A Resource Guide for Head Start Programs:

Moving Beyond a Culture of Compliance to a Culture of Continuous Improvement

OPRE Report # 2015-02

January 2015

A Resource Guide for Head Start Programs: Moving Beyond a Culture of Compliance to a Culture of Continuous Improvement

January 2015

OPRE Report 2015-02

Teresa Derrick-Mills, Mary K. Winkler, Olivia Healy, and Erica Greenberg
Urban Institute

This report and other reports sponsored by the Office of Planning, Research and Evaluation are available at http://www.acf.hhs.gov/programs/opre/index.html.

Cover photo ©iStock.com/CEFutcher.

ACKNOWLEDGEMENTS

CONTENTS

OVERVIEW AND PURPOSE

Head Start has long focused on assessing and improving program quality to ensure that the children served receive the best possible preparation for school and life. Most research has been focused inside the classroom – the classroom environment, teacher qualifications, and teacher interactions. Of course the classroom is important because that is where children spend most of their time, but what is done in the classroom isn't entirely or primarily the teacher's decision. The management and leadership of the program typically make the decisions about which curriculum and assessments to use, the equipment and materials to provide, and how to interact with the children. Thus, it is important to study, understand, and provide guidance for those managers and leaders in their decisions.

Accordingly, the Office of Planning, Research and Evaluation (OPRE) contracted with the Urban Institute in 2012 to conduct the *Head Start Leadership, Excellence, and Data Systems* (LEADS) project. The LEADS project's goal is to understand the factors in organizational and management systems that promote effective early childhood education practices and outcomes. The LEADS project has three primary products: (1) a literature review and conceptual framework drawing from the work of other disciplines that have studied data use for quality improvement,[1] (2) documentation of promising practices in Head Start programs around data use for continuous quality improvement,[2] and (3) this resource guide to translate the research into information community-based Head Start programs can use.

The purpose of this resource guide is to help leadership, management, supervisory, and data-focused staff in Head Start and Early Head Start programs (1) understand how data, including the data they already collect, can help them achieve their program goals; (2) learn techniques for fostering a culture of learning in their organization; and (3) increase their ability to identify and address gaps and continuously improve their programs. This document provides guidance on

---

[1] Derrick-Mills, Teresa, Sandstrom H., Pettijohn S., Fyffe S., and Koulish J. *Data Use for Continuous Quality Improvement: What the Head Start Field Can Learn From Other Disciplines, A Literature Review and Conceptual Framework.* OPRE Report # 2014-77 (Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research and Evaluation, forthcoming).

[2] Derrick-Mills, Teresa, and Monica Rohacek. *Data-Informed Continuous Improvement in Head Start: A Cross-Case Study of Local Grantee Practices* (Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research and Evaluation, forthcoming); and Derrick-Mills, Teresa. *Understanding Data Use for Continuous Quality Improvement in Head Start: Preliminary Findings.* OPRE Report # 2014-85 (Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research and Evaluation, forthcoming).

enhancing data use for quality improvement by drawing upon LEADS project research on data use in other fields, promising practices observed in Head Start programs, and existing Head Start technical assistance and training materials. Fostering data use and a learning culture is hard work; it helps to have multiple resources from which to draw.

ORGANIZATION AND HOW TO USE THIS RESOURCE GUIDE

WHO SHOULD USE THIS GUIDE?

The guide is designed to provide resources, information, and strategies to Head Start leaders, managers, and others who support data use in Head Start programs. Appropriate users of this guide will already be familiar with Head Start, have some knowledge about the types of data that Head Start programs are required to collect, and have some understanding of how to use data in a service delivery or management setting.

Technical assistance staff or consultants may find the guide a helpful resource for working with Head Start grantees who are trying to build a learning culture in their organization, who need some additional examples of ways they could be using data to improve program quality, or who want suggestions about ways to involve more staff in data use. This guide was designed in consultation with staff at the Head Start National Center for Program Management and Fiscal Operations (PMFO). In particular, this guide complements the "Using Data Effectively: Four Data Activities" workshop materials and the TA Planning Papers. See Appendix A for additional guidance on how to use this guide in conjunction with PMFO resources developed around the same time period.

Head Start leaders, managers, and individuals attempting to promote data use may find the guide a helpful resource for providing examples and tips to staff about what data use can help them accomplish, involving more staff in data use, and thinking about how to make time for data use.

HOW SHOULD YOU USE THIS GUIDE?

For most users, we recommend that you read or at least skim through the entire guide to decide which parts are most useful to your organization or situation. Within the guide there are many tips and resources that you might choose to pull out for a particular conversation or discussion. The tips, resources, and examples could be used separately, but the people introducing them to others should have the background the guide provides to be sure they are introducing the concepts correctly.

This resource guide is organized into five parts (the sub-bullets are used to "call-out" specific resources, examples, or exhibits) in each part:

- **Part I** describes the shift from an emphasis on compliance to an emphasis on performance within government-funded programs. It offers definitions of key terms used throughout the resource guide so that all Head Start staff can build a common vocabulary around data use for program performance. It also situates data use in the context of Head Start.
    -
    -

- **Part II** introduces readers to new ways of thinking about organizational culture based in continuous improvement. This part stresses the importance of curiosity, reflection, and trust among staff at all levels. It also describes the steps to embarking on continuous improvement and the core competencies that define it.
    -
    -
    -

- **Part III** describes the cyclical practice of data collection, analysis, and use for internal improvement. It connects the program planning for Head Start cycle with a more detailed description of the steps necessary to improve every day. Step-by-step examples of data-informed program learning, including efforts to improve 4-year-olds' early math skills, teacher-child interactions, and program budgeting, are included.
    -
    -
    -
    -
    -
    -

- **Part IV** provides an introduction to assuring that your data are ready for meaningful use, including by attending to such issues of data quality as validity, reliability, accuracy, and completeness. This section also provides tips for data disaggregation.
    -

- o **Client and Service Characteristics for Use in Disaggregating Data** (Page 48)
  - o **Using Data to Improve Quality** (Page 50)

- **Part V,** in contrast to the first four parts of this resource guide that focus on the work of Head Start staff, explains the importance of and steps for involving parents, teachers, Policy Council members, and other stakeholders. It includes tips on incorporating data into regular staff meetings, board meetings, and parent conferences. It also outlines "data walks," a new technique for fostering conversation and joint problem solving.
  - o **The Four A's of Effective Reports: Appealing, Accessible, Accurate, Audience-specific** (Page 59)

For more information, turn the page to begin Part I, or jump ahead to these items of interest:

Whether it is called performance management, data-informed decision-making, or continuous quality improvement, the goal is for Head Start Programs to use the data they are collecting to make decisions, especially decisions that will help them improve quality and thus achieve better outcomes for the children, families, and communities they serve.

PART I: BACKGROUND

THE CHANGING COMPLIANCE AND PERFORMANCE LANDSCAPE

In any government-funded program, accountability to citizens on the use of funds is important. All government programs have rules regarding spending and record-keeping that are designed to prevent *waste, fraud, and abuse*. Essentially, these are requirements that assure the money is used as intended when it was authorized by Congress (if a federal program) and disbursed by the government agency. Everyone wants assurances that the money they pay in taxes is not being misused; this requires *compliance-accountability*.[3]

The types of requirements and the expectations of what it means to be a good steward of the funds have changed over time. Though citizens still expect government to prevent the misuse of government funds, many now expect government to show what it has accomplished, such as how many individuals it served (*efforts*) and how the lives of those individuals were changed (*outcomes*). This newer type of accountability focuses on *performance*. It is often referred to as results-based accountability or results-oriented management. This *performance-based accountability* was systematically introduced at the federal level in 1993 through the National Performance Review and through Congressional passage of the Government Performance and Results Act.

The idea behind these *performance measurement systems* was to improve program outcomes and quality. The systems originally assumed that if performance information was being reported out, then it would also be used internally to

---

[3] Callahan, K. *Elements of Effective Governance: Measurement, Accountability and Participation* (Boca Raton, FL: Auerbach Publications, Taylor & Francis Group, 2007).

improve performance. Research on the performance measurement efforts, however, found that organizations were complying with the requirements to collect and report on the performance measures, but few were using the data internally to make program improvements. These findings were consistent across levels of government and in community-based organizations to which government funds were awarded to implement the government programs. Successive federal administrations initiated their own performance measurement strategies, and Congress updated the Government Performance and Results Act in 2010. Each subsequent iteration increasingly emphasized not only measuring performance but also managing to achieve results.[4] In nonprofit and public management, managing to achieve results is called *performance management*; in the education field it is referred to as *data-driven decision-making*;[5] and in healthcare it is called *continuous quality improvement*.[6]
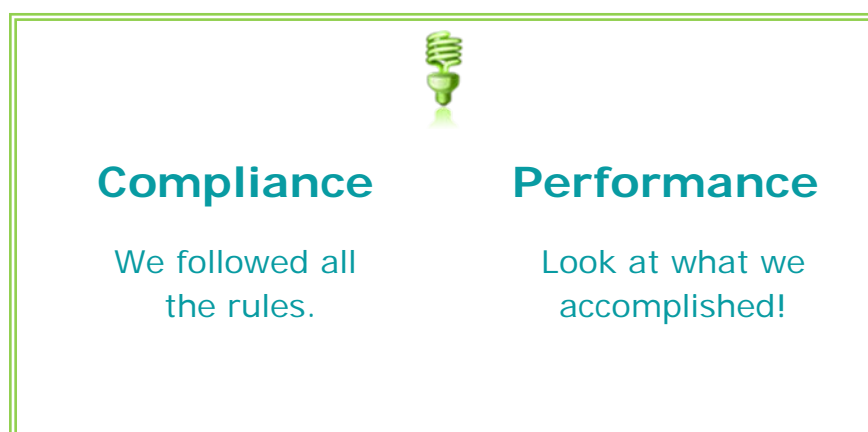
Compliance

We followed all the rules.

Performance

Look at what we accomplished!

Whether it is called performance management, data-informed decision-making, or continuous quality improvement, the goal is for the organization to use the data it is collecting to make decisions, especially decisions that will help improve program quality and thus achieve better outcomes for the individuals served. In government agencies that allocate their funds to other organizations to provide services, the hope is that learning will occur at all levels. Ideally, the federal agency would use the data provided to them to learn about how to support program improvements, and the organizations receiving the federal funds would learn from the data they collect to improve the services they are providing.

---

[4] Wholey, J. "Managing for Results: Roles for Evaluators in a New Management Era." *American Journal of Evaluation* 22 no. 3 (2001): 343–47. http://www.classtoolkit.org/sites/default/files/documents/Managing_for_Results.pdf.

[5] Goren, Paul. "Data, Data, and More data—What's an Educator to Do?" *American Journal of Education* 118 no. 2 (2012): 233–37.

[6] Blumenthal, David, and Charles M. Kilo. "A Report Card on Continuous Quality Improvement." *Milbank Quarterly* 76 no. 4 (1998): 625–48. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751093/pdf/milq_108.pdf.

Research shows that organizational learning is not easy even when organizations want to do it. The companion Literature Review [7] explores multidisciplinary research on the challenges and facilitators of organizational learning and presents a conceptual framework showing the elements that support and impede organizational learning (See Appendix B). This resource guide focuses on how to develop an organizational culture that supports data use and learning.

MOVING FROM COMPLIANCE TO LEARNING IN HEAD START

As a government program, Head Start experienced the early public management waves around external accountability and data collection for compliance. The Program Information Report (PIR) that all Head Start agencies are required to populate with data and provide to the Office of Head Start is representative of a typical requirement from that era. Similarly, guidance to share management reports with the governing body and Policy Council are focused on transparency of actions and accountability.[8] The Head Start Act of 2007 requires the sharing of such items as the Self-Assessment, community assessment, USDA Child and Adult Care Food Program reports, and enrollment reports.

The implementation of the Head Start Designation Renewal System (DRS) is a new wave in Head Start's own data reform movement. The DRS and the 2007 reauthorization of Head Start place an increased emphasis on ongoing assessments of children and the use of data about children's school readiness for program improvement. Just as organizations in other fields have worked to balance data requirements for compliance and external reporting with organizational learning, Head Start organizations are being compelled to do the same.

The Advisory Committee on Head Start Research and Evaluation[9] laid out two goals that are relevant here. Head Start should (1) become a learning organization (from the federal level down through local, community-based organizations) "where decisions about instructional practices and curricula, assessments, monitoring, professional development, and organizational development are integrally linked to each other and to school readiness and other key goals"; and (2) "expand the

---

[7] Derrick-Mills et al., *Data Use for Continuous Quality Improvement.*
[8] "Program Governance," National Center on Program Management and Fiscal Operations, accessed December 8, 2014, http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/mang-sys/program-gov/program-governance.html.
[9] Advisory Committee on Head Start Research and Evaluation. *Final Report* (Washington, DC: US Department of Health and Human Services, 2012). http://www.acf.hhs.gov/sites/default/files/opre/eval_final.pdf.

evidence base where it is insufficient, and to rely on existing evidence from research, evaluation, and ongoing monitoring of progress to develop and continually refine programs to ensure that they are systematic, intentional, and intensive enough to achieve their goals for children's school readiness and family well-being."

Interviews with Head Start programs[10] suggest that many of them are trying to become learning organizations. They are examining the different kinds of data they are required to collect to determine what they can learn from the data rather than viewing them only as data that fulfill a requirement. Additionally, rather than just presenting the required reports to their governing bodies and Policy Council, some Head Start programs are discussing the reports with them and including them in the process of deciding what the reports mean and how to handle the strengths and opportunities identified in the reports.

Below we describe the types of data that Head Start programs are required to collect and categorize the types into inputs, efforts, process, and effects or outcomes.

TYPES OF DATA HEAD START REQUIRES

Head Start programs are required to collect many types of data through several defined data collection processes. The data collection processes include the community assessment, ongoing record keeping, Self-Assessment, and ERSEA (Eligibility, Recruitment, Selection, Enrollment, and Attendance). Head Start programs are required to report some of their data through (1) the PIR, which stipulates which fields they must collect; (2) ongoing monitoring reports; and (3) an annual report. When monitored, grantees must demonstrate they are collecting the appropriate data and sharing it when and where required.

---

[10] The Head Start Leadership, Excellence, and Data Systems Project conducted interviews with staff at eight Head Start programs around the country in spring 2014.

Table A. Head Start Data Collection Requirements and Data Type

Data collection required	Inputs			Efforts[11]	Effects or outcomes
	Community	Children and families	Staff		
Community assessment	X	X			
Record-keeping			X	X	X
Self-assessment		X	X		X
ERSEA		X		X	

Source: This table has been constructed by the authors to represent the types of data available through many of the required Head Start data collection routines.
Note: Tracking of financials is also required, but that is not this table's focus.

Performance measurement and other continuous quality improvement fields typically divide data into types corresponding to stages of the service delivery process. In Table A, we categorize the types of data Head Start programs are required to collect into inputs, efforts (or outputs), and outcomes (or effects). We briefly define these types of data below. When available, we use definitions found in other Head Start–oriented materials, but we point out other common terms in case your program is using information from many sources to help you in meeting your data and analysis needs.

- **Inputs** are the human, financial, organizational, and community resources that the organization accesses in implementing the project.[12] Budget resources are not included in this chart but are important. In Head Start, the types of children and families served, the community in which services are provided, and the staff providing the services are all important inputs or resources to consider in service design and delivery.

---

[11] In some professional fields, the term "outputs" would be more common than "efforts."
[12] W.K. Kellogg Foundation. *Using Logic Models to Bring Together Planning, Evaluation, and Action: Logic Model Development Guide* (Battle Creek, MI: W. K. Kellogg Foundation, 2004) http://www.wkkf.org/resource-directory/resource/2006/02/wk-kellogg-foundation-logic-model-development-guide.

- **Efforts** (or outputs) are what and how much your program does and how well it does it. [13] For example, the numbers of children and families served, the numbers of home visits performed, the number of parent workshops held, and the quality of those services are all efforts. The services your program offers, and how well you perform them, lay the foundation for possible outcomes. The phrase "how well" refers to how quickly, how routinely, and with what level of quality something is accomplished. For example, you may have a home visitor who is visiting families in a timely manner, but not really connecting with the family. This service is timely but not of the level of quality you expect. Tracking and reflecting on your efforts is an important step in understanding how you can improve on your outcomes.

- **Outcomes** (or effects) are "something that happened as a result of an activity or process. The actual results achieved. The term outcome is also used to refer to *expected outcomes*. That is, the results you *expect* to see because of an activity or process." [14] Outcomes may also be called effects, or "measures of changes in knowledge, attitudes or behaviors." [15] Outcomes are not the same as impacts. "Impact" is a term used to signify results that have been verified or tested through an experimental or quasi-experimental research study. [16] The primary difference between outcomes and impacts is that outcomes measure the changes you expect to see over time, but it's difficult to determine how much of that change is a result of the actions and experiences in your program rather than the experiences and services that families and children would have without your program. Measuring outcomes, however, determines whether children and families are making the expected progress and provides guidance on how to facilitate that progress if they are not making it.

COMPLIANCE-ONLY VERSUS LEARNING IN HEAD START—WHAT MIGHT THAT LOOK LIKE?

Head Start programs have many data-related requirements. This can create both opportunities and challenges to use of data for learning. If organizations are collecting many types of data already, they may already have management information systems to help organize the information. However, they may be used to thinking about these data sources only as requirements rather than as

---

[13] PMFO. *Foundations for Excellence: Planning in Head Start* (Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start, 2014), 4. http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/planning.html.
[14] PMFO, *Foundations for Excellence,* 4.
[15] PMFO, *Foundations for Excellence,* 4.
[16] PMFO, *Foundations for Excellence,* 4.

information for improvement. So what might data collection for compliance look like as compared with data collection for learning? A possible scenario follows.

