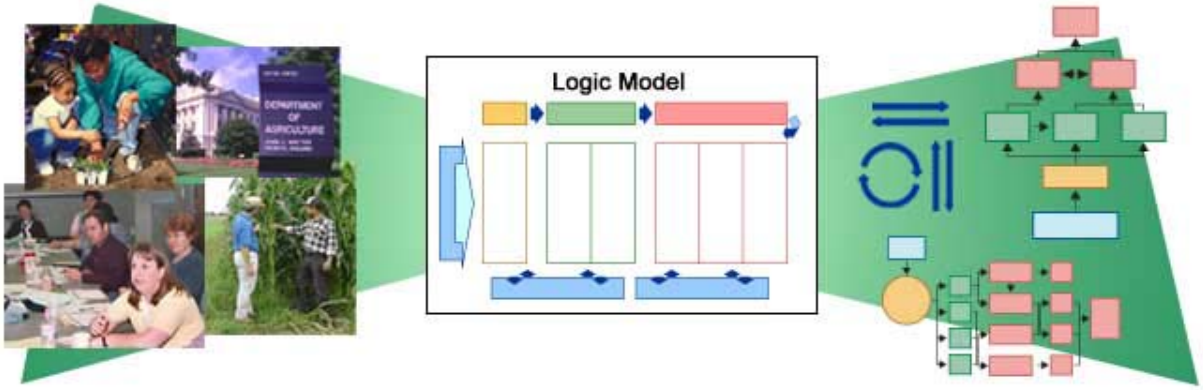
Welcome to
Enhancing Program Performance with Logic Models



This course provides a holistic approach to planning and evaluating education and outreach programs. It helps program practitioners use and apply logic models - a framework and way of thinking to help us improve our work and be accountable for results. You will learn what a logic model is and how to use one for planning, implementation, evaluation or communicating about your program.

Logic Model Basics

"What difference are you making? How do you know it? What is the value of your program?" Do these questions sound familiar? Are they questions you are being asked?

The logic model helps us design results-based programs and have data to answer important questions. This course has 7 sections. We start with a basic, simple concept and add to it over the various sections to provide a thorough foundation in the use of logic models. Each section contains many useful resources and activities. We hope you will explore them fully.

A note to users of this PDF document:

This document is a static, printable version of an interactive, online course available at: http://www.uwex.edu/ces/lmcourse/

This document serves two groups of learners:

1. Those with limited internet access (either due to cost or time) who want a version of the course that can be downloaded and used offline.
2. Those who want a printed version for reading and taking notes while working through the online course, or as a stand alone learning tool.

We have attempted to make the PDF file easy to navigate and use, but it will not replicate the interactive experience that an online user would have.

Feedback

We would appreciate hearing from you with your comments and reactions to the course. The course email contact address is:

lmcourse@ces.uwex.edu

Notes about the content and organization of this document

The course is divided into 7 sections:

Section 1: What Is a Logic Model?
Section 2: More about Outcomes
Section 3: More about Your Program "Logic"
Section 4: What Does a Logic Model Look Like?
Section 5: How Do I Draw a Logic Model?
Section 6: How Good Is My Logic Model?
Section 7: Using Logic Models in Evaluation: Indicators and Measures

The primary course content pages are numbered as in this example: “Section 1 - Page 12 of 20”. Any supplemental materials referenced on a course page are included immediately following that page in this document.

Content Icons

Throughout the course icons are used to indicate the type of content that is being presented. Below is a list of the icons used in the course and what they indicate.


Indicates links to important course content that you don't want to miss.


Indicates a link to play an audio file.


Indicates a practice activity.


Indicates a link to a related printable document.


Indicates a link to additional information or resources.

Navigation

For viewing the file on your computer:

The PDF file has bookmarks that will help you navigate through the content. The bookmarks are visible by selecting the bookmark icon at the left side of the Acrobat window.

For using a printed version

A Table of Contents is provided to assist you in finding content.

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Section 3: More about Your Program "Logic"

Section 4: What Does a Logic Model Look Like?

Section 5: How Do I Draw a Logic Model?

Section 6: How Good is My Logic Model?

Section 7: Using Logic Models in Evaluation: Indicators and Measures

ENHANCING PROGRAM PERFORMANCE WITH LOGIC MODELS
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The recommended format for citations follows the guidance of the American Psychological Association: http://www.apastyle.org/elecsource.html

General references to this course should use this format (insert actual date of retrieval):

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Graphic and Photo Sources:

- Photo collections of University of Wisconsin-Extension, Cooperative Extension: Family Living Programs, Wisconsin Nutrition Network, and Distance Education/Digital Media Unit.
- University of Wisconsin, Campus Photo Library
- USDA On Line Photography Center
- Art Explosion, Nova Development Corporation

Section 1

What Is a Logic Model?

Section Overview

Listen to description of this section

Audio transcript

Section Goal

On completion of this section, you will understand what a logic model is, the terminology and key components associated with logic models, and why logic models are useful.

More specifically you will:

1. Understand that a logic model is a graphic illustration of a program.
2. Know the key components of logic models.
3. Know the difference between inputs, outputs, outcomes, and impact.
4. Know the benefits that program staff receive from using a logic model.

Section Outline

The section outline will help you track your progress through this section.

Printable outline.

Outline with links to each page of this section

Background

Learn more... brief background information on these topics:

- Despite the current fanfare, logic models date back to the 1970s…
- Many variations and types of logic models exist…
- The logic model described in this module...

Bibliography with resources about logic model use and development

Audio Transcript

Welcome to Section 1. "What is a logic model?"

We are glad you are here. Once you have completed this section you will understand better what a logic model is; the terminology that describes logic models; the key components of a logic model; and why people are finding logic models so useful.

More specifically, you will know that logic models are useful in program planning, implementation, evaluation and communications. You will have the chance to practice using the logic model terminology: inputs - outputs - outcomes and impact, so that you can become very familiar with how these concepts differ. You will spend time exploring the six components that we consider essential to logic model development: the **situation** that gives rise to priority setting and is the foundation of any logic model, **input**, **output**, **outcomes**, **assumptions**; and **external factors**. You will also have a chance to hear from others about how they have found logic models to be of particular use in their work.

Please take a moment and look at the section outline to see what we will cover. We encourage you to use all of the "learn more" opportunities where we've included additional, useful information relevant to this section. Get comfortable and enjoy your exploration.

Section 1 – What Is a Logic Model?

Print a copy of this outline to track your progress through this section.

Additional Resources: Background Information on Logic Models

Despite the current fanfare, logic models date back to the 1970s. The first publication that used the term "logic model" is usually cited as *Evaluation: Promise and Performance* by Joseph S. Wholey (1979). Bennett's hierarchy, *The Seven Levels of Evidence* (1976), well-known in Cooperative Extension circles, is an early forerunner of today's logic model. We see the antecedents and footprints of logic model thinking in many places: private sector, public sector, nonprofit sector, international area, evaluation field.

- **Private sector.** The private sector has experienced total quality management (TQM) and performance measurement movements.
- **Public sector.** GPRA (1993) moved all federal agencies to focus on results and link investments to results, not just activities.
- **Nonprofit sector.** The nonprofit sector is concerned with improving programs to produce valued impacts. The United Way is a frontrunner in outcome measurement using the logic model.
- **International.** The players in the international arena for a long time have used variations of a logic model. The U.S. Agency for International Development (USAID) Log Frame of the 1970s is a historical precedent to the current logic modeling discourse. Most of the international donor agencies use a form of program logic for planning and evaluation.
- **Evaluators.** Evaluators have played a prominent role in using and developing the logic model. This may be why the logic model is often called an "evaluation framework." In fact, the origins of the logic model go back to Suchman (1967) and Weiss (1972). Other early influences were Bennett's (1976) hierarchy of evidence that was developed to evaluate the effectiveness of Extension programs, and Wholey's (1979) evaluability techniques, developed to determine if a program is ready for evaluation. This work was a result of evaluators being asked to evaluate impact and finding that goals and objectives were vague; finding that programs didn't exist or weren't being implemented in a way that would achieve the expected results; and seeking new approaches for measuring causality [Bickman (1987), Chen (1990) theory-driven evaluation and Weiss (1997) theory-based evaluation]. Development and use of logic model concepts by evaluators continues to result in a broad array of theoretical and practical applications (see Bibliography).

Many variations and types of logic models exist - for variations see
W. K. Kellogg Foundation Logic Model Development Guide at http://www.wkkf.org or
Getting to Outcomes 2004 at http://www.rand.org/pubs/technical_reports/TR101/.

The logic model described in this course. In this course our focus is on using a logic model to enhance program performance through outcome accountability. We present the logic model as a framework for planning, implementation, and evaluation that links investments to results.

The logic model described has evolved since 1995 in Cooperative Extension at the University of Wisconsin, largely in response to the GPRA initiative (Government Performance and Results Act, 1993) and interest in being a learning organization. It was originally informed by the Bennett hierarchy of evidence and the USAID Log Frame and has evolved further in response to the burgeoning field of logic model practice. In particular, we would like to credit ideas and materials that we have used and adapted from United Way (1996), W. K. Kellogg Foundation (2001), H. Hatry (1999), G. Mayeske (1999), McLaughlin & Jordan (1999) and the Evaluation Forum in Seattle, WA.

Section 1

What is a Logic Model?

A logic model...

Many people say that a logic model is a roadmap

- is a **simplified picture** of a program, initiative, or intervention that is a response to a given situation.
- shows the **logical relationships** among the resources that are invested, the activities that take place, and the benefits or changes that result.
  - Some call this **program theory** (Weiss, 1998) or the program's **theory of action** (Patton, 1997). It is a "plausible, sensible model of how a program is supposed to work." (Bickman, 1987, p. 5).
  - It portrays the **underlying rationale** of the program or initiative.
    (Chen, Cato & Rainford, 1998-9; Renger & Titcomb, 2002)
- is the **core** of program planning, evaluation, program management and communications.
  - Some think the logic model is only used in evaluation. We find it equally helpful for planning and program design, managing programs and communicating.

Section 1

A logic model is the core of...

Planning

A logic model serves as a framework and a process for planning to bridge the gap between where you are and where you want to be. It provides a structure for clearly understanding the situation that drives the need for an initiative, the desired end state and how investments are linked to activities for targeted people in order to achieve the desired results. We find the logic model equally useful for broad-scale planning as well as more specific program design. (More on this in Section 5.)

"Planning a course of action, such as managing a program or charting a course of policy, generally implies some sort of logic model"
(Millar, Simeone, Carnevale, 2001, p. 73).

Program Management

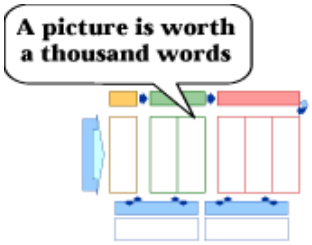
A logic model displays the connections between resources, activities and outcomes. As such it is the basis for developing a more detailed management plan. During the course of implementation, a logic model is used to explain, track and monitor operations, processes and functions. It serves as a management tool as well as a framework to monitor fidelity to the plan.

Evaluation

A logic model is the first step in evaluation. It helps determine when and what to evaluate so that evaluation resources are used effectively and efficiently. Through evaluation, we test and verify the reality of the program theory – how we believe the program will work. A logic model helps us focus on appropriate process and outcome measures. Some people think of the logic model as an evaluation model, probably, because it is so widely used by evaluators. It is not an evaluation model but does help in evaluation. (see Section 7)

Communications

Communications is key to success and sustainability. A simple, clear graphic representation helps communicate about our program or initiative, whether it be with/to program staff, those funding the programs, or other key stakeholders.



Logic modeling is really a way of thinking.

Section 1

Logic models can be applied to:

A small, focused program.

A comprehensive initiative.

A process, such as a team or community group working together.

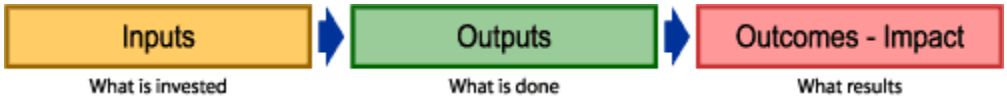
An organization (local or national).

Even a single event or product such as a conference, a tip sheet, a newsletter, or this online module.

We tend to refer to programs throughout this module, but remember that:
logic modeling is a way of thinking that has many applications.

A Simple Logic Model

In its simplest form, a logic model looks like this:



This **graphic representation** shows the logical relationships between:

- The resources that go into a program.
- The activities the program undertakes.
- The changes or benefits that result.

The logic model describes the **sequence of events** thought to bring about benefits or change over time. It portrays the chain of reasoning, that links investments to results.

A logic model is a **systems model** that shows the connection of interdependent parts that together make up the whole. As with systems thinking, we know that a total program is greater than the sum of the individual parts.

Some Everyday Examples

Many of us use logic models in everyday life. Follow these links to see some examples:

Headache


Hunger

Taking a vacation

Logic models usually depict these mental maps in a flowchart fashion of boxes and arrows.

Logic models do not have to be linear. You may choose to describe the components and linkages as a concept map or storyboard or in any other culturally appropriate way. (You'll learn more about this in Section 3 of this module.)

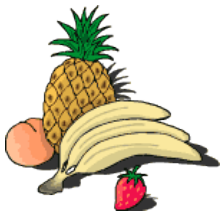
A logic model should be depicted in a single image, however, and communicated in a way that is understood by intended users.

Headache example

Let's take a simple example, one that we all are likely to relate to. You are suffering from a severe headache. Your experience says that certain pills help. So, the logic model shows that first you need to get the pills. Then, you take the pills as prescribed. As a consequence, you feel better. The end result is that the headache is gone and you feel better as a result.

Hunger example

We actually use the logic model every day. Think about being hungry. What does that feel like? What do you need? What do you want to do? Probably what you want is some type of food. So, first you need to find that food. Then, you need to eat that food. Then, you will be satisfied and feel better.



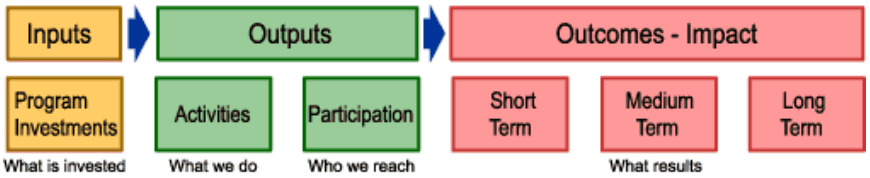
Taking a vacation example

In this example, we are planning a family vacation. We like to camp and are planning our annual family camping trip. We have a number of existing resources including: Mom, Dad, sister and brother plus our vacation budget, our car and camping equipment. These resources make it possible for us to drive to a state park, set up camp and engage in a variety of camping activities. As a result of camping together, we will benefit in a number of ways: we will learn more about each other, we will increase our bond as a family unit, and we will have fun!

A logic model for a family vacation -

An Expanded Simple Logic Model

Let's put a bit more detail on our logic model. In the following graphic, we see that outputs include **activities** and **participation,** and we also see that outcomes are divided into **short-, medium-,** and **long-term** results.



Listen to an audio description of this logic model

Audio transcript

As you move through the sections of this module, you'll become increasingly familiar with this terminology.

- **Inputs** are the resources invested that allow us to achieve the desired outputs.
- **Outputs** are activities conducted or products created that reach targeted participants/populations. Outputs lead to outcomes.
- **Outcomes** are changes or benefits for individuals, families, groups, businesses, organizations, and communities. Outcomes occur along a path from shorter-term achievements to longer-term achievements (impact). Outcomes help us answer:

  "So what... what difference are we making?"

In this module, we use impact to mean the final, or ultimate result – the long-term outcome. As such, impact is synonymous with your long-term goal. Commonly, however, the terms outcome and impact are used interchangeably. The term impact in "communicating impact", "impact reports", or "impact statements" refers to any outcomes that answer the "so what? " question. It is the difference your programs are making in peoples lives.

There may be slight variations in the logic model formats of different organizations and practitioners. A popular version places outputs after activities in the continuum.

