

Attachment A

Adult Immunization Status (AIS) for the 2024 Measures Under Consideration MERIT Submission

This attachment contains data for the following AIS indicators:

Td/Tdap

Herpes Zoster

Pneumococcal

Subjecti on	Row w	Field Label	Guidance	ADD YOUR CONTENT HERE
Measure Informati on	016	* Numerator	The upper portion of a fraction used to calculate a rate, proportion, or ratio. An action to be counted as meeting a measure's requirements.	<ul style="list-style-type: none"> • Td/Tdap: Members who received at least one Td vaccine or one Tdap vaccine between nine years prior to the start of the measurement period and the end of the measurement period • Herpes Zoster: 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 measurement period • Pneumococcal: 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 measurement period
Measure Informati on	018	* Denominat or	The lower part of a fraction used to calculate a rate, proportion, or ratio. The denominator is associated with a given population that may be counted as eligible to meet a measure's inclusion requirements.	<ul style="list-style-type: none"> • Td/Tdap: Members 19 years and older at the start of the measurement period who also meet the criteria for participation • Herpes Zoster: Members 50 years and older at the start of the measurement period who also meet the criteria for participation. • Pneumococcal: Members 66 years and older at the start of the measurement period who also meet the criteria for participation.
Measure Score Level (Accounta	036	* Signal-to- Noise: Median	Indicate the median result for the signal-to-noise analysis used to assess accountable entity level	<ul style="list-style-type: none"> • Td/Tdap: 1.0 • Herpes Zoster: 1.0

ble Entity Level) Testing		Statistical result	reliability. Results should range from 0.00 to 1.00. Calculate reliability as the measure is intended to be implemented (e.g., after applying minimum denominator requirements, appropriate type of setting, provider, etc.).	<ul style="list-style-type: none"> • Pneumococcal: 1.0
Measure Performance	062	*Number of accountable entities included in analysis	<p>Provide the number of accountable entities included in the analysis of the distribution of performance scores.</p> <p>Please enter a single value and do not enter a range.</p> <p>If unknown or not available, enter 9999.</p>	<p>Note: The following performance data is from measurement year 2022.</p> <ul style="list-style-type: none"> • Td/Tdap: 477 • Herpes Zoster: 477 • Pneumococcal: 477
Measure Performance	064	*Number of persons	<p>Provide the number of persons included in the analysis of the distribution of performance scores</p>	<ul style="list-style-type: none"> • Td/Tdap: 23,614.7 • Herpes Zoster: 23,614.7 • Pneumococcal: 23,614.7
Measure Performance	065	*10th percentile	<p>Provide the performance score at the 10th percentile for the testing sample that is relevant to the intended use of the measure.</p> <p>If this is a proportion measure, provide the 10th percentile score in percentage form, without the symbol. For example, if the 10th percentile performance score is</p>	<ul style="list-style-type: none"> • Td/Tdap: 4.3% • Herpes Zoster: 0.1% • Pneumococcal: 5.4%

			<p>21.2%, enter 21.2 and not 0.212.</p> <p>If a 10th percentile performance score is not available, enter 9999.</p>	
Measure Performance	066	*50th percentile (median)	<p>Provide the median performance score (50th percentile) for the testing sample that is relevant to the intended use of the measure.</p> <p>Please enter only one value in the response field and do not enter a range of values.</p> <p>If this is a proportion measure, provide the median performance score in percentage form, without the symbol. For example, if the median performance score is 85.6%, enter 85.6 and not 0.856.</p> <p>If a median performance score is not available, enter 9999.</p>	<ul style="list-style-type: none"> • Td/Tdap: 19.8% • Herpes Zoster: 5.6% • Pneumococcal: 26.4%
Measure Performance	067	*90th percentile	<p>Provide the performance score at the 90th percentile for the testing sample that is relevant to the intended use of the measure.</p> <p>If this is a proportion measure, provide the 90th percentile score in percentage form, without</p>	<ul style="list-style-type: none"> • Td/Tdap: 48.9% • Herpes Zoster: 42.6% • Pneumococcal: 60.7%

