

The Logic Behind Logic Models:

A Brief Guide



Healthcare Georgia Foundation
grantmaking for health





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INTRODUCTION

Imagine that a new funder has approached your nonprofit with an intriguing and enticing offer. A pilot program you started last year has received some coverage in the local paper, catching the funder's eye. The funder's representative is sitting in your office at this very moment, asking you a few questions. What would it take to expand the program? What could you accomplish with more resources? Could we see your results?

This is just what you've been hoping for! With the pilot program's grant funding ending in a few months, you weren't sure that it could continue, much less expand. Thrilled, you can't help daydreaming of all the ways you could improve and expand the fledgling program. You can't wait to tell your staff and board members the exciting news.

That's when the funder's representative interrupts your reverie. "Of course," she says, "We'll need to take a look at your logic model."

Do you:

- A. Proudly hand over the pilot program's logic model—both the current version, and the one showing what what your program could accomplish in an expanded form—that are already printed out on your desk?
- 2 B. Secretly roll your eyes and resign yourself to putting one together for the funder—even though you don't really think they're very helpful?
- C. Send an urgent e-mail to the only person in your organization who seems to know how to create one?
- D. Discreetly look up "logic model" on Wikipedia while you stall for time?

By now, 30 years after logic models became commonplace across private, public, and nonprofit organizations, most agency directors and staff wouldn't have to look up "logic models" on Wikipedia. However, the term—like the tool itself—still doesn't generate much enthusiasm. Within many nonprofits, logic models are seen as burdensome requirements that evaluators and funders demand, rather than as useful tools in their own right.

In this brief, we describe the purpose, components, and variations of basic logic models. In doing so, we hope to convince more nonprofit program planners and administrators to join the ranks of the Executive Director who proudly and confidently hands over the pilot program's logic model, which she has already prepared—not because a potential funder insisted on it, but because she herself knew it was worthwhile for the program and the agency.

Following an overview of logic models and their uses, this brief reviews components of a basic program design logic model, builds these into a sample logic model, and then provides a more detailed example.

A logic model simply depicts the relationships among all these different program elements in some logical order—in a way that can be readily understood by someone who was not involved in the program planning or design.

Logic Models Overview

WHAT IS A LOGIC MODEL?

Whether your agency's programs or initiatives are large or small, simple or complex, short-term or long-term, they probably share some common elements. For example, your organization's mission and every program or initiative is based on some **assumptions** about how it will work and what it will accomplish. "If we do this," planners might say to themselves, "then we can expect to accomplish that." More specifically, the assumptions underlying a program suggest that some combination of resources, activities, and participants will yield some results or outcomes.

A logic model simply depicts the **relationships** among all these different elements in some logical order—in a way that can be readily understood by someone who was not involved in the program planning or design. While logic models certainly can become crowded and difficult to follow, the goal is to convey as simply and clearly as possible the **thinking** behind an investment of resources.

HOW ARE LOGIC MODELS USED?

Logic models can be used in many ways, including:

- For **program design/planning** by starting with what the program is intended to accomplish, and then determining the set of activities most likely to accomplish those outcomes. This process may lead you to explore additional strategies beyond those you had initially identified, helping to identify the best approach for your particular program, in terms of both strategies and outcomes.
- For **strategic planning** to set forth not only a specific program's activities and outcomes, but an entire organization's trajectory and how it intends to have an impact in realizing its vision and mission.
- To **test initial assumptions** and, if necessary, to reveal that assumptions about relationships among resources, activities, outputs, and outcomes aren't necessarily clear or realistic. For example, do the proposed activities connect logically to one another, and to the anticipated outcomes? Are the expected resources in line with the scope of the activities? Are there leaps of faith involved in hoping a particular activity or set of activities will yield results? While it may be frustrating to discover such gaps, it is far

better to do so while preparing a logic model, rather than after a program is up and running.

- For **ongoing monitoring of program implementation** after a program has begun, to track whether activities are unfolding as planned and yielding outcomes in the expected time frames. Ongoing monitoring enables organizations to learn about what is working and what could be improved, resulting in continuous improvements.
- To **evaluate long-term results** and to connect current activities to a longer-term vision of what can be accomplished. A well-developed logic model can also help you identify evaluation data needs up front, so that you can ensure that appropriate processes are in place early on in the program.
- To **communicate with and establish buy-in from stakeholders** especially those unfamiliar with a program's design or scope, ensuring that key stakeholders (e.g., funders, boards of directors, community partners, consumers) share a common understanding of the program's critical components and goals. Engaging staff, partners, funders and others in creating a shared vision of what is being proposed and how it will be accomplished helps to increase buy-in and support for the program.
- To **negotiate with partners, funders, and other stakeholders** about the specific outcomes to be achieved, the activities required to get there, the timeframes selected, and/or resources expected.

WHAT ARE THE BENEFITS OF USING A LOGIC MODEL APPROACH?

