# *Proposed New Measure for HEDIS®[1] 2009:* Immunizations for Adolescents (IMA)

NCQA seeks feedback on a proposed new measure for the HEDIS 2009 measurement set: *Immunizations for Adolescents*. The measure evaluates the percentage of adolescents who had one dose of meningococcal (MCV4 or MPSV4) vaccine and one tentanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) or diphtheria toxoids (Td) vaccine by their 13th birthday. The measure calculates a rate for each vaccine and one combination rate.

The measure focuses on recently approved vaccinations specific for the adolescent population. It follows the Centers for Disease Control and Prevention (CDC) and the Advisory Council on Immunization Practices (ACIP) guidelines for immunizations, which currently recommend that preadolescents 11–12 years of age receive a single dose of Tdap or a Td booster (with a move toward phasing out the Td booster) and an MCV4 or MPSV4 vaccine.

Changes to the guidelines are implemented within HEDIS (e.g., new vaccine recommendations) after three years to account for the measure's look-back period and to give the industry time to adapt to the new guidelines. Optional exclusions for these vaccinations are consistent with the CDC contraindication recommendations.

The *Immunization for Adolescents* measure was created to improve the immunization status information collected and reported for the adolescent age group. The previous *Adolescent Immunization* measure (now retired) did not focus on whether adolescents received the correct immunizations at the recommended age; rather, it measured vaccination catch-up.

Supporting documents for the proposed measure include the draft measure specifications and associated measure rationale work-up, which contains data obtained through field-testing measure specifications.

**NCQA thanks and acknowledges the contributions of the Centers for Disease Control and Prevention.**

[1] HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

# *Immunizations for Adolescents (IMA)*

## SUMMARY OF CHANGES TO HEDIS 2009

- First-year measure.

## Description

The percentage of adolescents 13 years of age who had one dose of Meningococcal conjugate vaccine, one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) or one tetanus, diphtheria toxoids vaccine (Td) by their 13th birthday. The measure calculates a rate for each vaccine and one combination rate.

## Eligible Population

| | |
|---|---|
| **Product lines** | Commercial, Medicaid (report each product line separately). |
| **Age** | Adolescents who turn 13 years of age during the measurement year. |
| **Continuous enrollment** | 12 months prior to the member's 13th birthday. |
| **Allowable gap** | No more than one gap in enrollment of up to 45 days during the 12 months prior to the 13th birthday. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not continuously enrolled). |
| **Anchor date** | Enrolled on the member's 13th birthday. |
| **Benefit** | Medical. |
| **Event/diagnosis** | None. |

## Administrative Specification

| | |
|---|---|
| **Denominator** | The eligible population. |
| **Numerators** | For meningococcal conjugate and Tdap or Td, count *only* the following.<br>• Evidence of the antigen or combination vaccine<br><br>For combination vaccinations that require more than one antigen (i.e., Tdap or Td), the organization must find evidence of all the antigens. |
| ***Meningococcal*** | One meningococcal conjugate or meningococcal polysaccharide vaccine on or between the member's 11th and 13th birthdays. |
| ***Tdap/Td*** | One tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) or one tetanus, diphtheria toxoids vaccine (Td) on or between the member's 10th and 13th birthdays. |

***Combination 1 (Meningococcal, Tdap/Td)*** Adolescents who received one meningococcal conjugate or polysaccharide vaccine on or between the members 11th and 13th birthday and one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) or one tetanus, diphtheria toxoids vaccine (Td) on or between the member's 10th and 13th birthday.

### Table AIS-A: Codes to Identify Adolescent Immunizations

| Immunization | CPT | ICD-9-CM Procedure |
|---|---|---|
| Meningococcal conjugate | 90734 | 99.48 |
| Meningococcal polysaccharide vaccine | 90733 | |
| Tdap | 90715 | |
| Td | 90714, 90718 | |

### Exclusion *(optional)*

Adolescents who had a contraindication for a specific vaccine may be excluded from the denominator for all antigen rates and the combination rate. The denominator for all rates must be the same. An organization that excludes contraindicated adolescents may do so only for adolescents where the administrative data do not indicate that the contraindicated immunization was rendered. The exclusion must have occurred by the 13th birthday.

