



---

Arizona Health Care Cost Containment System (AHCCCS)  
Acute-care, Comprehensive Medical and Dental Program and Division of Developmental Disabilities  
Performance Improvement Project:  
**Developmental Screening Tools**

---

*Creation Date:* May 2015

*Implementation Date:* October 1, 2015

*Revision Date:* August 19, 2019

**Background:**

The first three years of a child’s life are full of immense growth and development. Early development typically follows a sequence, for example, motor development follows this sequence: hold up head, roll over, sit, roll from back to stomach to sit, crawl or creep, move from sit to crawl and back again, pull to stand, stand alone, cruise and finally walk <sup>1</sup>. Knowledge and awareness of developmental norms are necessary to identify developmental delays. Concurrently, early identification of developmental delays is crucial when providing effective interventions. The Centers for Disease Control and Prevention identify developmental disabilities as “a group of conditions caused by an impairment in one or more developmental domains (e.g., physical, learning, communication, behavior, or self-help)” <sup>2</sup>. All children develop at different rates; however a child may need a developmental screening if that child fails to demonstrate a skill that should be mastered at an expected age.

Developmental disabilities occur within all racial, ethnic and socioeconomic populations and can include; ADHD, autism, learning and intellectual disabilities and cerebral palsy. The Journal of the American Academy of Pediatrics estimates in the United State about one in six children ages 3 through 17 years have at least one developmental delay; that accounts for 15 percent of children within that age group <sup>3</sup>. Another study within the journal showed that at 24 months of age, nearly 14 percent of children have developmental delays, with only 10 percent of children with those delays receiving services for their needs <sup>4</sup>.

Children with identified developmental disabilities need health care services which give them the education and tools needed to live healthy, productive and fulfilling lives. While some developmental disabilities can be improved with the right types of therapeutic interventions others may be a lifelong disability which can be managed, also with the right types of interventions. In addition, some health conditions, such as asthma, gastrointestinal symptoms, eczema and skin allergies, and migraine headaches, have been found to be more common among children with developmental disabilities <sup>5</sup>.

During a well-child visit a pediatrician looks for potential concerns using both developmental surveillance and discussions with parents regarding concerns they may have. If any issues are noted, a pediatrician should follow through with a developmental screening. AHCCCS has approved developmental screening tools which should be utilized for developmental screenings by all participating PCPs who care for EPSDT-age members. PCPs must be trained in the use and scoring of the developmental screening tools, as indicated by the American Academy of Pediatrics. The developmental screening should be completed for EPSDT members from birth through three years of age during the 9 month, 18 month and 24 month EPSDT visits.



**Purpose:**

The purpose of this Performance Improvement Project is to increase the number of children screened for risk of developmental, behavioral, and social delays using a standardized screening tool in the twelve months preceding their first, second, or third birthday.

**AHCCCS Goal**

The goal is to demonstrate a statistically significant increase in the number and percent of children receiving a developmental screening followed by sustained improvement for one consecutive year.

**Measurement Period**

Baseline Measurement: October 1, 2015 through September 30, 2016  
First Re-measurement: October 1, 2017 through September 30, 2018  
Second Re-measurement: October 1, 2018 through September 30, 2019

**Study question**

What is the number and percent, overall and by Contractor, of AHCCCS-enrolled children screened for developmental, behavioral, and social delays using an approved standardized screening tool?

**Eligible Population**

This study will include members in the following populations:

- Acute-care members – Medicaid, ages 0-3
- Comprehensive Medical and Dental program (CMDP) members, ages 0-3
- ALTCS Developmentally Disabled (DD) members, ages 0-3

Continuous enrollment

- Children must be enrolled continuously for 12 months prior to their first, second, or third birthday

Allowable gap

- No more than one gap in enrollment of up to 45 days during the measurement period

**Population Exclusions**

- Children who do not meet the continuous enrollment criteria
- Children with more than one gap in enrollment during the measurement period
- Children with a gap in enrollment of more than 45 days during the measurement period

**Population Stratification**

The population will be stratified by Contractor. The population will also be stratified by age groups\*:

- 0 through 1 year
- 1 year through 2 years
- 2 years through 3 years

\*Note: Each Contractor's performance will be evaluated based on its aggregate rate for the Medicaid population indicator. Data will be evaluated for the 0-3 population before final results are shared.

**Sample Frame:**

There will be no sample frame for this study. All members that meet the eligibility criteria will be evaluated to determine the measure rates.

**Sample Selection:**

*Not applicable*

**Indicator Criteria**

Indicator 1: The percent (overall and by Contractor) of AHCCCS-enrolled members who received a screening for risk of developmental, behavioral, and social delays using a standardized screening tool in the first twelve months preceding their first, second, or third birthday.