A logic model's visual depiction of how a program is expected to unfold and/or how an organization is expected to reach its goals offers several benefits. It can articulate more clearly and succinctly than a written report how the various components fit together, fostering a shared understanding among

various stakeholders. It allows for quick and efficient testing of assumptions, providing opportunities for feedback. It yields insights into potential indicators and measures of progress for the most important outcomes. It's worth noting that while many of these benefits accrue from the logic model's visual, accessible format (most logic models can be captured in just one page), it is really the **thinking** behind the logic model that makes it most useful. Testing assumptions, monitoring progress, and tweaking components to adjust to changing conditions and new information all make logic models useful for both ongoing and longer-term program planning and evaluation. Engaging stakeholders in this process helps to ensure that there is a common understanding of the program—how it will work, and how it contributes to the organization's mission.

WHAT ARE THE CHALLENGES?

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As indicated by the range of possible reactions to a funder's request for a logic model, they are not universally appreciated. Some people find the "logic" of a logic model elusive, and resist the somewhat linear format of shoe-horning activities and outcomes into their own boxes and time slots. Over the years, many different formats have evolved, making some of the terminology confusing or contradictory. When logic models are not prepared thoughtfully or not perceived as worthwhile, they may lose their potential usefulness—either because they are truly not helpful, or because they are not updated or flexible enough to adapt to changing conditions.

Overcoming these challenges requires investing some initial time and effort into developing a logic model that has a good chance of being useful for the life of the program, focusing on the thought process that goes into the logic model (more than the particular format or terminology). Revisiting the logic model at regular intervals will give it frequent opportunities to do what it does best: test assumptions.

Logic Model Components

Although there are many different logic model templates and formats available, most cover the following components:

- **Inputs** — any resources needed in order to implement the activities (e.g., funding, staff time, community partnerships, technology, data, etc.)
- **Outputs¹** — what you will do, and whom you intend to reach. Our approach further divides outputs into:
 - **Activities** — the specific steps, work plans, or program areas you (and any partners) expect to undertake with the resources listed above; and
 - **Participation** — the intended audience you are trying to reach with your activities.
- **Outcomes** — the results you expect to achieve because of your inputs and outputs. Outcomes can be subdivided into time frames, depending on how long they may take to achieve and how long the project is expected to last overall (i.e., the intensity and duration of the project). For example, short-term outcomes are generally those expected to be achieved in the first year; intermediate outcomes may take up to 2 to 5 years; and long-term outcomes may take longer than 5 years.

It is important that your outcomes follow a stepwise progression. For example, in health education efforts, the short-term outcomes usually involve changes in knowledge, attitudes, and beliefs, which can then lead to changes in behavior (intermediate), which ultimately leads to improved health status (long-term). Reviewing best practices and models can help to define realistic outcomes for the program.
- **Impact** — a vision for the ultimate effect that all the inputs, outputs, and outcomes, taken together, could achieve in an ideal future. Generally, impact isn't as measurable and concrete as the other components; it might include statements such as "Improved health outcomes for Georgians" or "Equitable access to health care for all residents." Like a vision statement, impact is intended to be aspirational—and inspirational.

¹ Some logic model guides—particularly the Kellogg Foundation's—separate activities and outputs, and do not include a specific category for participation. If this makes more sense for your program or agency, feel free to use this method instead, but be sure to be consistent to avoid confusion.

THINKING THROUGH YOUR OWN LOGIC MODEL

Before any boxes or arrows appear on your logic model, try to think about these components in terms of answers to questions. For example:

- To identify **inputs**, ask yourself: "What resources do we and our partners need to implement our planned activities?"
- To identify **outputs**, ask yourself: "What are we actually planning to do? What are the specific activities or action items?" "Who are we trying to reach through these activities?"

(Note that the participants listed as outputs—those you are trying to reach—are distinct from the groups or partners who will help you implement the program, which would be considered inputs.)

- To identify **outcomes**, ask yourself: "If our planned activities and participation lead to the changes we expect and hope for, what will actually be different?" "What changes do we expect to see

in the short-term (1 year), intermediate term (2-5 years), or long-term (5 or more years)?"

- To identify **impact**, ask yourself, "What is the ultimate goal for this program, once all these inputs, outputs, and outcomes are in place?"

If you get stuck, keep returning to the basic sequence of logic models: "If we do this (set of activities and participation with these inputs), then we can expect that (set of outcomes)." In other words, we are doing this [inputs, outputs] so that we can achieve that [outcomes, impact]. The components may change as your information and understanding shifts, but the sequence is constant: this set of investments aligns with that set of outcomes, based on some plausible assumptions we have made about what we can accomplish.

EXAMPLE: Growing Logically: A Community Garden Logic Model

Let's look at an example of a logic model for a hypothetical community garden project. In a rural community in Southeastern Georgia, a coalition of community members and organizations came together with the goal of creating a park that includes a playground and a community garden. In their vision, as neighborhood residents use the park and garden, the health of the community will improve by decreasing childhood obesity. The park will include:

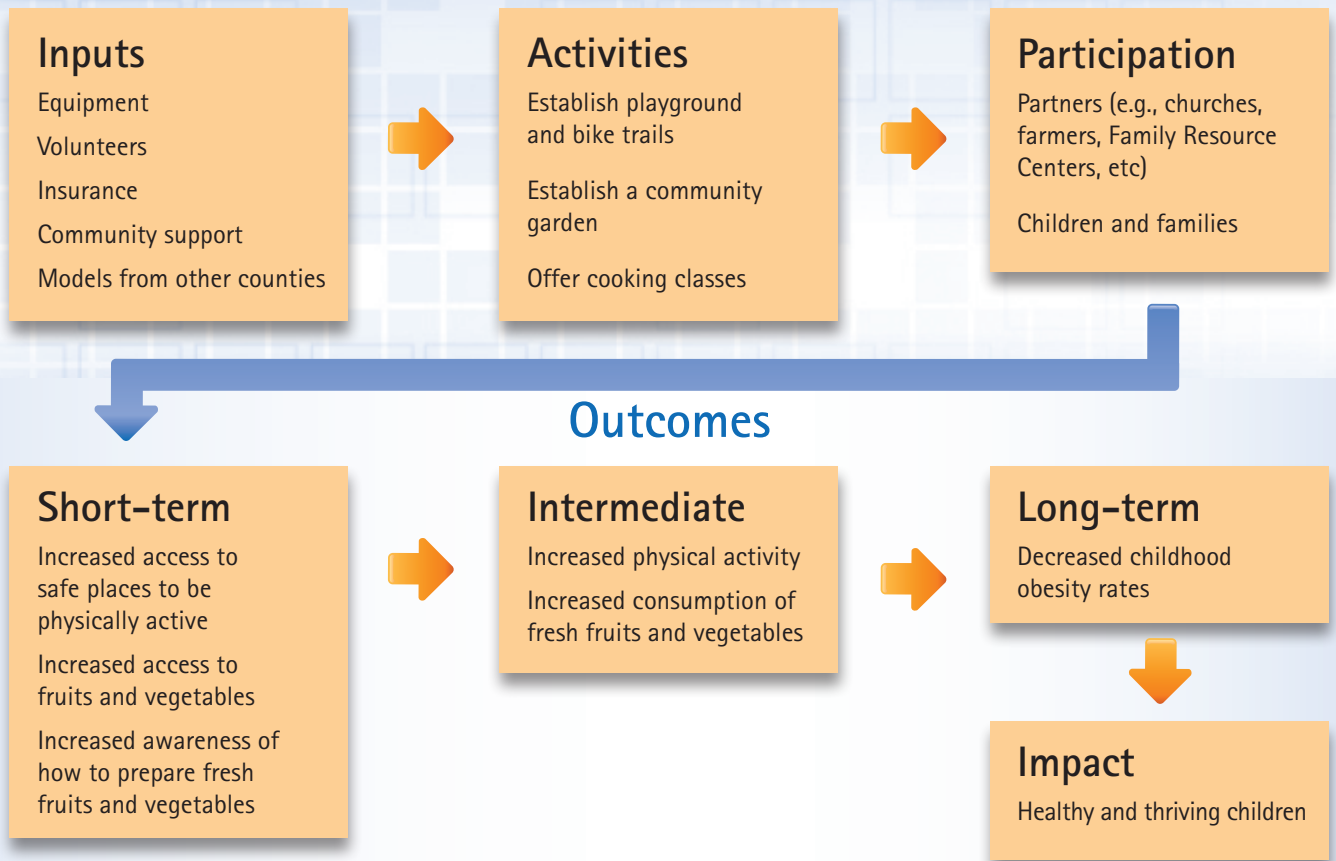
- A playground and bike trails to encourage physical activity;
- A community garden—planted and sponsored by a local church—to introduce children to fresh fruits and vegetables; and
- Cooking classes to teach parents about how to cook fresh and healthy foods.

A small farmers' market already operates in the community, and community garden models have flourished in neighboring counties. A number of local organizations are excited about the project, including churches, family resource centers, local farmers, health care providers, and the public library.

Initial expenses are anticipated to include playground equipment; mulch, plants and fertilizer; liability insurance; and maintenance/upkeep. The coalition has started to think about potential funding sources, which all rely on community support either through sales of produce or donations.

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Given this program description, a sample logic model for this program is shown below. You can see the logic model helps to flesh out the assumptions about how the various activities are connected to decreased childhood obesity.



USING A LOGIC MODEL FOR PROGRAM DESIGN

As noted above, logic models can follow various formats and be used for many different purposes, although they are particularly useful in program planning. The example below uses the components defined above to develop a slightly more elaborate logic model than the community garden project. In this case, the logic model will yield a program design for a safety net clinic that has identified a problem accessing specialty care for uninsured patients.

In this example—as in many program design challenges—it is helpful to work from the “impact” side of the logic model backwards in time through long-term outcomes, then intermediate outcomes, then short-term outcomes, finally focusing on participation and activities (i.e., the outputs). Moving from right to left, asking “How?” at every juncture is a good way to stay focused on the ultimate goal

and identify activities that are focused specifically on that goal. It’s also possible to develop a solid logic model beginning with activities and working towards outcomes and impact, but this sometimes tempts program planners to begin with their existing, desirable, or possible activities—not necessarily the ones tied to a goal or impact.

In any case, whether the logic model proceeds from right to left or left to right, it should make sense in all the ways described above—with reasonable, defensible assumptions about how each of the components connects to the others. You may not have all of the answers to identify potential activities and outcomes available immediately; some research or additional discussion may be required before completing the next column in a logic model.

