NATIONAL QUALITY FORUM

Measure Evaluation 4.1
December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the evaluation criteria are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized)**:** Complete all yellow highlighted areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all pink highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met
C = Completely (unquestionably demonstrated to meet the criterion)
P = Partially (demonstrated to partially meet the criterion)
M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)
N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)
NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) **NQF Review #:** 1448 **NQF Project:** Child Health Quality Measures 2010
MEASURE DESCRIPTIVE INFORMATION
De.1 **Measure Title:** Developmental Screening in the First Three Years of Life
De.2 **Brief description of measure***:* The percentage of children screened for risk of developmental, behavioral and social delays using a standardized screening tool in the first three years of life. This is a measure of screening in the first three years of life that includes three, age-specific indicators assessing whether children are screened by 12 months of age, by 24 months of age and by 36 months of age.
1.1-2 **Type of Measure:** Process De.3 **If included in a composite or paired with another measure, please identify composite or paired measure** NA
De.4 **National Priority Partners Priority Area:** Care coordination, Population health De.5 **IOM Quality Domain**: Effectiveness, Timeliness De.6 **Consumer Care Need:** Staying healthy

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	NQF Staff
A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. *Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.* A.1 **Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)?** Yes A.2 **Indicate if Proprietary Measure** (*as defined in measure steward agreement*)**:** A.3 **Measure Steward Agreement:** Agreement will be signed and submitted prior to or at the time of measure submission A.4 **Measure Steward Agreement attached:**	**A** Y☐ N☐

B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. Yes, information provided in contact section	**B** Y☐ N☐
C. The intended use of the measure includes both public reporting and quality improvement. ►**Purpose:** Public reporting, Internal quality improvement Other Program evaluation.	**C** Y☐ N☐
D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1**Testing:** No, testing will be completed within 12 months D.2 **Have NQF-endorsed measures been reviewed to identify if there are similar or related measures?** Yes	**D** Y☐ N☐
(for NQF staff use) **Have all conditions for consideration been met?** **Staff Notes to Steward** (*if submission returned*)**:**	**Met** Y☐ N☐
Staff Notes to Reviewers (*issues or questions regarding any criteria*)**:**	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. ***Measures must be judged to be important to measure and report*** *in order to be evaluated against the remaining criteria.* (evaluation criteria) **1a. High Impact**	**Eval Rating**
(for NQF staff use) **Specific NPP goal**:	
1a.1 **Demonstrated High Impact Aspect of Healthcare:** Patient/societal consequences of poor quality 1a.2 1a.3 **Summary of Evidence of High Impact:** The American Academy of Pediatrics (AAP) defines a developmental delay as a "condition in which a child is not developing and/or achieving skills according to the expected time frame." A child that is developmentally challenged may face many barriers throughout life; these barriers are even more severe if a delay in development is not detected early. Delayed or disordered development can lead to further health and behavior problems, including failure in school and social and emotional problems.(Council on Children With Disabilities; Section on Developmental Behavioral Pediatrics; Bright Futures Steering Committee; Medical Home Initiatives for Children With Special Needs Project Advisory Committee, 2006) Approximately 12 to 18 percent of U.S. children may have a developmental and behavioral problem. However, only about two percent of children from birth to two years old receive the necessary early intervention services.(Hix-Small, Hollie, PhD, et al., 2007) A child who is identified as having a delay in development by the time he starts school and participates in early intervention programs is more likely to graduate high school, hold a job, live independently, and avoid teen pregnancy, delinquency and violent crimes -- representing a saved cost to society of between $30,000 and $100,000 per child.(Glascoe FP, PhD, et al., 2007)	**1a** C☐ P☐ M☐ N☐

Studies have shown that developmental surveillance based on non-standardized clinical judgment and observation alone does not accurately identify children with delays. Therefore, national recommendations call for routine, standardized screening of children three times in the first three years (at the 9, 18 and 24- or 30-month well-visit).

1a.4 Citations for Evidence of High Impact: Hagan JF, Shaw JS, Duncan PM, eds. 2008. Bright Futures: Guidelines for Health Supervision of Infants, Children and Adolescent, Third Edition, Elk Grove Village IL. American Academy of Pediatrics.

Council on Children With Disabilities; Section on Developmental Behavioral Pediatrics; Bright Futures Steering Committee; Medical Home Initiatives for Children With Special Needs Project Advisory Committee. Identifying infants and young children with developmental disorders in the medical home: an algorithm for developmental surveillance and screening. Pediatrics. 2006;118(1):405-420

Hix-Small, Hollie, PhD, et al. Impact of Implementing Developmental Screening at 12 and 24 Months in a Pediatric Practice Pediatrics Vol. 120 No. 2 August 2007, pp. 381-389

Glascoe FP, PhD and Shapiro, HL, MD. Introduction to Developmental and Behavioral Screening. 2007. http://www.dbpeds.org/articles/detail.cfm?TextID=5

1b. Opportunity for Improvement

1b.1 Benefits (improvements in quality) envisioned by use of this measure: Pediatricians are not usually successful in identifying children with developmental delays without use of a standardized tool (Hix-Small, 2007). This measure will encourage the use of standardized tools for developmental screening, as delineated by guidelines. Children who are identified earlier are more likely to have developmental promotion activities, that can further improve the likihood that they will be able to start school ready to learn. Demonstrated quality improvement activities such as the ABCD Screening Academy have shown that providers can feasibly and sustainably implement standardized screening, and when done so, more children are refereed to Early Intervention and other services and that the kinds and types of referrals performed are more appropriate than was previously done without standardized screening

1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers:
Findings from the National Survey of Children Health show that only 19.5% of children are screened in the first five years of life. Despite the evidence, the use of standardized developmental screening tools is uncommon; only about 20 percent of physicians routinely use developmental screening tests (The Commonwealth Fund, 2008). One study found that pediatricians failed to identify and refer 60 to 80 percent of children with developmental delays in a timely manner. Another study found that 68 percent of children with delays were not detected by pediatricians. Though many significant delays occur before school age, less than 50 percent of children with delays are identified before starting school -- leading to missed opportunities for treatment (Hix-Small, 2007).

1b.3 Citations for data on performance gap:
http://www.nschdata.org

Commonwealth Fund. Quality Matters, May 6 2008.

Hix-Small, Hollie, PhD, et al. Impact of Implementing Developmental Screening at 12 and 24 Months in a Pediatric Practice Pediatrics Vol. 120 No. 2 August 2007, pp. 381-389

Council on Children With Disabilities; Section on Developmental Behavioral Pediatrics; Bright Futures Steering Committee; Medical Home Initiatives for Children With Special Needs Project Advisory Committee. Identifying infants and young children with developmental disorders in the medical home: an algorithm for developmental surveillance and screening. Pediatrics. 2006;118(1):405-420

The American Academy of Pediatrics, Council on Children With Disabilities, Section on Developmental and Behavioral Pediatrics, Bright Futures Steering Committee, and Medical Home Initiatives for Children With Special Needs. Identifying infants and young children with developmental disorder in the medical home: an

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algorithm for developmental surveillance and screening. Pediatrics. 2006. 118(1): 405-420.

Bethell, CD, Reuland, C, Halfon, N, Olsen, L, Schor, E., Measuring the Quality of Preventive and Developmental Services for Young Children: National Estimates and Patterns of Clinicians' Performance. Pediatrics. June 2004.

Pinto-martin, J, Dunkle M, Earls M, Fliedner D, Cynthia L. Developmental States of Developmental Screening: Steps to Implementation of a Successful Program. American Journal of Public Health. 95, 11: 1928-1932.

King T., Trandon, D, Macias, M, et al. Implementing developmental screening and referrals: Lessons learned from a national project. Pediatrics, V 125, No 2, Feb 2010.

Sand N, Silverstein M, Glascoe FP, et al. Pediatrician's reported practices regarding developmental screening: do guidelines work? Do they help? Pediatrics 2005; V116 (1): 174-179

Smith RD. The use of developmental screening tests by primary-care pediatricians. J Pediatrics. 1978; 93(3): 524-527.

Zuckerman KE, Boudreau AA, Lipstein EA, Kuhlthau KA, and Perrin JM. Household Language, Parent Developmental Concerns, and Child Risk for Developmental Disorder. Academic Pediatrics. 2009; 9(2): 97-105.

1b.4 Summary of Data on disparities by population group:
Studies suggest income disparities exist for developmental screening. One study found that only 23 percent of low-income children receive recommended preventive and developmental services (Bethell et al, 2002). The Early Intervention Periodic Screening, Diagnosis and Treatment (EPSDT) benefit for Medicaid children includes screening at each visit, however, as of 2007, 28 states were engaged in lawsuits due to a failure to properly deliver this service (Glascoe et al, 2007). Another study found that children most at risk for school difficulty were those whose mothers had less than a high school education, those who came from single-mother families, those who had received public assistance, and those who lived in families in which the primary language was not English (High, 2008)." Specifically related to screening, the National Survey of Children's Health found that while improvements were needed in increasing screening for all children, significant variations existed in the rates of screening by race-ethnicity and insurance status.

1b.5 Citations for data on Disparities:
Bethell at al. Partnering with parents to promote the healthy development of young children enrolled in Medicaid. New York NY: The commonwealth Fund, 2002.
Glascoe FP, PhD and Shapiro, HL, MD. Introduction to Developmental and Behavioral Screening. 2007. http://www.dbpeds.org/articles/detail.cfm?TextID=5
High, Pamela C. and the Committee on Early Childhood, Adoption, and Dependent Care and Council on School Health. School Readiness. Pediatrics 2008;121;e1008-e1015
http://www.nschdata.org

Pinto-martin, J, Dunkle M, Earls M, Fliedner D, Cynthia L. Developmental States of Developmental Screening: Steps to Implementation of a Successful Program. American Journal of Public Health. 95, 11: 1928-1932.

King T., Trandon, D, Macias, M, et al. Implementing developmental screening and referrals: Lessons learned from a national project. Pediatrics, V 125, No 2, Feb 2010.

Sand N, Silverstein M, Glascoe FP, et al. Pediatrician's reported practices regarding developmental screening: do guidelines work? Do they help? Pediatrics 2005; V116 (1): 174-179

Smith RD. The use of developmental screening tests by primary-care pediatricians. J Pediatrics. 1978; 93(3): 524-527.

Zuckerman KE, Boudreau AA, Lipstein EA, Kuhlthau KA, and Perrin JM. Household Language, Parent

Developmental Concerns, and Child Risk for Developmental Disorder. Academic Pediatrics. 2009; 9(2): 97-105.

1c. Outcome or Evidence to Support Measure Focus

1c.1 Relationship to Outcomes (*For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population*)**:** Early identification of developmental disabilities through surveillance and screening can lead to timely evaluation, diagnosis and appropriate treatment, including developmental intervention.

1c.2-3. Type of Evidence: Evidence-based guideline, Expert opinion

1c.4 Summary of Evidence (*as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome*)**:**
Developmental surveillance should be a component of every preventive care visit. Standardized developmental screening tools should be used when such surveillance identifies concerns about a child´s development. Furthermore, it is recommended that standardized screening for developmental, behavioral and social delays occur at the 9-, 18-, and 24-month OR 30-month well visits.
When a child has a positive screening result for a developmental problem, developmental and medical evaluations to identify the specific developmental disorders and related medical problems are warranted. Children diagnosed with developmental disorders should be identified as children with special health care needs; chronic-condition management for these children should be initiated.

1c.5 Rating of strength/quality of evidence (*also provide narrative description of the rating and by whom***):**
Good

1c.6 Method for rating evidence: Expert consensus with evidence review.

1c.7 Summary of Controversy/Contradictory Evidence: The USPSTF did not review developmental screening generally. Rather, the Task Force reviewed the routine use of brief, formal screening instruments in primary care to detect speech and language delay in children. This recommendation received an "I Statement":

The USPSTF concludes that the evidence is insufficient to recommend for or against routine use of brief, formal screening instruments in primary care to detect speech and language delay in children up to 5 years of age.

Speech and language delay affects 5 to 8 percent of preschool children, often persists into the school years, and may be associated with lowered school performance and psychosocial problems. The USPSTF found insufficient evidence that brief, formal screening instruments that are suitable for use in primary care for assessing speech and language development can accurately identify children who would benefit from further evaluation and intervention. Fair evidence suggests that interventions can improve the results of short-term assessments of speech and language skills; however, no studies have assessed long-term outcomes. Furthermore, no studies have assessed any additional benefits that may be gained by treating children identified through brief, formal screening who would not be identified by addressing clinical or parental concerns. No studies have addressed the potential harms of screening or interventions for speech and language delays, such as labeling, parental anxiety, or unnecessary evaluation and intervention. Thus, the USPSTF could not determine the balance of benefits and harms of using brief, formal screening instruments to screen for speech and language delay in the primary care setting.

