Mathematica®
Progress Together

Child and Adult Core Sets Annual Review Workgroup:

Measure Suggested for Addition to the 2028 Core Sets

Measure Information Sheets

February 2026

Mathematica
Progress Together

Table of Contents

Mathematica
Progress Together

MEASURE INFORMATION SHEET

CHILD AND ADULT CORE SETS REVIEW WORKGROUP: MEASURES SUGGESTED FOR ADDITION TO THE 2028 CORE SETS

Measure Information	
Measure name	**Antibiotic Utilization for Respiratory Conditions**
Description	The percentage of episodes for persons three months of age and older with a diagnosis of a respiratory condition that resulted in an antibiotic dispensing event. *Note: This measure is designed to capture the frequency of antibiotic utilization for respiratory conditions. Organizations should use this information for internal evaluation only. NCQA (the measure steward) does not view higher or lower service counts as indicating better or worse performance.*
Measure steward	National Committee for Quality Assurance (NCQA)
Meaningful Measures area(s)	Value, Affordability, and Efficiency
Measure type(s)	Process
Suggested to replace current measure?	Yes, *Avoidance of Antibiotic Treatment for Acute Bronchitis/Bronchiolitis: Ages 3 Months to 17 Years* (AAB-CH) and *Avoidance of Antibiotic Treatment for Acute Bronchitis/Bronchiolitis: Age 18 and Older* (AAB-AD)

Technical Specifications	
Ages	Persons who were three months of age or older as of the episode date. Report three age stratifications and a total rate: • Ages 3 months to 17 years. • Ages 18 to 64. • Age 65 and older. • Total.
Data collection method(s)	Administrative.
Denominator	The denominator includes episodes for persons three months of age and older as of the episode date who had an outpatient visit, emergency department (ED) visit, telephone visit, e-visit, or virtual check-in during the intake period* with a diagnosis of a respiratory condition. Episodes are removed from the denominator if any of the following conditions are met: • The episode results in an inpatient stay.

Technical Specifications	
Denominator (continued)	• The person had a claim/encounter with any diagnosis for a comorbid condition during the 365 days prior to or on the episode date. (Comorbid conditions are identified using the Comorbid Conditions Value Set.) • A new or refill prescription for an antibiotic medication was dispensed 30 days prior to the episode date or was active on the episode date. • The person had a claim/encounter with a competing diagnosis on or three days after the episode date. (Competing diagnoses are identified using the Antibiotic Utilization for Respiratory Conditions [AXR] Competing Diagnosis Value Set.) If a person has more than one eligible episode in a 31-day period, include only the first eligible episode. * The intake period captures eligible episodes of treatment and is defined as July 1 of the year prior to the measurement period to June 30 of the measurement period. The measurement period is defined as January 1 to December 31.
Numerator	Dispensed prescription for an antibiotic medication from the AXR Antibiotic Medications List on or three days after the episode date.
Exclusions	Exclude persons who meet either of the following criteria: • Persons who die any time during the measurement period. • Persons who use hospice services or elect to use a hospice benefit any time during the measurement period.
Continuous enrollment period	30 days prior to the episode date through 3 days after the episode date (34 total days).
Type(s) of codes needed to calculate the measure	Code sets used to calculate the measure include: • Current Procedural Terminology (CPT) I. • International Classification of Diseases (ICD). • SNOMED CT. • Uniform Bill codes (UBREV). • Healthcare Common Procedure Coding System (HCPCS). • National Drug Code (NDC) Directory. • RxNorm.
Level of reporting for which specifications are available	Plan-level.

Minimum Technical Feasibility and Appropriateness	
Link to current technical specifications	See HEDIS® MY 2026 Vol. 2 for current measure specifications. Note: Because of regular steward updates, these specifications may not reflect the measure specifications that would be used for 2028 Core Sets reporting.
Information on testing or use at state Medicaid/CHIP level	The individual who suggested this measure indicated it has been tested in state Medicaid and/or CHIP programs and is in use by at least one state. The individual who suggested this measure explained it was tested using claims data for Medicaid, Medicare Advantage, and commercial enrollees to assess feasibility. Testing drew on the Merative™ MarketScan® Multi-State Medicaid Database, which contains claims data from multiple state Medicaid agencies. The analysis was conducted from October through December 2020 and used data on index outpatient visits and antibiotic dispensing dates occurring between January 1, 2018 and January 3, 2019.[1] The individual also shared that the New York State Department of Health has required reporting of the *Antibiotic Utilization for Respiratory Conditions* measure for Medicaid and commercial managed care plans since 2022. Similarly, they noted that the New Hampshire Department of Health and Human Services collects *Antibiotic Utilization for Respiratory Conditions* measure rates from state Medicaid managed care plans and publishes publicly available performance reports that allow comparison across organizations and against national benchmarks.[2] Finally, the individual reported that this measure has also been adopted by Louisiana's Medicaid program.[3] Additionally, the Henry Ford Health System has used *Antibiotic Utilization for Respiratory Conditions* to support antibiotic stewardship efforts.[4]
Description of any barriers, limitations, or variations in the required data source and data elements that could affect consistency of calculations	The individual who suggested the measure did not identify any barriers, limitations, or variations related to the required data sources or data elements. In addition, they noted that studies have documented variation in how clinicians assign diagnosis codes for respiratory conditions and associated antibiotics prescribed for those conditions.[5] Because the *Antibiotic Utilization for Respiratory Conditions* measure is a composite measure that includes multiple respiratory conditions, it is not highly sensitive to inconsistencies in diagnostic coding practices, and the consistency of the measure's calculations remains unaffected.[6]

Minimum Technical Feasibility and Appropriateness	
Evidence that measure could lead to improvement in quality of health care delivery and outcomes for Medicaid and CHIP beneficiaries	The individual who suggested the measure explained that *Antibiotic Utilization for Respiratory Conditions* is a composite measure designed to assess outpatient prescribing, which includes antibiotic-inappropriate acute respiratory conditions (e.g., bronchitis) as well as conditions where antibiotics may be appropriate, such as sinusitis. The goal of this measure is to promote appropriate prescribing. This measure excludes patients with comorbidities to minimize the effect of case mix on antibiotic prescribing rates. The individual who suggested the measure cited data showing that respiratory conditions are frequent reasons for outpatient care, particularly for children, with children and adolescents accounting for 71 percent of respiratory-related visits among the Medicaid population in 2019. The individual noted that, during field testing of the suggested measure, a meaningful percentage of Medicaid and CHIP beneficiaries were dispensed antibiotics at outpatient visits for respiratory conditions; antibiotic dispensing rates were 34 percent for children and adults age 65 and younger.[7] The individual who suggested the measure also cited a study of 2017 Kentucky Medicaid data that found that 21 percent of antibiotic prescriptions for children were inappropriate, and 45.9 percent were potentially appropriate—highlighting opportunities to improve antibiotic prescribing for respiratory conditions in the Medicaid population.[8,9] The individual who suggested this measure emphasized that improving antibiotic prescribing practices in U.S. outpatient settings is critical to enhancing quality of care—optimizing infection treatment, reducing drug-related adverse events, and addressing antimicrobial resistance, an urgent public health threat. They noted that unnecessary antibiotic use is an important driver of increases in antibiotic-resistant bacteria, which cause more than 2.8 million infections and 35,000 deaths nationwide each year.[10] Outpatient settings account for approximately 80 percent of human antibiotic prescriptions, with variations across primary, retail, urgent-care, and emergency-care providers.[11] In 2024, health care providers issued 256 million antibiotic prescriptions dispensed from U.S. community pharmacies—equivalent to more than 7 prescriptions for every 10 people in the outpatient setting.[12] The individual who suggested the measure argued that by collecting actionable data on antibiotic prescribing, states and health plans could use the measure to design audit and feedback interventions to modify clinician behavior and ultimately improve patient outcomes. They noted that audit and feedback interventions related to antibiotic prescribing are an evidence-based strategy to promote adherence to national guidelines and is recommended in the Center for Disease Control and Prevention's (CDC's) *The Core Elements of Outpatient Antibiotic Stewardship*.[13]

Actionability	
Whether the measure would fill a gap or address a priority area in the Core Sets	The individual who suggested the measure noted its similarity to the following two measures currently on the Core Sets. The individual suggested these measures for removal from the Core Sets and suggested replacing them with *Antibiotic Utilization for Respiratory Conditions*: • *Avoidance of Antibiotic Treatment for Acute Bronchitis/Bronchiolitis: Ages 3 Months to 17 Years* (AAB-CH) • *Avoidance of Antibiotic Treatment for Acute Bronchitis/Bronchiolitis: Age 18 and Older* (AAB-AD)
Whether there is evidence of a performance gap for Medicaid and/or CHIP beneficiaries on the measure	The individual who suggested the measure noted evidence of a performance gap for Medicaid and/or CHIP beneficiaries on the measure. The individual reported that field testing of the *Antibiotic Utilization for Respiratory Conditions* measure with 2018-2019 data showed a different rate of antibiotic prescriptions for acute respiratory conditions among Medicaid beneficiaries (34.1 percent) compared to Medicare beneficiaries (32.2 percent), and individuals with commercial health insurance (36.0 percent).[14] In 2023, national average antibiotic utilization rates for the *Antibiotic Utilization for Respiratory Conditions* measure also differed by payer: 26.1 percent for Medicaid health maintenance organization (HMO) plans, 18.2 percent for Medicare HMO plans, 20.9 percent for Medicare preferred provider organization (PPO plans), 28.3 percent for commercial HMO, and 28.8 percent for commercial PPO.[15] (Note that the measure steward does not view higher or lower performance rates as indicating better or worse performance.) The individual who suggested the measure also noted that subpopulations within Medicaid have been shown to experience gaps in antibiotic prescribing performance, especially across geographic regions. For example, studies have shown higher rates of inappropriate antibiotic prescribing among Medicaid beneficiaries residing in rural areas compared with urban areas, those living in the South compared with other U.S. regions, and among children two years old or younger compared with older children.[16,17,18]

Actionability	
How the Medicaid and CHIP programs or providers could use the measure to improve health care delivery and/or outcomes	The individual who suggested the measure indicated that by adopting the *Antibiotic Utilization for Respiratory Conditions* measure, Medicaid agencies can integrate antibiotic prescribing for respiratory conditions—the most common source of unnecessary antibiotic use in outpatient care—into their value-based reimbursement programs. State Medicaid and CHIP programs can use *Antibiotic Utilization for Respiratory Conditions* data to track improvements in outpatient antibiotic use over time. The individual noted that if states or health plans calculate the measure at the facility- and clinician-levels, they could also track improvements across facilities and providers, supporting audit and feedback initiatives as part of broader quality improvement and patient safety efforts. Lastly, they noted that state Medicaid programs can partner with state public health departments to support their efforts by offering clinician education, facilitating interventions, and providing quality improvement tools to enhance performance on the measure.
Whether the data source allows for stratification by the required stratification categories included in annual Core Sets guidance	The individual who suggested the measure explained that the data source allows for stratification by sex and geography. The measure steward noted that they have not assessed the feasibility of stratifying the measure by race and ethnicity, but plans to assess the applicability of this stratification in the future.

Additional Information for Consideration	
Prevalence of condition or outcome being measured among Medicaid and CHIP beneficiaries	The individual who suggested the measure noted that in 2019, 6 percent of the outpatient prescriptions filled by Medicaid beneficiaries were for antibiotics (43.9 million of approximately 731.3 million) and that antibiotics ranked among the top 5 drug classes prescribed to Medicaid beneficiaries in outpatient settings.[19] They also noted that, during measure testing, 34.1 percent of the 3.5 million outpatient visits for respiratory conditions among Medicaid beneficiaries resulted in an antibiotic prescription.[20]
Use of measure in other CMS programs	No other programs were listed in CMS's Measure Inventory Tool or reported by the measure steward.
Whether provider workflows will have to be modified to collect additional data needed to report the measure	Not applicable. The individual who suggested the measure indicated that the measure imposes no data entry burden on providers, either because the measure uses data that are routinely generated (i.e. administrative data and claims), the data are collected by someone other than the provider, or the measure repurposes existing data sets to calculate the measure.