The organization should look for exclusions as far back as possible in the member's history and use the codes in Table AIS-B to identify exclusions.

### Table AIS-B: Codes to Identify Exclusions

| Immunization | Description | ICD-9-CM Diagnosis |
|---|---|---|
| Any particular vaccine | Anaphylactic reaction to the vaccine or its components | 999.4 |

## Hybrid Specification

**Denominator** A systematic sample drawn from the eligible population for each product line. For information on reducing the sample size, refer to the *Guidelines for Calculations and Sampling.*

**Numerators** For meningococcal conjugate or polysaccharide and Tdap or Td, count *only* the following.

- Evidence of the antigen or combination vaccine

For combination vaccinations that require more than one antigen (i.e., Tdap or Td), the organization must find evidence of all the antigens.

***Administrative*** Refer to the *Administrative Specification* above to identify positive numerator hits from the administrative data.

***Medical record*** For immunization information obtained from the medical record, the organization may count members where there is evidence that the antigen was rendered from:

- A note indicating the name of the specific antigen and the date of the immunization, ***or***
- A certificate of immunization prepared by an authorized health care provider or agency including the specific dates and types of immunizations administered.

### Exclusion *(optional)*

Refer to the *Administrative Specification* above for exclusion criteria. The exclusion must have occurred by the 13th birthday.

### *Note*

- *NCQA follows the Centers for Disease Control and Prevention (CDC) and Advisory Council on Immunization Practices (ACIP) guidelines for immunizations. HEDIS implements the guidelines after three years to account for the measure's look-back period and to allow the industry time to adapt to the new guidelines.*

## Data Elements for Reporting

An organization that submits HEDIS data to NCQA must provide the following data elements.

**Table AIS-1/2: Data Elements for Adolescent Immunization Status**

| | Administrative | Hybrid |
|---|---|---|
| Measurement year | ✓ | ✓ |
| Data collection methodology (administrative or hybrid) | ✓ | ✓ |
| Eligible population | ✓ | ✓ |
| Number of numerator events by administrative data in eligible population (before exclusions) | | *Each of the 3 rates* |
| Current year's administrative rate (before exclusions) | | *Each of the 3 rates* |
| Minimum required sample size (MRSS) or other sample size | | ✓ |
| Oversampling rate | | ✓ |
| Final sample size (FSS) | | ✓ |
| Number of numerator events by administrative data in FSS | | *Each of the 3 rates* |
| Administrative rate on FSS | | *Each of the 3 rates* |
| Number of original sample records excluded because of valid data errors | | ✓ |
| Number of administrative data records excluded | | ✓ |
| Number of medical record data records excluded | | ✓ |
| Number of employee/dependent medical records excluded | | ✓ |
| Records added from the oversample list | | ✓ |
| Denominator | | ✓ |
| Numerator events by administrative data | *Each of the 3 rates* | *Each of the 3 rates* |
| Numerator events by medical records | | *Each of the 3 rates* |
| Reported rate | *Each of the 3 rates* | *Each of the 3 rates* |
| Lower 95% confidence interval | *Each of the 3 rates* | *Each of the 3 rates* |
| Upper 95% confidence interval | *Each of the 3 rates* | *Each of the 3 rates* |

