Logic Model and Evaluation Workbook

Theory of Change and the Logic Model

Every social program is based on a "theory of change"—a theory about how and why the program will work. The theory may be explicit, or it may be implicit. The theory connects what is happening in the program (the program's activities) with the program goal. A "logic model" is a "picture" of the structure of a program—a simplified graphic representation of the theory of change. It shows the relationships between what is put into the program (resources), what the program does (activities and outputs), and what results (outcomes) the program produces.

Putting your program's theory of change on paper is important for several reasons. A properly thought-out logic model will enable you to:

- Articulate what you plan to do, why, and how—which means you can identify any gaps in thinking about your program.
- Have a common framework to share with program stakeholders, helping you come to consensus about the program and what it is trying to achieve.
- Set realistic expectations for your program by identifying the important short-term and intermediate changes that need to happen before long-term change can take place.
- Learn about your program as it is unfolding. Using your logic model in conjunction with evaluation, you'll be able to modify the theory of change and the work of your program in order to increase the potential for achieving long-term impact.

Your theory may be based on:

- Wisdom and experience,
- Research and evaluation, or
- Best practices.

The following explains the development of a *Theory of Change* using an example of a program to help women gain economic self-sufficiency.[1]

[1] Adapted from the Aspen Institute.

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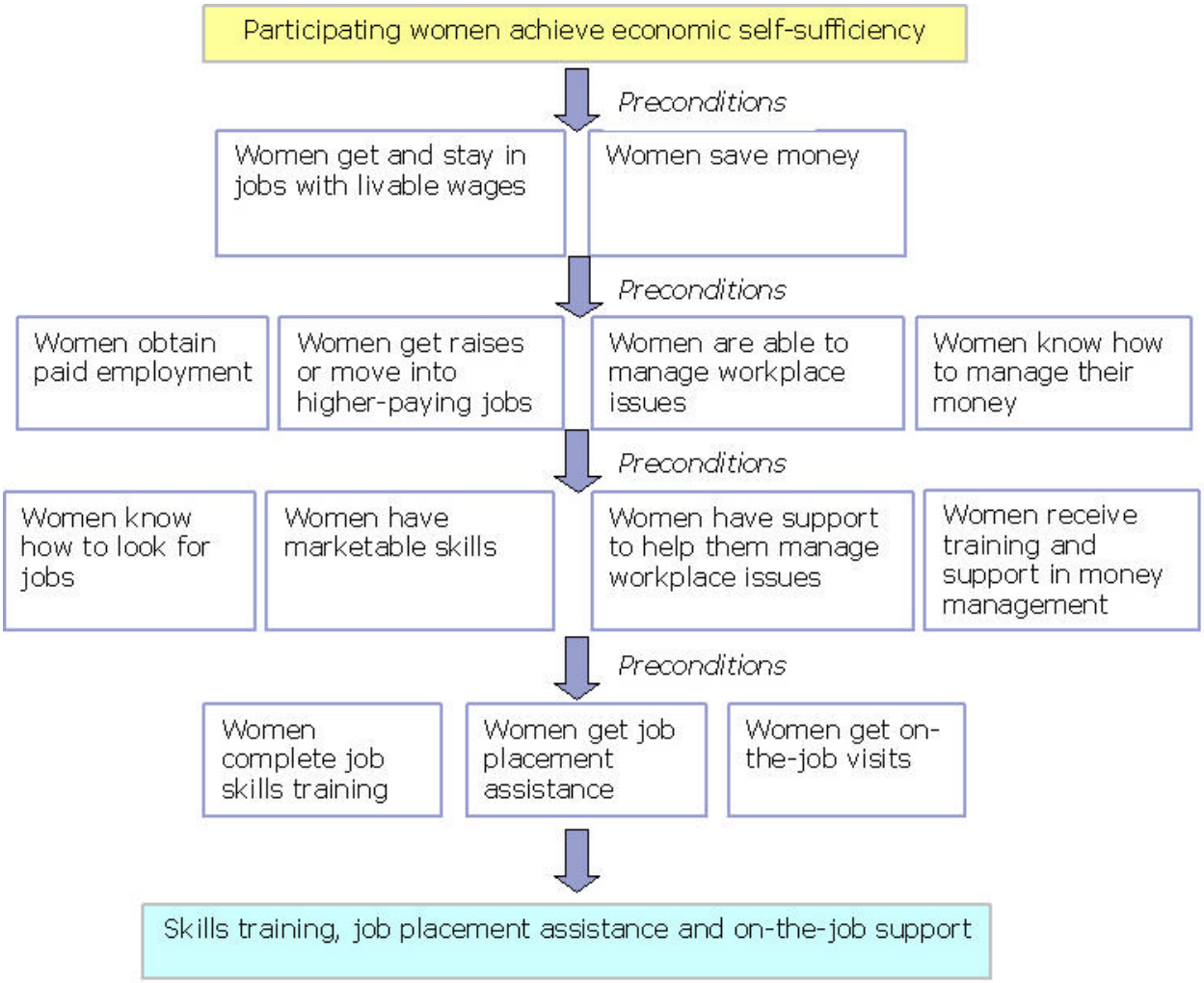
Step 1: In developing your theory, think first about the goals you are trying to achieve. In the case of the example, the goal is to enable women participating in the program to achieve economic self-sufficiency:

Participating women achieve economic self-sufficiency

Step 2: Describe the intervention in general terms:

Skills training, job placement assistance and on-the-job support

Step 3: Outline the pathway of change (or set of theories) that connects the intervention with the goal. Theories can be based on best practices, research, or experience. Start with the goal and ask yourself: What preconditions must be met in order to reach this goal?



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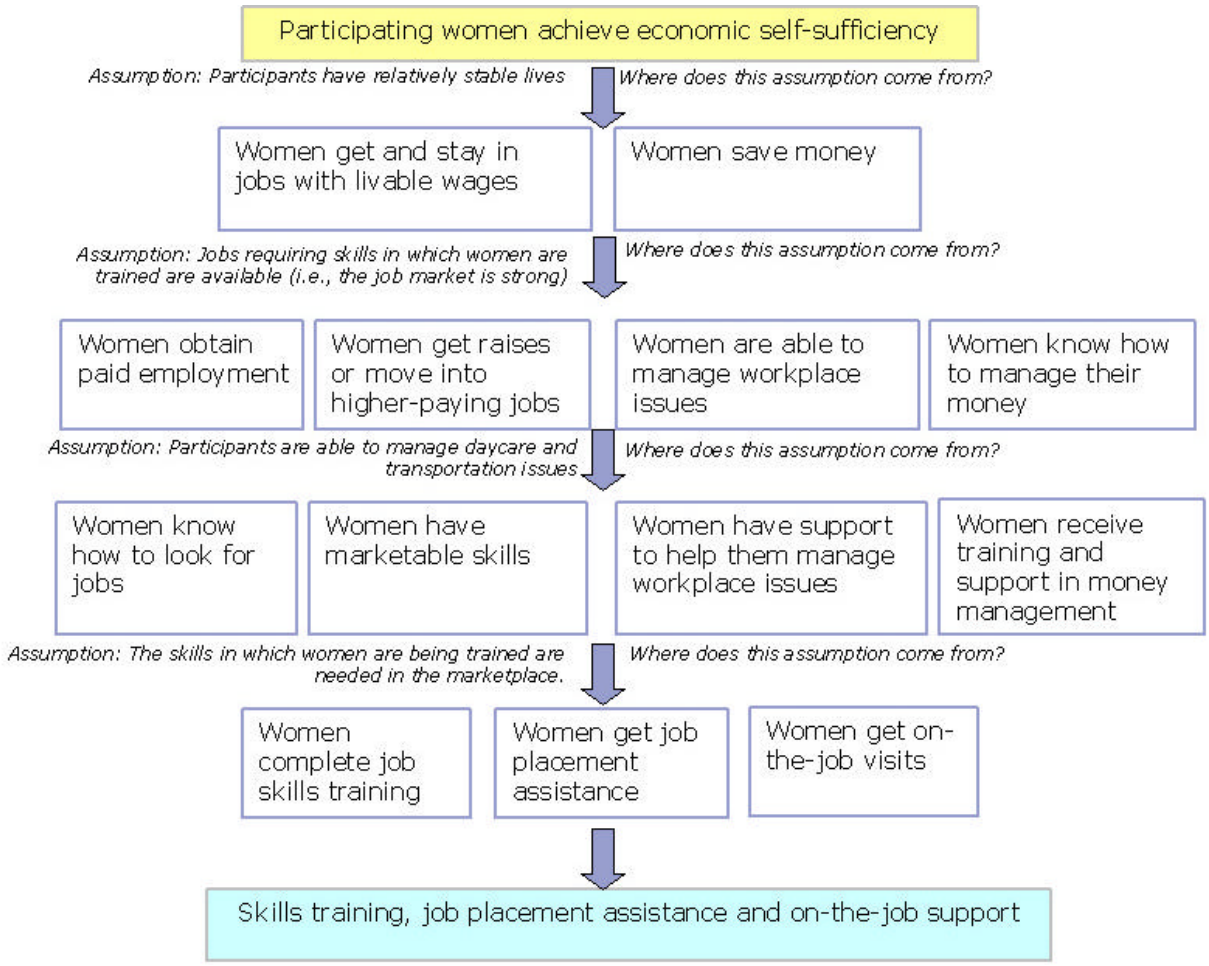
Step 4: As you go through the preconditions, identify the assumptions (how and why) that connect the different levels of the theory. It is important as well to document where the assumptions come from.