The important thing is to depict all the logical connections in the context of an originating situation…to "make implicit understandings explicit." (McLaughlin and Jordan, 1999)

Audio Transcript

Now, let's put a little more detail on our logic model. You have been introduced to the idea of input - outputs and outcomes. Now, we want to divide **outputs** into **activity** and **participation**. And, we want to think about **outcomes** in terms of **short**, **medium**, and **long-term** outcomes.

Again, you see that inputs are the resources that we invest in the program. Outputs are those activities that we conduct and the products we create that are intended to reach specific audiences, decision makers or groups of individuals. By reaching these individuals or groups, we can expect certain outcomes to be achieved. These outcomes are the benefits that these individuals, groups, communities realize. Outcomes do not occur all at one time or immediately; rather they occur over time from shorter to longer-term impact.

This model includes a specific focus on **participation** or **reach**. Participation was part of the Bennett hierarchy of program effectiveness; reach is a concept that Montague (1997, 1994) uses in discussing the 3 Rs of performance: resources, reach, results; which is also discussed in Mc Laughlin and Jordan's article on logic models (1999). This aspect is critical in effective educational and outreach programming – this is who we **target**. Good program design depends upon a clear articulation and understanding of the target audience. Activities are designed based on audience characteristics and expected outcomes flow from those participants/audiences. This is part of the program theory – how the program works. Also, a focus on participation helps us be accountable for the effective and efficient use of resources. We often must track and report participation data. Who are we working with and how many? We are accountable for working with diverse audiences. Thus, in the logic model that we use in this module, we make **participation** very explicit - who we target, who we reach and as a result, what outcomes can be expected or are achieved.

Outcomes answer the question "So what?"

So what that we conducted six workshops on food safety and thirty-five senior citizens came.

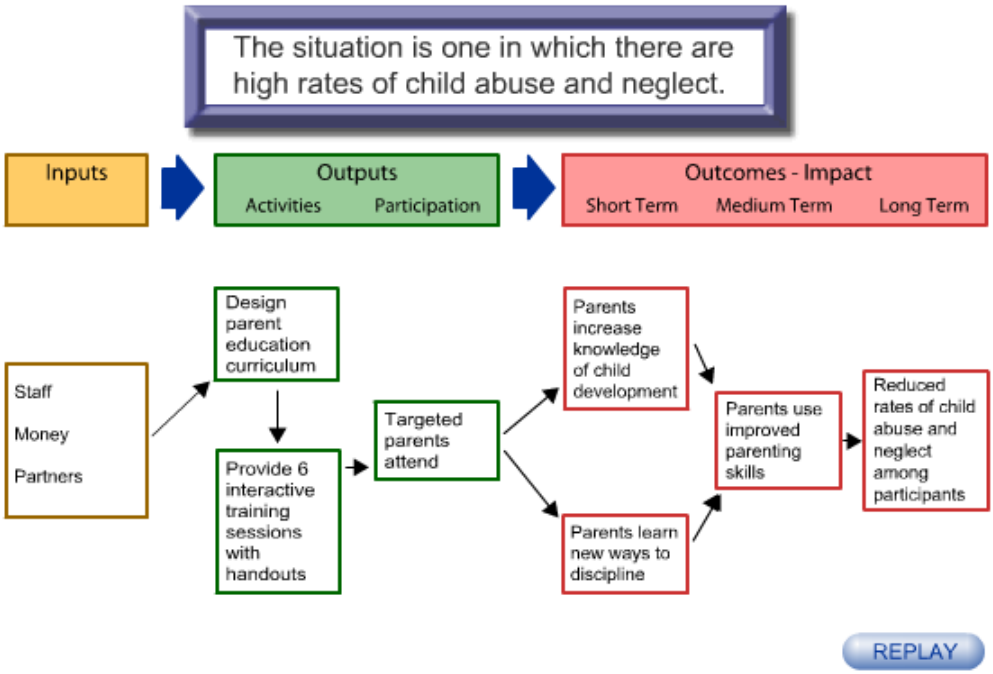
Or, that we develop and distribute age-paced parenting newsletters to three hundred parents. Does it make a difference in parenting practice?

Or, that we provide in-home nutrition education to low-income mothers; conduct crop care clinics; teach a six-week series on leadership development; provide thirty hours of strategic planning assistance to a local government board.

So what? What difference does the investment of resources and the education make?

Example of a Simple Logic Model

Now, let's look at an example of a simple logic model for a specific program.



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Audio Transcript

Pictured on this page is an animation that builds a sample logic model for a parent education program.

As the parenting education logic model builds on the screen the audio says:

"Now let's look at a specific example: a parenting education program.

The situation is one in which there are high rates of child abuse and neglect. Our response or goal is to reduce those rates, improving the welfare of children. We assess the situation and draw on knowledge and experience. Our program theory or our logic model says: if we could invest staff, money, and have partners to work with, then we would be able to design an appropriate parent educational curriculum. Once we have designed that curriculum, then we would be able to provide that curriculum as program with a series of six interactive lessons and a variety of handouts and materials. This curriculum then could be delivered to the targeted parents identified as being 'at risk' for child abuse and neglect. As a result of attending the program, our short-term outcomes then would occur: parents would increase their knowledge of child development and they would learn new ways to discipline. Then the theory suggests that the parents would use their improved parenting skills, and that would ultimately lead to reduced rates of child abuse and neglect among these parents. "

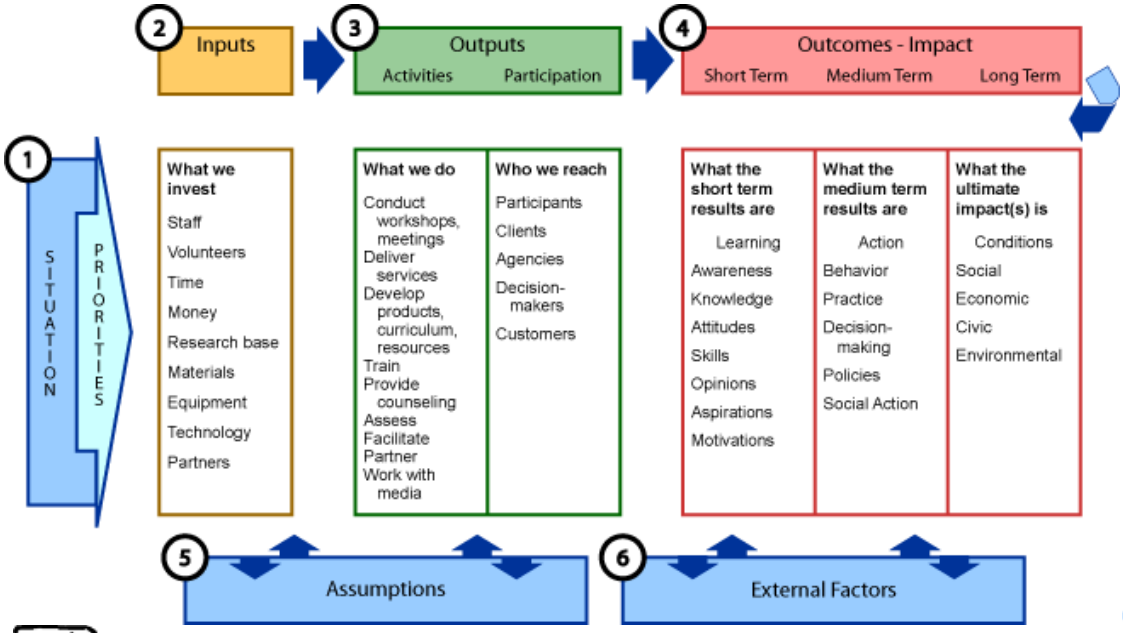
The final logic model has these components:

- **Inputs:** staff, money, and partners.
- **Outputs:**
  Activities - parent education curriculum, six interactive parent education training sessions with handouts
  Participation - targeted to parents attend.
- **Outcomes:**
  Short term - parents increase knowledge of child development, parentslearn new ways to discipline their children
  Medium term - parents use improved parenting skills
  Long Term - reduced rates of child abuse and neglect among participants

Section 1

Full Logic Model Framework

Let's now look at a complete logic model. This framework includes **six main components**. Over the next few pages of this module we'll look at each of these components in more detail.



Listen to an audio description of this logic model

Audio transcript

We suggest you print a copy of the full logic model and use it for reference as we discuss the components.
Printable Full Logic Model

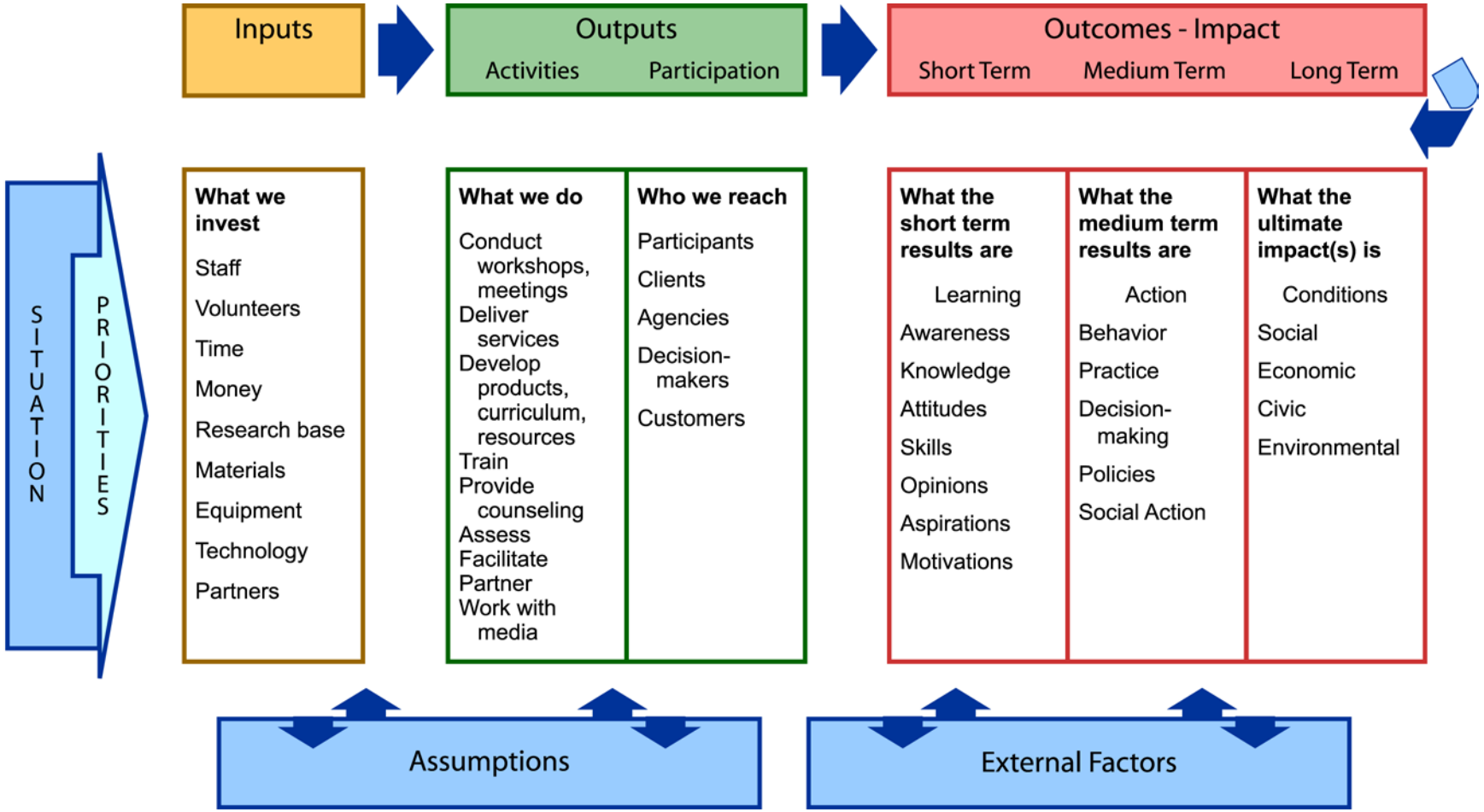
Program development at the University of Wisconsin-Extension uses this logic model framework. To see the UW-Extension Program Development Model, follow this link: http://www.uwex.edu/ces/pdande/progdev/

Audio Transcript

Now we have a complete logic model. We have been building over the last few screens from a simple input - output - outcome graphic to a more complete logic model: one that includes the major components of good educational and outreach program development. You will notice that this model includes six components. First the **situation** - the environment in which a problem or an issue exists from whence priorities are set to direct the programmatic response. You notice **inputs** - **outputs** and **outcomes** on this model that we have talked about previously. Then there are two additional components: **assumptions** and **external factors**. Over the course of the next few slides, we will look at each of these components in more detail. These six components make up the complete logic model that we use in planning, implementation, evaluation and communications.

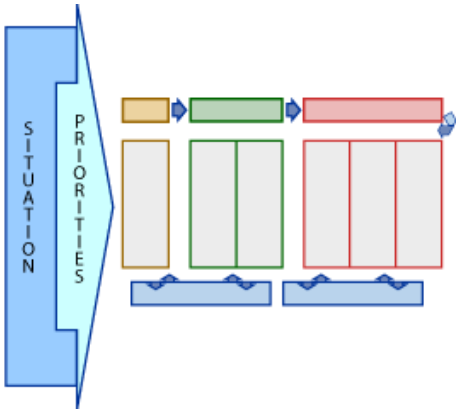
We invite you to print this logic model. Many of us have laminated it and keep it handy as we work with community groups, teach, or do our own program development and evaluation.

Logic Model


Inputs
Outputs
Activities
Participation
Outcomes - Impact
Short Term
Medium Term
Long Term
SITUATION
PRIORITIES
What we invest
Staff
Volunteers
Time
Money
Research base
Materials
Equipment
Technology
Partners
What we do
Conduct workshops, meetings
Deliver services
Develop products, curriculum, resources
Train
Provide counseling
Assess
Facilitate
Partner
Work with media
Who we reach
Participants
Clients
Agencies
Decision-makers
Customers
What the short term results are
Learning
Awareness
Knowledge
Attitudes
Skills
Opinions
Aspirations
Motivations
What the medium term results are
Action
Behavior
Practice
Decision-making
Policies
Social Action
What the ultimate impact(s) is
Conditions
Social
Economic
Civic
Environmental
Assumptions
External Factors

Components of Logic Models

Situation



The **situation** is the foundation for logic model development. The problem or issue that the program is to address sits within a setting or situation--a complex of sociopolitical, environmental, and economic conditions. If you incorrectly understand the situation and misdiagnose the problem, everything that follows is likely to be wrong.

Take time to understand the situation and carefully define the problem. This may be the **most** important step. As you do so, consider the following questions:

1. What is the problem/issue?
2. Why is this a problem? (What causes the problem?)
3. For whom (individual, household, group, community, society in general) does this problem exist?
4. Who has a stake in the problem? (Who cares whether it is resolved or not?)
5. What do we know about the problem/issue/people that are involved? What research, experience do we have? What do existing research and experience say?

Create a succinct but thorough statement that answers the above questions. This statement is the foundation of your logic model.

Example situation statements
Practice writing a situation statement

Often the situation statement is appended to the logic model, as text. We think it is important, however, to include a few words on the far left side of the logic model. These words should capture the core of the originating situation. What is the problem/issue? The situation sets the foundation for everything that follows and is what we return to in order to see if we are making a difference. Too often we design and implement programs without fully considering and understanding the situation. The better we understand the situation and analyze the problem fully, the easier our logic model development will be.

Traps to avoid
Questions to ask during problem analysis
Help with problem analysis
Help with understanding your situation
Situations are not static
Recognizing assets

Example Situation Statements

Situation Statement 1:
Solid waste issues in Smart County have been a topic of heated debate for many years. In the face of a changing solid waste marketplace, which has seen a high level of privatization over the past five years, tonnages delivered to the Smart County Landfill have declined significantly. This has resulted in lower revenues for the Solid Waste enterprise fund. The county's solid waste management board is responsible for solid waste management in the county. The Board has been unable to evaluate options and opportunities, make decisions and implement actions related to the future of solid waste management in the county. The Board has requested assistance in developing its leadership and decision making process to address the solid waste issues of Smart County.

