PCAR

Technical Assistance Bulletin

Theory of Change and Logic Models

"If you don't know where you're going, how are you gonna' know when you get there?"

– Yogi Berra

Logic models are useful tools for program planning, evaluation, and communicating a vision or idea. This technical assistance bulletin will help you understand the parts of a logic model and how to put them together to demonstrate how and why your program will achieve its goals.

Theory of Change

A good logic model has a solid theory of change to guide it. A theory of change explains the process of how a change will occur; it illustrates the relationships between actions and outcomes and how they can work together to bring about a desired change (Anderson, 2005). Essentially, a theory of change is what puts the logic in a logic model. Developing a theory of change allows you to explore how and why you think your program will work (W.K. Kellogg Foundation, 2004). Through this process, assumptions you have will become clear; you will determine where there are gaps or missing parts that need to be filled to meet your goals (Anderson, 2005). Using a cause-and-effect approach, theories of change ask us to think about the future and predict what needs to happen, and in what order, to bring about change (Milstein & Chapel, n.d.).

"A theory of change explains how a group of early and intermediate accomplishments sets the stage for producing long-range results."

(Anderson, 2005)

What are Logic Models?

Logic models provide a snapshot view of how a program will achieve its goals. The purpose of a logic model is to describe a program and its theory of change to explain how resources and activities will achieve the goals of the program. It also explains why a program should be successful (Milstein &

Chapel, n.d.). Logic models represent intention, not necessarily reality – in other words, it shows the connection between your planned work and what you hope to achieve (W.K. Kellogg Foundation, 2004). Logic models are commonly developed during program planning, though they can be changed as a program evolves.

"A logic model is a systematic and visual way to present and share your understanding of the relationships among the resources you have to operate your program, the activities you plan, and the changes or results you hope to achieve."

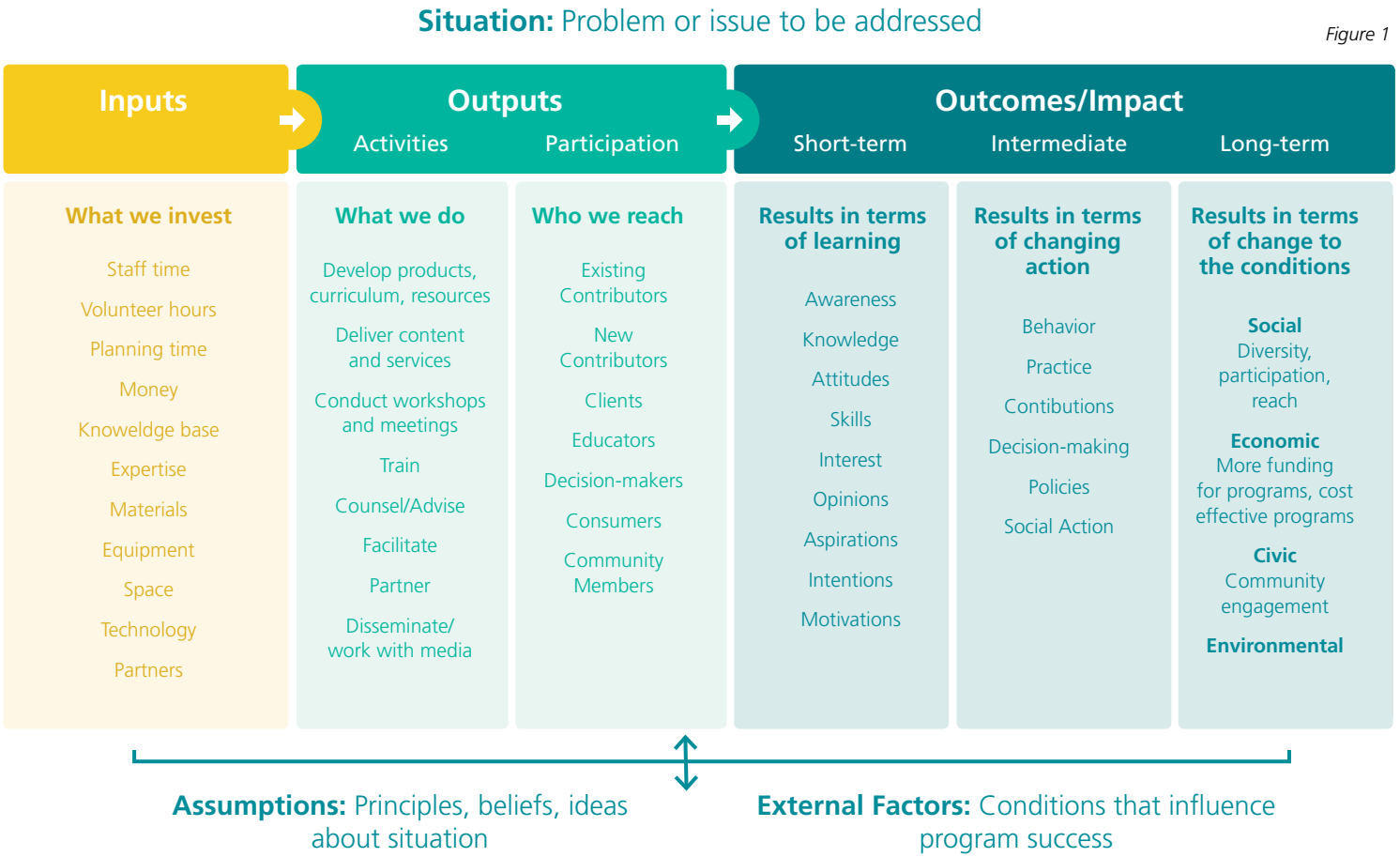
(W. K. Kellogg Foundation, p. 1)