The Scenario

For many children, school readiness requires support from disability services. These services are delivered by both mainstream and special education staff and tailored to the needs of each child through an individualized family service plan (IFSP, for children younger than 3) or individualized education plan (IEP, for children ages 3 to 21). Research shows that early identification and intervention are important for children's success in Head Start and beyond. Accordingly, disability services are an important part of the Head Start philosophy and requirements. In this section, we outline how data collection and reflection on these disability services may look different in organizations that are operating primarily under a compliance culture, are transitioning to a learning culture, or are fully developed as learning organizations.

Head Start Performance Standards require that programs

- collect and report data through the PIR on (1) the number of children enrolled in the program who had an IEP or IFSP at any point during the year, whether they were determined eligible before enrollment or during the enrollment year, and (2) the number who have not received special education or early intervention services; and
- complete certain screenings and referrals within a specified period after enrollment.

The following text box illustrates a few ways in which data may be used to support different uses within an organization.

Compliance	The program collects and reports the required data through the PIR. The program tracks and records the timeliness of screenings and referrals. The program performs all elements within the specified periods, collects all the required data and maintains all the required records, and reports on the data when required.
Transitioning	The program does all of the required items for the "compliance" descriptor, and staff have begun to look at the data on a monthly basis. If children are not receiving disability services, staff should be informd as soon as possible to find the barriers and help families and children access those services. Disability coordinators and family services coordinators have been asked to work together to review the data and assure services are happening.
Learning	The program does all of the required items for the "compliance" descriptor and performs the types of analyses indicated in the "transitioning" descriptor, but it looks at data by types of children rather than solely by child. Program staff have heard about some research showing that certain types of children tend to be over- or underidentified for disability services. Staff regularly monitor data about children with and without IEPs and IFSPs for signs of disproportionality.[a] If they see signs of disproportionality, they will investigate possible reasons. Staff disaggregate their data (break it into categories) as shown in Table B and organize teams to interpret the data.

[a] Disproportionality is defined as the over- or underrepresentation of certain groups of children (e.g., racial or ethnic groups, genders, or groups by home language) within specific categories of ability or disability.

Table B. Hypothetical Example of Data Disaggregation: Use of Disability Services

Characteristic	Column 1 Children with an IFSP	Column 2 Children with an IFSP not receiving services	Column 3 Children with an IEP	Column 4 Children with an IEP not receiving services
Gender				
Female	12	4	12	5
Male	18	2	33	3
Age group				
1-year-olds	16	3		
2-year-olds	14	3		
3-year-olds			21	7
4-year-olds			24	1
Race or ethnicity				
African American	15	2	23	2
Asian	0	0	2	2
Hispanic	5	2	3	2
White	10	2	17	2
Home language				
Language other than English	7	0	4	0
English only	23	6	41	8
Total	30	6	45	8

The data presented in Table B are already collected as part of the PIR Head Start reporting requirements. These data, however, can be used in other ways to help Early Head Start and Head Start programs better understand characteristics of children enrolled in services. This table disaggregates data at a hypothetical large program with both Early Head Start and Head Start services. In this hypothetical program, 75 children qualify for disability services. Thirty of these children are enrolled in Early Head Start; 45 are enrolled in Head Start. Columns 1 and 3 show the population of children who qualify for special education services. Several patterns emerge that may be of interest to the program.

- Many more boys than girls have an IFSP or IEP (18 boys compared with 12 girls and 33 boys compared with 12 girls, respectively).
- Slightly more 1-year-olds qualify for disability services than 2-year-olds (16 compared with 14, respectively), and slightly more 4-year-olds qualify for disability services than 3-year-olds (24 compared with 21, respectively). Third, examining race or ethnicity, the greatest number of children with IFSPs or IEPS are African-American (38 total); far fewer white (27 total), Hispanic (8 total), and Asian (2 total) children qualify for disability services.
- Few of the children with IFSPs and IEPs have a home language other than English (11 total); this follows national trends.

- In columns 2 and 4 of Table B, the numbers of children with IFSPs and IEPs who are not receiving services are shown. This is another area where data disaggregation can illuminate differences between groups and inform changes in policies or procedures. Although this analysis found that more boys than girls had IFSPs and IEPs, here the data show that more girls than boys are not receiving services.
- More 3-year-olds than 4-year-olds are not receiving special education services (7 compared with 1, respectively). In contrast, although different numbers of children from each racial/ethnic group have IEPs, the same number of qualifying children from each group is not receiving services (2).
- All children with IFSPs and IEPs whose home language is something other than English are receiving disability services; 14 children whose home language is English are not receiving these services.

Data disaggregation is most useful when paired with careful interpretation. Thus, Table B is an example of what the organization with a learning culture may have developed for their data interpretation teams to reflect on the data, investigate possible reasons for observed differences, and make suggestions about internal policies, procedures, and partner activities that may need to change. Regarding use of disability services, Table B brings up the following questions:

- Do differences in IEP qualification by gender and race or ethnicity reflect differences in the population of children enrolled at the Head Start program?
- Do differences in IEP qualification suggest
    o an overrepresentation of boys in special education services,
    o an overrepresentation of African American children in special education services, or
    o an underrepresentation of children whose home language is not English in special education services?
- Why are some children not receiving disability services?

- How are special education resources allocated to children and families of different groups?
- How can teachers and special education staff ensure that all children meet the school-readiness goals set by Head Start? What changes in disability services screening, referrals, or support may be needed to do so?

After looking at the data on disability services use by child and family characteristics, the data review team determines they need more information. They are not sure that the differences are really because of child characteristics. The differences may arise because of different contracted service providers, the availability of services in the neighborhoods where the children live, or some

families' cultural beliefs. They plan to investigate further by disaggregating based on additional characteristics, such as those found in Table C in Part IV.

<div style="border: 2px solid #1a6a9a; padding: 20px;">

PART II:

THE CULTURE SHIFT TO CONTINUOUS IMPROVEMENT

</div>

Organizations seek a culture of continuous improvement and aspire to high performance by examining all levels of the organization rather than monitoring and evaluating in isolation. Of course, monitoring, evaluation, compliance, and accountability are important because you must do what you were funded to do. As you establish a culture of learning, however, your staff think beyond requirements and aspire to do more than expected and look to data as a source of information for improvement.

As programs and organizations shift their thinking from mere compliance to continuous inquiry, they quickly encounter a host of terms and conceptual frameworks (see Appendix C for some of the frameworks currently suggested in Head Start resources). Supplementing compliance and accountability are such terms as continuous inquiry, continuous learning and improvement, and learning culture. Head Start programs have a built-in mechanism to foster a culture of inquiry: their ongoing monitoring system.

A culture of continuous improvement is generally synonymous with learning culture or continuous inquiry. The term "continuous" suggests a cycle or a feedback loop that repeatedly challenges individuals to consider what is working and what can be done differently to improve or achieve better results. This process of inquiry is continuous rather than episodic. Individuals in continuous improvement cultures are always asking questions and seeking answers to those questions. Organizations actively pursuing a culture of continuous improvement create a safe space for staff and stakeholders to ask, reflect, and think more creatively about solutions. Foremost, the organization must cultivate a sense of trust throughout the agency. Those in executive and management roles must model a curious yet humble spirit. Some of these characteristics are elaborated on in the text box below.

Creating a culture responsive to this style of learning is arguably the most significant factor in making the shift from a culture solely focused on compliance to one focused on continuous improvement.

IN PRACTICE

In practice, most organizations, including Head Start programs, need to demonstrate they are complying with requirements while building a culture of continuous improvement. Though it can be a challenge to do both, the functions, actions, and data are similar. Individuals in society frequently follow rules, but they often add their own learning to the situation. For example, consider the rule that pedestrians in a crosswalk have the right of way. Though an individual pedestrian knows he or she could legally step out in front of car moving too quickly to stop, he or she would also have learned through observations that he or she is likely to be injured by doing so. Individuals modify their behaviors every day to improve their safety and quality of life. They observe their surroundings, read crime reports and newspapers, view news programs, and learn about their environment in many other ways.

Applying those principles to an organization requires the creation of systems because, though we want each individual to comply and to learn, we need a coordinated effort across individuals, departments, and sites. We also need to be complying and learning across multiple dimensions. We need to create systems for

18

observation, reflection, learning, and action. We need systems that help us identify and solve problems proactively instead of always reacting.

The illustration on page 20 (excerpted from Baldrige Performance Excellence Program's "Education Criteria for Performance Excellence,") shows how organizations can progress from the earliest stages of problem solving to more advanced stages of organization-wide improvement and innovation. According to the Baldrige criteria, early-stage organizational operations are characterized by "activities rather than by processes, and they are largely responsive to immediate needs or problems." The most advanced or mature organizations exhibit processes that are repeatable and in collaboration with other units. These organizations are also "regularly evaluated for change and improvement."

Of course, knowing how to fight fires is an important skill. You will always have some emergencies that need immediate attention. The goal, however, is to evaluate how to allocate limited resources. If you are constantly fighting fires, you don't have much time or energy for reflection. Shifting from fighting fires constantly to preventing fires can be a hard transition, but once a system is in place, keeping up prevention and improvement activities becomes routine. In what areas is your organization constantly fighting fires rather than learning?

From Fighting Fires to Innovation: An Analogy for Learning

Learning is an essential attribute of high-performing organizations. Effective, well-deployed organizational learning can help an organization improve from the early stages of reacting to problems to the highest levels of organization-wide improvement, refinement, and innovation.
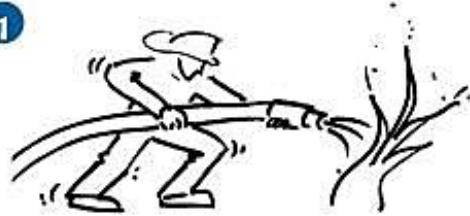
① Reacting to the problem
Run with the hose and put out the fire.
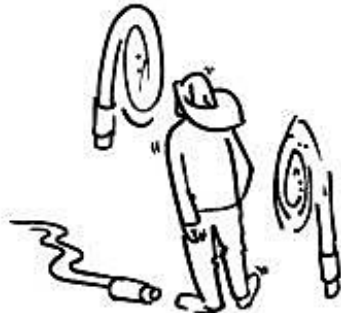
② General improvement orientation
Install more fire hoses to get to the fires quickly and reduce their impact.
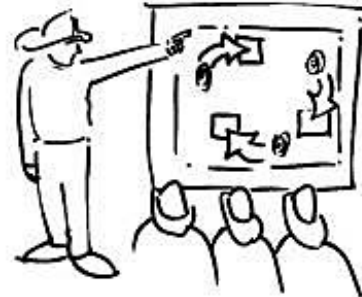
③ Systematic evaluation and improvement
Evaluate which locations are most susceptible to fire. Install heat sensors and sprinklers in those locations.
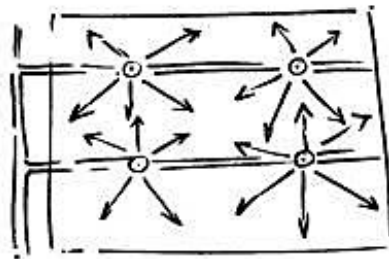
④ Learning and strategic improvement
Install systemwide heat sensors and a sprinkler system that is activated by the heat preceding fires.
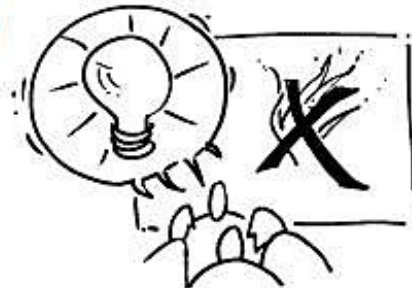
⑤ Organizational analysis and innovation
Use fireproof and fire-retardant materials. Replace combustible liquids with water-based liquids. Prevention is the primary approach for protection, with sensors and sprinklers as the secondary line of protection.

From Baldrige Performance Excellence Program, 2013, 2013–2014 Criteria for Performance Excellence (Gaithersburg, MD: U.S. Department of Commerce, National Institute of Standards and Technology, http://www.nist.gov/baldrige/publications/business_nonprofit_criteria.cfm).

Source: "Baldrige Performance Excellence Program: Education Criteria for Performance Excellence." Baldrige Performance Excellence Program, accessed November 5, 2014, http://www.baldrige.nist.gov/PowerPoint_Files/2012_Education_Criteria.ppt.

Imagine a scenario where one of your teachers comes to your Education Coordinator (Ed Coordinator) for help. She has a child in her class who is having a hard time regulating behavior. The disruptive behaviors happen frequently, she feels like she spends most of her time managing this one child's behavior, and she needs new strategies. In this example, the teacher recognizes that she is fighting fires in the classroom. The Ed Coordinator provides ideas on how to diffuse the situation once it starts (a better way to put out the fire). The Ed Coordinator also provides coaching to the teacher about how to identify triggers for the behavior and how to structure her classroom and activities to avoid those triggers (preventing the fire). Did your Ed Coordinator put out this fire and say "I'm done addressing this issue," or did she think about how to investigate whether this fire is a symptom of something bigger that should be addressed more broadly? This teacher asked for help, but are there others that didn't? Could your organization prevent future incidents like this with more orientation or training? We address these questions in the next section.

ORGANIZATIONAL READINESS FOR CONTINUOUS LEARNING AND IMPROVEMENT

How do you know how prepared your organization is to engage in continuous learning and improvement? One way is to see where you fit along a continuum of behaviors, actions, and conditions that exemplify different stages of readiness. Although initially written to help nonprofits think about social media networks and strategies, the following developmental phases (adapted from Beth Kanter's blog post "How Can Nonprofits Switch to a Data-Informed Culture?") [17] are likely applicable to several stages of organizational readiness in Head Start programs.

- Dormant: At this stage, the organization does not know where to start. Data collection may occur from time to time, but there is no formal reporting. There are no data systems in place, such as dashboards or simple collection methods. Staff are often overwhelmed by the thought of measurement and it falls to the bottom of the to-do list. Alternatively, there may bean emphasis on collecting more data than is necessary, but no one relates it to decision-making. There is not a reflection process for analyzing success or failure for future use.
- Testing and Coordinating: At this stage, the organization is regularly collecting data, but it is stored across different spreadsheets and collected by different people or departments. Data are not linked to organizational results or mission-driven goals across programs. Discussions on how to improve results are rarely part of staff meetings.

---

[17] Kanter, Beth. "How Can Nonprofits Switch to a Data-Informed Culture?" *Beth's Blog,* August 17, 2011. http://www.bethkanter.org/switch-data-driven/

- Scaling and Institutionalization: At this stage, there is an organization-wide system and dashboard for collecting data that are shared with different departments. There are different views or levels of detail for senior leaders, line staff, or other stakeholders. There are periodic (e.g., weekly, biweekly, monthly, or quarterly) check-ins to evaluate what is working and what is not. The organization provides training and professional development for staff to learn how to use measurement tools.
- Empowering: At this stage, performance indicators are used across programs throughout the organization. There is a staff position responsible for setting the overall agenda for data collection and reporting, helping staff understand data, and assuring that systems and timelines are successful. All staff, however, are empowered and expected to check, apply, and interpret their own data. In addition to periodic check-ins, the organizational dashboard includes goal-oriented performance metrics. The organizational dashboard is shared across departments and there is a process for analyzing, discussing, and applying results. Data visualization techniques are used not only to report the data analysis but also to reflect on best practices culled from the data.

It may be that you can see your organization in one or more of these stages at any given time. For example, you might be overwhelmed with many data reporting requirements (dormant) or have data in multiple systems or spreadsheets (testing and coordinating). Simultaneously, you might be having regular check-ins (scaling and institutionalization) to make sense of the information you have. The goal is for your organization to become aware of what it means to be a data-informed, learning organization and to integrate better-aligned, coordinated activities and systems at all levels of the organization.

The descriptive statements in the following text box offer guidance to help you think about your current readiness and suggest specific ways you can help to advance your program along this continuum.

Core Competencies of Organizations
With a Culture of Continuous Improvement

➢ Our organization measures outcomes (changes in participant condition, behavior or knowledge), not just efforts (quantifiable activities or services delivered).
➢ Our organization can identify which indicators are appropriate for measuring how we work.
➢ Our organization has clarity about what we want to accomplish in the short term (e.g., one to five years) and what success will look like.
➢ Our organization ensures that staff have the information and skills they need to successfully engage with data for program improvement (e.g., access to resources and training)
➢ Our organization has staff who are experienced in data collection, data use, and different stakeholders' information needs.
➢ Our organization has staff who know how to analyze data and interpret what the data mean.
➢ Our organization values learning. This is demonstrated by staff actively asking questions, gathering information, and thinking critically about how to improve their work.
➢ Leaders in our organization support data use to identify areas of improvement.
➢ Our organization is capable of effectively communicating about data and results (both positive and negative) within and outside the organization.
➢ Our organization promotes and facilitates internal staff members' learning and reflection in meaningful ways regarding data use, planning, implementation and discussion of findings ("learning by doing").
➢ Our organization modifies its course of action based on findings from program data.
➢ Mangers look at program data as an important input to help them improve staff performance and manage for results.
➢ Findings from program data are integrated into decision-making when deciding which policy options and strategies to pursue.