Situation Statement 2:
Model County Tobacco-Free Coalition is increasingly concerned about the unhealthy work environments for county youth. A recent Chamber of Commerce study showed 75% of county youth with part-time and summer jobs work in the service industry, mainly in restaurants where youth workers are exposed to cigarette smoke. Ten percent of the county's restaurants (non-bars) and 75% of fast-food establishments are voluntarily smoke-free. Research suggests that smoking bans and restrictions in public places not only reduce environmental tobacco smoke exposure but also are associated with lower youth smoking rates and delayed onset of smoking.

Situation Statement 3:
Children of divorce face many challenges and stresses that are often unrecognized by their parents. Parents are often too engrossed in their own emotional needs to address the needs of their children during a divorce. Other children become victims of bitter contention between their mother and father. Because of these difficulties, the Bold County Circuit Court System mandates that parents in the process of divorcing attend a course on how to deal with their children during and after the divorce procedures.

Situation Statement 4:
Earth County in Western State has a variety of soil types and topography that affect soil erosion and farming practices. Half of the county's 400,000 acres is cropped, much of it in areas of rolling hills and light, sandy soils. These fine grain sands are carried easily away by wind or water action. Farmers can lose up to an average of 3 tons of soil annually due to runoff. This runoff leads to sedimentation, the accumulation of particles in a water body, which is one of the biggest contributors to the degradation of surface water in Earth County, according to a recent Department of Natural Resources survey. Two farming practices, buffer strips and conservation tillage, are effective in conserving soil and reducing the amount of sediment that runs off the land and into local waters.

PRACTICE WRITING A SITUATION STATEMENT

1. What is the problem/issue?
2. Why is this a problem? (What causes the problem?)
3. For whom (individual, household, group, community, society in general) does this problem exist?
4. Who has a stake in the problem? (Who cares whether it is resolved or not?)
5. What do we know about the problem/issue/people that are involved? What research, experience do we have? What do existing research and experience say?

- Try keeping your situation statement to 500 words or less.
- Avoid jargon and acronyms.
- Avoid stating "the need."
- Avoid including what you/your agency does or will provide.
- Ask others to review for clarity. See if they can restate the problem/issue to be addressed.

Enter Situation Statement here:

Traps to avoid

1. Avoid the trap of assuming that you know what causes the problem. Often the result is that we analyze "symptoms" rather than get to the root cause of problems.
2. In addition, avoid the trap of defining the problem as a need for a program/service; for example, "communities need leadership training"; "teens need employment training"; "agency staff need to learn about outcome measurement." This practice results in circular reasoning: provision of the program/service rather than delving into whether the program/service made a difference.

Questions to ask during problem analysis:

1. What is the problem?
2. Why is this a problem? (What causes the problem?)
3. For whom (individual, household, group, community, society in general) does this problem exist?
4. Who is involved in the problem?
5. Who has a stake in the problem? (Who cares whether it is resolved or not?)
6. What do existing research and experience say? What do we know about the problem?

Help with problem analysis - Follow these steps to get to the root cause of the problem:

1. State the issue or problem.	Example: • Too many kids are obese. • Farming dependent communities are experiencing population loss. • Youth are poorly equipped to enter the job market. • Communities are experiencing conflicts over agricultural land development and farmland preservation.
2. Ask "Why?" Example: "Why are so many kids obese?"	Answer: • Because they eat fatty foods. • Because they get little exercise. • Because they…
3. For each answer, ask, "But, why?" Continue until the "But, why?" questions have been answered Example: But, why do they eat fatty foods? .	Answer: • Because they like the taste. • Because they are available in the home/at school. • Because they haven't tried alternatives. • Because… But, why do they like the taste? Because… But, why are they available in the home/at school? Because… But, why haven't they tried alternatives… Because… But, why do they get little exercise? Because…
4. For each answer, look at WHO is involved - who is part of the problem and its resolution?	Engage others to help define and clarify situations and problems that form the foundation of your logic model development.

Help with understanding your situation

Many Web resources can help with situational analysis. For example, look at the University of Kansas Community toolbox at: http://ctb.ku.edu/en/

Situations are not static

As we know, situations do not stay the same. We create a logic model based on an understanding of an originating situation. We expect our programmatic response to make a difference in that situation. Program success is often measured according to the extent to which we ameliorate that situation. Yet, situations change, from either natural and external causes or interactions with the program. We need to stay attuned to the changing situation and modify our logic models accordingly.

Recognizing assets

Identifying assets is an important part of situational analysis. Valued assets exist within all situations--whether the situation be a community, county, or organization. By recognizing assets, we confirm capabilities, build upon strengths, and empower. Think about existing assets that can be mobilized to support your work.
For help in identifying, mapping, and mobilizing community assets use this resource: “Identifying, Mapping and Mobilizing Our Assets.” (a copy follows)

Identifying, Mapping and Mobilizing Our Assets

Assets, often of untold value, lie within the citizens of our communities, within the groups we form, within our larger organizations, within our land and other physical resources, within our local economy and within organizations and projects that connect us. By recognizing these assets, we reconfirm our own capabilities. Also, we can discover possibilities for mobilizing to meet our interests and needs and fulfill our community aspirations.

These materials will help you recognize the asset base in your county and in the communities within your county. They can be used to generate a quick general picture of your assets, to consider possible applications of those assets to program directions and to prioritize where more in-depth asset identification will be useful.

Assets of Individuals—A Preliminary Assessment Tool

Inventorying the assets of individual members in our communities is a powerful process. The affirmation and discovery that occur are empowering. Individuals are more energized to work collectively and share their assets to effect some community improvements. There are four basic steps in mapping assets of individuals:

- Identify groups of individuals where asset identification might be helpful to the members and/or your programming goals.
- Identify assets of these groups in a general way.
- Consider how these assets link to your program goals.
- Decide if more in-depth first-hand assessment of assets for some of these groups would be helpful and important. Will you use a structured questionnaire or open-ended questions? Decide on the method of asset identification, e.g. survey, interviews, group session, etc.

The following tables provide a way to look at individuals according to various categories that hint at some of their assets. You may identify additional categories. After considering assets at this general level, you will be in a better position to select some groups of individuals where first-hand asset mapping and engagement in program efforts is desirable.

Prepared by Boyd Rossing, Professor, Interdisciplinary Studies, School of Human Ecology, University of Wisconsin-Madison, 2000

YOUTH			
What are the types of assets youth typically possess?	What assets do youth in our situation possess? (What assets should we try to develop in our youth?)	What assets could we link to our programming goals?	Do we need more in-depth assessment of youth assets? If so, how could we do this?
Ideas, Creativity & Energy Connection to Place Dreams & Desires Peer Group Relationships Family Relationships Credibility as Teachers of other Youth Time Other _____			

SENIOR CITIZENS			
What are the types of assets senior citizens typically possess?	What assets do senior citizens in our situation possess?	What assets could we link to our programming goals?	Do we need more in-depth assessment of senior citizen assets? If so, how could we do this?
Culture, Tradition & History Experience & Skills Peer Groups Economic Resources Time Other _____			

PERSONS WITH DISABILITIES (AND ABILITIES)			
What are the types of assets persons with disabilities typically possess?	What assets do persons with disabilities in our situation possess?	What assets could we link to our programming goals?	Do we need more in-depth assessment of assets? If so, which disability groups? How could we do this?
Skills Hospitality Compassion Friendship Resilience & Happiness Inspiration Other _____			

ETHNIC GROUPS			
What are the types of assets persons of ethnic groups typically possess?	What assets do persons of ethnic groups in our situation possess?	What assets could we link to our programming goals?	Do we need more in-depth assessment of assets of ethnic groups? If so, which ethnic groups? How could we do this?
Tradition & History Perspectives on Community Situations Cultural Customs & Pride Relations within Group Credibility within Group Resilience Other _____			

PARENTS			
What are the types of assets parents typically possess?	What assets do parents in our situation possess?	What assets could we link to our programming goals?	Do we need more in-depth assessment of assets of parents? How could we do this?
Concern for Youth Knowledge of Youth Concerns Family Customs Inter-generational Perspectives Home Places Spouse, Extended Family Relations Other _____			

INDIVIDUALS IN OCCUPATION GROUPS			
What are the types of assets persons in occupation groups typically possess?	What assets do members of selected occupation groups in our situation possess?	What assets could we link to our programming goals?	Do we need more in-depth assessment of assets of occupation groups? If, so which occupations? How could we do this?
Skills, Abilities & Experiences Special Occupational Knowledge Productivity Economic Resources Connections to Occupation Groups/ Organizations Other _____			

PERSONS OF LIMITED INCOME			
What are the types of assets persons of limited income typically possess?	What assets do persons of limited income in our situation possess?	What assets could we link to our programming goals?	Do we need more in-depth assessment of assets of those of limited income? If so, how could we do this?
Skills, Abilities, Experience Networking & Personal Relationships Desires, Dreams Creativity Resilience Energy & Enthusiasm Other _____			

CREATIVE, ARTISTIC PERSONS			
What are the types of assets creative, artistic persons typically possess?	What assets do creative, artistic persons in our situation possess?	What assets could we link to our programming goals?	Do we need more in-depth assessment of assets of those of creative/ artistic persons? If so, how could we do this?
Tradition Culture Skills Vision & Creativity Productivity Self-Expression & Self-Esteem Other _____			

OTHER GROUP _____			
What are the types of assets members of _____ typically possess?	What assets do members of _____ group in our situation possess?	What assets could we link to our programming goals?	Do we need more in-depth assessment of assets of ____? If so, how could we do this?
Asset: _____ Asset: _____ Asset: _____ Asset: _____ Asset: _____			

OTHER GROUP _____			
What are the types of assets members of _____typically possess?	What assets do members of _____ group in our situation possess?	What assets could we link to our programming goals?	Do we need more in-depth assessment of assets of ____? If so, how could we do this?
Asset: _____ Asset: _____ Asset: _____ Asset: _____ Asset: _____			

Assets of Associations and Organizations/Institutions—A Planning Outline

Associations and organizations bring people together for group action. They typically accumulate assets that potentially can be tapped for larger community projects. To identify these assets use the following steps:

1. Generate a list of associations for your community or county. Associations are informal, voluntary groups that bring people together to pursue shared interests. An association inventory can be started by a steering committee using their knowledge and then extended by a community forum or by reviewing local newspapers, bulletins, etc.
2. Generate a list of organizations/institutions for your community or county. An organization/institution is a formal government, private/business or non-profit organization with paid staff. To identify organizations, you can start by polling the knowledge of your steering committee and extend it by reviewing telephone or other directories.
3. Identify assets of associations and of organizations in a general way.
4. Consider possible links between the assets of these associations or organizations and your program goals.
5. Consider how accessible the assets of various associations and organizations are to your programming initiatives and how such access could be increased.
6. Decide if more in depth first-hand assessment of assets for some of these associations or organizations would be helpful and important. Will you use a structured questionnaire or open-ended questions? Decide on the method of asset identification, e.g. survey, interviews, group session, etc.

Potential Assets of Associations, Organizations/Institutions	
People with Time, Interests, Skills, etc. Expertise Space Facilities Materials	Equipment Programs Services Financial Resources Purchasing Power

Examples of Associations, Organizations/Institutions

Associations	Organizations/Institutions
Artistic Groups: musical, theater, writing Business Groups: local chamber, local cooperatives Charitable Groups, Drives Church Groups Civic Event Groups: fair, festivals Collector Groups: stamps, flowers Elderly Groups Ethnic Associations Environment/Conservation Groups Health & Fitness Groups: jogging, diet Interest Clubs: books, recycling Local Media: commercial newspaper, radio, cable TV Men's Groups: cultural, political, social, educational, vocational Neighborhood: crime watch, block clubs, neighborhood associations. Organization Support Groups: "friends" of Outdoor Groups: garden, nature watching Political/Citizenship Parties: Democrats, Republicans, League of Women Voters School Groups: PTA, playground Service Clubs: Kiwanis, Rotary Social Cause Groups: peace, civil rights, advocacy Sports Leagues Support/Self-Help Groups: Alcoholics Anonymous, La Leche League Study Groups: literary, Bible Veteran Groups Women's Groups: cultural, political, social, civic, educational, vocational Youth Groups: 4H clubs, Scouts	Agricultural Agencies Banks Businesses Corporations Community Centers Community Development Corporations Conservation Agencies Cooperative Extension Elected Governmental Bodies Energy Utilities Fire Departments Foundations Health Departments, Clinics Hospitals Libraries Museums Newspapers Parks Police Public, Private Schools Radio/TV Recreation Agencies Social Service Agencies Trade Schools UW Centers, Universities Vocational-Technical Schools

Economic Development Assets—A Planning Outline

A central concern in many communities is the challenge of strengthening the local economy. In a healthy local economy, dollars circulate and recirculate. The benefits produced by those dollars are retained within the community. This makes local people better off and makes economic growth possible. Many elements go into local economic development including local purchasing, local hiring, new business creation, development of human productive capacity, physical resource development, local investing, local credit provision and mobilizing external resources. A key to many of these efforts is recognizing local assets that can contribute to the economy. A set of potentially useful asset mapping approaches for economic development is summarized in the table on the next page.

Asset Mapping Approaches for Economic Development

Assess Marketable Individual Capacities	Mapping Consumer Spending	Mapping Local Business Assets
Purpose: To identify skills, abilities and experiences of individuals who can own businesses, work for others, consume knowledgeably, invest locally and work together in community economic building efforts	Purpose: To identify local spending patterns and then to better connect local vendors and people for mutual local economic benefit	Purpose: To find out what businesses exist in your community and determine what capacities for economic development they possess
Types of Capacities	Spending Pattern Information to Collect	Types of Economic Development Capacities
General Skills Formal Work Experiences Entrepreneurial Experiences Training & Educational Experiences Civic or Community-Based Experiences Domestic Experiences	Consumer Patronage of Small Local Businesses Consumer Proximity Expectations Consumer Assessment of Needed Businesses Consumer Interest in Business or Cooperative Start-up Consumer Spending Patterns for Items Purchased on Regular Basis Consumer Spending Patterns for Larger, Less Frequent Expenditures	Local Hiring Local Purchasing Local Investment Local Community Involvement
Steps	Steps	Steps
Define Community Boundaries Target Individuals to Include Decide Asset Mapping Method Self-completed Group administration Individual interviews, face to face or telephone Design Your Instrument Conduct Your Inventory Organize Your Findings Mobilize Capacities	Define Community Boundaries Design Your Survey Instrument Decide Method of Conducting Survey Mail Group Administered Door to Door Telephone Conduct Your Inventory Organize Your Findings Mobilize Consumer Expenditure Capacities Educate local businesses Educate local consumers Promote new businesses	Define Community Boundaries Conduct Inventory of Existing Businesses Design Your Instrument Identify Business Type, Size, etc. Decide Method for Business Inventory Library records First-hand community reconnaissance Conduct Your Inventory Identify Economic Development Capacities of Selected Businesses Design Your Instrument Decide Method Visits to businesses Mail, telephone, survey Organize Your Findings Mobilize Untapped Business Capacities Foster connections for: Job creation & training Employee volunteering Local purchasing Local investment Project sponsorship

Environmental Assets—Natural and Physical Resources

Every community possesses natural and human-made physical structures and resources. Some of these resources are valuable assets when we pay attention to them. Others are potential assets if we convert their neglected or negative use into a positive use. To inventory environmental assets use the following steps:

1. Consider the types of environmental assets listed in the table below.
2. Consider possible links between these assets and your program goals.
3. Identify the types of environmental assets to inventory.
4. Decide the method for mapping environmental assets. Methods for identifying natural/physical features, include use of library, other published information and/or first-hand observation/documentation. To identify how these resources are used, consider user or general surveys by site interview/observations or mail, telephone, etc. surveys and/or analysis of records. The community development capacity of these resources can be identified by user, general population or steering committee survey, discussion or brainstorming.
5. Design instruments, as needed.
6. Conduct your inventory.
   - Identify the asset entities, e.g. spaces, structures.
   - Identify their community development capacities.
7. Organize your findings.
8. Mobilize environmental assets.