Why use Logic Models?

While logic models may seem like a time-consuming and complicated process, they are worth taking the time to develop– and can actually be fun to create! When developing and planning, logic models can help you find gaps in the logic of a program, or what you might be missing to achieve your goal (Anderson, 2005). Logic models may also serve as the foundation of your evaluation plan by determining what is appropriate to evaluate, or by helping you make sense of your evaluation findings (Taylor-Powell, Jones, & Henert, 2005). A logic model can help illustrate how changes from the original program plan may influence the observed program outcomes.

Logic models are commonly required by funders, though they also serve as a way for your organization to better understand how to achieve your goals. Not only is it important for your organization to have a shared understanding of your vision, it is also important to effectively communicate that vision to funders and other stakeholders (W.K. Kellogg Foundation, 2004).

Figure 1



Adapted from "Program Action – Logic Model" by Wayne State University, Center for Urban Studies, 2014. Retrieved from http://www.cus.wayne.edu/logic-model-development/

Parts of a Logic Model

You may have noticed that logic models can look very different from one another – this is because there is no "right" way to make a logic model. However, there are a few key parts in common that provide a basic structure regardless of how you might use the logic model.

The three most basic parts of a logic model are the inputs, outputs, and outcomes. These terms and the other parts of a logic model are defined below. See the graphic on the previous page for examples of these parts.

Situation

The problem or issue to be addressed. The situation is the environment in which a problem or issue exists (Taylor-Powell, Jones, & Henert, 2003). This is what you want to change or address. When brainstorming, think about why it is a problem and for whom.

Inputs

What we invest. Inputs are the human, financial, organizational, and community resources a program has available to contribute to the program (W.K. Kellogg Foundation, 2004). Inputs are sometimes referred to as resources. Determining inputs lets you take inventory of what you already have and what you need to operate your program.

Outputs

What we offer. Outputs are the activities, services, events, and products that reach targeted participants (Taylor-Powell, Jones, & Henert, 2003). Outputs lead to outcomes. Outputs include activities and participation.

Activities

What we do. Activities are what the program does with the resources in order to achieve outcomes. These are the processes and actions that take place (W.K. Kellogg Foundation, 2004).