EXAMPLE:

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A hypothetical safety net clinic, Georgia Health for All, has identified a problem with getting access to specialty care for their uninsured patients. Their vision is that all patients have timely access to these services when needed.

Impact

Access to specialty care for all patients

When Georgia Health for All starts to think about how to address this problem, they identify that their main concern is the long wait times for their patients to get into an available specialist, so they need to design a program aimed at decreasing wait time for specialty visits.

Long-term

Decreased wait time for uninsured patients



Impact

Access to specialty care for all patients

The clinic isn’t sure how best to decrease wait times, so they do an assessment to determine why wait times are so long. They determine that the reasons include: not enough specialists willing to see uninsured patients, ineffective referral systems that allow inappropriate referrals, and high no-show rates for the available appointments.

Intermediate

Increased specialists seeing uninsured patients

Decreased inappropriate referrals

Decreased no-show rates



Long-term

Decreased wait time for uninsured patients

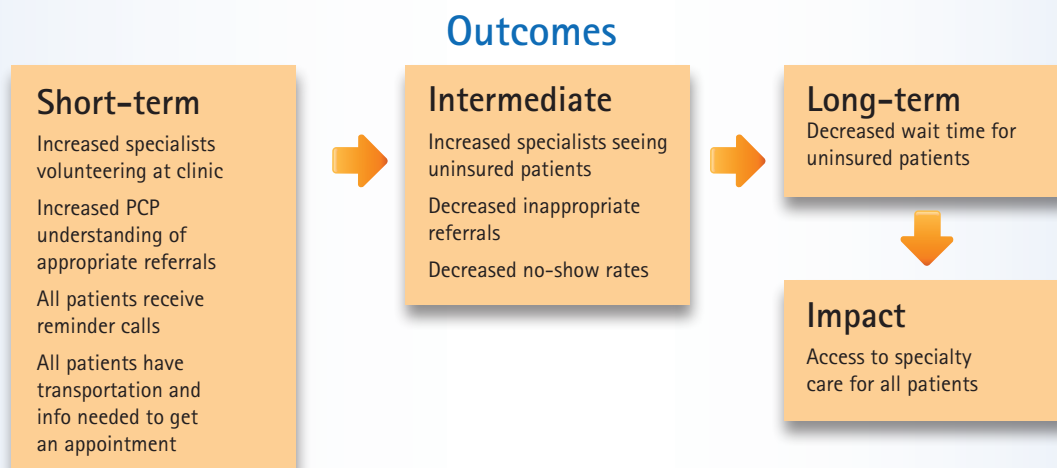


Impact

Access to specialty care for all patients

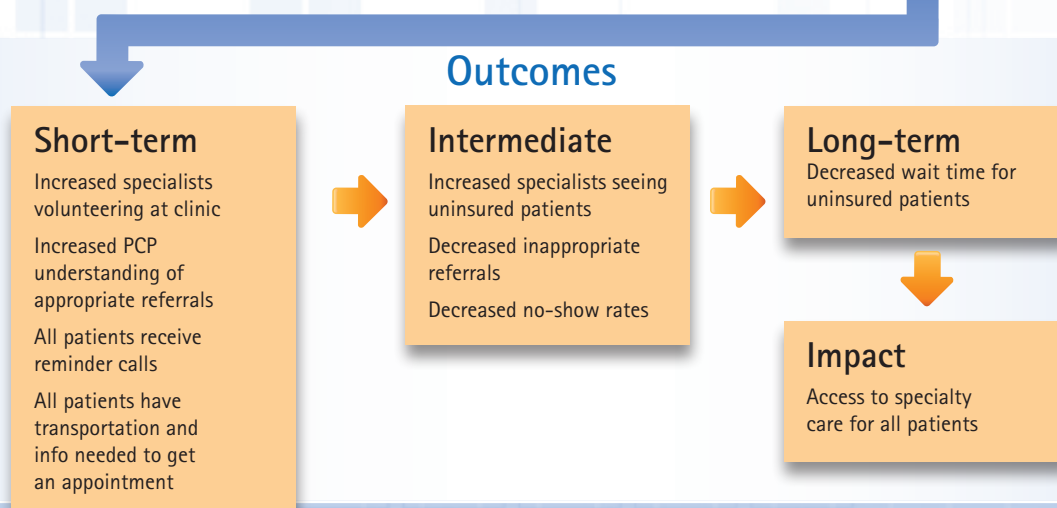
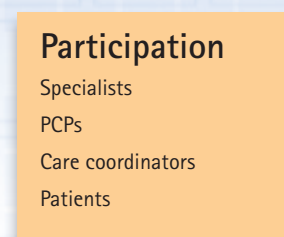
EXAMPLE continued:

Georgia Health for All asked providers and staff to think about how they would accomplish the intermediate outcomes. They decided that in order to accomplish these outcomes they would need to (1) increase the number of volunteer specialists coming to their clinic; (2) increase understanding among primary care providers (PCPs) about what constitutes an appropriate referral; and (3) ensure that patients receive reminder calls and have the information and resources they need to get to the appointment.



