

## Developing Your Logic Model

This brief discusses what logic models are, types of logic models, how to read them, and steps to develop them.

### Logic Models Defined

A logic model is a pictorial diagram that shows the relationship among program components. A logic model provides your program staff, collaborators, stakeholders, and evaluators with a picture of your program, how it operates, and how it is intended to accomplish its outcomes and goal. By discussing the logic model with different groups, you can 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 wish to achieve. A logic model is composed of process components (e.g., inputs, activities, and outputs) and outcomes (e.g., short-term, intermediate, and long-term).

### Types of Logic Models

The three types of logic models are: program-level, program-component, and nested. The type of model you select depends on the stage of your program and your intended use of the logic model. A program that has just started might benefit from a *program-level* logic model that provides an overall description of the entire program. A *program-component* logic model is used to explain only one particular component, objective, initiative, or activity of the larger overall program. This type of model is particularly useful for established programs that are launching new initiatives. A *nested* logic model depicts in greater detail a specific component or activity that is part of a larger program-level logic model. To illustrate, you can categorize all of the components of a program, such as professional development or policy, that, taken together, characterize your whole program.

You also can create a logic model that focuses on a single component, such as professional development. Similarly, a nested logic model takes one component of the entire logic model, such as professional development, and provides greater detail than can be captured in the program-level logic model. If a logic model becomes too complex, consider creating nested logic models where each separate model captures a different level of detail or scope.

### How to Read a Logic Model

Two methods can be used to read a logic model.

The “if-then” approach is used when you have a clear picture of what your inputs and activities will be, and you read the logic model from left to right, starting with the process components and working toward the outcomes. Your first question should be, “What is our program’s actual goal?” Then ask, “What inputs do we need for the program?” After determining the inputs, ask, “*If* we have these resources, *then* what activities will the program engage in?” Once you have determined the activities, ask, “*If* your program accomplishes these activities, *then* which outputs will be achieved? *If* these outputs are achieved, *then* what short-term, intermediate, and long-term outcomes will be accomplished?”

Conversely, you could use the “reverse logic” approach, which goes from right to left, starting with the goal and working backward through the process components—answering the question, “How will we accomplish this?” Or alternatively, “What must happen in each preceding step to reach our goals?”

## Steps to Develop Logic Models

- **Establish a logic model work group.** The work group can be composed of program staff, collaborators, evaluators, and other stakeholders. Identify areas where each stakeholder is needed and contact them to discuss their potential interest in participating in the discussion and any questions or concerns they have about the program.
- **Convene the work group to discuss the purpose and steps for constructing a logic model.** Review and summarize relevant literature, planning documents, reports, and data sources that will help explain the program's purposes, activities, and intended outcomes.
- **Provide an overview of the logic modeling process.** Review the definitions of terms, outline the overall steps to construct or revise a logic model, choose the type of logic model that best fits your program needs, review your goals and objectives (if they already exist), or reach consensus on program goals and subsequently outline the objectives in support of each goal.
- **Decide whether you will use the if-then method, reverse logic method, or both to construct the logic model.** If you have a clear picture of what your inputs and activities will be, you will want to use the "if-then" approach, in which you construct the logic model from left to right, starting with the process components and working toward the outcomes. The "reverse logic" approach can be used to work from the right to the left of the logic model, starting with the goal and working backward through the process components. If outputs are predetermined, you can start from the middle and branch out in both directions (an approach that combines the previous two methods).
- **Brainstorm ideas for each logic model column.** After brainstorming is complete, arrange these items into groups such as professional development, collaborations, and so on. Check that each activity logically links to one or more outputs, and each output links to one or more outcomes.

- **Determine how to show program accomplishments and select the DASH Indicators for School Health Programs to measure your outputs and short-term outcomes.** The question number for each associated *Indicator* should be placed under the output or short-term outcome that it measures.
- **Perform checks to assure links across logic model columns.** You should be able to read the logic model from both left to right and right to left, ensuring that a logical sequence exists between all of the items in each column. It is often helpful to color-code specific sections of your logic model to illustrate which sections logically follow one another.
- **Ensure that the logic model represents the program but does not provide unnecessary detail.** Review the items placed under the headings and subheadings of the logic model, and then decide whether the level of detail is appropriate. The work group should reach consensus in fine-tuning the logic model by asking, "What items in the logic model can be combined, grouped together, or eliminated?" (See the evaluation brief titled "Gaining consensus using the nominal group technique.")
- **Revise and update the logic model periodically to reflect program changes.** Changes in your logic model may be needed to reflect new or revised programmatic activities or interventions, or to account for a change in strategy or new evaluation findings.

## Resources

*Logic Model Basics.* Available for download at: <http://www.cdc.gov/healthyyouth/evaluation/pdf/1-logic-model-basics.pdf>. (Accessed 5/6/06.)

W.K. Kellogg Foundation. *Logic Model Development Guide*; 2000. Available for download at: <http://www.wkkf.org/Pubs/Tools/Evaluation/Pub3669.pdf>. (Accessed 5/6/06.)

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For further information or assistance, contact the Evaluation Research Team at [ert@cdc.gov](mailto:ert@cdc.gov). You also can contact us via our Web site at <http://www.cdc.gov/healthyyouth/evaluation/index.htm>.