Participation

Who we reach. Participation refers to the people, or the groups of people, whom activities will impact. This includes your target participants as well as other groups or individuals with which you plan to interact.

Outcomes

What results. Outcomes are the direct results, specific changes, or benefits to the target participants. Short-term outcomes refer to immediate or initial changes; intermediate outcomes are the midpoint changes; and long-term outcomes refer to the ultimate result, or impact. There is typically an "if-then" relationship among outcomes: if the short-term outcome happens, then we expect the intermediate outcome. If the intermediate outcome happens, then we expect the long-term outcome. The outcomes are generally interrelated and interdependent, such that longer-term successes build on earlier successes. Outcomes can change participants' behavior, knowledge, skills, status, and level of functioning (W.K. Kellogg Foundation, 2004).

Assumptions

Principles, beliefs, and ideas about situation. Assumptions make us think about how and why the strategies will work in our community (W.K. Kellogg Foundation, 2004). These assumptions should be about the problem, or how the program will operate, including assumptions about resources, staff, knowledge base, and participants (Taylor-Powell, Jones, & Henert, 2003). When brainstorming, think about what you know versus what you are assuming about the problem and your program.

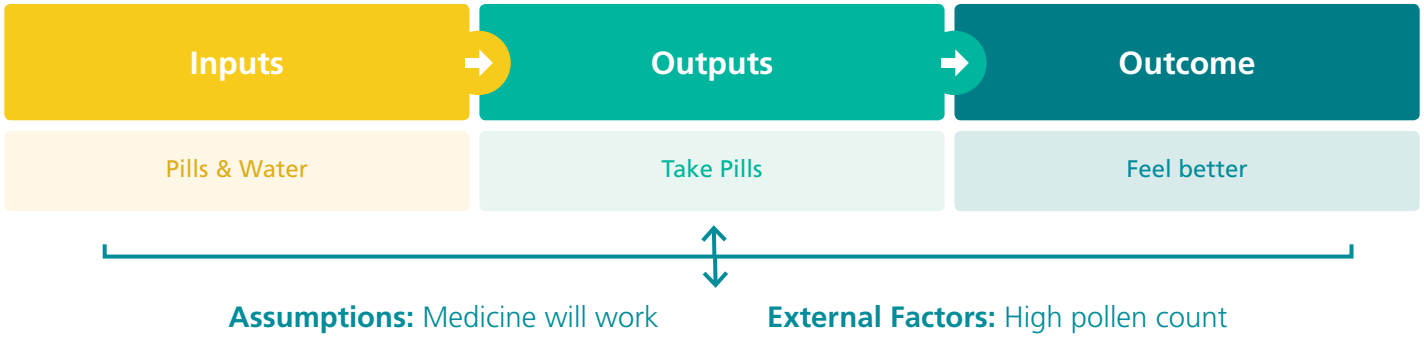
External Factors

Conditions that influence program success. External factors are conditions that the program has little control over, like politics, economy, culture, resources, etc. (Taylor-Powell, Jones, & Henert, 2003). You must consider how these factors might affect implementing the program and achieving the desired outcomes.

Now that you understand all the parts of a logic model, let's look at a very simple example.

Situation: You have a sinus headache from seasonal allergies

Figure 2



In this example, the situation is that you have a sinus headache because of your seasonal allergies. In order to feel better, you take your allergy medicine. Your assumption is that the medicine will work, but the high pollen count outside may impact the effectiveness of the medicine and your ability to feel better. While most logic models are more complex than this example, depending on the purpose of your logic model, they might be just as simple.

Outputs

In some logic models, activities are separate from outputs. In these models, outputs are defined as the accomplishment or product of the activity. These are typically written to include numbers (Taylor-Powell, Jones, & Hernet, 2003); for example, the number of trainings, or number of participants who attended a training. The terms outputs and outcomes are commonly confused. The main difference is that outputs relate to what we do, while outcomes refer to what difference it makes (Taylor-Powell, Jones, & Hernet, 2003).