Outlining this theory or set of relationships helps as you begin to articulate your program logic model. In the program logic model, you will better define the different levels of your theory of change (the actual activities and products of your work) as well as the measurable outcomes you hope to achieve.

Sources: W.K. Kellogg Foundation: *Evaluation Handbook*, 1998, and *Logic Model Development Guide*, 2001
Aspen Institute: www.theoryofchange.org

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Developing a Logic Model

If you don't know where you are going, how will you know when you get there?

The cornerstone of effective evaluation is a thorough understanding of a project or program: what resources it has to work with, what it is doing, what it hopes to achieve, for whom, and when. A commonly-used tool for clarifying and depicting a program is the "logic model".[2] The logic model is a "picture" of the structure of a program. It shows the relationships between what is put into the program (resources), what the program does (activities and outputs), and what results (outcomes) the program produces over the shorter- and longer-term. The logic model is often presented graphically or in a table.

A logic model has several purposes:

- **Program Planning**. You can use a logic model as you develop a program. The logic model helps you think through your program strategy—to help clarify where you are and where you want to be.
- **Program Management**. Because it "connects the dots" between resources, activities, and outcomes, a logic model can be the basis for developing a more detailed management plan to help you do your work. When it is connected to data collection through an evaluation plan, the logic model helps you track and monitor operations in order to better manage results.
- **Evaluation**. A logic model helps you to determine when and what to evaluate, so that evaluation resources are used effectively and efficiently.
- **Communication**. A logic model is a powerful tool to communicate what a program is doing (activities) and reporting what it is achieving (outcomes), emphasizing the link between the two.
- **Consensus-Building**. The logic model builds common understanding and promotes buy-in among both internal and external stakeholders about what the program is, how it works, and what it is trying to achieve.

It is important to remember that a logic model is a graphic representation of your program, reflecting a set of linear relationships. In actuality, of course, programs are far more complex. Thus, while a logic model includes the critical components of your program, it is by necessity a simplification of it. It is also important to note that the logic model is not static; it can and should change over time as your experience with and knowledge about the program increases.

The components of the Logic Model are:

- **Goal(s):** The overall purpose of your program.
- **Resources**: What you have to implement your program.
- **Activities:** The actions taken to implement your program.
- **Outputs:** The tangible and direct results of program activities.
- **Outcomes:** The changes you expect will occur as a result of your program.

[2] In developing these materials, we have drawn from a variety of resources. These include: *Logic Model Development Guide* from the W.K. Kellogg Foundation, *Measuring Program Outcomes: A Practical Approach* by the United Way of America, and the *Logic Model Workshop* materials prepared by the University of Wisconsin-Extension. Full citations and information about obtaining these materials are provided in the attachment identifying resources.

