

1.3.1 Child Development: Screening

Percentage of young children who have received a standardized developmental screening

Purpose

Early identification of developmental delays through universal screening at recommended intervals is a key contribution that the early childhood system can offer.

Definition

This measure is the count of children who have received a developmental screening at a determined age, divided by the number of children that age to provide a rate of screening coverage. Similar to maternal depression screening, the ideal source would be unduplicated patient case records for all children documenting developmental screening at the appropriate intervals. Since this source is not available in many communities, this measure offers alternatives for measurement. First, communities may want to investigate the availability of Medicaid data; this would not offer a universal assessment, but it would be a strong source for screening rates among lower income children.⁵ Second, population-level survey data that measure whether a child has ever been screened is an option for communities that have this type of survey (see next paragraph). Finally, program-level data are an option. Program-level data are generally limited to counts (there is no denominator to calculate a rate) and they can be sourced to several different programs or practices. As a result, if the agencies do not have data sharing or alignment agreements, the counts may be duplicated. Where an unduplicated rate is not possible, communities can measure change in the number of screenings administered (rather than the number of children screened).

Population-level data are based on survey data, presented as rates of children screened, and reflect varying age ranges and universes of children. For example, the denominator for the National Survey of Children's Health, which is the source for the Title V Child and Maternal Health National Performance Measures, is "Children age 10 months through 71 months who had a health care visit in the past 12 months." The California Health Interview Survey asks parents of children ages 1 year or older (with the ability to retrieve data limited to children ages 1-5) whether the child's "doctor, other health providers, teachers or school counselors" ever asked the parent to fill out a checklist.

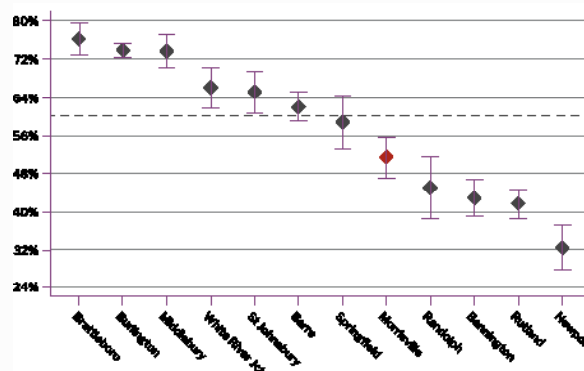
There are a variety of developmental screening approaches which may be included in this performance measure. Communities may use: evidence-based screening tools (which may be used with some provider types and not others); a single question on a provider questionnaire; or a question/brief conversation between providers and families. We encourage communities to work along two axes in making progress in children's developmental screening: 1) increasing the rigor of the screening tool/process; and 2) increasing the reach of the developmental screening tool/process. This measure looks specifically at the reach of screening tools/processes from the perspective of children screened.

Data are generally not available by race/ethnicity or income but may be available in some communities.

Example from the Field

In Vermont, community health profiles are built from health insurance claims from all public insurers and the state's major commercial insurers. This enables the state to track what proportion of continuously enrolled children are screened for risk of developmental, behavioral, and social delays using a standardized screening tool in each of the first three years of life. The hot linked thumbnail of the chart below provides the data for each of the state's hospital service areas; the blue dashed line indicates the statewide average. More information can be found at [Vermont Blueprint for Health](#).

Developmental Screening in the First Three Years of Life, by Hospital Service Area, Vermont, 2016/17



Additionally, the **Universal Developmental Screening (UDS) Registry**, which was added to the Vermont department of health's immunization registry, provides a statewide, cross-sector data collection system and communication tool for early care, health, and education to share results and connect families to the resources and services they need for optimal early development. Early care providers enter screening results and pediatricians are compensated to review the results, which leads to improved connection to services and reduces duplication.

