

Adult Immunization Status (AIS-E)*

*Developed with support from the Department of Health and Human Services (DHHS), Office of the Assistant Secretary for Health (OASH), National Vaccine Program Office (NVPO).

SUMMARY OF CHANGES FOR HEDIS MY 2024

- Refer to the Technical Release Notes file on the [HEDIS webpage](#).
- Expanded the ages criteria in the *Rules for Allowable Adjustments*.
- Revised the headers in the *Clinical Components* section of the *Rules for Allowable Adjustments of HEDIS*.
- Revised the exclusion criteria in the *Rules for Allowable Adjustments of HEDIS*.
- Added a *Denominator* section to the *Rules for Allowable Adjustments of HEDIS*.

Description	The percentage of members 19 years of age and older who are up to date on recommended routine vaccines for influenza, tetanus and diphtheria (Td) or tetanus, diphtheria and acellular pertussis (Tdap), zoster and pneumococcal.
Measurement period	January 1–December 31.
Clinical recommendation statement	The Advisory Committee on Immunization Practices recommends annual influenza vaccination; and tetanus, diphtheria and acellular pertussis (Tdap) and/or tetanus and diphtheria (Td) vaccine; herpes zoster vaccine; and pneumococcal vaccination for adults at various ages.
Citations	Murthy, N., Wodi, A.P., McNally, V., Cineas, S., Ault, K. 2023. “Advisory Committee on Immunization Practices Recommended Immunization Schedule for Adults Aged 19 Years and Older—United States, 2023.” <i>MMWR Morb Mortal Wkly Rep</i> 2023; 72:141–133. DOI: http://dx.doi.org/10.15585/mmwr.mm7206a2
Characteristics	
Scoring	Proportion.
Type	Process.
Stratification	<ul style="list-style-type: none"> • Influenza. <ul style="list-style-type: none"> – Product line: <ul style="list-style-type: none"> ▪ Commercial. ▪ Medicaid. ▪ Medicare. – Age (as of the start of the measurement period, for each product line): <ul style="list-style-type: none"> ▪ 19–65 years. ▪ 66 years and older.
	<ul style="list-style-type: none"> – Race (for each product line): <ul style="list-style-type: none"> ▪ Race—American Indian or Alaska Native.

	<ul style="list-style-type: none"> ▪ Race—Asian. ▪ Race—Black or African American. ▪ Race—Native Hawaiian or Other Pacific Islander. ▪ Race—White. ▪ Race—Some Other Race. ▪ Race—Two or More Races. ▪ Race—Asked But No Answer. ▪ Race—Unknown. – Ethnicity (for each product line): <ul style="list-style-type: none"> ▪ Ethnicity—Hispanic or Latino. ▪ Ethnicity—Not Hispanic or Latino. ▪ Ethnicity—Asked But No Answer. ▪ Ethnicity—Unknown. • Td/Tdap. – Product line: <ul style="list-style-type: none"> ▪ Commercial. ▪ Medicaid. ▪ Medicare. – Age (as of the start of the measurement period, for each product line): <ul style="list-style-type: none"> ▪ 19–65 years. ▪ 66 years and older. – Race (for each product line): <ul style="list-style-type: none"> ▪ Race—American Indian or Alaska Native. ▪ Race—Asian. ▪ Race—Black or African American. ▪ Race—Native Hawaiian or Other Pacific Islander. ▪ Race—White. ▪ Race—Some Other Race. ▪ Race—Two or More Races. ▪ Race—Asked But No Answer. ▪ Race—Unknown. – Ethnicity (for each product line): <ul style="list-style-type: none"> ▪ Ethnicity—Hispanic or Latino. ▪ Ethnicity—Not Hispanic or Latino. ▪ Ethnicity—Asked but No Answer. ▪ Ethnicity—Unknown. • Zoster. – Product line: <ul style="list-style-type: none"> ▪ Commercial. ▪ Medicaid. ▪ Medicare.
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	<ul style="list-style-type: none"> – Age (as of the start of the measurement period, for each product line): <ul style="list-style-type: none"> ▪ 50–65 years. ▪ 66 years and older. – Race (for each product line): <ul style="list-style-type: none"> ▪ Race—American Indian or Alaska Native. ▪ Race—Asian. ▪ Race—Black or African American. ▪ Race—Native Hawaiian or Other Pacific Islander. ▪ Race—White. ▪ Race—Some Other Race. ▪ Race—Two or More Races. ▪ Race—Asked But No Answer. ▪ Race—Unknown. – Ethnicity (for each product line): <ul style="list-style-type: none"> ▪ Ethnicity—Hispanic or Latino. ▪ Ethnicity—Not Hispanic or Latino. ▪ Ethnicity—Asked But No Answer. ▪ Ethnicity—Unknown. • Pneumococcal. – Product line: <ul style="list-style-type: none"> ▪ Commercial. ▪ Medicaid. ▪ Medicare. – Age (as of the start of the measurement period, for each product line): <ul style="list-style-type: none"> ▪ 66 years and older. – Race (for each product line): <ul style="list-style-type: none"> ▪ Race—American Indian or Alaska Native. ▪ Race—Asian. ▪ Race—Black or African American. ▪ Race—Native Hawaiian or Other Pacific Islander. ▪ Race—White. ▪ Race—Some Other Race. ▪ Race—Two or More Races. ▪ Race—Asked But No Answer. ▪ Race—Unknown. – Ethnicity (for each product line): <ul style="list-style-type: none"> ▪ Ethnicity—Hispanic or Latino. ▪ Ethnicity—Not Hispanic or Latino. ▪ Ethnicity—Asked But No Answer. ▪ Ethnicity—Unknown.
Risk adjustment	None.
Improvement notation	A higher rate indicates better performance.

