

An outcome measurement system is a powerful tool that can help nonprofits identify and quantify changes in individuals, families and communities resulting from the organization's efforts. In an increasingly competitive funding environment, it is crucial for nonprofits to be able to clearly communicate the impact of their programming to funders. More importantly, nonprofits owe it to themselves and to their clients to critically examine their programs in order to facilitate continuous quality improvement and ensure that their programs truly deliver the expected outcomes.

With more than 20 years of experience with outcome measurement, Public Health Management Corporation (PHMC) has developed expertise in working with other nonprofits to create an effective outcome measurement system without breaking the bank. The system involves six basic steps:

**Step 1:** Convening an outcome measurement work group

**Step 2:** Developing or modifying program logic models

**Step 3:** Identifying data collection methods

**Step 4:** Creating data collection instruments

**Step 5:** Recording and analyzing data

**Step 6:** Using the results

## STEP 1: CONVENING AN OUTCOME MEASUREMENT WORK GROUP

The development of a truly effective outcome measurement system requires input from multiple staff members (or active program volunteers) at a variety of levels. The inclusion of representatives from all relevant groups will help ensure that the outcome measurement system is truly reflective of organizational realities. Additionally, an inclusive work group is critical for creating a sense of ownership and getting buy-in from all staff.

### The Group

At a minimum, the work group should include:

- 1** Program development or supervisory staff familiar with grant requirements and expected deliverables for funders
- 2** Direct service staff and/or their supervisors (if the program involves multiple types of direct service staff, such as case managers, therapists and nurses, at least one staff member of each type should be asked to participate)
- 3** Executive level staff or administrator who operates at a "big picture" level
- 4** Information systems staff (official or unofficial)
- 5** Program evaluation staff, if available

Staff selected to be part of the outcome measurement work group should be familiar with or introduced to basic concepts of outcome measurement and logic models. Ideally, they should also have some knowledge of or familiarity with data collection instruments such as intake forms, questionnaires and surveys as well as database software.

### The Facilitator

A single individual should be appointed to manage the process of developing an outcome measurement system. This person should be very familiar with developing logic models, measuring outcomes and data collection and analysis. If there are no staff or board members or volunteers with the requisite skills, organizations should feel comfortable seeking external

resources. Members of local or national networks might be able to solicit assistance from the central office or from another member of the network. Agencies may also want to consider investing in staff training or hiring a consultant. When choosing a facilitator, organizations should consider the potential trade-offs between internal and external personnel. While internal staff will come to the process with significant knowledge of the organization's programs, external facilitators can offer an outsider's perspective on agency outcomes and draw on experiences working with other nonprofits with similar issues. Organizations should choose the type of facilitator that works best for their unique situation.

## STEP 2: DEVELOPING OR MODIFYING PROGRAM LOGIC MODELS

### Logic Model Components

The logic model forms the foundation of any outcome measurement system. It illustrates the reasoning behind how and why a program should work; this is also sometimes referred to as the "theory of change." Logic models have a minimum of three basic categories: inputs, outputs (or activities) and outcomes. Inputs are program investments such as funding or staffing; outputs are the concrete, measurable activities for which the inputs will be used; and outcomes represent measurable or immeasurable impact of the inputs and activities on program participants. The logic model is a graphical representation of how these outputs are used to facilitate program activities which will, in turn, change the lives of program participants for the better. Logic models should also include information on external factors that may hinder or enhance program efforts and any assumptions upon which the logic model is based. This information is not part of the formal logic model but is useful for putting the model in context and will help the group identify external challenges or supports.

### Defining Outputs and Outcomes

Logic model components may be further divided, if necessary, for improved clarity or to help manage an abundance of data. Outputs may be divided into activities conducted and participation levels. For example, an after school literacy program might plan to operate a Reading Clinic for three hours a day, three days a week. The operation of this clinic is one output. Additionally, the program might hope to attract at least five students to each Reading Clinic; this is another output. The program might also hope to attract repeat students, perhaps having 25 students attend at least five Reading Clinic sessions over the course of a semester; this is yet another output.

