

## **MEASURE DEV-CH: DEVELOPMENTAL SCREENING IN THE FIRST THREE YEARS OF LIFE**

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### **A. DESCRIPTION**

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

Data Collection Method: Administrative or Hybrid

#### Guidance for Reporting:

- This measure includes three age-specific indicators assessing whether children are screened before or on their first, second or third birthdays. Four rates, one for each age group and a combined rate, are to be calculated and reported.
- The code 96110 has been shown to have questionable validity in states that do not have policies clarifying the standardized tools meeting the criterion stated in the specification (see Section C). The measure steward recommends that such policies be in place if a state uses the administrative data component of the specifications. It is recommended (although not required) that states assess the accuracy of their claims/encounter data compared to medical charts. For example, a state could do a chart review on a sample of records where the CPT code was used to determine whether the developmental screening occurred and whether the tools used met the criteria for a standardized developmental screening. To facilitate CMS's understanding of the data reported for this measure, states should use the "Additional Notes on Measure" field to document whether a medical chart review was conducted to validate the use of the 96110 CPT code for this measure.
- States may calculate this measure using either the administrative specification (which depends on the 96110 CPT code) or the hybrid specification (which does not rely solely on this code).
- Only those tools cited in the specifications for this measure meet the criteria for the numerator. During the development of the measure, it was determined that the ASQ:SE and M-CHAT screening tools were too specific because they screen for a domain-specific condition (socioeconomic development or autism, respectively), rather than a full, general assessment of developmental delays. States should use the "Deviations from Measure Specifications" field to document any deviations from the specifications for this measure.

The following coding system is used in this measure: CPT. Refer to the Acknowledgments section at the beginning of the manual for copyright information.

**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 12 months prior to the child's first, second, or third birthday. To determine continuous enrollment for a Medicaid enrollee for whom enrollment is verified monthly, the enrollee 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).
Anchor date	Enrolled on the child's first, second, or third birthday.
Benefit	Medical.
Event/diagnosis	None.

**C. ADMINISTRATIVE SPECIFICATION****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 before or on 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 before or on 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.

### **Exclusions**

None.

## **D. MEDICAL RECORD SPECIFICATION**

### **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 before or on 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 or on 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.

The following tools are cited by Bright Futures (and the American Academy of Pediatrics statement on developmental screening) and meet the above 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.

Tools listed above: The tools listed above are not specific recommendations for tools but are examples of tools cited in Bright Futures that have met the above criteria. Bright Futures cites the 2006 statement on Developmental Screening by the American Academy of Pediatrics. New and updated recommendations are anticipated and may include additional tools that meet these criteria. In addition, new tools meeting these criteria may be developed and may be included in future versions of Bright Futures.

### **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.

**Administrative Data:** Children for whom a claim of 96110 was submitted for services in the 12 months preceding or on their birthday.

**Medical Record Review:** Children who had documentation in the medical record of developmental screening using a standardized, validated tool in the 12 months preceding or on 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. 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, 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.