Guidance	<p>General Rules: All measure rates are specified based on clinical guideline recommendations for the age group included in the rate.</p> <p>Allocation: The member was enrolled with a medical benefit throughout the measurement period.</p> <p>No more than one gap in enrollment of up to 45 days during the measurement period.</p> <p>The member must be enrolled on the last day of the measurement period.</p> <p>Reporting: For all plans, the race and ethnicity stratifications are mutually exclusive, and the sum of all categories in each stratification is the total population.</p> <p>The race and ethnicity stratifications are reported by data source—direct, indirect or unknown. Race and ethnicity values of “Asked But No Answer” are only reported for Source=“Direct.” Race and ethnicity values of “Unknown” are only reported for Source=“Unknown” and Source=“Unknown” is only reported for race and ethnicity values of “Unknown.”</p> <p>Programming Guidance: Product line stratifications are not included in the measure calculation logic, and must be programmed manually.</p> <p>The race and ethnicity stratifications data source logic is not included in the measure calculation logic, and must be programmed manually.</p> <p>Refer to the HEDIS Implementation Guide in the digital measure package for additional programming guidance.</p>
Definitions	
Participation	The identifiers and descriptors for each organization’s coverage used to define members’ eligibility for measure reporting. Allocation for reporting is based on eligibility during the participation period.
Participation period	The measurement period.
Initial population	<p>Initial population 1 Members 19 years and older at the start of the measurement period who also meet the criteria for participation.</p>
	<p>Initial population 2 Same as the initial population 1.</p>