Additional Information for Consideration	
Potential barriers states could face in calculating measure and recommended technical assistance resources	The individual who submitted the measure noted that, similar to other NCQA HEDIS measures, CMS could acquire the *Antibiotic Utilization for Respiratory Conditions* measure license for all technical resources to be provided to states.
Summary of prior Workgroup discussions	This measure was discussed at the 2027 Core Sets Annual Review meeting. At the 2027 meeting, the measure was not recommended for addition to the Core Sets. The Workgroup discussed the suggested measure largely in the context of the existing AAB measure on the Child and Adult Core Sets. Workgroup members expressed concerns regarding the potential for gaming performance with selective coding and inaccuracies of the AAB measure as well as large variation in improvement rates across health plans. Several Workgroup members emphasized that the overuse of antibiotics remains an area for improvement in their respective states. Workgroup members raised concerns about the intended use of *Antibiotic Utilization for Respiratory Conditions*, particularly the measure steward's guidance that higher or lower service counts should not be interpreted as indicators of performance quality. Additional concerns included the potential for physicians to be held accountable for a measure not designed to assess appropriateness of care, and the implications of introducing another antibiotic-related measure when other gaps persist in the Core Sets. In their submission, the individual who suggested the measure acknowledged the previous Workgroup discussion and suggested replacing the existing AAB measure in the Child and Adult Core Sets measure with *Antibiotic Utilization for Respiratory Conditions*, to address concerns about the number of antibiotic prescribing measures. They cited evidence supporting the new measure's utility, including a publication highlighting its advantages, challenges, and strategies for optimal implementation.[21] The individual who suggested the measure argued that by including a spectrum of acute respiratory conditions, the suggested measure reduces reliance on precise diagnostic coding and instead captures overall antibiotic prescribing patterns. They further noted that the broader denominator would make the measure less susceptible to natural, random variation, facilitating the identification of prescribing variability and outliers among clinicians. The submitter concluded that the *Antibiotic Utilization for Respiratory Conditions* measure could have a greater impact on reducing unnecessary antibiotic use compared to the AAB measure, which targets individual conditions where antibiotics are rarely appropriate.

Citations

[1] Melville BL, Musser T, Fishman E, Rainis D, Byron SC. Developing a quality measure to assess use of antibiotic medications for respiratory conditions. *Antimicrobial Stewardship & Healthcare Epidemiology*. 2023;3(1):e13. doi:10.1017/ash.2022.328.

[2] https://medicaidquality.nh.gov/reports/antibiotic-utilization-for-respiratory-conditions-axr.

[3] Pew Charitable Trusts. Improved antibiotic use will keep people healthier. November 11, 2024. https://www.pew.org/en/research-and-analysis/articles/2024/11/11/improved-antibiotic-use-will-keep-people-healthier.

[4] Arena CJ, Veve MP, Fried ST, Ware F, Lee P, Shallal AB. Navigating performance measures for ambulatory antimicrobial stewardship: a review of HEDIS® and other metrics the steward should know. *Antimicrobial Stewardship & Healthcare Epidemiology*. 2024;4(1):e217. doi:10.1017/ash.2024.468.

[5] Martinez KA, Rood M, Rothberg MB. Coding bias in respiratory tract infections may obscure inappropriate antibiotic use. *J Gen Intern Med*. 2019;34:806–808.

[6] Melville BL, Musser T, Fishman E, Rainis D, Byron SC. Developing a quality measure to assess use of antibiotic medications for respiratory conditions. *Antimicrobial Stewardship & Healthcare Epidemiology*. 2023;3(1):e13. doi:10.1017/ash.2022.328.

[7] Palms DL, Hicks LA, Bartoces M, et al. Comparison of antibiotic prescribing in retail clinics, urgent care centers, emergency departments, and traditional ambulatory care settings in the United States. *JAMA Intern Med*. 2018; 178:1267–1269.

[8] Wattles BA, Jawad KS, Feygin Y, et al. Inappropriate outpatient antibiotic use in children insured by Kentucky Medicaid. *Infection Control & Hospital Epidemiology*. 2022;43(5):582-588. doi:10.1017/ice.2021.177.

[9] Creel LM, Wattles BA, Smith MJ, Eggen MB, Karimi S. 2023. Policy Options to Improve Outpatient Antibiotic Prescribing in the Pediatric Medicaid Population in Kentucky. *Commonwealth Institute of Kentucky*.

[10] CDC. Antibiotic Resistance Threats in the United States, 2019. Atlanta, GA: U.S. Department of Health and Human Services, CDC; 2019. Available at: https://www.cdc.gov/antimicrobial-resistance/media/pdfs/2019-ar-threats-report-508.pdf.

[11] Palms DL, Hicks LA, Bartoces M, et al. Comparison of antibiotic prescribing in retail clinics, urgent care centers, emergency departments, and traditional ambulatory care settings in the United States. *JAMA Intern Med*. 2018; 178:1267–1269.

[12] CDC. Outpatient Antibiotic Use: Retail Pharmacy Prescription Data. Antimicrobial Resistance & Patient Safety Portal. 2025. https://arpsp.cdc.gov/profile/antibiotic-use/all-classes.

[13] https://www.cdc.gov/antibiotic-use/hcp/core-elements/outpatient-antibiotic-stewardship.html.

[14] Melville BL, Musser T, Fishman E, Rainis D, Byron SC. Developing a quality measure to assess use of antibiotic medications for respiratory conditions. *Antimicrobial Stewardship & Healthcare Epidemiology*. 2023;3(1):e13. doi:10.1017/ash.2022.328.

[15] Antibiotic Utilization for Respiratory Conditions (AXR). NCQA. https://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality-report/antibiotic-utilization-for-respiratory-conditions-axr/.

[16] Dantuluri KL, Bruce J, Edwards KM, Banerjee R, Griffith H, Howard LM, Grijalva CG. Rurality of residence and inappropriate antibiotic use for acute respiratory infections among young Tennessee children. *Open Forum Infect Dis*. 2020 Dec 15;8(1):ofaa587. doi: 10.1093/ofid/ofaa587. PMID: 33511228; PMCID: PMC7814393.

[17] Wattles BA, Jawad KS, Feygin Y, et al. Inappropriate outpatient antibiotic use in children insured by Kentucky Medicaid. *Infection Control & Hospital Epidemiology*. 2022;43(5):582-588. doi:10.1017/ice.2021.177.

[18] NCQA. Analyzing regional and product line variations across HEDIS antibiotic use measures; 2024. https://antibiotics.ncqa.org/static/media/NCQAAnalyzingRegionalProductToolkit.263a075403976db1e22e.pdf.

[19] Williams E, Dolan R. Utilization and spending trends in Medicaid outpatient prescription drugs, 2015-2019. KFF. June 9, 2021. https://www.kff.org/medicaid/utilization-and-spending-trends-in-medicaid-outpatient-prescription-drugs-2015-2019/.

[20] Melville BL, Musser T, Fishman E, Rainis D, Byron SC. Developing a quality measure to assess use of antibiotic medications for respiratory conditions. *Antimicrobial Stewardship & Healthcare Epidemiology*. 2023;3(1):e13. doi:10.1017/ash.2022.328.

[21] https://www.cdc.gov/antibiotic-use/pdfs/Measurement-Evaluation-Improve-Outpatient-508.pdf.

Mathematica
Progress Together

MEASURE INFORMATION SHEET

CHILD AND ADULT CORE SETS REVIEW WORKGROUP: MEASURES SUGGESTED FOR ADDITION TO THE 2028 CORE SETS

Measure Information	
Measure name	**Follow-Up After Acute and Urgent Care Visits for Asthma**
Description	The percentage of persons ages 5 to 64 with an urgent care visit, acute inpatient discharge, observation stay discharge, or emergency department (ED) visit with a diagnosis of asthma that had a corresponding outpatient follow-up visit with a diagnosis of asthma within 30 days.
Measure steward	National Committee for Quality Assurance (NCQA)
Meaningful Measures area(s)	Chronic Conditions and Related Acute Events
Measure type(s)	Process
Suggested to replace current measure?	Yes, *Asthma Medication Ratio: Ages 5 to 18* (AMR-CH) and *Asthma Medication Ratio: Ages 19 to 64* (AMR-AD). Note that the measure steward is retiring AMR for measurement year 2026 (2027 Core Sets). In December 2025, CMS confirmed that they have removed the measure from the 2027 Child and Adult Core Sets.[1]

Technical Specifications	
Ages	Persons ages 5 to 64 as of the asthma episode date. Report four age stratifications: • Ages 5 to 11. • Ages 12 to 17. • Ages 18 to 50. • Ages 51 to 64. Note: The asthma episode is defined in the specifications as an encounter between January 1 and December 1 of the measurement period (January – December 31) with a diagnosis of asthma. The asthma episode date is defined as the date of service for the asthma episode. For acute inpatient or observation stay discharges, the episode date is the date of discharge. For direct transfers, the episode date is the discharge date from the last transfer admission. For emergency department or urgent care visits, the episode date is the date of service.

Technical Specifications	
Data collection method(s)	HEDIS® Electronic Clinical Data Systems (ECDS). Note: ECDS includes data from administrative claims, electronic health records, case management systems, and health information exchanges/clinical registries.
Denominator	The measure includes a denominator for one rate, defined as: acute visits for asthma on or between January 1 and December 1 of the measurement period for persons ages 5 to 64 as of the episode date. Acute visits include urgent care visits, ED visits, acute inpatient discharges, and observation stay discharges. ED and urgent care visits followed by admission to an acute inpatient or observation stay care setting on the date of the visit or within 30 days are excluded. For this measure, health plans report the following two chronic obstructive pulmonary disease (COPD) diagnosis cohorts for each of the four age groups: • Persons diagnosed with COPD. • Persons not diagnosed with COPD.
Numerator	An outpatient visit, telephone visit, e-visit or virtual check-in with a diagnosis of asthma within 30 days after the asthma episode. Visits are removed from the numerator if any of the following conditions are met: • The visit occurs on the same day as the asthma episode. • The services during the visit are provided in an urgent care setting.
Exclusions	Exclude episodes from the denominator if the person who had the episode meets any of the following conditions: • Persons who die any time during the measurement period. • Persons who use hospice services or elect to use a hospice benefit any time during the measurement period. • Persons with a diagnosis of cystic fibrosis at any time in the person's history through the last day of the measurement period.
Continuous enrollment period	Episode date through 30 days after episode date (31 total days).
Type(s) of codes needed to calculate the measure	Code sets used to calculate the measure include: • Current Procedural Terminology (CPT) Category I. • International Classification of Diseases (ICD). • SNOMED CT. • Healthcare Common Procedure Coding System (HCPCS) Level II. • Uniform Billing codes (UBREV and UBTOB).
Level of reporting for which specifications are available	Plan-level.

Minimum Technical Feasibility and Appropriateness	
Link to current technical specifications	See HEDIS Measurement Year (MY) 2026 Vol. 2 for current measure specifications. Note: Because of regular steward updates, these specifications may not reflect the measure specifications that would be used for 2028 Core Sets reporting.
Information on testing or use at state Medicaid/CHIP level	The measure steward indicated that this measure has been tested using state Medicaid and CHIP data but is not currently in use by any states, since the measure was only recently released (in August 2025). Testing was conducted between January and March 2025 using data from HEDIS MY 2023 from the Merative™ MarketScan® Multi-State Medicaid Database. The database consists of individual-level, de-identified health care claims and enrollment data. The database contains records for approximately eight million Medicaid beneficiaries of all ages covered under fee-for-service and managed care plans across multiple Medicaid programs in selected geographically diverse states. Information related to specific states or Medicaid plans was not available since all data were de-identified. The measure steward provided a testing report with results from reporting feasibility and performance variation testing conducted across 27 Medicaid managed care plans. Reporting feasibility testing evaluated denominator sizes at the population- and plan-level. At the population-level, of the 191,056 individuals in the testing dataset that had asthma, 21,495 (11.3 percent) experienced at least one urgent care visit, ED visit, or inpatient stay for asthma, for a total of 27,674 visits (144.8 visits per 1,000 members). Across Medicaid plans, there was an average of 101.1 acute care visits per 1,000 members in the measurement period. The proportion of plans with a reportable rate (i.e., plans with at least 30 visits in the denominator) was lowest for inpatient stays (44.4 percent) and urgent care visits (59.3 percent). Reportable rates for follow-up after any acute care visit type and after ED visits were higher, with between 85.2 and 88.9 percent of plans able to report a valid rate.[2] After evaluating denominator sizes for the proposed measure, the measure steward next examined performance rates. However, please note that during measure testing, the measure numerator had not yet been specified to require qualifying follow-up visits to have a diagnosis of asthma.