# *Proposed New Measure for HEDIS 2009:*
# Immunizations for Adolescents (IMA) Measure Work-Up

| Information Required | Comment/Standardized Answer |
|---|---|
| **ABSTRACT/IDENTIFYING INFORMATION** | |
| *Measure Name:* Immunizations for Adolescents | |
| *Measure Set Name:* Identifies the name of the measure set to which the measure belongs (if applicable). | This measure is under development as a new measure for consideration of inclusion in HEDIS® 2009. |
| *Measure Description*: A concise statement about the measure that includes the specific aspects of healthcare addressed, the level of analysis, care or service settings, the time period the measure addresses (e.g., daily, yearly, monthly).<br><br>*Measure History:* Past and current state of use of the measure; how long the measure has been used; the vetting process to ensure the integrity of the measure (e.g., use of technical advisory panels, Public Comment period) and any publications of studies (or in public reporting programs, such as the state) in which the performance of the measure is demonstrated.<br>*Attach a list of all publication of studies in which this measure was used (a PubMed list can be attached).* | ☐ Publications list attached<br>☒ There are no publications in which this measure was used.<br>☒ Measure has been field-tested.<br><br>*Description:* The percentage of adolescents 13 years of age who had one dose of meningococcal conjugate or polysaccharide vaccine, and one tetanus, diphtheria toxoids, acellular pertussis vaccine (Tdap) or one tetanus, diphtheria toxoids vaccine (Td) by their 13th birthday. The measure calculates a rate for each vaccine and one combination rate.<br><br>*Measure History:* This measure was developed by NCQA staff with support and review from clinical and technical experts, based on best available evidence in alignment with the Advisory Committee on Immunization Practices (ACIP) and Centers for Disease Control and Prevention (CDC) guidelines. The measure concept was field-tested using both electronic and medical record data sources. The CPM approved it to move on to public comment as the next phase of development. |
| **IMPORTANCE** | |
| *Measure Rationale:* The importance of this measure (i.e., why it is used). The rationale should incorporate relevant statistics that illustrate the cost or burden of poor quality in this area and the availability of accepted tools, practices or information for improvement.<br><br>In addition, if this is a measure similar to another measure already NQF endorsed (e.g., a diabetes measure), an explanation of how this measure will complement or perform better than those in use should be provided. | ☐ No prior existing measure<br>☒ *Other* Prior existing measure (Adolescent Immunization Status HEDIS measure) was retired. This new measure focuses more specifically on vaccines appropriate for administration to the adolescent population rather than vaccine catch up for missed childhood vaccinations.<br><br>Vaccination has been recognized as a leading medical achievement of the 20th century and the U.S. early childhood immunization program that focuses on infant and early childhood immunizations has been a remarkable success (NFID, 2004). Translating that success to the adolescent population is of significant health importance because the failure to do so can result in outbreaks of vaccine-preventable diseases, increased disease-associated costs and reservoirs of disease in the adolescent population that can affect others, including infants and the elderly. The diseases prevented by recommended adolescent vaccines—pertussis, meningococcal disease, HPV infection and eventually, cervical cancer—can be serious and deadly. Preventing these diseases is a significant public health accomplishment. |