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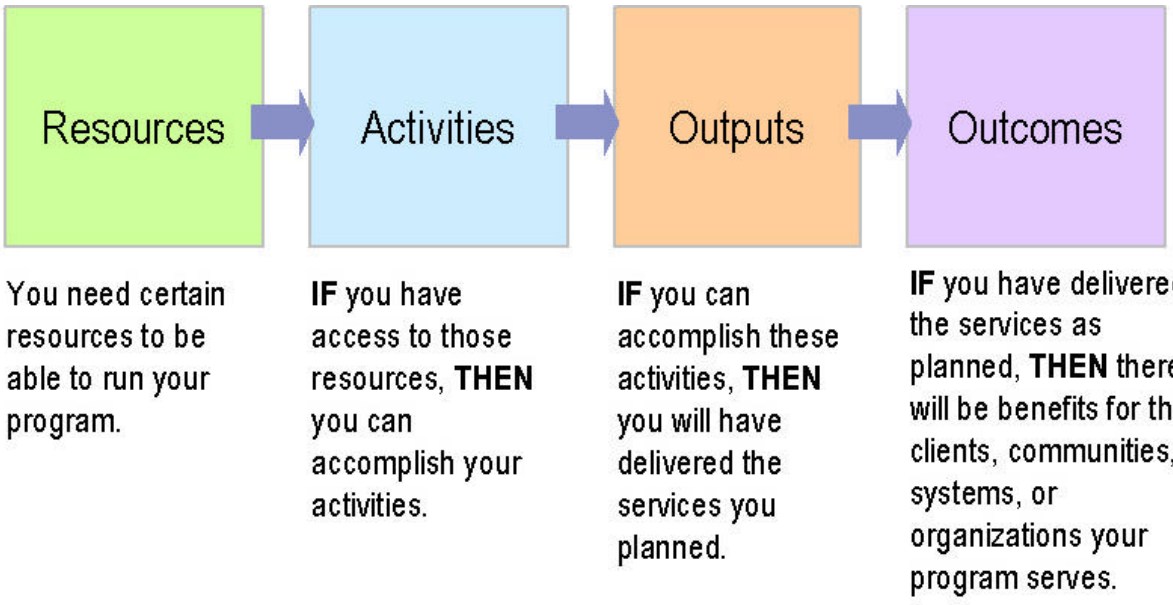
The components of the logic model are connected by a series of "if-then" relationships: if resources are available to the program, then program activities can be implemented; if program activities are implemented, then certain outputs and outcomes can be expected.



As you draft each part of the logic model, read through your work and consider the if-then relationship. If you cannot make the connection between each element of the logic model, identify where the gap is and adjust your work. This may mean that you revise some of your program elements to ensure that you are able to achieve your program goals.

Stakeholders and the Development of a Program Logic Model

The development of a logic model gives you an opportunity to engage your program's stakeholders in a discussion about the program. Stakeholders might include program staff, clients, partners, funders, board members, community representatives, and volunteers. The perspectives these individuals provide can enrich your program logic model while at the same time clarifying the different understandings and expectations for the program.

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Goals: What is the overall purpose of your program?

The first step in developing a logic model is to state what the overall purpose of your program is—what you are trying to accomplish over the life of the program. Goals serve as a frame for the elements of the logic model that follow. They steer a clear direction for future action and help set organizational priorities.

Goals should:

- Include the intended results—in general terms—of the program or initiative.
- Specify the target population you intend to serve.