More about Outcomes

Outcomes typically fall along a continuum from shorter to longer-term results. The three levels of outcomes to consider when making your logic model are short-term, intermediate, and long-term.

Short-term outcomes are often what result in terms of learning.

This includes participants' change in awareness, knowledge, attitudes, skills, interest, opinions, aspirations, intentions, and motivations. These are the immediate or initial changes.

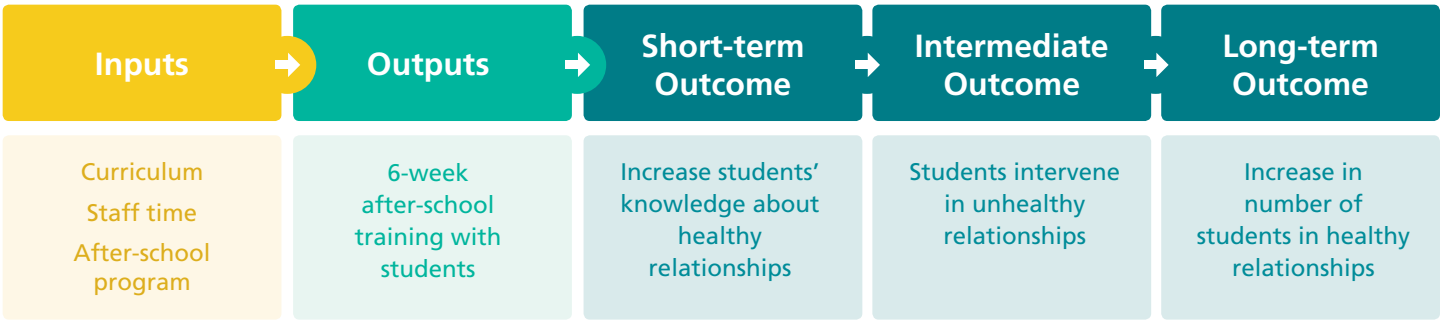
Intermediate outcomes are often what result in terms of changing action.

This includes a change in behavior, practice, contributions, decision-making, policies, and social action. These are the midpoint changes.

Long-term outcomes are typically what result in terms of change to the conditions.

This includes social, economic, civic, or environmental changes. These refer to the ultimate result, or impact.

Figure 3



Writing Outcomes

Outcomes answer the question "So what?" or, "What difference does the program make? For whom?" (Taylor-Powell, Jones, & Hernet, 2005). These questions help guide us when writing outcomes by forcing us to think about what impact our planned activities will have on our target population.

Outcomes for logic models tend to be less detailed than what we might use for a grant proposal or evaluation plan. Logic models need outcomes that capture the essence of what you want to happen, and for whom, without being overly specific.

When writing outcome statements, there are different approaches. Some prefer to use the SMART objective approach (Specific, Measurable, Achievable, Relevant, Time-Bound). The following format is another common approach to writing outcomes. This model shows how to write, and then simplify, an outcome for your logic model.

When simplifying your outcome statement for your logic model, you do not need to be as specific about the "who" or "what." You do not need to include the timeframe in which the change will occur. The timeframe will depend on where you place your outcome on the model – in the short-term, intermediate, or long-term column.

Outcomes also don't need to be written in this phrasing order; these are the basic elements to include when writing your outcome. This same outcome could be written as "Increase students' knowledge about healthy relationships" or "Knowledge about healthy relationship increases among students." The key when writing outcome statements is to include who/what, an action verb, and the expected results (Taylor-Powell, Jones, & Hernet, 2003).

Figure 4

	Who/What (the target subject)	**Change/Desired effect** (action verb)	**In What** (expected results)	**By When** (point in time)
Outcome Statement	Students ages 14-17 in the after school program	Increase	Knowledge about healthy relationships	By the end of the semester
Outcome for Logic Model	Students	Increase	Knowledge about healthy relationships	

Adapted with permission from "Enhancing Program Performance with Logic Models" by E. Taylor-Powell, L. Jones, & E. Henert, 2003. Copyright by the University of Wisconsin-Extension.