The following table identifies types of environmental assets and possible community development applications.

Environmental Assets	Possible Community Development Associations
Water Resources: streams, lakes, groundwater, rainfall Vegetation Wildlife Soils, Minerals Seasons, Weather Open Space Habitats Aesthetic Resources Cultural, Historic Resources Terrain Features Transportation Infrastructure Vacant or Under-Used Land, Buildings Waste Resources: food, toxic and non-toxic materials, landscaping	Community recreation Community businesses Economic development Housing Community gardens Social events Community festivals, celebrations Aesthetic appreciation Nature appreciation Wildlife, habitat conservation Cultural centers, museums Educational centers, events Energy conservation Recycling

Summary

Within your community lies a rich set of resources. In most cases communities have only partially realized and tapped the potential of these resources for creating a better community. Applying the simple ideas and methods presented here can help you unleash this potential.

References:

Kretzmann, J. and J. McKnight. 1993. *Building Communities from the Inside Out—A Path Toward Finding and Mobilizing a Community's Assets.* Chicago, Ill: ACTA Publications.

Kretzmann, J., J.McKnight and G. Sheehan. 1997. *A Guide to Capacity Inventories: Mobilizing the Community Skills of Local Residents.* Chicago, Ill: ACTA Publications.

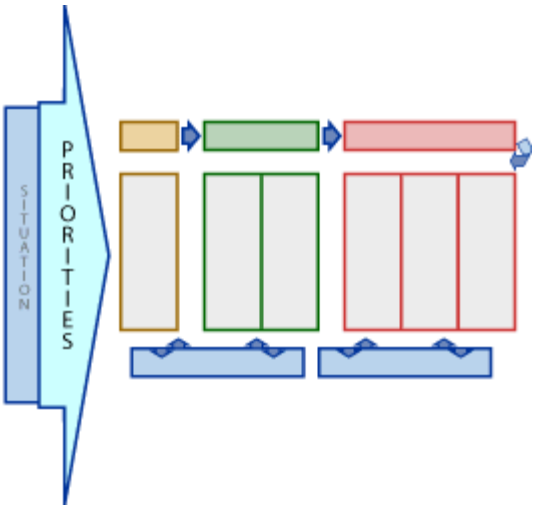
Kretzmann, J., J. McKnight and D. Puntenney. 1996. *A Guide to Mapping Consumer Expenditures and Mobilizing Consumer Expenditure Capacities*. Chicago, Ill: ACTA Publications.

Kretzmann, J., J. McKnight and D. Puntenney. 1996. *A Guide to Mapping Local Business Assets and Mobilizing Local Business Capacities.* Chicago, Ill: ACTA Publications.

Kretzmann, J., J. McKnight and D. Puntenney. 1996. *A Guide to Mapping and Mobilizing the Economic Capacities of Local Residents.* Chicago, Ill: ACTA Publications.

Section 1

Situation - Priorities



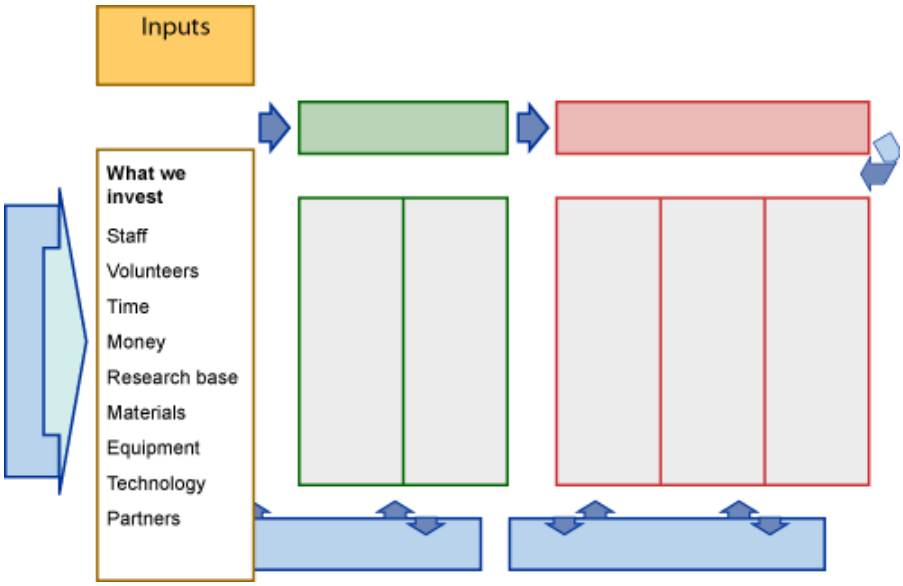
From the situation comes **priority setting.** Once the situation and problem are fully analyzed, priorities can be set. Seldom can we undertake everything so we have to prioritize. Several factors influence your determination of focus; these include your mission, values, resources, expertise, experience, history, what you know about the situation, and what others are doing in relation to the problem. As you think about setting priorities, consider:

- What criteria will you use for setting priorities?
- Who will help in setting priorities? How?

Priorities lead to the identification of desired outcomes.

Section 1

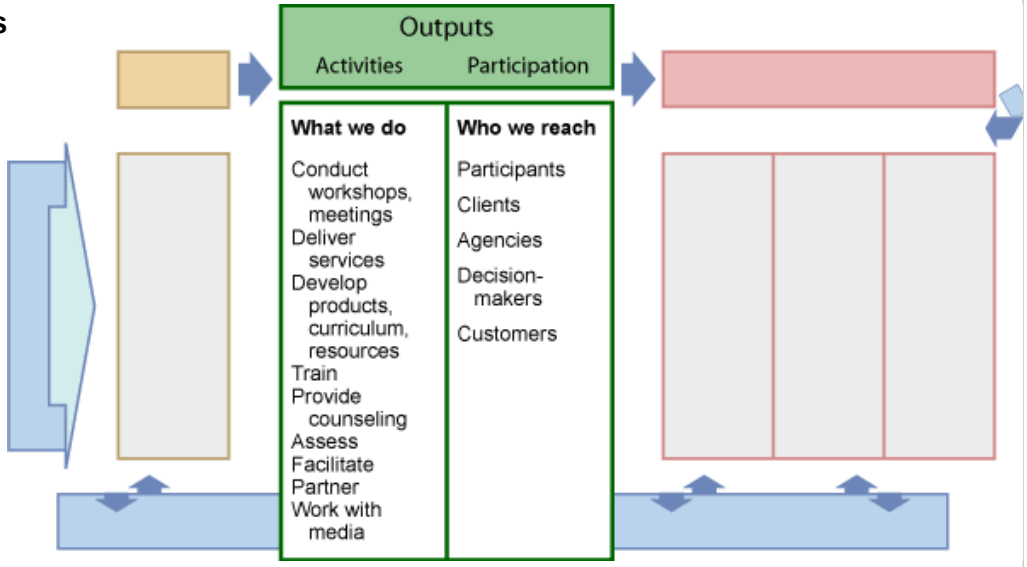
Inputs



Inputs are the resources and contributions that you and others make to the effort. These include time, people (staff, volunteers), money, materials, equipment, partnerships, research base, and technology among other things.

These **inputs** allow us to create **outputs.**

Outputs



Outputs are the activities, services, events, and products that **reach** people (individuals, groups, agencies) who participate or who are targeted.

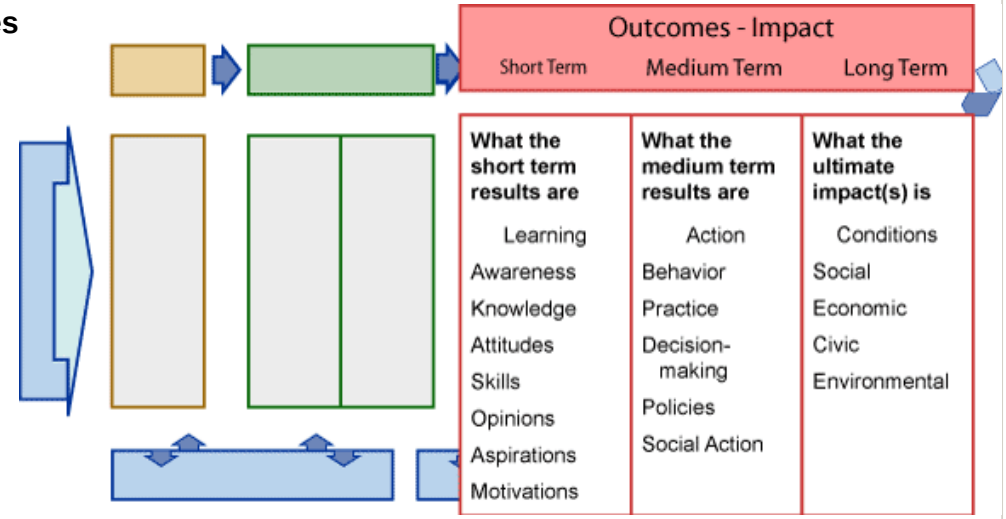
Outputs are "what we do" or "what we offer." They include workshops, services, conferences, community surveys, facilitation, in-home counseling, etc.

These **outputs** are intended to lead to specific **outcomes.**

In some logic models you will see activities separated from outputs; activities may be displayed before outputs. In those models, outputs are typically designated as the accomplishment or product of the actitiy... for example, number of workshops actually delivered, number of individuals who heard the media message. The assumption is that the activity needs to be delivered as intended before the expected outcomes can occur. We see this as part of measurement (quantity and quality of implementation) and as such is covered in Section 7.

Section 1

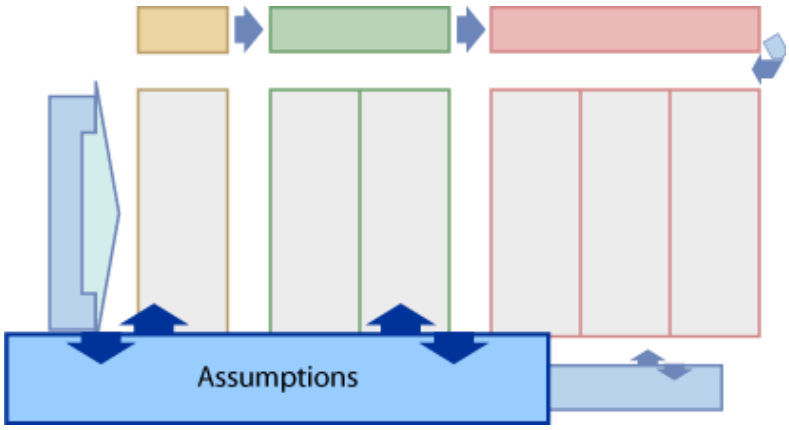
Outcomes



Outcomes are the direct results or benefits for individuals, families, groups, communities, organizations, or systems. Examples include changes in knowledge, skill development, changes in behavior, capacities or decision-making, policy development. Outcomes can be short-term, medium-term, or longer-term achievements. Outcomes may be positive, negative, neutral, intended, or unintended. Because outcomes are so central to logic models they are discussed in more detail in Section 2.

Impact in this model refers to the ultimate consequence or effects of the program--for example, increased economic security, reduced rates of teen smoking, improved air quality. In our model, impact is synonymous with the long-term outcome or your goal. It is at the farthest right on the logic model graphic. Impact refers to the ultimate, longer-term changes in social, economic, civic, or environmental conditions. In common usage impact and outcomes are often used interchangeably.

Assumptions



Assumptions are the beliefs we have about the program and the people involved and the way we think the program will work. This is the "theory" we are talking about: the underlying beliefs in how it will work. These are validated with research and experience. Assumptions underlie and influence the program decisions we make. Assumptions are principles, beliefs, ideas about:

- The problem or situation.
- The resources and staff.
- The way the program will operate.
- What the program expects to achieve.
- The knowledge base.
- The external environment.
- The internal environment
- The participants: how they learn, their behavior, motivations, etc.

For example, in some of the earlier examples of logic models, certain assumptions were embedded. Take a moment to review the logic models and think about embedded assumptions. Then check your ideas against our thoughts.

Headache example: review the logic model — View embedded assumptions

Parenting Example: review the logic model — View embedded assumptions

In developing a logic model, we want to make explicit all the implicit assumptions we are making. They may not all be portrayed in the one-page graphic, but we do want to explore and discuss them. Often, inaccurate or overlooked assumptions are the basis for failure or less than expected results.

Think about and clarify your assumptions on all dimensions in your logic model. What do you "know?" What are you "assuming?"Continue to check and clarify them as you proceed. Often faulty assumptions are the reason for poor results.

Learn more about assumptions…

Headache Logic Model

Let's take a simple example, one that we all are likely to relate to.

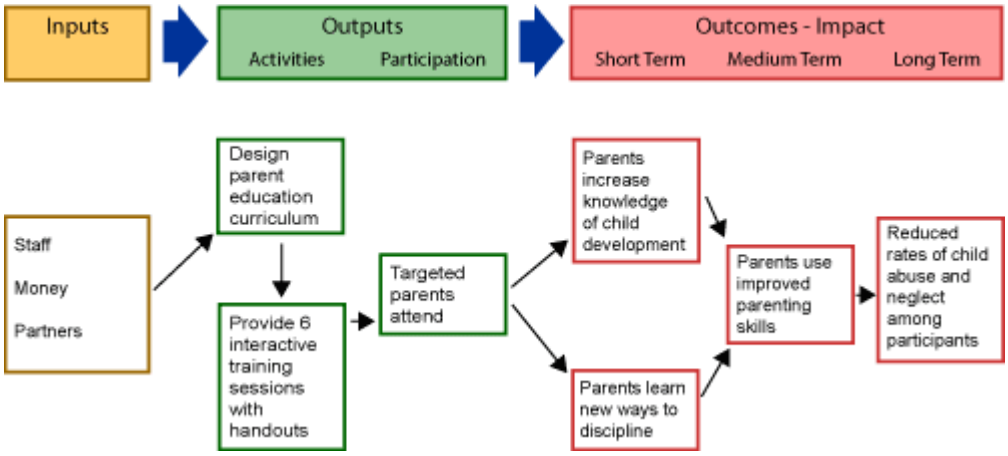
You are suffering from a severe headache. Your experience says that certain pills help. So, the logic model shows that first you need to get the pills. Then, you take the pills as prescribed. As a consequence, you feel better. The end result is that the headache is gone and you feel better as a result.

Assumptions embedded in the headache example:

- It assumes that you can find or get the needed pills.
- It assumes that you actually take the pills as prescribed.
- It assumes that the result will be similar to your previous experience taking these pills.
- It assumes that there will be no negative side effects.

What other assumptions are embedded in this example?

Parent Education Logic Model



Assumptions embedded in the parenting example

Among other things, we are assuming that

- the resources are adequate and available,
- a culturally appropriate curriculum can be developed and delivered effectively,
- targeted parents are willing and able to attend,
- and that knowledge change leads to behavior change.

More about assumptions...

Clarifying assumptions demands knowledge of the research or "best practice" in the substantive area, as well as "common sense."

Consider the following:

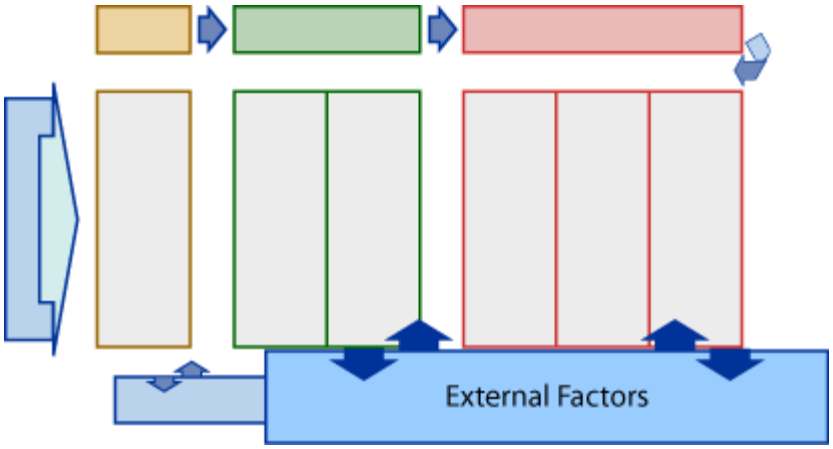
- **Why do you believe that the program will work this way?** Are your ideas and beliefs based on research, best practice, experience, local wisdom, intuition?
- Is there evidence that supports the theory of action you've laid out? Review the following:
    - Programming and change strategies that have proved effective in similar communities or situations
    - Research literature
    - Evaluation reports

Examples of assumptions:

- Communities can form coalitions to address problems.
- Funding will be secure throughout the course of the project.
- Information exists on best practices in …
- People will be motivated to learn/change.
- External funds and agents can serve as catalysts for change.
- Staff can be recruited and hired with necessary skills and abilities.

