

Title: Standardized Developmental Screening, Referral to Early Intervention (EI) for Children Identified at Risk for Developmental, Behavioral and Social Delays and Provider Feedback from EI, in the First Three Years of Life

Specific Measures:

1. Measure #1: Proportion of Children Screened for Risk of Developmental, Behavioral and Social Delays Using a Standardized Screening Tool
2. Measure #2: Proportion Children Identified at Risk for Developmental, Behavioral and Social Delays Who Were Referred to **Early Intervention**
3. Measure #3: Proportion Children Identified at Risk for Developmental, Behavioral and Social Delays **Who Were Referred** to Address the Risk Identified (This includes providers beyond EI)
4. Measure # 4. Proportion of At-Risk Children Who Were Referred to Early Intervention (EI) for whom information about Early Intervention is in the Primary Care Provider’s Medical Chart

Source(s)

Medical Chart Specifications Developed by Oregon Pediatric Improvement Partnership,
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Specifications were piloted as part of Oregon’s Assuring Better Child Health and Development-III Performance Improvement Project. This project involved eight managed care organizations.

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Clinical Quality Measures: Outcome (Measure #4, Children who were referred to EI, accessed EI and information was feedback to be used for care coordination)

Brief Abstract

Description

Measure #1

The percentage of children aged 1, 2 and 3 years who were screened for risk for developmental, behavioral and/or social delays in the last 12 months.

Measure #2

This measure identifies the proportion of children identified at-risk by a standardized screening tool who

were referred by their providers to Early Intervention (EI) (Field 3.1). This is a measure of referral in the first three years of life and includes three, age-specific indicators assessing whether children at risk for developmental, behavioral and social delays are referred to EI by their first, second or third birthdays.

Measure #3

This measure identifies the proportion of children who were identified at risk for delays using a standardized screening tool who were referred for follow-up services (Field 3.1 and/or 3.14). This is a measure of referral in the first three years of life and includes three, age-specific indicators assessing whether children at risk for developmental, behavioral and social delays are referred by their first, second or third birthdays.

Measure #4

This measure identifies the proportion of at-risk children who referred to EI for whom EI results were documented in the medical record (Fields 4.1 through 4.5). This is a measure of receipt of EI results by the referring provider (Field 4.4). The measure includes three, age-specific indicators assessing whether providers who referred children to EI received results from EI as documented in the medical record by the child's first, second or third birthday.

Rationale

This suite of measures is focused on accessing the Bright Futures recommendations related to developmental screening using a standardized tool and the related follow-up and care coordination steps articulated in the American Academy of Pediatrics statement on developmental screening to which the Bright Futures recommendations are based. Lastly, the measure builds off the work and recommendations of the Assuring Better Child Health and Development (ABCD) effort related to screening, follow-up and care coordination.

Evidence for Rationale

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>

Plaza C, Rosenthal J, and Hinkle L. The Enduring Influence of the Assuring Better Child Health and Development (ABCD) Initiative **National Academy for State Health Policy. July 2013**
http://www.nashp.org/sites/default/files/enduring.influence.of_.the_.abcd_.initiative.pdf

Neva Kaye and Jill Rosenthal, "[Improving the Delivery of Health Care that Supports Young Children's Healthy Mental Development: Update on Accomplishments and Lessons from a Five-State Consortium](#)," (Portland, ME: National Academy for State Health Policy, February 2008).

Neva Kaye and Jennifer May, "[Findings from the ABCD Screening Academy: State Policy Improvements that Support Effective Identification of Children At Risk for Developmental Delay](#)," (Portland, ME: National Academy for State Health Policy, March 2009).

Primary Health Components

; children

Denominator Description

Measure #1

- Denominator 1: The children in the eligible population who turned 1 year during the measurement year and had a 9 month well-child visit during the measurement year (Field 1.8).
- Denominator 2: The children in the eligible population who turned 2 years during the measurement year and had an 18 month well-child visit during the measurement year (Field 1.8).
- Denominator 3: The children in the eligible population who turned 3 years during the measurement year and had a 24 month well-child visit during the measurement year (Field 1.8).
- Denominator 4: The entire sample.