| Information Required | Comment/Standardized Answer |
|---|---|
| | IMPORTANCE |
| | Preventing disease through vaccination eliminates the costs associated with treating that disease including doctor visits and hospital stays, as well as time lost from work for parents. A study analyzing a cohort of 4.1 million children estimated that 2.87 million pertussis cases would occur, resulting in 1,131 deaths; 276,750 diphtheria cases, resulting in 27,675 deaths; and 165 tetanus cases, resulting in 25 deaths. From the societal perspective, these cases would cost $23,536.5 million, with approximately $18,772.4 million (80%) for diphtheria and $4,770.1 million (20%) for pertussis (Ekwueme, D.U., P.M. Strebel, S.C. Hadler, M.I. Meltzer, J.W. Allen and J.R. Livengood, 2000). With the use of the Tdap vaccine, the number of diphtheria, tetanus and pertussis cases has been reduced by 99%, 93% and 96%, respectively (Ekwueme, D.U., P.M. Strebel, S.C. Hadler, M.I. Meltzer, J.W. Allen, and J.R. Livengood, 2000).<br>Costs associated with pertussis cases include medical costs of visits and treatment, as well as nonmedical costs that include time missed from work or school. The mean medical cost of an adolescent case of pertussis can reach $256 for severe cases, and $416 when nonmedical expenses are included (figures in 2004 dollars). The total costs associated with pertussis are highly dependent on the incidence estimate of the disease, which ranged from 155 per 100,000 to 507 per 100,000 across two studies (CDC, 2006).<br>Data from the CDC estimated the direct costs of meningococcal disease at $13,431 per case in 1995 dollars (Levine, 1996). The estimated lifetime costs of sequelae ranged from $44,000 for cases of hearing loss to almost $865,000 for severe retardation. Indirect costs in lost productivity were estimated to be $1 million per case (NFID, 2005). Because of the potential severity of the disease, the financial costs per case of meningococcal disease are high per case but low for society due to the low incidence.<br><br>References<br>Center for Disease Prevention and Control. Preventing Tetanus, Diphtheria, and Pertussis Among Adolescents: Use of Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis Vaccines: Recommendations of the Advisory Committee on Immunization Practices. *MMWR.* March 24, 2006.<br>Ekwueme, D.U., P.M. Strebel, S.C. Hadler, M.I. Meltzer, J.W. Allen, and J.R. Livengood. Economic Evaluation of Use of Diphtheria, Tetanus, and Acellular Pertussis Vaccine or Diphtheria Tetanus, and Whole-Cell Pertussis Vaccine in the United States, 1997. *Arch Pediatr Adolesc Med*. 2000; 154: 797-803.<br>Levine, O.S., P. Shaffer, A. Haddix, and B.A. Perkins. *Cost-effectiveness analysis for routine immunization with a quadrivalent meningococcal polysaccharide protein conjugate vaccine in the United States.* Presented at the Tenth International Pathogenic Neisseria Conference, Baltimore, MD, September 1996.<br>National Foundation for Infectious Disease. Reducing the Impact of Meningococcal Disease in Adolescents and Young Adults. July 2005. |

