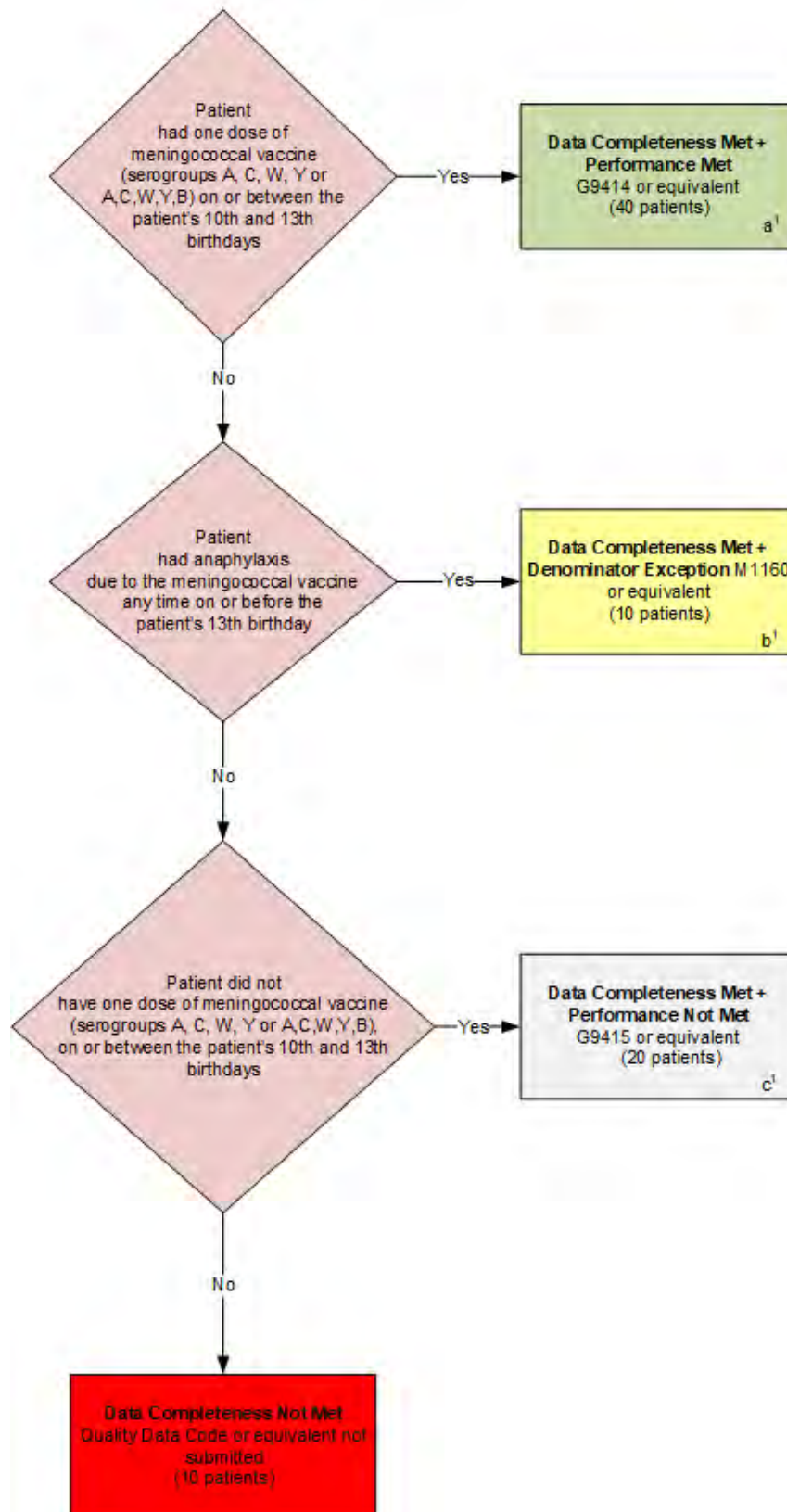
**Denominator criteria is the same for all rates