	<p>Initial population 3 Members 50 years and older at the start of the measurement period who also meet the criteria for participation.</p> <p>Initial population 4 Members 66 years and older at the start of the measurement period who also meet the criteria for participation.</p>
Exclusions	<p>Exclusions 1</p> <ul style="list-style-type: none"> Members who use hospice services (<u>Hospice Encounter Value Set</u>; <u>Hospice Intervention Value Set</u>) or elect to use a hospice benefit any time during the measurement period. Organizations that use the Monthly Membership Detail Data File to identify these members must use only the run date of the file to determine if the member elected to use a hospice benefit during the measurement period. Members who die any time during the measurement period. <p>Exclusions 2 Same as exclusions 1.</p> <p>Exclusions 3 Same as exclusions 1.</p> <p>Exclusions 4 Same as exclusions 1.</p>
Denominator	<p>Denominator 1 The initial population 1, minus exclusions.</p> <p>Denominator 2 Same as denominator 1.</p> <p>Denominator 3 The initial population 3, minus exclusions.</p> <p>Denominator 4 The initial population 4, minus exclusions.</p>
Numerator	<p>Numerator 1—Immunization Status: Influenza</p> <ul style="list-style-type: none"> Members who received an influenza vaccine (<u>Adult Influenza Immunization Value Set</u>; <u>Adult Influenza Vaccine Procedure Value Set</u>; <u>Influenza Virus LAIV Immunization Value Set</u>; <u>Influenza Virus LAIV Vaccine Procedure Value Set</u>) on or between July 1 of the year prior to the measurement period and June 30 of the measurement period, or Members with anaphylaxis due to the influenza vaccine (SNOMEDCT code 471361000124100) any time before or during the measurement period. <p>Numerator 2—Immunization Status: Td/Tdap</p> <ul style="list-style-type: none"> Members who received at least one Td vaccine (<u>Td Immunization Value Set</u>; <u>Td Vaccine Procedure Value Set</u>) or one Tdap vaccine (CVX code 115; <u>Tdap Vaccine Procedure Value Set</u>) between 9 years

	<p>prior to the start of the measurement period and the end of the measurement period, or</p> <ul style="list-style-type: none"> Members with a history of at least one of the following contraindications any time before or during the measurement period: <ul style="list-style-type: none"> Anaphylaxis due to the diphtheria, tetanus or pertussis vaccine (<u>Anaphylaxis Due to Diphtheria, Tetanus or Pertussis Vaccine Value Set</u>). Encephalitis due to the diphtheria, tetanus or pertussis vaccine (<u>Encephalitis Due to Diphtheria, Tetanus or Pertussis Vaccine Value Set</u>). <p>Numerator 3—Immunization Status: Zoster</p> <ul style="list-style-type: none"> Members who received at least one dose of the herpes zoster live vaccine (CVX code 121; <u>Herpes Zoster Live Vaccine Procedure Value Set</u>) or two doses of the herpes zoster recombinant vaccine (CVX code 187; <u>Herpes Zoster Recombinant Vaccine Procedure Value Set</u>) at least 28 days apart, any time on or after the member's 50th birthday and before or during the measurement period, or Members with anaphylaxis due to the herpes zoster vaccine (<u>Anaphylaxis Due to Herpes Zoster Vaccine Value Set</u>) any time before or during the measurement period. <p>Numerator 4—Immunization Status: Pneumococcal</p> <ul style="list-style-type: none"> Members who were administered at least one dose of an adult pneumococcal vaccine (<u>Adult Pneumococcal Immunization Value Set</u>; <u>Adult Pneumococcal Vaccine Procedure Value Set</u>) on or after their 19th birthday and before or during the measurement period, or Members with anaphylaxis due to the pneumococcal vaccine (SNOMEDCT code 471141000124102) any time before or during the measurement period.
Data criteria (element level)	
<p>Value Sets:</p> <ul style="list-style-type: none"> AISE_HEDIS_MY2024-3.0.0 <ul style="list-style-type: none"> Adult Influenza Immunization (https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.1913) Adult Influenza Vaccine Procedure (https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.1914) Adult Pneumococcal Immunization (https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.2405) Adult Pneumococcal Vaccine Procedure (https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.2406) Anaphylaxis Due to Diphtheria, Tetanus or Pertussis Vaccine (https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.2240) Anaphylaxis Due to Herpes Zoster Vaccine (https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.2379) Encephalitis Due to Diphtheria, Tetanus or Pertussis Vaccine (https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.2241) 	