| Information Required | Comment/Standardized Answer |
|---|---|
| | IMPORTANCE |
| *Key Leverage Point:* Provides a description of the current gap between actual and potential performance that allows room for improvement. Key leverage point includes description of:<br>• Variation in quality. Geographic, demographic, coverage or other factors.<br>• Significant opportunity for improvement. Performance in the area is substandard, and thus significant opportunity exists for improvement. This may be independent of variation, in cases where quality is consistently poor.<br>• Relevance to consumers or purchasers (e.g., safety concerns). Variation in costs/resource utilization (i.e., underuse, overuse or misuse) | In the United States, adolescent immunization rates have historically lagged behind early childhood immunization rates. In 2000, the American Academy of Pediatrics reported that 35 million adolescents failed to receive at least one recommended vaccination (Little, 2000). Low immunization rates among adolescents have the potential to cause outbreaks of preventable diseases and to establish reservoirs of disease in adolescents that can affect other populations including infants, the elderly and individuals with chronic conditions. Immunization recommendations for adolescents have changed in recent years. In addition to catch-up immunizations that may have been missed during childhood and infancy, there are new vaccines targeted specifically to adolescents. In December 2006, the ACIP recommended the following immunizations for adolescents age 11–12 years:<br>• 1 dose Tdap (or Td)<br>• 1 dose MCV4 (or MPSV4)<br>Preventing pertussis in adolescents would reduce disease among that population and perhaps others by eliminating a reservoir of the disease. Pertussis symptoms can be unpleasant and last for months but long term effects are rare. Meningococcal disease, on the other hand, can be deadly or debilitating. MCV4 has the potential to prevent morbidity and mortality among vaccinated adolescents as well as create a herd immunity effect, but the strategic importance is lessened due to low incidence of the disease. The fact that meningococcal disease requires a public health response is communicable and can cause significant stress within a community increases its strategic importance.<br>Pertussis is an acute respiratory infection characterized by a prolonged cough. It is a highly communicable disease that is transmitted via respiratory droplets from coughing or sneezing. A vaccine against the disease—DTP or pediatric diphtheria and tetanus toxoids—has been routinely recommended for young children since the 1940s. Early childhood vaccination resulted in dramatic declines in cases of pertussis to an historic low of 1,010 in 1976, but since the 1980s the number of cases has been increasing, especially among adolescents and adults (CDC 2006; CDC 2005; Farizo 1992; Guris 1999). A primary reason for the continued circulation of pertussis is that immunity to pertussis wanes approximately 5–10 years after completion of the childhood pertussis vaccination, leaving adolescents and adults vulnerable. Vaccinating adolescents against pertussis would not only protect against disease but would likely reduce the reservoir of pertussis within the population at large thereby reducing the risk for vulnerable populations such as infants.<br>During 2004, a total of 25,827 cases of pertussis were reported in the U.S. and 8,897 of those (34%) were among adolescents for an incidence for adolescents of 30 per 100,000 (CDC 2005). From 1996–2004, Massachusetts' enhanced surveillance system reported an average annual incidence among adolescents of 93 per 100,000 (CDC 2005). The incidence of pertussis varies widely from state to state and from year to year. One reason for the variance is that reported cases of pertussis in adolescents often happen in outbreaks at schools where close interaction occurs among large number of students with waning immunity (CDC 2005).<br>Data from enhanced surveillance sites and prospective studies indicate that the national passive surveillance data substantially underestimate the true incidence of pertussis because reliable diagnostic tests are not widely available and not all diagnosed cases are reported. One study suggested that approximately 1 million cases of pertussis occur annually among persons over age 15 years in the U.S. (Ward 2005).<br>Meningococcal disease is a serious illness caused by the bacterium neisseria meningitides, which can cause meningitis and meningococcemia, an infection of the blood. The disease affects up to 2,600 people in the U.S. every year and is a leading cause of bacterial meningitis in children 2–18 years of age in the U.S. (HealthLink 2004). Incidence of meningococcal disease is highest in children under 2 years, but also spikes in adolescents and young adults. In the 1990s, 13%–14% of disease nationwide was in persons 11–18 years (NIFD 2005). Other studies have shown that the disease peaks in 15–18-year-olds and that adolescents have the highest fatality rate, at about 20% (AAP 2005). |

