**Follow-up Referral after Positive Developmental Screen**

*eMeasure Title*

**Follow-up Referral after Positive Developmental Screen**

*Identifier (Measure Authoring Tool)*

**376**

*eMeasure Version number*

**0.0.005**

*GUID*

**d47f5664-bd76-4a65-88aa-f73f6fb6a2c8**

*Measurement Period*

**January 1, 20xx through December 31, 20xx**

*Measure Steward*

Agency for Healthcare Research & Quality (AHRQ), Pediatric Measurement Center of Excellence (PMCoE)

*Measure Developer*

PMCoE

*Endorsed By*

TBD

*Description*

Percentage of patients aged 6 to 36 months who were referred for follow-up care within 7 calendar days of receiving a positive developmental screening result

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*Measure Scoring*

Proportion

*Measure Type*

Process

*Stratification*

Race, ethnicity, socioeconomic status, sex, source of payment

*Risk Adjustment*

None

*Rate Aggregation*

State, geographic region, health plan, practice, provider, Medicaid/CHIP

*Rationale*

The following clinical recommendation statements are quoted verbatim from the referenced policy statement and represent the evidence base for the measure:

If screening results are concerning, the child should be scheduled for developmental and medical evaluations. They should be scheduled as quickly as possible and professionals should coordinate activities and share findings.1

In addition:

It has been reported that physicians fail to identify and refer 60 to 90% of children with developmental delays in a timely manner.2 Similarly, among children classified as having delays at 9 months, only 9% received follow-up services and among children classified as having delays at 24 months, only 10-12% had received services.3 Likewise, a study by Tang et al. found that 34-37% of high risk infants who failed a developmental screen were not referred to either Early Intervention or other therapies. A study cited in the report notes that the mean time between identification of a developmental delay and Early Intervention referral is greater than 5 months.4 Furthermore, in a qualitative study focusing on barriers to evaluation for Early Intervention services, Jimenez et al. found that parents who reported that their child was not evaluated for developmental delay were more likely to report that their pediatrician did not explain what EI was or how to obtain services.5

An implantation study of the American Academy of Pediatrics (AAP) recommendations for developmental screening and referrals found that not only were referral rates among children with failed screens low (27%-100%), but practices tended to deviate from the recommendation that children with failed screens be simultaneously scheduled for developmental/medical evaluations and referred for early-intervention services. Providers tended to stratify their referrals by perceived severity of symptoms, age of child, and type of delay and occasionally failed to refer a child despite a failed screen.6 As a developmental delay can profoundly impact a child's ability to function in multiple settings, it is imperative that children who fail screens are referred to follow up services as soon as possible.

*Clinical Recommendation Statement*

Not applicable

*Improvement Notation*

A higher score equals better quality.

*Reference*


| Definition | 1: Referral for follow-up care is defined as the formal event by which the clinician provides a referral to the patient family (and does not include any further steps in the process like securing the appointment, confirming appointment attendance, etc.) and refers to any type of therapy, intervention, or education to mitigate developmental delays and can be within the medical home or outside of the medical home. A referral can also include a form of watchful waiting by which the clinician offers practice-based intervention(s) and schedules a follow-up visit within 3 months. Some referral types are listed as examples below but the list is not exhaustive: |
| | Part C, Early Intervention Program |
| | Referral for Follow-up Testing |
| | Home Visiting for 0-5 |
| | Physical Therapist |
| | Occupational Therapist |
| | Speech/Language Pathologist |
| | Medical Home Clinician Internal |
| | Specialty Clinician External |
| | Early Head Start |
| | Network Care Manager |
| | Family-to-family Support |
| | Hearing and Vision Specialists |
| | Mental Health Specialist |
| Guidance | None |
| Transmission Format | TBD |
| Initial Population | Patients aged 6 months to 36 months who received developmental screening using a validated tool |
| Denominator | All patients aged 6 months to 36 months who received a positive developmental screening result or an indication from the family that there was concern |
| Denominator Exclusions | None |
| Numerator | Patients who received a referral for follow-up care by the screening clinician within 7 calendar days of receiving a positive developmental screening result |
| Numerator Exclusions | Not applicable |
| Denominator Exceptions | Patients who have already received or are receiving therapy, intervention, or education that would also be applicable for developmental delay follow-up care. |
| Measure Population | Not applicable |
| Measure Population Exclusions | Not applicable |
| Measure Observations | Not applicable |
| Supplemental Data Elements | For every patient evaluated by this measure also identify payer, race, ethnicity and gender. |