Secondly, It is important to note that is measure does not included standardized screening for a specific domain of development (e.g. social emotional screening via the ASQ-SE, autism screening) as it is anchored to recommendations focused on global developmental screening using tools that focus on identifying risk for developmental, behavioral and social delays. National recommendations also call for autism screening at the 18-month and 24-month well-visit and future, separate measures may specified and build off the data collection efforts used for this measure to capture domain-specific screening. Additionally, many of the ABCD states included a distinct focus on complementary, but separate, screening specifically focused on

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social-emotional development (using tools such as the ASQ-SE). Similarly, future efforts may maximize the data collection efforts for this measure to include additional specifications focused specifically on social-emotional screening so that a separate measure may be calculated.

1c.8 Citations for Evidence (*other than guidelines*): Council on Children With Disabilities, Section on Developmental Behavioral Pediatrics, Bright Futures Steering Committee, Medical Home Initiatives for Children With Special Needs Project Advisory. Identifying infants and young children with developmental disorders in the medical home: an algorithm for developmental surveillance and screening. Pediatrics 2006 Jul;118(1):405-20.

Hagan JF, Shaw JS, Duncan PM, eds. 2008. Bright Futures: Guidelines for Health Supervision of Infants, Children and Adolescent, Third Edition, Elk Grove Village IL. American Academy of Pediatrics.

1c.9 Quote the Specific guideline recommendation (*including guideline number and/or page number*):
Institute for Clinical Systems Improvement:
Providers should perform the following on infants: Developmental assessment of: motor skills, language development and social development.
ICSI: Level III

Michigan Quality Improvement Consortium (2007):
From Birth to 24 months, developmental assessments should be performed.
Grade: Consensus and ICSI-Based

American Academy of Pediatrics (2006):
Medical Professionals should use standardized developmental screening tools to screen children and 9 months, 18 months:
• Developmental and medical evaluations to identify the specific developmental disorders and related medical problems
• Referred to early developmental intervention and early childhood services and scheduled for earlier return visits to increase developmental surveillance.
• Identified as children with special health care needs; chronic-condition management for these children should be initiated.
Grade: Consensus and Guideline-Based

Bright Futures (2008):
At 9, 18 and 30 Month Visits, health care providers should perform structured developmental screens. Referral should be made to an appropriate early intervention program or developmental specialist for evaluation.
Grade: Consensus and Guideline-Based

1c.10 Clinical Practice Guideline Citation: Hagan, JF, Shaw JS, Duncan PM, eds. 2008. Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents, Third Edition. Elk Grove, IL: American Academy of Pediatrics

Institute for Clinical Systems Improvement. Preventive Services for Children and Adolescents Thirteenth Edition. October 2007
[AAP] Council on Children With Disabilities, Section on Developmental Behavioral Pediatrics, Bright Futures Steering Committee, Medical Home Initiatives for Children With Special Needs Project Advisory. Identifying infants and young children with developmental disorders in the medical home: an algorithm for developmental surveillance and screening. Pediatrics 2006 Jul;118(1):405-20.
Michigan Quality Improvement Consortium. Routine preventive services for children and adolescents (ages 2-18). Southfield (MI): Michigan Quality Improvement Consortium; 2007 May. 1 p.

1c.11 National Guideline Clearinghouse or other URL:
http://www.guideline.gov/search/search.aspx?term=developmental+screening

1c.12 Rating of strength of recommendation (*also provide narrative description of the rating and by whom*):
Consensus and Guideline-Based

1c.13 Method for rating strength of recommendation (*If different from USPSTF system, also describe rating and how it relates to USPSTF*)**:** Expert consensus with evidence review **1c.14 Rationale for using this guideline over others:** This measure represents the shared experiences of NCQA in operationalizing a feasible, meaningful measure for Medicaid Managed Care Organizations and physician practices and the learnings that the CAHMI gathered in providing measurement technical assistance to State Medicaid agencies and pediatric health care providers participating in the ABCD Screening Academy. This measure represents areas of synergy in the work conducted by both groups to yield feasible, valuable measures. As part of this effort, NCQA and CAHMI convened a group of multi-stakeholder panel of users and experts to review the specifications, evidence and guidelines for developmental screening for children. These stakeholders included persons from State Medicaid agencies in the states who participated in the Assuring Better Child Development program.	
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Importance to Measure and Report?*	**1**
Steering Committee: Was the threshold criterion, *Importance to Measure and Report*, met? **Rationale:**	**1** **Y☐** **N☐**
2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES	
Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (evaluation criteria)	**Eval Rating**
2a. MEASURE SPECIFICATIONS	
S.1 Do you have a web page where current detailed measure specifications can be obtained? **S.2 If yes, provide web page URL:** **2a. Precisely Specified**	
2a.1 Numerator Statement (*Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome*)**:** The numerator identifies children who were screened for risk of developmental, behavioral and social delays using a standardized tool. National recommendations call for children to be screened at the 9, 18, and 24- OR 30-month well visits to ensure periodic screening over the first three years. The measure is based on three, age-specific indicators. Indicator 1: Children who had screening for risk of developmental, behavioral and social delays using a standardized screening tool that was documented by 12 months of age Indicator 2: Children who had screening for risk of developmental, behavioral and social delays using a standardized screening tool that was documented by 24 months of age Indicator 3: Children who screening for risk of developmental, behavioral and social delays using a standardized screening tool that was documented by 36 months of age **2a.2 Numerator Time Window** (*The time period in which cases are eligible for inclusion in the numerator*)**:** Twelve months – 1 year. **2a.3 Numerator Details** (*All information required to collect/calculate the numerator, including all codes, logic, and definitions*)**:** Claims data: CPT codes 96110 (Developmental testing, with interpretation and report) Claims NOT Included in This Measure: It is important to note that 96110 claims that include modifiers 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.	**2a-specs** **C☐** **P☐** **M☐** **N☐**

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

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- Concurrent validity: This compares screening results with outcomes derived from a reliable and valid diagnostic assessment usually performed 7-10 days after the screening test. The validity coefficient reports the agreement between the two tests (Meisels & Atkins-Burnett, 2005). Predictive validity: This compares the screening results with measures of children's performance obtained 9-12 months later (Meisels & Atkins-Burnett, 2005).

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–5 years
Battelle Developmental Inventory Screening Tool (BDI-ST) - Birth–95 months
Bayley Infant Neuro-developmental Screen (BINS) - 3 months–2 years
Brigance Screens-II - Birth–90 months
Child Development Inventory (CDI) - 18 months–6 years
Child Development Review-Parent Questionnaire (CDR-PQ) - 18 months–5 years
Infant Development Inventory - Birth–18 months
Parents' Evaluation of Developmental Status (PEDS) - Birth–8 years

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 focused on global developmental screening using tools that focus on identifying risk for developmental, behavioral and social delays.

2a.4 Denominator Statement (*Brief, text description of the denominator - target population being measured***):**
Indicator 1: Members who turn 12 months of age between January 1 of the measurement year and December 31 of the measurement year
Indicator 2: Members who turn 24 months of age between January 1 of the measurement year and December 31 of the measurement year
Indicator 3: Members who turn 36 months of age between January 1 of the measurement year and December 31 of the measurement year

2a.5 Target population gender: Female, Male
2a.6 Target population age range: First three years of life.

2a.7 Denominator Time Window (*The time period in which cases are eligible for inclusion in the denominator***):**
One year

2a.8 Denominator Details (*All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions***):**
See 2a4

2a.9 Denominator Exclusions (*Brief text description of exclusions from the target population***):** None.

2a.10 Denominator Exclusion Details (*All information required to collect exclusions to the denominator, including all codes, logic, and definitions***):**
NA

2a.11 Stratification Details/Variables (*All information required to stratify the measure including the stratification variables, all codes, logic, and definitions***):**
The measure is stratified by the following ages:
By 12 months (Indicator 1)
By 24 months (Indicator 2)
By 36 months (Indicator 3)

2a.12-13 Risk Adjustment Type: No risk adjustment necessary

2a.14 Risk Adjustment Methodology/Variables (*List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method***):**
NA

2a.15-17 Detailed risk model available Web page URL or attachment:

2a.18-19 Type of Score: Rate/proportion
2a.20 Interpretation of Score: Better quality = Higher score
2a.21 Calculation Algorithm (*Describe the calculation of the measure as a flowchart or series of steps***):**
Step 1: Determine the denominator
Identify the denominator for each age-specific indicator:
Indicator 1: Members who turn 12 months of age between January 1 of the measurement year and December 31 of the measurement year
Indicator 2: Members who turn 24 months of age between January 1 of the measurement year and December 31 of the measurement year
Indicator 3: Members who turn 36 months of age between January 1 of the measurement year and December 31 of the measurement year

Step 2: Determine the numerator
Claims Data:
Children for whom a claim of 96110 was submitted during the measurement year.
Medical Chart:
Children who had documentation in the medical record of developmental screening using a standardized validated tool during the measurement year.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 (1-3) by dividing the numerator by the denominator and multiplying by 100 to get a percentage.

Step 4. Create the measure of screening based on the age-specific measures.
Numerator: Numerator for Indicator 1 + Numerator for Indicator 2+ Numerator for Indicator3 (Divided by)
Denominator: Denominator for Indicator 1 + Denominator for Indicator 2+ Denominator for Indicator 3

Step 5: Multiply by 100 to get the percentage.

2a.22 Describe the method for discriminating performance *(e.g., significance testing)***:**
Comparison of proportions and percentiles; analysis of variance against established benchmarks; if sample size is >400, we would use an analysis of variance.

2a.23 Sampling (Survey) Methodology *If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate)*:
If administrative data are used, the entire population is used for the denominator. For hybrid measures (administrative plus chart review data sources),a random sample can be drawn. Preferred sample size would be 411.

2a.24 Data Source (*Check the source(s) for which the measure is specified and tested)*
Paper medical record/flow-sheet, Electronic administrative data/claims, Electronic Health/Medical Record

2a.25 Data source/data collection instrument (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.***):**
Claims data, Medical chart

2a.26-28 Data source/data collection instrument reference web page URL or attachment:

2a.29-31 Data dictionary/code table web page URL or attachment:

2a.32-35 Level of Measurement/Analysis (*Check the level(s) for which the measure is specified and tested)*
Population: states, Program: QIO, Program: Other To evaluate the Assuring Better Child Development Efforts across the state and within specific communities of the state. These efforts were either within multiple practices or within specific geographic regions.

2a.36-37 Care Settings (*Check the setting(s) for which the measure is specified and tested)*

2a.38-41 Clinical Services (*Healthcare services being measured, check all that apply*)

TESTING/ANALYSIS

2b. Reliability testing

2b.1 Data/sample *(description of data/sample and size)***:** No formal reliability testing has been conducted, however measures of screening have been collected with the ABCD community since 2003. The ABCD Screening Academy states built off work from the ABCD I and ABCD II efforts and the learnings gathered about medical chart abstraction instructions needed in order to ensure reliability (e.g. specific tools must be listed, scoring must clarified etc), Additionally, the ABCD Screening Academy conducted.

2b.2 Analytic Method *(type of reliability & rationale, method for testing)***:**
See 2b.1

2b.3 Testing Results *(reliability statistics, assessment of adequacy in the context of norms for the test conducted)***:**
See 2b.1

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2c. Validity testing

2c.1 Data/sample *(description of data/sample and size)***:** No formal validity testing has been conducted. Measures of screening have been collected within the ABCD community since 2003. The ABCD Screening Academy states built off work from the ABCD I and ABCD II efforts and the learnings gathered about medical chart abstraction instructions needed in order to ensure validity.

2c.2 Analytic Method *(type of validity & rationale, method for testing)***:**
No formal validity testing has been conducted. The measure presented is based on the shared learnings from NCQA's development work and CAHMI's technical assistance consulting to the ABCD Screening Academy. A detailed summary of the methodologies used by each state is attached and findings from the ABCD II can be found here (http://cahmi.org/ViewDocument.aspx?DocumentID=72). An executive summary can be found here: http://www.nashp.org/sites/default/files/screening_academy_results.pdf. Overall, 24 states Medicaid agencies (21 state/territories in the ABCD Screening Academy and then the states in ABCD II that were not in the Screening Academy) used claims or medical chart data using similar methods to those proposed here and found the data to be valid for assessing screening sensitive to the quality improvement efforts they were conducting.

It is important to note that some states have found that claims data can be inaccurate for screening that occurred in systems in which the payment is capitated (and therefore individual claims related to specific aspects of care provided are not submitted) or for health care providers for whom screening is not paid separately (e.g. Federally Qualified Health Centers). Thus, we recommend hybrid data collections for those

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settings.

2c.3 **Testing Results** *(statistical results, assessment of adequacy in the context of norms for the test conducted)*:
The measure has been validity in being sensitive to quality improvement efforts. For those able to report baseline and follow-up data during the time-period of the ABCD Screening Academy, all reported an increase in the percent of children screened using a standardized tool (demonstrating validity and sensitivity). The average increase reported was 58 percentage points.

2d. Exclusions Justified

2d.1 **Summary of Evidence supporting exclusion(s):**
No Exclusions recommended at this time.

