

2.4 Using Data

Level at which system stakeholders use data to support coordination, planning, and quality improvement at the program and system levels

Purpose

Data use and sharing are critical to the effective functioning of an early childhood system and a basic requirement for engaging in quality improvement and collective impact efforts. The ability to share client data within and across systems, with appropriate safeguards to protect confidential information, facilitates the system's ability to achieve the other system integration standards under Coordination in this toolkit. When system stakeholders share data, they can be better informed about a family's full range of strengths and needs, help families get to the right places to have their needs met, and work together more seamlessly. A system with a strong emphasis on using data can also support providers to engage in quality improvement activities, carry out system-level quality improvement efforts, and make informed decisions about resource allocation.

Some local and state entities have developed Integrated Data Systems (IDS) that can accomplish many of these purposes; other local and state entities have developed Coordinated Intake and Referral Systems (CIRS) that can accomplish a different, overlapping set of these purposes. Either one is a strong asset for an early childhood system's ability to achieve the goals of using data well, and either an IDS or a CIRS may be able to be leveraged to increase how well the system is using data.

Definition

The Using Data measure enables communities to conduct a self-assessment on the ways in which service providers and system stakeholders coordinate their efforts related to data, and to measure their progress in sharing and using data to improve system performance. The measure assesses topics within three categories:

1. **Agreement on Indicators:** For partners to meaningfully work together and use data for quality improvement and decision-making, they must first have some basic consensus about what they are working toward and what data they are using to gauge whether they are making progress. For this part of the assessment, consider whether system partners have come to consensus about two different types of measurement. The first is whether system partners are in consensus on the *indicators of child and family well-being* that the system aims to improve. These indicators are the data points that tell us whether we are making progress on outcomes that we care about. For example, many early childhood systems are working to improve an outcome related to child health; indicators of child health may include the percentage of children born at a healthy weight, or asthma rates. Ideally, these indicators are measured quantitatively and at the population level, though agencies may gather and report on them for participants in their programs. The second item in this section asks whether system partners are in consensus on *measures of early childhood system performance*, such as how well services are reaching the groups who need them or how well partners within the system

are coordinating their efforts. The tool you are looking at right now, for example, is a measure of system performance. These measures may be quantitative or qualitative and will often be more focused on process—how well the system is working—than on outcomes.

2. **Collecting and Sharing Data:** This part of the assessment asks about how well partners are *collecting quantitative and/or qualitative data*; what agreements and infrastructure are in place to support them in *sharing that data* at different levels and for various purposes; and how data reports are *shared with the public*.
3. **Analyzing and Using Data for Improvement:** This part of the assessment asks about how well the system *analyzes and disaggregates the data collected*; whether the system is supporting *quality improvement* at the program level and engaging in quality improvement for the system overall; and whether system leaders are *using data to inform decision-making*.

Implementation

The following guidelines provide the tools to gather and analyze data about how well a community is doing with regard to this measure and a summary of the recommended steps and stakeholders needed.

Tool or Survey

Communities are invited to use the tool provided at the end of this section as written or customized to solicit the level of input they are seeking.

Summary of Steps

1. **Set intention:** Determine what the community's goals are around using data. Define the level at which you are conducting this assessment—initiative-based, sector-based, or system-wide.
2. **Identify stakeholders:** The lead agency should consider the system stakeholders that should be sought for participation. See Stakeholders section below for considerations regarding stakeholder engagement. Confirm and refine intentions/goals with stakeholders.
3. **Outreach:** Either through a convening of stakeholders or one-on-one outreach, describe the assessment process and goals. Share the survey tool. Solicit commitments to participate and request data administrators to respond to the survey. If possible, also solicit commitment for post-survey next steps.
4. **Identify data collection method:** Some communities may want to conduct a formal survey in which they ask stakeholders to rate these questions, and then aggregate the results. Others may wish to gather stakeholders for a conversation to discuss the questions and develop a consensus rating.
5. **Develop customized survey:** Communities may wish to customize the survey to best meet their research interests. An

online version of the tool using [Google Forms is available here](#); communities using this will need to save the tool in their own Google account, and customize as needed, before distributing

6. **Field survey or convene meeting:** Depending on the data collection method(s) selected, either field an online survey with data leads and/or leaders, or convene identified stakeholders to discuss, rate and rank performance collectively.
7. **Compile results:** Aggregate and synthesize numerical results for each of the topics. For the strengths and challenges identified by respondents, review for common themes and important insights, then summarize.
8. **Rate:** If not already done during step 6, stakeholders should meet to discuss the results of the survey and to assign an overall level of system performance. Beyond the assignment of a level, at this convening stakeholders will want to discuss next steps, such as identifying strengths of your current efforts and ongoing work to address challenges. This may suggest setting a meeting schedule and/or identification of additional information needed.
9. **Interpret:** Communities should interpret results using question prompts provided in the Interpreting Results section.
10. **Plan:** Determine what action should be taken as a result of the analysis and record in an action planning guide. Use this assessment as an entree to a larger conversation to support system building efforts.