Measure #2

- Denominator 1: Children in the eligible sample who turned 1 year, who had concerning results from a standardized screening test that assessed risk for developmental, behavioral and social delays (Fields 2.4 through 2.14) that was documented in the medical record during the

measurement year.

- Denominator 2: Children in the eligible sample who turned 2 years, who had concerning results from a standardized screening test that assessed risk for developmental, behavioral and social delays (Fields 2.4 through 2.14) that was documented in the medical record during the measurement year.
- Denominator 3: Children in the eligible sample who turned 3 years, who had concerning results from a standardized screening test that assessed risk for developmental, behavioral and social delays (Fields 2.4 through 2.14) that was documented in the medical record during the measurement year.
- Denominator 4: Total.

Measure #3

- Denominator 1: Children in the eligible sample who turned 1 year, who had concerning results from a standardized screening test that assessed risk for developmental, behavioral and social delays (Fields 2.4 through 2.14) that was documented in the medical record during the measurement year.
- Denominator 2: Children in the eligible sample who turned 2 years, who had concerning results from a standardized screening test that assessed risk for developmental, behavioral and social delays (Fields 2.4 through 2.14) that was documented in the medical record during the measurement year.
- Denominator 3: Children in the eligible sample who turned 3 years, who had concerning results from a standardized screening test that assessed risk for developmental, behavioral and social delays (Fields 2.4 through 2.14) that was documented in the medical record during the measurement year.
- Denominator 4: Total.

Measure #4

- Denominator 1: Children in the eligible sample who turned 1 year and who had a screening for risk for developmental, behavioral and social delays using a standardized screening tool (Field 2.1) (Field 1.8), concerning screening results (Field 2.4 through 2.14) and an EI referral documented in the medical record during the measurement year.

- Denominator 2: Children in the eligible sample who turned 2 years and who had a screening for risk for developmental, behavioral and social delays using a standardized screening tool (Field 2.1) (Field 1.8), concerning screening results (Field 2.4 through 2.14) and an EI referral documented in the medical record during the measurement year. The standardized screening test was conducted at their 18 month well-child visit.
- Denominator 3: Children in the eligible sample who turned 3 years and who had a screening for risk for developmental, behavioral and social delays using a standardized screening tool (Field 2.1) that met, concerning screening results (Field 2.4 through 2.14) at their age-specific well child visit (Field 1.8) and an EI referral documented in the medical record (Field 4.1 through 4.5) during the measurement year.
- Denominator 4: Total.

Numerator Description Measure #1

- Numerator 1: Children in Denominator 1 who had one or more screenings for risk for developmental, behavioral and social delays using a standardized screening tool documented in the medical record (Field 2.1).
- Numerator 2: Children in Denominator 2 who had one or more screenings for risk for developmental, behavioral and social delays using a standardized screening tool documented in the medical record (Field 2.1)
- Numerator 3: Children in Denominator 3 who had one or more screenings for risk for developmental, behavioral and social delays using a standardized screening tool documented in the medical record (Field 2.1)
- Numerator 4: Children in the entire eligible population who had one or more screenings for risk for developmental, behavioral and social delays using a standardized screening tool documented in the medical record (Field 2.1)

Measure #2

- Numerator 1: Children in Denominator 1 who had an EI referral documented in the medical record (Fields 3.1) by their first birthday.
- Numerator 2: Children in Denominator 2 who had an EI referral documented in the medical record (Fields 3.1) by their second birthday.

- Numerator 3: Children in Denominator 3 who had an EI referral documented in the medical record (Fields 3.1) by their third birthday.
- Numerator 4: Children in Denominator 4 who had an EI referral documented in the medical record (Fields 3.1) by their 1st, 2nd or 3rd birthday.

