

2024 Pre-Rulemaking Measure Review

Preliminary Assessment

MUC ID	Title
MUC2024-081	Adult Immunization Status (AIS-E)
Measure Steward & Developer	Proposed CMS Programs
National Committee for Quality Assurance (NCQA)	Part C Star Ratings

Measure Overview
<p>Developer-provided rationale: The AIS-E measure assesses the percentage of eligible Medicare Advantage Plan members who received routine recommended vaccines including influenza, Td/Tdap, herpes zoster, and pneumococcal. The measure provides health plan-level data regarding members receiving long-standing recommended vaccines. Plans may use these data to target education and outreach efforts to ensure members receive vaccines to prevent serious disease.</p>
<p>CMS-provided program rationale: The intent of this measure is to encourage Medicare Advantage health plans to conduct education and outreach efforts to ensure members receive routine recommended vaccines.</p>
<p>Description: The percentage of Medicare Advantage plan members 19 years of age or 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.</p>
<p>Measure background: Measure is currently used in a Medicare program and is being submitted without substantive changes for a new or different program.</p>
<p>Numerator:</p> <p><u>Influenza:</u> Medicare Advantage plan members who received an influenza vaccine on or between July 1 of the year prior to the measurement period (MP) and June 30 of the MP or Medicare Advantage plan members with anaphylaxis due to the influenza vaccine any time before or during the MP.</p> <p><u>Td/Tdap:</u> Medicare Advantage plan members who received at least one Td vaccine or one Tdap vaccine between nine years prior to the start of the MP and the end of the MP.</p> <p><u>Herpes Zoster:</u> Medicare Advantage plan members who received at least one dose of the herpes zoster live vaccine or two doses of the herpes zoster recombinant vaccine at least 28 days apart, any time on or after the member’s 50th birthday and before or during the MP.</p>

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Measure Overview	
<p><u>Pneumococcal:</u> Medicare Advantage plan members who were administered at least one dose of an adult pneumococcal vaccine on or after the member’s 19th birthday and before or during the MP. Exclusions: N/A</p>	
<p>Denominator: <u>Influenza:</u> Medicare Advantage plan members 19 years and older at the start of the MP who also meet the criteria for inclusion in the denominator (i.e., did not receive hospice services at any time during the MP or who are alive at the end of the MP). <u>Td/Tdap:</u> Medicare Advantage plan members 19 years and older at the start of the MP who also meet the criteria for inclusion in the denominator (i.e., did not receive hospice services at any time during the MP or who are alive at the end of the MP). <u>Herpes Zoster:</u> Medicare Advantage plan members 50 years and older at the start of the MP who also meet the criteria for inclusion in the denominator (i.e., did not receive hospice services at any time during the MP or who are alive at the end of the MP). <u>Pneumococcal:</u> Medicare Advantage plan members 66 years and older at the start of the MP who also meet the criteria for inclusion in the denominator (i.e., did not receive hospice services at any time during the MP or who are alive at the end of the MP). Exclusions: Medicare Advantage plan members in hospice or using hospice services any time during the MP. Exceptions: N/A</p>	
Measure type: Process	Measure has multiple scores: Yes Measure is a composite: No Measure is digital and/or an eCQM: No Measure is a paired or group measure: No
Level of analysis: Health Plan	Data source(s): Digital-Administrative systems: Administrative Data (non-claims); Digital-Administrative systems: Claims Data; Digital-Applications: Patient-Reported Health Data or Survey Data (electronic); Digital-Case Management Systems; Digital-Clinical Registries; Digital-Electronic Health Record (EHR) Data; Digital-Health Information Exchanges (HIE) Data: state immunization registries
Care setting(s): Health plan	Risk adjustment or stratification: Yes

Measure Overview	
CBE endorsement status: Endorsed, CBE ID 3620	CBE endorsement history: Initially endorsed Spring 2021
Is measure currently used in CMS programs? Yes, Merit-based Incentive Payments Systems Program (2024-present)	Measure addresses statutorily required area? No