Stakeholders

Stakeholders across the early childhood system can be involved in this assessment process. Selection can be based on the need for, or relevance of, client data sharing between the various entities.

Lead: The lead person for this measure should be someone in the organization that coordinates the early childhood network, with responsibility for data analysis, reporting, and/or for quality improvement.

Stakeholders:

- ▶ Stakeholders may be people in similar positions in individual service sectors and programs and may also include individuals with senior leadership responsibilities.
- ▶ If parent leaders are engaged in system-building efforts, they should also be invited to participate in this assessment as stakeholders. For systems that do not currently have parent leaders engaged in system-building efforts, this assessment may not be the best way to engage them as it deals with activities that are not visible to most members of the community. However, a parent with a strong interest in data or quality improvement may welcome the opportunity, in which case a system partner should take the time to talk through the assessment and brief the parent on the current efforts of the system.
- ▶ This assessment may be a good opportunity to engage members of the business community who are interested in supporting the early childhood system. Participating in the assessment and action planning may bring to light some areas where they could make a significant difference through their participation and support.

Data Sources

Early childhood system stakeholders collect the data to be reviewed and evaluated. They can do so through surveys completed by data administrators and in-person meeting(s) to discuss and rate system performance. Surveys completed by data administrators.

Limitations

Data systems work can be political because of funding, cost, complexity, and privacy concerns. Strong leadership helps to support data sharing and coordination across system components.

Opportunities

Additional opportunities include the following:

- ▶ Shared measurement is just one function of a system that has the necessary components in place for impact. Explore other functions with measure 0.2, Infrastructure for System-Building, in this toolkit.
- ▶ In communities with Integrated Data Systems (IDS) and/or Coordinated Intake and Referral Systems (CIRS), many of these issues may already have been addressed; however, there are still several opportunities for assessment. First, implementation of the tool provides an opportunity to celebrate accomplishments, to dig deeper into aspects of the data system that could still be improved, or to investigate opportunities to connect additional sectors. Further, pursuing questions regarding whether shared data are being used to drive resource allocation and strategic planning provides an opportunity for more well-developed systems to assess how well they are using data strategically, and not just for improved service delivery. Finally, there are additional system improvement questions that IDS and CIRS communities or states may want to pursue, such as which sectors are contributing data to the IDS or CIRS, how flexible the IDS or CIRS is in allowing them to pull data, and what modifications might make the system more impactful.

Resources

- ▶ [Explaining the Value of Data Sharing: Lessons Learned](#), AcademyHealth, 2016
- ▶ [Sharing Data for Better Results: A Guide to Building Integrated Data Systems Compatible with Federal Privacy Laws](#), National League of Cities, 2014
- ▶ [Confidentiality Toolkit: A Resource Tool from the ACF Interoperability Initiative](#), Administration for Children and Families, U.S. Department of Health and Human Services, 2014
- ▶ [An Unofficial Guide to the Why and How of State Early Childhood Data Systems](#), The Ounce (now operating as Start Early), 2017
- ▶ [Telling the Story: The Potential of Early Childhood Data Systems](#), blog post by Joan Lombardi, 2015
- ▶ [Cracking the Code on Early Childhood Data](#) (blog post) and [Early Childhood Data in Action: Stories from the Field](#) (report), Center for the Study of Social Policy and National Institute for Children's Health Quality, 2018

2.4 Using Data: Rating Tool

For each topic below, we suggest that communities identify:

- ▶ A significant strength and/or recent accomplishment that they can build upon;
- ▶ A significant challenge or barrier they need to address in order to make further progress; and

A preliminary rating on a four-point scale, as follows:

- 1—Little or no progress to date
- 2—Early uptake, with commitments from key players to move forward and initial evidence of progress
- 3—Some accomplishments, involving parts of the early childhood system, with some early indications of impact on broader policy and/or practice
- 4—Significant accomplishments, involving most or all of the components of the early childhood system, with numerous examples of impact on policy and/or practice
- DK—Don't know

The tool invites respondents to identify a strength and challenge for each topic. To ease response burden, communities may want to indicate that responses to these are optional, but encouraged.

AGREEMENT ON INDICATORS	
<p>1. System partners are in consensus on indicators of well-being that the system aims to improve (i.e., agreed-upon indicators of progress toward shared outcomes, ideally ones that can be measured at the population level, such as percentage of births at healthy weight, percentage of children assessed to be ready for kindergarten, or family poverty level).</p> <ul style="list-style-type: none"> ▶ Strength: ▶ Challenge: 	1 2 3 4 DK
<p>2. System partners are in consensus on measures of early childhood system performance (i.e., agreed-upon measures of how well the system is performing its functions, such as how well services are reaching families throughout the community or how well providers are coordinating their efforts within and across sectors in the early childhood system).</p> <ul style="list-style-type: none"> ▶ Strength: ▶ Challenge: 	1 2 3 4 DK
COLLECTING AND SHARING DATA	
<p>3. The system is able to collect robust quantitative data across sectors (e.g., data are complete and reliable, the data capture all or nearly all children and families in the community without leaving out any demographic groups).</p> <ul style="list-style-type: none"> ▶ Strength: ▶ Challenge: 	1 2 3 4 DK
<p>4. The system is able to collect qualitative data about child and family well-being and family experiences with the system (e.g., parent feedback about accessibility, quality, and cultural relevance of services).</p> <ul style="list-style-type: none"> ▶ Strength: ▶ Challenge: 	1 2 3 4 DK

