THE NATIONAL CENTER ON
**Parent, Family, and
Community Engagement™**

MEASURING WHAT MATTERS:
Exercises in Data Management

Exercise 1: PREPARE
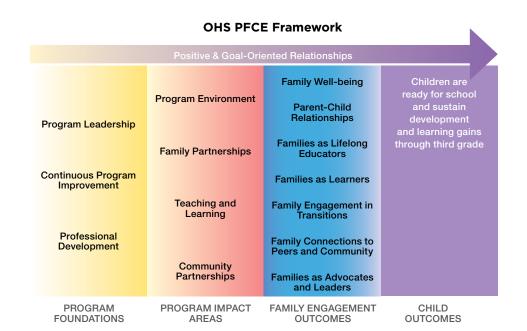**Identifying PFCE Measures**
of Effort and Effect

EXERCISE SERIES INTRODUCTION

As a Head Start or Early Head Start leader, do you sometimes wonder how you will use your program's data about families to decide your priorities and track program and family progress? Are you concerned about responding to questions from your governing body, Policy Council, or community leaders regarding the progress and results of program activities with families? Are you comfortable collecting and analyzing data on children's progress, but less sure of how to assess your progress with families? If you answered yes to any of these questions, we invite you to try out this series of exercises.

As you set goals and develop and implement plans within a five-year project period, you will rely on data in at least two ways. One is to assess how well you are providing quality services for children and families and the ways you can improve your work. The second is to measure progress on outcomes for children and families. We created this exercise series to support program staff and families in both ways. We will explore the following questions as they relate to parent, family, and community engagement:

- What are Parent, Family, and Community Engagement (PFCE) data?
- What are the differences between measures of effort and measures of effect?
- What does it mean to aggregate and disaggregate data?
- What does it mean to track progress over time?
- How can data be meaningfully used and shared?

OHS PFCE Framework

PROGRAM FOUNDATIONS	PROGRAM IMPACT AREAS	FAMILY ENGAGEMENT OUTCOMES	CHILD OUTCOMES
Positive & Goal-Oriented Relationships			
Program Leadership	Program Environment	Family Well-being	Children are ready for school and sustain development and learning gains through third grade
	Family Partnerships	Parent-Child Relationships	
Continuous Program Improvement		Families as Lifelong Educators	
	Teaching and Learning	Families as Learners	
Professional Development		Family Engagement in Transitions	
	Community Partnerships	Family Connections to Peers and Community	
		Families as Advocates and Leaders	

The Office of Head Start (OHS) Parent, Family, and Community Engagement (PFCE) Framework is a research-based approach to program change that shows how Head Start/Early Head Start programs can work together as a whole – across systems and service areas – to promote family engagement and children's learning and development.
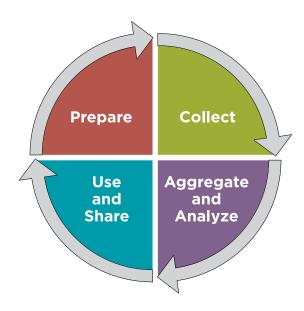
The data that we will be examining relate to the PFCE Framework Family Engagement Outcomes in the blue column.

The exercises are also organized to follow the four activities in the data management cycle: prepare, collect, aggregate and analyze, and use and share.[1] Each of these exercises focuses on a specific activity and will help you:

- **Prepare:** Get ready for data collection by thinking about the different kinds of data you need in order to show the reach and impact of your work with families.

- **Collect:** Identify how to gather data that are useful and easy to interpret.

- **Aggregate and Analyze:** Learn ways you can look at data to examine how well your program and families are doing in terms of the Family Outcomes of the OHS PFCE Framework.

- **Use and Share:** Understand the importance of sharing data in accurate, appealing, and accessible ways and how data can inform various aspects of programming.