- Herpes Zoster Live Vaccine Procedure
(<https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.1917>)
- Herpes Zoster Recombinant Vaccine Procedure
(<https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.1918>)
- Influenza Virus LAIV Immunization
(<https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.1974>)
- Influenza Virus LAIV Vaccine Procedure
(<https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.1973>)
- Td Immunization (<https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.1923>)
- Td Vaccine Procedure (<https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.1924>)
- Tdap Vaccine Procedure
(<https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.1792>)
- **NCQA_Hospice-3.0.0**
 - Hospice Encounter (<https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.1761>)
 - Hospice Intervention (<https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.1762>)
- **NCQA_Stratification-2.0.0**
 - American Indian or Alaska Native Detailed Race
(<https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.2365>)
 - Asian Detailed Race (<https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.2366>)
 - Black or African American Detailed Race
(<https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.2367>)
 - Hispanic or Latino Detailed Ethnicity
(<https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.2368>)
 - Native Hawaiian or Other Pacific Islander Detailed Race
(<https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.2369>)
 - White Detailed Race (<https://www.ncqa.org/fhir/valueset/2.16.840.1.113883.3.464.1004.2370>)

Direct reference codes and codesystems:

- **AISE_HEDIS_MY2024-3.0.0**
 - codesystem "CVX": 'http://hl7.org/fhir/sid/cvx'
 - codesystem "SNOMEDCT": 'http://snomed.info/sct/731000124108'
 - code "Anaphylaxis caused by vaccine product containing Influenza virus antigen (disorder)": '471361000124100' from "SNOMEDCT" display 'Anaphylaxis caused by vaccine product containing Influenza virus antigen (disorder)'
 - code "Anaphylaxis caused by vaccine product containing Streptococcus pneumoniae antigen (disorder)": '471141000124102' from "SNOMEDCT" display 'Anaphylaxis caused by vaccine product containing Streptococcus pneumoniae antigen (disorder)'
 - code "tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine, adsorbed": '115' from "CVX" display 'tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine, adsorbed'
 - code "zoster vaccine recombinant": '187' from "CVX" display 'zoster vaccine recombinant'
 - code "zoster vaccine, live": '121' from "CVX" display 'zoster vaccine, live'
- **NCQA_Terminology-3.0.0**
 - codesystem "ActCode": 'http://terminology.hl7.org/CodeSystem/v3-ActCode'

- codesystem "ConditionClinicalStatusCodes": 'http://terminology.hl7.org/CodeSystem/condition-clinical'
- codesystem "NullFlavor": 'http://terminology.hl7.org/CodeSystem/v3-NullFlavor'
- codesystem "RaceAndEthnicityCDC": 'https://www.hl7.org/fhir/us/core/CodeSystem-cdcrec'
- code "active": 'active' from "ConditionClinicalStatusCodes"
- code "American Indian or Alaska Native": '1002-5' from "RaceAndEthnicityCDC" display 'American Indian or Alaska Native'
- code "Asian": '2028-9' from "RaceAndEthnicityCDC" display 'Asian'
- code "Asked but no answer": 'ASKU' from "NullFlavor" display 'Asked but no answer'
- code "Black or African American": '2054-5' from "RaceAndEthnicityCDC" display 'Black or African American'
- code "Hispanic or Latino": '2135-2' from "RaceAndEthnicityCDC" display 'Hispanic or Latino'
- code "managed care policy": 'MCPOL' from "ActionCode"
- code "Native Hawaiian or Other Pacific Islander": '2076-8' from "RaceAndEthnicityCDC" display 'Native Hawaiian or Other Pacific Islander'
- code "Non Hispanic or Latino": '2186-5' from "RaceAndEthnicityCDC" display 'Non Hispanic or Latino'
- code "Other": 'OTH' from "NullFlavor" display 'Other'
- code "retiree health program": 'RETIRE' from "ActionCode"
- code "subsidized health program": 'SUBSIDIZ' from "ActionCode"
- code "Unknown": 'UNK' from "NullFlavor" display 'Unknown'
- code "White": '2106-3' from "RaceAndEthnicityCDC" display 'White'

Data Elements for Reporting

Organizations that submit data to NCQA must provide the following data elements in a specified file.