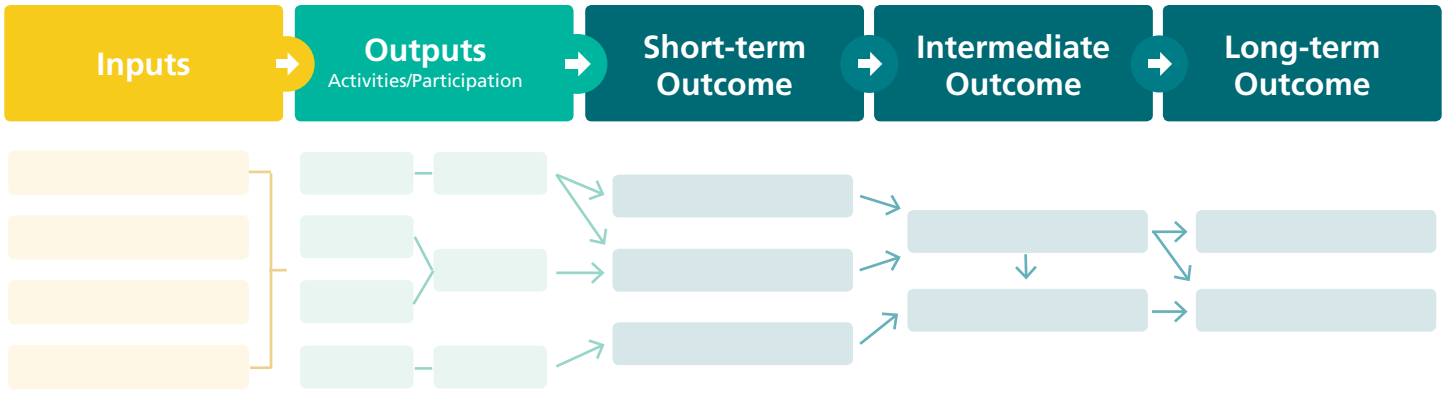
"A logic model shows the logical relationships among the resources that are invested, the activities that take place, and the benefits or changes that result"

(Taylor-Powell, Jones, & Hernet, 2003, p. 11)

Chain of Outcomes

In order to show your theory of change and the logic of your model, it is best practice to use individual boxes and arrows to show paths from your inputs to outputs to outcomes. Simple logic models may show a single chain of relationships, such as A leads to B leads to C (see Figure 3). However, for many programs multiple paths may be more realistic and necessary to show how specific parts of your program will lead to specific outcomes (Taylor-Powell, Jones, & Henert, 2005). In Figure 5 on the next page, the bottom path shows a simple chain, while the top and middle outputs lead to more complex chains. Not all logic models will be this linear; some may have feedback loops or multidirectional arrows. Drawing these chains helps us make sure we have addressed all logical connections (Taylor-Powell, Jones, & Henert, 2005). The goal is for it to be detailed but simple enough to understand.

Figure 5



How to Construct a Logic Model

There are different approaches to constructing a logic model. Some people like to start at the end with their outcomes in mind and work backwards, while others prefer to start with the resources they have and work forward. Either way, there is real value in completing this process as a team rather than on your own. When developing a logic model in a group, you are able to add different considerations and viewpoints, and build understanding and consensus around the goals of your program (Taylor-Powell, Jones, & Hernet, 2005).

Before you start drawing the logic model, you may benefit from a strategic planning meeting or visioning activity. Most importantly, make sure your group has defined the purpose of the model and who will use it. As a group, set the boundaries for the model, such as determining what level of detail is needed and your timeframe for the model—these will depend on the purpose and who will use the model (Taylor-Powell, Jones, & Hernet, 2005).