2d.2 **Citations for Evidence:**
NA

2d.3 **Data/sample** *(description of data/sample and size)*: NA

2d.4 **Analytic Method** *(type analysis & rationale)*:
NA

2d.5 **Testing Results** *(e.g., frequency, variability, sensitivity analyses)*:
NA

2d
C☐
P☐
M☐
N☐
NA☐

2e. Risk Adjustment for Outcomes/ Resource Use Measures

2e.1 **Data/sample** *(description of data/sample and size)*: No risk adjustment recommended at this time.

2e.2 **Analytic Method** *(type of risk adjustment, analysis, & rationale)*:
NA

2e.3 **Testing Results** *(risk model performance metrics)*:
NA

2e.4 **If outcome or resource use measure is not risk adjusted, provide rationale:** The measure assesses prevention and wellness in a general population; risk adjustment is not indicated.

2e
C☐
P☐
M☐
N☐
NA☐

2f. Identification of Meaningful Differences in Performance

2f.1 **Data/sample from Testing or Current Use** *(description of data/sample and size)*: A detailed summary of the findings can be found here:
http://www.nashp.org/sites/default/files/screening_academy_results.pdf.

2f.2 **Methods to identify statistically significant and practically/meaningfully differences in performance** *(type of analysis & rationale)*:
Findings from the ABCD Screening Academy: Overall, 21 state/territories Medicaid agencies used claims or medical chart data using similar methods to those proposed here and found the data to be valid for assessing screening and sensitive to the quality improvement efforts they were conducting. For those able to report baseline and follow-up data during the time-period of the ABCD Screening Academy, all reported an increase in the percent of children screened using a standardized tool (demonstrating validity and sensitivity). The average increase reported was 58 percentage points.

2f.3 **Provide Measure Scores from Testing or Current Use** *(description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*:
A detailed summary of the findings can be found here:
http://www.nashp.org/sites/default/files/screening_academy_results.pdf. Baselines findings amongst the screening academy states, prior to intervention, was between 0-20%. Follow-up results demonstrated sig. improvements, with an average increase of 58 percentage points.

2f
C☐
P☐
M☐
N☐

2g. Comparability of Multiple Data Sources/Methods **2g.1 Data/sample** *(description of data/sample and size)*: **2g.2 Analytic Method** *(type of analysis & rationale)*: **2g.3 Testing Results** *(e.g., correlation statistics, comparison of rankings)*:	**2g** C☐ P☐ M☐ N☐ NA☐
2h. Disparities in Care **2h.1 If measure is stratified, provide stratified results** *(scores by stratified categories/cohorts)*: To assess screening in each of the 1st three years of life, the measure should be stratified by age of child: • Indicator 1: Members who turn 12 months of age between January 1 of the measurement year and December 31 of the measurement year • Indicator 2: Members who turn 24 months of age of age between January 1 of the measurement year and December 31 of the measurement year • Indicator 3: Members who turn 36 months years of age between January 1 of the measurement year and December 31 of the measurement year A review of data provided to the CAHMI by the ABCD states stratified by age showed differences in screening rates, with rates for indicator 2 (screened by 24 months of age) being higher than the other age-specific indicators. **2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:** NA	**2h** C☐ P☐ M☐ N☐ NA☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Scientific Acceptability of Measure Properties?*	**2**
Steering Committee: Overall, to what extent was the criterion, *Scientific Acceptability of Measure Properties*, met? **Rationale:**	***2*** C☐ P☐ M☐ N☐
3. USABILITY	
Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (evaluation criteria)	**Eval Rating**
3a. Meaningful, Understandable, and Useful Information **3a.1 Current Use:** In use **3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large)** (*If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years*): All 24 states involved in the ABCD efforts implemented measures of standardized screening, a majority of which used medical chart and claims data. A majority continue to track screening using similar methodologies that are based on claims/medical chart data and stratified by age of child. States such as Illinois are using specifications that are nearly identical to the measure described in this submission. **3a.3 If used in other programs/initiatives (***If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years***):** This is a state-level measure designated as a measure in the CHIPRA Core Set. Many of the ABCD states are using the measure to drive quality improvement efforts at the state, community, program and practice-level.	**3a** C☐ P☐ M☐ N☐

Testing of Interpretability (*Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement*)

3a.4 **Data/sample** *(description of data/sample and size)*: Expert panel, other stakeholders. In addition, NCQA and CAHMI convened the ABCD Community (N=43 people from states) in a focus-group-like telephone interview that also included staff from the National Academy of State Health Policy (NASHP). Participants reviewed the specifications and provided comments on the specifications presented. In addition, participants were able to submit written comments to the CAHMI.

3a.5 **Methods** *(e.g., focus group, survey, QI project)*:
CAHMI vetted the measures with the ABCD community. NCQA vetted the measure concepts and specifications with other stakeholder groups, including the National Association of State Medicaid Directors and the American Academy of Pediatrician's Quality Improvement Innovation Network.

3a.6 **Results** *(qualitative and/or quantitative results and conclusions)*:
Stakeholders and potential measure users found the measure to be understandable and actionable for quality improvement and to inform policy-level improvements. The ABCD Community call participants indicated that the measure, as anchored to the goals for the CHIPRA measure on screening and for state-level assessment, was specified correctly and gave suggestions for further clarifying the measure. NCQA and CAHMI modified the measure specifications to ensure the lessons from all feedback were incorporated into the measure. The primary issue raised on the call for which there are different approaches taken by states in the number and types of measures on screening collected is whether additional measures should be collected that assess complimentary, but separate, screening for specific domains of development (e.g. social-emotional screening, autism screening). It was clarified that this measure is focused on general, standardized screening for children at risk for developmental, behavioral and social delays. Some states collect additional measures that capture screening for risk of social-emotional delays or for autism and they felt that a future priority should be placed on measures that assess this type of screening.

3b/3c. Relation to other NQF-endorsed measures

3b.1 **NQF # and Title of similar or related measures:**
The National Quality Form has endorsed the Promoting Healthy Development Survey (PHDS) [NQF # 0011}, which includes a measure of screening for risk of developmental, behavioral and social delays based on family surveys. In additon, NCQA will be submitting in tandem a similar developmental screening measure specified for a physician population and the CAHMI submitted a measure based on the National Survey of Children´s Health. The information provided below is specific to comparisons of this measure to the NQF Measure #0011.

(for NQF staff use) **Notes on similar/related endorsed or submitted measures:**

3b. Harmonization
If this measure is related to measure(s) already endorsed by NQF (e.g., same topic, but different target population/setting/data source or different topic but same target population):

3b.2 **Are the measure specifications harmonized? If not, why?**
The measure of screening based on the PHDS is complementary, but different from this measure in the following ways:

- Data source: The screening measure in the PHDS is based on parental report (which the CAHMI validated).
- Denominator: The PHDS sampling is anchored to children who have had 1 or more well-child visit.

This measure is harmonized with the NCQA physician-level developmental screening measure.

3b
C☐
P☐
M☐
N☐
NA☐

3c. Distinctive or Additive Value

3c.1 **Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:**
This measure is derived from a different data source (claims, medical chart) and is solely focused on a state-level unit of analysis. This measure complements the physician-level measure of screening submitted by NCQA for the call for quality measures through which this measure is being submitted.

5.1 **If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality:**

3c
C☐
P☐
M☐
N☐
NA☐

NA	
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Usability?*	**3**
Steering Committee: Overall, to what extent was the criterion, *Usability*, met? **Rationale:**	**3** **C☐** **P☐** **M☐** **N☐**
4. FEASIBILITY	
Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)	**Eval Rating**
4a. Data Generated as a Byproduct of Care Processes **4a.1-2 How are the data elements that are needed to compute measure scores generated?** Data generated as byproduct of care processes during care delivery (Data are generated and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition), Coding/abstraction performed by someone other than person obtaining original information (E.g., DRG, ICD-9 codes on claims, chart abstraction for quality measure or registry)	**4a** **C☐** **P☐** **M☐** **N☐**
4b. Electronic Sources **4b.1 Are all the data elements available electronically?** (*elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims*) No **4b.2 If not, specify the near-term path to achieve electronic capture by most providers.** The CAHMI has worked with two private practice settings and Kaiser Permanente Northwest to develop standardized processes to enter in screening results to allow for tracking and monitoring of a child's development and also to allow for measurement of the quality of care provided. These templates could be disseminated for use by others.	**4b** **C☐** **P☐** **M☐** **N☐**
4c. Exclusions **4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications?** No **4c.2 If yes, provide justification.**	**4c** **C☐** **P☐** **M☐** **N☐** **NA☐**
4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences **4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results.**	**4d** **C☐** **P☐** **M☐** **N☐**
4e. Data Collection Strategy/Implementation **4e.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data/missing data, timing/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues:** The measure presented is based on the shared learnings from NCQA's development work and CAHMI's technical assistance consulting to the ABCD Screening Academy. A detailed summary of the methodologies used by each state is attached and findings from the ABCD II can be found here (http://cahmi.org/ViewDocument.aspx?DocumentID=72). An executive summary can be found here: http://www.nashp.org/sites/default/files/screening_academy_results.pdf. Overall, 24 states Medicaid agencies (21 state/territories in the ABCD Screening Academy and then the states in ABCD II that were not	**4e** **C☐** **P☐** **M☐** **N☐**

in the Screening Academy) used claims or medical chart data using similar methods to those proposed here and found the data to be valid for assessing screening sensitive to the quality improvement efforts they were conducting. Additionally, some states have found that claims data can be inaccurate for screening that occurred in systems in which the payment is capitated (and therefore individual claims related to specific aspects of care provided are not submitted) or for health care providers for whom screening is not paid separately (e.g. Federally Qualified Health Centers). Thus, we recommend hybrid data collections for those settings. 4e.2 **Costs to implement the measure** (*costs of data collection, fees associated with proprietary measures*)**:** Collecting measures from medical charts is time-consuming and can be burdensome. Adapting this measure in electronic health records may relieve some of this burden 4e.3 **Evidence for costs:** 4e.4 **Business case documentation:**	
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Feasibility?*	**4**
Steering Committee: Overall, to what extent was the criterion, *Feasibility*, met? **Rationale:**	**4** **C☐** **P☐** **M☐** **N☐**
RECOMMENDATION	
(for NQF staff use) **Check if measure is untested and only eligible for time-limited endorsement.**	**Time-limited ☐**
Steering Committee: Do you recommend for endorsement? **Comments:**	**Y☐** **N☐** **A☐**
CONTACT INFORMATION	
Co.1 **Measure Steward (Intellectual Property Owner)** Co.1 **Organization** Child and Adolescent Health Measurement Initiative, 707 SW Gaines Drive, Mail Code CDRC-P, Portland, Oregon, 97239 Co.2 **Point of Contact** Colleen, Reuland, MS, reulandc@ohsu.edu, 503-494-0456-	
Measure Developer If different from Measure Steward Co.3 **Organization** Child and Adolescent Health Measurement Initiative, 707 SW Gaines Drive, Mail Code CDRC-P, Portland, Oregon, 97239 Co.4 **Point of Contact** Colleen, Reuland, MS, reulandc@ohsu.edu, 503-494-0456-	
Co.5 **Submitter If different from Measure Steward POC** Sepheen, Byron, MHS, Byron@ncqa.org, 202-955-3573-, National Committee for Quality Assurance	
Co.6 **Additional organizations that sponsored/participated in measure development** To ensure clarity, the measure is being co-submitted by CAHMI and NCQA.	
ADDITIONAL INFORMATION	

Workgroup/Expert Panel involved in measure development
Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.
The NCQA Child Health MAP advised NCQA during measure development of the Physician-Level measure for which this measure is harmonized. They evaluated the way staff specified measures, assessed the content validity of measures, and reviewed field test results. As you can see from the list, the MAP consisted of a balanced group of experts, including representatives from pediatricians, family physicians, researchers, Medicaid CHIP offices and health plans.