Section 1

External Factors



The environment in which the program exists includes a variety of **external factors** that can influence the program's success. External factors include the cultural milieu, the climate, economic structure, housing patterns, demographic patterns, political environment, background and experiences of program participants, media influence, changing policies and priorities. These external factors may have a major influence on the achievement of outcomes. We can't ignore them! They may affect a variety of things including the following:

- Program implementation
- Participants and recipients
- The speed and degree to which change occurs
- Staffing patterns and resources available

These factors **interact** with the program. They not only influence the initiative but are **influenced** by the initiative. A program does not sit in isolation - somehow "outside" or "apart" from its surrounding environment. A program is affected by and affects these external factors.


Learn more about external factors…

More about external factors…

The **external factors** include the conditions that influence program success, over which the program has relatively little control.

Examples: politics, economy, climate, cultural milieu, history, biophysical environment, price structure, global markets, demographic patterns, resources.

You need to assess what external factors are likely to influence the program's ability to achieve expected results--When? How?

- What can you manipulate?
- What risk management strategies or contingency plans do you need to put into place?

What factor(s) is the program likely to interact with and potentially have an influence on? How might these dynamics affect program implementation and outcomes?

Some people use the term **environment** to remind us that programs exist within--are affected by and influence--an environment that functions as a complex system of unlimited potential causes and effects. In our logic model conceptualization, all six components may be embedded in a surrounding environment.

Let's Practice! Input-Output-Outcome Terminology

Know the logic model vocabulary – one of the most important aspects is having a common language

Non-
Alter
Act

Understanding logic model terminology will help you create meaningful logic models. Work through ten examples to begin to distinguish between inputs, outputs, and outcomes.

Example 1:

Is the following an example of an input, output, or outcome?
Choose the answer you think is correct.

Teens learned new leadership skills.

- Input
- Output
- Short-term (learning) outcome
- Medium-term (action) outcome
- Long-term (ultimate benefit) outcome

Input-Output-Outcome Terminology Activity

Is the following an example of an input, output, or outcome?

For each question choose an answer you think is correct from the list of possible answers; an answer key and explanation follows.

Possible Answers:

Input
Output
Short-term (learning) outcome
Medium-term (action) outcome
Long-term (ultimate benefit) outcome

Question 1: Teens learned new leadership skills.

Question 2: Two hundred nutrition educators from around the state attended the conference.

Question 3: Operators applied their new skills on the job.

Question 4: Three agencies partnered to design a program.

Question 5: Owners who participated in the program learned how to develop a woodland management program.

Question 6: Food safety skills were taught to food vendors and restaurant workers.

Question 7: Producers who participated in the program cut winter feed costs by $15 per head.

Question 8: Your agency helped the community assess the needs of families.

Question 9: Agricultural specialists educated farmers about effective production methods and business management.

Question 10: Newsletters are distributed in three languages.

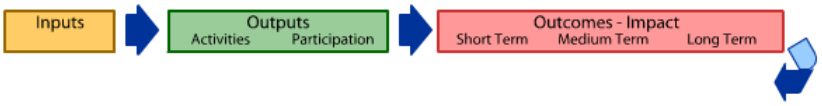
Input-Output-Outcome Terminology Activity Answer key:

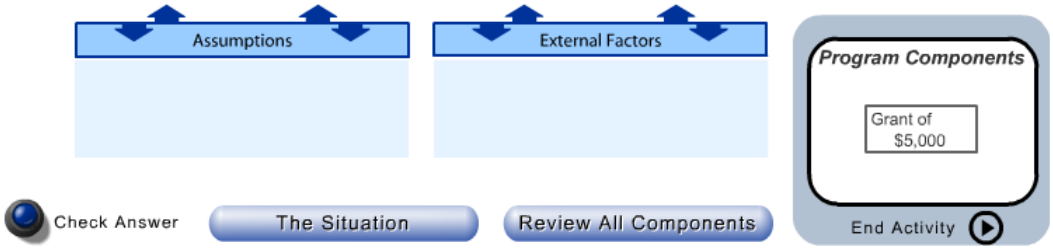
1. **Short term outcome** Teens **learned** leadership skills. This example illustrates a short-term outcome, or learning outcome. It indicates that something positive happened for the teens who participated in the program. How we would know this (how we would measure this) will be addressed in Section 7 of this module.
2. **Output** Two hundred nutrition educators from around the state attended. Educators **attended,** but did they gain anything from attending? We classify this example as an output--it speaks to who participated--but it does not indicate any benefit or value to the participants, so it is not an outcome.
3. **Medium term outcome** Operators **applied** their new skills on the job. This example illustrates a medium-term outcome since it indicates behavior--something operators have actually **done.** It illustrates more than **learning** new skills; it refers to **using** the skills. Note, however, that even this medium-term outcome doesn't indicate full value. We don't know what difference these skills make in productivity, safety, or workflow (the long-term outcomes).
4. **Input** Three agencies partnered to design a program. We classify this example as an input. The agencies and their partnership can all be considered **investments** or **resources** that make it possible to design a program that, in turn, will lead to desired outcomes for individuals, groups, the environment. OR, you might classify the partnership as an output. You could say that the agencies are inputs (the resources) that lead to a partnership (an output) that leads to another output, i.e., the design of the program. Don't, however, mistake this for an outcome.
5. **Short term outcome** Owners who participated in the program **learned** how to develop a woodland management program. In our logic model, **learning** is a short-term outcome. Our assumption is that knowledge and understanding precede behavioral change or action.
6. **Output** Food safety skills were taught to food vendors and restaurant workers. This example illustrates an output. It refers to what was done--presumably instructors **taught** food safety skills to vendors and restaurant workers. We do not know, however, whether those vendors and workers learned anything or are doing anything differently as a result of the education.
7. **Long term outcome** Producers who participated in the program cut winter feed costs by $15 per head. This example illustrates a final, or long-term, outcome. It indicates **real** benefit to the producer participant.
8. **Output** Your agency helped the community assess the needs of families. This example illustrates an output. It says what your agency does--i.e., help assess needs.
9. **Output** Agricultural specialists educated farmers about effective production methods and business management. Again, this example illustrates an output. It says what the agricultural specialists do. It is not an outcome because it does not indicate that farmers actually learned anything, that they are doing anything differently, or that they have gained anything as a result of the education.
10. **Output** Newsletters are distributed in three languages. This example illustrates an output--it refers to an activity, i.e., newsletters are distributed. It may be remarkable that the newsletters are distributed in three languages. But, we do not know if the targeted audiences (individuals) actually received the newsletters, if they read the

Let's Practice! Logic Model Puzzle

Non-Flash Alternative Activity

In the previous activity, you were learning the language of logic models. Let's put it all together now. Read about an educational program by clicking **The Situation.** Then, drag each program component (displayed one at a time in the **Program Component** box) to its "proper" place in the logic model framework. Click **Review All Components** to see all possible components. Once you have completed your logic model, click **Check Answer** to see how you did. You can continue working on your logic model by clicking on **Return**.





Logic Model Puzzle Activity

This activity asks you to use a series of statements about a sample project to create a sample logic model. Each of the statements is listed below. For each statement decide where on the logic model it should go from this list:

Input

Output: activities

Output: participation

Outcome: short

Outcome: medium

Outcome: long

Assumption

External factors

Situation: Reading to young children helps them develop a love of reading, along with an enthusiasm for learning. Yet, children from low-income families often lack access to books that are necessary to stimulate cognitive development and learning readiness.

Program components:

Grant of $5000

Children's interest in books increases

Preschool children

Volunteers

Produce quarterly newsletter

Literacy of preschool children increases

Provide books to preschool children

Staff

Train reading volunteers

Children take care of their books

Volunteers read to children weekly

Books will not be destroyed

Books are culture- and age-appropriate

Children spend time with their books

Volunteers are available

Children learn how to take care of books

Children learn that reading is fun

Parents of preschool children

Children demonstrate the desire to read

Governor's wife starts literacy campaign

Here are the answers to this activity:

The inputs for this sample logic model are:

- the grant of $500
- volunteers
- staff.

Now, let's review the outputs for this sample.
The activities are

- producing a quarterly newsletter
- providing books to preschool children
- training reading volunteers
- volunteers reading to children weekly.

The participation outputs in the project include:

- preschool children
- parents of preschool children.

Short-term outcomes for this sample project are:

- an increase in children's interest in books
- children learning how to take care of books
- children learning that reading is fun.

Medium-term outcomes are:

- children taking care of their books
- spending more time with their books
- demonstrating a desire to read.

The long-term outcome for this project is:

- literacy of preschool children increases.

Assumptions that play a role in this project are:

- the books will not be destroyed
- the books are culture- and age-appropriate
- volunteers are available.

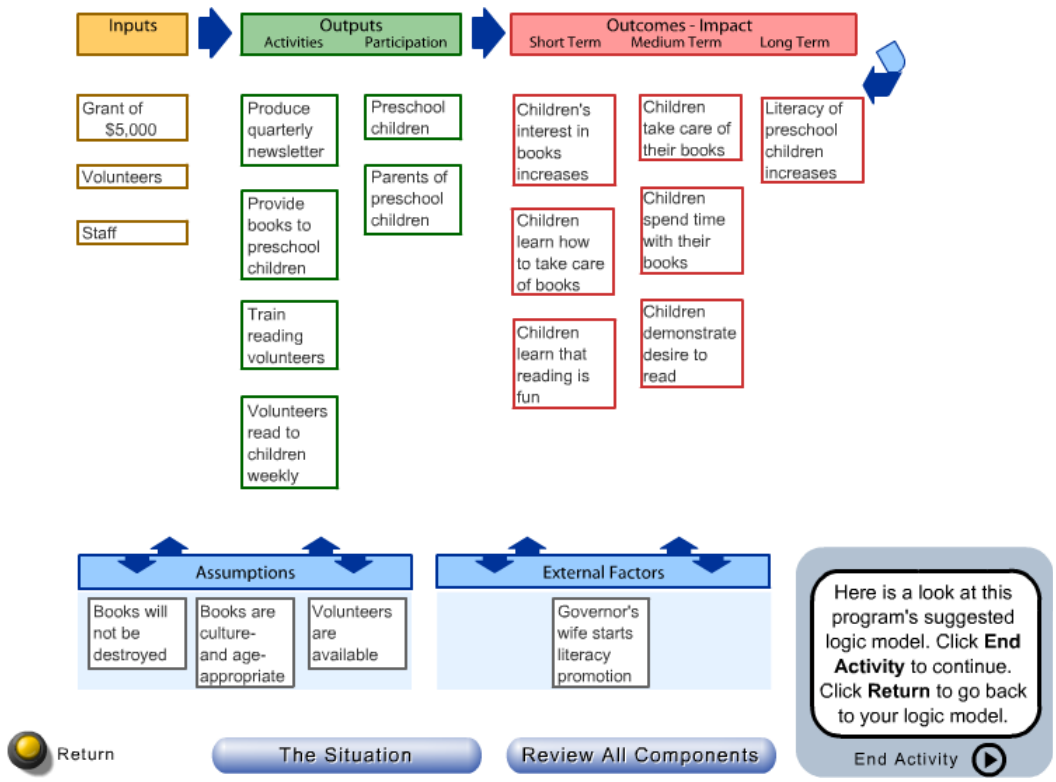
An external factor that could influence this project is:

- the Governor's wife starts a literacy campaign.

Let's Practice! Logic Model Puzzle

Non-Flash Alternative Activity

In the previous activity, you were learning the language of logic models. Let's put it all together now. Read about an educational program by clicking **The Situation.** Then, drag each program component (displayed one at a time in the **Program Component** box) to its "proper" place in the logic model framework. Click **Review All Components** to see all possible components. Once you have completed your logic model, click **Check Answer** to see how you did. You can continue working on your logic model by clicking on **Return**.



Why Use the Logic Model?

Why should you use the logic model? How will it help you?

The logic model:

- Brings detail to broad goals; helps in planning, evaluation, implementation, and communications.
- Helps to identify gaps in our program logic and clarifies assumptions so success may be more likely.
- Builds understanding and promotes consensus about what the program is and how it will work--builds buy-in and teamwork.
- Makes underlying beliefs explicit.
- Helps to clarify what is appropriate to evaluate, and when, so that evaluation resources are used wisely.
- Summarizes complex programs to communicate with stakeholders, funders, audiences.
- Enables effective competition for resources. (Many funders request logic models in their grant requests.)

Section 1

Section Summary

Think of the logic model as your "road map."

What would happen if you ventured off on a trip without a map? Would you ever get to your final destination? Even if you did, how much time would you have spent in trying to find your way, when mapping your journey would have given you direction from the beginning?

Logic models...

- provide a graphic description of a program (process, event, community initiative).
- show the relationship of program inputs and outputs to expected results.
- make explicit the underlying theory of a program.
- are made up of six components: situation, inputs, outputs, outcomes, assumptions, external factors.
- are useful for developing understanding, improving programming, clarifying outcomes, focusing evaluation, and communicating to stakeholders.

Section 2

More about Outcomes

Section Overview

Listen to description of this section

Audio transcript

Section Goal

On completion of this section, you will understand outcomes more fully and see how they are an integral part of a logic model.

More specifically you will:

1. Be able to differentiate between outputs and outcomes.
2. Recognize that outcomes fall along a continuum from shorter- to longer-term to form an "outcome chain" that is the backbone of the logic model.
3. Know that outcomes may focus on the individual, group (family), agency, systems, or community.
4. Understand the importance of involving others in identifying outcomes.
5. Know the criteria for assessing outcomes.
6. Be able to write an outcome statement.

Section Outline

The section outline will help you track your progress through this section.

Printable outline

Outline with links to each page in this section

Audio Transcript

Welcome to Section 2 of our course on logic models "More about Outcomes."

This section focuses on outcomes. Needing to measure outcomes or plan programs to achieve outcomes is probably one reason why many of you have come to this course.

Outcomes are an important part of our education and outreach programs. We are being held accountable for outcomes, not just for doing "good work". It is this focus on outcomes that has fueled the current popularity of logic models. Logic models help us focus on outcomes and build programs to achieve outcomes.

After completing this section you will have a better understanding of outcomes and be able to identify meaningful outcomes for your education and outreach programs. More specifically, you will be fully equipped to differentiate between outputs and outcomes. You will recognize, as we stated in the first section, that outcomes fall along a continuum over time, from short to longer term changes. You will know that outcomes may focus on the individual, a group or family, on an agency or systems or the community as a whole. You will understand the importance of involving others in identifying outcomes rather than doing it all by yourself. You will know that outcomes must be important, meaningful, realistic and reasonable. You will gain practice in writing an outcome statement and understand the meaning of intended outcomes.

This section is really about helping you better understand outcomes. Aspects of measuring outcomes or evaluating outcomes will be discussed in section 7. Please take a moment to look at the section outline and see what will be covered. We encourage you to take advantage of all the additional links and other information that are embedded in the main screens. Enjoy!

Section 2 – More About Outcomes

Print a copy of this outline to track your progress through this section.

Section 2

More about Outcomes

Because outcomes - results - are central to the logic model (and the major reason why many are interested in logic models), let's spend more time understanding outcomes.