Measure #3

- Numerator 1: Children in Denominator 1 who had a referral documented in the medical record (Field 3.1 and/or 3.14) by their first birthday.
- Numerator 2: Children in Denominator 2 who had a referral documented in the medical record (Fields 3.1 and/or 3.14) by their second birthday.
- Numerator 3: Children in Denominator 3 who had a referral documented in the medical record (Fields 3.1 and/or 3.14) by their third birthday.
- Numerator 4: Children in Denominator 4 who had a referral documented in the medical record (Fields 3.1 and/or 3.14) by their 1st, 2nd or 3rd birthday.

Measure #4

- Numerator 1: Children in Denominator 1 who had EI results documented in their medical record (Fields 4.1 to 4.5) by their first birthday.
- Numerator 2: Children in Denominator 2 who had EI results documented in their medical record (Fields 4.1 to 4.5) by their second birthday.
- Numerator 3: Children in Denominator 3 who had EI results documented in their medical record (Fields 4.1 to 4.5) by their third birthday.
- Numerator 4: Children in Denominator 4 who had EI results documented in their medical record (Fields 4.1 to 4.5) by their 1st, 2nd or 3rd birthday.

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

1. Bright Futures Recommendations, American Academy of: 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.
2. 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):405-42

Additional Information Supporting Need for the Measure

- **Need for Medical Chart-Based Specifications and Measures on Referral and Care Coordination:** There is an existing CHIPRA core measure on Developmental Screening (<http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Downloads/InitialCoreSetResourceManual.pdf>). The CHIPRA measure is a population-based measure of developmental screening based on claims or medical chart review data authored by Ms. Reuland who is submitting this suite of measures. This suite of measures are complementary, but importantly different. This suite of measures is meant to assess screening AND referral and care coordination for children who had a visit at which screening is recommended. This measure also provides detailed medical chart abstract specifications that can be applied in operationalizing this measure. This suite of measures was designed for use as part of Performance Improvement Project implemented by eight managed care organizations in Oregon and is designed to be implemented as part of quality review efforts.

Need for Measures on Developmental Screening, Referral and Follow-Up:

- 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 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).
- 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 likelihood that they will be able to start school ready to learn. Demonstrated quality

improvement activities such as the Assuring Better Child Health and Development program (<http://www.nashp.org/abcd-welcome>) have shown that providers can feasibly and sustainably implement standardized screening, and when done so, more children are referred 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

- 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).
- 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.
- Studies also suggest that the use of a validated developmental screening questionnaire is more cost-effective method to identify developmental delay when compared to yearly professional assessments.
- Both research and 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 referred 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.
- A recent AAP Periodic Survey of Fellows found that the percentage of pediatricians who reported using more than one standardized tools more than doubled between 2002 and 2009, demonstrating significant improvement after changes in AAP policy, enhanced guidance on reimbursement, and increased emphasis on developmental screening through research and educational programs as well as the new *Bright Futures* guidelines. However, approximately half of the pediatricians reported that they did not routinely use the recommended formal screening tools with patients younger than 36 months of age. Many pediatricians continue to rely on informal checklists completed by the pediatrician, office staff, and/or parents.
- Early identification of developmental disabilities through surveillance and screening can lead to timely evaluation, diagnosis and appropriate treatment, including developmental intervention. 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.
- It is important to note that this measure does not include 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 be 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.

Evidence for Additional Information Supporting Need for the Measure

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.

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Bethell et 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>

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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.

Radecki L, Sand-Loud N, O'Connor KG, et al. Trends in the Use of Standardized Tools for Developmental Screening in Early Childhood: 2002-2009. Pediatrics Vol. 128 No. 1. July 2011, pp. 14-19.

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Schonwald A, Huntington N, Chan E, et al. Routine Developmental Screening Implemented in Urban Primary Care Settings: More Evidence of Feasibility and Effectiveness. Pediatrics Vol. 123 No. 2 February 2009, pp. 660-668.

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

Thomas SA, Cotton W, Pan X, Ratliff-Schaub K. Comparison of Systematic Developmental Surveillance with Standardized Developmental Screening in Primary Care. Clinical Pediatrics Vol. 51 No. 2 February 2012, pp. 154-159.

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.