Implementation

Summary of Steps

- 1. Set intention:** Set intention: Consider community goals, recent efforts, and constraints related to this area as a first step.
- 2. Assess data availability:** Investigate whether your state or region has universal developmental screening patient case level data or, barring that, population-level data through a survey. If neither, consider collecting and pooling data from

⁵ This data source was not researched or piloted by this initiative.

service providers in your early childhood system. This may be medical providers, or it may include other entities that conduct screenings, such as home visitors or early childhood education providers. Since duplication is an issue with program-level data from various agencies, data sharing agreements that enable a unique identifier will reduce issues of duplication and greatly improve the value of the results. Since data from private providers or insurance companies are difficult to obtain, the data are likely to be limited to each provider's service population. Medicaid data may be available.

3. **Engage stakeholders:** For communities that will be using program-level data to measure system performance, engage with agencies from whom you would like to obtain data. Confirm and refine intentions/goals with stakeholders.
4. **Define parameters:** For communities that will be seeking program-level data from a variety of providers, quality results will depend on collectively determining what will count as a screen, intervals, how to address duplication, etc.
5. **Retrieve or compile data:** From population-level sources, retrieve data. From program-level sources, request data. Request five years of data to enable a trend analysis.
6. **Interpret:** Analyze and interpret the data, considering data limitations such as duplication. Think about data trends and how they may be impacted by related interventions or landscape factors in your community. Consider health equity factors in your analysis if able to access disaggregated data.
7. **Plan:** Determine what action should be taken as a result of the analysis and record in action planning guide.

Stakeholders

Stakeholder engagement may not be necessary for communities that have easily accessible population-level data. For communities which seek to collect program-level data, outreach to the agencies conducting screens will be needed.

Data Sources

- ▶ Population-level data: Health assessment surveys may include questions about developmental screening, such as the National Survey of Children's Health and the California Health Interview Survey, although the questions vary and data may not be available at the local level.
- ▶ Program-level: Client data from programs or agencies that conduct developmental screens.

Limitations

Data quality is limited by several issues:

- ▶ Program-level counts may be of screens conducted, not of children screened, and therefore may be duplicated.
- ▶ Data may not be consistently available across all regions for the same year.

- ▶ Programs included in program-level data may vary across years.
- ▶ The age range and timeframe may vary depending on the data source.

Opportunities

Additional opportunities include the following:

- ▶ The Medicaid and CHIP Child Core Health Care Quality Measurement Set includes a measure for a child developmental screening within the first three years of life, which could provide a population-level measure for lower-income children.
- ▶ The age intervals for screenings are currently undefined in this measure. For communities with the data to support measurement at age intervals, the Bright Futures/American Academy of Pediatrics Periodicity Schedule is a commonly used schedule. It recommends screenings at 9, 18, and 30 months with autism-spectrum screening recommended at 18 and 24 months.
- ▶ Communities pursuing this measure using program-level data should consider setting parameters like age range, timeframe, what qualifies as a screen, and so on to improve the quality of results.
- ▶ Local client data sharing or a unique identifier would improve quality of program-level data by addressing duplication issues.
- ▶ The addition of developmental screening questions to local surveillance surveys, following a national model like the National Survey of Children's Health, would improve data availability and cross-community learning.

Resources

- ▶ [Help Me Grow National](#)—The Help Me Grow system is designed to help states and communities leverage existing resources to ensure communities identify vulnerable children through the use of valid developmental screening tools, link families to community-based services, and empower families to support their children's healthy development.
- ▶ [Project LAUNCH](#) (Linking Actions for Unmet Needs in Children's Health) is an example of an initiative increasing the use of valid developmental screening tools and protocols. Communities implementing Project LAUNCH are working in a range of child-serving settings to universally screen children birth through age 8 for developmental and behavioral needs, using consistent, evidence-based screening tools and processes at regular intervals. LAUNCH is also focused on ensuring screening is followed by appropriate referrals, follow-up, and ongoing care coordination.
- ▶ [Ages and Stages Questionnaires](#)