Source: "Evaluation Capacity Diagnostic Tool." Informing Change, accessed November 5, 2014, http://informingchange.com/uploads/2010/06/Evaluation-Capacity-Diagnostic-Tool.pdf.

For most Head Start programs, moving along these stages of development will likely take many years. How quickly a program or organization progresses will depend on several factors, including the strength and commitment of leadership,

the availability of resources for technology and professional development, and the willingness of staff to embrace new approaches to data use.

HIGHLIGHTED RESOURCE

The District and Data Team Toolkit

Geier, Robb, and Stephen C. Smith. 2012. *District and School Data Team Toolkit.* Everett, WA: Washington Office of Superintendent of Public Instruction, Washington School Information Processing Cooperative, and Public Consulting Group. http://www.k12.wa.us/CEDARS/Data/pubdocs/FullToolkit.pdf.

This toolkit, developed for school districts in Washington state, includes several strategies and exercises to engage education administrators and staff in more effective data use. It addresses such topics as barriers to effective data use, how to manage change and understand staff concerns, and how to create data inventories. It also includes many checklists to help organizations reflect on such issues as data capacity, data culture, and data usefulness, all of which are easily adaptable to Head Start programs.

Additional resources and exercises can be found on the ESD113 Early Data Learning Institute web page.[18]

---

[18] "Early Learning Data Institute," Capital Region ESD 113, accessed November 5, 2014, http://www.esd113.org/Page/1529.

PART III:

USING DATA FOR INTERNAL PROGRAM IMPROVEMENT

Teachable moments: When we think about opportunities for children to learn, we see every moment as holding the potential for learning. We can use their daily activities and routines to help them understand new things about the world around them and to change their behaviors.

Continuous quality improvement applies the same logic to organizational learning. If you are observing and recording, you will find **learnable moments** every day that you can take action on to improve your organizations.

Head Start programs are encouraged to continually strive for higher quality, leading to better outcomes for children and families throughout their lives. Continuous quality improvement requires continuous gathering of information to understand new definitions of quality, appropriate indicators for determining whether your program is meeting quality benchmarks, and a process for regularly examining program management and service delivery to assure they are supporting quality.

USING DATA FOR INTERNAL PROGRAM IMPROVEMENT

Using data internally provides many opportunities for program improvement, including identification of (1) outcomes for children, parents, or staff that need attention; (2) service policies and procedures that need improvement; (3) opportunities to improve service delivery and identify successful practices and achievements; (4) staff's technical assistance and training needs; and (5) budget allocation priorities.[19] Although listed separately, these types of data uses are frequently looked at in combination. The following tip sheet, outlining seven different ways that data can help you improve your program, is an resource that can easily be shared with staff.

---

[19] Morley, Elaine, and Linda M. Lampkin. *Using Outcome Information: Making Data Pay Off.* Series on Outcome Management for Nonprofit Organizations. Washington, DC: Urban Institute, 2004. http://www.urban.org/UploadedPDF/311040_OutcomeInformation.pdf.

Using Data for Internal Program Improvement

1. **Identify outcomes that need attention**

   In Head Start, the ultimate outcome is how ready children are for kindergarten, but other intermediate outcomes provide indicators to let programs know if they are headed in the right direction, including attendance rates, rates of skill and knowledge development and improvement during the school year, parental participation and satisfaction, and parental interactions with their children.

2. **Identify client groups that need attention**

   Clients in Head Start are children and their families. Children and families may differ based on the communities where they live, family characteristics (e.g., income, parental education, language spoken at home), child characteristics (e.g., age, gender, or type of special need), or program participation characteristics (e.g., center-based, home-based, part-day or full-day).

3. **Identify service procedures and policies that need improvement**

   These could include how and how often different staff interact with parents; the timing of, locations of, and process by which applications for enrollment are accepted; prioritization of applicants on a waiting list; the frequency and process of child assessments; and expectations of how and when to use data.

4. **Identify possible improvements for service delivery**

   Examples of service delivery elements include how and where services are provided (e.g., home-based or center-based), adding Early Head Start or Head Start program, curriculum and assessments used, involvement of parents, and coordination with other community programs.

5. **Identify successful practices and achievement**

   Managerial observations or analysis of data may reveal particular practices that stand out as more effective than others and could be used more widely across the program.

6. **Identify staff's technical assistance and training needs**

   Observations and assessments of staff performance and examination of each staff person's accomplishments reveal professional development needs.

7. **Determine budget allocation priorities**

   When resources are cut or new needs develop, data about what is and isn't working or being fully utilized suggest where budgets should be prioritized.

DEVELOPING SYSTEMS FOR CONTINUOUS QUALITY IMPROVEMENT

This continuous process of gathering, reflection, and adjustment to improve quality occurs at many levels across several kinds of successful learning organizations delivering many different services.[20] The Program Planning Cycle in Head Start is designed to help Head Start programs envision a process that incorporates required data collection efforts, beginning with the community assessment and culminating in a Self-Assessment reflective process. As described in the PMFO "Planning in Head Start" resource, the program planning cycle focuses on overall program goals. Within those goals are several objectives that break the goals into achievable parts.
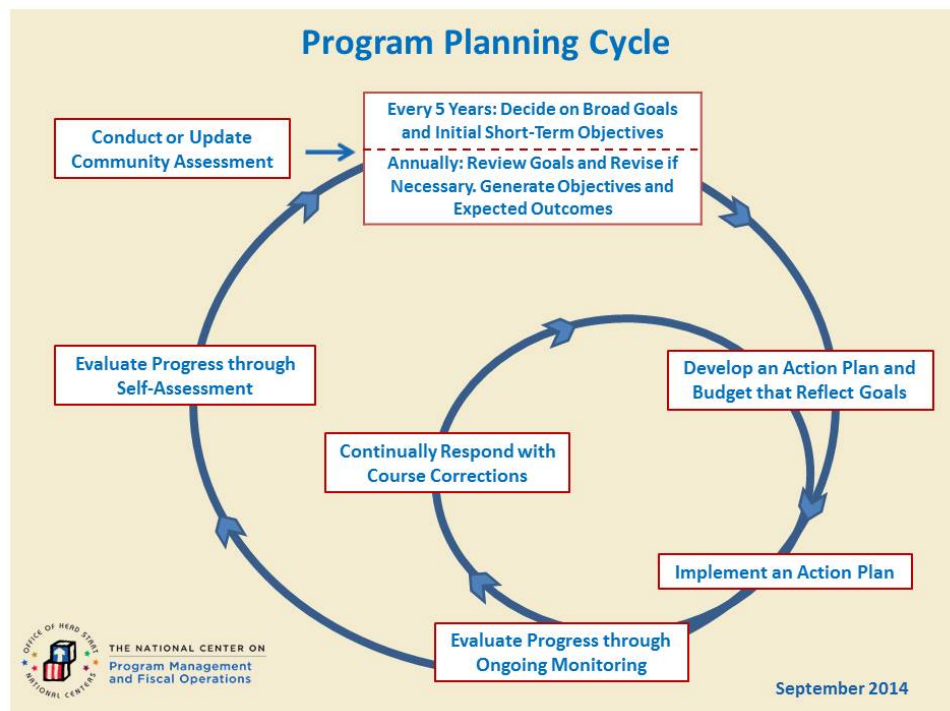
Source: National Center on Program Management and Fiscal Operations. n.d. *Program Planning in Head Start: The Program Planning Cycle.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start. https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/docs/planning-cycle.pdf.

Here we present a continuous improvement cycle that provides greater detail on the steps happening within an organization carrying out the Program Planning Cycle and the similar cycles needed to develop and reflect on specific objectives. We focus our discussion and examples at the level of objectives, but the cycle presented here can be used at any level of goal or objective-setting, review, assessment, and adjustment.

---

[20] Derrick-Mills et al., *Data Use for Continuous Quality Improvement.*

The Continuous Improvement Cycle

Successful data use for program improvement requires systems that allow for continuous examination of the data, engagement of key staff and stakeholders, and the ability to make changes when the needs are identified as illustrated in the continuous improvement cycle (Figure A).

FIGURE A

Develop & Revisit Goals and Objectives

Evaluate Outcomes

Gather Data

Monitor Performance

Feedback

Analyze Data

Implement Plan

Review & Synthesize

Prioritize & Plan
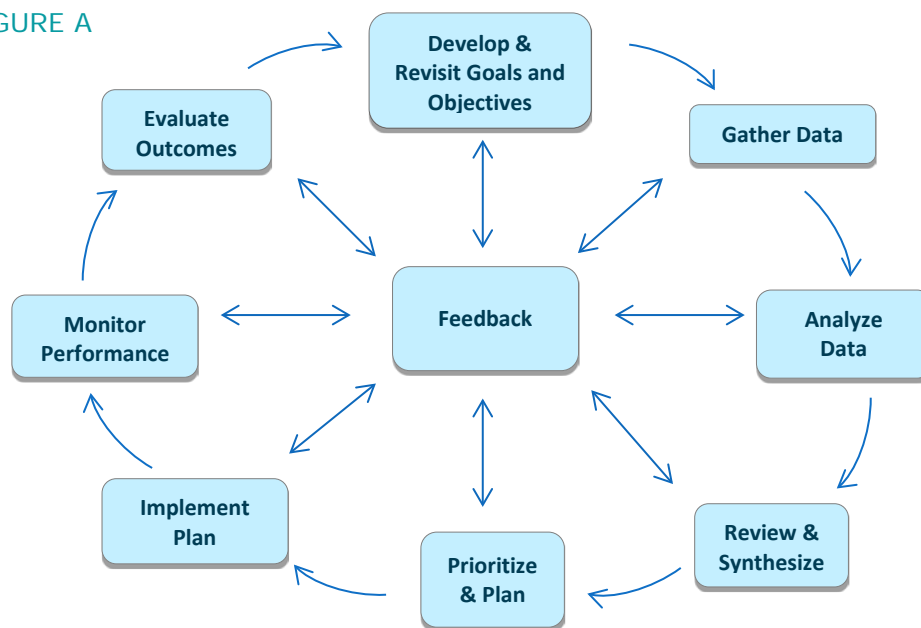
Source: Derrick-Mills, Teresa, Sandstrom, H., Pettijohn, S., Fyffe, S., and Koulish, J. Forthcoming. *Data Use for Continuous Quality Improvement: What the Head Start Field Can Learn From Other Disciplines, A Literature Review and Conceptual Framework.* OPRE Report # 2014-77. Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research and Evaluation.

Each organization may begin the systematic process at a different place in the cycle. For example, organizations receiving government funding typically have a considerable amount of data already collected (through the enrollment process, for example). They may begin their systematic process with the step "Analyze Data." Once an organization begins the cycle, there is no longer a starting place because the loop is continuous. The "Feedback" label in the center of the cycle shows arrows going back and forth throughout the cycle. This is to emphasis the importance of communication and engagement of staff in the process. The cycle emphasizes the need to engage staff and stakeholders throughout the organization at each step to ensure they are paying attention, gathering information, considering the data, and contributing interpretations about the data (see Part IV to get started on involving your staff, engaging your board and Policy Council, and encouraging parents).

Organizations should not use the process as though each stage of the cycle is happening at a particular time of the year, but rather as though all steps of the

cycle are happening all the time. In Head Start programs, staff are gathering data every day, each time a family services worker takes a new application, each time a home visitor writes notes about new skills a mom demonstrated, each time a teacher makes observation notes about a child sharing, and each time attendance is recorded. The cycle helps your program envision those routine data collection efforts as part of a bigger process for improving quality.

Unless your organization intentionally and regularly examines the data you already collect, then you might not already be analyzing, reviewing, or synthesizing it on a regular basis. You may decide that "regular" is defined as weekly, biweekly, monthly, or quarterly, and it may depend on the kind of data. For example, you may want someone examining (the "analyzing data," and "reviewing and synthesizing" steps) attendance data at least weekly so that patterns of absence can be observed quickly, staff can determine an appropriate course of action (the "prioritize and plan" step), and staff can follow up with families immediately to see what supports can be offered to get the children back in the classroom or participating in play groups (the "implement plan" step). In this scenario, the four steps of the cycle described may happen within a single day or over a few days.

Likewise, monitoring performance is a continuous process. When your organization set your objectives, you would make sure they are Specific, Measurable, Attainable, Realistic, and Timely (SMART).[21] This means you would have included the outcomes you hope to achieve, the ways that you intend to measure progress toward the outcomes, and the timeline for achieving that progress. When you engage in your internal monitoring of performance, you are checking regularly to see how much progress you have made and whether it is as much as planned for the given period. For example, if you just trained teachers on a curriculum element last week, you may expect that they are implementing elements from the training, but you may not expect them to be highly proficient yet.

When you evaluate outcomes, you are likely to pin that evaluation to a particular amount of time: has your team made the progress you had hoped in the amount of time expected? You probably won't use the same amount of time for each type of outcome; you must decide the appropriate amount of time for measurable progress to occur. Outcomes may be evaluated against the yearly benchmarks, some against biannual benchmarks, etc. Remember that you are continuously monitoring to see how much progress you have made and if you need to adjust service delivery or take management actions, but the "evaluate outcomes" stage is the official determination of whether you met the benchmark in the allotted time.

---

[21] PMFO, *Foundations for Excellence,* 12.

Next, we talk about objectives you may have, outcomes you may be trying to reach, and decisions you may need to make. We provide three examples drawn from our research in Head Start programs that demonstrate the kinds of data you might use and how you might use it to improve quality in your program: early math skill improvement for four-year-olds, child-teacher interactions, and making hard choices when budgets decline.

LEARNING HOW TO USE THE CONTINUOUS IMPROVEMENT CYCLE
1. Early Math Skill Improvement for Four-Year-Olds

> **Revisit Goals and Objectives**

GOAL:

Children will use math regularly and in everyday routines to count, compare, relate, identify patterns, and solve problems.[22]

SCHOOL-READINESS GOAL:

Four-year-olds will continually improve their early math skills throughout the year.

> **Gather Data**

Teachers are observing and noting children's skills from the first day of class. They use their curriculum-aligned data system to indicate when children demonstrate mastery of particular skills and how often they engage in activities supporting specific math concepts. They continuously track student's progress to determine how to individualize teaching to help students to continually improve.

Three times a year, the Ed Coordinator works with the person in the organization supporting data analysis to gather aggregated data by classroom and by site to determine the children's progress overall.

---

[22] See the "Cognition and General Knowledge" goal examples provided in National Center on Quality Teaching and Learning. "School Readiness Goals for Preschool Children in Head Start Programs: Examples from the National Center on Quality Teaching and Learning." US Department of Health and Human Services, Administration for Children and Families, Office of Head Start, n.d.

```
┌─────────────────────┐
│    Analyze Data     │
└─────────────────────┘
```

An Outcome That Needs Attention

Each time your program gathers the aggregated data, staff examine the data to understand the children's assessment scores. After the second data collection, your team discovers that four-year-olds are not improving their math skills at the rate that you had hoped.

Child Groups That Need Attention

When you examine the data by gender, you discover that boys are generally improving in their math skills more slowly than girls.

Now you must figure out what factors might be contributing to these differences and what you can do about it (possible improvements for service delivery or technical assistance and training for staff).

```
┌───────────────────────────────┐
│   Review and Synthesize Data  │
└───────────────────────────────┘
```

Child Groups That Need Attention

You could start by asking yourself and your team "What might be some of the reasons that four-year-old boys would perform differently in math than four-year-old girls? Are there differences in the children other than their genders? Are there reasons the children might experience your program differently?"

After taking a closer look at the data, you might discover that more of the boys than the girls also attended your program when they were three years old. They started the year doing better in math than the girls. They haven't improved as much, but their development level is about the same. You may be relieved that the girls and boys are actually performing about the same, but now you worry that the children who started in your program when they were three years old are not being challenged enough.

Identification of Promising Practices

You and your Ed Coordinator look at the data by teacher to see if some teachers are having more success than others in helping these more advanced children to progress. Your Ed Coordinator discovers that one of your experienced teachers does appear to have more success in advancing the four-year-olds' development. The Ed

Coordinator approaches this teacher to determine if she has a particular strategy and it might be different than other teachers' strategies. The Ed Coordinator finds out that the teacher had identified children who have been in the program longer as needing to be challenged more, and she has been individualizing her teaching to accomplish that (a promising practice). The teacher has also been supplementing the curriculum materials because she found they were not challenging enough for these children (another promising practice).

Identification of Improvements for Service Delivery or Training Needs

The Ed Coordinator checks in with the other teachers to better understand the differences between the classrooms where the children are advancing more and those where the children are advancing less.

Prioritize and Plan Actions

As a result of this data analysis, review, and synthesis, the Ed Coordinator makes four recommendations to the Director:

1. In the next all-teacher meeting, the teacher with curriculum supplements should present on his or her materials and techniques to help spread the promising practice.
2. Two teachers need additional training on individualization for children.
3. In future years, all teachers should be made aware of the children in their class who attended Head Start the previous year (change in service procedures).
4. The Curriculum Team should investigate if curriculum supplements are available for these children (change in service delivery).

The Head Start Director will need to determine which of these actions can be taken right away and which ones will need to wait based on the availability of funds, need for approval from the Policy Council or the governing body, or other operational issues. When the Director approves the actions, target dates for completion and benchmarks for improvement should be set.

Implement Plan

Based on the decisions of the management and leadership, staff will take the actions necessary to implement the approved plans. Assuming that all four actions

have been approved, the teacher with the promising practices will present at the next staff meeting and the Ed Coordinator will help the two teachers access approved individualization training. The Ed Coordinator and the Curriculum Team will (1) begin planning to assure that next year teachers know which children are continuing in the program and (2) begin investigating alternate math curriculum options.