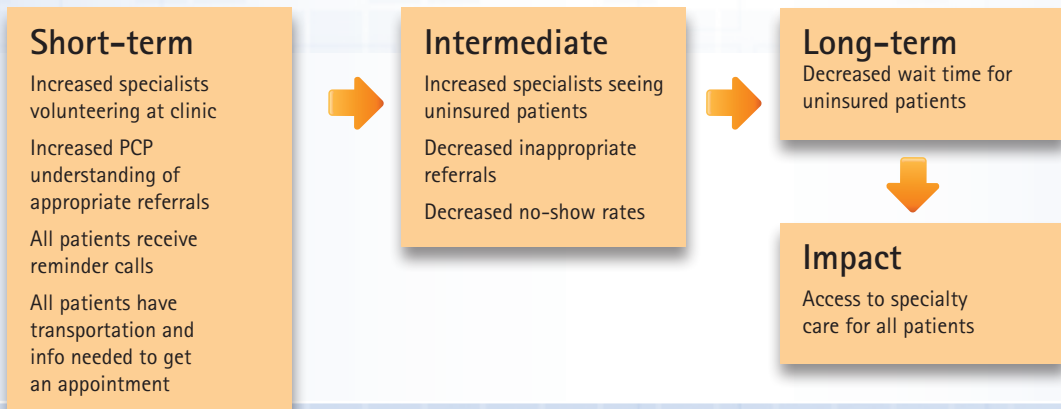
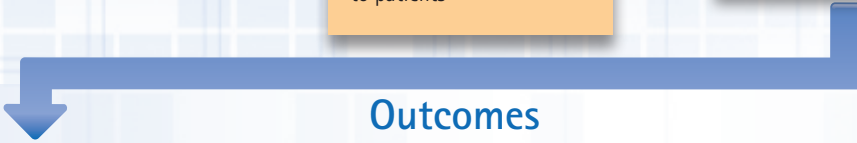
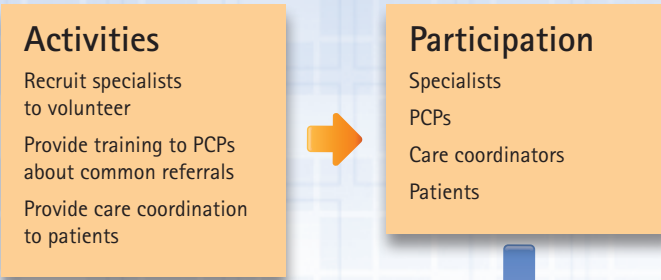
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After Georgia Health for All articulated its outcomes, the next question was **how** to accomplish these. First, it needed to think about who they needed to reach. They determined they need to reach potential volunteer specialists in the community, they need their PCPs to be involved if they are going to increase their understanding of appropriate referrals, the care coordinators would need to be involved to change procedures around reminder calls and providing transportation and information to patients, and finally, of course, the patients need to be reached in order to provide services.

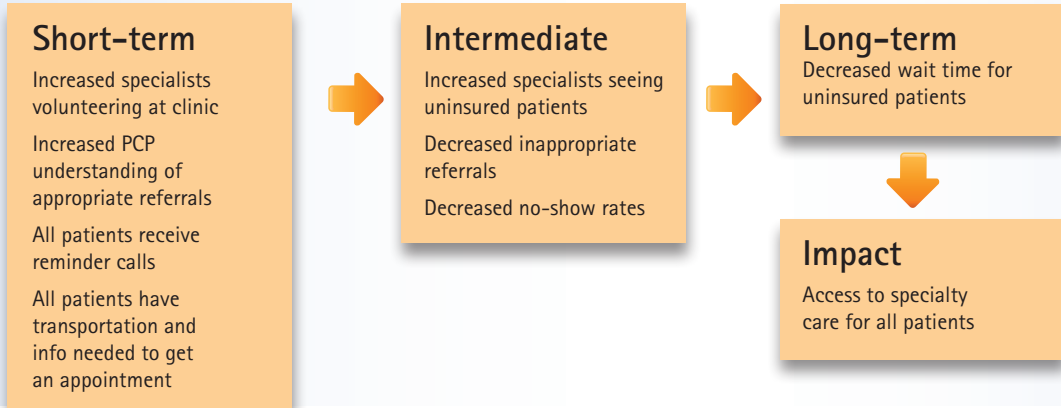
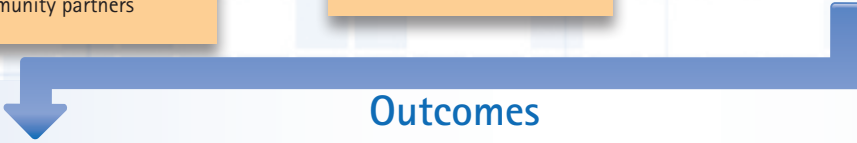
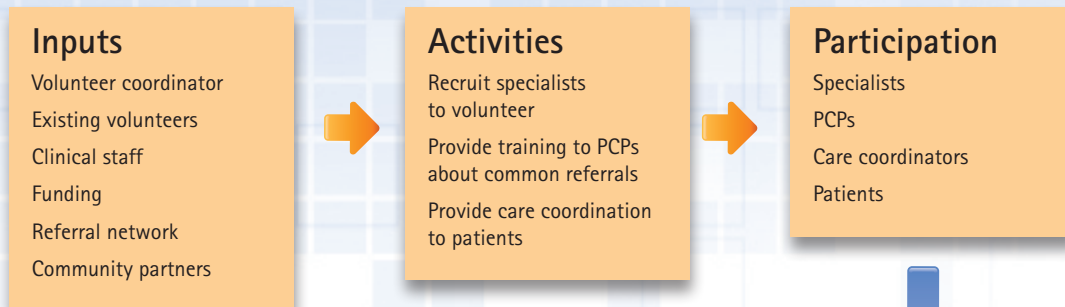