Meaningfulness

Importance	
Type of evidence:	Clinical Guidelines or USPSTF (U.S. Preventive Services Task Force) Guidelines [Source: Measures Under Consider (MUC) Entry/Review Information Tool (MERIT) Submission Form]
<p>Importance: The developer reported performance score distributions for each of the four immunization indicators across 477 accountable entities from measurement year 2022. Each showed substantial variance and room for improvement: influenza: mean 34.4, interquartile range (IQR) 31.3; Td/Tdap: mean 23.2, IQR 22.6; herpes zoster: mean 14.6, IQR 23.8; pneumococcal: mean 30.2, IQR 30.8. Developers also reported significant gaps in the measure score by social risk factors.</p> <p>The developers cite evidence from clinical guidelines for each indicator. The Advisory Committee on Immunization Practices (ACIP) recommends:</p> <ul style="list-style-type: none"> • Influenza: Routine annual influenza vaccination is recommended for all persons aged 6 months and older who do not have contraindications (ungraded). • Td/Tdap: Persons aged ≥ 19 years who previously did not receive Tdap at or after age 11 years should receive one dose of Tdap and then Td or Tdap every 10 years (ungraded). • Herpes zoster: Two doses of the recombinant herpes zoster vaccine for adults 50 years of age and older (ungraded). • Pneumococcal: Use of either PCV20 alone or PCV15 in series with PPSV23 for all adults aged ≥ 65 years vaccination for all adults aged 65 and older (ungraded). <p>The developer did not evaluate meaningfulness to patients, but comments received during the public comment period noted the strong evidence base for the measure and its alignment with guidelines.</p> <p>During the initial endorsement process in 2021, the committee found the importance of this measure to be sufficient.</p>	
Rating: Met, Prior CBE Endorsement	

Measure Performance

For Table 1, Battelle used the provided performance data for four vaccines (influenza, Td/Tdap, herpes zoster, pneumococcal) and approximated decile (i.e., the data sorted and broken into 10 equal parts) averages by interpolation.

Interpretation: The mean score for the 477 entities described in the testing submission for this measure ranged from 14.6 to 34.4. For this proportion measure, a higher score indicates better quality of care.

Table 1. MUC2024-081 Performance Score Deciles

	Overall	Min	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10	Max
Mean Score: Influenza (SD)	34.4 (19.7)	0.0	6.3	13.0	18.7	24.0	29.3	34.9	41.0	48.0	56.7	70.4	96.0
Mean Score: Td/Tdap (SD)	23.2 (17.1)	0.0	2.2	5.8	9.5	13.3	17.4	21.9	27.2	33.6	42.1	56.7	91.3
Mean Score: Herpes Zoster (SD)	14.6 (7.8)	0.0	0.0	0.3	1.3	2.9	5.4	9.0	14.3	21.7	33.1	54.3	96.1
Mean Score: Pneumococcal (SD)	30.2 (20.7)	0.0	3.1	8.2	13.2	18.3	23.7	29.6	36.3	44.1	54.0	69.5	96.9
Number of Entities	477	1	48	48	48	48	48	48	48	47	47	47	1

Conformance

Measure alignment with conceptual intent: Measure specifications (numerator, denominator, exclusions) for each indicator align with the cited guideline for that indicator.

During the initial endorsement process in 2021, the committee found the conformance of this measure to be sufficient.

Rating: Met, Prior CBE Endorsement

Feasibility	
eCQM feasibility testing/analysis conducted:	No [Source: MERIT Submission Form]
<p>Feasibility: All data elements are defined in electronic sources, and all data elements align with United States Core Data Interoperability (USCDI)/USCDI+ quality standard definitions. Data are submitted via HEDIS. No provider workflow modifications were needed.</p> <p>During the initial endorsement process in 2021, the committee found the feasibility of this measure to be sufficient.</p>	
<p>Rating: Met, Prior CBE Endorsement</p>	

Validity	
Validity testing:	Empiric Validity; Face Validity [Source: MERIT Submission Form]
Testing level(s):	Health Plan
<p>Validity: The developer assessed using Pearson correlations to demonstrate construct validity. Across all plan types, the developer assessed whether the indicators within this measure were correlated with each other. All the measure rates represent an underlying quality construct of administering recommended routine vaccines to adults. According to the MERIT Submission Form, the correlations were mostly strong among the rates within the measure for Medicare plans, with the lowest correlation being 0.58.</p> <p>Through additional communications, the developer provided these correlations:</p> <ul style="list-style-type: none"> • Flu and Td/Tdap: 0.67 • Flu and Herpes Zoster: 0.62 • Flu and Pneumococcal: 0.58 • Td/Tdap and Herpes Zoster: 0.95 • Td/Tdap and Pneumococcal: 0.95 • Herpes Zoster and Pneumococcal: 0.89 <p>This suggests that plans that perform well on one immunization rate are likely to perform well on other immunization rates within the measure.</p> <p>For Medicare plans, the developer also assessed whether the indicators were correlated with the 2018 data for the Healthcare Effectiveness Data and Inform Set (HEDIS) Flu Vaccinations for Older Adults and Pneumococcal Vaccination Status for Older Adults measures that assess receipt of immunizations using CAHPS health plan member survey data. Correlation coefficients ranged from 0.31 to 0.46 for all but the correlation between the influenza indicator, indicating weak to moderate correlation</p>	