NCQA Child Health MAP:
Jeanne Alicandro
Barbara Dailey
Denise Dougherty, PhD
Ted Ganiats, MD
Foster Gesten, MD
Nikki Highsmith, MPA
Charlie Homer, MD, MPH
Jeff Kamil, MD
Elizabeth Siteman
Mary McIntyre, MD, MPH
Virginia Moyer, MD, MPH, FAAP
Lee Partridge
Xavier Sevilla, MD, FAAP
Michael Siegal
Jessie Sullivan

Secondly, states/consultants from the ABCD community participated in a conference call review of the measure, which included staff from the National Academy of State Health Policy. Below is a list of persons that attended the call and/or gave written comments to the CAHMI and what state they were from:

Mary Alice Lee, CT
Chris Kus, NY
Linda Dann, MI
Jenny Salesa, MI
Sonni Vierling, IA
Mary Noel, MT
Maude Holt, Washington DC
Molly Carpenter, VI
Julie Doetsch, IL
Laura McGuinn, OK
Trish Blake, CO
Viki Brant, AL
Carole Lannon, OH
Kevin Stanford, OH
Harvey Doremus, OH
Kim Elliot, AZ
Kathy Mayfield-Smith, SC
William Golden, AK
Molly Emmons, OR
Patrician Mack, IL
Kristi Plotner, MS
Russell Frank, VT
Eileen Bennet, CO
Mary Lundtke, MI
Margaret Bennett, NJ
Lillian Garcia, AZ
Suzanne Yockelson (Consultant- UCI)
Amy Fine (Health Policy/Program Consultant- Washington DC)

Anita Berry, IL Mary Timmerman, AL Juanona Brewster, IL Michelle Urban, WI Patrician Hagan, CT Vicky Hosey, IL Sheena Olson, AK Gina Robinson, CO Kim Davis Allen, AL Theresa Thomas, AL Sandra Watson, IL Susan Castellano, MN Charles Gallia, OR Norma Everret, Nemours Thus, our measures are the result of consensus from a broad and diverse group of stakeholders.
Ad.2 If adapted, provide name of original measure: **Ad.3-5 If adapted, provide original specifications URL or attachment**
Measure Developer/Steward Updates and Ongoing Maintenance **Ad.6 Year the measure was first released:** 2010 **Ad.7 Month and Year of most recent revision:** **Ad.8 What is your frequency for review/update of this measure?** **Ad.9 When is the next scheduled review/update for this measure?**
Ad.10 Copyright statement/disclaimers:
Ad.11 -13 Additional Information web page URL or attachment:
Date of Submission (*MM/DD/YY*)**:** 09/23/2010

NATIONAL QUALITY FORUM

Measure Evaluation 4.1
December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the evaluation criteria are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized)**:** Complete all yellow highlighted areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all pink highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met
C = Completely (unquestionably demonstrated to meet the criterion)
P = Partially (demonstrated to partially meet the criterion)
M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)
N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)
NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) **NQF Review #:** 1399 **NQF Project:** Child Health Quality Measures 2010
MEASURE DESCRIPTIVE INFORMATION
De.1 **Measure Title:** Developmental Screening by 2 Years of Age
De.2 **Brief description of measure:** The percentage of children who turned 2 years old during the measurement year who had a developmental screening and proper follow-up performed between 6 months and 2 years of age.
1.1-2 **Type of Measure:** Process De.3 **If included in a composite or paired with another measure, please identify composite or paired measure** This measure appears in the composite Comprehensive Well Care by Age 2 Years.
De.4 **National Priority Partners Priority Area:** Population health De.5 **IOM Quality Domain**: Effectiveness, Timeliness De.6 **Consumer Care Need:** Staying healthy

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	**NQF Staff**
A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. *Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.* A.1 **Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)?** Yes A.2 **Indicate if Proprietary Measure** (*as defined in measure steward agreement*)**:** Proprietary measure A.3 **Measure Steward Agreement:** Agreement will be signed and submitted prior to or at the time of measure submission A.4 **Measure Steward Agreement attached:**	**A** Y☐ N☐
B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and	**B**

update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. Yes, information provided in contact section	Y☐ N☐
C. The intended use of the measure includes both public reporting and quality improvement. ►**Purpose:** Public reporting, Internal quality improvement Accountability	**C** Y☐ N☐
D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. **D.1Testing:** Yes, fully developed and tested **D.2 Have NQF-endorsed measures been reviewed to identify if there are similar or related measures?** Yes	**D** Y☐ N☐
(for NQF staff use) **Have all conditions for consideration been met?** **Staff Notes to Steward** (*if submission returned*)**:**	**Met** Y☐ N☐
Staff Notes to Reviewers (*issues or questions regarding any criteria*)**:**	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. ***Measures must be judged to be important to measure and report*** *in order to be evaluated against the remaining criteria.* (evaluation criteria) **1a. High Impact**	**Eval Rating**
(for NQF staff use) **Specific NPP goal**:	
1a.1 Demonstrated High Impact Aspect of Healthcare: Patient/societal consequences of poor quality **1a.2** **1a.3 Summary of Evidence of High Impact:** The American Academy of Pediatrics (AAP) defines a developmental delay as a "condition in which a child is not developing and/or achieving skills according to the expected time frame." A child that is developmentally challenged may face many barriers throughout life; these barriers are even more severe if a delay in development is not detected early. Delayed or disordered development can lead to further health and behavior problems, including failure in school and social and emotional problems.(Council on Children With Disabilities; Section on Developmental Behavioral Pediatrics; Bright Futures Steering Committee; Medical Home Initiatives for Children With Special Needs Project Advisory Committee, 2006) Approximately 12 to 18 percent of U.S. children may have a developmental and behavioral problem. However, only about two percent of children from birth to two years old receive the necessary early intervention services.(Hix-Small, Hollie, PhD, et al., 2007) A child who is identified as having a delay in development by the time he starts school and participates in early intervention programs is more likely to graduate high school, hold a job, live independently, and avoid teen pregnancy, delinquency and violent crimes -- representing a saved cost to society of between $30,000 and $100,000 per child.(Glascoe FP, PhD, et al., 2007) Studies have shown that developmental surveillance based on non-standardized clinical judgment and observation alone does not accurately identify children with delays. Therefore, national recommendations	**1a** C☐ P☐ M☐ N☐

call for routine, standardized screening of children three times in the first three years (at the 9, 18 and 24- or 30-month well-visit).

1a.4 **Citations for Evidence of High Impact:** Hagan JF, Shaw JS, Duncan PM, eds. 2008. Bright Futures: Guidelines for Health Supervision of Infants, Children and Adolescent, Third Edition, Elk Grove Village IL. American Academy of Pediatrics.

Council on Children With Disabilities; Section on Developmental Behavioral Pediatrics; Bright Futures Steering Committee; Medical Home Initiatives for Children With Special Needs Project Advisory Committee. Identifying infants and young children with developmental disorders in the medical home: an algorithm for developmental surveillance and screening. Pediatrics. 2006;118(1):405-420

Hix-Small, Hollie, PhD, et al. Impact of Implementing Developmental Screening at 12 and 24 Months in a Pediatric Practice Pediatrics Vol. 120 No. 2 August 2007, pp. 381-389

Glascoe FP, PhD and Shapiro, HL, MD. Introduction to Developmental and Behavioral Screening. 2007. http://www.dbpeds.org/articles/detail.cfm?TextID=5

1b. Opportunity for Improvement

1b.1 **Benefits (improvements in quality) envisioned by use of this measure:** Pediatricians are not usually successful in identifying children with developmental delays without use of a standardized tool (Hix-Small, 2007). This measure will encourage the use of standardized tools for developmental screening, as delineated by guidelines. Children who are identified earlier are more likely to have developmental promotion activities, that can further improve the likihood that they will be able to start school ready to learn. Demonstrated quality improvement activities such as the ABCD Screening Academy have shown that providers can feasibly and sustainably implement standardized screening, and when done so, more children are refereed to Early Intervention and other services and that the kinds and types of referrals performed are more appropriate than was previously done without standardized screening.

1b.2 **Summary of data demonstrating performance gap (variation or overall poor performance) across providers:**
Findings from the National Survey of Children Health show that only 19.5% of children are screened in the first five years of life. Despite the evidence, the use of standardized developmental screening tools is uncommon; only about 20 percent of physicians routinely use developmental screening tests (The Commonwealth Fund, 2008). One study found that pediatricians failed to identify and refer 60 to 80 percent of children with developmental delays in a timely manner. Another study found that 68 percent of children with delays were not detected by pediatricians. Though many significant delays occur before school age, less than 50 percent of children with delays are identified before starting school -- leading to missed opportunities for treatment (Hix-Small, 2007).

1b.3 **Citations for data on performance gap:**
http://www.nschdata.org

Commonwealth Fund. Quality Matters, May 6 2008.

Hix-Small, Hollie, PhD, et al. Impact of Implementing Developmental Screening at 12 and 24 Months in a Pediatric Practice Pediatrics Vol. 120 No. 2 August 2007, pp. 381-389

Council on Children With Disabilities; Section on Developmental Behavioral Pediatrics; Bright Futures Steering Committee; Medical Home Initiatives for Children With Special Needs Project Advisory Committee. Identifying infants and young children with developmental disorders in the medical home: an algorithm for developmental surveillance and screening. Pediatrics. 2006;118(1):405-420

The American Academy of Pediatrics, Council on Children With Disabilities, Section on Developmental and Behavioral Pediatrics, Bright Futures Steering Committee, and Medical Home Initiatives for Children With Special Needs. Identifying infants and young children with developmental disorder in the medical home: an algorithm for developmental surveillance and screening. Pediatrics. 2006. 118(1): 405-420.

1b
C☐
P☐
M☐
N☐

Bethell, CD, Reuland, C, Halfon, N, Olsen, L, Schor, E., Measuring the Quality of Preventive and Developmental Services for Young Children: National Estimates and Patterns of Clinicians' Performance. Pediatrics. June 2004.

Pinto-martin, J, Dunkle M, Earls M, Fliedner D, Cynthia L. Developmental States of Developmental Screening: Steps to Implementation of a Successful Program. American Journal of Public Health. 95, 11: 1928-1932.

King T., Trandon, D, Macias, M, et al. Implementing developmental screening and referrals: Lessons learned from a national project. Pediatrics, V 125, No 2, Feb 2010.

Sand N, Silverstein M, Glascoe FP, et al. Pediatrician's reported practices regarding developmental screening: do guidelines work? Do they help? Pediatrics 2005; V116 (1): 174-179

Smith RD. The use of developmental screening tests by primary-care pediatricians. J Pediatrics. 1978; 93(3): 524-527.

Zuckerman KE, Boudreau AA, Lipstein EA, Kuhlthau KA, and Perrin JM. Household Language, Parent Developmental Concerns, and Child Risk for Developmental Disorder. Academic Pediatrics. 2009; 9(2): 97-105.

1b.4 Summary of Data on disparities by population group:

Studies suggest income disparities exist for developmental screening. One study found that only 23 percent of low-income children receive recommended preventive and developmental services (Bethell et al, 2002). The Early Intervention Periodic Screening, Diagnosis and Treatment (EPSDT) benefit for Medicaid children includes screening at each visit, however, as of 2007, 28 states were engaged in lawsuits due to a failure to properly deliver this service (Glascoe et al, 2007). Another study found that children most at risk for school difficulty were those whose mothers had less than a high school education, those who came from single-mother families, those who had received public assistance, and those who lived in families in which the primary language was not English (High, 2008)." Specific ally related to screening, the National Survey of Children's Health found that while improvements were needed in increasing screening for all children, significant variations existed in the rates of screening by race-ethnicity and insurance status.

1b.5 Citations for data on Disparities:

Bethell at al. Partnering with parents to promote the healthy development of young children enrolled in Medicaid. New York NY: The commonwealth Fund, 2002.
Glascoe FP, PhD and Shapiro, HL, MD. Introduction to Developmental and Behavioral Screening. 2007. http://www.dbpeds.org/articles/detail.cfm?TextID=5
High, Pamela C. and the Committee on Early Childhood, Adoption, and Dependent Care and Council on School Health. School Readiness. Pediatrics 2008;121;e1008-e1015
http://www.nschdata.org

Pinto-martin, J, Dunkle M, Earls M, Fliedner D, Cynthia L. Developmental States of Developmental Screening: Steps to Implementation of a Successful Program. American Journal of Public Health. 95, 11: 1928-1932.

King T., Trandon, D, Macias, M, et al. Implementing developmental screening and referrals: Lessons learned from a national project. Pediatrics, V 125, No 2, Feb 2010.

Sand N, Silverstein M, Glascoe FP, et al. Pediatrician's reported practices regarding developmental screening: do guidelines work? Do they help? Pediatrics 2005; V116 (1): 174-179

Smith RD. The use of developmental screening tests by primary-care pediatricians. J Pediatrics. 1978; 93(3): 524-527.

Zuckerman KE, Boudreau AA, Lipstein EA, Kuhlthau KA, and Perrin JM. Household Language, Parent Developmental Concerns, and Child Risk for Developmental Disorder. Academic Pediatrics. 2009; 9(2): 97-105.

1c. Outcome or Evidence to Support Measure Focus

1c.1 Relationship to Outcomes (*For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population*)**:** Early identification of developmental disabilities through surveillance and screening can lead to timely evaluation, diagnosis and appropriate treatment, including developmental intervention.

1c.2-3. Type of Evidence: Evidence-based guideline, Expert opinion

1c.4 Summary of Evidence (*as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome*)**:**
Developmental surveillance should be a component of every preventive care visit. Standardized developmental screening tools should be used when such surveillance identifies concerns about a child´s development. Furthermore, it is recommended that standardized screening for developmental, behavioral and social delays occur at the 9-, 18-, and 24-month OR 30-month well visits.
When a child has a positive screening result for a developmental problem, developmental and medical evaluations to identify the specific developmental disorders and related medical problems are warranted. Children diagnosed with developmental disorders should be identified as children with special health care needs; chronic-condition management for these children should be initiated.

1c.5 Rating of strength/quality of evidence (*also provide narrative description of the rating and by whom***):**
Good

1c.6 Method for rating evidence: Expert consensus with evidence review

1c.7 Summary of Controversy/Contradictory Evidence: The USPSTF did not review developmental screening generally. Rather, the Task Force reviewed the routine use of brief, formal screening instruments in primary care to detect speech and language delay in children. This recommendation received an "I Statement":

The USPSTF concludes that the evidence is insufficient to recommend for or against routine use of brief, formal screening instruments in primary care to detect speech and language delay in children up to 5 years of age.

