

# Refining Your Evaluation: Data Pathway - From Source to Use

## Purpose

The document is organized into a series of steps that are required to collect high quality data needed to evaluate implementation and outcomes. This document is offered as a reference tool, acknowledging that how goals and indicators are determined, and data are collected and analyzed, depends on a number of factors, including the context and purpose of the data collection and size and resources of the organization. For each step, it is also important to consider the needs and potential contributions of various stakeholders and strategies for maximizing their involvement. Your state’s capacity to fully examine these questions is another critical consideration. Some states may not have the time or resources to make significant changes to their data collection plans and may prefer to examine other areas of their implementation and evaluation.

This document is designed for states who are planning for or engaged in data collection to evaluate implementation and outcomes for the SSIP.

## Background

As states continue to implement Phase III of their SSIP, it is essential that they refine their goals and indicators based on high quality data. High quality data is used to justify mid-course corrections and adjust goals and performance indicators to create a more feasible, sustainable change in professional practice and child and family outcomes<sup>1</sup>. Other worksheets in this series include “Refining Intended SSIP Outcomes”, a worksheet designed to support states in identifying the outcomes most critical to the success of their SSIP and “S.M.A.R.T. Performance Indicator Worksheet”, a worksheet designed to support states in refining their performance indicators using specific, measurable, achievable, relevant and time-bound (S.M.A.R.T.) framework. States can use each worksheet or exercise separately or in combination, depending on their need to reexamine different areas of their SSIP.

## Table of Contents

1. [Define what you are measuring with the performance indicator.](#)
2. [Specify the data elements you need to collect.](#)
3. [Select the best source\(s\) of the data.](#)
4. [Determine how and when you will collect data.](#)
5. [Determine how you will enter, transmit and store data.](#)
6. [Identify ways to improve data quality.](#)
7. [Develop a plan for your data analysis.](#)
8. [Design products to communicate the data/results.](#)
9. [Determine how and when to disseminate products to intended audiences.](#)
10. [Use data for program improvement](#)

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<sup>1</sup> The authors recognize that states have differing capacity and resources to make changes to data collection or evaluation activities.

# Data Pathway

## 1. Define what you are measuring with the performance indicator.

- Who do you want to know about (e.g., providers, children, families)?
- What do you want to know about (e.g. changes in infrastructure, provider knowledge, family engagement)?
- Are your definitions clear enough that a new stakeholder would understand them?
- Do you currently have multiple indicators for each goal that you are trying to measure? Is it feasible to measure all of them? Or are some easier or more important to measure than others?
- According to your logic model, would the indicator be measuring an output, short term, intermediate or longer-term outcome?
- How many months would it likely take to achieve the outcome described by the performance indicator?

## 2. Specify the data elements you need to collect.

- Identify the specific data elements
- Define the data elements and communicate the agreed upon definitions
- Communicate how each data element is related to the performance indicator. Is it directly or indirectly related?

## 3. Select the best source(s) of the data.

- What is/are the best source(s) of the data (e.g., families, program administrators)?
- Are there existing reliable sources of data?
- Is it feasible to access the data source? Would interagency agreements be needed to access data?
- How much access do you have to the identified source(s) of information?
- If data are not readily available, can you revise your performance indicator so that data currently being collected can be used to measure the outcome or output? If you cannot revise your indicator, are there proxy measure you can calculate to use existing data sources?

## 4. Determine how you will collect the data.

- How will the information be collected, e.g., data system, checklist, self-rating scale, behavioral observation, interviews, etc.?
- Will data need to be collected from comparison groups? If so, how will you collect this data? At pre- and post-, considering implementation timelines?
- Does the evidence based practice you are implementing have data tools associated with it?
- How much training, if any, is required to use the data tool (e.g., for an observational tool, observers will need to be trained to reliability)?
- Do you have written procedures for data collection? Training?
- Are the data collection procedures capable of producing valid and reliable data?
- Are the data collection procedures efficient?
- Do you have adequate unique identifiers for the data (for child, family, provider, program, implementation site) to meet your analysis needs?
- How do your current data collection timelines align to your evaluation timelines?
- How will you work with stakeholders from whom data will be collected and/or who will be doing data collection to maximize the effectiveness and efficiency of data collection?
- Do you have the resources (e.g. personnel, time, funds) to do all the necessary steps to ensure the data you need to collect will be valid and reliable? If not, consider revising your performance

indicator and/or the methods to collect the data so that it is feasible and your data is valid and reliable.