Minimum Technical Feasibility and Appropriateness	
Information on testing or use at state Medicaid/CHIP level (continued)	At the population-level, 34.5 percent of acute care visits for asthma among Medicaid enrollees had a follow-up visit within 30 days. Acute care visits for enrollees with a COPD diagnosis had higher rates of follow-up than those for enrollees without COPD (45.8 percent vs. 34.1 percent). Follow-up rates were highest (48.0 percent) among the oldest age group (ages 51 to 64), followed by (37.3 percent) the youngest age group (ages 5 to 11) across all visit types. At the health plan-level, variation in performance rates was observed across the Medicaid plans with a reportable rate for each acute care visit type. On average, the highest rates of follow-up were seen following inpatient stays for asthma and the lowest rates were seen following urgent care visits. Measure performance rates stratified by type of visit are provided below.[3] • Follow-up after acute inpatient stay: average rate of 47.4 percent, across 12 plans. • Follow-up after any acute care visit: average rate of 37.3 percent, across 24 plans. • Follow-up after ED visit: average rate of 37.0 percent, across 23 plans. • Follow-up after urgent care visit: average rate of 29.9 percent, across 16 plans.
Description of any barriers, limitations, or variations in the required data source and data elements that could affect consistency of calculations	The individual who suggested the measure did not indicate any barriers, limitations, or variations in the required data source and data elements that could affect the consistency of calculations across states.
Evidence that measure could lead to improvement in quality of health care delivery and outcomes for Medicaid and CHIP beneficiaries	The individual who suggested the measure noted that non-clinical factors (such as socioeconomic status, environmental exposures, and access to care) can limit individual efficacy in managing chronic conditions such as asthma, leading to higher use of urgent care, ED, and hospitalizations instead of preventive care. The individual suggested that this measure could encourage health plans and/or providers to support people with using and accessing non-acute care, which could help to improve poor and disparate asthma outcomes.[4,5,6]

Actionability	
Whether the measure would fill a gap or address a priority area in the Core Sets	According to the individual who suggested the measure, the measure would address an existing gap area in the Core Sets related to care for asthma. They emphasized that asthma is a serious chronic lung disease that led to a combined 94,560 hospitalizations and 986,453 ED visits among U.S. children (younger than age 18) and adults (age 18 and older) in 2020.[7] Additionally, they noted that asthma leads to substantial economic burden in the United States, citing a study that estimated the total cost of asthma as $81.9 billion in 2013 (including medical costs, costs incurred from absences from work or school, and asthma-related mortality costs).[8] The individual noted that research underscores the importance of care continuity and the effectiveness of timely outpatient visits in preventing exacerbations for individuals with asthma. They argued that adding the *Follow-Up After Acute and Urgent Care Visits for Asthma* measure to the Core Sets would help drive high-quality asthma care for Medicaid populations by improving care continuity following asthma exacerbations.
Whether there is evidence of a performance gap for Medicaid and/or CHIP beneficiaries on the measure	The measure steward conducted measure testing in the Medicaid population and assessed the number and proportion of acute care visits, stratified by type (any, urgent care, ED, and inpatient), that had a follow-up visit within 30 days. Results are described above. The measure steward also assessed rates of acute visits among Medicaid beneficiaries with asthma and found that during MY 2023, 11.3 percent had at least one acute visit for asthma. Members ages 5 through 11 years old experienced the highest rate of acute visits for asthma (179.5 visits per 1,000 members). In comparison, members ages 12 to 17 experienced 104.4 visits per 1,000 members, members ages 18 to 50 experienced 143.3 visits per 1,000 members, and members ages 51 to 64 experienced 97.5 visits per 1,000 members. The measure steward also noted that NCQA's internal testing found a higher acute visit rate for Black Medicaid beneficiaries (183.3 visits per 1,000 beneficiaries) compared to White Medicaid beneficiaries (103.3 visits per 1,000 beneficiaries).[9] The measure steward indicated that testing also demonstrated variation in measure performance (that is, the rate of follow-up visits within 30 days of an acute visit for asthma) across Medicaid plans.
How the Medicaid and CHIP programs or providers could use the measure to improve health care delivery and/or outcomes	The individual who suggested the measure explained that the *Follow-Up After Acute and Urgent Care Visits for Asthma* measure is intended to incentivize plans to ensure that patients receive an outpatient follow-up visit after an acute asthma exacerbation. By understanding follow-up rates after acute care utilization for asthma, plans can identify and address factors that inhibit care continuity following asthma exacerbations.

Actionability	
Whether the data source allows for stratification by the required stratification categories included in annual Core Sets guidance	The measure steward explained that the data source allows for stratification by race, ethnicity, sex, and geography. To gain insight into care distribution, the measure steward stratified results from measure development testing by age, sex, and race and ethnicity. Individuals were stratified by the four reported age ranges, sex, and four race and ethnicity groups (White, Black, Hispanic, and other). The measure steward noted that geographical distribution was not available in the testing data; however, information related to geography is typically available to health plans.

Additional Information for Consideration	
Prevalence of condition or outcome being measured among Medicaid and CHIP beneficiaries	As of 2023, 12 percent of children ages 0 through 17 with any public insurance coverage had ever been told that they have asthma (based on parent-report). Additionally, 24 percent of adults ages 18 through 64 covered by Medicaid, CHIP, or another state-sponsored health plan reported that they had ever been told they have asthma.[10] The individual who suggested the measure also cited all-payer data from the Centers for Disease Control and Prevention (CDC) that estimates that during 2022–2024, the overall asthma prevalence across the general population was 8.2 percent (6.2 percent among individuals under 18 years of age; 8.7 percent among adults age 18 and older). The prevalence of asthma among individuals below 100 percent of the federal poverty line was 11.1 percent. The overall asthma attack prevalence among individuals with asthma was 42.4 percent. The individual also cited health care utilization data from 2020, noting that 270,330 ED visits for asthma occurred among individuals under 18 years of age (a rate of 36.4 visits per 10,000 U.S. population), and 716,117 ED visits for asthma occurred for individuals age 18 and older (a rate of 27.8 visits per 10,000 U.S. population).[11]
Use of measure in other CMS programs	No other programs were listed in CMS's Measure Inventory Tool or reported by the measure steward.
Whether provider workflows will have to be modified to collect additional data needed to report the measure	Not applicable. The measure steward indicated that the measure imposes no data entry burden on providers, either because the measure uses data that are routinely generated (i.e. administrative data and claims), the data are collected by someone other than the provider, or the measure repurposes existing data sets to calculate the measure.

Additional Information for Consideration	
Potential barriers states could face in calculating measure and recommended technical assistance resources	The measure steward noted that this measure is specified for the ECDS reporting method, which often requires access to clinical data such as electronic medical record data. However, administrative claims are an allowed data source for ECDS, and measure specifications do not require the use of clinical data for reporting. The necessary data for reporting this measure can be found in administrative claims, a source that is routinely generated and accessed by health plans.
Summary of prior Workgroup discussions	This measure has not been discussed previously by the Workgroup.

Citations

[1] https://www.medicaid.gov/federal-policy-guidance/downloads/sho25005.pdf.

[2] NCQA. November 2025. "Follow-Up After Acute and Urgent Care Visits for Asthma: Medicaid Testing Report." Not publicly available.

[3] NCQA. November 2025. "Follow-Up After Acute and Urgent Care Visits for Asthma: Medicaid Testing Report." Not publicly available.

[4] McIvor A., Kaplan A. 2020. "A Call to Action for Improving Clinical Outcomes in Patients with Asthma." *Primary Care Respiratory Medicine* 30(54).

[5] National Asthma Education and Prevention Program (NAEPP) Coordinating Committee Expert Working Group. 2020. 2020 Focused Updates to the Asthma Management Guidelines. https://www.nhlbi.nih.gov/resources/2020-focused-updates-asthma-management-guidelines.

[6] Global Initiative for Asthma (GINA). 2024. Global Strategy for Asthma Management and Prevention. https://ginasthma.org/2024-report/.

[7] https://www.cdc.gov/asthma-data/about/most-recent-asthma-data.html.

[8] Nurmagambetov, T., Kuwahara, R., & Garbe, P. 2018. The Economic Burden of Asthma in the United States, 2008-2013. *Annals of the American Thoracic Society*, *15*(3), 348–356. https://doi.org/10.1513/AnnalsATS.201703-259OC.

[9] NCQA. November 2025. "Follow-Up After Acute and Urgent Care Visits for Asthma: Medicaid Testing Report." Not publicly available.

[10] Center for Medicaid and CHIP Services, Division of Quality and Health Outcomes. 2026 Medicaid and CHIP Beneficiary Profile. Centers for Medicare & Medicaid Services. Baltimore, MD. Released January 2026.

[11] https://www.cdc.gov/asthma-data/about/most-recent-asthma-data.html.

Mathematica
Progress Together

MEASURE INFORMATION SHEET

CHILD AND ADULT CORE SETS REVIEW WORKGROUP: MEASURES SUGGESTED FOR ADDITION TO THE 2028 CORE SETS

Measure Information	
Measure name	**Tobacco Use Screening and Cessation Intervention**
Description	The percentage of persons 12 years of age and older who were screened for commercial tobacco product use at least once during the measurement period, and who received tobacco cessation intervention if identified as a tobacco user. Two rates are reported: 1. **Tobacco Use Screening**. The percentage of persons who were screened for tobacco use. 2. **Cessation Intervention**. The percentage of persons who were identified as a tobacco user and who received tobacco cessation intervention.
Measure steward	National Committee for Quality Assurance (NCQA)
Meaningful Measures area(s)	Behavioral Health
Measure type(s)	Process
Suggested to replace current measure?	Yes, *Medical Assistance with Smoking and Tobacco Use Cessation* (MSC-AD). Note that the measure steward is retiring MSC-AD for measurement year 2026 (2027 Core Sets). In December 2025, CMS confirmed that they have removed the measure from the 2027 Adult Core Set.[1] Note also that MSC-AD only includes adults age 18 and older, while *Tobacco Use Screening and Cessation Intervention* includes persons age 12 and older and could be added to both the Child and Adult Core Sets.

Technical Specifications	
Ages	Persons age 12 years and older at the start of the measurement period. Report three age stratifications: • Ages 12 to 17. • Ages 18 to 64. • Age 65 and older.
Data collection method(s)	HEDIS® Electronic Clinical Data Systems (ECDS). Note: ECDS includes data from administrative claims, electronic health records, case management systems, and health information exchanges/clinical registries.

Technical Specifications	
Denominator	The measure includes denominators for two rates: 1. **Denominator 1 – Tobacco use screening**. Persons 12 years of age and older at the start of the measurement period (January 1 – December 31) who meet continuous enrollment criteria and do not meet exclusion criteria (see below for continuous enrollment and exclusion criteria). 2. **Denominator 2 – Cessation intervention**. Persons from numerator 1 who were identified as a positive tobacco user between January 1 and December 1 of the measurement period.
Numerator	The measure includes numerators for two rates: 1. **Numerator 1 – Tobacco use screening.** Persons who were screened for tobacco use and identified as either a positive or negative tobacco user* during the measurement period. 2. **Numerator 2 – Cessation intervention.** Persons who received a tobacco cessation intervention during the measurement period or 180 days prior to the measurement period. The following meet criteria: - Persons 12 through 17 years of age who received tobacco cessation counseling during the measurement period or in the 180 days prior to the measurement period. - Persons 18 years of age and older who received tobacco cessation counseling or dispensed pharmacotherapy intervention** during the measurement period or 180 days prior to the measurement period. *Persons are identified as either positive or negative tobacco users through Logical Observation Identifiers Names and Codes (LOINC) codes. Tobacco use includes all commercial tobacco and nicotine products (such as cigarettes, e-cigarettes/vapes, and smokeless tobacco). **Pharmacotherapy interventions that satisfy numerator compliance are bupropion, varenicline, and some forms of nicotine replacement therapy (nicotine inhalers, patches, nasal sprays, and lozenges are included, but nicotine gum is not). Pharmacotherapy interventions are identified using National Drug Code (NDC) and RxNorm codes.
Exclusions	Exclude persons who meet any of the following criteria from the denominator: • Persons with a date of death in the measurement period. • Persons who use hospice services or elect to use a hospice benefit any time during the measurement period. • Persons receiving palliative care or who had an encounter for palliative care any time during the measurement period.