Outcomes are the results or effects of our work. They 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 relate to changes in behavior, norms, decision making, knowledge, attitudes, capacities, motivations, skills, conditions, or other expected results of our programs.

For example, suppose a nutrition education program has nutrition educators providing information and counseling to families in their homes and at meal sites. Outcomes for this program might include participants change their shopping and eating practices to include fruits and vegetables in their daily diet. In a smoking cessation program, the outcome of interest might be participants stop smoking.

Program	Outcome
Biosecurity on livestock farms	Recommended infectious animal disease prevention practices are implemented
Youth employment counseling	Youth are gainfully employed
Tobacco control	The number of smoke-free homes increases
Neighborhood policing	Crime is reduced Feeling of safety is increased
Community gardening	Families increase vegetables in diet Community cohesion improves
Leadership education	Local units of government improve ability to make and implement effective public policy decisions

Section 2

So What?

Outcomes answer the question **"So what?"**

"What difference does the program make for participants, individuals, groups, families, and the community?"

Let's Practice!

For each of the examples below, think of a possible outcome and enter it in the text box provided. To see suggested answers, follow the next to each box.

What difference does it make that…

Pregnant women attend a nutrition education program? Suggested outcomes

Youth take part in a community service program? Suggested outcomes

Farmers attend the annual field day? Suggested outcomes

If desired, print this page (by pressing **Ctrl** and **P)**.
Note: If you enter more than two lines of text, not all the information you enter will print.

Suggested outcomes:

What difference does it make that pregnant women attend a nutrition education program?

- Pregnant women eat recommended numbers of servings from each food group
- Pregnant women gain weight within recommended range
- Decrease in number of pregnant women who are iron deficient
- Decrease in number of low birth weight infants

What difference does it make that youth take part in a community service program

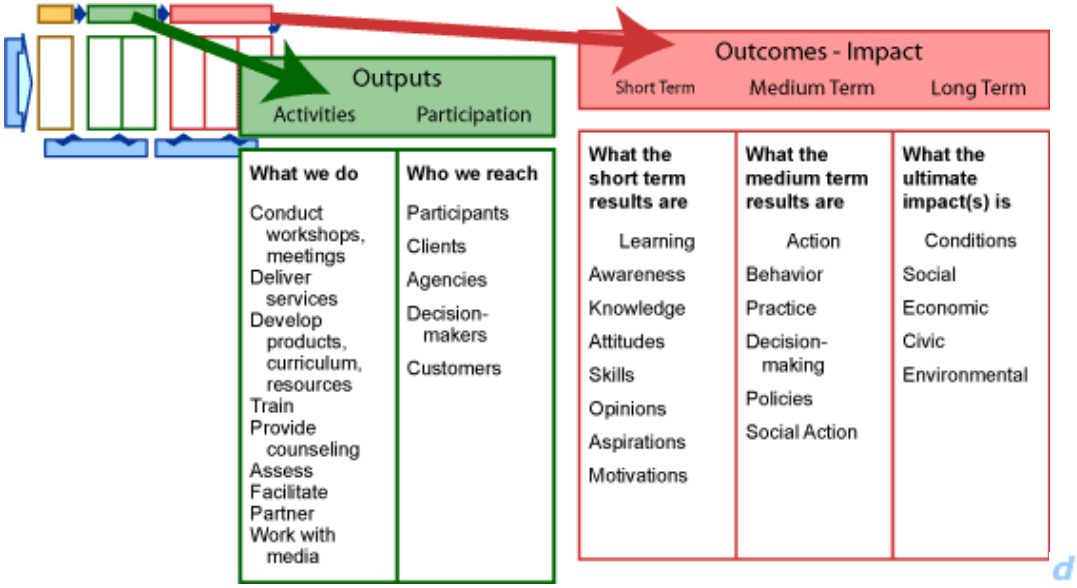
- Youth increase knowledge about local community
- Youth increase decision-making skills
- Youth take action that benefits community and selves

What difference does it make that farmers attend the annual field day?

- Farmers increase knowledge about latest research
- Farmers increase ability to assess recommendations for own farms
- Farmers adopt research recommendations as appropriate
- Productivity/profitability is enhanced without environmental consequences

Outputs vs. Outcomes

Understanding the difference between outputs and outcomes is important. **Outputs** relate to "what we do." **Outcomes** refer to "what difference is there."



In the past, we've tended to focus on what is included in the outputs column - the "what we do and who we reach." We are anxious to tell our clients, funders and community partners what it is that we do, the services we provide, how we are unique, who we serve... We've done a good job of **describing** and **counting** our activities and the number of people who come. Now, however, we are being asked: "What **difference** does it make?" This is a question about OUTCOMES.

In some logic models you will see activities separated from outputs; activities may be displayed before outputs. In those models, outputs are typically designated as the **accomplishment** or **product** of the activity... for example, number of workshops actually delivered, number of individuals who heard the media message. The assumption is that the activity needs to be delivered as intended before the expected outcomes can occur. We see this as part of measurement (quantity and quality of implementation) and as such is covered in Section 7.

Section 2

Outputs vs. Outcomes

Try not to confuse outcomes with outputs. **Outputs** are the activities we do or accomplish that help achieve outcomes. **Outcomes** are the results of those activities for individuals, families, groups, or communities. Look at the following examples.

Outputs - Activities	Outcomes
• The program trains and empowers community volunteers.	• Community volunteers have knowledge and skill to work effectively with at-risk youth.
• Program staff teach financial management skills to low-income families.	• Low-income families are better able to manage their resources.
• The camp experience provides leadership development opportunities for 4-H youth.	• Campers, aged 12-15 years of age, learn new leadership and communication skills while at camp.
• An annual conference disseminates the latest forage research.	• Forage producers in Pasture County know current research information and use it to make informed decisions.

Here's another way to look at the difference between outputs and outcomes:

Outputs: Is the client served?

Outcomes: Has the client's situation improved? (Hatry, 1999)

Hints about what are and are not outcomes

Hints About What Are And Are Not Outcomes

Exhibit 1-D in the United Way of America manual on Measuring Program Outcomes (1996:19) provides a useful reference to help classify some of the more difficult components of our programs. We draw from and add to that resource in the following.

Recruiting and training staff and volunteers.

In most cases, recruitment and training refer to internal program functions intended to support or improve program activities. The number of staff and/or volunteers recruited, the number trained, the resources committed to their development, etc. indicate the volume of these internal functions. These aspects help our programs accomplish outcomes; they are not outcomes. They do not represent benefits or changes for program participants or beneficiaries.

If, however, the program is addressing a situation of low volunteer involvement in community affairs and the purpose of the program is to increase volunteering among community residents as a part of a larger community development initiative, then increased numbers of residents volunteering in community life would be an outcome.

Number or type of participants who attend; number of clients served.

This information relates to "participation" or "reach" in our logic model that are part of Outputs. It indicates the volume or extent to which we reached the target audience. It does not indicate whether the participants or clients benefited or are doing anything differently as a result of the program, so it is not an outcome.

If, however, the purpose of the program is to increase use of a service by an underserved group, then numbers using the service would be an outcome. Notice, the outcome is not numbers attending or served; the outcome is expressed as use that indicates behavioral change.

Surveys conducted; curriculum developed; research generated.

These items refer to activities we undertake and accomplish. They may be classified as "what we do". These are Outputs. They may be essential aspects that are necessary and make it possible for a group or community to change. But, they do not represent benefits or changes in participants and so are not outcomes.

Participant satisfaction.

For our purposes in education and outreach programming, client satisfaction may be necessary but is not sufficient. A participant may be satisfied with various aspects of the program (professionalism of staff, location, facility, timeliness, responsiveness of service, etc) but this does not mean that the person learned, benefited or his/her condition improved. If a participant is pleased and satisfied with the program, it may mean that s/he will fully participate and complete a program. As such, satisfaction can be an important step along the way to outcomes. It, however, is generally not an outcome.

In some cases, we may have to settle for participant satisfaction. In programs where individuals are extremely mobile or it is difficult to track people beyond the immediate program service, satisfaction measures may be the best we can do.

Section 2

Focus of Outcomes

We are not always focused on individual change in our education and outreach programs. Increasingly, we are working to effect group or community change. Be clear about the focus of your program.

Listen to a discussion of outcomes

Audio transcript

What is the focus of your program?

Focus: Individual
Child, client, community resident, group member

View example outcomes

Focus: Group
Family (household), club, work group, community group

View example outcomes

Focus: Agency, Organization, Institution

View example outcomes

Focus: System
Agencies, departments, organizations, social system, integrated systems

View example outcomes

Focus: Community

View example outcomes

Audio Transcript

We often think of outcomes for individuals. Many working in educational programs focus on "learner" objectives and "learner outcomes". But, given the problem, and the purpose and context of the program, outcomes can occur for groups, for agencies as a whole and for the community. What is the focus of your program and who or what is expected to change?...an individual, a group, family or household, an agency or organization, a community, or a system? Outcomes for an individual will look and be different from family outcomes or community outcomes. Click on the focus areas to see examples for each.

Outcomes for individuals include 'teens increase their leadership skills', or 'participants reduce their alcohol consumption'. There may be outcomes for groups or families such as improved communication patterns or management changes. Often community programs are hoping to achieve agency or organizational outcomes such as changes in service delivery or access to services. In some cases you may be interested in system changes where groups of agencies or departments or whole organizations behave differently, perhaps share resources in new ways or provide services in new ways. Sometimes our programs are focused on outcomes for the total community whether that be a neighborhood or small town or even a large metropolitan area. These types of changes might include changes in social norms, policies or actions at the community wide level, such as changes in zoning or land use policy, changes in attitudes towards youth or approaches to poverty alleviation.

Remember that outcomes may occur that are neither intended nor anticipated. And, sometimes outcomes occur that are negative or have unintended negative consequences. Pay attention in your logic model development to possible unintended results, both positive and negative.

Example outcomes:

Focus: Individual

- Farmers are able to assess risks
- Residents feel safe in their neighborhood
- Members of the collaborative know how to conduct a needs assessment

Focus: Group

- Families increase their savings
- A work group practices democratic governance
- A community group has an inclusive membership policy

Focus: Agency, Organization, Institution

- Communication patterns have changed
- Resources have been redirected
- The referral system is improved

Focus: System

- All youth-serving agencies implement an integrated system of services
- Interagency resource sharing exists
- Business implements new employment policy nationally

Focus: Community

- The environment is cleaner, safer
- Youth are valued as contributing members
- Restaurant ordinance prohibits smoking
- New policies (laws) have been enacted

Identifying Outcomes

Identifying specific, measurable outcomes requires time, thought, and a clear understanding of desired results. Some ways to do this include:

- Ask yourself: What is/will be different as a result of the initiative? For whom? What will be changed/improved? What do/will beneficiaries say is the value of the program? What do/will they say about why they come?
- Think about what you want to be able to say to your funder or the taxpayers who finance your program. What would you want to say to your state legislator? If you could write a news release about your program, what would the headline be? Your answers to these questions are most likely outcomes.
- For an existing program, look at all the program's major activities. For each activity, ask yourself, "Why are we doing that?" Usually, the answer to the "Why?" question is an outcome.
- Seek ideas and input from others. Their perspectives will help provide a broader understanding of the program and its benefits. This activity will also help build consensus among key program stakeholders. You might talk with current and past participants, funders, peers, local officials, board members, and informed outsiders.
- Review existing program material.

More about who chooses outcomes

More about ways to seek input into identifying outcomes

Who chooses outcomes?

- **Program staff** will have ideas about the outcomes of their programs--about what they are trying to achieve and the difference their program makes for people or groups they reach. Program staff often focus on their own actions--what they do--so it is important to ensure that outcomes are stated in terms of what happens for participants; what the value or benefit(s) is for the youth, producers, businesses, clientele.
- **Participants** are also a good source of information about program outcomes. Why do the participants come? What do they hope will happen? How do they expect to benefit? Asking participants about what they hope to gain is a good way to identify meaningful outcomes.
- **Other people** will also have important insights into program outcomes. For example, you might talk with individuals who have experience with a similar program, program observers, or people who know the participants and know what they've gained. Likewise, funders will have expectations and perceptions to offer.

Ways to seek input into identifying outcomes

Consider using one of the following methods to identify the outcomes of your program. You may develop meaningful outcomes that you had not thought of before.

- Hold a focus group(s) with key program stakeholders: staff, participants, funders, etc. Ask the same questions of each group: What difference does the program make for…? What is its value? What is important about this program?
- Have staff role-play different stakeholder groups: clients, funders, elected officials. For example, a community tobacco control coalition might ask its staff and members to play the role of various stakeholders: restaurant owner, program participant, quit-line operator, county board member, department of public health staff, local media representative.
- Record the sessions. List all outcomes, either explicit or implicit, that are identified.

Let's Practice! Who Chooses Outcomes?

Non-Flash Alternative Activity

Who do you think should choose outcomes? Take a few minutes and think about who might be involved in choosing outcomes. We've provided three scenarios for you to consider. Read each situation, then type your ideas into the box. Click the **Check Answer** button to see suggested answers.

Scenario 1: Retirement-planning program.

In ABC County, 74 percent of workers (30-49 years of age) worry about not having enough money to live comfortably in retirement. Sixty percent say they don't earn enough money to save for retirement. Some experts say individuals need to triple their rate of savings in order to meet their retirement goals. EBB Manufacturing, the largest industry in ABC County, has come to you to request a retirement-planning course for the company's 5,000 employees.

Who do you think should be involved in choosing the outcomes?

Check Answer

Who Chooses Outcomes? Activity

Consider who should choose outcomes in these scenarios:

Scenario 1:
Retirement-planning program. In ABC County, 74 percent of workers (30-49 years of age) worry about not having enough money to live comfortably in retirement. Sixty percent say they don't earn enough money to save for retirement. Some experts say individuals need to triple their rate of savings in order to meet their retirement goals. EBB Manufacturing, the largest industry in ABC County, has come to you to request a retirement-planning course for the company's 5,000 employees.

Scenario 2:
Hazardous waste management program. In July, the media in XYZ County reported an illegal roadside ditch dumping of pesticide residue that affected a nearby stream. At about the same time, the county's landfill operations contractor reported to the county board his concern about household chemical and paint materials in residential wastes. The contractor encouraged the county to explore options to reduce hazardous wastes and unsafe disposal practices. As a result of these incidences, the county board asked your office to develop a program to study the problem and correct it.

Scenario 3:
After-school program. Seeking to provide productive activity and a safe environment for elementary school students, the local school board has come to your agency and requested an after-school program. The program is to be piloted in one elementary school during the upcoming school year.

Possible answers:

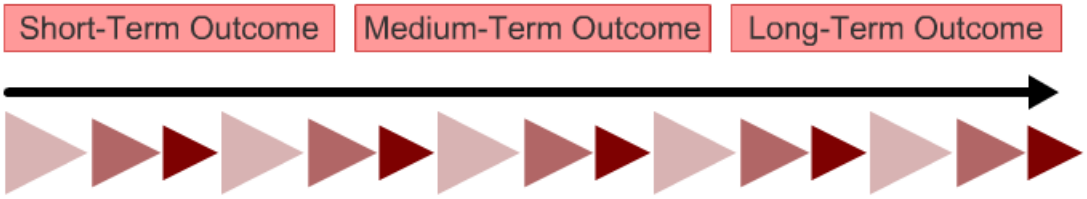
1. Director of EBB Human Resources, director of EBB Employee Relations, other key EBB administrators, several EBB employees, your agent

2. Landfill operations contractor, county board members, your agent, your specialist in hazardous waste management.

3. Teachers, students who would be expected to participate, school administrators, guidance counselor, school board members, your agent

Chain of Outcomes

Outcomes often fall along a continuum from shorter- to longer-term results. This continuum is called a "chain of outcomes" (United Way of America, 1996), an "outcome line" (Mohr, 1995), the "outcome sequence chart" (Hatry, 1999), or "outcome hierarchy" (Funnell, 2000). This concept--a series of outcomes that are connected--is fundamental to a logic model. We'll cover this more in Section 3.