Outcomes may also be divided into short, medium and long-term outcomes. Short-term outcomes are the immediate, and typically measurable, results of an intervention. Short-term outcomes include a specific number or percentage of participants to be impacted, a specific measurable change in participants, and a specific time period within which the change should occur. For example a short-term outcome of the Reading Clinic might be that 75% of participants improve their reading by one grade level by the end of the academic year.

#### Example of a Short Term Outcome:

75% of participants improve their reading by one level by the end of the academic year.

Specific number or percentage of participants to be impacted

Specific measurable change in participants

Specific time period within which the change should occur

Short-term outcomes must correspond to the outputs listed on the logic model. If the logic model lists improved academic performance as an outcome, there must be a corresponding output such as tutoring or homework help.

Medium-term outcomes are an extension of the short-term outcomes. For example, as a result of the improvement in their reading skills, students may improve their overall academic performance. Medium term outcomes tend to be more difficult, but not impossible, to quantify.

Finally, long-term outcomes represent the ultimate impact (and often the overall goal) of a program. For example, a long-term outcome of participation in the Reading Clinic might be that participants are more likely to graduate high school, go to college, and/or become gainfully employed. Long-term outcomes are typically measured only in research settings, but it is nonetheless important for programs to keep these outcomes in mind throughout the process of planning, delivering and evaluating services.

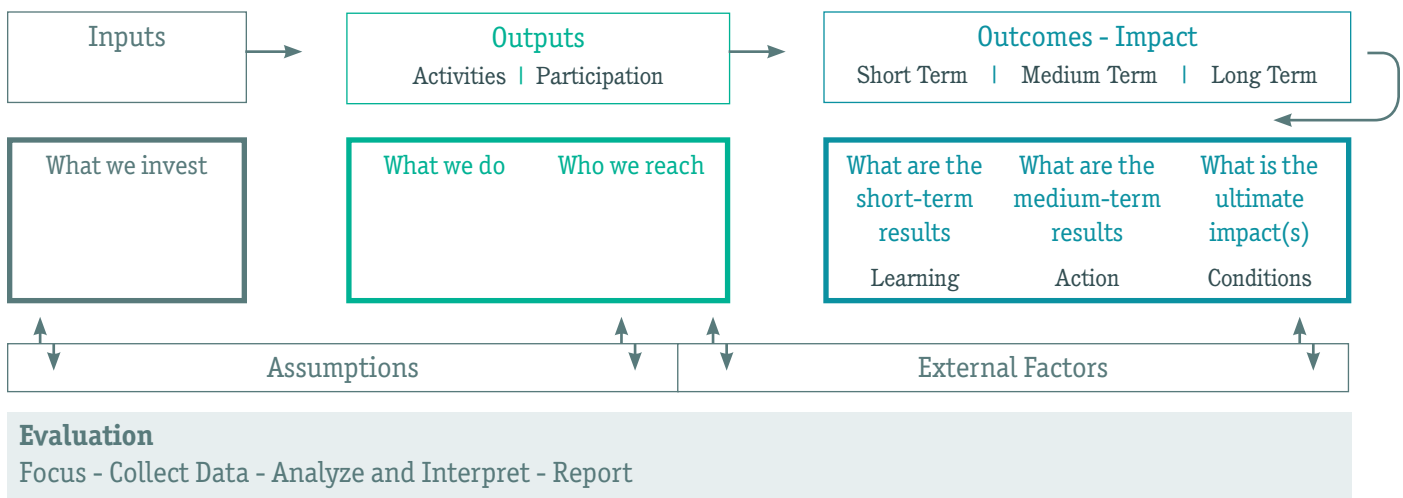
Agencies with multiple programs may want to consider creating a set of outcomes that is applicable to all of its programs. If the diversity of programs and populations served makes this impossible, the group may need to evaluate each program separately.