			<p>the symbol. For example, if the 90th percentile performance score is 85.6%, enter 85.6 and not 0.856.</p> <p>If a 90th percentile performance score is not available, enter 9999.</p>	
Measure Performance	068	*Additional measure performance information	<p>Provide the following additional measure performance information, <u>as applicable</u>:</p> <ul style="list-style-type: none"> - Mean performance score across accountable entities in the test sample that is relevant to the intended use of the measure. - Minimum and maximum performance score for the testing sample that is relevant to the intended use of the measure. - Standard deviation of performance scores for the testing sample that is relevant to the intended use of the measure. - Passing score for the performance measure. - Performance score's defined interval, including upper and lower limit of the performance score. 	<ul style="list-style-type: none"> • Td/Tdap <ul style="list-style-type: none"> ○ Mean Performance: 23.2 ○ Standard Deviation: 17.1 • Herpes Zoster <ul style="list-style-type: none"> ○ Mean Performance: 14.6 ○ Standard Deviation: 7.8 • Pneumococcal <ul style="list-style-type: none"> ○ Mean Performance: 30.2 ○ Standard Deviation: 20.7
General Characteristics	103	*Evidence of performance gap	Evidence of a performance gap among the units of analysis in which the measure will be implemented. Provide analytic evidence that the	The following data are extracted from HEDIS data collection reflecting the most recent year of measurement (2022) for AIS. Performance data is summarized at the health plan level and summarized by mean performance and performance at the 10 th , 25 th , 50 th , and 90 th percentiles. We also calculated an interquartile range (IQR), which can be interpreted as the difference between the 25 th and 75 th percentile.

		<p>units of analysis have room for improvement and, therefore, that the implementation of the measure would be meaningful.</p> <p>If you have lengthy text add the evidence as an attachment, named to clearly indicate the related form field.</p>	<p>Td/Tdap</p> <ul style="list-style-type: none"> • Mean – 23.2 • 10th Percentile – 4.3 • 25th Percentile – 9.8 • 50th Percentile – 19.8 • 75th Percentile – 32.4 • 90th Percentile – 48.9 • IQR – 22.6 <p>Herpes Zoster</p> <ul style="list-style-type: none"> • Mean – 14.6 • 10th Percentile – 0.1 • 25th Percentile – 0.9 • 50th Percentile – 5.6 • 75th Percentile – 24.7 • 90th Percentile – 42.6 • IQR – 23.8 <p>Pneumococcal</p> <ul style="list-style-type: none"> • Mean – 30.2 • 10th Percentile – 5.4 • 25th Percentile – 13.1 • 50th Percentile – 26.4 • 75th Percentile – 43.9 • 90th Percentile – 60.7 • IQR – 30.8 <p>The previous data demonstrate the variation in the rate of adult immunization across health plans with the IQR being 31.3. These gaps in performance underscore the opportunity for improvement.</p>
--	--	---	--