Table AIS-E-A:-1/2/3 Data Elements for Adult Immunization Status

Metric	Age	Data Element	Reporting Instructions
Influenza	19-65	InitialPopulation	For each Metric and Stratification
TdTap	66+	ExclusionsByEHR	For each Metric and Stratification
	Total	ExclusionsByCaseManagement	For each Metric and Stratification
		ExclusionsByHIERegistry	For each Metric and Stratification
Zoster	50-65	ExclusionsByAdmin	For each Metric and Stratification
	66+	Exclusions	(Sum over SSoRs)
	Total	Denominator	For each Metric and Stratification
		NumeratorByEHR	For each Metric and Stratification
Pneumococcal	66+	NumeratorByCaseManagement	For each Metric and Stratification
		NumeratorByHIERegistry	For each Metric and Stratification
		NumeratorByAdmin	For each Metric and Stratification
		Numerator	(Sum over SSoRs)
		Rate	(Percent)

Table AIS-E-B-1/2/3: Data Elements for Adult Immunization Status: Stratifications by Race

Metric
Influenza
TdTdap
Zoster
Pneumococcal

Race	Source	Data Element	Reporting Instructions
AmericanIndianOrAlaskaNative	Direct	InitialPopulation	For each Metric and Stratification
Asian	Indirect	Exclusions	For each Metric and Stratification
BlackOrAfricanAmerican	Unknown**	Denominator	For each Metric and Stratification
NativeHawaiianOrOtherPacificIslander	Total	Numerator	For each Metric and Stratification
White		Rate	(Percent)
SomeOtherRace			
TwoOrMoreRaces			
AskedButNoAnswer*			
Unknown**			

Table AIS-E-C-1/2/3: Data Elements for Adult Immunization Status: Stratifications by Ethnicity

Metric
Influenza
TdTdap
Zoster
Pneumococcal

Ethnicity	Source	Data Element	Reporting Instructions
HispanicOrLatino	Direct	InitialPopulation	For each Metric and Stratification
NotHispanicOrLatino	Indirect	Exclusions	For each Metric and Stratification
AskedButNoAnswer*	Unknown**	Denominator	For each Metric and Stratification
Unknown**	Total	Numerator	For each Metric and Stratification
		Rate	(Percent)

*AskedButNoAnswer is only reported for Source= "Direct."

**Race/Ethnicity = "Unknown" is only reported for Source = "Unknown" and Source = "Unknown" is only reported for Race/Ethnicity = "Unknown."

Rules for Allowable Adjustments of HEDIS

The “Rules for Allowable Adjustments of HEDIS” (the “Rules”) describe how NCQA’s HEDIS measure specifications can be adjusted for other populations, if applicable. The Rules, reviewed and approved by NCQA measure experts, provide for expanded use of HEDIS measures without changing their clinical intent.

Adjusted HEDIS measures may not be used for HEDIS health plan reporting.

Rules for Allowable Adjustments of Adult Immunizations Status

NONCLINICAL COMPONENTS		
Eligible Population	Adjustments Allowed (Yes/No)	Notes
Product lines	Yes	Organizations are not required to use product line criteria; product lines may be combined and all (or no) product line criteria may be used.
Ages	Yes, with limits	The age determination dates may be changed (e.g., select, “age as of June 30”). Changing the denominator age range is allowed; however, organizations must consult ACIP guidelines when considering whether to expand the age range outside of the current thresholds.
Allocation	Yes	Organizations are not required to use enrollment criteria; adjustments are allowed.
Benefits	Yes	Using a benefit is not required; adjustments are allowed.
Other	Yes	Organizations may use additional eligible population criteria to focus on an area of interest defined by gender, race, ethnicity, socioeconomic or sociodemographic characteristics, geographic region or another characteristic.
CLINICAL COMPONENTS		
Initial Population	Adjustments Allowed (Yes/No)	Notes
Event/diagnosis	NA	There is no event/diagnosis for this measure.
Exclusions	Adjustments Allowed (Yes/No)	Notes
Exclusions: Hospice and deceased member	Yes	These exclusions are not required. Refer to <i>Exclusions</i> in the <i>Guidelines for the Rules for Allowable Adjustments</i> .
Denominator	Adjustments Allowed (Yes/No)	Notes
Denominators	No	The logic may not be changed.
Numerator Criteria	Adjustments Allowed (Yes/No)	Notes
<ul style="list-style-type: none"> • Influenza • Td/Tdap • Zoster • Pneumococcal 	No	Value sets, direct reference codes and logic may not be changed.