Monitor Performance

Spreading the promising practice and obtaining additional individualization training were supposed to happen in the short term. According to the plan, both items should have occurred two months after implementation began. Monitoring performance means checking to see (1) did the training happen and (2) did the training have the intended effect, that is, ensuring that other teachers are using the promising practices correctly and the weaker teachers have improved their child individualization. Monitoring for the intended effect would have to wait until an effect could be expected. For example, teachers will need some time to practice the new skills they have learned and incorporate them into their routines before any progress can be expected.

The longer-term action items won't be fully implemented until the next year, but it will be important to check that progress is being made. Has the Curriculum Team met? Has someone begun working on a process to ensure teachers know about their children's participation status?

Evaluate

Were you able to improve four-year-olds' math skill development throughout the school year? You will have to wait until next year to determine if the outcome has changed.

Revisit Goal

Do you want to keep your math skill development school-readiness goal the same or change it? Are there any parts of your goal that need to change based on external rules or policy changes? Do the changes you have made internally require a change in your goals or how you measure them?

2. Improving Child-Teacher Interactions

The Classroom Assessment Scoring System (CLASS) is an observational assessment tool used during Head Start monitoring assessments to determine the quality of interactions between teachers and children across three domains: emotional support, classroom organization, and instructional support.[23] The CLASS scores are used as part of the Head Start Designation Renewal System as one criterion to determine if your program is higher or lower quality. Thus, obtaining higher CLASS scores could be seen as an effort to comply with the quality requirement. However, the CLASS scores could also be considered as an opportunity to improve classroom interactions; the staff of many programs that we spoke with held this view.

In the example below, your program has not previously had objectives around CLASS scores, so you are going to begin with the "Gather Data" stage in the continuous improvement cycle.

Gather Data

You contracted with a few consultants who were certified as reliable in CLASS assessment to rate each of six preschool classrooms across three sites where your program operates. You now have the scores for each of the three domains for those six preschool classrooms. Your consultant provided you the scores in a spreadsheet. Figure D shows an example of the data you have. In contrast to Figure D, the spreadsheet provided by the consultant would have each subdimension with the domains. (The numbers used in Figure D do not represent any particular program. They are to demonstrate principles only.)

---

[23] National Center on Quality Teaching and Learning. *Improving Teacher-Child Interactions: Using the CLASS ™ in Head Start Preschool Programs.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start, 2013.

FIGURE D. HYPOTHETICAL CLASS DOMAIN SCORES FROM PRELIMINARY CONSULTANT ASSESSMENT

	A	B	C	D	E
1	Site Name	Classroom Name	Emotional Support	Classroom Organization	Instructional Support
2	Central City	Robin	5.5	5.2	2.1
3	Central City	Bluebird	5.2	4.9	2.5
4	Central City	Sparrow	5.1	4.9	2.3
5	Suburban	Egret	6.2	5.8	3.1
6	Suburban	Pelican	5.4	5.1	2.3
7	Rural	Swan	5.8	5.6	2.7

Analyze Data

You ask the staff member who typically handles your data to create some graphs to help you compare the data in different ways. You want to be able to better see the range of the scores by site (Figure D-1), and the range of the scores by domain (Figure D-2).

35

You note that the classroom in the rural site tends to have relatively high scores (a relief because that teacher and assistant are alone at that site). You also note that the central city classrooms are scoring the lowest.

Looking at the domain scores by classroom (Figure D-1), it is easier to see that Egret has better scores on all domains than the other classrooms.

Looking at the classroom scores by domain (Figure D-2), it is easier to see that all classrooms score the best in emotional support.

But you are still not sure what this analysis means. Why are some classrooms performing better than others? Why are all classrooms performing better on certain domains than others? You put discussion of these data and these questions on the agenda for the next regularly scheduled data review meeting (See Part V for description of a data review meeting).

FIGURE D-1: CLASS DOMAIN SCORES BY CLASSROOM SITE
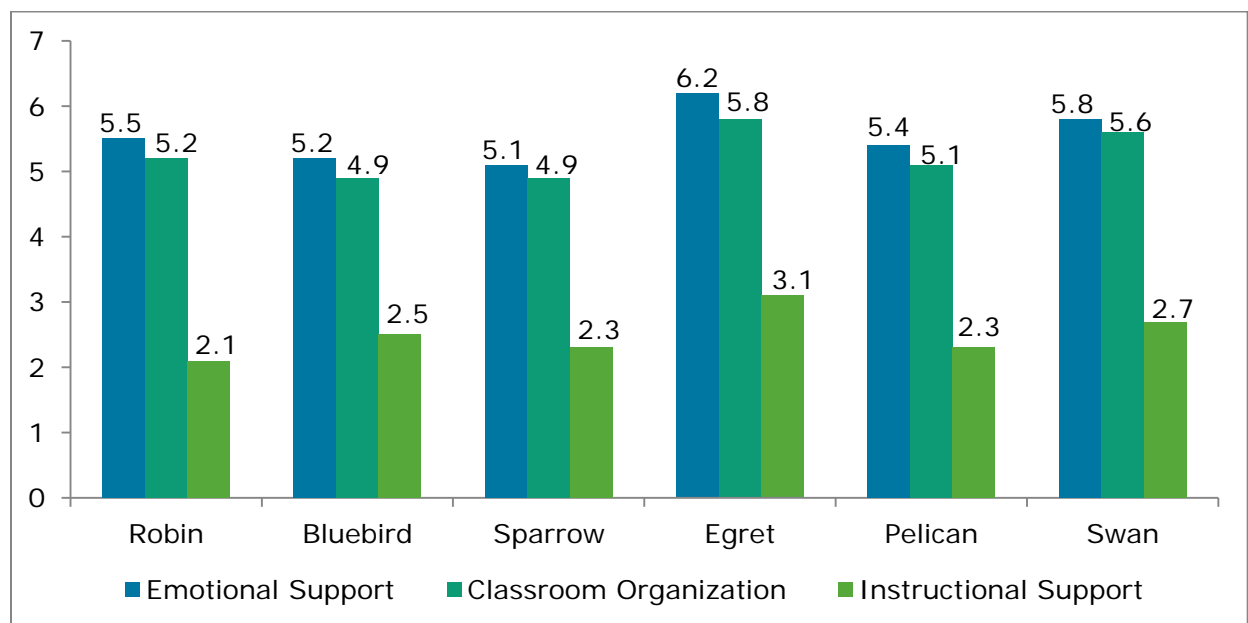
FIGURE D-2: CLASS DOMAIN SCORES BY DOMAIN
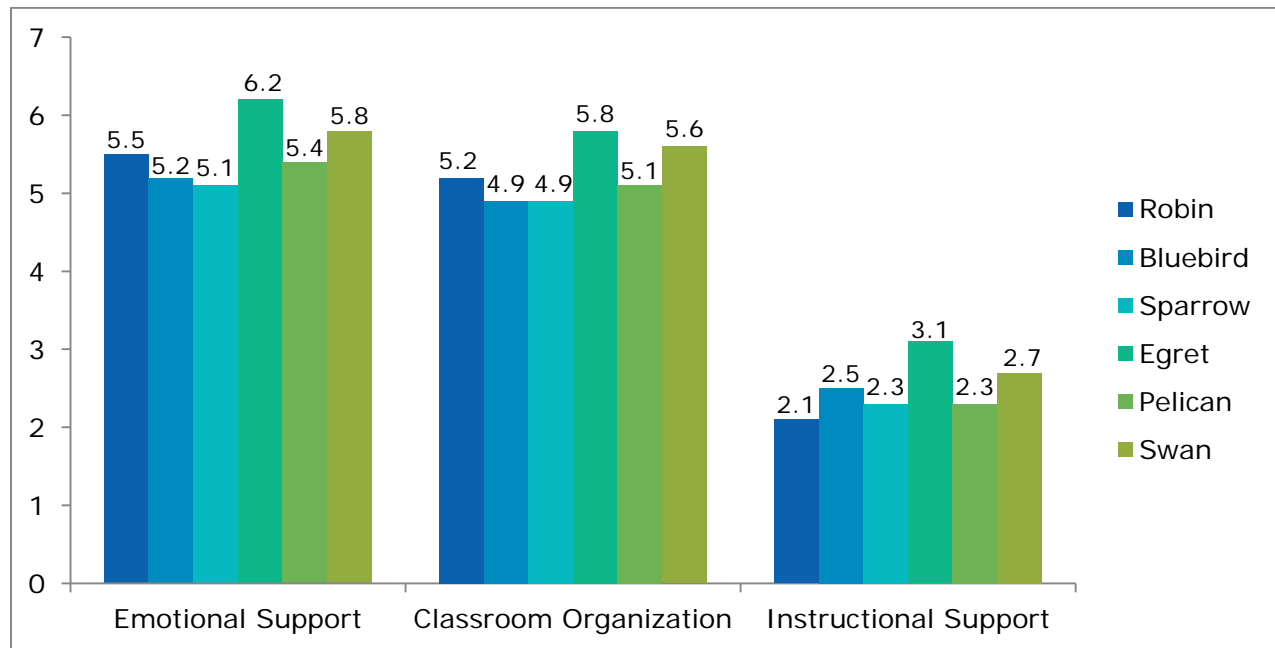
Review and Synthesize Data

At your next data review meeting, the Ed Coordinator presents Figures D-1 and D-2 to the review team. He or she also presents Figure D-3, which shows data from Office of Head Start showing grantee CLASS scores of Head Start programs from the most recent monitoring group. Finally, the Ed Coordinator says that she has spoken with each of the teaching teams and the two site directors (at the rural site, the teacher is also the site director) to get their perspectives on the CLASS observation notes and descriptions of child-teacher interactions in their classrooms.

The Ed Coordinator provides her perspective on the score levels and possible reasons for differences. She reminds everyone that CLASS scores are assessed on a seven-point scale. She notes that the pattern among classrooms to score best in the emotional support domain and worst in the instructional support domain is reflective of the national picture shown in Figure D-3. Regarding the differences across classrooms, she explains that the teacher in the Egret classroom has participated in more professional development around CLASS than her peers; the teacher in the Sparrow classroom is new to Head Start and hasn't had any formal

training on the CLASS. The program had to hire her after the pre-service training days because of turnover in the classroom.

The Ed Coordinator asks if anyone else from the team can think of other possible reasons for differences. The Director asks if classrooms with higher CLASS scores also have children improving more in their developmental domains. The Ed Coordinator responds that she has not looked at that yet. The Director requests that she bring that information back to the next meeting before the group works on prioritizing or planning any actions.

The Ed Coordinator used guidance provided by the National Center on Quality Teaching and Learning to guide the discussion about the CLASS scores with the various teams within the program. See "Understanding and Using CLASS for Program Improvement."[24]

FIGURE D-3: OFFICE OF HEAD START CLASS DESCRIPTIVE STATISTICS DISTRIBUTION, BY DOMAIN (2013)

National Distribution of Grantee-Level Domain Scores			
Domain	**Lowest 10%**	**Median (50%)**	**Highest 10%**
Emotional Support	5.5417	5.99	6.44
Classroom Organization	5.0556	5.62	6.17
Instructional Support	2.1061	2.71	3.35

Source: Office of Head Start. n.d. *A National Overview of Grantee CLASS Scores in 2013.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start. *http://eclkc.ohs.acf.hhs.gov/hslc/data/class-reports/docs/national-class-2013-data.pdf*.

This Head Start program holds monthly[25] data review meetings where all the department coordinators come together to share the most relevant, timely data they have about activities in their areas. Next month, the Ed Coordinator will

---

[24] National Center on Quality Teaching and Learning. *Understanding and Using Class for Program Improvement.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start, 2012. https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/docs/class-brief.pdf.

[25] The expectation is that coordinators will be monitoring the data about services in their areas of responsibility on a daily basis. The organization has found that monthly reviews at the coordinator level work best for discussing routine programmatic objectives. However, if a coordinator were to note an issue that needed to be addressed more quickly, he or she would be expected to notify their supervisor immediately.

provide information to the group that compares the CLASS scores and the children's developmental progression. After that discussion, the group will either decide that they need more information or that it is time for the Ed Coordinator to meet with the site directors to develop a suggested strategy for improvement so that the organization can prioritize and plan actions. And the cycle will continue.

Cutting budgets is always hard, but when you have data, budget cutting can become an opportunity to realign your strategic direction.

3. Prioritizing Allocations When Budgets Decline

Head Start Directors must make decisions every year about what to prioritize in their budgets. Allocating across many important needs is always challenging, but choosing what to cut when budgets decline can be even harder. Having data about your community, your needs, your successes, and service usage helps to make strategic budget decisions.

Recently, Head Start programs nationwide were faced with making hard choices about what to cut due to budget reductions at the national level. Some of them used their data to cut parts of their program that were not performing well, were being under-utilized, or did not align sufficiently with needs. These Directors said that though budget cuts were hard, the need to cut also gave them an opportunity to use their data to make strategic decisions with minimal resistance. We discuss two of the decisions to make changes in service delivery here.

When Head Start programs are provided with budgets that don't meet their planned strategies, they must decide how to cut programs. Two basic strategies exist: cut across all parts of the program or strategically cut some parts of the program. Head Start programs generally use both options. Distributing cuts across all service delivery areas means that everyone bears some of the pain. One method to cut across all areas is to reduce the number of days of service provided. This leads to fewer days of learning for children, fewer days of support for families, and fewer days of work for staff. Cutting some parts of the program strategically means that not everyone shares the pain evenly, but it provides the opportunity for what is left to operate more efficiently and effectively, and perhaps to better meet the community needs. Head Start programs must decide what works best based on their own community and organizational needs at the time that cuts must be made, but it is worth considering all the options.

Strategic cutting is only an option if you have the data to make strategic decisions. Strategic decisions require that data be available in units smaller than the whole. How does your program align with needs in particular communities, for particular kinds of families, and for particular kinds of children (See discussion

about disaggregation of data in Part IV)? How uniform is quality across your program? Do you have parts of your program that are not performing as desired? Do you have sites that are consistently not meeting the quality objectives you have set? Your overall quality is affected by the quality of each site where your services are provided. You are concerned that children are not getting the quality of care you strive to meet. Knowing the quality at each site allows for strategic cutting of a site (Site D in the example graphic) if it is consistently failing to meet standards.

Eliminating Some Slots

Head Start programs have many types of service delivery models, and in many cases they use mixed approaches in the same program. They may hire their own staff and run programs independently; they may pay for classrooms in community-based child care or pre-K programs but provide their own staff; they may contract with community-based programs to provide slots for Head Start children who are mixed in with other children, in which case the teachers are staff of the community-based organization; they may contract with family child care providers to offer Head Start slots; and they may provide the slots needed in other ways. Head Start programs are creative in their partnering to provide slots for children wherever is best in each community. All of the slots need to meet the Head Start standards. Quality control can be more difficult in some slots than others.

In this example, one Head Start program was using the mixed approach of providing some preschool slots through their own teachers at sites around the community and providing some preschool slots contracted through community-based child care programs where the staff were employed by the community-based program. This Head Start program had been collecting data for a few years on the developmental improvement of the children and the classrooms' CLASS scores; it had also been keeping tabs on the centers' state licensing ratings. Program staff reviewed data on all the children the program served and on all the sites providing the service every three months.

They observed the following when comparing across the sites:

- Quality across sites was inconsistent in the level of state licensing maintained. This inequity was increased when the state raised expectations about quality standards.
- Quality across sites was inconsistent in CLASS scores that programs were achieving, and the lower-scoring sites were not improving.
- Data were not being reported consistently from all sites, making it difficult to compare quality and monitor child outcomes.

When the Head Start management staff examined the inconsistencies across sites more deeply, they found that the sites where staff other than their own were providing the services were the ones with the lowest indicators of quality. However, the teachers met the same types of credentials, had access to the same training, and in theory had the same supports.

Digging deeper, the Head Start administrative staff discovered that even though they were providing the community-based sites with funds to provide planning and data-entry time for the teachers, the funds were being prioritized differently in the sites and the teachers were not actually receiving that time. Despite attempts to help the community-based sites understand the importance of this time and restructure the teacher day to accommodate planning (such as by hiring floaters that could cover classrooms for a few hours, allowing teachers to plan during the day instead of after it), the community-based programs seemed unable to structure their day in a compatible way. Though the Head Start administrators could not say that this lack of planning and data-entry time was the definitive factor in the quality differences, differences' persistence and the similarity across teachers and other supports pointed to that as the primary problem.

The Head Start administrators had become increasingly wary of maintaining the relationship with the community-based sites. First, the Head Start program was committed to providing a consistent level of quality across the community, and their data showed that this was not happening. Second, they knew that lower levels of quality in any of their sites could lead to repercussions for their whole program. But it is hard to end relationships once you start them, and the partnerships were in place to meet specific community needs.

In this case, the need to make choices about where to cut provided an opportunity. The Head Start administrators already had the data had identified weaknesses, and knew where strategic cuts could be made to benefit the most children and families. After consulting with the Office of Head Start about their options, they presented the idea to the Policy Council and governing body to remove the weakest programs to balance the budget.

As funds were restored or secured through new sources, they had data about what worked and what didn't. They used that data to find new partners and develop new strategies to provide the highest-quality services to the children in their community.

