Building Effective Data Collection Plans

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Session Goals

- Participants will learn how to develop data collection plans and systems that result in high-quality programmatic data.

- Participants will gain insights about how to use data collected by their program to support continuous learning and program improvement.
Session Outline

- Purpose and importance of data collection
- Process/best practices for developing data collection plans
- Sample data collection plan development
- Small-group discussions by focus area
- Resources to help with data collection plan development
Data

• Data: The raw material used to measure your performance
  • Data collection occurs as a planned process that involves recording information in a consistent way
  • Data collection involves multiple steps that take place throughout the lifecycle of the grant. Data collection is not an end in itself
Goals of Data Collection

- Provide a sound basis for decision making
- Improve service quality and outcomes
- Increase accountability
- Tell your story in a more compelling way
Steps in a Data Collection Plan

1. Select data to collect
2. Identify data types and sources
3. Select or develop instruments
4. Identify data collectors
5. Set a schedule for data collection
6. Set up systems for data storage
7. Train data collectors
8. Pilot-test data collection
9. Implement data collection
10. Analyze collected data
11. Use data to improve your program
Select Data to Collect

- Based on program’s Theory of Change
- Should tell effective story of program impact
- Must be measurable within the program year
Identify Data Sources

- Data source: The person, group, or organization that has information to answer measurement questions.
  - Must be appropriate for type of data to be collected
  - May be existing (secondary) data or new (primary) data
  - Consider pros and cons of different sources: accessibility, cost, staff time, ethics
  - Note: some national performance measures have required data sources
Select or Develop Instruments

• Instrument considerations:
  • Must be suitable for type of change to be assessed
  • Should measure objective change: pre-post measurement is preferable to post-only
  • Should use simple and clear language that does not bias the response
  • Must be appropriate for the age, education, and language of the respondents
  • Should produce data that can be easily compiled and aggregated for reporting
  • Note: some national performance measures have required instruments
Instruments and Data Quality

- **Validity**: The data mean what they are supposed to mean
- **Completeness**: Everyone is reporting a full set of data
- **Consistency**: Everyone is using the same data collection methods
- **Accuracy**: The math is done right
- **Verifiability**: There is proof that the data is correct
Types of Instruments

• For measuring outputs:
  • Tracking Sheet: Used to document service delivery or participation

• For measuring outcomes:
  • Survey: Written questionnaire completed by respondents
  • Interview: Interviewer poses questions and records responses; face-to-face or via telephone
  • Observation: Observer records behavior or conditions using via checklist or other form
  • Standardized Test: Used to assess knowledge
Creating New Instruments vs. Selecting Existing Instruments

- **New instruments:**
  - **Pros:** Can be tailored exactly to your intervention, beneficiaries, and outputs/outcomes
  - **Cons:** Creating a high-quality instrument can be expensive and time consuming

- **Existing instruments:**
  - **Pros:** No need to “reinvent the wheel”; validity and reliability may have already been verified
  - **Cons:** May cost money or be more difficult to access: may require modification to fit your program model
Key Points

The benefits of collecting high-quality data include providing a sound basis for decision making, improving service quality and outcomes, increasing accountability, and telling your story in a more compelling way.

Your Theory of Change, and the key measurement questions embedded in it, are essential guides.

The type of data to be measured influences decisions about sources, methods, and instruments.
Activity
Small Group Discussions

- What data do you use to tell the story of your program?
- What source(s) of data do you use? What are the pros and cons of your data sources?
- What data collection instruments do you currently use? Would you consider them high-quality? Why or why not?
Identify Data Collectors

- Potential data collectors: clients/beneficiaries, AmeriCorps members, program staff, host-site staff, other stakeholders

- Roles: data collection, aggregation, review/verification, analysis, reporting

- Considerations: time, access, objectivity, level of knowledge/training required, confidentiality
Set a Schedule for Data Collection

- Identify who will collect data, using which instrument, and when it will take place
- Share with the team to keep everyone informed
- Include key stakeholders in planning
- Include dates for both pre- and post-assessments
- Schedule time for collecting, analyzing, and reporting on the data
Set Up Systems for Data Storage

- Ensure data security and confidentiality
- Allow for data aggregation and analysis
- Set up appropriate permissions for data collectors
- Retain source documentation for all data
Train Data Collectors

- Identify qualified trainers from inside or outside your organization
- Provide written instructions for collecting the data
- Explain the importance and value of data for the program
- Walk data collectors through the instrument
- Practice and/or role play data collection
- Review data collection schedule
- Explain how to return and store completed instruments
Key Points

Steps to implement data collection include identifying the players involved, creating a data collection schedule, setting up data storage systems, and training data collectors.

Everyone should understand the purpose of data collection and have access to the data collection schedule/procedures.

It is crucial to invest time and resources in setting up high-quality systems for data storage, including source documentation.
Activity
Small Group Discussions

• Who have been effective data collectors for your program, and why? What are the tradeoffs between having staff collect data vs. AmeriCorps members?

• Who in your organization is responsible for creating, disseminating, and enforcing your data collection schedule?

• What tools do you use to securely store data and source documentation?

• What challenges have you encountered training data collectors? What best practices can you share?
Pilot-test Data Collection

• Try out instruments with a small group similar to program participants
• Discuss instruments with the respondents and data collectors
• Analyze pilot test data to ensure the instrument yields the right information
• Make changes based on pilot test analysis:
  • Improve instrument
  • Strengthen the process
• Should be done before the start of the program year
Implement Data Collection

- Perform periodic quality control checks
- Note elements that should be revised or improved in the following year
Analyze Collected Data

- Check data against the 5 data quality elements
- Compare to:
  - Current year targets
  - Previous year results
- Do basic statistical analysis where possible
- Compile key findings for decision-makers and stakeholders
Use Data to Improve Your Program

1. Evaluate Outcomes
2. Develop and Revisit Goals and Objectives
3. Gather Data
4. Discuss and Gather Feedback
5. Analyze Data
6. Develop Plan for Program Improvement and Continuous Learning
7. Synthesize and Produce Report
8. Implement Plan
9. Monitor Performance
Use Data to Improve Your Program

Develop a culture of learning:
• Reflect on data with stakeholders and program staff at all levels
• Use data to ask questions, seek answers, and identify and solve problems
• Make data-informed adjustments to program activities
• Re-assess program goals and objectives based on analysis of collected data
• Use data as basis for long-term planning and decision making
Key Points

Pilot testing is a helpful way to ensure that the data you collect will give you the information you need.

Data collection and analysis provide valuable opportunities to assess what is going well and what can be improved.

The most fundamental goal of data collection is to help you improve your program.
Small Group Discussions

• Have you ever changed your data collection instrument or protocol? If so, what prompted you to do so?

• Who in your organization is responsible for quality control of your data? What systems do you have in place to validate collected data?

• Who in your organization is responsible for data analysis? How does your organization use the analyzed data?

• Share an example of how you have used data you collected to change or improve your program
Performance Measurement Core Curriculum:
https://www.nationalservice.gov/resources/performance-measurement/training-resources
  • Collecting High Quality Outcome Data courses (Part 1 and Part 2)
  • Data Collection and Instruments resources

Evaluation Core Curriculum:
https://www.nationalservice.gov/resources/evaluation/all-evaluation-resources
  • Data Collection course
  • Reporting and Using Evaluation Results course
Other Performance Measurement Resources:
https://www.nationalservice.gov/resources/performance-measurement/other-americorps-performance-measurement-resources
• Data Quality Review Best Practices course

2017 National Performance Measure Instructions:
• Lists required data sources and instruments for national performance measures