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>

Extent of Measure Testing

The measure was tested in eight managed care organizations who participated in the ABCD III Performance Improvement Project in Oregon. Each managed care organization identified a sample that met the inclusion criterion. A total of **1,082** medical charts were reviewed and data analyzed.

State of Use of the Measure

State of Use

Current routine use (Five of the managed care plans that participated in the ABCD III project are continuing work in this area and are planning to do additional data collection)

Current Use

External oversight/Medicaid
External oversight/State government program
Internal quality improvement
Quality of care research

Application of the Measure in its Current Use

Measurement Setting

Ambulatory/Office Based Care, Managed Care Plans, Medicaid

Professionals Involved in Delivery of Health Services

Advanced Practice Nurses
Nurses
Physician Assistants
Physicians

Least Aggregated Level of Services Delivery Addressed

Managed Care Organization (Although the specifications could be used by individual clinicians wanting to assess their care).

Statement of Acceptable Minimum Sample Size

For purposed of managed care analysis and cross comparison analysis, the preferred sample size is 411, with a sample of 137 for each age-specific group. Given that, in general, between 17-21% of children screened in the primary care setting will have concerning results to the standardized screen and be eligible to be in the denominator for measures 2-4, then considerations may be needed to ensure sufficient samples of children identified at risk.

Target Population Age

Ages 0-3 years old (Specifically for children who had the “9 month”, “18 month” and “30 or 36 month” visit.

Target Population Gender

Either male or female

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Effective Communication and Care Coordination

Health and Well-being of Communities

Person- and Family-centered Care

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Case Finding Period

The measurement year

Denominator Sampling Frame

Enrollees or beneficiaries

Denominator (Index) Event or Characteristic

Encounter

Patient/Individual (Consumer) Characteristic

Denominator Time Window

Time window precedes index event

Denominator Inclusions/Exclusions

Inclusions

Measure #1

- Children who turned one, two, or three between January 1 and December 31 of the measurement year, and received a corresponding well-child visit that year (i.e. a 9-month, 18-month, and 24-month well-child visit)
- Continuous enrollment
 - For children 1 year: 31 days - 1 year of age. Calculate 31 days of age by adding 31 days to the child's date of birth.
 - For children 2 years: Children who are enrolled continuously for 12 months prior to child's 2nd birthday.
 - For children 3 years: Children who are enrolled continuously for 12 months prior to child's 3rd birthday.
 - No more than one gap in enrollment of up to 45 days during the measurement year. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the beneficiary may not have more than a 1-month gap in coverage (i.e., a beneficiary whose coverage lapses for 2 months (60 days) is not considered continuously enrolled.
 - Anchor date: enrolled on the member's 1st, 2nd or 3rd birthday.
- Age-specific well-child visit:
 - For children 1 year: The 9 month well-child visit. This visit includes any well-child visit between 8 and 10.99 months of age.
 - For children 2 years: The 18 month well-child visit. This visit includes any well-child visit between 17 and 21.99 months of age
 - For children 3 years: The 24 month well-child visit. This visit can between 22 months and 32.50 months of age.

Measure #2

- Children in the eligible sample who turned one, two, or three, who had concerning results from a standardized screening test that assessed risk for developmental, behavioral and social delays that was documented in the medical record during the measurement year.
- Concerning screening results are documented by a provider and are based on results from a

standardized screening tool that indicate that a child is at high risk for developmental, behavioral and social delays.

- For children to be considered referred to EI, they have had:
 - A screening test for risk for developmental, behavioral and social delays using a standardized screening tool (Field 2.1)
 - Concerning screening results documented in the medical record by their provider (Fields 2.4 through 2.14)

Measure #3

- Children in the eligible sample who turned one, two, or three, who had concerning results from a standardized screening test that assessed risk for developmental, behavioral and social delays that was documented in the medical record during the measurement year.
- Concerning screening results are documented by a provider and are based on results from a standardized screening tool that indicate that a child is at high risk for developmental, behavioral and social delays.
- For children to be considered referred, they have had:
 - A screening test for risk for developmental, behavioral and social delays using a standardized screening tool (Field 2.1)
 - Concerning screening results documented in the medical record by their provider (Fields 2.4 through 2.14)