The next step was to determine **how** they could reach the key stakeholders they had identified—what they actually could do to accomplish their goals. Georgia Health for All did an assessment of their existing operations, and determined that they needed to focus their activities in three areas: (1) actively recruiting additional specialists to volunteer; (2) providing training to PCPs about common specialty referrals

that have been identified as inappropriate; and (3) providing more comprehensive care coordination services



Finally, once the activities had been defined, the clinic needed to determine **how** they would make the project a reality—what resources would be necessary to implement the proposed activities. They developed a list of resources and existing partnerships and entered that in the input column in their logic model.



As you can see, the resulting logic model helps to clarify and quickly convey the complexity of the overall program and the interconnectedness of the various components. With a program design that makes sense, Georgia Health for All has a greater chance of success—in funding, implementation and impact.

USING A LOGIC MODEL FOR EVALUATION

Once a logic model has been completed for the program design, it can be put to use in another way: as the basis for an **evaluation**. The logic model helps to focus your evaluation. Both process and outcome evaluations are strengthened when a clear, succinct program description is already in place. For example, a *process evaluation* would focus on the inputs and activities to answer questions about what was invested in the program, whether activities were implemented as planned, and whether these activities reached their intended audiences. An *outcome evaluation*, on the other hand, focuses more intensively on indicators demonstrating that short-, intermediate, and long-term outcomes were achieved—in sequence and within the planned time frames.

If a logic model has already been developed for the program (using the process described above), the next step is to determine what you want to learn from your evaluation and what you will measure. The logic model can be used to reach agreement about what will be evaluated at different times during program implementation—for example, an evaluation for a one-year grant would focus on measuring short-term outcomes. The logic model helps to ensure shared expectations about what will be measured and when.

If a logic model has not been established for a program, a logic model may need to be created to help inform the evaluation. Typically, when a logic model is designed for evaluation, there is already an understanding of the program components. As a result, the logic model is often built from left to right (inputs → outcomes) rather than the right to left process described above. When creating a logic model left to right, the thought process can be informed by asking a series of “why?” questions to work through the logic model—which is in contrast to the “how?” questions asked when using a logic model for program design.

The Appendix walks through the example of the specialty care access program (used above) to illustrate the process of developing a logic model from left to right.

The use of a logic model in the evaluation planning process, and the subsequent steps for evaluation are discussed in more detail in an online evaluation toolkit available on the ERC website (www.georgiaerc.org).

USING A LOGIC MODEL FOR ORGANIZATIONAL AND STRATEGIC PLANNING

As noted above, another use for logic models is as a tool for strategic planning. If your organization already has a strategic plan, its key elements can form the basis for an organizational or strategic planning logic model. For example, vision and mission statements can form the basis for impacts. Elements of an action or implementation plan could serve as a starting point for activities and outputs. Stakeholders can be discussed in terms of partners or funders (in which case they would be considered inputs) or potentially as target populations to be reached with an organization’s programs or products (and thus depicted as participants).

Like other types of logic models, organizational logic models are useful for conveying an organization’s major goals and activities to key audiences—and for doing so more efficiently than most planning documents (which they should complement, rather than replace). When an organization’s intended impact and strategies for achieving it can be summarized in a logic model, this can help ensure buy-in, consensus, and engagement from a variety of stakeholders, from staff and boards of directors, to community members, funders, and other partners.

KEEPING YOUR LOGIC MODEL RELEVANT

After many meetings and revisions, Georgia Health for All has now a completed logic model, which helped them to understand the components needed to address their long-term goals. But that’s not the end of the story. How can the team that created this logic model make sure it continues to be useful? A first step would be to share the logic model with key stakeholders—including partners, funders, and board members. Does the sequence make sense to them? Are there additional resources being used (or contemplated) that aren’t reflected in the “Inputs” column? Are any activities missing (or misunderstood)? Are any potential participants left out—or inappropriately included? Do the outcomes seem reasonable for the various time frames? If the answers to these questions lead to revisions, that’s a positive development. It means that stakeholders are questioning assumptions and helping you develop a shared understanding of your joint venture. Moreover, it’s a good sign if revisions occur regularly—perhaps as a check-in at annual board or staff meetings. The more dynamic a logic model is, the more accurately it will reflect the inevitable changes that programs undergo as they evolve and respond to changing conditions. This level of engagement also

contributes to a deeper understanding of and commitment to your program among stakeholders. Over time, logic models may highlight needed changes in staffing, technical assistance, evaluation, or incorporation of new evidence-based approaches. Again, this is a plus—a testament to a flexible, useful tool that gives some advance warning when assumptions may no longer apply. The more detailed, accurate and nuanced information a logic model can absorb, the more useful it will be. And if your logic model is truly up-to-date, compelling, and useful—it may just be the persuasive document that you proudly hand to a curious potential funder someday soon, showing that you and your colleagues have thought through your program design and are fully prepared and capable of taking it to the next level.