### Re-evaluating Existing Logic Models

If logic models already exist, the work group may first want to re-evaluate these to ensure that they still reflect program realities and goals, and are consistent with best practices in outcome measurement. Otherwise, the group must develop logic models from scratch. Below is a typical logic model template that might be used for such an exercise. The process of completing logic model requires additional research outside of the work group. This involves reviewing funders’ requirements, program activities, agency priorities and funding limits, and research literature on the outcomes most commonly achieved by the type of program involved. For example, PHMC recently worked with an agency that purchased an after school curriculum from a national organization. Research revealed that a prestigious university had conducted an evaluation of the curriculum’s outcomes, identifying changes in the students who were associated with the program’s curriculum. These changes in the students could then be added to the agency’s logic model as measurable outcomes.

While this might be the most demanding phase, it is also the most important, as it lays the foundation for the remaining steps.

#### Program Action - Logic Model:



### STEP 3: IDENTIFYING DATA COLLECTION METHODS

Once the logic model(s) are complete, the next step is to determine the most efficient method of gathering valid data on each short-term outcome.

#### Pre- and Post-Testing

The easiest and most efficient method for collecting data from participants is pre- and post-testing. Pre- and post-tests are identical surveys administered before and after the intervention. The survey questions are designed to measure knowledge, attitudes or other factors that should be affected by the intervention. The difference in results of the pre- and post-tests serves as an indicator of the program's impact on participant knowledge, attitudes or other attributes. If it is not practical to collect pre- and post-test data, a post-test survey asking participants to self-report on any changes in the knowledge, skills or attitudes is acceptable. Standardized tests such as grade level reading tests can also be administered as pre- and post-tests.

The work group should determine whether the tests will be administered by someone else or filled out by the participant, and whether it will be oral, written or electronic. Many agencies use free internet-based survey vendors, such as Survey-Monkey™, to survey populations who have access to email. Online survey tools are easy to administer, no data entry is required, and the information and response rates are generally high. Organizations should choose the collection method that works best for them and their participants; some experimentation may be required to determine the ideal method.

#### Other Sources of Data

In addition to collecting data from participants, programs may want to collect other observable data such as academic records, attendance records and test scores. The achievement of specific milestones within a given timeframe can also be used as an outcome measure, such as the percentage of participants in a college prep program that enroll in a four-year university. Obtaining this data can be more difficult, particularly if the outcomes in question are typically observed outside of the program context. Nonetheless, where it is available, this data is a powerful tool for measuring the real-life impact of a program on its participants.

### STEP 4: CREATING DATA COLLECTION INSTRUMENTS

After choosing the appropriate data collection methods, the group might then need to develop instruments for capturing the data. The most commonly used instruments are surveys. Many programs struggle with creating surveys because they do not have staff with sufficient research experience in writing questions and developing surveys. For these agencies, there are alternatives to creating a survey from scratch, such as adapting one or more validated survey instruments used by others in the field; using instruments supplied by the agency's national program office; hiring a consultant; or identifying a skilled volunteer to develop a survey. The most important issue is to ensure that the questions asked are valid for measuring the relevant outcome and that the questions are asked in a way that does not compromise this validity. Organizations may find it necessary to invest in purchasing validated instruments or hiring a qualified consultant to ensure that this requirement is met.

### Incorporating Data Collection into Programming

The work group should also consider whether any outcome-related survey questions can be added to existing instruments, such as an intake, application, or discharge forms. Standard program forms should also be reviewed to ensure that important information on factors that may influence program impact, such as educational level, is being collected. This data can help to inform program planning decisions and can help provide context for observed outcomes and variance among participants.