Speech and language delay affects 5 to 8 percent of preschool children, often persists into the school years, and may be associated with lowered school performance and psychosocial problems. The USPSTF found insufficient evidence that brief, formal screening instruments that are suitable for use in primary care for assessing speech and language development can accurately identify children who would benefit from further evaluation and intervention. Fair evidence suggests that interventions can improve the results of short-term assessments of speech and language skills; however, no studies have assessed long-term outcomes. Furthermore, no studies have assessed any additional benefits that may be gained by treating children identified through brief, formal screening who would not be identified by addressing clinical or parental concerns. No studies have addressed the potential harms of screening or interventions for speech and language delays, such as labeling, parental anxiety, or unnecessary evaluation and intervention. Thus, the USPSTF could not determine the balance of benefits and harms of using brief, formal screening instruments to screen for speech and language delay in the primary care setting.

Secondly, It is important to note that is measure does not included standardized screening for a specific domain of development (e.g. social emotional screening via the ASQ-SE, autism screening) as it is anchored to recommendations focused on global developmental screening using tools that focus on identifying risk for developmental, behavioral and social delays. National recommendations also call for autism screening at the 18-month and 24-month well-visit and future, separate measures may specified and build off the data collection efforts used for this measure to capture domain-specific screening. Additionally, many of the ABCD states included a distinct focus on complementary, but separate, screening specifically focused on social-emotional development (using tools such as the ASQ-SE). Similarly, future efforts may maximize the data collection efforts for this measure to include additional specifications focused specifically on social-emotional screening so that a separate measure may be calculated.

1c
C☐
P☐
M☐
N☐

1c.8 Citations for Evidence (*other than guidelines*)**:** Council on Children With Disabilities, Section on Developmental Behavioral Pediatrics, Bright Futures Steering Committee, Medical Home Initiatives for Children With Special Needs Project Advisory. Identifying infants and young children with developmental disorders in the medical home: an algorithm for developmental surveillance and screening. Pediatrics 2006 Jul;118(1):405-20.

Hagan JF, Shaw JS, Duncan PM, eds. 2008. Bright Futures: Guidelines for Health Supervision of Infants, Children and Adolescent, Third Edition, Elk Grove Village IL. American Academy of Pediatrics.

1c.9 Quote the Specific guideline recommendation (*including guideline number and/or page number*)**:**
Institute for Clinical Systems Improvement:
Providers should perform the following on infants: Developmental assessment of: motor skills, language development and social development.
ICSI: Level III

Michigan Quality Improvement Consortium (2007):
From Birth to 24 months, developmental assessments should be performed.
Grade: Consensus and ICSI-Based

American Academy of Pediatrics (2006):
Medical Professionals should use standardized developmental screening tools to screen children and 9 months, 18 months:
- Developmental and medical evaluations to identify the specific developmental disorders and related medical problems
- Referred to early developmental intervention and early childhood services and scheduled for earlier return visits to increase developmental surveillance.
- Identified as children with special health care needs; chronic-condition management for these children should be initiated.

Grade: Consensus and Guideline-Based

Bright Futures (2008):
At 9, 18 and 30 Month Visits, health care providers should perform structured developmental screens. Referral should be made to an appropriate early intervention program or developmental specialist for evaluation.
Grade: Consensus and Guideline-Based

1c.10 Clinical Practice Guideline Citation: Hagan, JF, Shaw JS, Duncan PM, eds. 2008. Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents, Third Edition. Elk Grove, IL: American Academy of Pediatrics

Institute for Clinical Systems Improvement. Preventive Services for Children and Adolescents Thirteenth Edition. October 2007
[AAP] Council on Children With Disabilities, Section on Developmental Behavioral Pediatrics, Bright Futures Steering Committee, Medical Home Initiatives for Children With Special Needs Project Advisory. Identifying infants and young children with developmental disorders in the medical home: an algorithm for developmental surveillance and screening. Pediatrics 2006 Jul;118(1):405-20.
Michigan Quality Improvement Consortium. Routine preventive services for children and adolescents (ages 2-18). Southfield (MI): Michigan Quality Improvement Consortium; 2007 May. 1 p.

1c.11 National Guideline Clearinghouse or other URL:
http://www.guideline.gov/search/search.aspx?term=developmental+screening

1c.12 Rating of strength of recommendation (*also provide narrative description of the rating and by whom*)**:**
Consensus and Guideline-Based

1c.13 Method for rating strength of recommendation (*If different from USPSTF system, also describe rating and how it relates to USPSTF*)**:**

Expert consensus with evidence review 1c.14 **Rationale for using this guideline over others:** NCQA convened a multistakeholder panel of experts to review evidence and guidelines for child health care. The Child Health Measurement Advisory Panel reviewed these guidelines together with the health importance and field test results of this measure. The MAP concluded that the health importance, evidence and feasibility supports this measure. In addition, NCQA collaborated with CAHMI in order to understand the state perspectives regarding implementation of such a measure. States indicated that the measures concept used in this measure and the joint NCQA-CAHMI state-level measure are important, scientifically acceptable and feasible.	
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Importance to Measure and Report?*	**1**
Steering Committee: Was the threshold criterion, *Importance to Measure and Report*, met? **Rationale:**	**1** **Y☐** **N☐**
2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES	
Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (evaluation criteria)	**Eval Rating**
2a. MEASURE SPECIFICATIONS	
S.1 **Do you have a web page where current detailed measure specifications can be obtained?** S.2 **If yes, provide web page URL:** **2a. Precisely Specified**	
2a.1 **Numerator Statement (***Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome***):** Children who had documentation in the medical record of a screening for risk of developmental, behavioral and social delays by 2 years of age. 2a.2 **Numerator Time Window (***The time period in which cases are eligible for inclusion in the numerator***):** 2 years 2a.3 **Numerator Details (***All information required to collect/calculate the numerator, including all codes, logic, and definitions***):** Documentation must include a note indicating the date of screening, the standardized developmental screening tool used, and evidence that tool was completed and scored. 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: •Concurrent validity: This compares screening results with outcomes derived from a reliable and valid diagnostic assessment usually performed 7-10 days after the screening test. The validity coefficient reports the agreement between the two tests (Meisels & Atkins-Burnett, 2005). Predictive validity: This compares the screening results with measures of children's performance obtained 9-12 months later (Meisels & Atkins-Burnett, 2005). 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.	**2a-specs** **C☐** **P☐** **M☐** **N☐**

Current recommended tools that meet these criteria:
Ages and Stages Questionnaire (ASQ) - 2 months–5 years
Battelle Developmental Inventory Screening Tool (BDI-ST) - Birth–95 months
Bayley Infant Neuro-developmental Screen (BINS) - 3 months–2 years
Brigance Screens-II - Birth–90 months
Child Development Inventory (CDI) - 18 months–6 years
Child Development Review-Parent Questionnaire (CDR-PQ) - 18 months–5 years
Infant Development Inventory - Birth–18 months
Parents' Evaluation of Developmental Status (PEDS) - Birth–8 years

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 focused on global developmental screening using tools that focus on identifying risk for developmental, behavioral and social delays.

2a.4 Denominator Statement (*Brief, text description of the denominator - target population being measured***):**
Children who turned 2 years of age between January 1 of the measurement year and December 31 of the measurement year and who had documentation of a face-to-face visit between the clinician and the child that predates the child's birthday by at least 12 months.

2a.5 Target population gender: Female, Male
2a.6 Target population age range: 6 months to 2 years old

2a.7 Denominator Time Window (*The time period in which cases are eligible for inclusion in the denominator***):**
1 year

2a.8 Denominator Details (*All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions***):**
Children who turned 2 years of age between January 1 of the measurement year and December 31 of the measurement year and who had documentation of a face-to-face visit between the clinician and the child that predates the child's birthday by at least 12 months.

2a.9 Denominator Exclusions (*Brief text description of exclusions from the target population***):** None

2a.10 Denominator Exclusion Details (*All information required to collect exclusions to the denominator, including all codes, logic, and definitions***):**
NA

2a.11 Stratification Details/Variables (*All information required to stratify the measure including the stratification variables, all codes, logic, and definitions***):**
None

2a.12-13 Risk Adjustment Type: No risk adjustment necessary

2a.14 Risk Adjustment Methodology/Variables (*List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method***):**
NA

2a.15-17 Detailed risk model available Web page URL or attachment:

2a.18-19 Type of Score: Rate/proportion
2a.20 Interpretation of Score: Better quality = Higher score
2a.21 Calculation Algorithm (*Describe the calculation of the measure as a flowchart or series of steps***):**
Step 1: Determine the denominator
Children who turned the 2 years of age in the measurement year, AND
Who had a visit within the past 12 months of the child´s birthday

Step 2: Determine the numerator
Children who had documentation in the medical record of developmental screening using a standardized tool during the measurement year.
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.

2a.22 Describe the method for discriminating performance *(e.g., significance testing)*:
Comparison of means and percentiles; analysis of variance against established benchmarks; if sample size is >400, we would use an analysis of variance.

2a.23 Sampling (Survey) Methodology *If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate)*:
For this physician-level measure, we anticipate the entire population will be used in the denominator. If a sample is used, a random sample is ideal. NCQA's work has indicated that a sample size of 30-50 patients would be necessary for a typical practice size of 2000 patients.

2a.24 Data Source (*Check the source(s) for which the measure is specified and tested)*
Paper medical record/flow-sheet, Electronic clinical data, Electronic Health/Medical Record

2a.25 Data source/data collection instrument (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.***):**
Medical Record

2a.26-28 Data source/data collection instrument reference web page URL or attachment:

2a.29-31 Data dictionary/code table web page URL or attachment:

2a.32-35 Level of Measurement/Analysis (*Check the level(s) for which the measure is specified and tested)*
Clinicians: Individual, Clinicians: Group, Population: national, Population: regional/network

2a.36-37 Care Settings (*Check the setting(s) for which the measure is specified and tested)*
Ambulatory Care: Office, Ambulatory Care: Clinic, Ambulatory Care: Hospital Outpatient

2a.38-41 Clinical Services (*Healthcare services being measured, check all that apply*)
Clinicians: Physicians (MD/DO)

TESTING/ANALYSIS

2b. Reliability testing

2b.1 Data/sample *(description of data/sample and size)*: We did not conduct reliability testing for this measure.

2b.2 Analytic Method *(type of reliability & rationale, method for testing)*:
NA

2b.3 Testing Results *(reliability statistics, assessment of adequacy in the context of norms for the test conducted)*:
NA

2b
C☐
P☐
M☐
N☐

2c. Validity testing

2c.1 Data/sample *(description of data/sample and size)*: NCQA received data from 19 physician practices who submitted 10 records per measure (total 190 records per measure)

2c.2 Analytic Method *(type of validity & rationale, method for testing)*:
NCQA tested the measure for face validity using a panel of stakeholders with specific expertise in measurement and child health care. This panel included representatives from key stakeholder groups, including pediatricians, family physicians, health plans, state Medicaid agencies and researchers. Experts

2c
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N☐

reviewed the results of the field test and assessed whether the results were consistent with expectations, whether the measure represented quality care, and whether we were measuring the most important aspect of care in this area. 2c.3 **Testing Results** *(statistical results, assessment of adequacy in the context of norms for the test conducted)*: This measure was deemed valid by the expert panel. In addition, this measure does not utilize administrative data sources; data recorded in the chart is considered the gold standard.	
2d. Exclusions Justified 2d.1 **Summary of Evidence supporting exclusion(s):** No Exclusions 2d.2 **Citations for Evidence:** NA 2d.3 **Data/sample** *(description of data/sample and size)*: NA 2d.4 **Analytic Method** *(type analysis & rationale)*: NA 2d.5 **Testing Results** *(e.g., frequency, variability, sensitivity analyses)*: NA	**2d** C☐ P☐ M☐ N☐ NA☐
2e. Risk Adjustment for Outcomes/ Resource Use Measures 2e.1 **Data/sample** *(description of data/sample and size)*: No risk adjustment 2e.2 **Analytic Method** *(type of risk adjustment, analysis, & rationale)*: NA 2e.3 **Testing Results** *(risk model performance metrics)*: NA 2e.4 **If outcome or resource use measure is not risk adjusted, provide rationale:** The measure assesses prevention and wellness in a general population; risk adjustment is not indicated.	**2e** C☐ P☐ M☐ N☐ NA☐
2f. Identification of Meaningful Differences in Performance 2f.1 **Data/sample from Testing or Current Use** *(description of data/sample and size)*: NCQA received data from 19 physician practices who submitted 10 records per measure (total 190 records per measure) 2f.2 **Methods to identify statistically significant and practically/meaningfully differences in performance** *(type of analysis & rationale)*: Comparison of means and percentiles; analysis of variance against established benchmarks; if sample size is >400, we would use an analysis of variance 2f.3 **Provide Measure Scores from Testing or Current Use** *(description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*: Eligible N: 180 Screening documented: 88% Results documented: 87% Standardized tool documented: 71%	**2f** C☐ P☐ M☐ N☐
2g. Comparability of Multiple Data Sources/Methods	**2g** C☐