Technical Specifications	
Continuous enrollment period	Persons must be continuously enrolled 180 days prior to the measurement period through the last day of the measurement period. No more than one gap of less than or equal to 45 days is allowed during the continuous enrollment period. The person must be enrolled on the last day of the measurement period.
Type(s) of codes needed to calculate the measure	LOINC codes—either alone or in combination with SNOMED CT codes—must be used to assess numerator compliance for Rate 1 and denominator compliance for Rate 2. Code sets for other measure components include: • Current Procedural Terminology (CPT) I. • International Classification of Diseases (ICD)-10 (Z codes). • SNOMED CT. • Healthcare Common Procedure Coding System (HCPCS). • Uniform Bill codes (UBREV). • NDC Directory. • RxNorm. The measure steward indicated that the HCPCS codes are options for reporting the hospice services and palliative care exclusions; the UBREV codes are an option for reporting the hospice services exclusion.
Level of reporting for which specifications are available	Accountable Care Organization-, clinician-, facility-, and plan-level.

Minimum Technical Feasibility and Appropriateness	
Link to current technical specifications	See HEDIS MY 2026 Vol. 2 for current measure specifications. Note: Because of regular steward updates, these specifications may not reflect the measure specifications that would be used for 2028 Core Sets reporting.

Minimum Technical Feasibility and Appropriateness	
Information on testing or use at state Medicaid/CHIP level	The measure steward provided testing results showing that they tested the measure for the Medicare, commercial, and Medicaid product lines using December 2020 through March 2022 data from two health plans and four health systems in different states. One of the health plans was in California, served a majority Latino population, and provided testing data for 923,665 members age 12 and older with either Medicaid or commercial insurance. This health plan provided Medicaid-specific testing results: 6.32 percent of persons age 12 or older received a tobacco use screening and 24.35 percent of tobacco users received a tobacco cessation intervention.[2] The measure steward also provided age-stratified testing results for this health plan as a whole (Medicaid-specific testing results were not stratified by age). While the sample sizes were too small to draw meaningful conclusions, the results suggest performance rates might be lower for adolescents than for adults on the measure: • 1.49 percent of adolescents ages 12 to 17 received a tobacco use screening, compared with 3.12 percent of adults ages 18 to 49, 5.37 percent of adults ages 50 to 64, and 4.39 percent of adults age 65 and older. • 9.76 percent of adolescent tobacco users received a tobacco cessation intervention, versus 21.48 percent of adult tobacco users ages 18 to 49, 31.30 percent of adult tobacco users ages 50 to 64, and 22.68 percent of adult tobacco users age 65 and up.[3] The measure steward was not aware of any state Medicaid or CHIP programs that are currently using the measure. They noted that the measure is new for HEDIS in MY 2026, so adoption is still emerging. One of the individuals who suggested the measure indicated that the University of California Davis has also tested the measure and that the measure aligns with the metric utilized in the California Medicaid value-based care program, Quality Incentive Pool. They also noted that the *Tobacco Use Screening and Cessation Intervention* measure is similar to a measure used for community clinic reporting in the Uniform Data System program (CMS138), although clinics report a different measure with an aggregated rate,[4] instead of two separate rates for screening and cessation intervention.

Minimum Technical Feasibility and Appropriateness	
Description of any barriers, limitations, or variations in the required data source and data elements that could affect consistency of calculations	**Response 1:** The first individual who suggested the measure indicated that the required data sources and data elements should be available in all states, since this measure does not utilize health information exchanges (HIEs) or state-specific systems. They did not identify potential factors specific to states that could impact the consistency of calculations for this measure. **Response 2:** The second individual who suggested the measure agreed that the required data sources and data elements should be available across states, but noted that electronic data capture might require technical assistance.
Evidence that measure could lead to improvement in quality of health care delivery and outcomes for Medicaid and CHIP beneficiaries	**Response 1:** One individual who suggested the measure noted that tobacco use is a leading cause of morbidity and mortality in the United States and indicated that this measure supports universal screening for tobacco use and referral to cessation intervention. They cited the U.S. Preventive Services Task Force (USPSTF) recommendations that clinicians ask all adults and school-aged children about tobacco use and that clinicians provide cessation counseling to users of tobacco and pharmacotherapy for individuals over 18 if appropriate.[5] **Response 2:** The second individual who suggested the measure indicated that the Health and Human Services (HHS) Framework to Support and Accelerate Smoking Cessation (2024),[6] HHS youth vaping campaign (2025),[7] Surgeon General Smoking Cessation 2020 Report,[8] Centers for Disease Control and Prevention youth vaping data,[9] and the USPSTF Guidelines on Tobacco Smoking Cessation Interventions[10] provide comprehensive evidence to support adding the *Tobacco Use Screening and Cessation Intervention* measure to the Child and Adult Core Sets. They indicated that the measure would encourage provision of tobacco cessation treatment for the leading preventable cause of disease and death.

Actionability	
Whether the measure would fill a gap or address a priority area in the Core Sets	Both individuals who suggested the measure indicated that it would address the HHS priority areas of nutrition, physical activity, wellness, and well-being.

Actionability	
Whether there is evidence of a performance gap for Medicaid and/or CHIP beneficiaries on the measure	**Response 1:** The first individual who suggested the measure indicated that there is no evidence of a performance gap for Medicaid and CHIP beneficiaries on the measure. **Response 2:** The second individual who suggested the measure noted that California Medicaid has a significant performance gap and missing data problem for the MSC-AD measure, which the *Tobacco Use Screening and Cessation Intervention* measure is suggested to replace. They cited a California Medicaid Consumer Assessment of Healthcare Providers and Systems (CAHPS) report that shows that California Medicaid managed care plans (MCP) are below the 50th and 90th percentiles for the three *Medical Assistance with Smoking and Tobacco Use Cessation* measure items (advising smokers and tobacco users to quit, discussing cessation medications, and discussing cessation strategies).[11] However, they noted that the Summary of Results section of the report shows that "the scores for every MCP except [one], as well as FFS [fee-for-service] and PSP [population-specific health plan] Statewide, were suppressed since fewer than 100 respondents responded for every measure item."[12] The individual suggested that the missing data problem associated with the CAHPS-based MSC-AD measure would be improved by utilizing the population-based *Tobacco Use Screening and Cessation Intervention* measure.
How the Medicaid and CHIP programs or providers could use the measure to improve health care delivery and/or outcomes	**Response 1:** The first individual who suggested the measure indicated that the measure's tobacco use screening rate could be used to identify populations not receiving tobacco screening, or providers or programs not administering tobacco screening. The tobacco cessation intervention rate could be used to identify gaps in care such as lack of referrals to cessation counseling or prescription of pharmacotherapy. The individual noted that setting a target and educating providers or creating additional resources for referral could lead to increases in receipt of evidence-based smoking cessation methods. **Response 2:** The second individual who suggested the measure indicated that using *Tobacco Use Screening and Cessation Intervention* in Medicaid is urgently needed for population-based quality improvement, to resolve the missing data problem associated with MSC-AD described above, and to provide appropriate state-level comparisons related to tobacco use screening and cessation interventions.

Actionability	
Whether the data source allows for stratification by the required stratification categories included in annual Core Sets guidance	The measure steward indicated that it is feasible to stratify *Tobacco Use Screening and Cessation Intervention* by race and ethnicity, sex, and geography, although the measure is not currently stratified by these categories for HEDIS reporting. During measure testing, the steward stratified health plan- and health-system-level results (which included multiple payers) by age, sex, race, and ethnicity. They also stratified the health plan-level results by disability status.[13] The measure steward confirmed that they also tested the feasibility of these stratifications within the Medicaid product line.

Additional Information for Consideration	
Prevalence of condition or outcome being measured among Medicaid and CHIP beneficiaries	The 2024 National Survey on Drug Use and Health provides self-reported estimates of tobacco product use and nicotine vaping for adolescents ages 12 to 17 with Medicaid or CHIP coverage:[14] • 5.1 percent of adolescents reported tobacco product use in the past year (tobacco products include cigarettes, smokeless tobacco, cigars, and pipe tobacco). • 14.5 percent of adolescents reported nicotine vaping in the past year. Both individuals who suggested the measure also cited 2021 National Health Interview Survey (NHIS) data showing higher prevalences of current tobacco or nicotine product use among adults (age 18 and older) who were uninsured (28.4 percent) or insured by Medicaid (28.1 percent) than among adults who had some other public insurance (21.6 percent), private health insurance (16.2 percent), or Medicare only (10.7 percent).[15] The 2021 NHIS data also showed that cigarette smoking prevalence was higher among adults enrolled in Medicaid (21.5 percent) than it was among adults with private health insurance (8.6 percent). The second individual who suggested the measure also cited all-payer data from the 2024 National Youth Tobacco Survey showing that 2.25 million middle and high school students reported current use of any tobacco product. They noted that, among middle and high school students, 1.63 million (5.9 percent) reported using e-cigarettes in 2024 and 1.8 percent reported using oral nicotine pouches.[16]
Use of measure in other CMS programs	No other programs were listed in CMS's Measure Inventory Tool or reported by the measure steward.

Additional Information for Consideration	
Whether provider workflows will have to be modified to collect additional data needed to report the measure	No. The measure steward indicated that workflow modifications would impose no or limited additional data entry burden on a clinician or other provider to collect the data elements to report the measure because data are routinely collected during clinical care, and the data are collected using structured electronic health record fields.
Potential barriers states could face in calculating measure and recommended technical assistance resources	**Response 1:** The first individual who suggested the measure indicated that states would likely not face specific barriers in calculating this measure that are not also present for other HEDIS ECDS measures that require clinical data. They noted that a guide to interoperability for smoking history concepts is available online.[17] **Response 2:** The second individual who suggested the measure noted that, to calculate the measure, states would need to collect data from clinics that are currently reporting similar quality measures, such as the *Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention* measure (CMS138, CMIT ID 596) that community clinics report to the Uniformed Data System.[18] They indicated that existing health information exchanges could facilitate data sharing between clinics and health plans. During previous Workgroup discussions, states have noted challenges using LOINC codes, which are required to calculate this measure. The measure steward noted that they are aware that some plans face feasibility challenges with LOINC because these codes require access to clinical data. The measure steward maintains ongoing discussions with coding experts regarding these challenges. They also assessed LOINC code availability during measure testing. They noted that while the measure intends to capture all commercial tobacco and nicotine products, actual reporting depends on how thoroughly coding standards are implemented.
Summary of prior Workgroup discussions	This measure has not been discussed previously by the Workgroup.

Citations

[1] https://www.medicaid.gov/federal-policy-guidance/downloads/sho25005.pdf.

[2] NCQA. August 2024. "Tobacco Use Screening and Cessation Intervention Measure: Performance Testing Report." Not publicly available.

[3] NCQA. August 2024. "Tobacco Use Screening and Cessation Intervention Measure: Performance Testing Report." Not publicly available.

[4] https://ecqi.healthit.gov/ecqm/ec/2024/cms0138v12?qt-tabs_measure=measure-information.

[5] https://www.ncbi.nlm.nih.gov/books/NBK567066/.

[6] https://www.hhs.gov/sites/default/files/hhs-framework-support-accelerate-smoking-cessation-2024.pdf.

[7] https://www.hhs.gov/surgeongeneral/reports-and-publications/youth-vaping/index.html.

[8] https://www.hhs.gov/sites/default/files/2020-cessation-sgr-full-report.pdf.

[9] https://www.cdc.gov/tobacco/e-cigarettes/youth.html.

[10] https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/tobacco-use-in-adults-and-pregnant-women-counseling-and-interventions.

(continued)

[11] https://www.dhcs.ca.gov/dataandstats/reports/Documents/CA2023-24-CAHPS-Medi-Cal-Summary-Report-F1.pdf (page 40).

[12] https://www.dhcs.ca.gov/dataandstats/reports/Documents/CA2023-24-CAHPS-Medi-Cal-Summary-Report-F1.pdf (page 97).

[13] NCQA. August 2024. "Tobacco Use Screening and Cessation Intervention Measure: Performance Testing Report." Not publicly available.

[14] Substance Abuse and Mental Health Services Administration. 2024 NSDUH Detailed Tables. Tables 2.32B and 2.38B. Available at: https://www.samhsa.gov/data/data-we-collect/nsduh-national-survey-drug-use-and-health/national-releases/2024#detailed-tables.

[15] Cornelius ME, Loretan CG, Jamal A, et al. Tobacco Product Use Among Adults – United States, 2021. MMWR Morb Mortal Wkly Rep 2023;72:475–483. DOI: http://dx.doi.org/10.15585/mmwr.mm7218a1.