Shifting from Home-Based to Center-Based Care

Sometimes Head Start and Early Head Start early learning services are provided in a center-based environment. Sometimes programs focus primarily on parents as the child's first teacher and provide home visitors to regularly spend time with parents and children, with the goal of teaching parents how to support their own children's development, form attachments, and interact positively with their children. In both models, the child receives developmental engagement and support and parents learn how to better support their children.

In this example, one Head Start program developed a mixed approach, but by examining their data over time, found that community needs had changed. When the need to cut budgets arose, they took that opportunity to make choices about their service delivery options, particularly for the Early Head Start program.

Over the past few years, the Head Start program had been increasing the numbers of Early Head Start slots available in the community. The program had been focusing primarily on the home-based option because early research indicated that parents in the community wanted to stay home with their children in the early years. This Head Start program examines data from many sources across its organization on a monthly basis. Staff had noticed that over the past two years, most families using the home-based program were on the waiting list for the center-based program. As soon as a center-based slot became available, families were switching from the home-based program to the center-based program. Staff inferred that the home-based program was a second choice option for families; they knew that by being affiliated with the program already, they could more easily get into a center-based slot.

When we created the home-based option, more parents in our communities wanted to be at home with their children. Now, they need or want to be at work, so center-based options align more closely with community needs.

The Head Start program realized that this was not a productive approach to providing services. Families in the home-based program were not really invested in the home-based principles. They wanted their children to be in a center-based program. The frequent switching from home-based to center-based programs was

also hurting the program's ability to effectively set goals with parents and help the children and families.

This Head Start program's ability to track its data across its program options helped the administrators understand that community needs had changed. They decided that the most strategic budget cut was to reduce the home-based option.

When budgets increase again, staff will need to reflect on their current data to recommend the most strategic options for adding back slots or changing service delivery to reflect the current needs of their community.

HIGHLIGHTED RESOURCES

Technical Assistance Planning Series in Head Start

"Planning in Head Start." Office of Head Start.

The Head Start National Technical Assistance Center for Performance Management and Financial Operations developed these five papers to support programs in developing and implementing a planning system. These papers focus on goals, objectives, outcomes, progress and action plans and the relationship between them, school-readiness goals, family and community engagement, and program examples.

http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/planning.html

Understanding and Using CLASS for Program Improvement

National Center on Quality Teaching and Learning. 2012. *Understanding and Using Class for Program Improvement.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start.
https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/docs/class-brief.pdf

The CLASS is an observational assessment tool focused on teacher-child interactions. The CLASS is used by the Office of Head Start as one measure of program quality, but it has other uses as well. The Head Start National Center on Quality Teaching and Learning developed this brief to help Head Start programs understand what CLASS results mean, the different ways CLASS results can be used, and how CLASS results can be reported and shared.

PART IV:

PREPARING YOUR DATA FOR USE

Of course, understanding what should be done is much different than figuring out how to do it. This part of the resource guide provides guidance on making sure that your staff and data are capable of exploring deeper meanings. We briefly provide tips on ensuring your data quality in the dimensions of accuracy, completeness, validity, and reliability. We also suggest dimensions by which you may want to disaggregate[26] your data and thoughts on understanding your data. (See Part V for additional information about engaging staff and stakeholders in use of data.)

ENSURING DATA QUALITY

Data quality refers to the accuracy, completeness, validity, and reliability of your data. Assuring the quality of your data requires that staff at all stages of the data collection, entry, and analysis process have sufficient understanding of the data instruments, data, and the data systems. Training and procedures are important supports for assuring quality (more discussion on this can be found in Part V).

Validity

By definition, "a measure is valid to the extent that it measures what it is intended to measure."[27] In practice, there can be many ways to capture information on a particular item. For example, there are different questions that can assess individual motivation or interest in learning, strength of family or teacher relationships, perceptions of personal abilities, or areas of improvement. For these reasons, it is important to use data collection instruments, scales, and other tools that have been tested, particularly with specific populations of interest (such as different ages, racial/ethnic groups, etc.).

Data quality begins with the validity of the data collected. Data validity comes from selecting the right way to answer your questions of interest, including questions about what kinds of instruments you use. Should you use an instrument

---

[26] Data may be aggregated or disaggregated. For example, individual child-level data would be the lowest level of disaggregation (the smallest level); data about all the children in your entire program would be the highest level of aggregation for your program. In between, there are many ways to group your data to learn more about the children you are serving.
[27] Rossi, Peter H., and Howard E. Freeman. *Evaluation: A Systematic Approach – 5th Ed.* Sage Publications, 1993.

that is norm-referenced or criterion-referenced? The answer to that question and others requires consideration of many factors beyond the scope of this guide. One resource you may find useful is *Early Childhood Assessment: Why, What, and How from the National Academies Press.*[28]

For example, you don't want to measure children's developmental progress using an instrument designed to measure teacher interactions with children. That is, if you want to know how much a given child has progressed in literacy skills during the year, you do not review his or her improvement in CLASS scores.

Reliability

By definition, a measure or value "is reliable to the extent that, in a given situation, it produces the same results repeatedly." But no measurement instrument is perfectly reliable. For example, measurements of weight and height, produced with instruments such as scales similarly calibrated, are likely to produce more-reliable results than measures of attitude or personal beliefs.[29]

Reliability refers to both the measure itself and the individuals doing the measuring. For example, a scale may consistently measure weight, but if the individual being weighed sometimes wears shoes and sometimes does not, then the measure of weight will vary. If multiple persons are overseeing the weighing, then they all need to be trained on the same procedures—either shoes on or shoes off— to ensure the reliability of the weight.

Similarly, you need to ensure the reliability of the data collected by your program by ensuring that individuals collecting all kinds of data have been trained to follow the same procedures. You don't want some of your data to be different because one staff member was asking slightly different questions or recording observations differently than another person. You need to be sure that all data collected for the same purpose mean the same thing.

Accuracy and Completeness

Larger programs or those with more computerized your systems have more staff likely to have data entry included in their duties. Programs with more staff entering data need more procedures to assure that the data are accurate and complete. Staff need to understand the expectations for how often data must be entered and key time periods when all data must be in the system to assure that analyses can be performed on complete data. If managers are reviewing data daily, they will be interpreting the data incorrectly if only half of staff are entering their data daily.

---

[28] Snow, Catherine E., and Susan B. Van Hemel. *Early Childhood Assessment: Why, What, and How.* Washington, DC: National Academies Press, 2008. , http://www.nap.edu/openbook.php?record_id=12446.
[29] Rossi, Peter H., and Howard E. Freeman. *Evaluation: A Systematic Approach.*

Programs with more data systems need to provide more instruction to staff about procedures for data extraction from each system (because systems may be different). Every system has its quirks; sometimes these are well-documented in instructions and sometimes they are not. For example, if you want to disaggregate your data, you need to know how to do it correctly in the system you are using. Frequently, you need to request data in a series of stages or commands. The order of those stages or commands usually influences the analysis results. If you use the same stages or commands in a different order, you get different results. However, when you review the results, you might not be able to tell that the data are incorrect.

If your results vary greatly from month to month or quarter to quarter, you may want to revisit your procedures. Issues may also occur when aggregating your data at a higher level than usual. For example, if you normally examine your data by funding stream (children supported by Head Start separated from children supported by state pre-K funds), then you may experience duplication of information when you combine the data (at least one Head Start program we spoke to cited this as something to watch for while extracting data from systems typically used by Head Start programs). If children are supported by multiple types of funding, their data may need to be entered in the system more than once. Accordingly, data on all children may include some children multiple times.

We provide the following tip sheet for you to share with staff to highlight and remind them of important elements of data quality. The tip sheet is most appropriate for staff overseeing data entry, staff training others on data collection, or staff responsible for data extraction or interpretation.

Considering Your Data Quality: Accuracy

Data Entry
Individuals entering data or capturing data through notes need to understand where to enter what pieces of information. Data systems should control accuracy by limiting the number of characters that can be entered, allowing only numbers or words, or setting allowable ranges for information. Data samples should be checked regularly and everyone should receive training on the data systems they are using.

Data Extraction
Accurately entered data may become inaccurately represented when it is extracted from its system. Duplicate children or families may appear because multiple funding sources are being tracked. Data may be grouped incorrectly if the user does not have sufficient training.

Considering Your Data Quality: Completeness

Data should be checked for completeness before analyses are run. Does the data exist for every child, every classroom, every home visit, and so on? Has data been entered for the whole period under consideration? Has data been entered for every period under examination if you are comparing across time periods?

Considering Your Data Quality: Validity

Not everything you want to measure will have a tested instrument. This is acceptable, but you still need to be sure your data measures what you thought it would.

Are you drawing the right kinds of conclusions from your data?

Considering Your Data Quality: Reliability

Are staff who are gathering the data sufficiently trained to gather it the same way every time? Are all staff gathering and documenting the data the same way? For example, some data are collected through observations. Would different staff members make the same notes or rate the activity the same way based on what they observe?

Disaggregating Your Data

Head Start programs operate in a diverse set of communities, implement many models, and serve a wide variety of children and families. Consequently, staff may find it useful to break out data on programs, staff, children, and families by characteristics of interest. This process, called data disaggregation, can highlight differences between groups in Head Start experiences and areas in need of attention. The lowest level of data disaggregation is at the individual child or family level. Data at that level are certainly important, but the middle levels of data disaggregation can be most helpful in identifying patterns or differences in service delivery and outcomes. These levels of disaggregation may suggest questions for future exploration and illuminate the type of data needed to further understand differences between groups.

Table C. Possible Client and Service Characteristics to Use in Disaggregating Data

Child Characteristics	**Staff Characteristics**
Gender	Type or role
Age	Qualifications
Race or ethnicity	Participation in professional development
Disability status	Race or ethnicity
Health insurance status	Direct or contracted
Family Characteristics	**Classroom Characteristics**
Income	Age composition
Highest level of education	Child to staff ratio
Language spoken at home	Facilities
Head Start volunteer status	Presence of volunteers or aides

Site Characteristics
Direct or contracted
Partner or delegate
Neighborhood served
Total enrollment and staff size

Management and leadership staff may disaggregate data using several characteristics to guide quality improvement efforts. For example, returning to the IEP/IFSP example used in Part I, you may want to examine whether children are receiving disability services, looking at such site characteristics as whether the site is one you operate directly or you contract, whether the site is a partner or a

delegate, and where the neighborhood where the site is located. You might create a table similar to Table B in Part I for each subgroup of interest. If you discover that sites you contract with, partner with, or delegate to have different rates of access to services than sites you operate directly, then you would consider why that is the case. Do they need more guidance? Are the sites located in places where it is harder for parents to access services? Do the sites have a higher proportion of parents that do not fluently speak English and therefore may have a harder time accessing services? These questions point to the importance of careful interpretation, which we turn to next.

ANALYSIS AND INTERPRETATION

Continuing the example of the IEPs and IFSPs, we briefly discuss the iterative process of understanding data. Once you know that your data has been collected through the appropriate tools, that the individuals collecting it have done so in a reliable manner, and that the data have been entered completely and accurately, you are ready to begin analyzing and interpreting the data. Analysis is the technical portion of the process and includes extracting the data from the systems, linking the data together appropriately, and generating information. Some typical analytical techniques include determining how many of each item of interest you have (frequencies), the range of the items (distribution), the typical amount of each item (statistics such as mean and median), and associations between items (e.g., identifying that when one thing occurs, another thing usually occurs too). It is important that staff who run these analyses have a basic understanding of statistics. Computer programs make it possible for people who do not know what they are doing to produce numbers, but those numbers could be meaningless or cause incorrect interpretations.

Sometimes the same staff who provide or manage the services know how to perform analyses, but sometimes they do not. They may not have received such training as part of their educational program; if they did receive it, they may not feel comfortable in their skills. However, the staff who provide or manage the services are best-positioned to interpret the data. Interpretation requires an understanding of how the services are delivered, the types of elements that may alter the amount of services delivered, the quality or timeliness of services, and reasons that services may not have been delivered as expected.

The iterative process involves deciding which initial levels or groups of data you want (levels of aggregation or disaggregation) and the types of questions you want to answer. Then someone with an understanding of how to conduct analyses extracts the data, links data across systems, and produces statistics for review. A person or team of people familiar with how the service is provided review and interpret the data. The review of the data may lead to more questions, and data

reviewers send those questions to the person with expertise in data analysis. The analyst performs more analysis and sends the results to the review team, and the cycle continues as necessary. Sometimes the data needed for answering the deeper questions are already being collected, but sometimes more data collection is required. The following tip box, discussing the iterative process for using data to improve program quality, can be shared with staff.

Using Data to Improve Quality

1. Understanding your data is an iterative process. Sometimes you have to keep digging to find the real issues.
2. Analysis is not the same as interpretation. Analysis helps you determine what you need to be examining, but it doesn't tell you how or why.
3. Interpretation requires an understanding of the processes, procedures, and actions involved in the service. If you are not delivering the service yourself, you should discuss with the people who are.
4. Deciding what to do about an issue requires a full understanding the issue, the program requirements in relation to the issue, and the resources you have to address the issue.

PMFO has produced an online, interactive guide on digging into data. It provides additional resources for reflecting on your data quality and completeness and considering the types of questions you might ask to understand your data differently.[30]

---

[30] "Data on Head Start and Early Head Start: Digging into Data." Office of Head Start, last modified August 7, 2014, https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/data/data2.

HIGHLIGHTED RESOURCE

Analyzing Outcome Information: Getting the Most From Data

Hatry, Harry P, Jake Cowan, and Michael Hendricks. 2004. *Analyzing Outcome Information: Getting the Most from Data.* Series on Outcome Management for Nonprofit Organizations. Washington, DC: Urban Institute. http://www.urban.org/publications/310973.html

This guide suggests ways to analyze outcome data to improve services and outcomes for individuals being served by a nonprofit or community program. It offers many strategies for disaggregating data and setting up useful comparisons to help a program learn for which groups or under what circumstances outcomes may be exceeding or failing expectations. The guide is written for users with basic or intermediate knowledge of math or simple statistics.

OVERVIEW

Research suggests that data use is most effective when organizations involve staff from all across the organization, engage their governing bodies, and encourage stakeholder involvement (stakeholders include those served by the organizations, such as families). In this section, we draw from both ideas in the research and examples of approaches given by Head Start programs to develop suggestions on how to get started(for example, including more individuals in data use efforts or using a variety of graphics to tell your story).

Involving staff, engaging governing body and Policy Council members, and encouraging parents to become involved in data use can help organizations understand their data in new ways and enhance continuous improvement efforts. Individuals in these groups are likely to be less familiar with data; thus, they need training on how to understand the data, presentations of data that facilitate understanding, and data that are relevant to them.

These descriptions are meant to provide your organization with initial ideas about how to include many perspectives in your organizational learning process. It isn't necessary to adopt all of these strategies, and how each strategy is implemented by different organizations will vary. As you think about how to adapt these strategies for your organization, it is important to keep some of their important characteristics in mind. First, all of these strategies show that your organization values data and the participation of others by devoting time to examining, discussing, and reflecting on data. Your organization will have to figure out when and how to carve out that time while the data are still relevant and timely. Remember, if you are not putting out fires all the time, you should have more time for making improvements. Teachers, however, need to spend a certain number of hours in the classroom. Those hours don't change just because they need to spend time outside the classroom engaging with information and other staff. Second, the success of these strategies depends on creating a safe, trusting

environment, one component of which is attention to staff concerns about data use.[31]

1. INVOLVING STAFF

Here, we offer four strategies for involving staff at all levels in the continuous learning process. Individuals working at different levels and focusing on different parts of the organization bring different perspectives to an issue. Including staff from all across the organization enhances the organizational learning process. Remember, you want to learn from the routine: everyday activity and action provide an opportunity for learning, but your organization needs to create the pathways so that the individuals who are learning can contribute to the whole organization's learning. These strategies of data orientation, reflective supervision, data review meetings, and inclusion of data review in staff meetings provide those pathways.

Data Orientation

When individuals are hired into an organization, they often participate in a new-employee training to introduce organizational policies, standard operating procedures, and information about informal practices and program culture. It may also be helpful for organizations to update job descriptions in ways that clarify expectations around data use and analysis. Over time, this will reinforce the day-to-day importance of data as a core organizational value.

Organizations that are data-informed typically use many procedures and strategies to introduce staff to data systems, data collection and reporting procedures, participant confidentiality principles, and ways to safeguard personal information. Ideally, the staff collecting and entering data will understand the purposes of the data, definitions of the particular data elements, and proper use of the data system. If the staff are expected to get data out of the data system, they also need training on how to appropriately extract the data and run reports.

---

[31] The "District and School Data Team Toolkit" referenced earlier in this guide, includes a number of hands-on tools and strategies for managing change and understanding concerns. See http://www.k12.wa.us/CEDARS/Data/pubdocs/FullToolkit.pdf. See also "Early Learning Data Institute," Capital Region ESD 113. See also "Tips for Embracing Data" from PMFO that provides 10 key tips for creating a culture that embraces data, starting with a program vision that values data, supports staff professional development in data literacy, and effectively evaluates the data process.
National Center on Program Management and Fiscal Operations. *Tips for Embracing Data*. US Department of Health and Human Services, Administration for Children and Families, Office of Head Start, n.d.
http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/data/tip-sheet.pdf.

> Common data extraction steps are needed to ensure consistency of data interpretation. Using different steps or putting steps in a different order to get the data can provide different results and data meanings. You may end up "comparing apples to oranges" across classrooms or sites without knowing it.