<p>5. Program-level data include details about child or family participation such as dosage/frequency to allow for more nuanced analysis of program effectiveness.</p> <ul style="list-style-type: none"> ▶ Strength: ▶ Challenge: 	<p>1 2 3 4 DK</p>
<p>6. There are data-sharing agreements across sectors (e.g., memoranda of understanding between providers such as early intervention services and Head Start).</p> <ul style="list-style-type: none"> ▶ Strength: ▶ Challenge: 	<p>1 2 3 4 DK</p>
<p>7. Data sharing is facilitated by a unique common identifier for each child and family (i.e., a way of finding a child or family across multiple data systems).</p> <ul style="list-style-type: none"> ▶ Strength: ▶ Challenge: 	<p>1 2 3 4 DK</p>
<p>8. Programs share a common database within an individual sector (e.g., multiple home visiting programs reporting data to a common database where they have access to information about referrals, assessments, and past history within that sector. In some cases, this data may be reported to a state-level database. If so, do programs and/or system partners at the community level have access to the relevant data from their community? Are all related programs included in that database, or only those funded through a particular funding stream?)</p> <ul style="list-style-type: none"> ▶ Strength: ▶ Challenge: 	<p>1 2 3 4 DK</p>
<p>9. Programs share a common database across sectors in the system (e.g., between early care and education and K-12 education to support coordination of services with regard to specific cases and to improve planning, quality improvement, research, and evaluation efforts).</p> <ul style="list-style-type: none"> ▶ Strength: ▶ Challenge: 	<p>1 2 3 4 DK</p>
<p>10. Early childhood data is shared with the community in order to lift up successes, highlight areas of concern, and build public will for policy change, investment, and/or system improvement.</p> <ul style="list-style-type: none"> ▶ Strength: ▶ Challenge: 	<p>1 2 3 4 DK</p>
<p>ANALYZING AND USING DATA FOR IMPROVEMENT</p>	
<p>11. The system analyzes data and identifies key areas of progress and significant challenges (i.e., understanding indicators or performance measures that have improved in recent years, and indicators or performance measures that have gotten worse or stayed the same).</p> <ul style="list-style-type: none"> ▶ Strength: ▶ Challenge: 	<p>1 2 3 4 DK</p>

<p>12. The system is able to disaggregate data in order to identify disparities by race, ethnicity, immigration status, gender, zip code, child age, or other demographics (i.e., understanding the extent to which outcomes differ for specific population groups, which may include advanced data analysis techniques for segments of the population that are in a significant minority).</p> <ul style="list-style-type: none"> ▶ Strength: ▶ Challenge: 	<p>1 2 3 4 DK</p>
<p>13. The system supports programs and agencies to implement quality improvement strategies and continuous learning to improve performance and/or achievement of desired outcomes, such as Plan-Do-Study-Act cycles (e.g., individual ECE centers or parenting education programs).</p> <ul style="list-style-type: none"> ▶ Strength: ▶ Challenge: 	<p>1 2 3 4 DK</p>
<p>14. The system has developed quality improvement mechanisms within sectors (e.g., home visiting), where separate entities (e.g., Healthy Families America and Nurse Family Partnership) collaboratively work on making breakthroughs on the same indicator by testing and evaluating various program improvements.</p> <ul style="list-style-type: none"> ▶ Strength: ▶ Challenge: 	<p>1 2 3 4 DK</p>
<p>15. The system uses data to drive resource allocation and strategic planning, such as identifying common goals and improving services across sectors in order to achieve those goals (e.g., a collective impact process or a cross-sector quality improvement process).</p> <ul style="list-style-type: none"> ▶ Strength: ▶ Challenge: 	<p>1 2 3 4 DK</p>

After compiling results, communities can collaboratively assess where their system falls according to the following levels:

- Level 1**—No consensus on indicators or formal processes to support collection and use of data.
- Level 2**—Some consensus on indicators; some data-sharing agreements have been developed; quality improvement efforts may be underway within individual programs; the infrastructure needed to support using data for improvement is being constructed.
- Level 3**—Partners are in agreement about common indicators and measures; data-sharing agreements cover most components of the early childhood system; programs have access to a common database, at least within their own sector; at least some sectors are using data for planning and quality improvement.
- Level 4**—Partners are in agreement about common indicators and measures; data-sharing agreements are supported by a unique common identifier; programs have access to a common database including most of the major components of the early childhood sectors; data is being used to drive planning and quality improvement across sectors are underway.