MEASURING WHAT MATTERS:
USING DATA TO SUPPORT FAMILY PROGRESS
OVERVIEW
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Overview

Introduction
Head Start and Early Head Start (HS/EHS) programs have a long history of partnering with families to achieve family goals and lasting positive change for children and families. As programs build continuous learning and improvement into everyday operations, HS/EHS staff are working strategically to measure progress on family outcomes. To make the most of their efforts, staff need to know how to use data to answer important questions, such as:

“How do we measure a family’s progress toward reaching their goals?”
“How is our program making a difference in the lives of parents and children?”
“What changes can programs and families make to support progress toward family outcomes?”
“How can we tell our story about how our efforts are contributing to better family outcomes?”

Over the years, the Office of Head Start (OHS) and the National Centers have developed many useful materials about how programs can use data to support decision-making (See References and Resources at the end of this document). The National Center on Parent, Family, and Community Engagement (NCPFCE) is pleased to add this resource, the first in a series called Measuring What Matters: Using Data to Support Family Progress.

This resource provides you with an overview of how HS/EHS programs can use data to engage families and support each family’s progress toward the OHS Parent, Family, and Community Engagement (PFCE) Framework Family Outcomes. Specifically, it describes two helpful approaches for using family related data. The first is a set of guiding principles—The Four R Approach (Responsible, Respectful, Relevant, and Relationship-based). The second is a cycle of data activities—The Four Data Activities (Prepare, Collect, Analyze and Aggregate, Share and Use). These principles and activities build on current knowledge about using data in a cycle of continuous learning and improvement (National Center on Program Management and Fiscal Operations [NCPMFO], 2013a) while focusing on measuring family progress toward the seven Family Outcomes of the PFCE Framework.
The PFCE Framework shows how family engagement strategies can be systemic, integrated, and comprehensive across services and systems in line with the Head Start Performance Standards (HSPS). Each of its seven Program Foundations and Impact Areas may be involved in data-driven PFCE to achieve the seven Family Outcomes. For example, family-related data can:

- help staff to better understand families’ perspectives, interests, and needs (Family Partnerships),
- support staff by identifying areas where they can build their family engagement knowledge, skills, and actions (Professional Development),
- give staff practical information about children and families to help them develop engagement strategies (Family Partnerships and Teaching and Learning),
- provide information about program strategies that work best for making progress toward Family Outcomes (Program Leadership and Continuous Improvement),
- offer families information about themselves, their children, the program, and their community that they can use to improve their well-being and prepare their children for school (Continuous improvement), and
- boost community partnerships that promote family outcomes (Community Partnerships and Continuous Improvement) (NCPFCE, 2013).
Creating a Data-Driven Program Culture

Creating a data-driven program culture does not happen over night. It takes a commitment to using data to improve program systems and services. It also takes a planned approach to measuring program efforts and child and family progress. In a data-driven program culture, HS/EHS leaders place a high value on professional development that promotes curiosity and learning—from successes as well as from mistakes. Programs share data with both staff and families in understandable and meaningful ways. When a program is truly data-driven, staff and families find data useful in their everyday work with each other.

For more guidance on creating a positive, data-driven program culture, see Data in Head Start and Early Head Start: Creating a culture that embraces data (NCPMFO, 2013b) at: http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/center/data/data-guide.pdf.

“We have found that, by reflecting on data, we are able to engage in a more constructive conversation with families and staff and can become more innovative in our work. It takes us in new and unexpected directions that make a difference for the families and move them along the developmental process of engagement. We are moving to a place where data is understood and used to enhance effectiveness. The data is helping to bring us to another level of practice.”

Southwest Human Development - Educare Phoenix, AZ

“We involve families and staff in data conversations so that we can all work together to understand what we are learning and how to change course.”

Clayton Early Learning - Educare Denver, CO
Clayton Early Learning uses data on children’s progress at the aggregate (summary) level to spur regular conversations with a mixed group of community and family about children’s school readiness. By engaging in these conversations, parents become increasingly thoughtful consumers and can effectively advocate for their child.

“The school staff are always impressed by the questions that our parents raise, their depth of knowledge about their child, and their strong advocacy.”