Depending on the size of the organization, these strategies can take many forms. Some organizations may offer a formal workshop using supporting manuals or how-to guides with screenshots or sample reporting templates. In other organizations, such orientation may be more informal or ad hoc. Ideally, however, if your organization strives to be data-informed, you should have mechanisms in place to orient all employees around the use of data while understanding that the receptionist or food service provider may not need the same level of introduction as the Ed Coordinator or home visiting staff.

Regardless of the approach your program takes to identify staff's training and professional development needs, the goal is to create repeatable behaviors and regular use of data in day-to-day discussions and decision-making throughout the organization. This will necessitate repeat or refresher workshops on data use and occasional check-ins with staff about what needs and supports are most helpful to successful engagement.

Reflective Supervision

The "culture shift" described in Part II is based on several new approaches, that is, ways in which organizations approach their work and relationships. Reflective supervision is a way of promoting a more supportive and collaborative relationship between supervisors and staff (as well as between staff and children or families). Reflective supervision is based on three basic principles: reflection, collaboration, and regularity. It is fundamentally different from the traditional supervisory relationship, which tends to focus on achieving specific standards, evaluating employee performance, and enforcing rules or policy. Though both types of supervision are necessary, this resource guide prioritizes the reflective, collaborative approach over the standards-based approach.

Reflective supervision is based on a foundation of honesty and trust. In this relationship, the supervisor acts more like a coach or teammate to help the staff member troubleshoot a problem, classroom situation, or interpersonal engagement. In these interactions, the supervisor is expected to exhibit active listening skills, ask thoughtful questions, and create a safe space for the conversation. Central to this relationship is suspended judgment of the situation or encounter under consideration.

Reflective supervision, performed correctly, is an investment in staff development. Accordingly, it needs to occur on a regular basis, at a time convenient for both parties, and with a common agenda articulated in advance of the session. These sessions should occur at a time when distractions can be minimized; this enhances reflection and maximizes participants' ability to fully engage and support the process.

Head Start staff across sites reported that they use variations on this reflective supervision approach to help teachers examine and reflect on information specific to the children in their classrooms and assessments of their interactions with the children (e.g., CLASS scores). Some Head Start programs have created a position in addition to the regular supervisor to lead these reflective supervision sessions. In some programs, the regular supervisor holds two different kinds of meetings with the teachers; every other week they meet for reflective supervision and every other week they meet to discuss performance and needed improvements from a more traditional perspective. The supervisors acknowledge that it is hard to balance the two roles, but think it is important to teachers' development and to productive data use to have these different kinds of meetings.

Additional resources on reflective supervision can be found in Appendix D and at the Early Head Start National Resource Center.[32]

Data Review Meetings

Finding a regular time for staff to sit down and review relevant program data is another important element of an organizational culture of continuous improvement. These sessions can use an approach similar to that of reflective supervision interactions and can occur one-on-one or in a group setting. The advantage of having these discussions in a group is that it maximizes the opportunity to hear different perspectives on the same information and develop a more vibrant peer-to-peer exchange. You might also consider different leaders for these sessions. For example, rather than pursing a typical top-down approach, you might have classroom teachers or family services coordinators facilitate the session because

---

[32] "Early Head Start National Resource Center." Office of Head Start, accessed November 5, 2014, http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/ehsnrc.

such an approach encourages ownership of the data. As with reflective supervision, it is important to be candid and open about what the data say and what individuals or groups of individuals can do to troubleshoot or solve problems in an area where improvement is needed. Each session should identify concrete action items and these should be revisited in subsequent data review meetings. The study group approach can provide a smaller, safer venue for exploring data.

The CitiStat model offers a more formalized approach to data review that has taken root in many cities and state governments across the country. CitiStat is a data-informed model of government that emphasizes continuous review of data across government agencies. Typically, department leaders are convened every two weeks by the mayor or deputy mayor to review data that have been submitted before the meeting. Data are reviewed at each meeting and agency heads are expected to identify solutions and report on both progress implementing these solutions and any change in the data from the previous biweekly session. The US Department of Housing and Urban Development has a version of CitiStat called HUDStat. Under this program, the secretary of the US Department of Housing and Urban Development leads quarterly reviews "to drive improvement on priority goals" and to "prompt relentless focus on improving data quality and problem solving."

HUDSTAT MEETING PRINCIPLES

- Understand that the data are not perfect but will evolve over time. They provide a basis for discussion.
- Maintain environment of open and honest dialogue, even with imperfect results.
- Practice "no surprises" with program offices and the support operations.
- Limit "show and tell" and expand on problem solving using the collective wisdom and experience in the meeting.
- Maintain a spirit of collaboration while not shying away from the issues.

Source: Department of Housing and Urban Development. "HUDStat." *Performance.gov,* accessed November 4, 2014, http://archive-goals.performance.gov/hudstat.

The CitiStat and HUDStat models are readily adaptable to Head Start programs. These data review meetings can happen at many levels depending on the size of the program or organization. Certainly, in larger programs, the idea of departments heads coming together to review data and solve problems might be most akin to the CitiStat approach. However, this model (with little adaptation) could be applied in smaller programs or with different groups of people. For example, the Ed Coordinator could convene Head Start teachers quarterly to review

student progress (or perhaps once or twice a year, depending on the student assessment cycle). Alternatively, an interdisciplinary team could convene periodically to review data for a group of children who seem to be underperforming; this would bring together insights from classroom staff, home-based providers, and perhaps other supervisors, allowing the group to flag issues and propose a more integrated approach to accelerate the progress of children who may be lagging in a particular area.

Data as Part of Regular Staff Meetings

Incorporating data reports into regular staff meetings is an important means of keeping staff informed about the current state of progress of program priorities. Unlike the data review meetings described above, data use at staff meetings is likely focused on snapshots of indicators or trends you want to monitor fairly frequently, such as monthly attendance rates. Many Head Start programs have developed dashboards that summarize key data points in a single graphic.

The "Assets and Opportunity Scorecard" [33] illustrates several reporting options and data visualizations on indicators related to assets and opportunity, including education. These formats could readily be adapted for Head Start programs.

Additional information on scorecards, dashboards, and data visualization can be found in the "District and Data Team Toolkit – Component 3: Understand Issues". This component of the report includes an overview of data displays, attributes of a good data display, and a short section on dashboards. [34]

As you think about what kinds of data to report, it may be helpful to ask staff what kinds of reports are most useful to them and at what intervals. Providing reports based (at least partly) on data that staff are asked to collect will make these activities more meaningful to staff and engage them in thoughtful inquiry about the meaning behind the data. You might also consider having different staff present or report on data during staff meetings to create a greater sense of connection and ownership of the results.

Experiment with different types of reports and formats (see Part III for some simple examples). You may wish to start with a small number of graphs or charts that are repeated at each staff meeting, but then supplement those as needed with data about areas where additional attention is required. The data review sessions provide an opportunity to go more in depth on some issues, but because they may

---

[33] "Assets and Opportunity Scorecard," Corporation for Enterprise Development, accessed December 12, 2014, http://assetsandopportunity.org/scorecard/.
[34] "Understand Issues," Capital Region ESD 113, accessed November 5, 2014, http://www.esd113.org/Page/1732.

not involve all staff, it may be helpful to bring some of those issues to your regular staff meetings.

2. ENGAGING YOUR POLICY COUNCIL, GOVERNING BODY, AND KEY STAKEHOLDERS

Engaging your Policy Council, governing body, and other stakeholders is an important way to obtain additional or different perspectives on program operations and progress. Although Head Start requires some participation of, involvement of, and reporting to the Policy Council, governing body, and key stakeholders, required involvement may not tap into their full potential to contribute to greater program success.

Routine Data Updates

As with regular staff meetings, consider what kind of data are likely most interesting to different stakeholder groups. For example, Policy Councils and boards may have more of an interest than parent groups in data related to budgets, operations, and staffing. Data about child progress and performance are likely to be of interest to all groups.

Important as well is to understand the level of data literacy for different groups. If your Policy Council includes parents with business experience, they are likely to be reasonably familiar with basic data presentations and may actually expect greater detail. Most likely, however, these groups will include a range of experience and familiarity with data, and you should experiment with different formats and presentations. You might consider creating simple handouts, such as a glossary of terms or an inventory of the kinds of data or indicators available.

Head Start program governance training resources summarize the "Four A's" of reports: appealing, accessible, accurate, and audience specific.

The Four A's

(from "Data in Head Start and Early Head Start: Digging into Data, Activity 6: Share Data")

- **Appealing:** Keep it simple, clear, and visually attractive. Tell a story in a compelling way.

- **Accessible:** Use an appropriate reading level and avoid jargon or acronyms that the audience doesn't understand. Use bullets rather than long narratives, and use the language(s) spoken by the audience members.

- **Accurate:** Data must be free of error. The report must convey what the data actually say, not what you wish the data said. Proofread your documents to catch typos.

- **Audience-specific:** Highlight the issues that the audience cares about. Consider the level of detail the audience needs and the audience's knowledge of the topic.

Sources: National Center on Program Management and Fiscal Operations. n.d. *Data in Head Start and Early Head start: Digging into Data.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start. http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/data/data2/resources/digging-into-data.pdf; National Center on Program Management and Fiscal Operations. "Data in Head Start and Early Head start: Digging into Data. Activity 6: Share Data." Last modified August 7, 2014. http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/data/data2/act6/activity6.html

---

It may also be helpful to look at reports from other programs to get new ideas about how to make presentations more intuitive and visually appealing. An inquiry to Head Start colleagues in other programs should get you started. Though Excel tables are an easy place to start, there are many new resources available for data visualization techniques, many free of charge. For an example, see Brian Suda and Sam Hampton Smith's post on *Creative Blog*.[35] See also the highlighted resource at the end of this section: a data-based report to a local community.

Though much of this resource guide focuses on numerical data use, to engage stakeholders you might also incorporate photographs (assuming appropriate permissions have been secured) or short videos to enliven data charts.

"Data walks" or "data walls"[36] are new techniques to engage community stakeholders in use and interpretation of data.[37] Although data walks, also known

---

[35] Suda, Brian, and Sam Hampton-Smith. "The 36 Best Tools for Data Visualization." *Creative Blog,* March 12, 2014. http://www.creativeblog.com/design-tools/data-visualization-712402.

[36] Slide 20 of this PMFO PowerPoint presentation provides a suggested set of instructions for using "data walls": National Center on Program Management and Fiscal Operations.

as data walkthroughs, have their origins as a technique for schools to improve instructional practice, the basic principle of posting different charts and data points on a wall or around a room is that engaging people in an interactive way is more likely to stimulate a conversation, spark questions, and contribute to group problem solving.

3. ENCOURAGING FAMILIES

Routine Sharing of Child Data

Engaging family members in their child's learning and development is essential for achieving the best outcomes for children. Head Start staff should view parents as partners and engage family members in meaningful ways. Family members can often provide valuable insights or other information to help explain or interpret classroom observations and results. The National Center on Parent, Family, and Community Engagement[38] defines the following three elements as necessary for sharing information with families:

1. Families should have *access* to their child's individual learning and development information (e.g., by inviting family members to share observations about how their child learns, using several communication approaches to reach families, and providing data in a user-friendly format).

2. Information that is shared should be *understandable and meaningful* to families and staff (e.g., by helping parents understand what the next stage of learning will be so that they can support development).

3. Staff and parents should put the *information into action* (e.g., by sharing information about resources in the community that can help with a particular stage of development or suggesting day-to-day activities that can support particular development, such as matching pairs of socks or naming colors on street signs).

Head Start programs traditionally offer many ways for families to get involved. Some of the programs we spoke with were using new technologies to help

---

"Program Planning: Spotlight on Fiscal." Office of Head Start, accessed November 5, 2014, http://www.wsaheadstarteceap.com/fileLibrary/file_142.pdf.

[37] Skretta, John. 2007. *Using Walk-Throughs to Gather Data for School Improvement.* Reston, VA: National Association of Secondary School Principals. https://www.nassp.org/portals/0/content/55499.pdf.

[38] National Center on Parent, Family and Community Engagement. *Family Engagement and Ongoing Child Assessment.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start, 2011, https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/family/docs/family-engagement-and-ongoing-child-assessment-081111.pdf.

families learn about their children. For example, some programs were purchasing electronic tablets that allowed teachers and home visitors to record videos of the children engaging in activities. In the home visiting setting, they could record the child and parent engaging together; in the center-based environment, they could record the child engaging with other children or accomplishing something on his or her own. In the home-visiting setting, the home visitor could play the video back immediately and point out to the parent the strengths of the interaction and what the parent should look for in the future. In the center-based environment, the teacher or family engagement coordinator could show the video to the parent during a home visit or parent conference to aid discussion of what the child is accomplishing or where the child is experiencing challenges.

Staff in some programs could upload their videos into the child assessment data systems to document the developmental progress of the child. Some of these data systems allow parental access to parts of the system. At least one program found that parents were not using this feature much. Program staff were still investigating whether that was an effective avenue for providing information to parents.

Another way to share information with parents is to use parent-teacher conferences to review progress and share observations about areas of strength and areas where improvement might be helpful. Equally important during these sessions is to listen to any concerns the parent or guardian might have. If teachers are sharing information about a formal assessment, it is important to present such information clearly and understandably. Many parents may not be familiar with scoring rubrics or other conventions that may accompany assessments. Thus, it may be necessary to translate into more concrete terms what an emergent skill set might look like. Compared to understanding technical developmental stages, it may be easier for parents to understand that their child can count to 10 but he or she often skips numbers between 11 and 20. Another way to help parents may be to explain the basic skills that define kindergarten readiness and where the child may need additional help, such as with basic writing or counting tasks; the ability to identify or replicate basic patterns among objects; the ability to match objects of various shapes, sizes, or colors; and the ability to follow simple safety instructions. Each Head Start program needs to work collaboratively with their local school systems to determine what these expectations are.

Head Start programs may also need to be proactive in encouraging parents to sign up for and attend such meetings. Some may be reticent because language or cultural issues; others may be working multiple jobs and have limited availability. Head Start programs may need to be creative in seeking alternative ways to engage parents in their child's learning and solicit their feedback. it is important that the program, through a combination of formal parent-teacher

sessions, informal opportunities for parents to come together more socially, and home visits, creates a welcoming and inviting atmosphere that supports parents in their role as a child's first teacher and creates a space that invites dialogue.

HIGHLIGHTED RESOURCE

DC Promise Neighborhoods Initiative: Data Based Profile of the Kenilworth-Parkside Community

DC Promise Neighborhood Initiative. 2014. *I Heart Data: A Data-Based Profile of the Kenilworth-Parkside Community.* Washington, DC: DC Promise Neighborhood Initiative. http://dcpni.org/wp-content/uploads/2014/02/Final-I-Heart-Data-Booklet.pdf

This booklet demonstrates several creative ways to present data using data visualization techniques, such as using less-traditional symbols as substitutes for standard conventions to express percentages and relative order of magnitude.

APPENDIX A: ALIGNING THIS RESOURCE GUIDE WITH EXISTING HEAD START NATIONAL CENTER PROGRAM MANAGEMENT AND FISCAL OPERATIONS (PMFO) TECHNICAL ASSISTANCE MATERIALS

Concurrent with the development of this resource guide, PMFO has been developing several resources to better support data use in Head Start programs. We highlight two of those resources here and suggest ways of supplementing the PMFO materials with this resource guide.

Using Data Effectively: The Four Data Activities Workshop

This workshop, developed by PMFO, is organized around the four data activities of prepare, collect, aggregate and analyze, and use and share. The workshop has two intended outcomes: to enable participants to (1) "tell why data is important," and (2) "describe the four data activities, and use them with their own program's data."

Following are some suggestions about how to use the "Moving Beyond Compliance" resource guide developed by the Urban Institute to supplement the PMFO workshop resources:

1. Before the workshop, send Part I of the resource guide to intended participants. Ask them to read "The Changing Compliance and Performance Landscape" and "Moving from Compliance to Learning in Head Start." These two sections will help situate the importance of the workshop activities in the context of changes in Head Start. The rest of Part I may also be helpful for reading in advance of the workshop, but trainers should consider the interest level of their audience.

2. At the end of the first day of the workshop, hand out Part II of the resource guide. Part II focuses on making the culture shift inside organizations. It will help participants think about where their organizations are along the learning continuum and will help them see more possibilities in the discussions on day two for how they might implement data changes in their organizations.

3. During Day 2 "Aggregate and Analyze" discussions, consider sharing "Disaggregating Your Data," particularly Table C, from Part IV of the resource guide to supplement the existing materials.

4. When you reach Trainer's Note #56: From Individual to Program, share the handout "Using Data for Internal Program Improvement" from Part III of the resource guide. This handout will help participants think about the numerous ways that program level data could be useful to them.

5. When you reach Trainer's Note #110 about the Stephen Covey video clip, hand out Appendix B: Continuous Quality Improvement Conceptual Framework from the resource guide. Use the framework to facilitate the discussion of the video. Point out how the literature from numerous fields all point toward the importance of a Culture of Collaborative Inquiry (the team), and leadership and clear communication (leadership slab). You may also want to hand out "From Fighting Fires to Innovation: An Analogy for Learning" from the resource guide.

6. At the end of the workshop, remind participants that they can find many supplemental resources in the resource guide including more examples on how to use data for program improvement and how to develop a cycle of continuous improvement; see especially Part III: Using Data for Internal Program Improvement.

7. Your participants are bound to ask you questions about how they can include multiple participants into the four data activities, and how they can build data into their day. You can refer them to Part V: Engaging Staff and Stakeholders for some ideas.

