LOGIC MODELS

TIP SHEET

What is a Logic Model?

- A simple way of showing program "theory" – in other words, what the program does and what it expects to change as a result. Once your logic model is complete you can create and action plan to implement your program - See Action plan tip sheet, page 4-1.

Why do it?

For program planning:

- To shift focus from "doing" to "results"
- To test the logic of your program and spot any gaps before the program begins
- To involve all the stakeholders (management, staff, participants, community and funders) in the program planning process
- To create a common understanding of the program goals and how to achieve them

For effective communication:

- To explain the rational behind your program
- To set out the key elements of your program
- To better explain the sequence of change and the time necessary to achieve results (especially when making a case to funders)

For evaluation planning:

- To create your own definition of success
- To find "organic[1]" ways of measuring that success
- To generate a plan for evaluation feedback during the life of the program, not just at the end

For continuous learning and improvement:

- To have a model that can be revised as you learn from implementing your program and from evaluation feedback

What does a logic model look like?

A logic model is a way of mapping a logical sequence - like a flow diagram. Sometimes the diagram flows from left to right, sometimes from top to bottom and sometimes even in a circle. The United Way uses one model, WestCAPT another, but there is no "right" way to construct a logic model.

[1] Meaning, ways that flow out of the programmatic activities, that complement or even strengthen the program, not evaluation activities that impede or distract from the program

What are the key elements of a logic model?

1. Need

Although this is not included in some logic models, it is an important part of program planning. Why and how do I know my community needs this program? What are the risk factors, problems or issues you are addressing? What are the protective factors or assets you need to improve? Community needs assessments or data and research on the issues your program addresses will help you (see Creating a Data Map tip sheet, page 1-1). It is also helpful to do a "targeted root cause analysis" to make sure you are dealing with the root of the problem, not just a symptom of it . Remember: the need is what you are attempting to reverse in your long-term outcome.

2. Strategies

These are the broad categories of services or approaches that your program provides. (Strategies are the broad-brush strokes; activities are the day-to-day detail.) This is what you are going to do. When selecting strategies it is helpful to see what lessons have been learned (CSAP's Principles of Substance Abuse Prevention[2], DOE's Principles of Effectiveness, NIDA's Prevention Principles for Children and Adolescents), it may also be useful to adopt a model program (see Model Programs tip sheet, page 4-4). Remember: THE STRATEGY MUST ADDRESS THE NEED.

3. Outcomes

Outcomes are the changes that occur as a result of your program. Because change is slow and happens incrementally, it is often useful to further break out your outcomes into short-term, intermediate and long-term outcomes.

3a. Short-term outcomes

Sometimes called "early" or "immediate" outcomes. These are the changes that happen early on and can be as simple as the program participants gaining trust in the program providers. Simple, but crucial. Without this first step, often a program would not work at all.

3b. Intermediate outcomes

These are the mid-term outcomes and are an indication, a signpost that you are on your way to achieving the long-term outcomes.

3c. Long-term outcomes

Long-term outcomes are what you ultimately expect to affect as a direct result of your program. These are the results you are willing to be accountable for producing. They are what you can realistically accomplish. Long-term outcomes are sometimes confused with "impacts." Impacts tend to be longer term and are the realization of goals or vision for the program, whereas outcomes are the realization of specific

[2] DHHS publication (SMA)01-3507

objectives.[3] Long-term outcomes should directly address (reverse) the need.

Hint: if you have selected risk and protection factors to describe your need which have been proven to affect substance abuse[4], then you don't need to prove that you have affected substance abuse, just the risk and protective factor. The link to reduced substance abuse has already been made for you.

Important points to remember:

There is no "right number" of outcomes. You can select as many levels of outcomes as you need to describe the changes that happen as a result of your program. The number will depend on the nature, resources, and size of your program and the number of program partners involved. Mostly it is just easier to organize the outcomes into three levels.

Don't set yourself up to be evaluated on outcomes you can't control. The logic model enables you to think through which outcomes you can reasonably be expected to achieve and therefore want to be evaluated on. The more immediate the outcome, the more likely you will be able to affect it. *(E.g. In a parent-training program, you can expect to change the participants' knowledge about substance abuse.)* On the other hand, the longer term the outcome, the more unlikely you will be able to control the external factors. *(You wouldn't want a parent-training program to be evaluated on an impact such as decrease in adolescent ATOD use because of the influence of a variety of other factors, such as the social, cultural, political, and economic environment.)*

Just because other forces affect an outcome doesn't mean it shouldn't be included. Despite the influence of other factors on ATOD use, you may wish to measure and track these outcomes in order to understand the rates of use in the community, and what effects the different factors (including your program) may have on overall rates of use.

4. Indicators.

The amount of different terminology around indicators is very confusing (please see Logic Model Terminology), but it is helpful to know that indicators are just signals. It is the "how I will know it when I see it."

Indicators signal why you're doing the program **(need)**
Indicators signal that you've done what you said you would do **(strategy)**
Indicators signal change **(outcomes)**

Some logic models just use outcome indicators, but it is useful to figure out how you are going to know that there is a problem (indicator of need), so you can figure out how you are going to know that there has been a change (outcome indicator). As evaluation measures *change*, it makes sense to use the same indicator for both.

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[3] Some evaluators only talk about "impact" when the program results are measured against those of a comparison group that didn't receive the program. This way it can be proved that the changes were as a result of the program and not some external factor which would have had the same effect.
[4] CSAP uses the list generated by Hawkins and Catalano.

5. Measures

If indicators are the way you know change has happened, measures are the way you record that change. There are measurement tools (think caveman with a stone) and measurement instruments (think ruler). You can develop your own tools and instruments (like an observational checklist) or use ones that have already been developed (standard psychological tests). Other things to consider are:

- How reliable is the measure? (Will it record results in the same way each time you use it?)
- How valid is the measure? (Is it really measuring what you want it to measure?)
- Is the measure likely to be sensitive to changes?

Plan to evaluate and learn from the data.

The purpose of this tip sheet is to help you develop a logic model that describes your program and identifies outcomes, indicators and measures to assess your progress and results. The next step is to put an evaluation plan in place to collect data on the measures you've identified and to use that data and the logic model for learning. You also need a "Scope of Work" or "Action Plan" to translate your theory on how you affect change into the actions needed to produce that change. (See Action Plan tip sheet, page 4-1.)

What are the limitations of logic models?

- The logic model only *represents* reality, it is not reality
- Programs are not linear
- The logic model focuses on expected outcomes – you might miss unintended or unexpected outcomes
- A program is likely to be just one of many factors influencing outcomes

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This tip sheet was created by Louise Godbold. The sheet draws on many sources, but some of the most useful in understanding logic models are:

http://www.the2professors.com/Logic%20Models.htm
This site will link you with the work of Charles Mindel, Ph.D., Director, Center for Research, Evaluation and Technology and Professor of Social Work, University of Texas at Arlington. The site includes presentations and documents produced for the United Way and the W. K. Kellogg Foundation.

http://www.unr.edu/westcapt/bestpractices/eval.htm

This is the WestCAPT site, sponsored by CSAP. It provides a step-by-step guide on how to create logic models for substance abuse prevention programs.

http://www.gse.harvard.edu/hfrp/projects/afterschool/resources/learning_logic_models.html

This site provides a brief on logic models written for human service providers. Although it is geared towards the Out-of-School Time program, it contains many clear explanations and good tips. The brief is extracted from: "Using results to improve the lives of children and families: A guide for public-private child care partnerships. Child Care Partnership Project." Watson, S. (2000).