The Four Data Activities to Support Family Progress Toward Positive Family Outcomes

The exercises in this series introduce concepts related to the four Data Activities that build on one another in a specific sequence. **It is important to begin with the first exercise and continue through to the last one in the series.**

[1] Measuring What Matters: Using Data to Support Family Progress—Overview. Retrieved from http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/family/docs/measuring-what-matters.pdf

Exercise 1 is about *preparing* for data collection. Preparation means that you review what you already know and consider what new questions you need to explore to improve your work with families.

This exercise presents a story about a Head Start/Early Head Start program. It introduces you to measurement ideas ("measures of effort" and "measures of effect") that you can use as you identify data tools or methods for tracking progress.

As a program leader, you can use this exercise to:

- Help your program staff identify the family outcomes and related goals you want to achieve in partnership with families.
- Guide the process of reviewing program objectives, services, and activities for families.
- Understand measures of effort and measures of effect to help determine the difference your program is making for families.

HOW TO USE EXERCISE 1:

On Your Own

- Read the story, *Program Planning and Preparing for Data Collection*.
- Reflect on similarities between the story's PFCE work and that of your own program.
- Review the instructions for completing Tables 3 and 4.
- Complete Tables 3 and 4 using information from your own program.

Group Discussion

- Gather with others in your program to share your answers to the prompts in Tables 3 and 4.
- Work together to create a plan for applying the data concepts from the exercise to your own work.

LEARNING OBJECTIVES

- **Understand the differences between measures of effort and measures of effect.**
- **Guide your program staff in figuring out how they will track progress toward expected family outcomes, beginning by asking the right questions.**
- **Help your program staff align goals, objectives, and services with related Family Outcomes of the PFCE Framework.**

Program Planning and Preparing for Data Collection

Tyler Robbins, the Executive Director of Sunnyside Head Start/Early Head Start, was proud of his program's partnerships with families. He was able to talk about the great family programming they had in place. For example, his program made home visits and hosted a number of well-attended parenting workshops. But Tyler also knew there was room for improvement. He recognized what his program was doing, but had trouble showing how families were making progress.

Reviewing Data and Setting Goals

Tyler turned to Sunnyside's data for guidance. He reviewed the data that had been entered into the Head Start Program Information Report (PIR). Tyler also looked at data collected from other program activities. He noted that the data mainly focused on the types of services families received. For example, the PIR data showed the number of families who attended parent education programs. The program activities data reported the number of fathers involved in father engagement efforts.

These data provided important information about Sunnyside's services for families. But Tyler needed more information. He wanted to know whether these services were making a difference. For example, he knew how many families received Early Head Start home visits. But it would also be helpful to know how families were connecting with their children after the home visits.

Tyler knew that Sunnyside needed to continue to collect the type and number of program activities delivered (measures of effort). He also wanted to collect new data about the results of program activities (measures of effect). This would help him know more about the differences the program was making for families. To collect these new data, Tyler and his staff would need to prepare.

Data refer to information. They can be presented in numbers and/or words.

Developing Goals, Objectives, Services, and Expected Outcomes

Tyler formed a committee with key staff, Policy Council members, and parent leaders. Together this group would plan for the new data collection process by asking important questions about their program goals, objectives, services, and expected family outcomes. The committee could then identify measures and data sources to track progress related to these family outcomes.

Goals: The group began by stating Sunnyside's PFCE goals clearly. Tyler explained that a program goal is a broad, inspirational statement. A goal describes what the program wants to accomplish.[1] Group members reviewed summaries of individual family goals from family partnership agreements. These data provided rich and descriptive information. The members also looked at Sunnyside's existing surveys about children, and parent and family engagement.

The committee members found that their program needed to strengthen partnerships with families in two areas. They needed to focus on children's social and emotional development, as well as early reading skills. They also learned that families were not getting enough information consistently about the transition from Head Start to public schools.

Based on the data, the committee asked themselves an important question: "What does our program want to accomplish in our PFCE work?" The committee set the following program goal:

> **Sunnyside Head Start/Early Head Start will make certain that all families have the guidance, support, and tools they need to:**
>
> 1) nurture positive relationships with their children,
>
> 2) guide their children's learning and development, and
>
> 3) advocate for their children's education across transition periods from birth to kindergarten.