<u>Planning in Head Start: The Program Planning Papers</u>[39]

Developed by the Head Start National Centers, the Program Planning Papers cover five topics: (1) Understanding Goals, Objectives, Outcomes, Progress, and Action Plans; (2) Plans in Head Start; (3) Program Goals and School Readiness Goals – Understanding the Relationship; (4) Goals, Objectives, Outcomes, Progress, and Action Plans – Some Examples; and (5) Program Planning and Parent, Family, and Community Engagement.

The resource guide provides materials that may be used to supplement the Program Planning Papers. The resource guide authors suggest the following alignment and supplementary usage.

Topic #1: Understanding Goals, Objectives, Outcomes, Progress, and Action Plans
- Read Part I: Background of the resource guide in conjunction with Topic #1 of the Planning Papers. This part of the resource guide will help readers understand why Head Start staff should care about planning and data use in Head Start and how the federal and Head Start philosophies have changed overall.

Topic #2: Plans in Head Start
- Read Part III: Using Data for Internal Program Improvement of the resource guide. The resource guide provides a continuous improvement cycle that

---

[39] PMFO, *Foundations for Excellence.*

helps grantees to see how they might create systems within their programs to facilitate the planning cycle and integrate the information collected into regular program use. The resource guide outlines a system and provides a few examples.

Topic #3: Program Goals and School Readiness Goals – Understanding the Relationship
- The resource guide does not specifically deal with this topic, but it does provide examples of data disaggregation which may help in thinking about goals at different levels. See especially Part IV, Table C: "Possible Client and Service Characteristics to Use in Disaggregating Data."

Topic #4: Goals, Objectives, Outcomes, Progress, and Action Plans – Some Examples
- The resource guide provides a few examples for planning and data use. See Part III.

Topic #5: Program Planning and Parent, Family, and Community Engagement
- Part II and Part V of the resource guide provide important considerations. Part II: The Culture Shift to Continuous Improvement describes organizational learning cultures and helps grantees to reflect on the extent that they include many individuals in the learning process. Part V: Engaging Staff and Stakeholders provides some specific examples of how to create internal processes that are inclusive of many voices.

APPENDIX B – CONTINUOUS QUALITY IMPROVEMENT: CONCEPTUAL FRAMEWORK

The LEADS study is grounded in a multidisciplinary review of the literature[40] on the processes, facilitators, and impediments to data use for continuous quality improvement. That review reflects more than 50 seminal and current works that originate in empirical and professional sources in the fields of educational leadership and management, health care management, nonprofit leadership and management, public management, and organizational learning and development. Studies in the literature review were typically designed to identify characteristics of organizations or programs that were successful in implementing data use for quality improvement, but they do not explore the relative importance of each characteristic or the differing effects of combinations of characteristics.

The study of organizational data use does not have a single language across fields. The terms *performance management*, *continuous quality improvement*, and *data-informed decision-making* are all descriptors of the internal organizational processes, functions, and elements for collecting, examining, and using data to improve program performance. This brief uses the term *continuous quality improvement* to reduce confusion and to emphasize the focus on data use for improving quality.

Eight organizational elements emerged from the literature as supporting data use for continuous quality improvement. These eight elements were integrated to construct a conceptual framework (see figure E). Specifically, the conceptual framework depicts the key elements posited to facilitate or impede the process of data use for continuous quality improvement in the form of a building. The framework is cautious in its representation of the relationships of elements to each other. It makes minimal use of directional arrows because the literature from other fields is primarily descriptive, cataloging elements but not relationships between elements.

Strong leadership is one of the two most common themes cited in the literature as influencing data use. Program leadership ensures the organization has the required resources, analytic capacity, and professional development to use data. Specifically, the literature identifies certain leadership approaches (e.g., leadership that is distributed across staff) as important to building organizational features that are facilitators of data use (e.g., culture of collaborative inquiry). For this reason, leadership is shown as the foundation slab of the building.
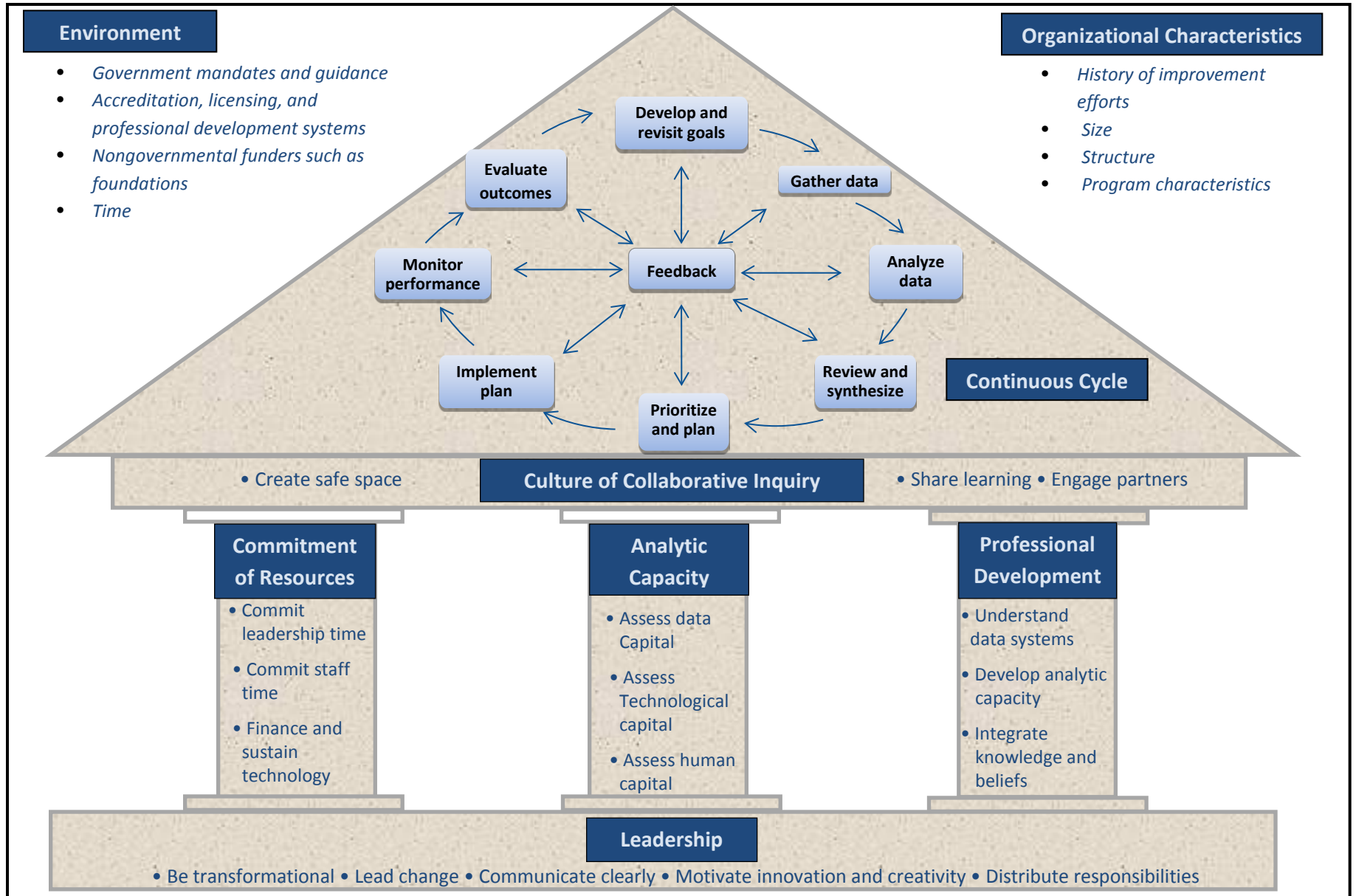
---

[40] Derrick-Mills et al. (forthcoming).

The pillars of the building represent the important facilitative supports leaders can put into place: commitment of resources, analytic capacity, and professional development. The literature suggests these factors are associated with the effective use of data, and the absence of any of these factors is likely to reduce an organization's ability to continuously and successfully use data for quality improvement. The pillars and foundation support a culture conducive to collaborative inquiry where staff learn together in an environment that fosters joint problem-solving, creativity, and innovation. The roof of the building represents the continuous cycle of data use, or data-informed decision-making.

Environment

- *Government mandates and guidance*
- *Accreditation, licensing, and professional development systems*
- *Nongovernmental funders such as foundations*
- *Time*

Organizational Characteristics

- *History of improvement efforts*
- *Size*
- *Structure*
- *Program characteristics*

Develop and revisit goals

Evaluate outcomes

Gather data

Monitor performance

Feedback

Analyze data

Implement plan

Review and synthesize

Continuous Cycle

Prioritize and plan

• Create safe space   **Culture of Collaborative Inquiry**   • Share learning • Engage partners

Commitment of Resources

- Commit leadership time
- Commit staff time
- Finance and sustain technology

Analytic Capacity

- Assess data Capital
- Assess Technological capital
- Assess human capital

Professional Development

- Understand data systems
- Develop analytic capacity
- Integrate knowledge and beliefs

Leadership

• Be transformational • Lead change • Communicate clearly • Motivate innovation and creativity • Distribute responsibilities

68

APPENDIX C—HEAD START FRAMEWORKS FOR CONTINUOUS PROGRAM IMPROVEMENT

The Head Start national centers have developed many cycles representing the continuous data use process. We provide some of them here. Each cycle looks slightly different and each uses different words to describe its process, but these cycles and the one we reference in the resource guide are designed with the same general purpose in mind:

(1) Emphasizing the importance of **continuous** data use

(2) Showing that data use involves a **systematic process**

The cycle in the resource guide is a data-use cycle that can be used with any type of data in any type of setting. The specific cycles displayed here are designed to help you think specifically about particular kinds of data required by Head Start. It can be helpful to think of these cycles in both generic and specific terms.

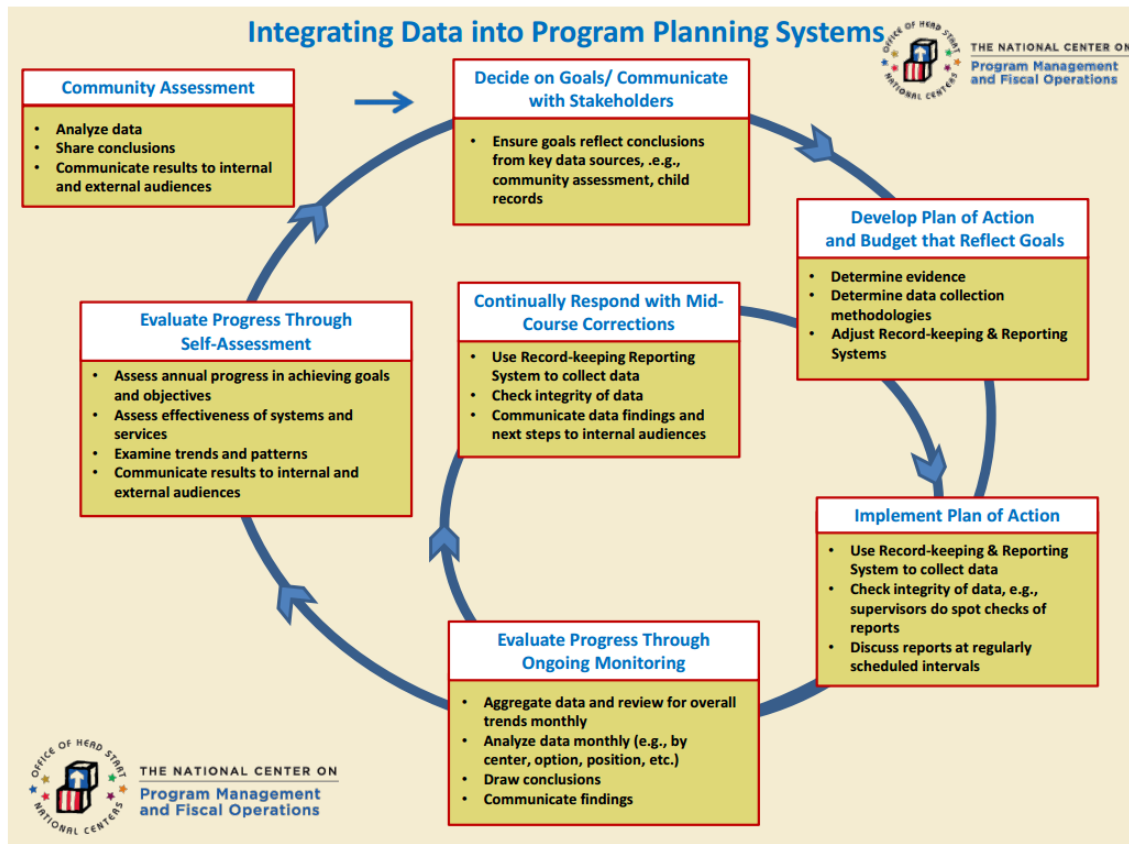## Data in Head Start and Early Head Start: Creating a Culture that Embraces Data: Program Planning Cycle

Source: National Center on Program Management and Fiscal Operations. n.d. *Data in Head Start and Early Head Start: Creating a Culture that Embraces Data.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start. http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/center/data/data-guide.pdf.

Program Planning: Spotlight on Fiscal Data

Program Planning Cycle

- Conduct or Update Community Assessment
- Every 5 Years: Decide on Broad Goals and Initial Short-Term Objectives
- Annually: Review Goals and Revise if Necessary. Generate Objectives and Expected Outcomes
- Evaluate Progress through Self-Assessment
- Continually Respond with Course Corrections
- Develop an Action Plan and Budget that Reflect Goals
- Implement an Action Plan
- Evaluate Progress through Ongoing Monitoring

THE NATIONAL CENTER ON Program Management and Fiscal Operations

September 2014

Source: National Center on Program Management and Fiscal Operations. n.d. *Program Planning in Head Start: The Program Planning Cycle.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start. https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/docs/planning-cycle.pdf.
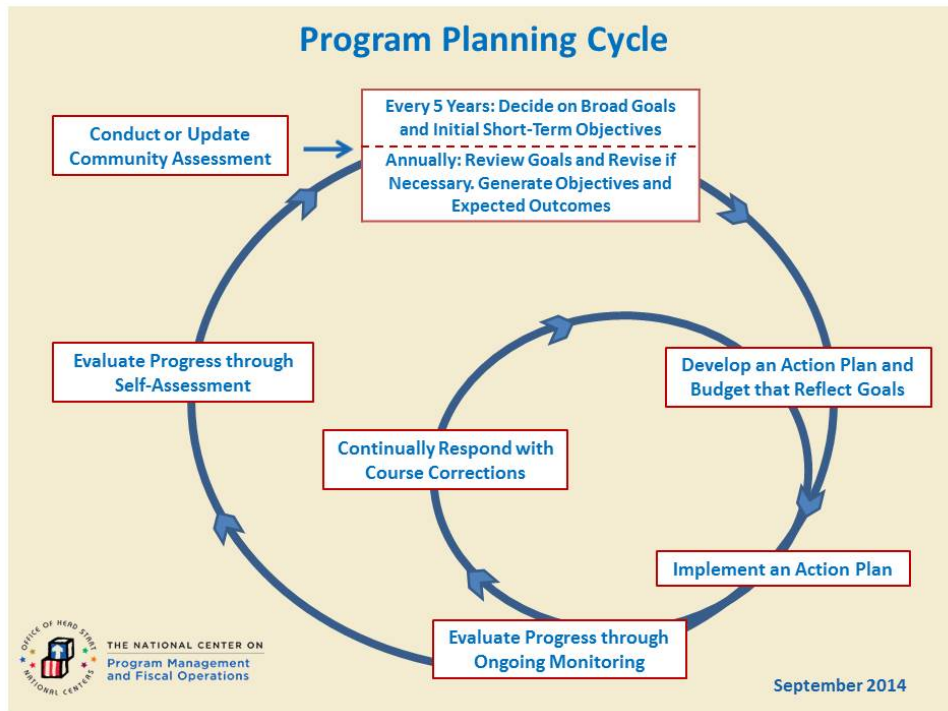
PMFO, Planning in Head Start, 2014

Source: National Center on Program Management and Fiscal Operations. n.d. *Program Planning in Head Start: The Program Planning Cycle*. Washington, DC: US Department of Health and Human Services, Administration for Child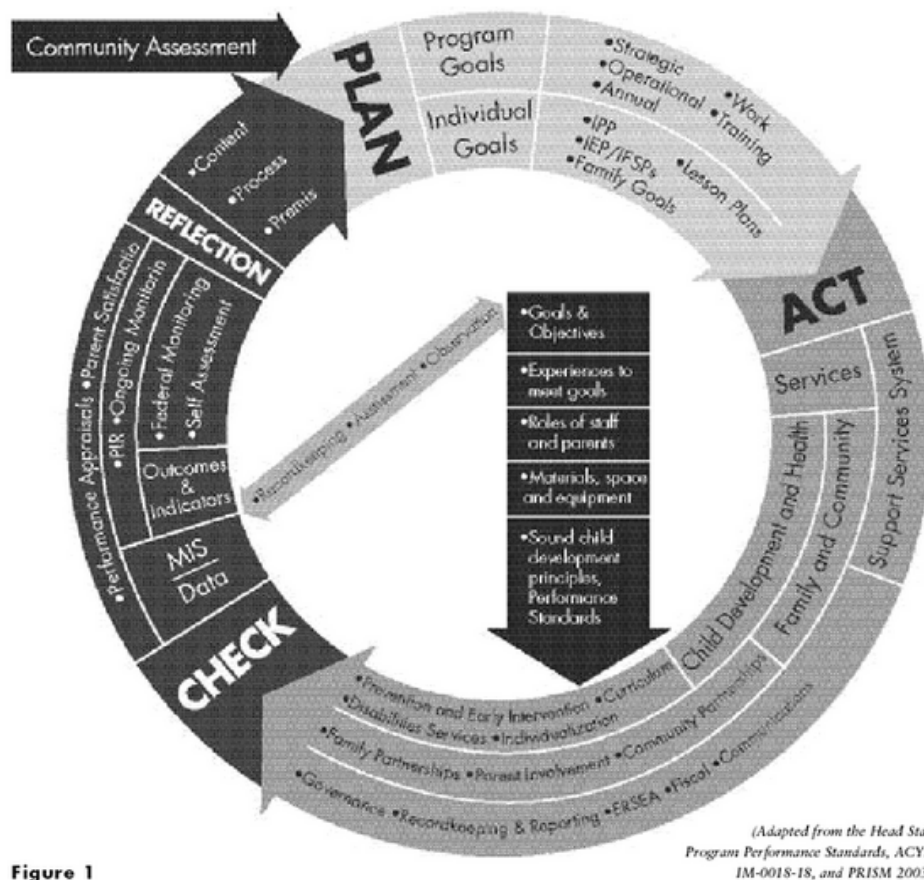ren and Families, Office of Head Start. https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/docs/planning-cycle.pdf.