NOTE : Submission Frequency: Patient-Process

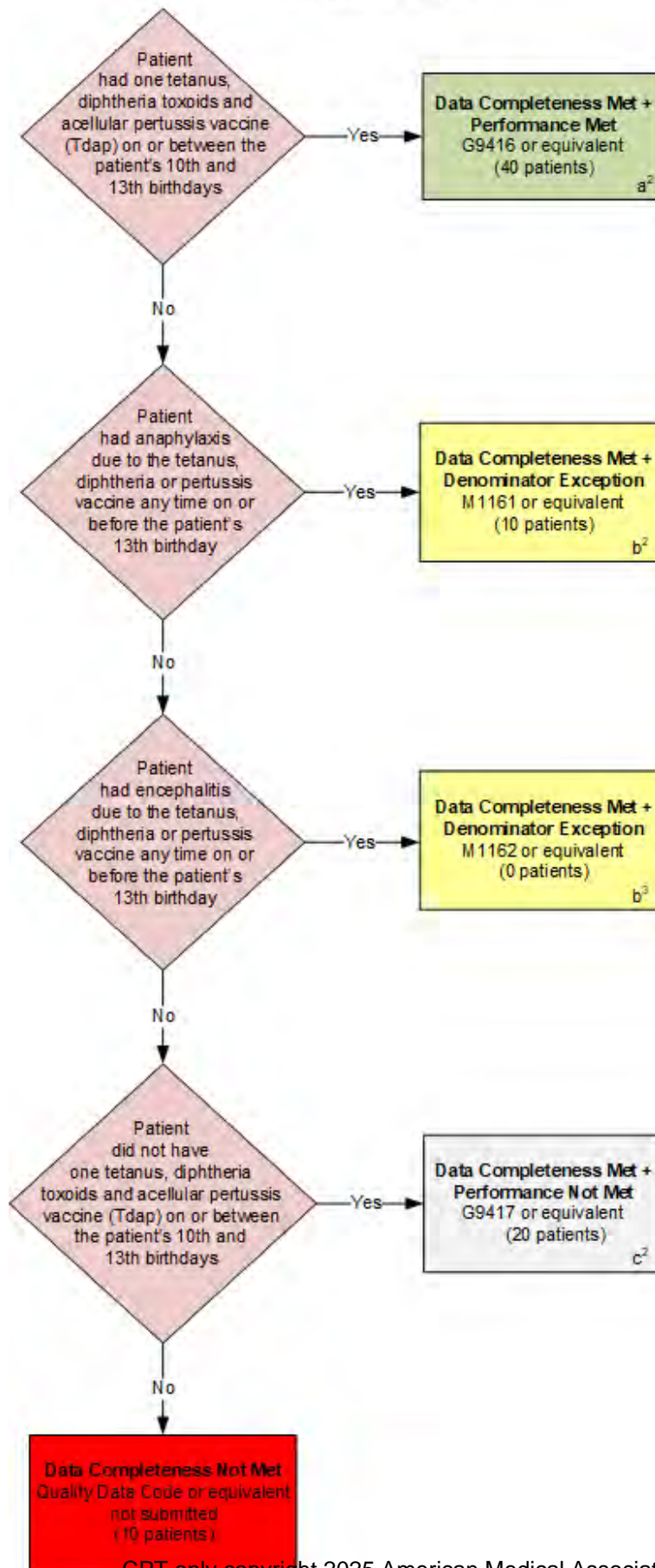
Submission Criteria For All Rates**



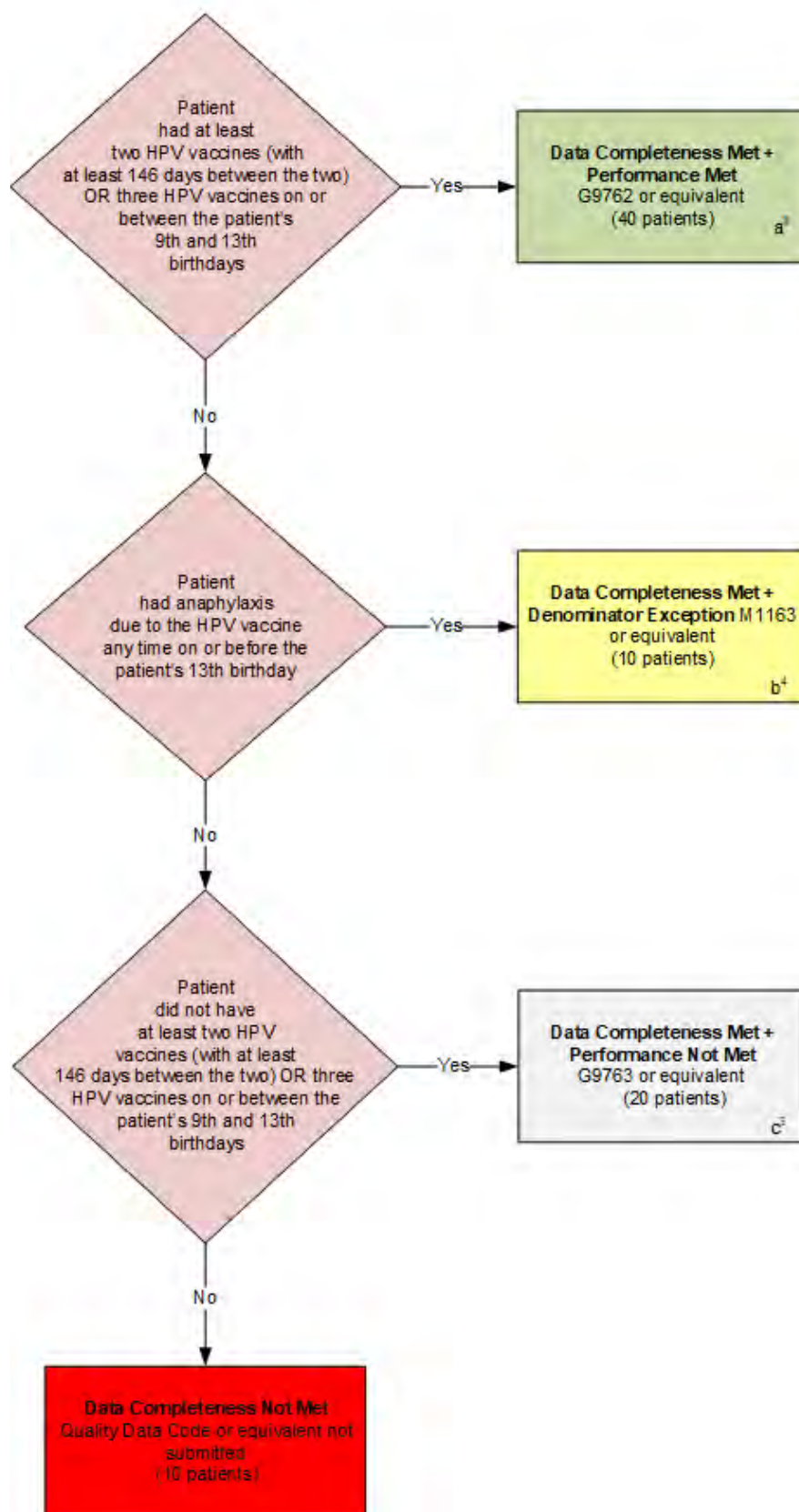
**Numerator
(Performance Rate 1)**



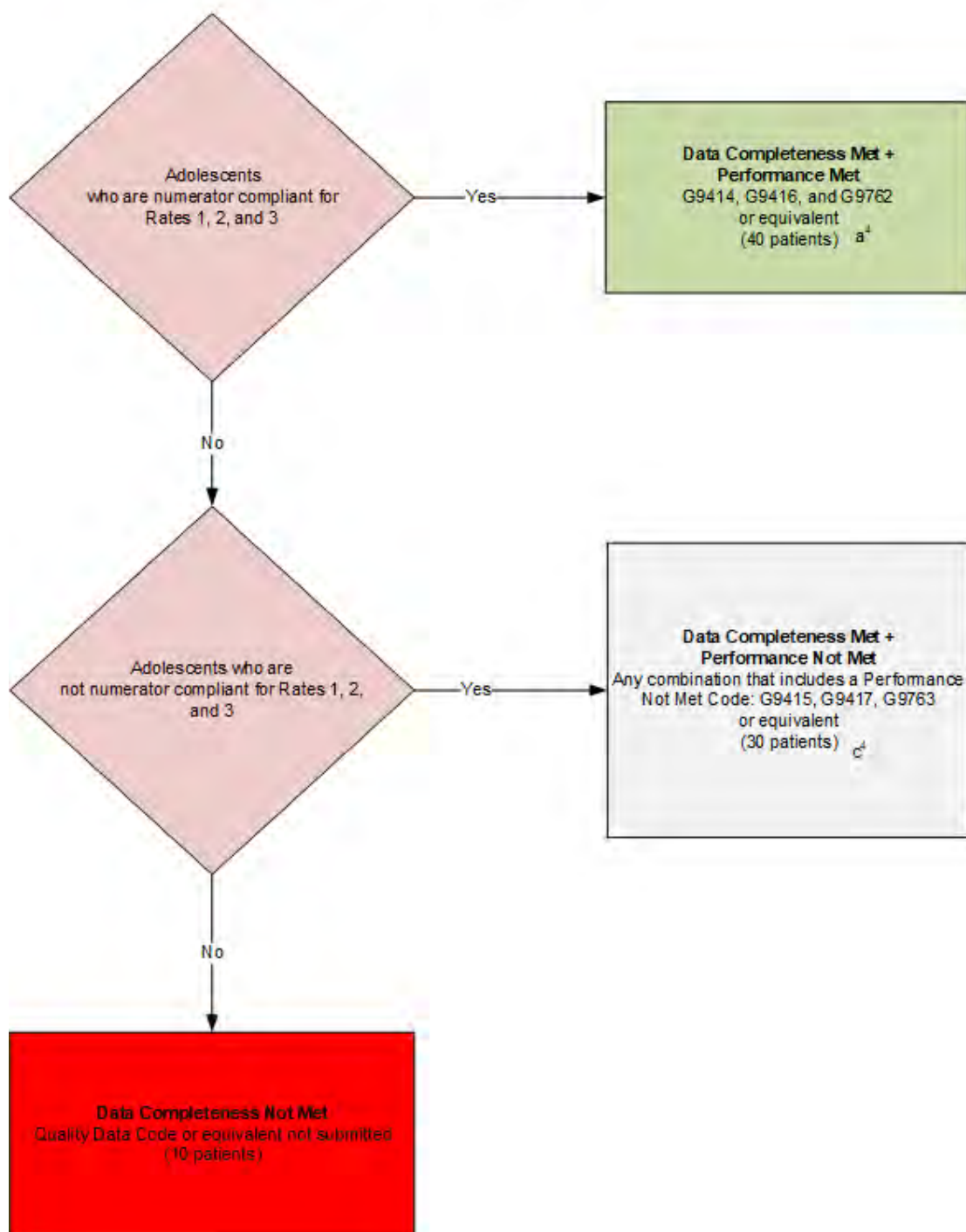
**Numerator
(Performance Rate 2)**



**Numerator
(Performance Rate 3)**



**Numerator
(Performance Rate 4)**



SAMPLE CALCULATION S: NUMERATOR PERFORMANCE RATE ONE

Data Completeness=

$$\frac{\text{Performance Met (a}^1\text{=40 patients)} + \text{Denominator Exception (b}^1\text{=10 patients)} + \text{Performance Not Met (c}^1\text{=20 patients)}}{\text{Eligible Population / Denominator (d=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met (a}^1\text{=40 patients)}}{\text{Data Completeness Numerator (70 patients) – Denominator Exception (b}^1\text{=10 patients)}} = \frac{40 \text{ patients}}{60 \text{ patients}} = 66.67\%$$