2g.1 Data/sample *(description of data/sample and size)*: NCQA received data from 19 physician practices who submitted 10 records per measure (total 190 records per measure) **2g.2 Analytic Method** *(type of analysis & rationale)*: This measure is chart review only; no other sources were identified by the expert panel; this measure does not utilize administrative data. **2g.3 Testing Results** *(e.g., correlation statistics, comparison of rankings)*: NA	P☐ M☐ N☐ NA☐
2h. Disparities in Care **2h.1 If measure is stratified, provide stratified results** *(scores by stratified categories/cohorts)*: The measure is not stratified to detect disparities. **2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:** NA	**2h** C☐ P☐ M☐ N☐ NA☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Scientific Acceptability of Measure Properties?*	**2**
Steering Committee: Overall, to what extent was the criterion, *Scientific Acceptability of Measure Properties*, met? **Rationale:**	***2*** C☐ P☐ M☐ N☐
3. USABILITY	
Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (evaluation criteria)	**Eval Rating**
3a. Meaningful, Understandable, and Useful Information **3a.1 Current Use:** Not in use but testing completed **3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large)** (*If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years*): This measure is not currently publicly reported. NCQA is exploring the feasibility of adding this measure and its related measures into a physician-level program and/or the HEDIS® measurement set as appropriate. **3a.3 If used in other programs/initiatives (***If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years***):** This measure is not currently used in QI. NCQA is exploring the feasibility of adding this measure and its related measures into a physician-level program and/or the HEDIS® measurement set as appropriate. NCQA anticipates that after we release these measures, they will become widely used, as all our measures do. **Testing of Interpretability** (*Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement*) **3a.4 Data/sample** *(description of data/sample and size)*: Expert panel, 19 physician field test participants, Medicaid State Directors, ABCD Academy **3a.5 Methods** *(e.g., focus group, survey, QI project)*: NCQA vetted the measures with its expert panel. In addition, throughout the development process, NCQA vetted the measure concepts and specifications with other stakeholder groups, including the National Association of State Medicaid Directors, NCQA's Health Plan Advisory Council, NCQA's Committee on Performance Measurement, and the American Academy of Pediatrician's Quality Improvement Innovation Network.	**3a** C☐ P☐ M☐ N☐

After field testing, NCQA also conducted a debrief call with field test participants. In the form of a group interview, NCQA systematically sought feedback on whether the measures were understandable, feasible, important, and had face validity. 3a.6 **Results** *(qualitative and/or quantitative results and conclusions)*: NCQA received feedback that the measure is understandable, feasible, important and valid.	
3b/3c. Relation to other NQF-endorsed measures 3b.1 **NQF # and Title of similar or related measures:** 0011	
(for NQF staff use) **Notes on similar/related endorsed or submitted measures:**	
3b. Harmonization If this measure is related to measure(s) already endorsed by NQF (e.g., same topic, but different target population/setting/data source or different topic but same target population): 3b.2 **Are the measure specifications harmonized? If not, why?** The National Quality Form has endorsed the Promoting Healthy Development Survey (PHDS) [NQF # 0011], which includes a measure of screening for risk of developmental, behavioral and social delays based on family surveys. In addition, NCQA and CAHMI are jointly submitting a developmental screening measure specified for state-level measurement. The measure of screening based on the PHDS is complementary, but different from this measure in the following ways: • Data source: The screening measure in the PHDS is based on parental report • Denominator: The PHDS sampling is anchored to children who have had 1 or more well-child visit The state-level measures that we are submitting jointly with CAHMI is harmonized with this measure.	**3b** C☐ P☐ M☐ N☐ NA☐
3c. Distinctive or Additive Value 3c.1 **Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:** This measure complements the state-level measure of screening submitted by NCQA and CAHMI. 5.1 **If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality:** NA	**3c** C☐ P☐ M☐ N☐ NA☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Usability?*	**3**
Steering Committee: Overall, to what extent was the criterion, *Usability*, met? **Rationale:**	**3** C☐ P☐ M☐ N☐
4. FEASIBILITY	
Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)	**Eval Rating**
4a. Data Generated as a Byproduct of Care Processes 4a.1-2 **How are the data elements that are needed to compute measure scores generated?** Data generated as byproduct of care processes during care delivery (Data are generated and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition), Coding/abstraction performed by someone other than person obtaining original information (E.g., DRG, ICD-9 codes on claims, chart abstraction for quality measure or registry)	**4a** C☐ P☐ M☐ N☐

4b. Electronic Sources **4b.1 Are all the data elements available electronically?** (*elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims*) No **4b.2 If not, specify the near-term path to achieve electronic capture by most providers.** NCQA plans to eventually adapt this measure for use in electronic health records.	**4b** C☐ P☐ M☐ N☐
4c. Exclusions **4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications?** No **4c.2 If yes, provide justification.**	**4c** C☐ P☐ M☐ N☐ NA☐
4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences **4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results.** During the measure development process the Child Health MAP and measure development team worked with NCQA's certified auditors and audit department to ensure that the measure specifications were clear and auditable. The denominator, numerator and any exclusions are concisely specified and align with our audit standards.	**4d** C☐ P☐ M☐ N☐
4e. Data Collection Strategy/Implementation **4e.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data/missing data, timing/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues:** Based on field test results, we have specified the measure to assess whether screening with a standardized tool was documented. Our field test results showed that these data elements are available in the medical record. In addition, our field test participants noted that many were able to program these requirements into their electronic health record systems, and several implemented point-of-service physician reminders for this measure. In working with CAHMI on the state-level measure, we worked to ensure our age ranges and requirements for a standardized tool were consistent in responding to state experiences. **4e.2 Costs to implement the measure** (*costs of data collection, fees associated with proprietary measures*)**:** Collecting measures from medical charts is time-consuming and can be burdensome. Adapting this measure in electronic health records may relieve some of this burden. **4e.3 Evidence for costs:** Based on field test participant feedback and other stakeholder input **4e.4 Business case documentation:**	**4e** C☐ P☐ M☐ N☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Feasibility?*	**4**
Steering Committee: Overall, to what extent was the criterion, *Feasibility*, met? **Rationale:**	**4** C☐ P☐ M☐ N☐

RECOMMENDATION	
(for NQF staff use) **Check if measure is untested and only eligible for time-limited endorsement.**	**Time-limited** ☐
Steering Committee: Do you recommend for endorsement? **Comments:**	**Y** ☐ **N** ☐ **A** ☐

CONTACT INFORMATION

Co.1 Measure Steward (Intellectual Property Owner)
Co.1 Organization
NCQA, 1100 13th St, NW, Suite 1000, Washington, District Of Columbia, 20005

Co.2 Point of Contact
Sepheen, Byron, MHS, byron@ncqa.org, 202-955-3573-

Measure Developer If different from Measure Steward
Co.3 Organization
NCQA, 1100 13th St, NW, Suite 1000, Washington, District Of Columbia, 20005

Co.4 Point of Contact
Sepheen, Byron, MHS, byron@ncqa.org, 202-955-3573-

Co.5 Submitter If different from Measure Steward POC
Sepheen, Byron, MHS, byron@ncqa.org, 202-955-3573-, NCQA

Co.6 Additional organizations that sponsored/participated in measure development
None

ADDITIONAL INFORMATION

Workgroup/Expert Panel involved in measure development
Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.
Child Health Measurement Advisory Panel:
Jeanne Alicandro
Barbara Dailey
Denise Dougherty, PhD
Ted Ganiats, MD
Foster Gesten, MD
Nikki Highsmith, MPA
Charlie Homer, MD, MPH
Jeff Kamil, MD
Elizabeth Siteman
Mary McIntyre, MD, MPH
Virginia Moyer, MD, MPH, FAAP
Lee Partridge
Xavier Sevilla, MD, FAAP
Michael Siegal
Jessie Sullivan

The NCQA Child Health MAP advised NCQA during measure development. They evaluated the way staff specified measures, assessed the content validity of measures, and reviewed field test results. As you can see from the list, the MAP consisted of a balanced group of experts, including representatives from pediatricians, family physicians, researchers, Medicaid CHIP offices and health plans.

Note that, in addition to the MAP, we also vetted these measures with a host of other stakeholders, as is our process. Thus, our measures are the result of consensus from a broad and diverse group of stakeholders, in addition to the Child Health MAP.

Ad.2 If adapted, provide name of original measure: NA **Ad.3-5 If adapted, provide original specifications URL or attachment**
Measure Developer/Steward Updates and Ongoing Maintenance **Ad.6 Year the measure was first released:** **Ad.7 Month and Year of most recent revision:** **Ad.8 What is your frequency for review/update of this measure?** **Ad.9 When is the next scheduled review/update for this measure?**
Ad.10 Copyright statement/disclaimers:
Ad.11 -13 Additional Information web page URL or attachment:
Date of Submission (*MM/DD/YY*)**:** 09/24/2010

NATIONAL QUALITY FORUM

Measure Evaluation 4.1
December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the evaluation criteria are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized)**:** Complete all yellow highlighted areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all pink highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met
C = Completely (unquestionably demonstrated to meet the criterion)
P = Partially (demonstrated to partially meet the criterion)
M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)
N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)
NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) **NQF Review #:** 1385 **NQF Project:** Child Health Quality Measures 2010

MEASURE DESCRIPTIVE INFORMATION

De.1 Measure Title: Developmental screening using a parent completed screening tool (Parent report, Children 0-5)

De.2 Brief description of measure: The measure assesses whether the parent or caregiver completed a developmental screening tool meant to identify children at-risk for developmental, behavioral and social delays. The items are age-specific and anchored to parent-completed tools (a majority of health care providers implementing the Bright Futures recommendations for standardized screening for all children utilize parent-completed tools due to their validity and feasibility). The age-specific items assess whether children 10-71 months are screened.

The items assessing developmental screening in the National Survey of Children´s Health are meant to assess whether the parent or caregiver completed a standardized developmental screening tool (for example: Parents Evaluation of Developmental Status). Developmental screening is defined as a standardized tool that assesses the child's risk for developmental, behavioral and social delays. The American Academy of Pediatrics recommends standardized screening using an approved screening tool as the best method of identifying children at risk for developmental, behavioral and/or social delays.

1.1-2 Type of Measure: Process
De.3 If included in a composite or paired with another measure, please identify composite or paired measure

De.4 National Priority Partners Priority Area: Population health
De.5 IOM Quality Domain: Effectiveness
De.6 Consumer Care Need: Staying healthy

CONDITIONS FOR CONSIDERATION BY NQF	
Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:	NQF Staff

A. The measure is in the public domain or an intellectual property (measure steward agreement) is signed. *Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.* A.1 **Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)?** Yes A.2 **Indicate if Proprietary Measure** (*as defined in measure steward agreement*)**:** A.3 **Measure Steward Agreement:** Agreement will be signed and submitted prior to or at the time of measure submission A.4 **Measure Steward Agreement attached:**	**A** Y☐ N☐
B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. Yes, information provided in contact section	**B** Y☐ N☐
C. The intended use of the measure includes both public reporting and quality improvement. ►**Purpose:** Public reporting, Internal quality improvement	**C** Y☐ N☐
D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement. D.1**Testing:** Yes, fully developed and tested D.2 **Have NQF-endorsed measures been reviewed to identify if there are similar or related measures?** Yes	**D** Y☐ N☐
(for NQF staff use) **Have all conditions for consideration been met?** **Staff Notes to Steward** (*if submission returned*)**:**	**Met** Y☐ N☐
Staff Notes to Reviewers (*issues or questions regarding any criteria*)**:**	
Staff Reviewer Name(s):	

TAP/Workgroup Reviewer Name:	
Steering Committee Reviewer Name:	
1. IMPORTANCE TO MEASURE AND REPORT	
Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance. ***Measures must be judged to be important to measure and report*** *in order to be evaluated against the remaining criteria.* (evaluation criteria) **1a. High Impact**	**Eval Rating**
(for NQF staff use) **Specific NPP goal**:	
1a.1 **Demonstrated High Impact Aspect of Healthcare:** Patient/societal consequences of poor quality 1a.2 1a.3 **Summary of Evidence of High Impact:** Nationally, only 19.5% of children age 10-71 months received all of the content to indicate that their parent or caregiver had completed a standardized developmental screening instrument to identify children at-risk for developmental, behavioral, and social delays in the past 12 months. The American Academy of Pediatrics Bright Future recommendations state that all children should be screened using a standard tool (e.g. PEDS or ASQ) by age 5. In July 2006 the American Academy of Pediatrics issued the Statement on Identifying Infants and Young	**1a** C☐ P☐ M☐ N☐

Children with Developmental Disorders in the Medical Home, calling for pediatric clinicians to routinely screen children for developmental delays using standardized and validated tools. A majority of front-line health care providers who are implementing standardized developmental screening tools as part of well-child care are doing so through the use of parent-completed standardized developmental screening tools due to their feasibility and validity.