REPLAY

Audio transcript

This page contains two animations showing the relationship between short-, medium-, and long-term outcomes. The audio that accompanies and explains the first animation is as follows:

Here we see the chain of outcomes that is fundamental to understanding outcomes. We see that outcomes fall along a chain or a continuum from short to long term. This is usually broken into three stages: short, medium, and long term. Actually as you will see later, there can be any number of outcomes between short and long term.

In this example of an academic improvement program that includes school-home relations, mentoring, and homework help, we see the expected sequence of outcomes: as a result of improved school-home relations, it is expected that school attendance will improve; this is expected to lead to improved academic performance. The outcome chain depicts the program theory: if we improve school relations in the short term, this will lead to the medium-term outcome of improved school attendance, which in the long term leads to improved academic performance.

Next, we see that the terms--**short, medium,** and **long term**--actually have a variety of names depending upon preference. In each box as it comes up on the screen*, you see typical words that may be used to mean short, medium, and long term.

* What appears on screen is as follows:

Short-term: initial, immediate, proximal

Medium-term: intermediate, midpoint

Long-term: final, ultimate distal

Further explanation that appears: Different people use different words to signal the level of outcomes along this continuum. The terminology you see may include the terms shown above. For the most part in this module, we use the terms short-term, medium-term, and long-term outcomes.

The audio that accompanies and explains the second animation is as follows:

Finally, we see another example chain of outcomes. In this example, the program is a nutrition education program for the elderly. In the short-term, participating seniors are expected to increase their knowledge of food contamination risks. This is expected to lead to them actually practicing safer food cooling practices--behavioral change that represents a more advanced outcome. This, in turn, is expected to lead to seniors having a lower incidence of foodborne illnesses--the long-term outcome. The logic might go even further to include health savings and quality-of-life outcomes.

Chain of Outcomes

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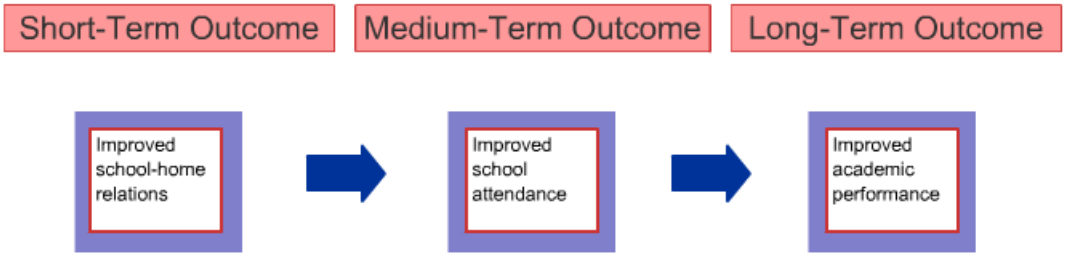

REPLAY

Chain of Outcomes

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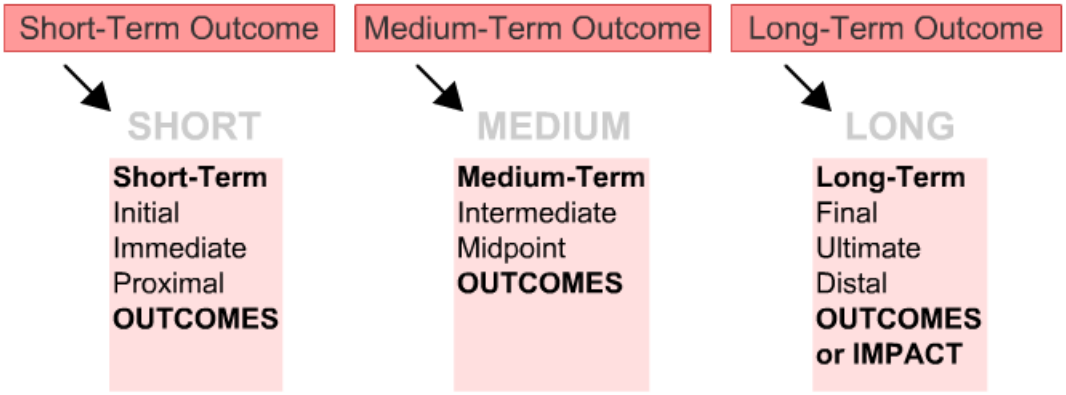


Different people use different words to signal the levels of outcomes along this continuum. The terminology you see may include the terms shown above.

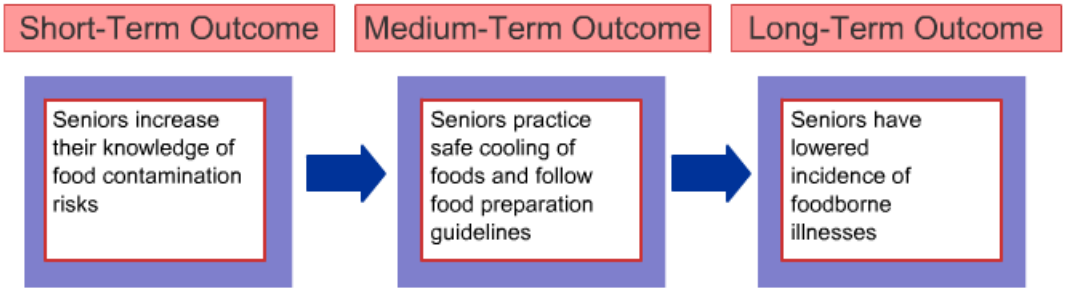
For the most part in this module, we use the terms **short-term**, **medium-term**, and **long-term outcomes**.

View Another Example

REPLAY

Chain of Outcomes

Outcomes often fall along a continuum from shorter- to longer-term results. This continuum is called a "chain of outcomes" (United Way of America, 1996), an "outcome line" (Mohr, 1995), the "outcome sequence chart" (Hatry, 1999), or "outcome hierarchy" (Funnell, 2000). This concept--a series of outcomes that are connected--is fundamental to a logic model. We'll cover this more in Section 3.



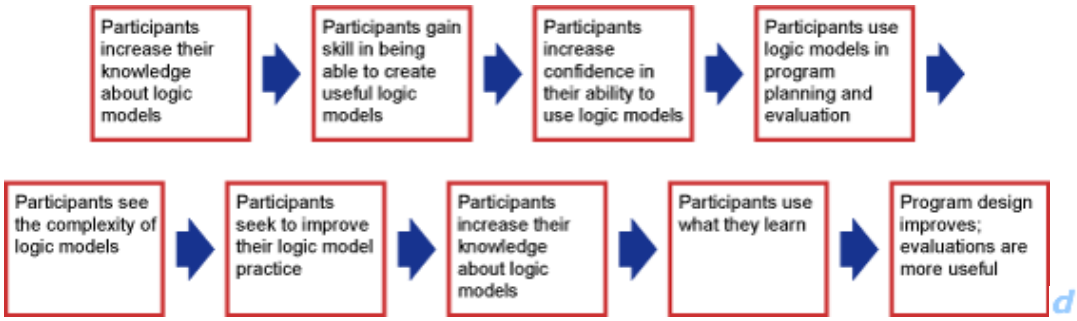
REPLAY

Intermediary Outcomes

Logic models often show three stages in the outcome chain: short- medium- and long-term.

In actuality, however, there can be **any number** of outcomes leading from initial results to the final, ultimate, end results. And, often there are **feedback** flows, or spirals back and forth over the course of the outcome attainment.

In the following depiction, for example, the first outcome is that participants increase their knowledge about logic models but as they begin to use logic models, they see the complexity of logic models and so want to learn more...



Let's Practice! Constructing an "Outcome Chain"

Try constructing an "outcome chain" for one of your own programs.

You can do this with pen and paper or in a word processing document. Space your list of outcomes so that you can cut it into pieces for each outcome and create your "chain" by moving the pieces around.

There are several ways to start:

1. If you already have outcomes defined for your program, list the program's outcomes. If your list includes many outcomes, delete those that are duplicates or seem insignificant.

2. Or, start with any one outcome and think "what comes before, what comes after?"

3. Or, think about the first change you expect to occur for participants, group or community. Remember, the focus of your outcomes. If that occurs, then what change do you anticipate next?

Arrange the various outcomes in a sequence from short- to longer-term. Make sure they connect logically and you do not miss any links. Items that do not fit may not be outcomes or may not be relevant to your outcome chain.

This chain becomes part of your logic model - it is the outcome section within your logic model.

You may want to preserve this "chain of outcomes" by creating a graphical chain of boxes and arrows on paper or in an electronic document.

Determining Where to Stop

The question often arises:

How far out do you go when creating an outcome chain?

Do you include long-term outcomes in your logic model when they are beyond what you could expect your program to influence? Where do you stop along the outcome chain? What should be the final, end outcome?

Usually, it is the long-term results that we and our key stakeholders are most interested in. Many funders, taxpayers, and participants want programs that, for example, reduce smoking rates, improve water quality, produce healthy eating habits, preserve the environment. However, making a difference in social norms or environmental quality may take many years and be influenced by many factors. The further out we go on the outcome chain, the less control and influence we have.

The purpose and use of your logic model will determine whether you include those long-term outcomes in your graphic display. They are usually synonymous with the goal of your program. It is helpful to keep your eye on the long-term results. They are linked to the situation that you are seeking to help improve.

We recommend that you include the "end outcome" to show what your program is striving for and the assumed linkages to end results. If longer-term outcomes are dependent upon other programs, partners, or conditions, it helps to see the complementarity of efforts or points of intervention. You may not necessarily measure the end outcome. Sometimes we rely on research that shows links to the final outcome.

Which outcome(s) to measure will be discussed in Section 7.

Outcome Criteria

As you finalize your outcome chain and focus on the outcome(s) of interest, streamline your outcome chain by considering whether the outcomes are:

1. **Important.**
   Are the end outcomes important? Do they represent significant change or improvements that are valued by participants and key stakeholders? Outcomes may be achievable but not really worth the effort. Apply the "Who cares?" test.

2. **Reasonable.**
   Are the outcomes linked in reasonable order? Is it likely that one will lead to the next and then will lead to the next?

3. **Realistic.**
   Are the outcomes realistic given the nature of the problem, your resources, and your abilities? Will the program lead to or help contribute to these outcomes? (Be careful to ensure that the outcomes are realistic given the level of effort.)

4. **Potentially negative/accompanied by negative consequences.**
   What are potential negative effects that we need to anticipate? What else might happen? Or, how else might the sequence of events unfold?

This worksheet may be printed and used to assess your program outcomes:
Outcomes Checklist Worksheet - PDF version
Outcomes Checklist Worksheet - Word version

OUTCOMES CHECKLIST WORKSHEET

Program/initiative: _____

OUTCOMES	**IMPORTANT?** Does the end outcome represent important change or improvement valued by participant and key stakeholders?	**REASONABLE?** Are the outcomes connected in logical order and connected to the program activities?	**REALISTIC?** Is the outcome achievable given resources, the situation?	**ANY POSSIBLE NEGATIVE EFFECTS?** What else might happen?
1.				
2.				
3.				
4.				
5.				
6.				
7.				

Ask others to review your outcomes.

Outcome Statements

Often we need to write outcome statements to include in grant proposals, planning documents, and evaluation plans. Outcome statements tend to be more descriptive and specific than what is written in the logic model graphic. Not all outcomes in the outcome chain may have an outcome statement. You may choose to focus only on the outcome(s) of interest or the longest term outcome you are accountable for and will measure.

When writing outcome statements, we typically use the following format:

Who/What (the target subject)	Change/Desired effect (action verb)	In what (expected results)	By when

Examples

Teenage youth aged 13-17 years attending camp	improve	their leadership skills	by the end of camp
Low-income families participating in the program	increase	their use of community services	within three months after the program finishes
County management board	implements	waste management plan	within one year of program start-up

Writing good outcomes takes judgment and skill. Devoting the necessary time and effort pays off in better planning and more effective evaluation.

Some people apply the SMART format when writing outcomes. SMART refers to

- **S**pecific: concrete; who or what is expected to change
- **M**easurable: can see, hear, count, smell it
- **A**ttainable: likely to be achieved
- **R**esults-oriented: meaningful, valued results
- **T**imed: target date


About objectives

About Objectives

Objective is a common word in program planning and evaluation, as is the term **goal.** Goal tends to refer to more general, broad end states while objectives are the more specific means to achieve them. Goals entail the program's purpose and aims. Objectives are more narrow and specific. Patton (1997, p. 169) indicates that "the only dimension that consistently differentiates goals and objectives is the relative degree of specificity of each: objectives narrow the focus of goals."

Goals and objectives have often been used to signify intent and purpose (e.g., the goal of the program is to build healthy, safe communities; the objective of the program is to provide a series of policy-oriented seminars; our objective is to reach 10 percent of the homeless people in the city). **Objective,** in this usage, does not indicate change or value or potential benefit for intended beneficiaries. Rather it refers to various types of inputs and outputs. Thus, we prefer to use the term **outcome.**

Increasingly, we see that outcome and objective are used interchangeably. In 1967, Suchman talked about a chain of objectives as divided into immediate, intermediate, and ultimate goals. Suchman's **chain of objectives** has become largely synonymous with the phrase **chain of outcomes.** But, be clear about use and meaning. Because words do carry meaning and do matter, check and clarify the language that you and others are using. Increasingly, we see the addition of adjectives to bring greater clarity to language and meaning: **process objective** is used interchangeably with **process outcome** to signify the series of actions focused on implementation that precede **outcome objectives** or **short-intermediate-final outcomes.**

Also, in the educational arena, objectives have largely focused on the individual as "learner objectives." In 1956, Benjamin Bloom, University of Chicago professor, shared the "Taxonomy of Educational Objectives" that has greatly influenced the design and evaluation of educational and other types of programs. It includes six levels of increasing cognitive complexity: (1) knowledge, (2) comprehension, (3) application, (4) analysis, (5) synthesis, (6) evaluation. The emphasis is on thinking. The taxonomy does not include the affective domain or aspects of feeling, being, seeing, and doing. And, educational programming often focuses on the individual. For example, in community-based programs the focus might instead be economic, environmental, civic, and/or social.

Section 2

Let's Practice! Writing Outcome Statements

Enter information in the boxes to build outcome statements for programs you work with.

Who/What (the target audience)	Change/Desired effect (action verb)	In what (expected results)	By when
Example: Northeast neighborhood	reduces	the incidence of crime	by January 2004
Program 1:			
Program 2:			

If desired, print this page (by pressing **Ctrl** and **P)**. **Note:** If you enter more than two lines of text, not all the information you enter will print.

Check your outcome statements. Use the SMART criteria to write clear, useful outcomes.

- **S**pecific: concrete; who or what is expected to change
- **M**easurable: can see, hear, count, smell it
- **A**ttainable: likely to be achieved
- **R**esults-oriented: meaningful, valued results
- **T**imed: target date

Targets for Outcomes

Sometimes programs set, or are required to set, **targets** for their outcomes. Targets are **projections** that say "how much" change or improvement you are attempting to achieve. They are usually numbers--quantitative figures that signal success.

Examples:

1. In Healthy Community, 90 percent of all homes will be smoke-free by 2005.

2. Grades of participants will increase 10 percent over the previous year's scores.

Targets give us a mark to work for; they help us think more critically about what we can realistically achieve.

However, setting targets is often problematic. Consider the following:

- Do you know **how much** change or improvement is realistic to expect?
- Do you have **baseline** information that provides a basis for setting targets?
- Is there **experience** with similar programs, and similar participants, that can provide realistic information for setting targets?

When setting a target, consider previous performance, history, and experience with this type of program and target population. When there is no experience, it may be wise to wait until you have collected enough data to be confident that the target you set is plausible. Also, after you have gained experience, you may change/re-set your target to reflect a more accurate understanding and projection.

Unintended Outcomes

Be sure that the logic model for your program does not ignore consequences and results that may be unintended. These are hard to anticipate and plan for--it is difficult to envision the unexpected--but it is important to always consider all possibilities.

Unintended outcomes can be positive, negative, or neutral.