The Four R Approach to Support Family Progress: Responsible, Respectful, Relevant, and Relationship-Based

The Four R Approach provides guiding principles for making decisions, evaluating program progress, and identifying changes that can improve program effectiveness as part of a data-driven program culture. Staff can use these principles when partnering with families, setting family goals, and assessing progress toward these goals over time (e.g., through ongoing use of Family Partnership Agreements and regular follow-up support).

**Responsible:** Are you using data Responsibly?

Using data in a responsible way means using high quality data to guide program decisions that support family progress and staff growth. High quality data:
- offer an accurate picture of the child, family, staff, program, and/or community strengths and challenges,
- are used in a timely manner,
- are collected in ways that maximize information while minimizing the time and effort families and staff must invest in the process, and
- include information about the appropriate uses and limitations of the data (Kisker et al., 2003; Migrant and Seasonal Head Start Technical Assistance Center, 2006).

**Respectful:** Are you using data Respectfully?

Using data in a respectful way begins with staff’s full appreciation of each family’s beliefs, values, and cultural backgrounds, as well as parents’ wish to be the best parents they can be. Program leaders model respect for family and staff beliefs, values, cultures, and circumstances (Early Head Start National Resource Center [EHSNRC], 2000; Snow & Van Hemel, 2008) and create opportunities for staff and families to learn how to use data in their work together.

By prioritizing family input, staff can use the data collection process to affirm that parents are the experts on their children. For example, you can communicate respect for parents by making sure that all questionnaires, focus groups, and other data gathering methods are presented in the language that is most comfortable for each family. When asking families for written responses (e.g., to survey questions), programs can offer options such as help with reading and writing, or offer a verbal interview as an alternative to a written survey. When given such options, families can choose to provide information in the ways that are most comfortable for them. In turn, the information they provide is more likely to be accurate and useful.

Another way to show respect is to invite family members to share their thoughts when talking about what the data show. Staff will often find that families have different understandings or feelings about the information shared with them. As in other situations, family members may
feel confused, judged, misunderstood, or mistreated when their perspectives are not honored. Respectful use of data includes staff and families working together to decide how to interpret the data. When agreement cannot be reached, a respectful approach prepares staff and families to acknowledge each other’s differing views and to make plans for next steps.

**Relevant:** Are you using data that is Relevant?

Using data that is relevant means collecting data by using tools or measures that:

- answer the specific questions that are being asked,
- produce information that is meaningful to staff and families’ everyday work with each other,
- are reliable (provide dependable and consistent information),
- are valid (measure what they are supposed to measure), and
- are culturally sensitive.

Programs will need to be flexible in their approach to collecting individual, family, program, and community data so that the information gathered has meaning and value to those with whom it is shared and used (Caldwell et al., 1992; EHSNRC, 2000; Kisker et al., 2003; Migrant and Seasonal Head Start Technical Assistance Center, 2006). Speaking with other programs and consulting individuals with expertise in using reliable, valid, and culturally relevant tools and measures with young children and their families can be useful for gathering and interpreting data in ways that are relevant to the program population.

**Relationship-based:** Are you using data in a Relationship-based way?

Programs can use a relationship-based approach to data use through a mutual process of engaging families and community partners to develop questions, collect information, analyze and interpret the information collected, and decide on next steps. As a part of this process, program staff use family engagement practices in their data work with families (e.g., communication, flexibility, responsiveness, respect, self-reflection, attention to family strengths) (Meisels, 2000; Office of Planning, Research, and Evaluation [OPRE], 2011). Building relationships with and among families is a top priority for programs, and the data process can reinforce that effort. For example, staff can encourage parent leaders to help other parents learn about data use. When done in a responsible, respectful, and relevant way, data-driven conversations about child and family progress will enhance relationships with families and community partners. These conversations help everyone create a shared understanding of what is going on for children, families, and the program.

When staff continually ask themselves whether the information that a program collects, analyzes, and shares is responsible, respectful, relevant, and relationship-based, they foster a data-driven program culture. In a data-driven program culture, staff and families see all strengths and challenges revealed through data activities as opportunities for positive change (NCPMFO, 2013b).
The Four Data Activities to Support Family Progress Toward Positive Family Outcomes

Together with The Four R Approach, programs can use The Four Data Activities in a cycle of continuous learning and improvement to make progress toward family outcomes. Measuring family, staff, and program progress involves:

1) systematic preparation and planning,
2) collection of family-related data,
3) aggregating and analyzing the information collected, and
4) sharing and using the results (NCPMFO, 2013a).