[16] https://www.fda.gov/tobacco-products/youth-and-tobacco/results-annual-national-youth-tobacco-survey-nyts.

[17] https://www.healthit.gov/isp/uscdi-data/smoking-status-0.

[18] https://data.hrsa.gov/topics/healthcenters/uds/overview.

Mathematica
Progress Together

MEASURE INFORMATION SHEET

CHILD AND ADULT CORE SETS REVIEW WORKGROUP: MEASURES SUGGESTED FOR ADDITION TO THE 2028 CORE SETS

Measure Information	
Measure name	**Social Need Screening and Intervention**
Description	The percentage of persons who were screened using prespecified instruments, or assessed by a provider, for unmet food, housing, and transportation needs at least once during the measurement period, and the percentage of persons with a positive screen or identified need for food, housing, or transportation who received an intervention corresponding to the positive screen or identified need within 30 days of the positive screening. Six rates are reported: 1. Food Screening 2. Food Intervention 3. Housing Screening 4. Housing Intervention 5. Transportation Screening 6. Transportation Intervention *Note: The specifications described in this resource reflect the current technical specifications, but the measure steward is updating the specifications for measurement year (MY) 2026. See the "Other" section at the end of this document for more information about the planned changes.*
Measure steward	National Committee for Quality Assurance (NCQA)
Meaningful Measures area(s)	Closing Gaps of Care
Measure type(s)	Process
Suggested to replace current measure?	No

Technical Specifications	
Ages	Persons of any age as of the start of the measurement period (January 1 – December 31). Report four age stratifications and a total rate: • Age 17 and younger • Ages 18 to 64. • Age 65 and older. • Total.

Technical Specifications	
Data collection method(s)	HEDIS® Electronic Clinical Data Systems (ECDS). Note: ECDS includes data from administrative claims, electronic health records, case management systems, and health information exchanges/clinical registries.
Denominator	The measure includes denominators for six rates: 1. **Denominator 1 – Food Screening.** Persons of any age at the start of the measurement period who met continuous enrollment criteria. 2. **Denominator 2 – Food Intervention.** All persons in numerator 1 with an identified food need or a positive food insecurity screen finding, between January 1 and December 1 of the measurement period. 3. **Denominator 3 – Housing Screening**. Persons of any age at the start of the measurement period who met continuous enrollment criteria. 4. **Denominator 4 – Housing Intervention.** All persons in numerator 3 with an identified housing need or a positive housing instability, homelessness, or housing inadequacy screen finding, between January 1 and December 1 of the measurement period. 5. **Denominator 5 – Transportation Screening.** Persons of any age at the start of the measurement period who met continuous enrollment criteria. 6. **Denominator 6 – Transportation Intervention.** All persons in numerator 5 with an identified transportation need, or a positive transportation insecurity screen finding, between January 1 and December 1 of the measurement period. Intervention denominator notes (Denominators 2, 4, and 6): Persons are included in intervention denominators based on the presence of either: (a) an International Classification of Diseases-10 (ICD-10) Z code, indicating an identified need; or (b) a Logical Observation Identifiers Names and Codes (LOINC) code indicating a positive screen finding.

Technical Specifications	
Numerator	The measure includes numerators for six rates: 1. **Numerator 1 – Food Screening.** Persons in denominator 1 with a documented result for food insecurity screening, or assessment by a provider, performed between January 1 and December 1 of the measurement period. 2. **Numerator 2 – Food Intervention.** Persons in denominator 2 who received a food insecurity intervention on or up to 30 days after the date of the first food need identified or positive food insecurity screen (31 days total). 3. **Numerator 3 – Housing Screening.** Persons in denominator 3 with a documented result for housing instability, homelessness, or housing inadequacy screening, or assessment by a provider, performed between January 1 and December 1 of the measurement period. 4. **Numerator 4 – Housing Intervention.** Persons in denominator 4 who received an intervention corresponding to the type of housing need identified on or up to 30 days after the date of the first housing need identified or positive housing screen (31 days total). 5. **Numerator 5 – Transportation Screening.** Persons in denominator 5 with a documented result for transportation insecurity screening, or assessment by a provider, performed between January 1 and December 1 of the measurement period. 6. **Numerator 6 – Transportation Intervention.** Persons in denominator 6 who received a transportation insecurity intervention on or up to 30 days after the date of the first transportation need identified or positive transportation screen (31 days total). Screening numerator notes (Numerators 1, 3, and 5): Persons are included in screening numerators based on the presence of either (a) Healthcare Common Procedure Coding System (HCPCS) code G0136, indicating assessment by a provider; or (b) a LOINC code indicating a documented screening result. If a documented screening result, the screening must have been completed using one of the instruments included in the measure specification (the list of eligible screening instruments is provided below). However, NCQA recognizes that organizations might need to adapt or modify instruments to meet the needs of their membership. • The measure specification does not prohibit cultural adaptations or linguistic translations from being counted toward the measure's screening numerators. • Tool developers have varying policies with regard to cultural adaptation and translations. NCQA urges organizations to refer to the tool developer for information about adaptations or translations that are available or allowed.

Technical Specifications	
Numerator (continued)	Eligible screening instruments include: • Instruments that assess food, housing, and transportation insecurity: - Accountable Health Communities (AHC) Health-Related Social Needs (HRSN) Screening Tool. - American Academy of Family Physicians (AAFP) Social Needs Screening Tool. - AAFP Social Needs Screening Tool—short form. - Health Leads Screening Panel.®* - Protocol for Responding to and Assessing Patients' Assets, Risks and Experiences (PRAPARE).®* - WellRx Questionnaire. • Food insecurity instruments: - Hunger Vital Sign™ (HVS).* - Safe Environment for Every Kid (SEEK).* - U.S. Household Food Security Survey [U.S. FSS]. - U.S. Adult Food Security Survey [U.S. FSS]. - U.S. Child Food Security Survey [U.S. FSS]. - U.S. Household Food Security Survey–Six-Item Short Form [U.S. FSS]. - We Care Survey. • Housing instability and homelessness or housing inadequacy instruments: - Children's Health Watch Housing Stability Vital Signs.™* - Norwalk Community Health Center Screening Tool (NCHC). - We Care Survey. • Transportation insecurity instruments: - Comprehensive Universal Behavior Screen (CUBS). - Inpatient Rehabilitation Facility - Patient Assessment Instrument (IRF-PAI)—version 4.0 [CMS Assessment]. - Outcome and assessment information set (OASIS) form—version E—Discharge from Agency [CMS Assessment]. - OASIS form—version E—Resumption of Care [CMS Assessment]. - OASIS form—version E—Start of Care [CMS Assessment]. - PROMIS.®* * Proprietary instrument; there may be cost or licensing requirement associated with use.

Technical Specifications	
Numerator (continued)	Intervention numerator notes (Numerators 2, 4, and 6): The intervention must correspond to the type of need identified to count toward the numerator (that is, an identified food need or positive food insecurity screen finding must be met by a food insecurity intervention). Interventions may include any of the following categories: direct assistance, counseling, coordination, education, evaluation of eligibility, provision, or referral. Some food insecurity interventions may be identified using Current Procedural Terminology (CPT) or HCPCS codes. All other types of interventions must be identified using SNOMED codes.
Exclusions	The denominator for all measure rates excludes the following populations: • Persons who use hospice services or elect to use a hospice benefit any time during the measurement period. • Persons with a date of death in the measurement period. • Medicare enrollees in an institutional special needs plan (I-SNP) or living long-term in an institution.
Continuous enrollment period	No more than one gap in enrollment of up to 45 days during the measurement period. No gaps on the last day of the measurement period.
Type(s) of codes needed to calculate the measure	Code sets used to calculate the measure include: • CPT Category I. • ICD-10 (Z codes). • LOINC. • Uniform Bill Revenue codes (UBREV). • SMOMED CT US Edition. • HCPCS Level II. The measure steward indicated that the UBREV codes are an option for reporting the hospice services exclusion.
Level of reporting for which specifications are available	Plan-level.

Minimum Technical Feasibility and Appropriateness	
Link to current technical specifications	See HEDIS MY 2026 Vol. 2 for current measure specifications. Note: Because of regular steward updates, these specifications may not reflect the measure specifications that would be used for 2028 Core Sets reporting.

Minimum Technical Feasibility and Appropriateness	
Information on testing or use at state Medicaid/CHIP level	The measure steward indicated that pilot testing of the measure was conducted on a national Medicaid sample (n=24,728) from one health plan in 2022. They indicated that performance for the screening rates was low in measure testing, which was expected since it is a new measurement area. They did not identify differences in performance rates based on the data sources used, since the variety of data sources used for testing was limited. In an October 2025 publication, the measure steward reported that 222 Medicaid plans (80.4 percent) submitted reportable data for the *Social Needs Screening and Intervention* Food Screening rate for HEDIS MY 2024, up from 184 plans (66.2 percent) for MY 2023.[1] According to the measure steward, the average MY 2024 screening rates for the Medicaid plans with reportable data were approximately 2 percent for food, housing, and transportation needs, and the intervention rates for follow-up in these areas ranged from 7 to 14 percent. The measure is currently in use by state Medicaid and CHIP agencies, including: • New York state Medicaid is using the measure in its value-based payment program for MY 2025.[2] The measure is included as a pay-for-performance measure in New York's Children's Quality Measure Set, Behavioral Health/Health and Recovery Plan Quality Measure Set, Maternity Quality Measure Set, and Total Care for General Population Quality Measure Set. It is included as a pay-for-reporting measure in their HIV/AIDS Quality Measure Set. • New Jersey Medicaid included the measure in its External Quality Review (EQR) technical reports for MY 2023. • Pennsylvania Medicaid included the measure in its EQR technical reports for MY 2023. The measure steward also noted that that the California, Georgia, and Kentucky state Medicaid programs are using the measure.
Description of any barriers, limitations, or variations in the required data source and data elements that could affect consistency of calculations	The individual who suggested this measure noted that while system adjustments may be needed to ensure proper coding, all necessary codes should be available in most electronic health record systems. They emphasized that implementation will primarily require administrative education on how to code for this measure.

Minimum Technical Feasibility and Appropriateness	
Evidence that measure could lead to improvement in quality of health care delivery and outcomes for Medicaid and CHIP beneficiaries	The individual who suggested this measure explained that it compels health plans and providers to systematically identify needs that might otherwise go unrecognized—an essential first step in addressing them. By specifying domains such as food, housing, and transportation, the measure draws attention to social determinants that directly affect care access, treatment adherence, and health outcomes (for example, missed appointments due to lack of transportation). The individual noted that the requirement for an intervention within a timeframe encourages action, ensuring that identified needs lead to concrete follow-up rather than simply being documented. In addition, the individual noted that reporting on this measure can strengthen data infrastructure, tracking, and accountability—all critical components of effective Medicaid programs. Ultimately, the individual who suggested the measure stated that by addressing barriers to health, this measure can support better disease management, reduce avoidable hospital and emergency department use, lower costs, improve member satisfaction, and advance health equity.

Actionability	
Whether the measure would fill a gap or address a priority area in the Core Sets	The individual who suggested the measure indicated that it would address the Department of Health and Human Services priority areas of nutrition, physical activity, wellness, and well-being.
Whether there is evidence of a performance gap for Medicaid and/or CHIP beneficiaries on the measure	The individual who suggested this measure noted that they expected that by virtue of the means tested nature of the program, Medicaid beneficiaries typically have greater needs for support and resources compared to individuals with commercial coverage. The individual emphasized that unmet social needs are closely linked to poorer disease control—particularly for chronic conditions—as well as increased hospitalizations, greater emergency department use, and higher health care costs. For example, they referenced a National Alliance to Impact the Social Determinants of Health issue brief that highlights that Medicaid beneficiaries experience a high prevalence of unmet social needs that contribute to worse health outcomes and elevated utilization and costs.[3]
How the Medicaid and CHIP programs or providers could use the measure to improve health care delivery and/or outcomes	The individual who suggested the measure did not describe how the Medicaid and CHIP programs or providers could use the measure to improve health care delivery and/or outcomes.

Actionability	
Whether the data source allows for stratification by the required stratification categories included in annual Core Sets guidance	The measure steward explained that in the first few years of measure reporting, the measure has not had a large enough sample to generate valid results for race and ethnicity stratification. They noted that, given increases in data availability for the measure over time, there may be an opportunity to reassess the validity of race and ethnicity stratification in the coming years (e.g., for HEDIS MY 2027 or MY 2028). Additionally, the measure steward has not assessed the measure for stratification by sex or geography.

