Introduction

The Pennsylvania Department of Corrections (PA DOC) has initiated an ambitious agency wide transformation to align education and training within the corrections system in order to better prepare incarcerated individuals for employment opportunities when they are released. When working on a system-level change, a data strategy is critical – providing regular guidance to measure effectiveness of program or system redesign and ultimately measure participant outcomes. In comprehensive initiatives, the amount and complexity of the data can be daunting. The PA DOC established a data dashboard to analyze and report their systems change work, including data on demographics, program participation, and program completion.

Drawing from the PA DOC, this tool provides some tips for stakeholders interested in creating a data dashboard to support their organizational change efforts. Specifically, this Tip Sheet will help stakeholders with the start-up questions:

1. Why make a data dashboard?
2. What questions does the data dashboard answer?
3. Which indicators or metrics will answer the question?

Why Make a Data Dashboard?

Data dashboards can be a very useful tool for capturing and analyzing data as collected as part of a larger evaluation plan. With a dashboard, stakeholders can provide data snapshots that pull together multiple types of data in a single view. For example, stakeholders can easily compare participants’ demographic, academic history, and credential attainment with one view. This “at a glance” data facilitates a regular schedule for data analysis – a benefit for internal evaluations.

The Pennsylvania Department of Corrections (PADOC) created a dashboard to capture vocational training programs and employment trends for the inmates at six different institutions.

**Tip: Make your dashboard work for your organization.** Dashboards can be as simple or as complicated as needed. PA DOC, a complex and sophisticated organization, hired an external organization with the capacity necessary to integrate the system’s data into a single dashboard. Dashboards can also be developed “in-house” and can be as simple as an Excel generated chart.
What Question Do You Want the Data Dashboard to Answer?

It’s important to think about what questions you want the data dashboard to answer before developing the dashboard. Your organization probably already has some broad questions about their services or programs that they want answered, which can be a good place to start for your data dashboard. New questions can emerge over time but having the most essential questions up front will help ensure that the framework for the data dashboard can help you analyze the critical elements of your program and best understand its effectiveness.

The PA DOC is interested in supporting individuals while incarcerated but also in their job searches and pathways to employment. For example, questions could include:

- the efficacy of their vocational training programs supporting career pathways inside and outside of prison,
- the success of former inmates once they get released, and
- the trends we see that can help us make decisions about what programs to offer

**Tip: Engage partners in dashboard design.** If you will be working in close partnership with other organization, it is important to consider their driving questions as well so the dashboard analysis can be as robust as the program inputs.

What Indicators or Metrics Will Answer the Question?

After identifying the essential questions, the next step is to consider the indicators that answer those questions and cover the time frame the organization wants to measure. It is important to talk through the indicators with relevant team members, because terms can be defined differently and be reflected by different measures. For example, organizations typically want to measure “program completion” but it can be defined differently: earning the credential, completing all program requirements but the credential attainment is measured separately, or completing all program requirements and having a specific level of attendance. Clarity up front is crucial!

For example, PA DOC is interested in tracking post-release outcomes because making connections between the corrections facility and the regional Career Link is a critical part of their systemic reforms. They were specific about the outcomes. The individual outcome measures tracked the number of reentrants who are employed, the number employed in a field they got training in, and the number who recidivate. Using this data, PA DOC intends to compare recidivism rates between inmates enrolled in the PA DOC training programs and those who did not.
Tip: Make sure data is available: The program staff developing the dashboard and data management staff who pull the data and (potentially) are making the dashboard itself should work together to identify the desired data is available and accessible.

There are other more technical steps, such as pulling data, merging files, cleaning data and formatting the dashboard, involved in creating a data dashboard that are beyond the scope of this tool. However, after thinking through these first steps, there is a foundation for creating a data dashboard to help drive your organization to make data informed decisions.

Dashboards Can Support Discrete Organizational Goals

PA DOC’s dashboard is informing program improvement and participant outcomes. Consider these when shaping a dashboard:

Who do you serve? Identify the data that speaks to who is being served and who is delivering services. For example, collecting participant level data like age, race, gender, level of program involvement, or incoming credential attainment can help analyze equity in program effectiveness.

Where can we improve? Identify the strengths and need for improvement in the program design and implementation of program activities. For example, collecting data that includes courses (noting duration of course, type of instruction), program experiences like work-based instruction. If any form of technology is used, data can be collected on which tools to use to be able to compare outcomes by tool or between use of tool with or without the course experience.

How can we build organizational capacity? Identify data that speaks to the “inputs” for the organizational capacity to implement programming or services. For example, include data on operational inputs like the number of staff for delivering a particular program element, track funding per participant or per services, or capture survey responses from staff/administration about implementation in order to make decisions about program improvement or ability to scale.

How are the participants doing? Identify the data that speaks to participant experiences in the program and their short and longer-term outcomes. Consider sharing this data with staff and participants so they can directly see and speak to successes and offer strategies for addressing challenges. Note: Creating dashboards that integrate data on in corrections and in community outcomes will require strong data agreements between partners.

Is the programming effective? Identify what “success” looks like for the program and participants and identify the data that helps the organization examine program effectiveness. For example, staff are critical but often overlooked when considering program performance. If staff turnover has been a problem and negatively impacting program delivery and effectiveness, it would be helpful to consider collecting data on staff retention and performance as a metric for evaluation.