Table of Contents

- Population criteria
- Data Criteria (QDM Variables)
- Data criteria (QDM Data Elements)
- Supplemental Data Elements

**Population criteria**

- **Initial Population** =
  - AND: Intersection of:
    - “Patient Characteristic: birth date (start datetime >= 6 month(s))” starts before start of "Measurement Period"
    - “Patient Characteristic: birth date (stop datetime <= 36 month(s))” starts before end of "Measurement Period"
  - Intersection of:
    - Union of:
"Encounter, Performed: Face-to-Face Interaction"
- Union of:
  - "Encounter, Performed: Preventive Care - Established Office Visit, 0 to 17"
  - Union of:
    - "Encounter, Performed: Preventive Care- Initial Office Visit, 0 to 17"

Intersection of:
- Union of:
  - "Diagnostic Study, Performed: Ages and Stages Questionnaire (ASQ), 2 months - 5 years (result = 1 )"
- Union of:
  - "Diagnostic Study, Performed: Battelle Developmental Inventory Screening Tool (BDI-ST), birth - 95 months (result = 1 )"
- Union of:
  - "Diagnostic Study, Performed: Bayley Infant Neuro-developmental Screen (BINS), 3 months - 2 years (result = 1 )"
- Union of:
  - "Diagnostic Study, Performed: Brigance Screens-II, birth - 90 months (result = 1 )"
- Union of:
  - "Diagnostic Study, Performed: Child Development Inventory (CDI), 18 months - 6 years (result = 1 )"
- Union of:
  - "Diagnostic Study, Performed: Child Development Review-Parent Questionnaire (CDR-PQ), 18 months - 5 years (result = 1 )"
- Union of:
  - "Diagnostic Study, Performed: Infant Development Inventory, birth - 18 months (result = 1 )"
- Union of:
  - "Diagnostic Study, Performed: Parents' Evaluation of Developmental Status (PEDS), birth - 8 years (result = 1 )"
- Union of:
  - "Communication: From Patient to Provider: indication from the family that there was concern about child's development"

**Denominator =**
- AND: Initial Population
- AND: Intersection of:
  - "Patient Characteristic: birth date (start datetime >= 6 month(s))" starts before start of "Measurement Period"
  - "Patient Characteristic: birth date (stop datetime <= 36 month(s))" starts before end of "Measurement Period"
- Intersection of:
  - "Encounter, Performed: Face-to-Face Interaction"
  - Union of:
    - "Encounter, Performed: Preventive Care - Established Office Visit, 0 to 17"
  - Union of:
    - "Encounter, Performed: Preventive Care- Initial Office Visit, 0 to 17"
- Intersection of:
  - "Diagnostic Study, Performed: Ages and Stages Questionnaire (ASQ), 2 months - 5 years (result = 1 )"
  - Union of:
    - "Diagnostic Study, Performed: Battelle Developmental Inventory Screening Tool (BDI-ST), birth - 95 months (result = 1 )"
  - Union of:
    - "Diagnostic Study, Performed: Bayley Infant Neuro-developmental Screen (BINS), 3 months - 2 years (result = 1 )"
  - Union of:
    - "Diagnostic Study, Performed: Brigance Screens-II, birth - 90 months (result = 1 )"
  - Union of:
    - "Diagnostic Study, Performed: Child Development Inventory (CDI), 18 months - 6 years (result = 1 )"
  - Union of:
    - "Diagnostic Study, Performed: Child Development Review-Parent Questionnaire (CDR-PQ), 18 months - 5 years (result = 1 )"
  - Union of:
    - "Diagnostic Study, Performed: Infant Development Inventory, birth - 18 months (result = 1 )"
  - Union of:
    - "Diagnostic Study, Performed: Parents' Evaluation of Developmental Status (PEDS), birth - 8 years (result = 1 )"
  - Union of:
    - "Communication: From Patient to Provider: indication from the family that there was concern about child's development"

**Denominator Exclusions =**

**Numerator =**
- AND: Intersection of:
Encounter, Recommended: Part C, Early Intervention Program (start datetime <= 7 day(s))" starts after end of "Diagnostic Study, Performed: Positive Developmental Screening Result"

Union of:
- "Encounter, Recommended: Referral for Follow-up Testing (start datetime <= 7 day(s))" starts after end of "Diagnostic Study, Performed: Positive Developmental Screening Result"