Additional Information for Consideration	
Prevalence of condition or outcome being measured among Medicaid and CHIP beneficiaries	Findings from CMS's Accountable Health Communities Model underscore both the high prevalence of health-related social needs among Medicaid beneficiaries and beneficiaries' strong interest in addressing them.[4] From 2017 to 2023, the AHC Model supported 31 awardees serving patients across 22 states—including rural communities and 7 of the 10 largest U.S. cities. Using the AHC screening tool, bridge organizations assessed five core social needs: housing instability, transportation challenges, food insecurity, utility difficulties, and interpersonal violence. In total, about one million unique Medicare and Medicaid beneficiaries were screened. The majority (70 percent) were enrolled in Medicaid only or were dually eligible for Medicare and Medicaid. Of those screened, 37 percent had one or more of the 5 core social needs, and among those eligible for assistance, 77 percent chose to participate in navigation support services to help address their identified needs. These findings highlight both the widespread nature of social needs among Medicaid beneficiaries and the strong engagement potential for programs to connect individuals to appropriate support services.
Use of measure in other CMS programs	No other programs listed in CMS's Measure Inventory Tool or reported by the measure steward.
Whether provider workflows will have to be modified to collect additional data needed to report the measure	The measure steward indicated that modifications to provider workflow were not assessed during measure testing.
Potential barriers states could face in calculating measure and recommended technical assistance resources	The individual who suggested the measure indicated they were unsure of the potential barriers states could face in calculating the measure. During previous Workgroup discussions, states have noted challenges accessing LOINC codes, which are used to identify numerator and denominator populations for some measure rates.

Additional Information for Consideration	
Potential barriers states could face in calculating measure and recommended technical assistance resources (continued)	The measure steward noted that they are aware that some plans face feasibility challenges with LOINC because these codes require access to clinical data. The measure steward maintains ongoing discussions with coding experts regarding these challenges.
Summary of prior Workgroup discussions	This measure was discussed at the 2026 Child and Adult Core Sets Annual Review meeting. At the 2026 meeting, the measure was not recommended for addition to the Core Sets. Despite broad recognition of the importance of addressing social needs as part of care delivery, many Workgroup members raised concerns around this measure's feasibility and viability for state-level reporting. Workgroup members shared several concerns about data collection, including that many providers may not be using the codes necessary for the measure, variability in results within states, and increased burden on health plans, providers, and state Medicaid and CHIP programs if the measure were added to the Core Sets. Since this measure was last discussed during the 2026 Core Sets Review, additional states have begun using the measure in their Medicaid and CHIP programs.
Other	The measure steward shared that they expect to update the measure specifications in March 2026. Key planned updates include: 1. Removing the provider assessment code (G0136) and its associated G and Z codes. G0136 was revised in the 2026 Physician Fee Schedule and is no longer designated for social determinant of health assessments. After this update takes effect, instances of social needs screenings and positive screens will only be able to be identified through LOINC codes. 2. Updating the intervention procedure value sets for all social need domains. The value set updates will bring them into alignment with the current Gravity Project5 code list and remove some SNOMED assessment codes. 3. Adding guidance to the technical specifications regarding an exception for identifying screening occurrence for food insecurity.

Citations

[1] NCQA. October 2025. Special Report: Results for Measures Leveraging Electronic Clinical Data for HEDIS. Available at: https://wpcdn.ncqa.org/www-prod/Special-Report-October-2025-Results-for-Measures-Leveraging-Electronic-Clinical-Data-for-HEDIS-1.pdf.

[2] https://health.ny.gov/health_care/medicaid/redesign/vbp/index.htm.

[3] https://nasdoh.org/wp-content/uploads/2021/10/10-21-NASDOH-Medicaid-and-Social-Needs-Issue-Brief_FINAL.pdf.

[4] https://www.cms.gov/priorities/innovation/data-and-reports/2023/ahc-second-eval-rpt.

[5] https://thegravityproject.net/.

Mathematica
Progress Together

MEASURE INFORMATION SHEET

CHILD AND ADULT CORE SETS REVIEW WORKGROUP: MEASURES SUGGESTED FOR ADDITION TO THE 2028 CORE SETS

Measure Information	
Measure name	**Adults' Access to Preventive/Ambulatory Health Services**
Description	The percentage of persons 20 years of age and older who had an ambulatory or preventive care visit during the measurement period.
Measure steward	National Committee for Quality Assurance (NCQA)
Meaningful Measures area(s)	Wellness and Prevention
Measure type(s)	Process
Suggested to replace current measure?	No

Technical Specifications	
Ages	Persons age 20 years and older as of the last day of the measurement period (January 1 through December 31). Report three age stratifications: • Ages 20 to 44. • Ages 45 to 64. • Age 65 and older.
Data collection method(s)	Administrative.
Denominator	Persons 20 years of age and older as of December 31 of the measurement period.
Numerator	One or more ambulatory or preventive visits during the measurement period.
Exclusions	Exclude persons from the denominator if they meet either of the following conditions: • Persons with a date of death during the measurement period. • Persons who use hospice services or elect to use a hospice benefit any time during the measurement period.
Continuous enrollment period	The measurement period. No more than one gap of greater than or equal to 45 days during each year of the continuous enrollment period. The person must be enrolled on the last day of the measurement period.

Technical Specifications	
Type(s) of codes needed to calculate the measure	Code sets used to calculate the measure include: • Current Procedural Terminology (CPT) Category I. • International Classification of Diseases (ICD). • SNOMED CT. • Healthcare Common Procedure Coding System (HCPCS) Level II. • Uniform Billing (UBREV).
Level of reporting for which specifications are available	Plan-level.

Minimum Technical Feasibility and Appropriateness	
Link to current technical specifications	See HEDIS® MY 2026 Vol. 2 for current measure specifications. Note: Because of regular steward updates, these specifications may not reflect the measure specifications that would be used for 2028 Core Sets reporting.
Information on testing or use at state Medicaid/CHIP level	NCQA, the measure steward, follows a comprehensive measure development process that includes an environmental scan, testing with implementation partners, and guidance from expert Measurement Advisory Panels. The individual who suggested the measure indicated that 21 states included the measure in performance measure validation in their External Quality Review (EQR) technical reports for 2023-2024: AR, CA, FL, IA, IL, KY, LA, MI, MN, MS, NH, NJ, NV, OH, PA, RI, SC, UT, VA, VT, and WA.[1] NCQA confirmed that they are aware of six states that currently use this measure in Medicaid or CHIP: *NH, SC, TN, TX, VA, and WA.* Finally, performance data for the *Adults' Access to Preventive/Ambulatory Health Services* measure for measurement year (MY) 2023 at the health-plan level showed that 74 percent of Medicaid members age 20 and older had an ambulatory or preventive care visit within the measurement period.[2]
Description of any barriers, limitations, or variations in the required data source and data elements that could affect consistency of calculations	The individual who suggested the measure noted that the measure is an NCQA HEDIS measure and that all HEDIS measures rely on administrative data and code sets (Ambulatory Visits and Reasons for Ambulatory Visits value sets), which are included in the HEDIS measure specifications.

Minimum Technical Feasibility and Appropriateness	
Evidence that measure could lead to improvement in quality of health care delivery and outcomes for Medicaid and CHIP beneficiaries	The individual who suggested the measure highlighted that preventive services and ambulatory health services are essential to protecting and promoting both individual and community health, noting that this measure reinforces health plans' responsibility to ensure access to care for all members. The individual who suggested the measure shared that people who do not receive preventive health care are at greater risk of developing advanced or preventable disease, often resulting in higher personal and financial cost. Studies have found that clinical preventive services in the ambulatory setting have substantial benefits in preventing deaths and illness episodes.[3] Additionally, primary care visits increase the likelihood patients receive preventive interventions, such as vaccinations and cancer screenings.[4] The individual noted that while patients have a responsibility to manage their own health, health plans must take an active role in educating their members about the importance of routine care and in reminding them when such care is needed. They further emphasized that this measure would promote greater focus and more deliberate performance improvement efforts to improve access to preventive care for Medicaid and CHIP beneficiaries.

Actionability	
Whether the measure would fill a gap or address a priority area in the Core Sets	The individual who suggested the measure indicated that it would address the Department of Health and Human Services' (HHS) priority areas of nutrition, physical activity, wellness, and well-being.
Whether there is evidence of a performance gap for Medicaid and/or CHIP beneficiaries on the measure	The individual who suggested the measure noted that the available performance data show that national averages for Medicaid managed care plans have been consistently lower than commercial and Medicare managed care plans since 2009.[5] This lower performance may reflect differences in measure specifications: commercial plans require a visit every three years, whereas Medicaid and Medicare specifications call for annual visits. These variations align with the higher risk profiles and greater health care needs of Medicaid beneficiaries, driven by a combination of clinical, socioeconomic, and systemic factors. In MY 2023, the average for Medicaid health plans (74 percent) was 20 percentage points lower than the average for national commercial and Medicare plans (each 94 percent).

Actionability	
Whether there is evidence of a performance gap for Medicaid and/or CHIP beneficiaries on the measure (continued)	The individual who suggested the measure asserted that there is room for improvement in this measure and highlighted wide performance variation across census regions and states for Medicaid health plans. For example, in MY 2024, the rates in the Pacific and South Atlantic regions were lower (69 percent) than the New England region (84 percent).[6]
How the Medicaid and CHIP programs or providers could use the measure to improve health care delivery and/or outcomes	The individual who suggested the measure highlighted that primary care visits improve care delivery and health outcomes by offering a consistent source of care, emphasizing disease prevention and management, and coordinating care across different health care settings. By tracking and stratifying the *Adults' Access to Preventive/Ambulatory Health Services* measure, Medicaid and CHIP programs will be able to identify gaps in access to care and implement targeted performance improvement efforts to close those gaps. The measure may also provide insight into how patients are able to access preventive services, as the measure includes in-person, telehealth visits, and online assessments. The individual suggesting the measure noted that including this measure in the Adult Core Set would also allow for consistent national comparisons of state performance. Finally, the individual noted that while the Child Core Set includes the *Well-Child Visits in the First 30 Months of Life* (W30-CH) and *Child and Adolescent Well-Care Visits* (WCV-CH) measures, which cover broad access to preventive services up to the age of 21, the Adult Core Set only includes measures assessing access to care for specific conditions or services. They noted that having the *Adults' Access to Preventive/Ambulatory Health Services* measure in the Adult Core Set would allow programs to measure health care access and delivery across the entire age continuum.
Whether the data source allows for stratification by the required stratification categories included in annual Core Sets guidance	The measure steward commented that the measure can be stratified by age and has not been assessed for its ability to capture additional stratifications. They noted that if NCQA continues to maintain the measure past MY 2028, the measure will undergo reevaluation to determine what changes may need to be made to be aligned with the current evidence base and best practices.

Additional Information for Consideration	
Prevalence of condition or outcome being measured among Medicaid and CHIP beneficiaries	The individual who suggested the measure noted that nationally, about 74.2 percent of Medicaid managed care beneficiaries age 20 years and older had an ambulatory or preventive care visit in 2023.[7] By comparison, the Centers for Disease Control and Prevention (CDC) estimates that 85.2 percent of all adults had a visit with any doctor or health care professional in the past year.[8]

Additional Information for Consideration	
Use of measure in other CMS programs	The measure is currently used in the following CMS program: the 2026 Medicare Part C and D Display Page. Note that the measure is listed on the CMS Display Page under the name "DMC08 - Access to Primary Care Doctor Visits."
Whether provider workflows will have to be modified to collect additional data needed to report the measure	Not applicable. The individual who suggested the measure indicated that the measure imposes no data entry burden on providers, either because the measure uses data that are routinely generated (such as administrative data and claims), the data are collected by someone other than the provider, or the measure repurposes existing data sets to calculate the measure.
Potential barriers states could face in calculating measure and recommended technical assistance resources	The individual who suggested the measure did not indicate any barriers that states could face in calculating the measure, and noted that NCQA, the measure steward, has available technical assistance resources.
Summary of prior Workgroup discussions	This measure was discussed at the 2023 Child and Adult Core Sets Annual Review meeting. At the 2023 meeting, the measure was not recommended for addition to the Core Sets. During the 2023 review cycle, the Workgroup member who suggested the measure highlighted that preventive visits can both reduce emergency department visits and help beneficiaries manage acute and chronic conditions. However, some Workgroup members argued that the measure was too broad to provide a precise focus on primary care and questioned whether the measure was intended to assess quality or access to care. The Workgroup also questioned the measure's focus on practitioner visits, claiming that there are other more innovative ways to approach preventive health care. Finally, the Workgroup noted the measure specifications differ for Medicaid beneficiaries versus commercially insured individuals, arguing that the difference would make it difficult for states to compare performance across payers to assess if the Medicaid population has equitable access to care. In suggesting the measure for reconsideration this year, the individual who suggested the measure stated that the performance gap between the Medicaid and Medicare or commercial populations reflects that there is room for improvement on the measure. The individual also argued that the broadness of the measure may be helpful for state reporting, contrasting it with condition-specific Adult Core Set measures like *Chlamydia Screening Ages 21 to 24* (CHL-AD) or *Colorectal Cancer Screening* (COL-AD).

