

Measure 8: Developmental Screening in the First Three Years of Life

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A. DESCRIPTION

The percentage of children screened for risk of developmental, behavioral, and social delays using a standardized screening tool in the 12 months preceding their first, second, or third birthday.

Guidance for Reporting:

- This measure includes three age-specific indicators assessing whether children are screened by their first, second or third birthdays. Four rates, one for each age group and a combined rate, are to be calculated and reported.

B. ELIGIBLE POPULATION

Age	Children who turn 1, 2, or 3 years of age between January 1 and December 31 of the measurement year.
Continuous Enrollment	Children who are enrolled continuously for 12 months prior to the child's 1st, 2nd, or 3rd birthday.
Allowable Gap	No more than one gap in enrollment of up to 45 days during the measurement year. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the beneficiary may not have more than a 1-month gap in coverage (i.e., a beneficiary whose coverage lapses for 2 months or 60 days is not considered continuously enrolled).
Benefit	Medical
Event/Diagnosis	None

C. DATA SOURCE

C.1 – Administrative Specifications

Denominator

Denominator 1: The children in the eligible population who turned 1 during the measurement year.

Denominator 2: The children in the eligible population who turned 2 during the measurement year.

Denominator 3: The children in the eligible population who turned 3 during the measurement year.

Denominator 4: All children in the eligible population who turned 1, 2, or 3 during the measurement year, i.e., the sum of denominators 1, 2, and 3.

Numerators

The numerators identify children who were screened for risk of developmental, behavioral, and social delays using a standardized tool. National recommendations call for children to be screened three times in the first three years of life. The measure is based on three, age-specific indicators.

Numerator 1: Children in Denominator 1 who had a claim with CPT code 96110 by their first birthday

Numerator 2: Children in Denominator 2 who had a claim with CPT code 96110 after their first and before or on their second birthdays

Numerator 3: Children in Denominator 3 who had a claim with CPT code 96110 after their second and before or on their third birthdays

Numerator 4: Children in the entire eligible population who had claim with CPT code 96110 in the 12 months preceding their 1st, 2nd, or 3rd birthday (the sum of numerators 1, 2 and 3).

Claims data: CPT code 96110 (Developmental testing, with interpretation and report)

Important Note about Appropriate Use of Claims Data: This measure is anchored to standardized tools that meet four criteria specified below in the paragraph beginning with "Tools must meet the following criteria." States who have policies clarifying that standardized tools meeting this criterion must be used to bill for 96110 should be able to report using claims data.

Claims NOT Included in This Measure: It is important to note that modified 96110 claims [e.g. modifiers added to claim indicating standardized screening for a specific domain of development (e.g. social emotional screening via the ASQ-SE, autism screening)] should not be included as this measure is anchored to recommendations focused on global developmental screening using tools that focus on identifying risk for developmental, behavioral and social delays.

C.2 – Medical Record Specifications

Denominator

A systematic sample of 411 drawn from the eligible population stratified by age.

Denominator 1: 137 children from the sample who turned 1 during the measurement year.

Denominator 2: 137 children from the sample who turned 2 during the measurement year.

Denominator 3: 137 children from the sample who turned 3 during the measurement year.

Denominator 4: The entire sample of 411 children.

Numerators

Numerator 1: Children in Denominator 1 who had screening for risk of developmental, behavioral, and social delays using a standardized screening tool that was documented by their first birthday

Numerator 2: Children in Denominator 2 who had screening for risk of developmental, behavioral, and social delays using a standardized screening tool that was documented after their first and before or on their second birthday

Numerator 3: Children in Denominator 3 who had screening for risk of developmental, behavioral, and social delays using a standardized screening tool that was documented after their second and before or on their third birthday

Numerator 4: Children in Denominator 4 who had screening for risk of developmental, behavioral, and social delays using a standardized screening tool that was documented in the 12 months preceding their first, second or third birthday (the sum of numerators 1, 2 and 3).