Measure #4

- Children in the eligible sample who turned one, two, or three and who had a screening for risk for developmental, behavioral and social delays using a standardized screening tool, concerning screening results and an EI referral documented in the medical record during the measurement year. The standardized screening test was conducted at their 9-, 18-, or 24-month well-child visit.
- Developmental, behavioral and social delays screening documentation must include the following:
 - A note indicating the date on which the test (screening) was performed (Field 2.2),
 - The standardized tool used (Field 2.3), and

- Evidence of a screening result or screening score (Fields 2.4 through 2.14)
- Concerning screening results are documented by a provider and are based on results from a standardized screening test that indicate that a child is at high risk for developmental, behavioral and social delays (See Medical Chart Abstract Tool)
- For children to be considered evaluated by EI they have had:
 - A screening test for risk for developmental, behavioral and social delays using a standardized screening tool (Field 2.1)
 - Concerning screening results documented in the medical record by their provider (Fields 2.4 through 2.14)
 - A referral to EI by their provider (Fields 3.1)
- EI Referral Documentation must include:
 - The date of EI referral (Field 3.3)
 - A note indicating the reason for referral (Field 3.4).

Exclusions

Exclude eligible children from the denominator for whom the provider made a note about not administering the standardized screening tool due to existing, identified conditions, and/or for whom the screening tool would not, in their clinical judgment, be applicable or useful.

Exclusions/Exceptions

Medical factors addressed and noted in the chart by the provider about why they didn't administer the screening tool.

Numerator Inclusions/Exclusions

Inclusions

Measure #1

- Children in the corresponding Denominator who had one or more screenings for risk for developmental, behavioral and social delays using a standardized screening tool documented in the medical record
- Documentation in the medical record must include all of the following:
 - A note indicating the date on which the screening test for risk for developmental, behavioral

- and social delays was performed (Field 2.1), and
- The standardized tool used (see below) (Field 2.3), and
- Evidence of a screening result or screening score (Field 2.4 through 2.14)
- Tools must meet the following criteria:
 - Developmental Domains: The following domains must be included in the standardized screening tool: motor, language, cognitive, and social-emotional.
 - Established Reliability: Reliability scores of approximately 0.70 or above.
 - Established Findings Regarding the Validity: Validity scores for the tool must be approximately 0.70 or above. Measures of validity must be conducted on a significant number of children and using an appropriate standardized developmental, behavioral or social assessment instrument(s).
 - 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
 - Ages and Stages Questionnaire - 3rd Edition (ASQ-3)
 - 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
 - Infant Development Inventory – Birth – 18 months
 - Parents’ Evaluation of Developmental Status (PEDS) – Birth – 8 years
 - Parent’s Evaluation of Developmental Status - Developmental Milestones (PEDS-DM)

Measure #2

- Children in the corresponding Denominator who had an EI referral documented in the medical record (Fields 3.1) by their first, second, or third birthday.
- Developmental, behavioral and social delays screening documentation must include all of the following:
 - A note indicating the date on which the test (screening) was performed (Field 2.2), and

- The standardized tool used (Field 2.3) and
- Evidence of a screening result or screening score(Fields 2.4 to 2.14)
- Referral Documentation must include all of the following:
 - The date of EI referral (Field 3.3)

Measure #3

- Children in the corresponding Denominator who had an EI referral documented in the medical record (Fields 3.1) by their first, second, or third birthday.
- Developmental, behavioral and social delays screening documentation must include all of the following:
 - A note indicating the date on which the test (screening) was performed (Field 2.2), and
 - The standardized tool used (Field 2.3) and
 - Evidence of a screening result or screening score(Fields 2.4 to 2.14)
- Referral Documentation must include all of the following:
 - The date of referral (Field 3.1 and/ or 3.14)