Union of:
- "Encounter, Recommended: Home Visiting for 0-5 (start datetime <= 7 day(s))" starts after end of "Diagnostic Study, Performed: Positive Developmental Screening Result"

Union of:
- "Encounter, Recommended: Physical Therapist (start datetime <= 7 day(s))" starts after end of "Diagnostic Study, Performed: Positive Developmental Screening Result"

Union of:
- "Encounter, Recommended: Occupational Therapist (start datetime <= 7 day(s))" starts after end of "Diagnostic Study, Performed: Positive Developmental Screening Result"

Union of:
- "Encounter, Recommended: Speech/Language Pathologist (start datetime <= 7 day(s))" starts after end of "Diagnostic Study, Performed: Positive Developmental Screening Result"

Union of:
- "Encounter, Recommended: Medical Home Clinician Internal (start datetime <= 7 day(s))" starts after end of "Diagnostic Study, Performed: Positive Developmental Screening Result"

Union of:
- "Encounter, Recommended: Specialty Clinician External (start datetime <= 7 day(s))" starts after end of "Diagnostic Study, Performed: Positive Developmental Screening Result"

Union of:
- "Encounter, Recommended: Early Head Start (start datetime <= 7 day(s))" starts after end of "Diagnostic Study, Performed: Positive Developmental Screening Result"

Union of:
- "Encounter, Recommended: Network Care Manager (start datetime <= 7 day(s))" starts after end of "Diagnostic Study, Performed: Positive Developmental Screening Result"

Union of:
- "Encounter, Recommended: Family-to-family Support (start datetime <= 7 day(s))" starts after end of "Diagnostic Study, Performed: Positive Developmental Screening Result"

Union of:
- "Encounter, Recommended: Hearing and Vision Specialists (start datetime <= 7 day(s))" starts after end of "Diagnostic Study, Performed: Positive Developmental Screening Result"

Union of:
- "Encounter, Recommended: Mental Health Specialist (start datetime <= 7 day(s))" starts after end of "Diagnostic Study, Performed: Positive Developmental Screening Result"

Numerator Exclusions =

Denominator Exceptions =

• OR: Union of:

  • Intersection of:
    • "Patient Characteristic: birth date (start datetime >= 6 month(s))" starts before start of "Measurement Period"
    • "Patient Characteristic: birth date (stop datetime <= 36 month(s))" starts before end of "Measurement Period"
  
  • Intersection of:
    • "Encounter, Performed: Face-to-Face Interaction"
    • "Encounter, Performed: Preventive Care - Established Office Visit, 0 to 17"
    • "Encounter, Performed: Preventive Care- Initial Office Visit, 0 to 17"
  
  • Intersection of:
    • "Diagnostic Study, Performed: Ages and Stages Questionnaire (ASQ), 2 months - 5 years (result = 1 )"
    • "Diagnostic Study, Performed: Battelle Developmental Inventory Screening Tool (BDI-ST), birth - 95 months (result = 1 )"
    • "Diagnostic Study, Performed: Bayley Infant Neuro-developmental Screen (BINS), 3 months - 2 years (result = 1 )"
    • "Diagnostic Study, Performed: Brigance Screens-II, birth - 90 months (result = 1 )"
Union of:
- "Diagnostic Study, Performed: Child Development Inventory (CDI), 18 months - 6 years (result = 1 )"
- "Diagnostic Study, Performed: Child Development Review-Parent Questionnaire (CDR-PQ), 18 months - 5 years (result = 1 )"
- "Diagnostic Study, Performed: Infant Development Inventory, birth - 18 months (result = 1 )"
- "Diagnostic Study, Performed: Parents' Evaluation of Developmental Status (PEDS), birth - 8 years (result = 1 )"
- "Communication: From Patient to Provider: indication from the family that there was concern about child's development"

starts before or concurrent with start of "Care Goal: Received therapy, intervention, or education that is applicable for developmental delay follow-up care"