Examples of goal statements include:

- Significantly increase the literacy rates among children with reading difficulties at XYZ elementary School by implementing a teen tutored reading program
- Assist clients in their effort to become economically self-sufficient
- Improve the health status of children ages birth to 8 years in XYZ County
- To improve enforcement of the workplace and organizing rights of low-wage, contingent, and immigrant workers in XYZ state
- To increase long-term and meaningful civic participation among students in grades 9 – 12 in XYZ district
- To improve cancer pain management and diminish unnecessary suffering from cancer pain and to address unmet palliative/advanced illness care and caring for the XYZ population

Goal Tips:

- All programmatic components should be connected to your goals. Having clear goals helps fight the temptation to implement an interesting program that doesn't really "fit."
- Your goals should be phrased in terms of the change you want to achieve, rather than a summary of the services you are going to provide.
- **Don't** make your statement so broad and general that it provides no guidance for your program. *The purpose of the after school program is to improve the lives of children in our community.*

> *Other terms for **GOALS***
> *While we use the term **goals**, other terms are used interchangeably in the evaluation and program planning field. The term **Objectives** is used particularly by educational programs; sometimes you will see **long-term outcomes** used synonymously with **goals**.*

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Resources: What do you have to work with?

Identifying the available resources you have for your program helps you to determine if you are able to implement the program and achieve your intended goals and outcomes. In this column, you should identify the resources--both what you are paying for and in-kind contributions.

Identify the resources that you **currently have** to support your program. (If you intend to raise additional resources for the program during this program timeframe, you should account for them under "Activities," rather than in the Resources section.)

An exception: if you're building your logic model to justify a funding request, list all the resources you think you will need for a successful program, whether or not you have those resources in hand (you may wish to mark them "need" and "have").

Examples include:

Human resources

- Full-time staff (don't forget yourself!)
- Part-time staff
- Consultants (e.g., fundraising, strategic planning, materials development, etc.)
- Pro bono staff services
- Volunteers
- Technical support people

Space

- Office space
- Program facilities

Technology

- Computer hardware
- Computer software applications
- Communications infrastructure (email, website)

Other Equipment

- Office machinery (printers, copiers)
- Equipment specific to the program (sports equipment, medical devices)

Materials/Other

- Office supplies
- Program materials (training materials, food, incentive gifts)
- Insurance

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Resource Tips:

- For a logic model, it is most important that you identify the major resource categories for your program.
- Be as specific as you can about these resources, but do not spend a lot of time developing a detailed list of all actual or anticipated program expenditures.

> *Other terms for **RESOURCES***
>
> ***Resources** in logic models can also be referred to as **inputs** or **program investments**.*

Not specific enough	Just right	Too specific
Staff	3 full-time staff 1 part-time	3 FT staff @ 30 hrs/wk 1 PT staff @ 20 hrs/wk
Supplies	Art Supplies	25 paintbrushes 50 bottles of paint Soap

- Be sure to remember resources that are often underestimated—or overlooked entirely, such as technology.
- You can use your resource list as the start to developing your program budget.

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Activities: What will you do with your resources?

Activities are the actions that are needed to implement your program—what your program will do with the resources in order to achieve program outcomes, and ultimately goals. Activities could include:

- Developing products (such as promotional materials and educational curricula);
- Providing services (for example, education and training, counseling or health screening); or
- Developing infrastructure (such as new governance structures, relationships and capacity).[3]

It is often helpful to first identify your major program components—closely related groups of activities in your program. You can then identify the discrete activities for each component. The number of components depends on the size of your program and how you conceptualize or administer it. For a large program, there could be numerous components in the logic model. Smaller programs, on the other hand, may consist of just one or two components.

- For example, a program with the goal of reducing the teen pregnancy rate might have the following program components: family planning education, mentoring, and providing individual and group counseling. Each of these would have associated activities.

- A program with a goal of increasing organizational capacity through strategic use of technology might have the following activity categories: technology planning, selecting and implementing technology infrastructure, staff assessment and training, and network support.

Activities Tips:

*Other terms for **ACTIVITIES***

***Activities** in logic models can also be referred to as **processes**, **strategies**, **methods**, or **action steps**.*

- Don't forget to include evaluation and fundraising activities, if appropriate.
- Remember, you can use the activities identified in the logic model as an outline from which to develop a work plan. After you have identified your components and activities, you could use the activities as headings in a more detailed and comprehensive work plan, including staff assignments and a timeline.
- Try to make sure that your list of activities provides enough information so those who are not familiar with your program can understand what it takes to implement it.