Objectives: The group went on to develop objectives for their program and families. Tyler explained that objectives break down goals into SMART elements (Specific, Measurable, Attainable, Realistic, and Timely). Tyler asked the committee members to think about what they were planning to do to reach their PFCE goal. They discussed questions such as: What does a positive relationship with a child look like? How can staff support parents and families to strengthen positive relationships with their children? Are the actions we propose culturally appropriate? How can we ensure two-way communication with families? (See Table 1 for the objectives they identified.)

[1] For more information about goals, objectives, and expected outcomes visit the Foundations for Excellence: Planning in Head Start document (http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/docs/planning-complete-booklet.pdf). Topic #5 looks specifically at Program Planning and Parent, Family and Community Engagement (http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/docs/planning-topic-5.pdf).

Program **goals** related to family outcomes describe what a program intends to accomplish in its work with and in support of families.

Program goals should be **BROAD**: **B**old, **R**esponsive, **O**rganization-wide, **A**spirational, and **D**ynamic.[1]

An objective is an element of a goal. It describes what the program is intending to do to reach the goal.

Objectives should be **SMART**: **S**pecific, **M**easurable, **A**ttainable, **R**ealistic, and **T**imely.[1]

Services: *Next, the group reviewed the existing program services that support their new goal and related objectives. They identified which services might already contribute to progress toward the goals and objectives. Parents shared important insights. They talked about the services that supported their relationships with their children. Parents also identified the services that helped them support learning, development, and successful transitions. (See Table 1 for a few examples of these services.)*

Expected Outcomes: *Finally, the group began to think about the expected outcomes that related to Sunnyside's goals, objectives, and services. Tyler explained that expected outcomes are the results that Sunnyside wants to achieve for families. The program would be responsible for showing progress toward these outcomes each year. The group was already familiar with the OHS PFCE Framework. Tyler reminded them that the blue column outlined seven general Family Outcomes.[2] He encouraged his team to think about which of the Family Outcomes from the PFCE Framework they wanted to address. The group agreed on the following:*

1. *Positive Parent-Child Relationships,*

2. *Families as Lifelong Educators, and*

3. *Family Engagement in Transitions.*

Tyler encouraged the group to get more specific. He suggested they identify expected outcomes related to their goals, objectives, and actions. (See Table 1 for the outcomes they identified.)

[2] You can learn more about the PFCE Framework at: http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/family/framework/interactive.html

Table 1.
Sunnyside Head Start/Early Head Start: What Do We Want to Know about Goals, Objectives, Services, and Outcomes?

Goal	Objectives	Services (Actions)	Expected Outcome
What PFCE goal does our program want to accomplish?	*What are we planning to do to reach our PFCE goal?* Sunnyside will, over a five-year period, establish processes and offer services so that families can 1) nurture relationships with their children, 2) guide children's learning, and 3) advocate for their children.	*What actions are we going to take to reach our objectives?*	*Which expected outcomes relate to our goals, objectives, and services (actions)?*
Sunnyside Head Start/ Early Head Start will ensure that all families have the guidance, support and tools they need to 1) nurture relationships with their children, 2) guide their children's learning and development, and 3) advocate for their children's education across transition periods from birth, through, and into kindergarten.	**1. Nurture relationships with their children** **Objective 1a:** Increase families' knowledge and skills to engage in warm and responsive parent-child interactions through at least one program activity each week. **Objective 1b:** Build on family strengths and culture to create two-way conversations with families and staff about child development through at least one program activity each week.	Early Head Start home visits focused on strengthening parent-child relationships Parenting sessions on children's social-emotional development Staff training and coaching on developing positive goal-oriented relationships	Families and children develop and maintain warm and responsive interactions (Parent-Child Relationships)
	2. Guide their children's learning **Objective 2a:** Help program staff acquire the knowledge and skills to develop positive goal-oriented relationships with families in at least two training events each year. **Objective 2b:** Offer materials, training, and services for families to acquire the knowledge and skills to promote children's learning in at least one program activity each month.	Staff training and coaching on developing positive goal-oriented relationships Family literacy programming Parent-teacher conferences and home visits	Families develop the knowledge, skills, and dispositions necessary to promote children's learning (Families as Lifelong Eduactors)
	3. Advocate for their children **Objective 3:** Help families build their capacity to be advocates during their children's transition to kindergarten and beyond through at least two activities each year.	Orientation about success in kindergarten and school School field trips for children and families	Families build their capacity to be advocates during their children's transition to kindergarten and school (Family Engagement in Transitions)