You can use this cycle of activities to support progress on family outcomes in two ways. First, you can use the activities to help staff and parents monitor current progress on family goals, share the information with one another, and plan future steps. Second, you can use this cycle of activities to improve the program’s family and community engagement practices toward lasting positive change. The benefits of The Four Data Activities are greatest when HS/EHS programs complete a plan for each activity before beginning to collect information.
1. Prepare: Develop useful questions

Identify what you want to know and why you want to know it.

Work with staff and families to identify the questions you want to answer related to evaluating the PFCE Family Outcomes. Many useful evaluation questions are connected to the program’s theory of change. A theory of change is a best guess about the most effective steps that programs, staff, families, and communities can take to make progress toward child and family outcomes.

Develop questions that are specific enough to obtain the most relevant information about families, programs, staff, or community partners.

For example, if you want to know if a family is financially secure, using a broad question (e.g., “How are you doing financially?”) may not give you precise enough information. On the other hand, a question that is very narrow (e.g., “Are you employed?”) may produce an answer that is too limited (i.e., “yes” or “no”). Useful questions ask for the exact level of information you need. In this case, for instance, a better option might be to ask parents to rate on a scale how often they are able to cover their daily living expenses (e.g., 1 = never, 3 = sometimes, 5 = always). Useful questions are stated in simple, clear terms, avoid complicated language, and ask only one thing at a time. Additional strategies for developing a good question are provided below.

Tailor questions to fit your program’s needs.

Questions can collect counts and scores, or provide descriptions and explanations.

- To gather quantitative data (numbers or counts), use questions like “How many months have you received food stamps?” or “On a scale of 1 to 5, rate how well your income covers your food, clothing, shelter, and medical needs.”
- To gather qualitative data (explanation or description), use questions like “What are your family’s financial goals right now?” or “What are your child’s strengths?”
Questions can ask for general or limited information.

- Questions that gather descriptive data (descriptions) use an open-ended approach where there is no “correct” or single-word answer. Examples are: “What are your child’s favorite activities?” or “What are your goals for your child while he/she is in this program?”
- Questions that gather discrete data (yes/no, choices from a list, single answer) focus on collecting particular information such as “How many hours of supervision do you have per month?” or “What agencies does your program partner with in the community?”

Questions can ask for information on a program’s effort or effect.

- Questions about program effort ask about what a program actually does (i.e., activities that a program succeeds in implementing). For example, effort questions about a series of parent-child reading workshops might include “How many workshops were held this year?” or “How many parents participated in these workshops?” Effort questions typically ask for counts or descriptions of services offered.
- Questions about program effect ask about results—how a program impacts the knowledge, skills, or behaviors of children, families, staff, and community members. For example, an effect question about parent-child reading workshops is “Did the workshops impact the number of times a parent reads to their child at home?” One way to measure the effect of parent-child reading workshops would be to ask parents before and after the workshop series how often they read to their children.

Develop and check questions with staff, families, and community partners.

The range of experiences, perspectives, and goals of staff, families, and community members may help them to think of important questions that have not been considered. Asking for input from families and community partners can increase participation in data activities and lead to broader interest in the results. Input from different groups can also help assure that the questions you prepare are responsible, respectful, relevant, and relationship-based.
2. Collect Data

*HS/EHS programs already collect many types of data.*

Programs gather data for goal-setting, decision-making, and program planning. For example, programs collect family and community data in the annual self-assessment process and when measuring individual families’ progress toward their goals. Programs collect data for the Program Information Report (PIR), presentations at Policy Council meetings, and tracking goals and progress as part of family partnership processes. They also gather data to identify opportunities for staff and parent education, to assess program progress, engage parents in conversations about children’s development, and meet with community service providers.

*There are different methods for collecting data.*

You are collecting data when you observe interactions among families, or among staff and community partners, and when you ask people what they think. You are also collecting data when you use a developmental screening tool to assess a child. In some cases, staff or outside evaluators collect data by using structured tools to assess a person, event, or setting. Some categories of tools include:

- Self-report tools that ask individuals to give information about themselves and their beliefs, thoughts, and opinions.
- Parent-report and teacher-report tools that ask parents or teachers to give information about children, staff, parents, the program, or community partners (e.g., a parent or teacher reports on a child’s behavior, a teacher reports on the classroom climate).
- Observation tools that require someone (often staff or researchers) to watch children, staff, and families carefully and to provide information about them (often using a specific checklist, rating scale, or other systematic approach).