[3] W.K. Kellogg Foundation. (2001). *Logic Model Development Guide*. Battle Creek, MI. Page 8.

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Program Component: Mentor Training	
• Hire trainer • Conduct training	This set of activities is not detailed enough. It omits a number of key steps needed to implement mentor training.
Program Component: Mentor Training	
• Conduct Google search • Interview best practice program staff • Hire curriculum writer • Write first draft of material • Send material to 6 reviewers • Compile responses • Set up review meeting • Edit curricular material • Copy curricular material • Contact different training spaces • Fill out applications for space • Buy snacks • Arrange for markers and flip charts • Obtain men's and ladies room keys	This is too detailed. It would more appropriately belong in a workplan.
Program Component: Mentor Training	
• Research best practices • Develop curriculum • Prepare materials • Arrange for logistics • Select trainer • Conduct training • Develop training feedback form	This is just about the right level of detail.

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Outputs: What are the tangible results of your activities?

Outputs are the measurable, tangible, and direct results of program activities. Outputs are important because they help you to assess how well your program is being implemented and because they are intended to lead to desired outcomes—benefits for participants, families or communities.

Outputs are usually described in terms of the size and/or scope of services and products delivered or produced by the program; they are expressed in **quantifiable** terms. Examples of program outputs include:

- # classes taught or meetings held
- # educational materials distributed
- # participants served
- # hours of service provided
- # materials developed
- # partnerships formed
- # coalitions formed
- # focus groups held
- # policy briefings conducted
- # lobbying sessions with public officials held
- Curriculum developed

When an output is listed in a logic model, it doesn't tell us about the *quality* of the products that result from stated activities. Assessing the quality of your outputs will be addressed in your evaluation.

Outputs Tips:

- Make sure your outputs have activities and resources associated with them. This is one way a logic model is useful—to check whether a program has planned how it will create a product or deliver a service.
- Many people identify specific numbers for their outputs. Begin with an estimate that you can change at a later date. However, your numbers should be based on past experience, desired impact, and resources available. Don't get stuck on exact numbers.

*Other terms for **OUTPUTS***

***Outputs** in logic models can also be referred to as **deliverables**, **units of service**, or **products**.*

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Outcomes: What changes do you expect to occur as a result of your work?

Outcomes express the *results* that your program aims to achieve if implemented as intended. Outcomes are the *changes* that occur or the difference that is made for individuals, groups, families, households, organizations, or communities during or after the program.

Outcomes answer the question: "What *difference* does the program make?"

Outcomes should:

- Represent the results or impacts that occur as a result of activities and services
- Be within the scope of the program's control or sphere of reasonable influence, as well as the timeframe you have chosen for your logic model
- Be generally accepted as valid by various stakeholders of the program
- Be phrased in terms of change
- Be measurable

Other terms for ***OUTCOMES***

Outcomes *in logic models can also be referred to as* ***results***, ***impacts***, *or* ***objectives***.

Types of Outcomes: When identifying outcomes, it is important to identify what type of outcomes you are trying to achieve:

1. *Individual, Client-Focused Outcomes*: These outcomes examine the difference the program has made in the lives of those served. Typically, outcomes represent a change in behavior, skills, knowledge, attitude, and status or life condition of participants that occurs as a result of the program. Examples include:

- Parents use alternative discipline approaches (behavior);
- Participants are better able to organize and advocate for their rights (skills);
- Clients understand their legal rights and how to act on them (knowledge);
- Youth have increased self-esteem (attitude);
- Children are better prepared to enter school (changed status/condition).

2. *Family or Community Outcomes*: Some programs are aimed at creating change for families, neighborhoods, and in some cases, whole communities. Examples include:

- Improved communication among family members;
- Increased parent-child-school interactions;
- Increased civic engagement and participation;
- Decreased violence;
- Shifts in authority and responsibility from traditional institutions to community-based agencies and community resident groups;
- Community group has an inclusive membership policy, work group practices, democratic governance;
- Community members value youth.

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3. *Systemic Outcomes*: Systemic outcomes reflect changes to overall systems and might include cases where agencies, departments, or whole organizations work in new ways, behave differently, share resources, and provide services in an integrated fashion. Examples include:

- Integrated system of services, interagency resource sharing;
- Greater coordination among partners in a system.