Validity	
<p>between these elements and the HEDIS measure being used for comparison. The Pneumococcal Vaccination Status for Older Adults correlation coefficient was 0.06 (details, including p-values, were not provided), indicating very weak correlation.</p>	
<p>Face validity: The National Committee for Quality Assurance (NCQA) Committee on Performance Measurement (CPM) voted to approve the measure for HEDIS health plan reporting. (Out of 21 members, 16 voted to approve.)</p>	
<p>During the initial endorsement process in 2021, the committee found the validity of this measure to be sufficient.</p>	
<p>Threats to validity: The developer recommends this measure be stratified by age and race, and this recommendation is based on evidence showing disparities in vaccination.</p>	
<p>Rating: Met, Prior CBE Endorsement</p>	

Reliability	
Reliability testing method(s):	Signal-to-Noise [Source: MERIT Submission Form]
Testing level:	Health Plan
<p>Reliability discussion: The numerator and denominator for this measure are well defined. The developer calculated reliability from a dataset consisting of 477 health plans from 2022. The median reliability is 1.0 for each of the four vaccines reported (influenza, Td/Tdap, herpes zoster, pneumococcal), indicating perfect reliability.</p>	
<p>During the initial endorsement process in 2021, the committee found the reliability of this measure to be sufficient.</p>	
<p>Additional reliability analyses: Only a single estimate for reliability is required; therefore, interpolated decile averages of the reliability data were not generated.</p>	
<p>Rating: Met, Prior CBE Endorsement</p>	

Usability	
Usability considered in application:	Yes
<p>Usability discussion: The developers relied on public comment as the source of input from accountable entities and stated that the majority of commenters during the measure development process supported the measure. Commenters noted that many adults still do not receive these important vaccines, despite Advisory Committee on Immunization Practices recommendations and national efforts to improve adult immunization rates in the US. The developers reported that no unintended consequences were identified during testing or implementation.</p>	
<p>During the initial endorsement process in 2021, the committee found the usability of this measure found sufficient.</p>	
<p>Rating: Met, Prior CBE Endorsement</p>	

External Validity	
Was this measure tested in the same target population as the CMS program?	Yes
<p>External validity discussion: The developers indicate that the target population for the measure is Medicare Advantage members. Although the developer did not include descriptive information about the 44 entities sampled for measure testing and the 477 entities reporting performance scores, this measure applies broadly to the general population so the sample is likely appropriate.</p> <p>During the initial endorsement process in 2021, the committee found the external validity of this measure found sufficient.</p>	
<p>Rating: Met, Prior CBE Endorsement</p>	

Appropriateness of Scale

Appropriateness of Scale	
Similar or related measures in program(s):	None
<p>Measure appropriateness, equity, and value across target populations/measured entities: The developers did not identify any similar, related, or competing measures. Regarding equity of this measure's performance and benefit across populations, the literature review and sub-analysis provided by the developer in submission materials does not suggest differential benefit or harm to specific subgroups of participating clinicians or their patients. The committee should consider if this measure may have variation in benefit or burden to different populations.</p>	

Time to Value Realization

Time to Value Realization	
Plan for near- and long-term impacts after implementation:	Impacts not explicitly stated.
<p>Measure implementation impacts over time: The developer cites guidelines for each measure indicator, and the measure's overall impacts include disease prevention, morbidity, and mortality.</p> <p>The committee might consider the following questions for this measure in this program:</p> <ul style="list-style-type: none"> • What are the potential near- and long-term impacts of this measure on measured entities, the Part C Star Ratings program, and patient populations? • How will this measure mature through revisions in the future if added to the Part C Star Ratings program measure set? 	