### STEP 5: RECORDING AND ANALYZING DATA

In order to facilitate follow-through, the work group should also develop a formal data collection timetable for the program. Data collection may be based on time landmarks for each program; for example, an afterschool program might collect data at the start and end of the school year. If no staff were previously responsible for outcome measurement, the work group should also ensure that a specific staff member(s) is assigned to perform or oversee data collection, quality assurance, data entry, and reporting. This should become a formal part of that individual's job description and their workload should be adjusted to make time for these responsibilities. This is critical to ensuring the proper function of a healthy outcome measurement system.

Once the data is collected, it must be recorded—usually in a database or spreadsheet. Nonprofits may choose to obtain new software or adapt existing software, both of which have their tradeoffs. New software can be pricey and may require significant upfront data entry. Depending on the complexity of the software, it may also be necessary to engage a consultant long term to assist staff in manipulating the software appropriately. Adapting existing database software can also be challenging, as this may require in-house programming expertise. Additionally, existing systems used by program staff—for example, case management software—might not readily lend themselves to adaptation. Moreover, if the software program is mandated and managed by an external party, such as a funder or national office, organizations may not be allowed to change the system in order to accommodate outcome data. In such cases, organizations may consider using a secondary system for outcome measurement.

At a minimum, any software used for data collection should be capable of:

- 1 Assigning unique identifiers to participants, thereby ensuring that no participants will be mistaken for another
- 2 Recording multiple pieces of data related to one record, such as multiple test scores on multiple dates for a single student
- 3 Tabulating or comparing data points for single or multiple participants; this might include comparing pre- and post-tests for individual participants, calculating averages and comparing average results among subgroups

At the most basic end of the spectrum are spreadsheet programs, such as Microsoft Excel. In the hands of a high-level user, Excel can perform all of the above tasks and more. This is a low-cost, low-tech alternative for data entry and analysis in situations where the data is relatively simple and straightforward. Organizations requiring a more powerful data management system may need to review available options in order to determine what is best of their particular situation and resource level.

## STEP 6: USING THE RESULTS

Oddly enough, after investing in the establishment of an outcome measurement system, many nonprofits often fail to use the results to their fullest advantage. Most nonprofits use the system to generate reports for funders and nothing more. However, the data can be used in many other ways, including:

- 1 Publicity:** Outcome data can be used to form the basis of press releases and publicity efforts to enhance the organization's visibility and reputation. This may also help the organization attract new clients and staff, as well as funders.
- 2 Program Planning:** Outcome data, combined with routine program data can provide a goldmine of information about who benefits from the program and what aspects of the program work best. For example, data from Reading Clinic participants may reveal that the reading skills of students at Site A improved far more than students at Site B. Further investigation might reveal that Site A used different books during the Reading Clinic and that this might have contributed to the disparity. Program staff at Site B can now try to replicate Site A's success by using the same books in its Reading Clinic.
- 3 Staff Motivation and Recognition:** Most nonprofit employees are motivated by more than a paycheck; they chose their careers because they wanted to make a difference. Internal reports and celebrations of success can be powerful motivators for staff. Additionally, if staff are randomly assigned to individual participants, variance in participant outcomes by staff member can be attributed to the efforts of individual staff. In such cases, supervisors may want to reward employees whose participants have higher success rates or enlist them to train or mentor other staff in order to help them improve.
- 4 Strategic Planning:** Outcome data can be a useful tool for organizations developing strategic plans as it provides information on the strength and reach of the organization's programming. The logic model can also be used as part of a strategic planning process as a tool to help organizations clarify their vision and mission by outlining the "why" behind what the organization does.

## CONCLUSION

A comprehensive outcome measurement system can yield significant benefits to nonprofits on multiple levels. Developing such a system will require organizational investment, but it does not have to be overly cumbersome or costly. Some organizations might feel they cannot afford to spare even a bare minimum of time or resources for such a project. However, given the increasingly complex social problems nonprofits struggle to address and the increasingly competitive funding environment in which they operate, it is quickly becoming clear that if nonprofits want to survive, they cannot afford not to invest in outcome measurement.