| Information Required | Comment/Standardized Answer |
|---|---|
| | IMPORTANCE |
| | Most cases of meningococcal disease are sporadic—less than 5% of cases occur in outbreaks—but the frequency of outbreaks has increased (Jackson 1995; Woods 1998). Each case requires a public health response which includes contact tracing and antimicrobial prophylaxis. The meningococcus bacterium is spread by direct, close contact with respiratory and oral secretions of an infected person. It is often misdiagnosed because early symptoms (including sudden onset of fever, headache and stiff neck) are similar to the flu. The infection can develop and spread very quickly within the body. Even with rapid and appropriate treatment, the disease can kill an otherwise healthy young person in 48 hours or less (NFID, 2005). Statistics show that even with treatment, 10%–15% of those who get the disease will die and 20% of survivors suffer permanent problems, including brain damage, kidney damage, hearing loss or limb amputation (NFID 2005). Antibiotics are also recommended for those in close contact with an identified case of meningococcal disease.<br>Many states have mandates regarding meningococcal disease and college students residing on campus. The majority of states (n=33) require education about the disease and strategies for prevention. Twelve states require proof of the vaccination or a waiver for incoming students residing on campus (Immunization Action Coalition 2006).<br><br>References<br>Center for Disease Prevention and Control (CDC). Prevention and Control of Meningococcal Disease: Recommendations for the Advisory Committee on Immunization Practices. *MMWR*. June 30, 2000.<br>CDC. Prevention and Control of Meningococcal Disease: Recommendation of the Advisory Committee on Immunization Practices. *MMWR.* May 27, 2005.<br>CDC. Preventing Tetanus, Diphtheria, and Pertussis Among Adolescents: Use of Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis Vaccines: Recommendations of the Advisory Committee on Immunization Practices. *MMWR.* March 24, 2006.<br>Farizo, K.M., S.L. Cochi, E.R. Zell, et al. Epidemiological features of pertussis in the United States, 1980–1989. *Clinical Infectious Disease.* 1992;14:708-719.<br>Guris, D., P.M. Strebel, B. Bardenheier, et al. Changing epidemiology of pertussis in the United States: increasing reported incidence among adolescents and adults, 1990-1996. *Clinical Infectious Disease.* 1999;28:1230-1237.<br>HealthLink. *The Facts about Meningococcal Disease.* Medical College of Wisconsin, September 2004.<br>Immunization Action Coalition. *Meningococcal Prevention Mandates for Colleges and Universities.* October 2006. http://www.immunize.org/laws/menin.htm.<br>Oster, N., C. McPhillips-Tangum, F. Averhoff, et al. Barriers to adolescent immunization: a survey of family physicians and pediatricians. *J Am Board Fam Pract.* 2005;18:13-19.<br>Jackson, L.W., A. Schuchat, M.W. Reeves, et al. Serogroup C meningococcal outbreaks in the United Stated: an emerging threat. *JAMA.* 1995;273:;383-389.<br>Little, J. 35 million teens missing recommended vaccines. *AAP News.* 2000;17(3):81. http://aapnews.aappublications.org/cgi/content/full/17/3/81<br>National Foundation for Infectious Disease. *Reducing the Impact of Meningococcal Disease in Adolescents and Young Adults.* July 2005.<br>Woods, C.R., N. Rosenstein, B.A. Perkins. *Neisseria meningitides outbreaks in the United States: 1994-1997.* In Abstracts of the 38th Annual Meeting of the Infectious Diseases Society of America; Denver, Colorado; November 12–15, 1998;8:50-56. |