Measures of Effort & Measures of Effect

Measures of effort count what and how much family programming is offered. They describe whether and to what extent activities were carried out as planned. For example, a measure of effort is a count of the number of parent education workshops or the number of families who participate in them. These measures capture what was done, but do not tell you about the results of your activities.

Measures of effect measure changes in knowledge or behavior as a result of the activity. They track whether your activities have made a difference. For example, a measure of effect shows how reading routines change in the home after (or "as the result of") a family literacy intervention.

Both types of measures are important to help you understand whether your program is making progress with specific families and on program goals or objectives that relate to family outcomes.

Reflecting on Family Progress:
Developing Measures of Effort and Measures of Effect

As a final step, the committee needed to develop measures to track two important types of information. First, Sunnyside needed to measure whether they were offering the services that reflected their goals. They needed to know how much staff and families were participating in those services (measures of effort). They asked themselves questions about what their program does (i.e., activities that they have succeeding in implementing). Second, Sunnyside needed to measure whether family and staff knowledge and behavior were changing as a result of the services (measures of effect). The group asked questions about results – how their program impacts the knowledge, skills, or behaviors of children, families, or staff. The committee developed Table 2 as a way to capture their questions and relate the measures of effort and measures of effect to the selected services.

With a new plan in place, Tyler and his staff felt confident that they would be able to collect the data they needed to show how families were making progress.

Table 2.
Sunnyside Head Start/Early Head Start: Tracking Family Participation and Progress

Services (Actions)	Tracking Family Participation and Progress	
What actions are we going to take to reach our objectives?	*Measures of Effort: How much programming are we offering? Are we carrying out services as planned?*	*Measures of Effect: What difference is our program making? What are the changes in families' and/or staffs' knowledge and behavior?*
1. Early Head Start home visits focused on strengthening parent-child relationships 2. Parenting sessions on children's social-emotional development 3. Staff training and coaching on developing positive goal-oriented relationships	1. What is the percentage of time that home visitors spend discussing children's learning and development at each home visit? 2. How many families attend each parenting session about children's social and emotional development? How many sessions does each family attend? 3. How many staff training and coaching activities does the program offer about building positive goal-oriented relationships with families?	1. How are parent-child relationships becoming more nurturing and responsive? 2. How are families gaining the knowledge and skills to encourage positive social and emotional development? 3. How are teaching staff changing their partnerships with families to encourage children's positive social and emotional development?
1. Staff training and coaching on developing positive goal-oriented relationships 2. Family literacy programming 3. Parent-teacher conferences and home visits	1. How many staff training and coaching activities does the program offer about building positive goal-oriented relationships with families? 2. How many family literacy activities does the program offer? How many families attend each family literacy activity? How many activities does each family attend? 3. How many parent-teacher conferences are offered? What percentage of families attend parent-teacher conferences?	1. How are teaching staff improving their knowledge, skills, and attitudes about working with families to support children's learning? 2. How are parents gaining the knowledge, skills, and attitudes to foster a love of reading? 3. How are teachers changing their practices to welcome families' thoughts, ideas, and observations about children's learning?
1. Orientations about success in kindergarten and school 2. School field trips for children and families	1. How many families participate in orientations? 2. How many families participate in field trips?	1. How are families learning more about the best kindergarten settings for their children? 2. Do parents feel comfortable communicating their child's strengths and challenges with kindergarten teachers after visiting the kindergarten classrooms?