Primary data is information that programs collect directly for a specific purpose. Secondary data is information that was collected in the past for another purpose and then used to meet the program’s current data needs (e.g., using U.S. Census Bureau data on a HS program application).
Programs use many different tools or measures in organized and purposeful ways to collect data.

Tools, or measures, are instruments that help collect and make sense of data. Examples include intake applications, family portfolios, and standardized measures and surveys. Some measures collect information about particular people (e.g., parent, child, staff), or individual level data. Individual level data may be about a child (e.g., scores from the Ages & Stages Questionnaire [ASQ]) or a family (e.g., scores from the Family Map or PICCOLO). Other measures may collect information on a program, or program level data (e.g., PIR, Annual Self-Assessment) or community level data (Community Assessment).

Tools and measures can offer an excellent method for collecting data systematically when individuals are well-trained in how to use them. This requires an investment by programs in training and time for staff to administer the tools that a program has chosen.

No tool or measure is perfect or works equally well with every individual or group. Many tools have not been tested or have not been found to be effective across different cultural groups. When this is the case, begin with the question “What do I want to learn or better understand?” Share these questions with other HS/EHS programs and staff to find out what tools work best in different contexts. Many programs have come up with innovative solutions to making measurement relevant to their families. Consulting a research or evaluation expert also may be helpful when it is difficult to identify an appropriate tool. Also, keep in mind that when parents are struggling with multiple adversities, strong partnerships lead to information sharing that may be more important than any tool or measure.

Develop a system for recording, organizing, and storing the data.

It is important to record data in a systematic way, such as entering them into a database or a Management Information System (MIS), so that information can be used as effectively and efficiently as possible. Well-organized data are easier to use, produce more meaningful information, and improve staff’s ability to work with families to achieve their goals, and to meet program requirements and continuous learning goals.
3. Analyze and Aggregate Data

Analyzing data can be done in many ways. Examples of analyzing data include generating reports on the number of families enrolled, or looking closely at information provided in family strengths assessments and portfolios. The best approach to data analysis is to decide (before collecting the data) on a systematic way to examine the information. If your program works with an information system provider, it may be helpful to consult them early in the process.

Methods of data analysis should help staff explore answers to the program’s original questions. How you analyze data depends on your questions for evaluating family progress. Are you looking at individual goals, program goals, or measures of effort or effect? For example, data analysis can help you understand a specific family’s or individual’s progress. Or, instead, data on children, families, or staff can be grouped together (aggregated) to look for patterns in a larger group. This informs programs about the nature, needs, and strengths of individuals or families in the program as a whole, and can show overall trends in meeting individual, family, or program goals.

Data analysis can be a complex process. Data analysis can be relatively simple (e.g., calculating the average for child language scores on a developmental assessment at age three) or highly complex (e.g., determining the impact of the program on child language skills over time). Consulting trained professionals (e.g., program evaluators, researchers) before you begin collecting data, or as early in the process as possible, can be helpful to developing a sound data analysis plan. For more information on data analysis see Introduction to Data Analysis Handbook by Migrant and Seasonal Head Start Technical Assistance Center at http://ece.aed.org/publications/mshs/dataanalysis/WebDataAnalysis.pdf.

Aggregate (summary) data is information combined from multiple sources to create a summary about groups of individuals (e.g., average education level of staff, total number of referrals among parents who participated in a mental health intervention, range in cognitive scores for children under two years of age).

“When leadership at the Educare Schools looked at data in the aggregate, they noticed that many parents were experiencing food insecurity. Knowing this, staff were able to have direct conversations with parents about food and were able to connect them with local food pantries. Some programs even created their own food pantries on site so that needs could be met immediately.”

Educare Leadership
4. Share and Use Data

*Develop a data-sharing plan before data collection begins.*

Sharing findings and using them to improve your program can strengthen your partnerships with families, but first you need a well thought-out plan. Your plan can specify with whom the data will be shared, (e.g., parents, teachers, family service workers, program managers, Policy Council members, the Governing Board, community partners). How, when, and what data to share are also key elements of a data sharing plan. How to share data depends on several factors, including the knowledge, skills, languages, literacy, interests, and needs of those with whom it will be shared. In most cases it is important to share data when it is still relevant, and still can be acted upon. Think carefully about what your goals are for sharing data as you develop your plan.