Evidence	106	*Outline the clinical guideline(s) supporting this measure	<p>Provide a detailed description of which guideline(s) support the measure and indicate for each, whether they are evidence-based or consensus-based.</p> <p>Summarize the meaning/rationale of the guideline statements that are being referenced, their relation to the measure concept and how they support the measure whether directly or indirectly, and how the guideline statement(s) relate to the measure's intended accountable entity. Describe the body of evidence that supports the statement(s) by describing the quantity, quality and consistency of the studies that are pertinent to the guideline statements/sentence. Quantity of studies represent the number of studies and not the number of publications associated with a study. If the statement is advised by 3 publications reporting outcomes from the same RCT at 3 different time points, this is considered a single study and not 3 studies.</p>	<p>Td/Tdap</p> <p>Title of Guideline: Use of Tetanus Toxoid, Reduced Diphtheria Toxoid, and Acellular Pertussis Vaccines: Updated Recommendations of the Advisory Committee on Immunization Practices — United States, 2019</p> <p>Citation: Havers FP, Moro PL, Hunter P, Hariri S, Bernstein H. 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 2020;69:77–83. DOI: http://dx.doi.org/10.15585/mmwr.mm6903a5external icon.</p> <p>Summary:</p> <p>Persons aged ≥ 19 years who previously have not received a dose of Tdap should receive a single dose of Tdap regardless of the interval since their last tetanus or diphtheria toxoid-containing vaccine. To ensure continued protection against tetanus and diphtheria, booster doses of either Td or Tdap should be administered every 10 years throughout life.</p> <p>ACIP did not provide a grade for the evidence underlying this recommendation. ACIP conducts a thorough review of peer-reviewed evidence on vaccine safety and effectiveness, discusses recommendations with professional organizations, and holds regular meetings for experts to vote on proposed recommendations.</p> <p>ACIP did not provide a grade for this recommendation. CDC vaccine recommendations are developed using an explicit evidence-based method based on the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) approach.</p> <p>Key factors considered in development of recommendations include balance of benefits and harms, type or quality of evidence, values and preferences of the people affected, and health economic analyses. ACIP discusses recommendations with professional organizations and holds regular meetings for experts to vote on proposed recommendations</p> <p>Pneumococcal</p> <p>Title of Guideline: Pneumococcal Vaccine for Adults Aged ≥ 19 Years: Recommendations of the Advisory Committee on Immunization Practices, United States, 2023</p>
----------	-----	--	--	---

		<p>If referencing a standard norm which may or may not be driven by evidence, provide the description and rationale for this norm or threshold as reasoned by the guideline panel.</p> <p>If this is an outcome measure or PRO-PM, indicate how the evidence supports or demonstrates a link between at least one process, structure, or intervention and the outcome.</p> <p>Document the criteria used to assess the quality of the clinical guidelines such as those proposed by the Institute of Medicine or ECRI Guideline's Trust (see the Information Gathering Overview on the CMS MMS Hub (https://mmshub.cms.gov/measure-lifecycle/measure-conceptualization/information-gathering-overview) and the Environmental Scan supplemental material section addressing evidence review (https://mmshub.cms.gov/tools-and-</p>	<p>Citation: Kobayashi M, Pilishvili T, Farrar JL, et al. Pneumococcal Vaccine for Adults Aged ≥19 Years: Recommendations of the Advisory Committee on Immunization Practices, United States, 2023. MMWR Recomm Rep 2023;72(No. RR-3):1–39. DOI: http://dx.doi.org/10.15585/mmwr.rr7203a1.</p> <p>Summary:</p> <p>ACIP recommendations specify the use of either PCV20 alone or PCV15 in series with PPSV23 for all adults aged ≥65 years and for adults aged 19–64 years with certain underlying medical conditions or other risk factors who have not received a PCV or whose vaccination history is unknown. In addition, ACIP recommends use of either a single dose of PCV20 or ≥1 dose of PPSV23 for adults who have started their pneumococcal vaccine series with PCV13 but have not received all recommended PPSV23 doses. Shared clinical decision-making is recommended regarding use of a supplemental PCV20 dose for adults aged ≥65 years who have completed their recommended vaccine series with both PCV13 and PPSV23.</p> <p>There were two randomized control trials included in the grading of evidence. The review found that the certainty of the evidence was a 2 (moderate certainty of evidence).</p> <p>ACIP did not provide a grade for this recommendation. CDC vaccine recommendations are developed using an explicit evidence-based method based on the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) approach.</p> <p>Key factors considered in development of recommendations include balance of benefits and harms, type or quality of evidence, values and preferences of the people affected, and health economic analyses. ACIP discusses recommendations with professional organizations and holds regular meetings for experts to vote on proposed recommendations.</p> <p>Herpes Zoster</p> <p>Title of Guideline: Recommendations of the Advisory Committee on Immunization Practices for Use of Herpes Zoster Vaccines</p> <p>Citation: Dooling KL, Guo A, Patel M, et al. Recommendations of the Advisory Committee on Immunization Practices for Use of Herpes Zoster Vaccines. MMWR Morb Mortal Wkly Rep 2018;67:103–108. DOI: http://dx.doi.org/10.15585/mmwr.mm6703a5.</p>
--	--	---	---