How can you engage families as you prepare to collect data?

Share information about why you are preparing to collect data.

Build family awareness and comfort about data. Encourage families to participate in meetings where data are used and shared. Display data charts about program-wide progress toward child and family goals in your program's public spaces (e.g., parent resource room) and parent newsletters.

Invite families to help you identify measures of effort. Ask them what questions they would ask to improve and strengthen a specific process (e.g., goal setting), service (e.g., health referrals), or participation in an activity (e.g., parent peer groups). This can help you discover meaningful measures of effort.

Invite families to help you identify measures of effect. Ask them to describe the types of family changes that are important to assess the progress and results of your services and activities. What does progress look like? This can help you develop culturally sensitive measures of effect.

Your Turn

Now that you have read about Sunnyside's *preparation* for data collection, you can take the first step to clarify what you want and need to know about your own program. Tables 3 and 4 give you an opportunity to:

- Clarify your program's goals, objectives, services, and expected outcomes related to the PFCE Family Outcomes.
- Ask questions about what your program is doing—"measures of effort"—and what is changing as a result of these activities—"measures of effect."

Instructions:

1) Turn to Table 3.

2) Identify one or more program goals related to expected program outcomes for families and children.

3) Consider SMART objectives that will help you achieve your goal(s). Think about the difference that you can make for your staff and your families.

4) Identify the services and strategies that align with or can be effective in reaching your objectives.

5) Relate your goals, objectives, and services (actions) to the expected outcomes.

6) Turn to Table 4.

7) Copy the services (actions) you wrote in Table 3.

8) Write some questions that will help you measure your program's efforts (how much programming are you offering) and effects (what difference your program is making). Refer to the Sunnyside program example in Table 2 for guidance.

9) Reflect on your responses. Are you creating a balance between measures of effort and measures of effect?

Table 3.
What Does Our Program Want to Know About Goals, Objectives, Services, and Outcomes?

Goal	Objectives	Services (Actions)	Expected Outcome
What PFCE goal does our program want to accomplish?	*What are we planning to do to reach our PFCE goal?* Over a five-year period, our program will establish processes and offer services so that:	*What actions are we going to take to reach our objectives?*	*Which expected outcomes relate to our goals, objectives, and services (actions)?*
Goal 1.			
Goal 2.			
Goal 3.			

Table 4.
How Can We Track Family Participation and Progress?

Services (Actions)	Tracking Family Participation and Progress	
What actions are we going to take to reach our objectives?	*Measures of Effort: How much programming are we offering? Are we carrying out services as planned?*	*Measures of Effect: What difference is our program making? What are the changes in families' and/or staffs' knowledge and behavior?*

Conclusion

The first activity in the data management cycle is preparation. Preparation helps you plan for new data collection and informs your program planning process. To be most effective, program managers, staff, and families engage in this process together.

Preparation involves several steps. First, it includes reviewing data about families. Next, it involves asking questions to clarify and prioritize goals, objectives, and expected outcomes. Preparation also involves asking questions that focus on measures of effort and measures of effect. Measures of effort show the amount of effort needed to provide high quality services to families and meet program goals. Measures of effect show changes in knowledge and behavior that result from the services or activities your program offers. Both measures of effort and measures of effect are useful in determining your progress.

Now that you have completed the steps in this exercise, you are ready for the next activity in this series. In Exercise 2, *Collecting Data Related to Family Outcomes*, you will learn how to choose data collection tools and plan for gathering the data.

We invite you to review our *Measuring What Matters Resource Guide* at http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/family/docs/measuring-matters-resource-guide.pdf. This guide includes information on:

- Getting started,

- Data tools or methods for tracking progress, and

- Program planning and program evaluation.

Are you interested in learning more about using data to support family progress?

For additional NCPFCE resources on using data and assessing progress visit:
http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/family/assessing/assess.html

For an overview of the Measuring What Matters Series visit:
http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/family/docs/measuring-what-matters.pdf