RESOURCES

Logic Model Development Guide:

W.K. Kellogg Foundation

www.wkkf.org/Pubs/Tools/Evaluation/Pub3669.pdf

Practical assistance for nonprofits engaged in outcome-oriented evaluation of projects: orientation to the underlying principles of “logic modeling” to use this tool to enhance their program planning, implementation, and dissemination activities.

Enhancing Program Performance with Logic Models: University of Wisconsin – Extension’s Program Development and Evaluation Unit

www.uwex.edu/ces/lmcourse/

Includes many practical evaluation resources, including a Planning and Evaluation Worksheet, Enhancing Program Performance with Logic Models online course, sample evaluation instruments and links to evaluation resources.

Logic Model Builder: Point K Learning Center, Innovation Network

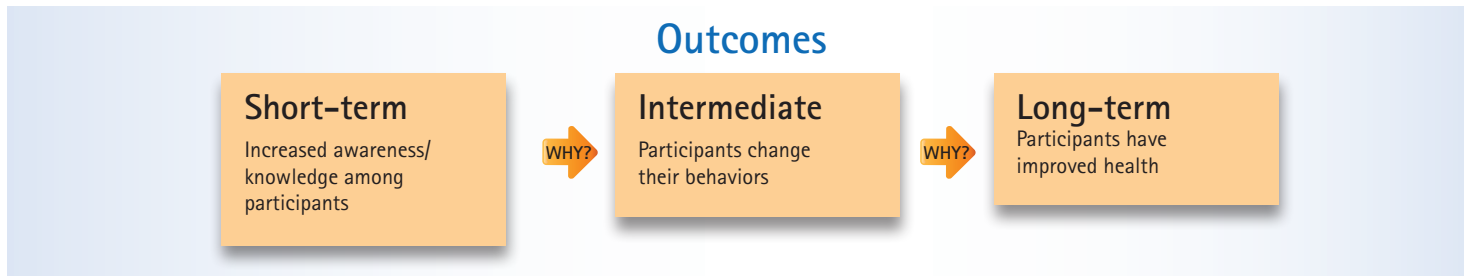
www.innonet.org/pointk

Free, practical tools and resources for non-profit planning, evaluation and action. The interrelated Evaluation Plan Builder™ and Logic Model Builder™ are designed to walk you through developing an evaluation plan or logic model for your initiative and to provide helpful information, examples and resources along the way. The site also includes an extensive listing of resources, including workbooks, tip sheets, and a collection of recommended evaluation links and publications.

Appendix: Developing a Logic Model for Evaluation

As described in the narrative, to plan and implement an evaluation you need a succinct description of the program to know exactly what you are evaluating. A logic model is a useful way to describe your program for evaluation purposes.

Generally, when a logic model is designed for evaluation, the program components are already known. Because the organization already knows what it will do, the logic model is created from left to right. When creating a logic model from left to right, you will ask yourself a series of “why?” questions to work through each column of the logic model. For example:



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Say Georgia Health for All receives grant funding to increase access to specialty care for their targeted population. They have proposed a three-prong approach to address access to specialty care: (1) recruit volunteer specialists; (2) provide training to PCPs about common specialty referrals that have been identified as inappropriate; and (3) provide more comprehensive care coordination services. The goals of their evaluation are to provide outcome data for their funder, and to use evaluation results to improve the program and expand services.

Since the clinic had already identified the program components, they were able to quickly complete the first three boxes in the logic model (see inputs, activities, participation). Georgia Health for All’s grant proposal articulated in their work plan what these activities would include, so they decided that in their logic model, rather than include every step from their work plan, they would include only the activity categories that they would be focused on. (Note: the logic model doesn’t need to include everything that you will do, but should include all major activities).

The next steps involve identifying the **OUTCOMES** the program is expected to achieve or contribute to.