			<p>resources/mms-supplemental-materials).</p> <p>If there is lengthy text, describe the guidelines in an evidence attachment.</p>	<p>Summary:</p> <p>ACIP recommends two doses of the recombinant herpes zoster vaccine for adults 50 years of age and older.</p> <p>There were 9 studies included in the review of the evidence, of which 7 were randomized control trials. The evidence was considered to be type 1 (high level of evidence).</p> <p>ACIP did not provide a grade for this recommendation. CDC vaccine recommendations are developed using an explicit evidence-based method based on the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) approach.</p> <p>Key factors considered in development of recommendations include balance of benefits and harms, type or quality of evidence, values and preferences of the people affected, and health economic analyses. ACIP discusses recommendations with professional organizations and holds regular meetings for experts to vote on proposed recommendations.</p>
Evidence	108	*List the guideline statement that most closely aligns with the measure concept.	<p>If there are more than one statement from this clinical guideline that may be relevant to this measure concept, document the statement that most closely aligns with the measure concept as it is written in the guideline document.</p> <p>For example, Statement 1: In patients aged 65 years and older who have prediabetes, we recommend a lifestyle program similar to the Diabetes Prevention Program to delay progression to diabetes. No more than one statement should be written in the text box. All other relevant statements</p>	<p>Td/Tdap:</p> <p>Persons aged ≥ 19 years who previously did not receive Tdap at or after age 11 years should receive 1 dose of Tdap and then Td or Tdap every 10 years.</p> <p>Herpes Zoster:</p> <p>ACIP recommends two doses of the recombinant herpes zoster vaccine for adults 50 years of age and older.</p> <p>Pneumococcal:</p> <p>ACIP recommendations specify the use of either PCV20 alone or PCV15 in series with PPSV23 for all adults aged ≥ 65 years</p>

			should be submitted in a separate evidence attachment.	
Evidence	109	*Is the guideline graded?	A graded guideline is one which explicitly provides evidence rating and recommendation grading conventions in the document itself. Grades are usually found next to each recommendation statement. Select one.	Td/Tdap: No Herpes Zoster: Yes Pneumococcal: Yes
Evidence	110	*List evidence grading system used and all categories and corresponding definitions for the evidence grading system used to describe strength of recommendation in the guideline.	Insert the complete list of evidence grading systems, grading categories, and category definitions used by the clinical guideline (e.g., GRADE or USPSTF) to describe the guideline statement's strength of recommendation. If there is lengthy text, include details in a separate evidence attachment.	For Herpes Zoster and Pneumococcal: ACIP uses the GRADE system when reviewing evidence. Evidence be assigned any of the following types: 1 - Randomized controlled trials (RCTs), or overwhelming evidence from observational studies. 2 - RCTs with important limitations, or exceptionally strong evidence from observational studies. 3 - Observational studies, or RCTs with notable limitations 4 - Clinical experience and observations, observational studies with important limitations, or RCTs with several major limitations. The evidence is given an initial evidence type (RCTs = 1 and observational studies = 3). They can be downgraded based on biases present, consistency, directness and precision. They can also be upgraded based on strength of association, dose response and confounding or bias.
Evidence	111	*For the guideline statement	Select the associated strength of recommendation using	<input type="checkbox"/> USPSTF Grade A, Strong recommendation or similar <input type="checkbox"/> USPSTF Grade B, Moderate recommendation or similar <input type="checkbox"/> USPSTF Grade C or I, Conditional/weak recommendation or similar