SAMPLE CALCULATION S: NUMERATOR PERFORMANCE RATE TWO

Data Completeness=

$$\frac{\text{Performance Met (a}^2\text{=40 patients)} + \text{Denominator Exceptions (b}^2\text{+b}^3\text{=10 patients)} + \text{Performance Not Met (c}^2\text{=20 patients)}}{\text{Eligible Population / Denominator (d=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met (a}^2\text{=40 patients)}}{\text{Data Completeness Numerator (70 patients) – Denominator Exceptions (b}^2\text{+b}^3\text{=10 patients)}} = \frac{40 \text{ patients}}{60 \text{ patients}} = 66.67\%$$

SAMPLE CALCULATION S: NUMERATOR PERFORMANCE RATE THREE

Data Completeness=

$$\frac{\text{Performance Met (a}^3\text{=40 patients)} + \text{Denominator Exception (b}^4\text{=10 patients)} + \text{Performance Not Met (c}^3\text{=20 patients)}}{\text{Eligible Population / Denominator (d=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met (a}^3\text{=40 patients)}}{\text{Data Completeness Numerator (70 patients) – Denominator Exception (b}^4\text{=10 patients)}} = \frac{40 \text{ patients}}{60 \text{ patients}} = 66.67\%$$

SAMPLE CALCULATION S: NUMERATOR PERFORMANCE RATE FOUR

Data Completeness=

$$\frac{\text{Performance Met (a}^4\text{=40 patients)} + \text{Performance Not Met (c}^4\text{=30 patients)}}{\text{Eligible Population / Denominator (d=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met (a}^4\text{=40 patients)}}{\text{Data Completeness Numerator (70 patients)}} = \frac{40 \text{ patients}}{70 \text{ patients}} = 57.14\%$$