This measure has demonstrated validity and sensitivity to parent-completed tools such as the Parents Evaluation of Developmental Status and the Ages and Stages Questionnaire.

1a.4 Citations for Evidence of High Impact: The American Academy of Pediatrics, Council on Children With Disabilities, Section on Developmental and Behavioral Pediatrics, Bright Futures Steering Committee, and Medical Home Initiatives for Children With Special Needs. Identifying infants and young children with developmental disorder in the medical home: an algorithm for developmental surveillance and screening. Pediatrics. 2006. 118(1): 405-420.

Bethell, CD, Reuland, C, Halfon, N, Olsen, L, Schor, E., Measuring the Quality of Preventive and Developmental Services for Young Children: National Estimates and Patterns of Clinicians' Performance. Pediatrics. June 2004.

Pinto-martin, J, Dunkle M, Earls M, Fliedner D, Cynthia L. Developmental States of Developmental Screening: Steps to Implementation of a Successful Program. American Journal of Public Health. 95, 11: 1928-1932.

King T., Trandon, D, Macias, M, et al. Implementing developmental screening and referrals: Lessons learned from a national project. Pediatrics, V 125, No 2, Feb 2010.

Sand N, Silverstein M, Glascoe FP, et al. Pediatrician's reported practices regarding developmental screening: do guidelines work? Do they help? Pediatrics 2005; V116 (1): 174-179

Smith RD. The use of developmental screening tests by primary-care pediatricians. J Pediatrics. 1978; 93(3): 524-527.

Zuckerman KE, Boudreau AA, Lipstein EA, Kuhlthau KA, and Perrin JM. Household Language, Parent Developmental Concerns, and Child Risk for Developmental Disorder. Academic Pediatrics. 2009; 9(2): 97-105.

1b. Opportunity for Improvement

1b.1 Benefits (improvements in quality) envisioned by use of this measure: Research shows that the most reliable and valid approach to identify children at risk for delays is to implement a standardized developmental screening tool. Integral to assuring whether children are being screened in this way is the use of standardized measures to track the current level of screening and to monitor implementation efforts over time. No standardized and validated methods are available to health systems for this purpose. Some health systems examine medical charts for evidence of standardized screening of children. However, it is not known whether this data source is reliable or valid for measurement purposes due to variations in whether and how care providers document their screening activities, including whether or not completed tools are included in the chart. Early identification of developmental disorders is critical to the well-being of children and their families. Early identification should lead to further evaluation, diagnosis, and treatment.

1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers:
Children who have received all of the content to qualify as having completed a standardized developmental screen ranges across states from 10.7% of children in Pennsylvania to 47% of children in North Carolina.

1b.3 Citations for data on performance gap:
The American Academy of Pediatrics, Council on Children With Disabilities, Section on Developmental and Behavioral Pediatrics, Bright Futures Steering Committee, and Medical Home Initiatives for Children With Special Needs. Identifying infants and young children with developmental disorder in the medical home: an algorithm for developmental surveillance and screening. Pediatrics. 2006. 118(1): 405-420.

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Bethell, CD, Reuland, C, Halfon, N, Olsen, L, Schor, E., Measuring the Quality of Preventive and Developmental Services for Young Children: National Estimates and Patterns of Clinicians' Performance. Pediatrics. June 2004.

Pinto-martin, J, Dunkle M, Earls M, Fliedner D, Cynthia L. Developmental States of Developmental Screening: Steps to Implementation of a Successful Program. American Journal of Public Health. 95, 11: 1928-1932.

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Sand N, Silverstein M, Glascoe FP, et al. Pediatrician's reported practices regarding developmental screening: do guidelines work? Do they help? Pediatrics 2005; V116 (1): 174-179

Smith RD. The use of developmental screening tests by primary-care pediatricians. J Pediatrics. 1978; 93(3): 524-527.

Zuckerman KE, Boudreau AA, Lipstein EA, Kuhlthau KA, and Perrin JM. Household Language, Parent Developmental Concerns, and Child Risk for Developmental Disorder. Academic Pediatrics. 2009; 9(2): 97-105.

1b.4 Summary of Data on disparities by population group:
Children who currently have public insurance are more likely (23.6%) to have received all of the content to qualify as having completed a standardized developmental screen than children who currently have private insurance (17.8%) or who are currently uninsured (14.8%).

1b.5 Citations for data on Disparities:
The American Academy of Pediatrics, Council on Children With Disabilities, Section on Developmental and Behavioral Pediatrics, Bright Futures Steering Committee, and Medical Home Initiatives for Children With Special Needs. Identifying infants and young children with developmental disorder in the medical home: an algorithm for developmental surveillance and screening. Pediatrics. 2006. 118(1): 405-420.

Bethell, CD, Reuland, C, Halfon, N, Olsen, L, Schor, E., Measuring the Quality of Preventive and Developmental Services for Young Children: National Estimates and Patterns of Clinicians' Performance. Pediatrics. June 2004.

Pinto-martin, J, Dunkle M, Earls M, Fliedner D, Cynthia L. Developmental States of Developmental Screening: Steps to Implementation of a Successful Program. American Journal of Public Health. 95, 11: 1928-1932.

King T., Trandon, D, Macias, M, et al. Implementing developmental screening and referrals: Lessons learned from a national project. Pediatrics, V 125, No 2, Feb 2010.

Sand N, Silverstein M, Glascoe FP, et al. Pediatrician's reported practices regarding developmental screening: do guidelines work? Do they help? Pediatrics 2005; V116 (1): 174-179

Smith RD. The use of developmental screening tests by primary-care pediatricians. J Pediatrics. 1978; 93(3): 524-527.

Zuckerman KE, Boudreau AA, Lipstein EA, Kuhlthau KA, and Perrin JM. Household Language, Parent Developmental Concerns, and Child Risk for Developmental Disorder. Academic Pediatrics. 2009; 9(2): 97-105.

1c. Outcome or Evidence to Support Measure Focus

1c.1 Relationship to Outcomes (*For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population*)**:** It is recommended that developmental surveillance be incorporated at every well-child preventive care visit. Any concerns raised during surveillance should be promptly addressed with standardized developmental screening tests. In addition, screening tests should be administered regularly at the 9-, 18-, and 30-month visits. Surveillance can be useful for determining appropriate referrals, providing patient education and family-centered care in

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support of healthy development, and monitoring the effects of developmental health promotion through early intervention and therapy. **1c.2-3. Type of Evidence:** Other Population based research **1c.4 Summary of Evidence** (*as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome*)**:** **1c.5 Rating of strength/quality of evidence (***also provide narrative description of the rating and by whom***):** **1c.6 Method for rating evidence:** **1c.7 Summary of Controversy/Contradictory Evidence:** **1c.8 Citations for Evidence** (*other than guidelines*)**:** **1c.9 Quote the Specific guideline recommendation (***including guideline number and/or page number***):** **1c.10 Clinical Practice Guideline Citation:** The American Academy of Pediatrics, Council on Children With Disabilities, Section on Developmental and Behavioral Pediatrics, Bright Futures Steering Committee, and Medical Home Initiatives for Children With Special Needs. Identifying infants and young children with developmental disorder in the medical home: an algorithm for developmental surveillance and screening. Pediatrics. 2006. 118(1): 405-420. **1c.11 National Guideline Clearinghouse or other URL:** **1c.12 Rating of strength of recommendation** (*also provide narrative description of the rating and by whom*)**:** **1c.13 Method for rating strength of recommendation** (*If different from USPSTF system, also describe rating and how it relates to USPSTF)*: **1c.14 Rationale for using this guideline over others:**	
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Importance to Measure and Report?*	**1**
Steering Committee: Was the threshold criterion, *Importance to Measure and Report*, met? **Rationale:**	**1** **Y☐** **N☐**
2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES	
Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (evaluation criteria)	**Eval Rating**
2a. MEASURE SPECIFICATIONS	
S.1 Do you have a web page where current detailed measure specifications can be obtained? **S.2 If yes, provide web page URL:** **2a. Precisely Specified**	**2a-specs** **C☐** **P☐**
2a.1 Numerator Statement (*Brief, text description of the numerator - what is being measured about the*	

target population, e.g. target condition, event, or outcome):
Percentage of children whose parents completed a standardized developmental screening tool to identify children at risk for developmental, behavioral, and social delays at a health care visit during the previous 12 months

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2a.2 **Numerator Time Window** (*The time period in which cases are eligible for inclusion in the numerator*):
Encounter or point in time.

2a.3 **Numerator Details** (*All information required to collect/calculate the numerator, including all codes, logic, and definitions*):
The three items begin with a stem question asking whether or not the parent/guardian ever received a questionnaire asking about concerns with their child's development, communication or social behaviors (K6Q12) at a health care visit.

Two age-specific questions follow: Parents of children age 10-23 months receive two questions to ascertain whether the questionnaire they received contained questions about concerns around child's speech/sounds (K6Q13A) and his/her interaction with respondent and others (K6Q13B).

Parents of children age 24-71 months receive two questions (to ascertain whether the questionnaire they received contained questions about concerns around words/phrases that the child uses and understands (K6Q14A) and how the child gets along with respondent and others (K6Q14B).

Parents must answer all three questions they receive in the affirmative to be coded as "received standardized developmental screening."

2a.4 **Denominator Statement** (*Brief, text description of the denominator - target population being measured*):
Children age 10 months - 5 years (71 months) with a health care visit in the past 12 months (see 2a.8 below for further definition of "health care visit")

2a.5 **Target population gender:** Female, Male
2a.6 **Target population age range:** Children age 10 months - 5 years (71 months)

2a.7 **Denominator Time Window** (*The time period in which cases are eligible for inclusion in the denominator*):
Denominator window is a fixed point in time.

2a.8 **Denominator Details** (*All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions*):
Children age 10-71 months with at least one health care visit in the past 12 months. Health care visit is defined as 1 or more preventive health care visits and/or 1 or more preventive dental care visits and/or a visit with a mental health professional and/or a visit with a specialist.

2a.9 **Denominator Exclusions** (*Brief text description of exclusions from the target population*): Child excluded from denominator if age is less than 10 months or more than 5 years and did not have at least one health care visit in the past 12 months

2a.10 **Denominator Exclusion Details** (*All information required to collect exclusions to the denominator, including all codes, logic, and definitions*):
Children less than age 10 months or older than 71 months are excluded from the denominator. In addition, children in the target denominator age range of 10-71 months are excluded from the denominator if they did not have at least one "health care visit" in the past 12 months. Health care visit is defined as 1 or more preventive health care visits and/or 1 or more preventive dental care visits and/or a visit with a mental health professional and/or a visit with a specialist.

2a.11 **Stratification Details/Variables** (*All information required to stratify the measure including the stratification variables, all codes, logic, and definitions*):

2a.12-13 **Risk Adjustment Type:** No risk adjustment necessary

2a.14 Risk Adjustment Methodology/Variables (*List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method***):**

2a.15-17 Detailed risk model available Web page URL or attachment:

2a.18-19 Type of Score: Rate/proportion
2a.20 Interpretation of Score: Better quality = Higher score
2a.21 Calculation Algorithm (*Describe the calculation of the measure as a flowchart or series of steps***):**
To receive numerator of parent did complete a standardized developmental screening tool:
Children age 10-71 months:
-Parent/guardian received a questionnaire about concerns with their child's development, communication or social behaviors in the past 12 months (K6Q12= Yes)
AND
Children age 10-23 months:
-Questionnaire contained questions about concerns around how child talks or makes speech sounds (K6Q13A= Yes)
AND
-Questionnaire contained questions about concerns around how child interacts with others (K6Q13B= Yes)
AND
Children age 24-71 months:
-Questionnaire contained questions about concerns around words and phrases child uses and understands (K6Q14A= Yes)
AND
-Questionnaire contained questions about concerns around how child behaves and gets along with others (K6Q14B= Yes)

To receive numerator of parent did NOT complete the standardized developmental and behavioral screening, parent must respond "No" to one or more of the above items.

2a.22 Describe the method for discriminating performance *(e.g., significance testing)***:**

2a.23 Sampling (Survey) Methodology *If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate)*:
Best guideline to follow is the survey methodology used in the 2007 National Survey of Children´s Health.

The goal of the NSCH sample design was to generate samples representative of populations of children within each state. An additional goal of the NSCH was to obtain state-specific sample sizes that were sufficiently large to permit reasonably precise estimates of the health characteristics of children in each state.
To achieve these goals, state samples were designed to obtain a minimum of 1,700 completed interviews. The number of children to be selected in each National Immunization Survey (NIS) estimation area was determined by allocating the total of 1,700 children in the state to each National Immunization Survey (NIS) estimation area within the state in proportion to the total estimated number of households with children in the NIS estimation area. Given this allocation, the number of households that needed to be screened in each NIS estimation area was calculated using the expected proportion of households with children under 18 years of age in the area. Then, the number of telephone numbers that needed to be called was computed using the expected working residential number rate, adjusted for expected nonresponse.