**5. Determine how you will enter, transmit and store the data.**

- How will data be entered into forms or a data system? By whom? How often?
- Do you have written procedures for data entry and transmission?
- What technology support will be provided to the people entering the data?
- Where will the data be stored? How will the data be secured and backed up?
- How will you link the data obtained via your measurement tool to other information about children, families and programs?
- Are procedures in place to ensure that those handling the data understand and protect confidentiality?
- Have you explored all options and identified a feasible process or is there an easier way to enter, transmit or store the data? How will you work with who will be entering, transmitting, and storing data to maximize the effectiveness and efficiency of data collection?

**6. Identify ways to improve data quality.**

- Have you provided communication and training to ensure data quality?
- Are procedures in place to check for the completeness, accuracy and timeliness of the data? Will this be done at the state or local level?
- How can you use edit or consistency checks to improve data entry and data quality?
- When low quality data are identified, how will you address it?

**7. Develop a plan for data analysis.**

- How will you aggregate the data, e.g., across implementation sites, points in time?
- How will you disaggregate the data, e.g., for sub-groups of participants or children?
- Will you compare data (score, yes/no answer, percentage) across different subgroups, e.g., providers that received training vs. providers that did not receive training?
- Will you assess changes in a measurement (e.g., a self-evaluation of knowledge related to an evidence based practice) for the same people over time, e.g., before and after participation in training?
- Will you develop table shells (dummy tables) to help think through specific analyses?
- Is there a process to review and revise plans for data analysis as necessary?
- Is there a process in place to develop documentation of the specifications used in the data analysis?
- How will you engage various stakeholders/stakeholder groups in data analysis? What will they need to have meaningful roles? Are there specific contributions some can make?
- Do you have the resources (e.g. personnel, time, funding) necessary to carry out your data analysis? If not, can you simplify your data analysis so that it is feasible but will continue to provide you with the necessary data to measure progress of implementation or achievement of intended outcomes?

**8. Design products to communicate the data/results.**

- Who is the audience for your data products?
- What products can be most readily interpreted by your audience?
- What formats can be easily produced using existing software programs?
- How will you work with stakeholders to maximize the effectiveness of your communication products?

## 9. Determine how and when to disseminate products to intended audiences.

- How will audiences access the products?
- Will audience members need training to access and/or interpret the products?
- How will you ensure timely access to the products?
- How often will you disseminate and/or review the data?
- How will you work with stakeholders to answer the above questions?

## 10. Using data for program improvement

- How will you use the data to inform progress in implementing improvement activities?
- How will you use the data to examine the effectiveness of implementation?
- How will you use the data to evaluate short, intermediate and long-term outcomes, and progress toward those?
- How will you communicate the intended use of the data to the intended users?

## Resources

- [Analyzing child outcomes data for program improvement: A guidance table](http://ectacenter.org/~pdfs/eco/AnalyzingChildOutcomesData-GuidanceTable.pdf). SRI International, The Early Childhood Outcomes Center. Retrieved from: <http://ectacenter.org/~pdfs/eco/AnalyzingChildOutcomesData-GuidanceTable.pdf>
- [A Guide to SSIP Evaluation Planning](https://ideadata.org/resource-library/5697cca3140ba0ca5c8b4599/). IDEA Data Center. Retrieved from: <https://ideadata.org/resource-library/5697cca3140ba0ca5c8b4599/>
- [SSIP Evaluation Plan Guidance Tool](https://osep.grads360.org/#communities/pdc/documents/12904). Office of Special Education Programs. Retrieved from: <https://osep.grads360.org/#communities/pdc/documents/12904>
- [A guide to analyzing data from the Family Outcomes Survey](http://ectacenter.org/~pdfs/eco/FOS_Guidance_Report_08-09.pdf). Early Childhood Outcomes Center. Retrieved from: [http://ectacenter.org/~pdfs/eco/FOS\\_Guidance\\_Report\\_08-09.pdf](http://ectacenter.org/~pdfs/eco/FOS_Guidance_Report_08-09.pdf)
- [Data Visualization Toolkit: Tools & Tips for Presenting Data Effectively](http://dasycenter.org/data-visualization-toolkit/). The DaSy Center, The National Center for Systemic Improvement. Retrieved from: <http://dasycenter.org/data-visualization-toolkit/>

## References

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