**Numerator**

Indicator 1: The total number of members in the eligible population who had an encounter with CPT code 96110 (with or without the use of an EP modifier) in the 12 months preceding their first, second, or third birthday.

**Denominator**

Indicator 1: The total number of AHCCCS-enrolled members who turned 1, 2, or 3 during the measurement period and meet the population criteria.

**Data Sources:**

AHCCCS administrative data will be used to identify indicator data. It is important to note, only the following tools will be utilized for this study:

- Ages and Stages Questionnaire (ASQ) – 2 months to 5 years
- Parent’s Evaluation of Developmental Status (PEDS) – Birth to 8 years
- Modified Checklist for Autism in Toddlers (MCHAT) – 16 months to 30 months

**Data Collection:**

This study will be conducted via administrative review of the data sources listed above.

**Confidentiality Plan:**

AHCCCS and its Contractors/Vendors maintain compliance with the Health Insurance Portability and Accountability Act (HIPAA) requirements. Only AHCCCS staff and its Contractors/Vendors who analyze data for this project will have access to study data. Requested data are used only for the purpose of performing health care operations, oversight of the health care system, or research. Member names are never identified or used in reporting.

**Quality Assurance Measures:**

Data files will be thoroughly reviewed prior to detailed validation to ensure that all study perimeters are accurate and complete. Once rates have been established, AHCCCS will track and trend data to ensure consistency with internal data and similar aligned initiatives. Additionally external reports will be evaluated to determine rate alignment for comparative purposes.

**Data Validation:**

The Data Validation Studies examine professional encounters and facility encounters.. The studies produce an overall accuracy rate based on receipt, accuracy, and timeliness.

The population will be validated to ensure that members meet criteria for inclusion in the study and that data collected from administrative sources (e.g., AHCCCS encounters) meet numerator and denominator criteria. These data will be validated through review of a random sample of members included in the denominator, as well as those not selected for the denominator, and a random sample of numerator data.

**Analysis Plan:**

The data will be analyzed in the following ways:

- The numerator will be divided by the denominator to determine the indicator rate.
- Results will be analyzed as a statewide aggregate and by individual Contractor.
- Results will be analyzed by urban and rural county groups.
- Results may be analyzed by member race/ethnicity; i.e. Caucasian, African American, Hispanic Asian/Pacific Islander, Native American/American Eskimo, and Other/Unknown, as well as any other stratifications deemed appropriate.

**Comparative Analysis:**

For the purpose of comparative analyses, the following will be considered when applicable and meaningful to future improvement:

- Results will be compared with prior years to identify changes and trends.
- Results by placement will be compared with each other.
- Rural and urban area results will be compared to identify any significant disparities in geographic area types.
- Individual Contractor results will be compared with each other, the statewide aggregate, and the AHCCCS goal.
- Results may be compared by other stratifications as deemed appropriate (i.e. age, race/ethnicity, gender).
- Results will be compared to the results of any other comparable studies, if available.
- In the future, differences between overall baseline study results and overall re-measurement results will be analyzed for statistical significance and relative change.

**Limitations:**

*None noted at this time.*



## Works Cited

1. **Ashford, Jose B and LeCroy, Craig Winston.** *Human Behavior in the Social Environment A Multidimensional Perspective.* Belmont : Brooks/Cole, Cengage learning, 2010.
2. **Rice, Catherine E, et al., et al.** Screening for Developmental Delays Among Young Children - National Survey of Children's Health, United States, 2007. *Morbidity and Mortality Report.* 2014, Vol. 63, 2.
3. *Trends in the Prevalence of Developmental Disabilities in US Children.* **Boyle, Coleen A, et al., et al.** Elk Grove Village : Pediatrics, 2011, Vol. 127.
4. *Prevalence of developmental delays and participation in early intervention services for your children.* **Rosenberg, S A and Zhang, Robinson D.** 6, Elk Grove Village : Pediatrics, 2008, Vol. 121.
5. **Centers for Disease Control and Prevention.** Facts About Developmental Disabilities. *Centers for Disease Control and Prevention.* [Online] CDC, February 12, 2012. [Cited: May 14, 2015.] <http://www.cdc.gov/ncbddd/developmentaldisabilities/facts.html>.

For general questions regarding this methodology, please contact Jamie Robin, Quality Improvement Manager, at 602-417-4717 or at [jamie.robin@azahcccs.gov](mailto:jamie.robin@azahcccs.gov). For technical questions regarding this methodology, please contact Lindsey Irelan, Lead Quality Improvement Coordinator, at 602-417-4817 or [lindsey.irelan@azahcccs.gov](mailto:lindsey.irelan@azahcccs.gov).