Introduction to Data Analysis Handbook, Migrant and Seasonal Head Start Technical Assistance Center, Academy for Educational Development
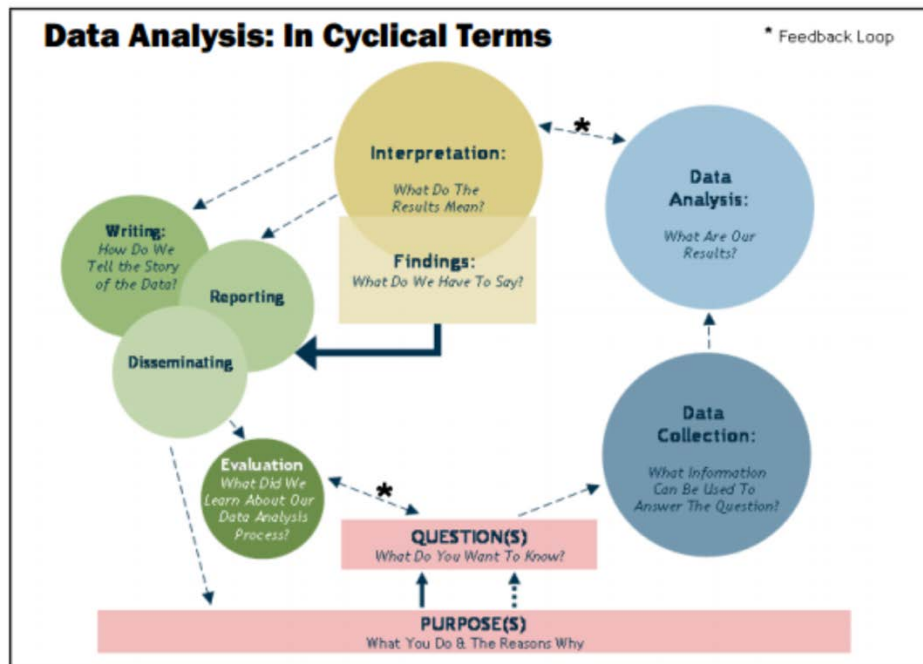
Source: Migrant and Seasonal Head Start Assistance Center. 2006. *Introduction to Data Analysis Handbook*. Washington, DC: Academy for Educational Development. http://ece.aed.org/publications/mshs/dataanalysis/WebDataAnalysis.pdf

How Child Outcomes Assessment Supports Continuous Program Improvement: Head Start Child Outcomes

Continuous Improvement Cycle

Figure 1

(Adapted from the Head Start Program Performance Standards, ACYF-IM-0018-18, and PRISM 2003.)

Source: National Center on Quality Teaching and Learning. "How Child Outcomes Assessment Supports Continuous Program Improvement." Office of Head Start, last modified October 7, 2014, http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/eecd/Curriculum/Planning/edudev_art_00091_080905.html.

APPENDIX D—RESOURCE LIST

CULTURE

Advisory Committee on Head Start Research and Evaluation. 2012. *Final Report.* Washington, DC: US Department of Health and Human Services. http://www.acf.hhs.gov/sites/default/files/opre/eval_final.pdf.

Baldrige Performance Excellence Program. 2011. *Baldrige 20/20: An Executive's Guide to the Criteria for Performance Excellence*. Gaithersburg, MD: US Department of Commerce, National Institute of Standards and Technology. http://www.nist.gov/baldrige/publications/upload/Baldrige_20_20.pdf.

Barnes, Christopher, and Karen Pucciarelli. 2014. "Program Planning: Spotlight on Fiscal." Presentation at Region X Conference, Seattle, WA, March. http://www.wsaheadstarteceap.com/fileLibrary/file_142.pdf.

Blumenthal, David, and Charles M. Kilo. 1998. "A Report Card on Continuous Quality Improvement." *Milbank Quarterly* 76 (4), 625–48. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751093/pdf/milq_108.pdf.

Geier, Robb, and Stephen C. Smith. 2012. *District and School Data Team Toolkit.* Everett, WA: Washington Office of Superintendent of Public Instruction, Washington School Information Processing Cooperative, and Public Consulting Group. http://www.k12.wa.us/CEDARS/Data/pubdocs/FullToolkit.pdf.

Hord, Shirley M. 1997. *Professional Learning Communities: Communities of Continuous Inquiry and Improvement*. Austin, TX: Southwest Educational Development Laboratory. http://www.sedl.org/pubs/change34/plc-cha34.pdf.

Kanter, Beth. 2011. "How Can Nonprofits Switch to a Data-Informed Culture?" *Beth's Blog,* August 17. http://www.bethkanter.org/switch-data-driven/.

Kekahio, Wendy, and Myriam Baker. 2013. *Five Steps for Structuring Data-Informed Conversations and Action in Education*. Washington, DC: US Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Pacific. http://files.eric.ed.gov/fulltext/ED544201.pdf.

Mills, Lane B. 2011. *Creating a Data-Driven Culture: Leadership Matters*. Cary, NC: SAS institute Inc. http://www.sas.com/resources/whitepaper/wp_27579.pdf.

National Center on Program Management and Fiscal Operations. n.d. *Data in Head Start and Early Head Start: Creating a Culture that Embraces Data.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start.

http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/center/data/data-guide.pdf.

National Center on Program Management and Fiscal Operations. n.d. *Data in Head Start and Early Head Start: Guide for Users and Trainers.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start. http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/center/data/data-module-guide-users-trainers.pdf.

National Center on Program Management and Fiscal Operations. n.d. *Tips for Embracing Data.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start. http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/data/tip-sheet.pdf.

National Center on Quality Teaching and Learning. 2011. *School Readiness for All Children: Using Data to Support Child Outcomes.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start. http://www.hitinc.org/uploads%5Cresources%5C1308%5Cncqtl_data_handbook_version_11_1_11.pdf.

Sagebrush Corporation. 2004. *Data-Driven Decision-making: A Powerful Tool for School Improvement (A White Paper).* Minneapolis, MN: Sagebrush Corporation. https://www.erdc.k12.mn.us/promo/sage/images/Analytics_WhitePaper.pdf.

Williams, Anna. 2014. *Evaluation for Strategic Learning: Assessing Readiness and Results.* Washington, DC: Center for Evaluation Innovation. http://www.evaluationinnovation.org/sites/default/files/Williams%20Strategic%20Learning.pdf.

STRATEGIES

A. Parent/Family Engagement

Maryland Family Engagement Coalition. n.d. *The Early Childhood Family Engagement Framework: Maryland's Vision for Engaging Families with Young Children.* Baltimore: Maryland State Department of Education. http://www.marylandpublicschools.org/MSDE/divisions/child_care/docs/MdFamEngage_111213.pdf?id=238651&type=Movie.

National Center on Parent, Family, and Community Engagement. 2011. *Bringing the Parent, Family and Community Engagement Framework to Your Program: Beginning a PFCE Assessment, Version 1.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start. https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/family/docs/ncpfce-assessment-101411.pdf.

National Center on Parent, Family and Community Engagement. 2011. *Family Engagement and Ongoing Child Assessment.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start. https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/family/docs/family-engagement-and-ongoing-child-assessment-081111.pdf.

National Center on Parent, Family, and Community Engagement. n.d. *Measuring What Matters: Using Data to Support Family Progress: An Overview.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start. http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/family/docs/measuring-what-matters.pdf.

National Center on Parent, Family, and Community Engagement. n.d. *Using the Head Start Parent, Family, and Community Engagement Framework in Your Program: Markers of Progress.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start. http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/family/docs/ncpfce-markers-of-progress.pdf.

B. Data Review Meetings

Corporation for Enterprise Development. n.d. "Assets and Opportunity Scorecard." Last accessed December 12, 2014. http://assetsandopportunity.org/scorecard/.

Department of Housing and Urban Development. "HUDStat." *Performance.gov,* accessed November 4, 2014, http://archive-goals.performance.gov/hudstat.

Perez, Teresita, and Reece Rushing. 2007. *The CitiStat Model: How Data-Driven Government Can Increase Efficiency and Effectiveness.* Washington, DC: Center for American Progress. http://cdn.americanprogress.org/wp-content/uploads/issues/2007/04/pdf/citistat_report.pdf.

C. Reflective supervision

Britt, Donna, and Amy Hunter. n.d. *Using Reflective Supervision to Promote Responsive Infant and Family Care.* Washington, DC: Zero to Three. http://caheadstart.org/2010MDI/DevQualityPrograms/Using%20Reflective%20Supervision%20to%20Promote%20Responsive%20Infant.pdf.

Early Childhood Learning and Knowledge Center. "8 Characteristics That Define Relationship-Based Work [in] Reflective Supervision." Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start, last modified November 28, 2012. http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/pd/fsd/Managers/health_fts_00525a_081205.html.

Herrera, Peggy, and Linda McNulty. 2012. "Reflective Supervision." Presentation at Hippy USA 2012 National Conference, Dallas, TX, April 2012. http://www.hippyusa.org/memanage/pdf/Reflective%20Supervision.pdf.

Minnesota Association for Children's Mental Health. "Reflective Supervision Guidelines: Best Practice Guidelines for Reflective Supervision/Consultation." Infant and Early Childhood Division, accessed November 5, 2014. http://www.macmh.org/infant-early-childhood-division/guidelines-reflective-supervision/.

Zero to Three. "Look, Listen, and Learn: Reflective Supervision and Relationship-Based Work." Accessed November 5, 2014. http://www.zerotothree.org/about-us/areas-of-expertise/reflective-practice-program-development/three-building-blocks-of-reflective-supervision.html.

TECHNICAL

DC Promise Neighborhood Initiative. 2014. *I Heart Data: A Data-Based Profile of the Kenilworth-Parkside Community.* Washington, DC: DC Promise Neighborhood Initiative. http://dcpni.org/wp-content/uploads/2014/02/Final-I-Heart-Data-Booklet.pdf.

Derrick-Mills, Teresa, Sandstrom H., Pettijohn S., Fyffe S., and Koulish J. Forthcoming. *Data Use for Continuous Quality Improvement: What the Head Start Field Can Learn From Other Disciplines, A Literature Review and Conceptual Framework.* OPRE Report # 2014-77. Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research and Evaluation.

Derrick-Mills, Teresa, and Monica Rohacek. Forthcoming. *Data-Informed Continuous Improvement in Head Start: A Cross-Case Study of Local Grantee Practices.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research and Evaluation.

Derrick-Mills, Teresa. Forthcoming. *Understanding Data Use for Continuous Quality Improvement in Head Start: Preliminary Findings.* OPRE Report # 2014-85. Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research and Evaluation.

"Evaluation Capacity Diagnostic Tool." Informing Change, accessed November 5, 2014, http://informingchange.com/uploads/2010/06/Evaluation-Capacity-Diagnostic-Tool.pdf.

Hatry, Harry P, Jake Cowan, and Michael Hendricks. 2004. *Analyzing Outcome Information: Getting the Most from Data.* Series on Outcome Management

for Nonprofit Organizations. Washington, DC: Urban Institute.
http://www.urban.org/UploadedPDF/310973_OutcomeInformation.pdf.

Morley, Elaine, and Linda M. Lampkin. 2004. *Using Outcome Information: Making Data Pay Off.* Series on Outcome Management for Nonprofit Organizations. Washington, DC: Urban Institute.
http://www.urban.org/UploadedPDF/311040_OutcomeInformation.pdf.

National Center on Program Management and Fiscal Operations. n.d. "Attributes of a Good Data Display." Data in Head Start and Early Head Start. Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start.
https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/data/data2/resources/attributes-of-good-data-display.pdf.

National Center on Program Management and Fiscal Operations. n.d. "Data Activities Inventory: Leader's Level." Data in Head Start and Early Head Start. Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start.
http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/center/data/data-activities-inventory.pdf.

National Center on Program Management and Fiscal Operations. n.d. *Data in Head Start and Early Head start: Digging into Data*. Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start. http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/data/data2/resources/digging-into-data.pdf.

National Center on Program Management and Fiscal Operations. "Data in Head Start and Early Head start: Digging into Data. Activity 6: Share Data." Last modified August 7, 2014. http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/data/data2/act6/activity6.html.

National Center on Program Management and Fiscal Operations. *Data in Head Start and Early Head Start: Digging into Data.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start. http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/operations/data/data2/resources/digging-into-data.pdf.

Rabinowitz, Phil, and Stephen B. Fawcett. 2013. "Section 5: Collecting and Analyzing Data." In *The Community Tool Box*. Lawrence: University of Kansas, Work Group for Community Health and Development.
http://ctb.ku.edu/en/table-of-contents/evaluate/evaluate-community-interventions/collect-analyze-data/main.

Rossi, Peter H., and Howard E. Freeman. 1993. *Evaluation: A Systemic Approach. 5th Ed*. Sage Publications.

Skretta, John. 2007. *Using Walk-Throughs to Gather Data for School Improvement.* Reston, VA: National Association of Secondary School Principals. https://www.nassp.org/portals/0/content/55499.pdf.

Snow, Catherine E., and Susan B. Van Hemel, ed. 2008. *Early Childhood Assessment: Why, What, and How.* Washington, DC: The National Academies Press. http://www.nap.edu/catalog.php?record_id=12446.

Suda, Brian, and Sam Hampton-Smith. "The 36 Best Tools for Data Visualization." *Creative Blog,* March 12, 2014. http://www.creativebloq.com/design-tools/data-visualization-712402.

PERFORMANCE MEASUREMENT AND MANAGEMENT

Callahan, K. 2007. *Elements of Effective Governance: Measurement, Accountability and Participation.* Boca Raton, FL: Auerbach Publications, Taylor & Francis Group.

Goren, Paul. 2012. "Data, Data, and More data—What's an Educator to Do?" *American Journal of Education* 118 (2): 233–37.

Hunter, David E. K. 2013. *Working Hard and Working Well: A Practice Guide to Performance Management.* Hamden, CT: Hunter Consulting, LLC. http://www.vppartners.org/sites/default/files/documents/WorkingWellBook_Full_Version_SinglePage.pdf.

Morino, Mario. 2011. Leap of Reason: Managing to Outcomes in an Era of Scarcity. Washington, DC: Venture Philanthropy Partners. http://leapofreason.org/get-the-books/.

National Center on Quality Teaching and Learning. 2012. *School Readiness Goals for Preschool Children in Head Start Programs: Examples from the National Center on Quality Teaching and Learning.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start. http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/docs/sr-goals.pdf.

National Center on Quality Teaching and Learning. 2012. *Understanding and Using Class for Program Improvement.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start. https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/docs/class-brief.pdf.

Office of Head Start. n.d. *A National Overview of Grantee CLASS Scores in 2013.* Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Office of Head Start.

http://eclkc.ohs.acf.hhs.gov/hslc/data/class-reports/docs/national-class-2013-data.pdf.

Partnership for Public Service. 2011. *From Data to Decisions: The Power of Analytics.* IBM Center for the Business of Government. http://ourpublicservice.org/OPS/publications/viewcontentdetails.php?id=169.

Partnership for Public Service. 2012. *From Data to Decisions II: Building an Analytics Culture.* Washington, DC: IBM Center for the Business of Government. http://ourpublicservice.org/OPS/publications/viewcontentdetails.php?id=212.

Partnership for Public Service. 2013. *From Data to Decisions III: Lessons from Early Analytics Programs.* Washington, DC: IBM Center for the Business of Government. http://ourpublicservice.org/OPS/publications/viewcontentdetails.php?id=233.

Partnership for Public Service. 2013*. Taking Measure: Moving from Process to Practice in Performance Management.* Chicago: Grant Thornton LLP. http://ourpublicservice.org/OPS/publications/viewcontentdetails.php?id=232.

Wholey, J. 2001. "Managing for Results: Roles for Evaluators in a New Management Era." *American Journal of Evaluation* 22 (3): 343–47. http://www.classtoolkit.org/sites/default/files/documents/Managing_for_Results.pdf.

W.K. Kellogg Foundation. 2004. *Using Logic Models to Bring Together Planning, Evaluation, and Action: Logic Model Development Guide.* Battle Creek, MI: W. K. Kellogg Foundation. http://www.wkkf.org/resource-directory/resource/2006/02/wk-kellogg-foundation-logic-model-development-guide.