4. *Organizational Outcomes*: For some programs, in addition to a program's external outcomes, there will also be internal outcomes—both individual and institutional—that are important to understand and document. These are significant because they affect how well a program can achieve client, family/community, or systemic outcomes, and because they provide information that will be useful to improve program management and organizational effectiveness. Examples of organizational outcomes include:

- Increased efficiency;
- Increased staff motivation;
- Increased collaboration with other organizations.

Outcomes vs. Outputs:

Outcomes are often confused with outputs. What distinguishes one from the other is that:

- ***Outputs*** are the direct and measurable ***products*** of a project's activities and services; they are often expressed in terms of volume or units delivered.
- ***Outcomes*** are the ***results*** or ***impact*** of the activities and services. Outcomes often represent the results or impact of multiple outputs (in other words, each outcome usually corresponds to more than one output).

Output	Outcome
# of new mothers receiving six home visits	Participating new mothers increase their knowledge of child development
# of Public Service Announcements on child abuse and neglect airing on radio and television # of pamphlets about child abuse and neglect distributed to local libraries and social service agencies	Target audiences are knowledgeable about the signs of child abuse and neglect and the appropriate actions to take
Action Plan developed to clean and monitor neighborhood play areas	Residents in Community X sign up to clear vacant lots and build playgrounds
Client database is installed	Increased staff access to information about clients
# of funding proposals submitted # of meetings held with potential individual donors	Increased and diversified resources for the program
Board job descriptions developed Board policy manual written and approved	Board members understand their responsibilities
# of legal aid attorneys trained in cultural and legal competency	Increased cultural and legal competency of legal aid attorneys in X state
# of meetings held with legislators # of legislators receiving policy options paper	Increased legislators' awareness of policy options

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Outcome Scope: Determining the scope of your outcomes is important. It is tempting to be idealistically ambitious, articulating outcomes that are very difficult to achieve or over which your program has little control. Clearly identifying the population you are trying to reach with your program is one way to limit the scope. Examples include:

- Geographically (people in County X; students attending X High School)
- By age (youth ages 8-12; children in grades K-6)
- By income level (low-income)
- By ethnicity (African American and Asians)
- By characteristics (part time worker; victims of sexual assault)

Outcomes as Change: Outcomes represent changes your program is trying to institute, such as:

Changes in Learning:

- New knowledge
- Increased skills
- Changed attitudes
- Changed opinions or values
- Changed motivation
- Changed aspirations

For example:

- Participating new mothers increase their knowledge of child development.
- Teens ages 15-18 increase their commitment to community service.

Changes in Action:

- Modified behavior
- Changed practice
- Changed decisions
- Changed policies

For example:

- Participating new mothers engage in developmentally appropriate child rearing practices.
- Teens ages 15-18 participate in community service.

Changes in Condition:

- Human
- Economic
- Civic
- Environment

For example:

- Children of participating new mothers are at their appropriate developmental stage.
- There's a decrease in unemployment rate among women participating in the program.

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The Chain of Outcomes. In general, not all outcomes will be achieved at the same time. Some outcomes must be accomplished before other outcomes and program goals can be reached. Distinguishing between outcomes that are achieved over the short, intermediate, and long term is an important part of the logic model development process. This is referred to as the "**chain of outcomes**."

- **Short-term Outcomes:** *What change do you **expect** to occur either immediately, or in the near future?* Short-term outcomes are those that are the most direct result of your activities and outputs. They are generally achievable in one year and are typically not ends in themselves, but are necessary steps toward desired ends (intermediate or long-term outcomes or goals).

- **Intermediate Outcomes:** *What change do you **want** to occur after that*? Intermediate outcomes are those outcomes that link a program's short-term outcomes to long-term outcomes.

- **Long-term Outcome:** *What change to you **hope** will occur over time?* Long-term outcomes are those that result from the achievement of your short- and intermediate-term outcomes, and often take a longer time to achieve. They are also generally outcomes over which your program has a less direct influence. Often long-term outcomes will be outcomes that are achieved beyond the timeframe you identified for your logic model.