		that most closely aligns with the measure concept, what is the associated strength of recommendation?	the convention used by the guideline developer. Select one.	<input type="checkbox"/> Expert Opinion <input type="checkbox"/> USPSTF Grade D, Moderate or high certainty that service has no net benefit or harm outweighs benefit <input checked="" type="checkbox"/> Best Practice Statement/Standard Practice (Herpes Zoster and Pneumococcal only)
Evidence	113	*List all categories and corresponding definitions for the evidence grading system used to describe level of evidence or level of certainty in the evidence.	Insert the complete list of grading categories and their definitions.	Herpes Zoster and Pneumococcal only 1 - Randomized controlled trials (RCTs), or overwhelming evidence from observational studies. 2 - RCTs with important limitations, or exceptionally strong evidence from observational studies. 3 - Observational studies, or RCTs with notable limitations 4 - Clinical experience and observations, observational studies with important limitations, or RCTs with several major limitations.
Risk Adjustment and Stratification	135	*Stratification approach	Describe the recommended stratification approach including the data elements used to stratify scores for subgroups. Demonstrate that there is sufficient sample size within measured entities to stratify measure scores. Indicate whether the recommendation to stratify the measure is based on evidence from	Td/Tdap > (Same stratification as Influenza) Age (19-65 and 66+) Race (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, White, Some Other Race, Two or More Races, Asked But No Answer, Unknown) Ethnicity (Hispanic or Latino, Not Hispanic or Latino, Asked But No Answer, Unknown) The measure is stratified given what is known about disparities in vaccinations. According to 2018 National Health Interview Survey data White adults for both any tetanus vaccination and Tdap-specific vaccination reported higher rates of coverage (67.3% and 33.5%, respectively) compared to Black (51.2% and 21.3%), Hispanic (55.9% and 23.1%) and Asian (55.5% and 29.1%) adults (Jatlaoui et al., 2022) References: Jatlaoui, T., M. Hung, et al. 2022 "Vaccination Coverage Among Adults in the United States, National Health Interview Survey, 2019–2020." Updated February 17, 2022.

		<p>testing and/or the literature.</p> <p>If findings from testing informed the recommendation to stratify the measure, summarize the findings indicating that stratification would improve interpretation of measure results. If more room is needed, provide testing results as an attachment and list the name of the attachment in this field.</p> <p>If evidence from the literature informed the recommendation to stratify the measure, provide citations supporting your stratification approach.</p>	<p>https://www.cdc.gov/vaccines/imz-managers/coverage/adultvaxview/pubs-resources/vaccination-coverage-adults-2019-2020.html</p> <p>Herpes Zoster > Same race and ethnicity stratifications; age stratifications (50-65 and 66+)</p> <p>The measure is stratified given what is known about disparities in vaccinations. According to 2021 National Health Interview Survey data White adults 50 and older reported higher herpes zoster vaccination coverage rates (36.6%) than Black (18.9%), Hispanic (20.7%) and Asian (33%) adults 50 and over. Similar trends were seen for adults 60 and older who reported receiving a herpes zoster vaccine (Hung et al., 2023).</p> <p>References: Hung, M.-C. et al. 2023. "Vaccination Coverage among Adults in the United States, National Health Interview Survey, 2021." Updated July 19. https://www.cdc.gov/vaccines/imz-managers/coverage/adultvaxview/pubs-resources/vaccination-coverage-adults-2021.html#:~:text=40.2%25)%20adults.-,Among%20adults%20aged%2019%E2%80%9349%20years%2C%20White%20adults%20had%20higher,than%20Asian%20(47.0%25)%20a.</p> <p>Pneumococcal > Same race and ethnicity stratifications; age stratifications (66+)</p> <p>The measure is stratified given what is known about disparities in vaccinations. According to 2021 National Health Interview Survey data White adults 65 and older had higher pneumococcal vaccination coverage rates (70.1%) than Black (54.8%), Hispanic (46.2%) and Asian (55.8%) adults 65 and older (Hung et al., 2023).</p> <p>References: Hung, M.-C. et al. 2023. "Vaccination Coverage among Adults in the United States, National Health Interview Survey, 2021." Updated July 19. https://www.cdc.gov/vaccines/imz-managers/coverage/adultvaxview/pubs-resources/vaccination-coverage-adults-2021.html#:~:text=40.2%25)%20adults.-,Among%20adults%20aged%2019%E2%80%9349%20years%2C%20White%20adults%20had%20higher,than%20Asian%20(47.0%25)%20a.</p>
--	--	--	---