*Southwest Human Development works with their teachers and family support specialists so that they both use the children’s learning portfolio to advance child and family outcomes. As a result of this, family support specialists understand how to use the portfolio in their work with families to bolster engagement in their children’s learning.*

*Determine what information to share based on how useful it is to families, staff, programs, and community members, and on policies on confidentiality.*

Data can be shared about a particular person (*individual-level data*), a family (*family-level data*), or a group (*aggregate data*). Sharing aggregate data highlights group patterns (e.g., for all children in a classroom, or all the families in a program). If an audience does not need to know (or is not legally entitled to know) details about an individual or family, group data may be shared instead. Identifying information should be removed when it is not needed and when confidentiality requirements prohibit its disclosure.

*Convey the limitations of the data you present to your audience.*

No matter how carefully data are collected, they never present a complete picture of a person, family, program, or community. For example, information about family outcomes at any one point in time represents only a single snapshot among many different ones that might be taken at other times. No matter how expertly it is interpreted, one set of data may lead to a wide range of equally plausible interpretations. In fact, sharing data often raises as many questions as it answers, leading you back to the beginning of The Four Data Activities cycle.
One of the key purposes of data collection, analysis, and use in HS/EHS is to share your progress and support continuous program learning and improvement.

HS/EHS programs are continually working to move beyond the minimum requirements of the HSPS to improve their work with families. Effective ways to make the most out of data for continuous program learning and improvement include:

- sharing and using feedback from parents and community members to plan for the future,
- focusing on the “big picture” and developing strategies to make progress toward family outcomes,
- strengthening and building data systems that support data analysis related to family outcomes,
- highlighting specific evidence of program improvement,
- using data to make decisions about program changes that support continuous improvement,
- using the data to tell your program’s story about progress toward better outcomes for families and children, and
- documenting the annual program self-assessment process.

(See NCPMFO (2013c) and Rosenberg (2013) for more information.)

Conclusion

HS/EHS staff collect information on the PFCE Family Outcomes every day. In a data-driven culture, programs can carry out The Four Data Activities in a responsible, respectful, relevant, and relationship-based way to support family progress toward outcomes. The goal of these efforts is to make data more meaningful and useful to programs, staff, families, and communities alike. In this way, everyone can use data to contribute to continuous learning and improvement. Staff and families can see for themselves how using data can deepen staff-family relationships, build on family, staff, program, and community strengths, enhance family outcomes, and promote children’s school readiness.
The Four Data Activities: Guiding Questions

**Prepare**
- What do you want to know?
  - About individual children?
  - About families?
  - About program efforts?
- How does change happen?
- What questions will you ask?
  - What information will help you answer these questions?
  - How do these questions connect to school readiness, school success, and healthy children and families?

**Collect**
- How will you collect the information?
  - Who will collect it?
  - What tools will you use?
- Who will collect it from? When and where?
- How often?
- How will you store and retrieve it?
  - Do you have a data system?
  - What data systems could you use that store and retrieve data in useful ways?

**Analyze & Aggregate**
- How will you analyze the information? Will you aggregate (summarize) the information?
  - Will you use counts, tally a score, summarize themes?
  - How will you tell a family’s story?
  - What other sources of data will you analyze to understand the family?

**Share & Use**
- How will you share the information?
- How will you know what it means?
- How will you use it to support continuous improvement and change?

Where do you want to go next? What are your questions?
The remaining resources in this series describe each of The Four Data Activities in more detail. They offer specific examples of how staff can use these steps to effectively partner with families to reach their goals. In addition, the series is intended to answer the following questions that HS/EHS staff have been asking about data on Family Outcomes:

- How do we include families in the process from the beginning?
- What tools and measures are most useful for assessing the PFCE Family Outcomes?
- How do we make sure that tools and measures are culturally sensitive?
- What do we do with the data once we have collected them?
- How can we share data and still respect individual and family confidentiality?
- Once we gather data, how do we use them to set goals with families and follow-up with them?
- How can we use data to show continuous program progress?