The following illustrates the connections between different levels of outcomes.

Good Health for Kids is an advocacy organization that is involved in a campaign to educate parents and guardians about the importance of immunizing their children. The organization's staff has identified the following program components:

- Develop educational literature materials
- Disseminate literature to social service agencies
- Develop public service announcements
- Identify and work with radio stations to air radio spots

SHORT TERM OUTCOMES →	INTERMEDIATE OUTCOMES →	LONG TERM OUTCOMES
The knowledge parents and guardians gain from the literature and PSAs. • Targeted parents understand the importance of childhood immunization • Targeted parents know where to go to have their children immunized	*The actions parents and guardians take as a result of that knowledge* • Targeted parents take their children to be immunized	*The conditions that change as a result of that action -* • Children of targeted parents continue to receive up to date immunizations • Healthier children

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Contextual Factors

The best laid plans of mice and men often go awry.
Robert Burns, "To A Mouse"

The degree to which a program achieves its desired outcomes is affected by a variety of factors over which you have no control such as access to resources, the political and economic environment, social and cultural influences, and organizational capacity. These external contexts can facilitate or impede a program's ability to successfully achieve specific outcomes. Changes in any of the contextual factors that impact your program may necessitate program adjustments. In addition, it is important to make stakeholders aware of the factors that impact your program over which you have no control. This allows you to identify and explain mitigating circumstances over the course of your program and explain unanticipated outcomes. Take some time to review some of the following categories and consider whether there are any specific contextual factors that affect your program.

Political environment

- Is the current political environment supportive of your program strategies?
- Is there a risk of losing that support if particular policies or federal funding sources change?

Economic situation

- Will this economy support your program goals and outcomes?
- Are there economic barriers to achieving your outcomes?

Social/cultural context

- Are you working in a community that welcomes your program?
- Is community support for your program a critical component? If so, are there political or economic characteristics that will influence the community and affect your program?

Geographic constraints

- Is your work dependent on reliable public transportation to reach your constituency?
- Is transportation a critical challenge to achieving program outcomes?

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Logic Model Review

Once your logic model is complete, it is always helpful to revisit and review your work, keeping the following questions in mind:

- Does your organization have adequate resources to implement the activities and achieve the desired outcomes?
- Have you included all the *major* activities needed to implement your program and achieve expected outcomes?
- Have a variety of perspectives been taken into consideration when developing your program logic model?
- Do activities, outputs, and short- and long-term outcomes relate to each other logically (the "if-then" relationship)?
- Does your program logic model clearly identify the scope of your program's influence?

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Logic Model Resources

Innovation Network's Workstation: an online workstation with evaluation and planning tools designed specifically for nonprofit organizations. The Workstation allows you to develop a blueprint for designing, evaluating, and budgeting a successful program. Each plan has a corresponding work plan -- a management tool to help you get the job done. The result is stronger programs with measurable results. (http://www.innonet.org)

Online course on developing logic models and evaluation plans: an online course from the University of Wisconsin, Extension on developing and applying logic models. Designed for the beginner, this user-friendly course includes an audio track, worksheets, resources, and examples. (http://www1.uwex.edu/ces/lmcourse/)

Logic Model Overview: a logic model overview with links to workbooks, PowerPoint presentations, etc. from the University of Wisconsin, Extension. (http://www.uwex.edu/ces/pdande/evaluation/evallogicmodel.html)

W.K. Kellogg Foundation Logic Model Development Guide: a clear and concise discussion of the use of logic models and their importance for program and evaluation planning. (http://www.wkkf.org/Pubs/Tools/Evaluation/Pub3669.pdf)

Introducing Program Logic Models: a six-page summary of logic model concepts prepared by the Kellogg Foundation. (http://www2.uta.edu/sswmindel/S6324/Class%20Materials/Program%20Evaluation/Executiv.pdf)

Outcomes Based Evaluations Using the Logic Model: a training program from SAMHSA about logic models and evaluation. (http://www.bordercapt.org/docs/OutcomesBased.pdf)

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