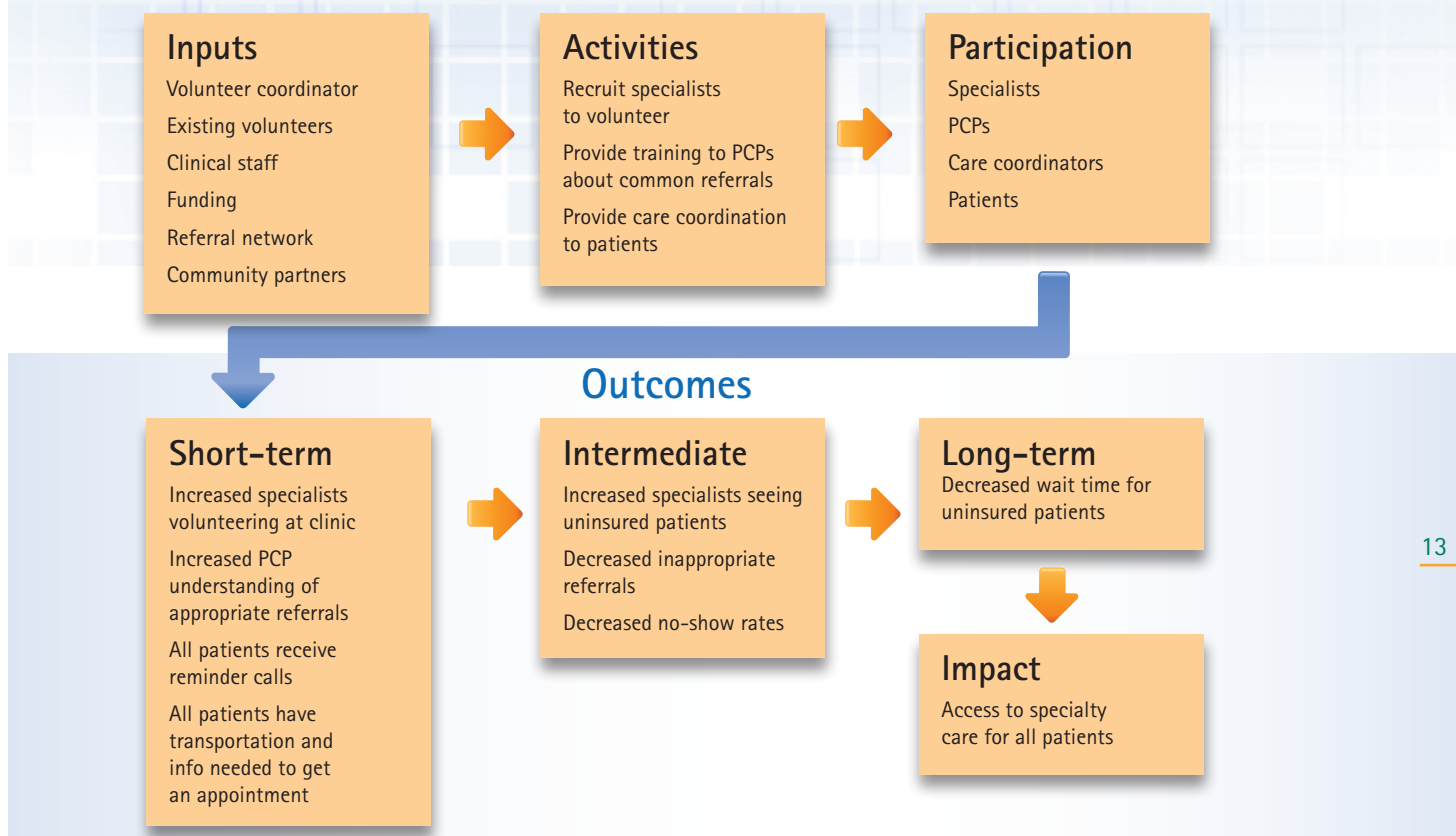
- **Short-term** — The first set of outcomes are short-term outcomes; these are the changes resulting that would be expected almost immediately and directly relate to the activities that are planned. For each of its activities, the clinic identified the anticipated outcomes for the first year of this grant (see Short-term outcomes.)
- **Intermediate** — Your intermediate outcomes are generally changes that are expected in years 2-5 of the program. These should tie directly to the short-term outcomes—they should be a logical next step (e.g., if ‘a’ happens then we can expect ‘b’). As mentioned earlier, theoretical frameworks, best practices and existing programs can help to inform the logic model and what can be expected from your program during this time frame.

Based on conversations with stakeholders and a review of similar programs, the clinic decided to focus on three intermediate outcomes (see Intermediate outcomes).

- **Long-term** — Long-term outcomes are changes that are expected in the later stages of your program or even after the program is completed. Long-term outcomes can be influenced by many factors other than the program. However, the program logic model must reflect a connection between the activities and the long-term outcomes.

Based on lessons learned from similar programs, the clinic believed that if they accomplished all of their intermediate outcomes, they would be able to decrease wait time for uninsured patients, which they identified as their primary long term outcome.

Finally, while many logic models stop with long-term outcomes, organizations often find it useful to include an impact category to link their program to their larger vision. In this case, the clinic wanted to ensure that they were clear that their program was aligned with the goals of their funder's initiative. Their final logic model looked like this:



Now that the clinic has a complete logic model, it's important to review the logic model to make sure it makes sense to the program's stakeholders. For more information on using logic models for

evaluation or the next steps in the evaluation planning process please see the ERC website, available May 2012 (www.georgiaerc.org).

About the Center for Community Health and Evaluation

The Center for Community Health and Evaluation (CCHE) designs and provides evaluation services for health-related programs and initiatives throughout the United States. CCHE is part of the Group Health Research Institute, in Seattle, Washington.



About the Georgia Evaluation Resource Center

The Georgia Evaluation Resource Center (ERC) is a comprehensive resource provided by Healthcare Georgia Foundation that offers a suite of evaluation tools and services designed to help strengthen nonprofit health organizations by enabling them to understand their performance, make program improvements, and communicate results to their stakeholders.



About Healthcare Georgia Foundation

Healthcare Georgia Foundation is a statewide, private independent foundation. Through its strategic grantmaking, Healthcare Georgia Foundation supports organizations that drive positive change, promotes programs that improve health and healthcare among underserved individuals and communities, and connects people, partners and resources across Georgia.



Healthcare Georgia Foundation
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