Measure #4

- The numerators identify children were referred to EI by their providers and who had EI results documented in their medical record.
- Children in the corresponding Denominator who had EI results documented in their medical record (Fields 4.1 to 4.5) by their first, second, or third birthday.
- Documentation of EI results in the medical record must include all of the following:
 - The date on which the EI results were received/documented (Field 4.1)
 - Results from EI about Eligibility and/or Evaluation Results (Fields 4.4 and 4.5)

Exclusions

Measure #1

- 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 as an eligible screening test, as this measure is anchored to recommendations focused on global developmental

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

- Exclude eligible children from the numerator for whom the provider made a note about not administering the standardized screening tool due to existing, identified conditions, and/or for whom the screening tool would not, in their clinical judgment, be applicable or useful.

Numerator Search Strategy

Fixed time period or point in time

Data Source

Administrative clinical data

Paper medical record

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Medical Abstraction Tool

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Basis for Disaggregation

As per Inclusion and Exclusion criteria identified for Numerator and Denominator

Scoring

Rate/Proportion

For each of the measure, the following five step process is recommended:

Step 1: Determine the denominator (See specifications for each measure)

Identify the denominator for each age-specific indicator:

Step 2: Determine the numerator (See specifications for each measure)

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 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 proportion percentage

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

Overall and Analysis by subgroup (age of child)

Description of Allowance for Patient or Population Factors

Report three age stratifications and a total rate for all eligible children:

- 1 year
- 2 years
- 3 years
- Total

The total is the sum of the age stratifications.

Standard of Comparison

External comparison at a point in, or interval of, time

External comparison of time trends

Internal time comparison

Identifying Information

Original Title

Measure #1: Children Screened for Risk of Developmental, Behavioral and Social Delays Using a Standardized Screening Tool

Measure #2: Children Identified at Risk for Developmental, Behavioral and Social Delays and/or with Developmental Disabilities Who Were Referred to **Early Intervention**

Measure #3: Children Identified at Risk for Developmental, Behavioral and Social Delays and/or with Developmental Disabilities **Who Were Referred** to Address the Risk Identified (This includes providers beyond EI)

Proportion of At-Risk Children Who Were Referred to Early Intervention (EI) for whom

information about Early Intervention is in the Primary Care Provider's Medical Chart

Measure Collection Name

Medical Chart Specifications

Submitter

Colleen Reuland from the Oregon Pediatric Improvement Partnership at Oregon Health and Science University

Developer

Colleen Reuland from the Oregon Pediatric Improvement Partnership at Oregon Health and Science University

Funding Source(s)

This medical chart specifications were developed under the rubric of a contract from the Oregon Division of Medical Assistance (now termed Oregon Health Authority) as part of the Assuring Better Child Health and Development (ABCD) efforts.

Composition of the Group that Developed the Measure

Ms. Reuland led the measure development in collaboration with the Charles Gallia, PhD. The measure specifications were reviewed by the advisory committee of the OR ABCD effort that included managed care plans, other state agency representatives, pediatric primary care providers, specialists in pediatric development, private health care providers and public health, particularly Maternal - Child Health and early child education and mental health professionals.

Financial Disclosures/Other Potential Conflicts of Interest

The author does not have a conflict of interest or financial interest to disclose.

Measure Initiative(s)

None to report.

Adaptation

Ms. Reuland is the measure steward for the CHIPRA Core Measure. This measure is meant to complement that measure and align with those specifications.

Date of Most Current Version in NQMC

Submitting in November 2013

Measure Maintenance

Measure Specifications Developed by the Oregon Pediatric Improvement Partnership at Oregon Health and Science University

Unclear at this time.

Date of Next Anticipated Revision

Unclear at this time.

Measure Status

Current use

Source(s)

Measure Availability

The measure and measure specifications are available on the OPIP website at www.oregon-pip.org. Telephone: 503-494-0456. Email: reulandc@ohsu.edu Address: 707 SW Gaines Street. Portland OR 97239-3098.

Companion Documents

The following is available:

- Medical chart specifications and measure specifications. www.oregon-pip.org

For more information, contact the Colleen Reuland

Copyright Statement

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