When you are ready, the group may choose to fill in an existing template or start from scratch. You might consider drafting models in small groups and then coming together to discuss similarities and differences. A fun and interactive process to draft the model is to use sticky notes or large pieces of paper on the wall; as you brainstorm resources, activities, and outcomes, stick them to the wall. As you determine your outcome chain, you can easily add, remove, and rearrange the sticky notes. You may also choose to put arrows on sticky notes to easily show your chain of outcomes. Once you have agreed on a final product, snap a picture of your model so you can later recreate it on the computer.

Your logic model should be written in a way that could be clearly understood by someone who has no knowledge of your program. Before you share your model with funders or stakeholders, it is a good idea to let someone who is not familiar with your program review it – they may have questions that alert you to where you have gaps or missing pieces in your logic.

The following strategies can help you construct your logic model. These strategies assume you have already defined your situation and purpose for the model (Taylor-Powell, Jones, & Hernet, 2005).

Strategy #1: Starting at the End

The first step when planning backwards is to identify the long-term outcomes. Ask yourself, "What will be different? For whom?" The group should agree on a simple statement describing the ultimate result you hope to accomplish. Then, work backwards across the model asking yourself, "What conditions need to exist in order to achieve this outcome?" for the long-term, intermediate, and short-term outcomes. Next, determine who needs to be involved, targeted, or reached. Then, decide on what activities, products, and events must occur so that those specific people will achieve the desired outcomes. From there, determine what resources are needed to conduct these activities, reach these people, and make these outcomes happen. Lastly, consider your assumptions and external factors.

Strategy #2: Backwards and Forward

The first step in this strategy is to identify your long-term outcome(s). From there, brainstorm all of the steps that have to happen to reach your long-term outcome(s). You might consider putting each idea on a sticky note. Then, place each item in a logical order, thinking about 'what precedes what' and 'what is connected to what.' Keep asking yourself, "If this happens, then what will occur?" and "For this to happen, what else needs to happen first?" By the end of this process, you may still need to add your inputs, assumptions, and external factors, but you should have a solid chain of outcomes.

Strategy #3: Starting with Resources

In this approach, we start on the left side of the model with the resources we already have and move to the right across the model. We can use "if-then" statements to guide this process; for example, if I have these resources, then I can plan these activities… if I complete these activities, then I will reach this population… etc. You can also ask the question "But, why?" as a way to move across the model; for example, but why do we have these resources?... to complete these activities… but why?... to reach this population… etc.

Additional Resources

- Logic Model Development
  http://www.cus.wayne.edu/logic-model-development/
- Using a Logic Model
  http://toolkit.pellinstitute.org/evaluation-guide/plan-budget/using-a-logic-model/
- Theory of Change
  http://learningforsustainability.net/theory-of-change/

References

Anderson, A. A. (2005). *The community builder's approach to theory of change: A practical guide to theory development.* Retrieved from The Aspen Institute https://assets.aspeninstitute.org/content/uploads/files/content/docs/rcc/rcccommbuildersapproach.pdf

Milstein, B., & Chapel, T. (n.d.). *Developing a logic model or theory of change.* In *Learn a skill* (Chapter 2, Section 1). Retrieved from Community Tool Box http://ctb.ku.edu/en/table-of-contents/overview/models-for-community-health-and-development/logic-model-development/main

Taylor-Powell, E., Jones L., & Henert, E. (2003). *Enhancing program performance with logic models.* Retrieved from University of Wisconsin-Extension https://fyi.uwex.edu/programdevelopment/files/2016/03/lmcourseall.pdf

W. K. Kellogg Foundation. (2004). *Logic model development guide.* Available from https://www.wkkf.org/resource-directory/resource/2006/02/wk-kellogg-foundation-logic-model-development-guide

PCAR
PENNSYLVANIA COALITION AGAINST RAPE

Pennsylvania Coalition Against Rape
2101 N Front St, Governor's Plaza North, Bldg #2, Harrisburg, PA 17110
Toll-free: 800-692-7445 • **Phone:** 717-728-9740 • **Fax:** 717-728-9781
www.pcar.org Help • Hope • Healing