Additional Information for Consideration	
Other	The individual who suggested the measure emphasized that access to care is a growing issue for Medicaid beneficiaries in the U.S. due to ongoing proposals to reduce federal funding to the program. They argued that Medicaid cuts threaten access to care in rural areas by destabilizing vulnerable rural hospitals, and that it is more important than ever to measure and track basic access to health care services with measures like this one. The measure steward noted that they are currently evaluating their suite of primary care and prevention related measures. They indicated that if the *Adults' Access to Preventive/Ambulatory Health Services* measure is maintained past MY 2028, they plan to convert it to a digital measure.

Citations

[1] An External Quality Review (EQR) is the analysis and evaluation by an External Quality Review Organization of aggregated information on quality, timeliness, and access to the health care services that a managed care plan or its contractors furnish to Medicaid and CHIP beneficiaries. The annual EQR results in the generation of an annual EQR technical report. The summary tables for the 2023-2024 EQR reporting cycle are available at: https://www.medicaid.gov/medicaid/quality-of-care/downloads/2023-2024-chart-pack.zip. See EQR Table 3 for a list of performance measures included in EQR technical reports.

[2] https://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality-report/adults-access-to-preventive-ambulatory-health-services-aap/.

[3] Silverstein MD, Ogola G, Mercer Q, Fong J, Devol E, Couch CE, Ballard DJ. Impact of clinical preventive services in the ambulatory setting. *Proc (Bayl Univ Med Cent)*. 2008 Jul;21(3):227-35. doi: 10.1080/08998280.2008.11928400. PMID: 18628969; PMCID: PMC2446410.

[4] Hostetter, J., Schwarz, N., Klug, M. et al. Primary care visits increase utilization of evidence-based preventative health measures. *BMC Fam Pract* 21, 151 (2020). https://doi.org/10.1186/s12875-020-01216-8.

[5] https://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality-report/adults-access-to-preventive-ambulatory-health-services-aap/.

[6] Regional data published by NCQA's State of Health Care Quality Report via the Quality Compass Tool. More information available at: https://www.ncqa.org/blog/updates-to-the-state-of-health-care-quality-report/.

[7] https://www.ncqa.org/report-cards/health-plans/state-of-health-care-quality-report/adults-access-to-preventive-ambulatory-health-services-aap/.

[8] https://www.cdc.gov/nchs/fastats/physician-visits.htm.

Mathematica
Progress Together

MEASURE INFORMATION SHEET

CHILD AND ADULT CORE SETS REVIEW WORKGROUP: MEASURES SUGGESTED FOR ADDITION TO THE 2028 CORE SETS

Measure Information	
Measure name	**Measuring the Value-Functions of Primary Care: Continuity of Care**
Description	The measure calculates the percentage of a physician's patients who have a continuity index score of at least 0.7 (excluding patients with fewer than two primary care visits during the one-year measurement period). This is a physician-level measure that can be rolled up to different levels, including health plans and states. The quality measure leverages a previously validated patient-level continuity index that quantifies the extent to which patients experience continuity of provider in their primary care visits.
Measure steward	American Board of Family Medicine (ABFM)
Meaningful Measures area(s)	Value, Affordability, and Efficiency
Measure type(s)	Efficiency, Process
Suggested to replace current measure?	No

Technical Specifications	
Ages	Patients of any age.
Data collection method(s)	Administrative, electronic health records (EHR), or clinical registry. The measure steward noted that these data sources are independent options for measure calculation and do not need to be combined or supplemented with one another.
Denominator	The denominator includes patients who had at least two visits to any primary care provider (PCP) during the measurement period (January 1 to December 31). Each of these patients is assigned to a PCP: • A patient with primary care visits to more than one PCP is assigned to the PCP who saw the patient the most. • A patient that visited two PCPs an equal number of times throughout the measurement period is assigned to the PCP that they visited closest to the end of the measurement period (the PCP they visited most recently).

Technical Specifications	
Denominator (continued)	The denominator for each PCP is the total number of patients attributed to that PCP. Follow the steps below to calculate the measure denominator at the physician-level: • Step 1: Identify all patients with at least two visits to a PCP in either the office or outpatient setting. This is done using the health care services categorization code (HCCC) 01[a] to identify primary care physicians, and the place of service codes listed under definitions, below. • Step 2: Retain the unique physician identifier (NPI) associated with each visit for the patients in Step 1. Attribute patients to physicians using the logic provided above. The denominator for each physician is the total number of patients attributed to that physician. Denominator Note: The requirement of at least two visits to a PCP is necessary to calculate a Continuity of Care index. **Definitions** • Primary care visit = Any visit with a primary care clinician. Identified using the HCCC of 01 (to identify primary care physicians), and the place of service codes 01, 02, 03, 04, 11, 12, 13, 14, 15, 16, 17, 41, 42, 49, 50, 53, 57, 60, or 71. • Primary care clinician, or PCP = Physician with an HCCC of 01. Do not include nurse practitioners or physician assistants.
Numerator	The numerator for each physician is the number of patients attributed to that physician who has a continuity index score of at least 0.7. For each patient, the continuity index score is calculated using the Bice-Boxerman Continuity of Care Index (BBI). The BBI is a validated measure of patient-level care continuity that ranges from 0 to 1; 0 reflects completely disjointed care (a different provider for each visit) and 1 reflects complete continuity with the same provider for all visits.[1] BBI = (Σ (i=1)^k n_i^2) - N/(N(N-1)), where k is the number of providers, n_i is the number of visits to provider i, and N is the total number of visits. Follow the steps below to calculate the measure numerator and performance rate at the physician-level: • Step 3: Calculate each patient's continuity index score using the BBI calculation.

[a] The measure steward indicated that there are four CMS specialty codes that can be used if health care service categorization codes are not available. Those codes are 01, 08, 11, and 38.

Technical Specifications	
Numerator (continued)	• Step 4: Determine if the BBI patient-level continuity score has met or not met the 0.7 threshold. For each patient, if their index score is greater than or equal to 0.7 then they are included in the numerator. • Step 5: Divide the numerator by the denominator to get the physician-level continuity score. This reflects the proportion of patients that the PCP saw who have a continuity index score of at least 0.7. The measure can be rolled up to any level analysis (such as physician, group, practice, health system, health plan, or state level) as long as a patient can be assigned to that level of analysis. The state-level Medicaid and CHIP calculation is below: • Optional Step 6: Divide the sum of physician-level scores of physicians associated with the state Medicaid and CHIP program by the number of physicians associated with the state Medicaid and CHIP program to get the average percentage of physicians with patients with a BBI score of 0.7 or higher at the state-level of analysis. Physicians are associated with the state Medicaid and CHIP program if at least one Medicaid and CHIP beneficiary was attributed to that physician in denominator calculation Step 2.
Exclusions	None.
Continuous enrollment period	Not specified.
Type(s) of codes needed to calculate the measure	Code sets used to calculate the measure include: • Current Procedural Terminology (CPT) Category I. • CPT Category II. • CPT Category III. • International Classification of Diseases (ICD). • Healthcare Common Procedure Coding System (HCPCS) Level II. • Uniform Billing Codes (UB). The measure steward noted that the specifications are generic enough that they can be used with any claims database or EHR data system.
Level of reporting for which specifications are available	State-level, accountable-care-organization-level, clinician-level, facility-level, plan-level, integrated-delivery-system-level, program-level, and population-level. The measure steward indicated that the roll-up methodology allows the measure to be used at any level of analysis that can connect a patient to the level of analysis desired.

Minimum Technical Feasibility and Appropriateness	
Link to current technical specifications	Current specifications for the provider-level version of the measure are available at: https://y7i6a8f8.delivery.rocketcdn.me/wp-content/uploads/2024/06/QCDR_MIPS_CQM_Continuity-of-Care-2024.pdf. Note: Because of regular steward updates, these specifications may not reflect the measure specifications that would be used for 2028 Core Sets reporting.[b]
Information on testing or use at state Medicaid/CHIP level	The measure steward indicated that the measure was tested using 2021 data from the Virginia All-Payer Claims Database (APCD), which offers a patient sample (n=6,272,719) that is demographically similar to the United States across age, gender, and rurality. They reported that the dataset included Medicaid data from Medicaid low-income health maintenance organizations (HMOs) and special needs plans for individuals dually eligible for Medicare and Medicaid. They provided statewide testing results that were stratified by type of health plan.[2] The Medicaid low-income HMO testing results were based on a denominator of 600,580 beneficiaries with at least two visits to any PCP in the measurement period, and the special needs plan dual eligible results were based on a denominator of 434,512 beneficiaries. The steward explained that, during testing, they "focused on associations at the patient level between meeting the [continuity of care] threshold and outcomes… Across these analyses we estimated the strength of association separately for each plan. If we observe a significant association for patients within a plan, then it would follow those associations would persist for aggregates of the associated variables, including our measure which is the proportion of patients meeting the [BBI] ≥ 0.7 threshold."[3] They selected emergency room (ER) visits and total allowed costs as the patient outcomes, since previous research has demonstrated associations between greater continuity of care and reduced costs[4,5,6] as well as decreased utilization of ER services.[7,8,9,10] Measure testing results revealed a significant negative association between patients meeting the continuity of care threshold and the likelihood of any ER visit. Specifically, patients with a BBI score of 0.7 or higher had significantly reduced odds of an ER visit compared to those who did not meet the threshold. This association was consistent for all health plans in the testing dataset. The Medicaid-specific odds ratios for the association between any ER visits in 2021 and meeting the continuity of care threshold were as follows:[11]

[b] The measure steward noted that are part of the ongoing maintenance of the measure, they regularly review whether updates might be appropriate. At this stage, they are exploring several potential areas for refinement—such as alternative continuity indexes, thresholds, and identifiers for primary care physicians and visits. However, this work is still in the early stages, and no changes have been finalized.

Minimum Technical Feasibility and Appropriateness	
Information on testing or use at state Medicaid/CHIP level (continued)	• Medicaid Low Income HMO: 0.81 (95 percent confidence interval [CI]: 0.80, 0.83) • Special Needs Plan Dual Eligible: 0.56 (95 percent CI: 0.55, 0.58) Measure testing results also showed that patients with a BBI score of 0.7 or higher had significantly lower costs across all plans. This association was consistently observed over time and across varying levels of rigor for Medicare and Medicaid plans. The associations were weaker or non-significant for some commercial plans. The Medicaid-specific estimates of the cost changes associated with meeting the threshold were as follows:[12] • Medicaid Low Income HMO: -12.9 percent (95 percent CI: -14.0 percent, -11.8 percent) • Special Needs Plan Dual Eligible: -19.7 percent (95 percent CI: -21.5 percent, -17.9 percent) The measure steward also conducted reliability testing of the measure using the Virginia APCD, however Medicaid-specific testing results were not available. The measure steward was not aware of any state Medicaid and/or CHIP programs that are currently using the measure. However, they noted that the measure has been included in two (non-Medicaid) California state programs: Covered California 2026-2028 Qualified Health Plan Issuer Contract[c] and California Public Employee's Retirement System (CalPERS) 2026 Health Maintenance Organization Contract.
Description of any barriers, limitations, or variations in the required data source and data elements that could affect consistency of calculations	The measure steward noted that all required data elements should be available across all states, and that there are no factors that could affect the consistency of calculations across states.
Evidence that measure could lead to improvement in quality of health care delivery and outcomes for Medicaid and CHIP beneficiaries	The individual who suggested the measure noted that continuity of care is a core function of primary care that has been consistently associated with improved health outcomes and reduced costs. They provided research showing that higher continuity—measured using the BBI—is linked to significantly lower health care expenditures and fewer hospitalizations. For example, they cited a 2018 study showing that beneficiaries cared for by physicians in the highest continuity quintile had 14.1 percent lower adjusted expenditures and 16.1 percent lower odds of hospitalization compared to those in the lowest quintile.[13]

[c] Covered California qualified health plans are the state's marketplace plans.