**Stratification**
- None

**Data Criteria (QDM Variables)**
- None

**Data criteria (QDM Data Elements)**
- "Care Goal: Received therapy, intervention, or education that is applicable for developmental delay follow-up care" using "Received therapy, intervention, or education that is applicable for developmental delay follow-up care User Defined QDM Value Set (1.1.1.1)"
- "Communication: From Patient to Provider: indication from the family that there was concern about child's development" using "indication from the family that there was concern about child's development User Defined QDM Value Set (1.1.1.1)"
- "Diagnostic Study, Performed: Ages and Stages Questionnaire (ASQ), 2 months - 5 years" using "Ages and Stages Questionnaire (ASQ), 2 months - 5 years User Defined QDM Value Set (1.1.1.1)"
- "Diagnostic Study, Performed: Battelle Developmental Inventory Screening Tool (BDI-ST), birth - 95 months" using "Battelle Developmental Inventory Screening Tool (BDI-ST), birth - 95 months User Defined QDM Value Set (1.1.1.1)"
- "Diagnostic Study, Performed: Bayley Infant Neuro-developmental Screen (BINS), 3 months - 2 years" using "Bayley Infant Neuro-developmental Screen (BINS), 3 months - 2 years User Defined QDM Value Set (1.1.1.1)"
- "Diagnostic Study, Performed: Brigance Screens-II, birth - 90 months" using "Brigance Screens-II, birth - 90 months User Defined QDM Value Set (1.1.1.1)"
- "Diagnostic Study, Performed: Child Development Inventory (CDI), 18 months - 6 years" using "Child Development Inventory (CDI), 18 months - 6 years User Defined QDM Value Set (1.1.1.1)"
- "Diagnostic Study, Performed: Child Development Review-Parent Questionnaire (CDR-PQ), 18 months - 5 years" using "Child Development Review-Parent Questionnaire (CDR-PQ), 18 months - 5 years User Defined QDM Value Set (1.1.1.1)"
- "Diagnostic Study, Performed: Infant Development Inventory, birth - 18 months" using "Infant Development Inventory, birth - 18 months User Defined QDM Value Set (1.1.1.1)"
- "Diagnostic Study, Performed: Parents' Evaluation of Developmental Status (PEDS), birth - 8 years" using "Parents' Evaluation of Developmental Status (PEDS), birth - 8 years User Defined QDM Value Set (1.1.1.1)"
- "Diagnostic Study, Performed: Positive Developmental Screening Result" using "Positive Developmental Screening Result User Defined QDM Value Set (1.1.1.1)"
- "Encounter, Performed: Face-to-Face Interaction" using "Face-to-Face Interaction Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1048)"
- "Encounter, Performed: Preventive Care - Established Office Visit, 0 to 17" using "Preventive Care - Established Office Visit, 0 to 17 Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1024)"
- "Encounter, Performed: Preventive Care- Initial Office Visit, 0 to 17" using "Preventive Care- Initial Office Visit, 0 to 17 Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1022)"
- "Encounter, Recommended: Early Head Start" using "Early Head Start User Defined QDM Value Set (1.1.1.1)"
- "Encounter, Recommended: Family-to-family Support" using "Family-to-family Support User Defined QDM Value Set (1.1.1.1)"
- "Encounter, Recommended: Hearing and Vision Specialists" using "Hearing and Vision Specialists User Defined QDM Value Set (1.1.1.1)"
- "Encounter, Recommended: Home Visiting for 0-5" using "Home Visiting for 0-5 User Defined QDM Value Set (1.1.1.1)"
- "Encounter, Recommended: Medical Home Clinician Internal" using "Medical Home Clinician Internal User Defined QDM Value Set (1.1.1.1)"
- "Encounter, Recommended: Mental Health Specialist" using "Mental Health Specialist User Defined QDM Value Set (1.1.1.1)"
- "Encounter, Recommended: Network Care Manager" using "Network Care Manager User Defined QDM Value Set (1.1.1.1)"
- "Encounter, Recommended: Occupational Therapist" using "Occupational Therapist User Defined QDM Value Set (1.1.1.1)"
- "Encounter, Recommended: Part C, Early Intervention Program" using "Part C, Early Intervention Program User Defined QDM Value Set (1.1.1.1)"
- "Encounter, Recommended: Physical Therapist" using "Physical Therapist User Defined QDM Value Set (1.1.1.1)"
Supplemental Data Elements

- "Patient Characteristic Ethnicity: Ethnicity" using "Ethnicity CDCREC Value Set (2.16.840.1.114222.4.11.837)"
- "Patient Characteristic Payer: Payer" using "Payer SOP Value Set (2.16.840.1.114222.4.11.3591)"
- "Patient Characteristic Race: Race" using "Race CDCREC Value Set (2.16.840.1.114222.4.11.836)"
- "Patient Characteristic Sex: ONC Administrative Sex" using "ONC Administrative Sex AdministrativeSex Value Set (2.16.840.1.113762.1.4.1)"

| Measure Set | Not applicable |
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