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

**Denominator criteria is the same for all rates

NOTE: Submission Frequency: Patient-Process

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in conjunction with the measure specifications. They should not be used alone or as a
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2026 Clinical Quality Measure Flow Narrative for Quality ID #394: Immunization for Adolescents

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

Multiple Performance Rates

Accountability Reporting in the CMS MIPS Program: Sample Calculations:

Overall Data Completeness (Performance Rate 4)* equals Performance Met (a⁴ equals 40 patients) plus Performance Not Met (c⁴ equals 30 patients) divided by Eligible Population/Denominator (d equals 80 patients). All equals 70 patients divided by 80 patients. All equals 87.50 percent.

Overall Performance Rate (Performance Rate 4)* equals Performance Met (a⁴ equals 40 patients) divided by Data Completeness Numerator (70 patients) All equals 40 patients divided by 70 patients. All equals 57.14 percent.

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

**Denominator criteria is the same for all rates

NOTE: Submission Frequency: Patient-Process

Submission Criteria For All Rates**:

1. Start with Denominator
2. Check *Patients who turn 13 years of age during the measurement period*:
 - a. If *Patients who turn 13 years of age during the measurement period* equals No, do not include in *Eligible Population/Denominator*. Stop processing.
 - b. If *Patients who turn 13 years of age during the measurement period* 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 *Patients who use hospice services any time during the measurement period*.
4. Check *Patients who use hospice services any time during the measurement period*:
 - a. If *Patients who use hospice services any time during the measurement period* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.
 - b. If *Patients who use hospice services any time 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 for all rates.
6. Start Numerator Performance Rate 1

7. Check *Patient had one dose of meningococcal vaccine (serogroups A, C, W, Y or A, C, W, Y, B) on or between the patient's 10th and 13th birthdays*:
 - a. If *Patient had one dose of meningococcal vaccine (serogroups A, C, W, Y or A, C, W, Y, B) on or between the patient's 10th and 13th birthdays* 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 the Sample Calculation.
 - b. If *Patient had one dose of meningococcal vaccine (serogroups A, C, W, Y or A, C, W, Y, B) on or between the patient's 10th and 13th birthdays* equals No, proceed to check *Patient had anaphylaxis due to the meningococcal vaccine any time on or before the patient's 13th birthday*.
8. Check *Patient had anaphylaxis due to the meningococcal vaccine any time on or before the patient's 13th birthday*.
 - a. If *Patient had anaphylaxis due to the meningococcal vaccine any time on or before the patient's 13th birthday* equals Yes, include in *Data Completeness Met and Denominator Exception*.
 - *Data Completeness Met and Denominator Exception* letter 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 *Patient had anaphylaxis due to the meningococcal vaccine any time on or before the patient's 13th birthday* equals No, proceed to check *Patient did not have one dose of meningococcal vaccine (serogroups A, C, W, Y or A, C, W, Y, B), on or between the patient's 10th and 13th birthdays*.
9. Check *Patient did not have one dose of meningococcal vaccine (serogroups A, C, W, Y or A, C, W, Y, B), on or between the patient's 10th and 13th birthdays*:
 - a. If *Patient did not have one dose of meningococcal vaccine (serogroups A, C, W, Y or A, C, W, Y, B), on or between the patient's 10th and 13th birthdays* equals Yes, include in the *Data Completeness Met and Performance Not Met*.
 - *Data Completeness Met and Performance Not Met* letter is represented as Data Completeness Rate 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 have one dose of meningococcal vaccine (serogroups A, C, W, Y or A, C, W, Y, B), on or between the patient's 10th and 13th birthdays* equals No, proceed to check *Data Completeness Not Met*.
10. Check *Data Completeness Not Met*.
 - a. 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.

Numerator Performance Rate 2:

1. Start with Numerator Performance Rate 2
2. Check *Patient had one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays*:
 - a. If *Patient had one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays* 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 a² equals 40 patients in the Sample Calculation.
- b. If Patient had one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays equals No, proceed to check Patient had anaphylaxis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday.
3. Check Patient had anaphylaxis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday:
 - a. If Patient had anaphylaxis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday equals Yes, include in *Data Completeness Met and Denominator Exception*.
 - *Data Completeness Met and Denominator Exception* letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b² equals 10 patients in the Sample Calculation.
 - b. If Patient had anaphylaxis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday equals No, proceed to check Patient had encephalitis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday.
 4. Check Patient had encephalitis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday:
 - a. If Patient had encephalitis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday equals Yes, include in *Data Completeness Met and Denominator Exception*.
 - *Data Completeness Met and Denominator Exception* letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b³ equals 0 patients in the Sample Calculation.
 - b. If Patient had encephalitis due to the tetanus, diphtheria or pertussis vaccine any time on or before the patient's 13th birthday equals No, proceed to check Patient did not have one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays.
 5. Check Patient did not have one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays:
 - a. If Patient did not have one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays equals Yes, include in the *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 c² equals 20 patients in the Sample Calculation.
 - b. If Patient did not have one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) on or between the patient's 10th and 13th birthdays equals No, proceed to check *Data Completeness Not Met*.
 6. 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.

Numerator Performance Rate 3:

1. Start with Numerator Performance Rate 3
2. Check *Patient had at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays*:
 - a. If *Patient had at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays* 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 a³ equals 40 patients in the Sample Calculation.
 - b. If *Patient had at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays* equals No, proceed to check *Patient had anaphylaxis due to the HPV vaccine any time on or before the patient's 13th birthday*.
3. Check *Patient had anaphylaxis due to the HPV vaccine any time on or before the patient's 13th birthday*:
 - a. If *Patient had anaphylaxis due to the HPV vaccine any time on or before the patient's 13th birthday* equals Yes, include in *Data Completeness Met and Denominator Exception*.
 - *Data Completeness Met and Denominator Exception* letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b⁴ equals 10 patients in the Sample Calculation.
 - b. If *Patient had anaphylaxis due to the HPV vaccine any time on or before the patient's 13th birthday* equals No, proceed to check *Patient did not have at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays*.
4. Check *Patient did not have at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays*:
 - a. If *Patient did not have at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays* equals Yes, include in the *Data Completeness Met and Performance Not Met*.
 - *Data Completeness Met and Performance Not Met* letter is represented as Data Completeness Rate 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 have at least two HPV vaccines (with at least 146 days between the two) OR three HPV vaccines on or between the patient's 9th and 13th birthdays* equals No, proceed to check *Data Completeness Not Met*.
5. Check *Data Completeness Not Met*:
 - a. 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.

Numerator Performance Rate 4:

1. Start with Numerator Performance Rate 4

2. Check *Adolescents who are numerator compliant for Rates 1, 2, and 3*:
 - a. If *Adolescents who are numerator compliant for Rates 1, 2, and 3* equals Yes, include in the *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 a⁴ equals 40 patients in the Sample Calculation.
 - b. If *Adolescents who are numerator compliant for Rates 1, 2, and 3* equals No, proceed to check *Adolescents who are not numerator compliant for Rates 1, 2, and 3*.
3. Check *Adolescents who are not numerator compliant for Rates 1, 2, and 3*:
 - a. If *Adolescents who are not numerator compliant for Rates 1, 2, and 3* equals Yes, include in the *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 c⁴ equals 30 patients in the Sample Calculation.
 - b. If *Adolescents who are not numerator compliant for Rates 1, 2, and 3* equals No, proceed to check *Data Completeness Not Met*.
4. Check *Data Completeness Not Met*:
 - a. 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:

Numerator Performance Rate 1:

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.

Numerator Performance Rate 2:

Data Completeness equals Performance Met (a² equals 40 patients) plus Denominator Exceptions (b² + b³ equals 10 patients) plus Performance Not Met (c² 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 (a² equals 40 patients) divided by Data Completeness Numerator (70 patients) minus Denominator Exceptions (b² + b³ equals 10 patients). All equals 40 patients divided by 60 patients. All equals 66.67 percent.

Numerator Performance Rate 3:

Data Completeness equals Performance Met (a³ equals 40 patients) plus Denominator Exception (b⁴ equals 10 patients) plus Performance Not Met (c³ 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 (a³ equals 40 patients) divided by Data Completeness Numerator (70 patients) minus Denominator Exception (b⁴ equals 10 patients). All equals 40 patients divided by 60 patients. All equals 66.67 percent.

Numerator Performance Rate 4:

Data Completeness equals Performance Met (a⁴ equals 40 patients) plus Performance Not Met (c⁴ equals 30 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 (a⁴ equals 40 patients) divided by Data Completeness Numerator (70 patients) All equals 40 patients divided by 70 patients. All equals 57.14 percent.

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

** Denominator criteria is the same for all rates

NOTE: Submission Frequency: Patient-Process

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.