Minimum Technical Feasibility and Appropriateness	
Evidence that measure could lead to improvement in quality of health care delivery and outcomes for Medicaid and CHIP beneficiaries (continued)	The individual also cited a 2023 systematic review of 83 studies over 2 decades that further supports this association. Among 160 unique outcomes, interpersonal continuity of care was linked to significantly lower health care costs or more favorable utilization in 109 cases.[14] The individual indicated that these findings are consistent across diverse populations, including those with chronic conditions such as pre-diabetes, asthma, stroke, and joint replacements.[15,16,17,18,19,20] They asserted that continuity also aligns with patient preferences. They noted that, in a survey of over 2,500 patients, most expressed a strong desire to see their personal primary care provider, even if it meant waiting several weeks.[21] The individual who suggested this measure concluded that this body of evidence demonstrates that measuring and improving continuity of care can lead to better health outcomes, lower costs, and greater patient satisfaction—making it a high-impact measure for Medicaid and CHIP populations.

Actionability	
Whether the measure would fill a gap or address a priority area in the Core Sets	The individual who suggested the measure indicated that it would address the Department of Health and Human Services' (HHS) priority areas of nutrition, physical activity, wellness, and well-being.
Whether there is evidence of a performance gap for Medicaid and/or CHIP beneficiaries on the measure	The measure steward noted a performance gap where Medicaid beneficiaries experience lower continuity of care. During measure testing, they found that only 55.98 percent of Medicaid HMO patients maintained a continuous relationship with their primary care provider (based on a BBI score of 0.7 or higher). The measure steward provided the following measure performance data to demonstrate this point:[22] • Commercial HMO: 46.31 percent • Medicaid Low Income HMO: 55.98 percent • Commercial Preferred Provider Organization (PPO): 56.97 percent • Commercial Point of Service (POS): 56.44 percent • Special Needs Plan Dual Eligible: 57.96 percent • Medicare Fee-for-Service (FFS): 58.22 percent • Medicare Advantage PPO: 62.24 percent • Medicare Advantage HMO: 63.95 percent

Actionability	
How the Medicaid and CHIP programs or providers could use the measure to improve health care delivery and/or outcomes	The individual who suggested the measure argued that trust between doctors and patients is a foundation of health equity and that long-term continuous relationships are the foundation for trust between physicians and patients. They noted that patients who trust their doctors more may be more likely to seek help when they need it and more likely to follow through with medication and treatment plans, which enables better health outcomes.[23] The individual who suggested the measure indicated that Medicaid and CHIP programs could use the continuity measure to identify differences in measure performance and develop targeted interventions to improve continuity (such as empanelment and continuity-focused scheduling guidelines) in areas with the lowest continuity scores, thereby improving measure performance overall.[24,25] Lastly, they noted that as higher continuity has been associated with lower costs and ER visits, this improvement could lead to cost savings for Medicaid and CHIP programs.[26]
Whether the data source allows for stratification by the required stratification categories included in annual Core Sets guidance	The measure steward explained that the data source allows for stratification by race, ethnicity, sex, and geography. They noted that during measure testing, they were able to stratify the full, all-payer data source (the Virginia APCD) by sex and geography, but not by race and ethnicity, since the Virginia APCD did not have reliable data on race and ethnicity. They indicated that, if the data source being used by states has reliable data, the measure could also be stratified by race and ethnicity.

Additional Information for Consideration	
Prevalence of condition or outcome being measured among Medicaid and CHIP beneficiaries	The individual who suggested the measure noted that estimates of Medicaid/CHIP-specific levels of care continuity are limited. They cited a 2023 study that measured continuity of care using the BBI calculation in Alabama Medicaid patients with diabetes in 2018 and 2019 and reported a mean BBI score of 0.54.[27] They also cited a 2018 U.S.-wide study that measured care continuity for 1.4 million Medicare beneficiaries who received primary care in 2011.[28] While the study did not report mean values, they displayed distributions of four different continuity scores, including the BBI. The distribution of the BBI scores appeared to range from 0.2 to 1 (excluding a small percentage of outliers with 0 scores), with most of the data distributed between scores of 0.6 and 0.9.

Additional Information for Consideration	
Use of measure in other CMS programs	The measure is currently used in the following CMS program: Merit-Based Incentive Payment System (MIPS), as a Qualified Clinical Data Registry (QCDR) measure. The measure steward also reported that the measure has been consensus-based entity endorsed since 2021 and is included in the draft Agency for Healthcare Research and Quality Diagnostic Excellence measure set and in the Core Quality Measures Collaborative's Accountable Care Organizations, Patient Centered Medical Homes, and Primary Care Core Set.
Whether provider workflows will have to be modified to collect additional data needed to report the measure	No. The measure steward indicated that workflow modifications would impose no or limited additional data entry burden on a clinician or other provider to collect the data elements to report the measure because data are routinely collected during clinical care, and the data are collected using structured EHR fields.
Potential barriers states could face in calculating measure and recommended technical assistance resources	The measure steward noted that they do not foresee any barriers states would face in calculating this measure.
Summary of prior Workgroup discussions	This measure has not been discussed previously by the Workgroup.

Citations

[1] Dai M, Pavletic D, Shuemaker JC, Solid CA, Phillips RL Jr. Measuring the Value Functions of Primary Care: Physician-Level Continuity of Care Quality Measure. *Ann Fam Med*. 2022 Nov-Dec;20(6):535-540. doi: 10.1370/afm.2880. PMID: 36443072; PMCID: PMC9705031.

[2] ABFM. Validity and Reliability Testing of the Continuity of Care Measure in Virginia APCD. Not publicly available.

[3] ABFM. Validity and Reliability Testing of the Continuity of Care Measure in Virginia APCD. Not publicly available.

[4] Bazemore A, Petterson S, Peterson LE, Bruno R, Chung Y, Phillips RL Jr. Higher Primary Care Physician Continuity is Associated with Lower Costs and Hospitalizations. *Ann Fam Med*. 2018;16(6):492-497. doi:10.1370/afm.2308.

[5] Romaire MA, Haber SG, Wensky SG, McCall N. Primary care and specialty providers: an assessment of continuity of care, utilization, and expenditures. *Med Care*. 2014;52(12):1042-1049. doi:10.1097/MLR.0000000000000246.

[6] Hussey PS, Schneider EC, Rudin RS, Fox DS, Lai J, Pollack CE. Continuity and the costs of care for chronic disease. *JAMA Intern Med*. 2014;174(5):742-748. doi:10.1001/jamainternmed.2014.245.

[7] Nyweide DJ, Bynum JPW. Relationship Between Continuity of Ambulatory Care and Risk of Emergency Department Episodes Among Older Adults. *Ann Emerg Med*. 2017;69(4):407-415.e3. doi:10.1016/j.annemergmed.2016.06.027.

[8] Chaiyachati KH, Gordon K, Long T, et al. Continuity in a VA patient-centered medical home reduces emergency department visits [published correction appears in PLoS One. 2014;9(8):e106272]. *PLoS One*. 2014;9(5):e96356. Published 2014 May 27. doi:10.1371/journal.pone.0096356.

(continued)

[9] Holderness H, Angier H, Huguet N, et al. Where Do Oregon Medicaid Enrollees Seek Outpatient Care Post-Affordable Care Act Medicaid Expansion? *Med Care*. 2019;57(10):788-794. doi:10.1097/MLR.0000000000001189.

[10] Arthur KC, Mangione-Smith R, Burkhart Q, et al. Quality of Care for Children with Medical Complexity: An Analysis of Continuity of Care as a Potential Quality Indicator. *Acad Pediatr*. 2018;18(6):669-676. doi:10.1016/j.acap.2018.04.009.

[11] ABFM. Validity and Reliability Testing of the Continuity of Care Measure in Virginia APCD. Not publicly available.

[12] ABFM. Validity and Reliability Testing of the Continuity of Care Measure in Virginia APCD. Not publicly available.

[13] Bazemore A, Petterson S, Peterson LE, Bruno R, Chung Y, Phillips RL. Higher Primary Care Physician Continuity is Associated with Lower Costs and Hospitalizations. *Ann Fam Med* 2018;16:492–497.

[14] Bazemore A, Merenstein Z, Handler L, Saultz J. The Impact of Interpersonal Continuity of Primary Care on Health Care Costs and Use: A Critical Review. 2023.

[15] PereiraGray DJ, Sidaway-Lee K, White E, Thorne A, Evans PH. Continuity of care with doctors—a matter of life and death? A systematic review of continuity of care and mortality. *BMJ Open* 2018;8:e021161.

[16] Tammes P, Purdy S, Salisbury C, MacKichan F, Lasserson D, Morris RW. Continuity of Primary Care and Emergency Hospital Admissions Among Older Patients in England. *Ann Fam Med* 2017;15:515–522.

[17] Johannes B, Mainous A, Wood C, Cook A, Rahm A, Still C, Bailey-Davis L. Primary care continuity among pre-diabetics and the likelihood of progressing to type 2 diabetes within 3 years. *Ann Fam Med* 2023;21:4815.

[18] Lethbridge L, Richardson CG, Dunbar MJ. Continuity of primary care and emergency department visits following knee and hip replacement surgery: a retrospective cohort study. *Can J Surg* 2023;66:E451–E457.

[19] Hou Y, Trogdon JG, Freburger JK, Bushnell CD, Halladay JR, Duncan PW, Kucharska-Newton AM. Association of Continuity of Care with Health Care Utilization and Expenditures Among Patients Discharged Home After Stroke or Transient Ischemic Attack. *Méd Care* 2024;62:270–276.

[20] Lee I-H, Kim S, Choo E, Jang EJ, Je NK. Continuity of primary care and avoidable hospitalization in a young population with asthma: a population-based cohort study. *Sci Rep* 2024;14:28395.

[21] Shumer G, Chen D, Holkeboer J, Marshall L, Kinney D, Sen A, Klinkman M, Gold KJ. Convenience or Continuity: When Are Patients Willing to Wait to See Their Own Doctor? *Ann Fam Med* 2025;23:151–157.

[22] ABFM. Measure performance data for the Continuity of Care measure in Virginia APCD. Not publicly available.

[23] Chen, Yun-Yi, Cheng-I. Hsieh, and Kuo-Piao Chung. Continuity of care, follow-up care, and outcomes among breast cancer survivors. *International Journal of Environmental Research and Public Health* 16.17 (2019): 3050. https://doi.org/10.3390/ijerph16173050.

[24] Herring J, Park YH, Luo Q, Vichare A, Erikson C, Pittman P. Medicaid Primary Care Utilization and Area-Level Social Vulnerability. *JAMA Health Forum*. 2025;6(9):e253020. doi:10.1001/jamahealthforum.2025.3020.

[25] Dane A. Snyder, Jonathon Schuller, Zeenath Ameen, Christina Toth, Alex R. Kemper, Improving Patient-Provider Continuity in a Large Urban Academic Primary Care Network, *Academic Pediatrics*, Volume 22, Issue 2, 2022, Pages 305-312, ISSN 1876-2859, https://doi.org/10.1016/j.acap.2021.11.005.

[26] Bazemore A, Petterson S, Peterson LE, Bruno R, Chung Y, Phillips RL. Higher Primary Care Physician Continuity is Associated with Lower Costs and Hospitalizations. *Ann Fam Med* 2018;16:492–497.

[27] Riggs KR, Presley CA, Agne AA, Howell CR, Huang L, Mugavero MJ, Levitan EB, Cherrington AL. Measuring continuity of care for diabetes: which visits to include? *Am J Manag Care*. 2023 Sep 1;29(9):e274-e279. doi: 10.37765/ajmc.2023.89431. PMID: 37729533; PMCID: PMC12169212.

[28] Bazemore A, Petterson S, Peterson LE, Bruno R, Chung Y, Phillips RL Jr. Higher Primary Care Physician Continuity is Associated with Lower Costs and Hospitalizations. *Ann Fam Med*. 2018 Nov;16(6):492-497. doi: 10.1370/afm.2308. PMID: 30420363; PMCID: PMC6231930.