Documentation in the medical record must include all of the following:

- A note indicating the date on which the test was performed, and
- The standardized tool used (see below), and
- Evidence of a screening result or screening score

Tools must meet the following criteria:

1. Developmental domains: The following domains must be included in the standardized developmental screening tool: motor, language, cognitive, and social-emotional.
2. Established Reliability: Reliability scores of approximately 0.70 or above.
3. Established Findings Regarding the Validity: Validity scores for the tool must be approximately 0.70 or above. Measures of validity must be conducted on a significant number of children and using an appropriate standardized developmental or social-emotional assessment instrument(s).
4. Established Sensitivity/Specificity: Sensitivity and specificity scores of approximately 0.70 or above.

Current recommended tools that meet these criteria:

- Ages and Stages Questionnaire (ASQ) - 2 months to 5 years
- Ages and Stages Questionnaire - 3rd Edition (ASQ-3)
- Battelle Developmental Inventory Screening Tool (BDI-ST) – Birth to 95 months
- Bayley Infant Neuro-developmental Screen (BINS) - 3 months to 2 years
- Brigance Screens-II – Birth to 90 months
- Child Development Inventory (CDI) - 18 months to 6 years

- Infant Development Inventory – Birth to 18 months
- Parents' Evaluation of Developmental Status (PEDS) – Birth to 8 years
- Parent's Evaluation of Developmental Status - Developmental Milestones (PEDS-DM)

Tools NOT Included in This Measure: It is important to note that standardized tools specifically focused on one domain of development [e.g. child's socio-emotional development (ASQ-SE) or autism (M-CHAT)] are not included in the list above as this measure is anchored to recommendations related to global developmental screening using tools that identify risk for developmental, behavioral and social delays.

D. EXCLUSIONS

None.

E. CALCULATION ALGORITHM

Step 1:

Determine the denominators.

From the total denominator, sort into three age cohorts: children who turned one, two or three years of age between January 1 and December 31 of the measurement year.

Step 2:

Determine the numerators.

For each age cohort, and for the total, identify children who had a screening for developmental, behavioral, and social delays performed by their birthday as found through claims data or documented in the medical chart.

Claims Data:

Children for whom a claim of 96110 was submitted for services in the 12 months preceding their birthday.

Medical Record:

Children who had documentation in the medical record of developmental screening using a standardized, validated tool in the 12 months preceding their birthday.

Documentation must include a note indicating the standardized tool that was used, the date of screening, and evidence that the tool was completed and scored.

Step 3:

Calculate the age-specific indicators (ages 1 to 3) by dividing the age-specific numerator by the age-specific denominator and multiplying by 100 to get a percentage.

Step 4:

Create the overall measure of screening based on the age-specific numerators and denominators.

Total Numerator: Numerator 1 + Numerator 2 + Numerator 3

Total Denominator: Denominator 1 + Denominator 2 + Denominator 3

Sampling Methodology

If administrative data are used, the entire eligible population is used for the denominator. If using the hybrid method (administrative plus medical record data sources), a systematic sample can be drawn of 411, with 137 in each age group.

F. OPTIONAL AGE-SPECIFIC OVERSAMPLING FOR THE DENOMINATOR

A sample of 411 will provide sufficient statistical power for states reporting a state-wide developmental screening rate for children ages 1 to 3. With the smaller age-specific samples, the confidence intervals around the age-specific rates will be larger. Because states will want to use this measure to improve screening rates, age-specific rates may help states to target their efforts. Some states may wish to augment the sample in order to monitor screening rates for a particular age group; compare screening rates for a particular age group with that in other states; or look within an age group at subgroups, defined by race/ethnicity, geographic region, or language. For these applications, the age-specific sample of 137 may be insufficient, and the state may need a larger sample to obtain statistically meaningful results. The size of the sample required depends on the use of the data, so consultation with a statistician is recommended. The following instructions guide the development of an oversample.

The eligible population, from which the original sample was drawn, should be stratified by age, and the age-specific sample drawn from within each stratum. To oversample for any age group, the state should return to the original listing of eligible children in that age group, and continue adding children to the sample until the larger sample is complete. However, in order to maintain consistency of reporting and avoid having to weight the age groups to calculate the total, the state should only include the first 137 children sampled in the age-specific and total rates reported to CMS.