A total of 91,642 interviews were completed from April 2007 to July 2008 for the 2007 National Survey of Children´s Health. A random-digit-dialed sample of households with children less than 18 years of age was selected from each of the 50 states and the District of Columbia. One child was randomly selected from all children in each identified household to be the subject of the survey. The respondent was a parent or guardian who knew about the child's health and health care.

2a.24 Data Source (*Check the source(s) for which the measure is specified and tested)*
Survey: Patient

2a.25 Data source/data collection instrument (*Identify the specific data source/data collection instrument,*

e.g. name of database, clinical registry, collection instrument, etc.):
2007 National Survey of Children's Health

2a.26-28 **Data source/data collection instrument reference web page URL or attachment:** URL
ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/slaits/nsch07/1a_Survey_Instrument_English/NSCH_Questionnaire_052109.pdf

2a.29-31 **Data dictionary/code table web page URL or attachment:** URL
http://nschdata.org/Viewdocument.aspx?item=519

2a.32-35 **Level of Measurement/Analysis** (*Check the level(s) for which the measure is specified and tested)*
Population: national, Population: regional/network, Population: states

2a.36-37 **Care Settings** (*Check the setting(s) for which the measure is specified and tested)*
Other applies to any care setting in which child receives care. Can stratify by usual source of care.

2a.38-41 **Clinical Services** (*Healthcare services being measured, check all that apply*)
Other Patient experience

TESTING/ANALYSIS

2b. Reliability testing

2b.1 **Data/sample** *(description of data/sample and size)*: The Child and Adolescent Health Measurement Initiative (CAHMI), with funding from the Commonwealth Fund and in conjunction with the Maternal and Child Health Bureau and the National Center for Health Statistics, led the development and testing of the items. The findings from the cognitive testing yielded this 3-item, stand-alone measure that is also part of the Promoting Healthy Development Survey© (PHDS) or can be administered as part of an existing survey. Items were tested on N=23 as part of the ABCD screening academy. Additional information not found in this section can be provided upon request.

Additionally, qualitative testing of the most recent version of the standardized developmental and behavioral screening items (as part of the 2007 National Survey of Children´s Health) was conducted by the National Center for Health Statistics. They conducted cognitive interviews with the 2007 NSCH Computer-Assisted Telephone Interview (CATI) to make sure the entire survey instrument was functioning properly. N=640 interviews were completed over 3 days in December 2006. The questionnaire was then revised and finalized based on feedback from participants in these interviews.

2b.2 **Analytic Method** *(type of reliability & rationale, method for testing)*:
Cognitive testing was conducted to test reliability and interpretability of questions across population.

2b.3 **Testing Results** *(reliability statistics, assessment of adequacy in the context of norms for the test conducted)*:
For testing of the standardized developmental screening measure as part of the PHDS: overall, N=23 interviews were conducted with parents whose children received care in sites that use an standardized developmental screening tool at specific visits. The interviews were conducted with N=15 parents who completed a standardized developmental screening tool (9 completed the ASQ, 6 completed the PEDS) and N=8 parents who did not complete a tool. Participating parents reported about care provided to children ages 3 months old – 36 months old. See links below for more information:

Standardized Developmental Screening (SDBS) - Users Tips Sheet: How to Administer and Score the Items
http://cahmi.org/ViewDocument.aspx?DocumentID=69

Standardized Developmental Screening (SDBS) - Development: How the Items Were Developed and Tested
http://cahmi.org/ViewDocument.aspx?DocumentID=70

Promoting Healthy Development Survey (PHDS) Implementation
Guidelines:http://www.cmwf.org/General/General_show.htm?doc_id=425143

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Measuring and Evaluating Developmental Services: Strategies and Lessons from the ABCD II Consortium States. Colleen Peck Reuland and Christina Bethell. NASHP Publication #2006HH-CW16. Available at http://www.nashp.org/Files/lessons_from_ABCDII.pdf For testing of the standardized developmental screening measure as part of the 2007 NSCH (N=640), no comments or feedback specific to the measure was given.	
2c. Validity testing 2c.1 **Data/sample** *(description of data/sample and size)*: In-depth cognitive interviews with 23 parents of young children who received care in sites that use a standardized developmental screening tool at specific visits. 2c.2 **Analytic Method** *(type of validity & rationale, method for testing)*: The standardized developmental screening items were validated through in-depth cognitive interviews with parents of young children who were served by pediatric practices known to systematically use standardized, parent-completed developmental and behavioral screening tools and with parents whose child received care in an office known to not use standardized screening tools (N=23). 2c.3 **Testing Results** *(statistical results, assessment of adequacy in the context of norms for the test conducted)*: This testing resulted in a zero false negative rate (e.g. all responses indicating "no standardized developmental screening tool" did not, in fact, receive standardized developmental screening) and a small proportion of false positives (e.g. some screenings were reported that did not take place). As such, any bias in these standardized developmental screening tool prevalence findings are expected to be in the direction of overestimating prevalence of screening using standardized, parent-completed tools. This is normally the preferred direction of bias for any performance assessment measure. More information at: Child and Adolescent Health Measurement Initiative (CAHMI). Standardized Developmental and Behavioral Screening (SDBS): Measure of SDBS Using Surveys of Parents. Development, Survey Items and User Tips and Guidelines. Accessed on January 28, 2010 from: http://cahmi.org/ViewDocument.aspx?DocumentID=70.	**2c** C☐ P☐ M☐ N☐
2d. Exclusions Justified 2d.1 **Summary of Evidence supporting exclusion(s):** 2d.2 **Citations for Evidence:** 2d.3 **Data/sample** *(description of data/sample and size)*: 2d.4 **Analytic Method** *(type analysis & rationale)*: 2d.5 **Testing Results** *(e.g., frequency, variability, sensitivity analyses)*:	**2d** C☐ P☐ M☐ N☐ NA ☐
2e. Risk Adjustment for Outcomes/ Resource Use Measures 2e.1 **Data/sample** *(description of data/sample and size)*: 2e.2 **Analytic Method** *(type of risk adjustment, analysis, & rationale)*: 2e.3 **Testing Results** *(risk model performance metrics)*: 2e.4 **If outcome or resource use measure is not risk adjusted, provide rationale:**	**2e** C☐ P☐ M☐ N☐ NA ☐

2f. Identification of Meaningful Differences in Performance **2f.1 Data/sample from Testing or Current Use** *(description of data/sample and size)*: **2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance** *(type of analysis & rationale)*: **2f.3 Provide Measure Scores from Testing or Current Use** *(description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*:	**2f** C☐ P☐ M☐ N☐
2g. Comparability of Multiple Data Sources/Methods **2g.1 Data/sample** *(description of data/sample and size)*: **2g.2 Analytic Method** *(type of analysis & rationale)*: **2g.3 Testing Results** *(e.g., correlation statistics, comparison of rankings)*:	**2g** C☐ P☐ M☐ N☐ NA ☐
2h. Disparities in Care **2h.1 If measure is stratified, provide stratified results** *(scores by stratified categories/cohorts)*: **2h.2 If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:**	**2h** C☐ P☐ M☐ N☐ NA ☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Scientific Acceptability of Measure Properties?*	**2**
Steering Committee: Overall, to what extent was the criterion, *Scientific Acceptability of Measure Properties*, met? **Rationale:**	***2*** C☐ P☐ M☐ N☐
3. USABILITY	
Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (evaluation criteria)	**Eval Rating**
3a. Meaningful, Understandable, and Useful Information **3a.1 Current Use:** In use **3a.2 Use in a public reporting initiative (disclosure of performance results to the public at large)** (*If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years*): U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. The Health and Well-Being of Children: A Portrait of States and the Nation 2007. Chartbook based on data from the 2007 National Survey of Children's Health. **3a.3 If used in other programs/initiatives (***If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years***):** Copper, Janice L & Vick, Jessica. Promoting Social-Emotional Wellbeing in Early Intervention Services: A Fifty-State View. National Center for Children in Poverty, September 2009.	**3a** C☐ P☐ M☐ N☐

Hagan JF, Shaw, JS, Duncan PM, eds. 2008. Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents, 3rd Edition. Elk Grove Village, IL: American Academy of Pediatrics. Earls, ME, Andrews JE, Hay, SS. A Longitudinal Study of Developmental and Behavioral Screening and Referral in North Carolina's Assuring Better Child Health and Development Participating Practices. Clinical Pediatrics. **Testing of Interpretability** (*Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement*) 3a.4 **Data/sample** *(description of data/sample and size)*: Focus groups were held with numerous stakeholder groups—family advocates, clinicians, Title V leaders, researchers—to obtain feedback on report formats. The Child and Adolescent Health Measurement Initiative led the focus groups and developed reports in accordance with a general consumer information framework. Additional focus groups were held when preparing data and reports for display on the Data Resource Center website. The Data Resource Center executive committee also reviewed report formats for interpretability and applicability. 3a.5 **Methods** *(e.g., focus group, survey, QI project)*: Focus groups 3a.6 **Results** *(qualitative and/or quantitative results and conclusions)*:	
3b/3c. Relation to other NQF-endorsed measures 3b.1 **NQF # and Title of similar or related measures:**	
(for NQF staff use) **Notes on similar/related endorsed or submitted measures:**	
3b. Harmonization If this measure is related to measure(s) already endorsed by NQF (e.g., same topic, but different target population/setting/data source or different topic but same target population): 3b.2 **Are the measure specifications harmonized? If not, why?**	**3b** C☐ P☐ M☐ N☐ NA ☐
3c. Distinctive or Additive Value 3c.1 **Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:** 5.1 **If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality:**	**3c** C☐ P☐ M☐ N☐ NA ☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Usability?*	**3**
Steering Committee: Overall, to what extent was the criterion, *Usability*, met? **Rationale:**	**3** C☐ P☐ M☐ N☐
4. FEASIBILITY	
Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)	Eval Rating
4a. Data Generated as a Byproduct of Care Processes 4a.1-2 **How are the data elements that are needed to compute measure scores generated?** Survey	**4a** C☐ P☐ M☐

	N☐
4b. Electronic Sources **4b.1 Are all the data elements available electronically?** (*elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims*) Yes **4b.2 If not, specify the near-term path to achieve electronic capture by most providers.**	**4b** C☐ P☐ M☐ N☐
4c. Exclusions **4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications?** No **4c.2 If yes, provide justification.**	**4c** C☐ P☐ M☐ N☐ NA ☐
4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences **4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results.**	**4d** C☐ P☐ M☐ N☐
4e. Data Collection Strategy/Implementation **4e.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data/missing data, timing/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues:** **4e.2 Costs to implement the measure** (*costs of data collection, fees associated with proprietary measures*)**:** **4e.3 Evidence for costs:** **4e.4 Business case documentation:**	**4e** C☐ P☐ M☐ N☐
TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for *Feasibility?*	**4**
Steering Committee: Overall, to what extent was the criterion, *Feasibility*, met? **Rationale:**	**4** C☐ P☐ M☐ N☐
RECOMMENDATION	
(for NQF staff use) **Check if measure is untested and only eligible for time-limited endorsement.**	**Time-limited** ☐
Steering Committee: Do you recommend for endorsement? **Comments:**	**Y☐** **N☐** **A☐**
CONTACT INFORMATION	
Co.1 Measure Steward (Intellectual Property Owner)	

Co.1 **Organization**
Child and Adolescent Health Measurement Initiative on behalf of the Maternal and Child Health Bureau, Oregon Health & Science University, 707 SW Gaines Street, Portland, Oregon, 97239

Co.2 **Point of Contact**
Christina, Bethell, Ph.D., MPH, MBA, bethellc@ohsu.edu, 503-494-1892-

Measure Developer If different from Measure Steward
Co.3 **Organization**
Maternal and Child Health Bureau, Parklawn Building Room 18-05, 5600 Fishers Lane, Rockville, Maryland, 20857

Co.4 **Point of Contact**
Christina, Bethell, Ph.D., MPH, MBA, bethellc@ohsu.edu, 503-494-1892-

Co.5 **Submitter If different from Measure Steward POC**
Christina, Bethell, Ph.D., MPH, MBA, bethellc@ohsu.edu, 503-494-1892-, Child and Adolescent Health Measurement Initiative on behalf of the Maternal and Child Health Bureau

Co.6 **Additional organizations that sponsored/participated in measure development**

ADDITIONAL INFORMATION

Workgroup/Expert Panel involved in measure development
Ad.1 **Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.**

Ad.2 **If adapted, provide name of original measure:**
Ad.3-5 **If adapted, provide original specifications URL or attachment**

Measure Developer/Steward Updates and Ongoing Maintenance
Ad.6 **Year the measure was first released:** 2007
Ad.7 **Month and Year of most recent revision:** 04, 2007
Ad.8 **What is your frequency for review/update of this measure?** Updated every 4 years when a new National Survey of Children's Health is developed
Ad.9 **When is the next scheduled review/update for this measure?** 01, 2011

Ad.10 **Copyright statement/disclaimers:** CAHMI- The Child and Adolescent Health Measurement Initiative.

Ad.11 -13 **Additional Information web page URL or attachment:**

Date of Submission (*MM/DD/YY*)**:** 10/14/2010