| Information Required | Comment/Standardized Answer | |
|---|---|---|
| **SCIENTIFIC ACCEPTABILITY** | | |
| *Evidence Supporting Measure Domain Selected:* Supporting evidence appropriate for the measure domain.<br>• For access measures, evidence that an association exists between the access measure and the outcomes of, or satisfaction with care.<br>• For outcome measures, evidence that the outcome measure has been used to detect the impact of one or more clinical interventions.<br>• For patient experience measures, evidence that an association exists between the measure of patient experience of health care and the values and preferences of individuals/the public.<br>• For process measures, evidence that the measured clinical or administrative process let to improved health or cost/benefit.<br>• For structural measures, evidence that an association exists between the structure measure and on six aims for quality improvement (safe, beneficial, patient-centered, efficient, timely, equitable). | ☒ Evidence Included<br>☐ Evidence not available<br><br>The ACIP currently recommends that adolescents receive MCV4 at the preadolescent health visit at 11–12 years. A routine visit at this age to assess immunization state and other preventive services is recommended by the ACIP, the American Academy of Pediatrics, the American Academy of Family Physicians and the American Medical Association. The ACIP currently recommends that adolescents ages 11–12 years receive a single dose of Tdap or a Td booster (with a move toward phasing out the Td booster).<br>Adolescent visit recommendations. Several health groups, including the Society for Adolescent Medicine, the American Academy of Pediatrics, the American Academy of Family Physicians, the American Medical Association and the ACIP have recommended three distinct visit platforms for adolescents: 11–12 years, 14–15 years and 17–18 years. The 11–12-year-old visit is designated as the primary immunization platform recommended by the ACIP, with subsequent visits available for catch-up vaccinations.<br>Adolescence is a time of physical and mental growth and development. Research has demonstrated that younger adolescents are more likely to visit their doctor and that visit rates decline as adolescents mature and become young adults. Research also shows that physicians are more likely to screen for and provide vaccination to younger adolescents (Oster, 2005). These findings support a primary immunization platform at the 11–12-year visit, with catch-up opportunities later during adolescence, and will clearly affect the largest number of youths.<br><br>References<br>CDC. Preventing Tetanus, Diphtheria, and Pertussis Among Adolescents: Use of Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis Vaccines: Recommendations of the Advisory Committee on Immunization Practices. *MMWR.* March 24, 2006.<br>CDC. Prevention and Control of Meningococcal Disease: Recommendations for the Advisory Committee on Immunization Practices. *MMWR.* June 30, 2000. | |
| *Data Source:* The data source necessary to implement the measure (e.g., administrative data only, clinician survey, medical record only, patient survey only or a hybrid method).<br>• Specifications for using data sources should be described<br>• If more than one data source can be used to calculate the measure, evidence supporting the comparability of the sources should be provided<br>• For EHRs, provide any additional detail necessary specific for use of the measure in this medium | ☐ Administrative and laboratory data<br>☒ Administrative and medical record data<br>☒ Administrative and pharmacy data<br>☐ Administrative and provider data<br>☐ Administrative data only<br>☐ Administrative and clinician survey<br>☐ Administrative and patient survey<br>☐ Clinician survey only | ☐ Patient survey only<br>☐ Laboratory data only<br>☐ Medical record data only<br>☒ Paper medical record<br>☒ Electronic health record/administrative database<br>☐ Observational data (e.g., compliance measures that require observation of practices)<br><br>☐ Other_____ |

| Information Required | Comment/Standardized Answer |
|---|---|
| SCIENTIFIC ACCEPTABILITY | |
| *Denominator Inclusions/Exclusions:* The specific inclusion and exclusion criteria used to refine the denominator. Include all relevant codes (e.g., ICD-9, CPT, G-codes). | *Exclusions:*<br>☐ Contraindications<br>☐ Age<br>☐ Comorbid conditions<br>☐ Stage of illness<br>☐ Time of index event<br>☒ Other Exclusion: Anaphylactic reaction to the vaccine or its components. |
| *Denominator Time Window:* Classifies the time period (in association with the denominator index event) in which patients are reviewed for inclusion in the denominator. | Those who turn 13 years of age. Measure is reported annually. |
| *Numerator Event:* Identifies the event or state that defines a patient eligible for inclusion in the numerator (e.g., clinical condition, diagnostic encounter, office visit, hospitalization). | For meningococcal and Tdap or Td, count *only* the following.<br>• Evidence of the antigen or combination vaccine<br>For combination vaccinations that require more than one antigen (i.e., Tdap or Td), the organization must find evidence of all the antigens. |
| *Numerator Inclusions/Exclusions:* Specific inclusion and exclusion criteria used to refine the numerator. Exclusions related to patient preferences should also be included where appropriate. | *Exclusions:*<br>☐ Contraindications<br>☐ Age<br>☐ Comorbid conditions<br>☐ Stage of illness<br>☐ Time of index event<br>☐ Other _____ |
| *Numerator Time Window:* Identifies the time period in which patients are reviewed for inclusion in the numerator. | • One meningococcal vaccine on or between the member's 11th and 13th birthdays.<br>• One tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) or one tetanus, diphtheria toxoids vaccine (Td) on or between the member's 10th and 13th birthdays.<br>Combination rate. Adolescents who received one meningococcal vaccine on or between the member's 11th and 13th birthdays and one tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap) or one tetanus, diphtheria toxoids vaccine (Td) on or between the member's 10th and 13th birthdays. |

<table>
<tr><th>Information Required</th><th>Comment/Standardized Answer</th></tr>
<tr><td colspan="2">USABILITY</td></tr>
<tr><td>Measure Benchmarks: Best performance or range of performance) performance for the measure. How have these benchmarks been used?</td><td>☒ Benchmark data included<br><br>A CDC study assessing national vaccination coverage in 2006 found that coverage with at least one dose of either Td or Tdap vaccine after the age of 10 years was 60.1%. Coverage with the Td vaccine was 49.4%, while coverage with one dose of Tdap vaccine was 10.8%. MCV4 vaccination had been received by 11.7% of adolescents 13–17 years of age.<br>The table below is field-test data that show hybrid performance rates calculated from plan medical record lift. For receipt of either Tdap or Td in the appropriate age range, Plan A had a rate of 59.8%, whereas Plan B had a rate of 26.4%. For receipt of either MCV4 or MPSV4 in the appropriate age range, Plan A had a rate of 27.9%, whereas Plan B had a rate of 9.7%. Related to the combination rate—receipt of Tdap or Td in the appropriate age range and MCV4 or MPSV4 in the appropriate age range—Plan A had a rate of 26.5%, whereas Plan B had a rate of 6.9%.<br><br>Table 1. Hybrid Performance Rates as Calculated Based on Plan Medical Record Lift
<table>
<tr><th></th><th colspan="2">Received Either Tdap or Td 10≤age≤13</th><th colspan="2">Received Either MCV4 or MPSV4 11≤age≤13</th><th colspan="2">Combo</th></tr>
<tr><th></th><th>Plan A</th><th>Plan B</th><th>Plan A</th><th>Plan B</th><th>Plan A</th><th>Plan B</th></tr>
<tr><td>Admin Only</td><td>2,045 (59.4%)</td><td>3,193 (24.6%)</td><td>960 (27.9%)</td><td>1,176 (9.1%)</td><td>876 (25.4)</td><td>834 (6.4%)</td></tr>
<tr><td>Med Record Lift</td><td>0.7%</td><td>7.3%</td><td>0%</td><td>7.3%</td><td>0.4%</td><td>7.3%</td></tr>
<tr><td>Hybrid Rate</td><td>2,059 (59.8%)</td><td>3,426 (26.4%)</td><td>960 (27.9%)</td><td>1,261 (9.7%)</td><td>911(26.5%)</td><td>895(6.9%)</td></tr>
</table>
Reference<br>
CDC. National Vaccination Coverage Among Adolescents Aged 13–17 Years—United States 2006. *MMWR* Weekly, August 31, 2007; 56(34); 885-888.<br><br>☐ There are no benchmark data</td></tr>
</table>

| Information Required | Comment/Standardized Answer |
|---|---|
| QUALITY OF SUPPORTING EVIDENCE | |
| *Quality of Evidence:* To further improve and bring more transparency to the NQF process, all measure developers are required to grade the level of evidence submitted with measures. Developers are requested to use the United States Preventive Services Task Force (USPSTF) rating system on all evidence submitted:<br><br>The USPSTF grades the quality of the overall evidence for a service on a three-point scale (Good, Fair, Poor).<br>• Good. Evidence includes consistent results from well-designed, well-conducted studies in representative populations that directly assess effects on health outcomes.<br>• Fair. Evidence is sufficient to determine effects on health outcomes, but the strength of the evidence is limited by the number, quality, or consistency of the individual studies, generalizability to routine practice, or indirect nature of the evidence on health outcomes.<br>• Poor. Evidence is insufficient to assess the effects on health outcomes because of limited number or power of studies, important flaws in their design or conduct, gaps in the chain of evidence, or lack of information on important health outcomes.<br><br>More information on USPSTF and its rating system can be accessed at http://www.ahrq.gov/clinic/3rduspstf/ratings.htm. | The quality of the supporting evidence is good; it establishes the effect on health outcomes and is based on clinical guidelines from clinical experts and national health organizations/agencies. |