For example, a neighborhood-policing program would have an unintended negative outcome if the crime moved into a new neighborhood; or in an economic development initiative if small, cottage industries failed as a result of a business development program. Sometimes unexpected positive outcomes result, such as the relationships and new networks that are built during programs, the transfer of skills into unexpected situations, and so forth.

As you identify your outcomes, think about:

What might result other than what is intended?

How else might the program unfold?

Who might be affected, unintentionally and/or negatively?

How might the external environment have unintended influences?

Considerations When Defining Outcomes

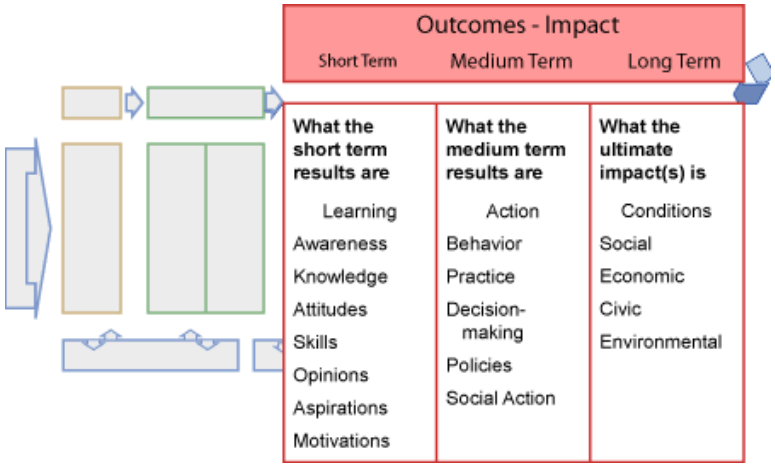
In the following we draw on and add to the United Way (1996) resource:

- There is **no right number** of outcomes. You may have a few or many outcomes.
- There may be **more than one** "outcome chain." This means that some outputs--either the activity or the targeted audience--may link to multiple "chains" or series of outcomes. In a nutrition education program, for example, one chain may relate to the elderly and one chain to pregnant mothers. In a community initiative that involves the development and maintenance of a coalition to stimulate community change, one outcome chain may relate to coalition performance and other outcome chains relate to each of the coalition's interventions. Often, several outcome chains merge to focus on the achievement of one long-term, final outcome.
- The more **immediate** the outcome, the more influence, in general, the program has over its achievement. In the parenting education program, the short-term outcomes--increases in knowledge of child development and new ways to discipline--are largely a result of the staff's teaching skills and the quality of the curriculum.
- The **longer-term** the outcome, the less direct influence the program has over its achievement. In the parenting education program, the medium-term outcome--parents use improved parenting skills--is more dependent upon the parent. The final outcome--reduced rates of child abuse and neglect among participants--is affected by a variety of factors outside the program's influence.
- Because **other forces** affect an outcome doesn't mean that it shouldn't be included.
- Outcomes can **cycle back** into the program and set in motion another whole chain of outcomes.
- An outcome chain often depicts the **main** anticipated series of connections. Outcomes, as depicted in the chain, may not in themselves lead to the next outcome. Rather, it is likely that, for the expected achievements to occur, additional inputs and outputs may be needed at each or various places on the outcome chain. We will learn more about outcomes and the chain of events in Section 3.
- Outcomes are **not always** positive; nor can they be always anticipated. Consider carefully what possible negative consequences your program may have. Think about what unintended or unexpected outcomes may occur for participants, the community, or the environment.

Section 2

Section Summary

Outcomes are the benefits that **result** from the program or initiative. These benefits may be for individuals, groups (including households, families), agencies and organizations, systems, or communities. Outcomes relate to the knowledge, skills, attitudes, motivations, values, capacities, behaviors, practices, policies, decision making, and actions that occur that affect our economic, social, civic, and environmental conditions.



Outcomes:

- Are not "what we do" but what results from what we do that is of value or benefit to others.
- Often occur over time on a continuum from short- to longer-term results.
- May focus on the individual, group (family), agency, systems, or community.
- Are usually best identified through the involvement of others.
- Should be important, realistic, and reasonable.
- Can be articulated in succinct, action-oriented statements.
- Can be unintended and negative so it is important to think about the unexpected, as well as the expected, as we craft our logic models

Section 3

More about Your Program "Logic"

Section Overview

Listen to description of this module

Audio transcript

Section Goal

On completion of this section, you will understand that a logic model depicts the reasoning--the logic--of a program that is the program's theory of change. You will see how the outcome chain (from the previous section) fits into the logic model.

More specifically you will:

1. Recognize that programs have a theory of change (or theories of change), either implicit or explicit.
2. Understand that a theory of change represents a series of if-then relationships--causal linkages.
3. Appreciate the necessity for identifying and exploring all possible connections in the program action.
4. Recognize common theories often used in education and outreach programs.
5. Be able to draw the causal connections for a focused program example.

Section Outline

The section outline will help you track your progress through this section.

Printable outline

Outline with links to each page of this section

Audio Transcript

Welcome to section 3 - "More About Your Program 'Logic'"

The purpose of this section is to help you understand how the logic model depicts the program's theory of change or the program's theory of action.

After completing this section, you will recognize that programs have either an explicit or implicit theory of change or theories of change. You will understand that this theory of change can be broken down to be thought of as a series of 'if-then' relationships of assumed causal linkages. You will appreciate the necessity for identifying and exploring all possible connections in your program theory. You will recognize the more common theories that we use in our education and outreach programs and you will have a chance to practice drawing causal connections for a specific program example.

This section will help you understand what we see as the real value of logic models - how the connections and linkages depict the assumed causal relationships in your program. Logic models are not just about inputs, outputs and outcomes that get placed in their respective bins, columns or boxes. The power of logic models in planning, implementation and evaluation is how the input-outputs-outcomes fit together, connect, and relate in order to achieve desired end results.

Section 3 – More About Your Program "Logic"

Print a copy of this outline to track your progress through this section.

What is "Program Theory"?

As we saw in the previous sections, a logic model shows:

- the series of connections or logical relationships
- that are expected to lead to desired results over time

This depicts the program's theory of action (Patton, 1997) or theory of change (Weiss, 1998).

> **"A theory of change is a description of how and why a set of activities--be they part of a highly focused program or a comprehensive initiative--are expected to lead to early, intermediate and longer term outcomes over a specified period."**
> (Anderson, 2000, slide 15)

"Theory" may sound too academic for some, but it really just refers to the following:

- Expectations
- Beliefs
- Experience
- Conventional wisdom

These links provide more information...

- About "theory"
- About "change"
- About "exceptions"
- About "causation"

A logic model shows **the series of connections or logical relationships** ...

How are resources, activities, participation, and outcomes linked? Simple models often depict a single chain of relationships: *A* leads to *B* leads to *C.* In this section, we will see that multiple paths and directional flows may more realistically depict programs. This series of connections can be called chain of objectives (Suchman, 1967), contingency relationships or outcome hierarchies (Funnel, 2000), program hierarchy (Bennett, 1976; Rockwell and Bennett, 1998), means-end hierarchy (Patton, 1997), chain of outcomes (United Way of America, 1996), heuristic of program objectives (Mayeske, 1994).

A logic model shows the series of connections or logical relationships **that are expected to lead to desired results over time**.

We often say that we expect our programs to "cause" the desired change or "produce" the desired results. In fact, many factors affect how our programs develop and occur, and work with and, sometimes, work against our programs. In education and outreach programs, much depends on the participants (target recipients) and their characteristics (including attitudes, motivation, knowledge and learning styles, skills, history), as well as the context within which the recipients live and work. It may be more appropriate to think about our programs as offering opportunities and possibilities (Pawson and Tilley, 1997) rather than "causing" a result.

About "theory"

We are not talking about "grand theory" but about your expectations and beliefs, either explicit or implicit, about how and why a program works. They may not be widely accepted or even right. They are your hypotheses about what you expect to happen.

These are not absolute truths or direct cause-effect relationships. In the words of M. Q. Patton: "our aim is more modest: reasonable estimations of the likelihood that particular activities have contributed in concrete ways to observed effects--emphasis on the word *reasonable*. Not definitive conclusions. Not absolute proof" (p. 217).

About "change"

Webster's definition: *to make different, alter, modify*

Programming is about making something different--hopefully better. We can think about programs working to make new opportunities possible, changing the options that are available, helping to improve decision making, changing capacities. As we think about change, however, we want to remember that:·

- Positive program outcomes may result in stability, not change.
- Not all change is good; sometimes change upsets natural, positive relationships or further disempowers the powerless. We must be constantly vigilant for issues of equity and potential negative consequences of our program efforts.
- Conflicts may arise between individual vs. public benefit.

Definitions of change and what is considered positive achievement may differ depending on one's perspective: for different participants, staff members, and funders.

About "exceptions"

Most programs are based on a theory of change, whether explicit or implicit. Programs are usually designed and implemented based on some rationale, some purpose, some reason for being. Exceptions might be totally spontaneous endeavors; totally inductive approaches that emerge and take shape without any preconceived purpose or expected value. In most cases, however, we have some a priori notion of purpose and expectations.

About "Causation"

"The relation between mosquitos and mosquito bites" (Scriven, 1991: 77)

Cause: something that produces an effect, result, or consequence.
(American Heritage Dictionary, 2nd College Edition, 1991)

The idea of causation is central to the logic model. The logic model depicts the program's assumed causal connections. Yet, cause-effect relationships are problematic in our world of education and outreach programming. Experience shows us that:

1. In most all cases, programs have only a partial influence over results. External factors beyond the program's control influence the flow of events. This applies particularly to longer-term outcomes.
2. The myriad of factors that affects the development and implementation of community initiatives make it difficult to tease out the various causal connections. Participants have their own characteristics and are embedded in a web of influences that affect participant outcomes (family relationships, experiences, economy, culture, etc.). The external environment affects and is affected by the program. These many and various factors may come into play before, during, and after program implementation in an almost constant dynamic of influences.
3. Seldom is there "one" cause. There are more likely to be multiple cause-effect chains that interact.
4. Short project time lines make it difficult to document the assumed causal connections.
5. Measuring causal relationships and controlling for contextual factors through experimental or quasi-experimental designs is often not feasible and expensive.
6. Data collected through various methods - quantitative and qualitative - often show different (and sometimes contradictory) causal associations. Seldom do we "prove" that a particular outcome is the result of a particular intervention.
7. Causal relationships are rarely as simple and clear as the mosquito example above or as the "if-then" relationships suggest. Rather, there are multiple and interacting relationships that affect change, often that function as feedback loops with the possibility of delays (see Rogers, 2000; Funnell, 2000; and Williams, 2002).

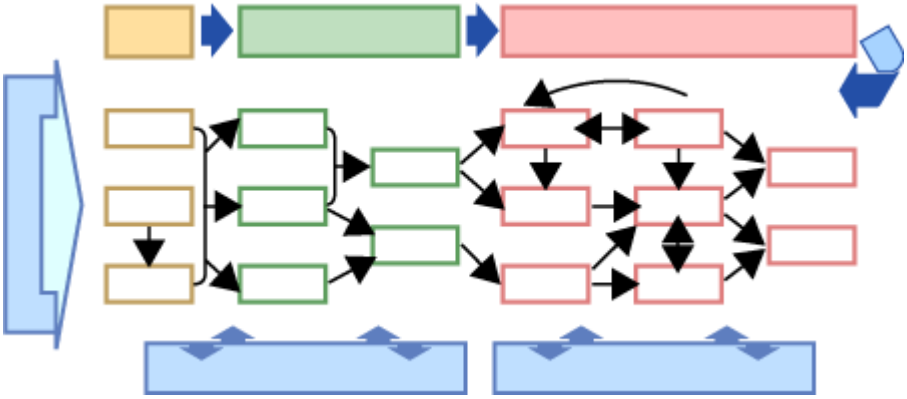
Systems theory suggests a dynamic and circular approach to understanding causal relationships rather than a uni-dimensional linear approach. Logic models can be created to depict these more iterative causal mechanisms and relationships either through the addition of feedback loops and two-way arrows or narrative explanations or a matrix. Limitations are imposed by the necessity of communicating on paper in a two-dimensional space.

Remember, the logic model is a "model" - not reality. It depicts assumed causal connections, not true cause-effect relationships. Sometimes, even simple models are very useful. They can help clarify expected linkages, tease out underlying assumptions, focus on principles to test, educate funders and policy makers and move a program into action and learning.

Section 3

Linkages - Theory of Action

It is the **lines and directional arrows** in the logic model that provide the depiction of the connections, or your theory of action. All lines and arrows may be included or abbreviated and implied. These flows may be vertical and horizontal, one-direction or two-directional, and show feedback loops.



It is the **linkages** - not just what is labeled as input, output, or outcome - that give the model its power. We began to see this when talking about outcome chains (Section 2). Drawing the connections is often messy and time-consuming, but necessary. It is what helps us make sure we've addressed all the logical connections. Sometimes we simplify and only include the primary linkages; otherwise, the logic model may become too difficult to read.

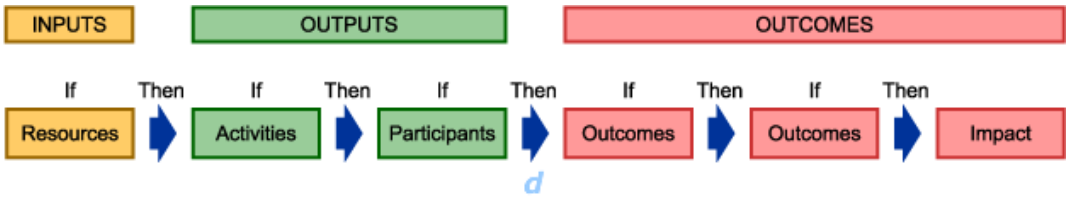
In the end, the final outcome theoretically links back to the beginning to make a difference, "an impact," on the originating situation. The large feedback arrow at the top right of our logic model is an attempt to illustrate this connection and the dynamics of programming. Some people like to show the circular flow of a logic model that explicitly connects the end to the beginning. In actuality, program environments are dynamic and situations change so the beginning rarely stays the same.

If-Then Relationships

Many talk about these linkages as "if-then" relationships. Reading from left to right, a logic model portrays a series of if-then relationships. Listen to a description of if-then linkages as you look at the basic logic model below.

Listen to description of if-then linkages

Audio transcript



Where we have sound research, the if-then relationships are clear and strong. Often, however, we work in situations, and with issues and audiences, where the research base is not well developed. It is your "theory" or "theories" - the explanation that links program inputs with activities to outcomes - the chain of response - that leads to ultimate, end results.

Let's look at two examples of if-then relationships. Identify and check assumptions for each if-then relationship.

Family Support Initiative

Instructional Module

View our thoughts on the assumptions for the "Family Support Initiative".

When developing a logic model, think about the underlying assumptions. Are they realistic and sound? What evidence or research do you have to support your assumptions?

Audio Transcript

Many who use logic models talk about them as a series of "if-then" sequences. If "x", then "y". If "y", then "z".

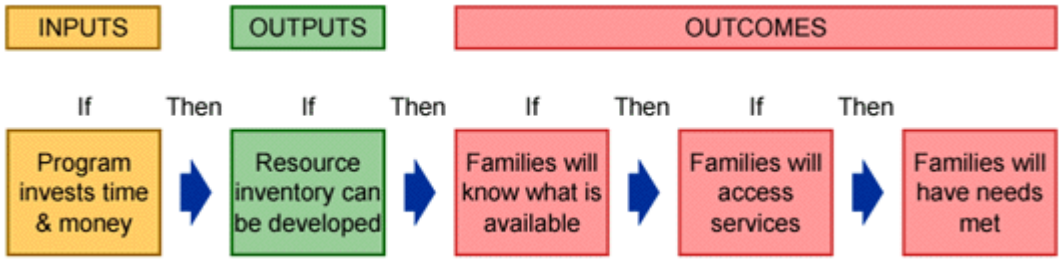
Starting at the left, let's see how this works: If you have certain resources, then you will be able to provide activities, produce services or products for targeted individuals or groups. If you reach those individuals or groups, then they will benefit in certain specific ways in the short term.

If the short-term benefits are achieved to the extent expected, then the medium term benefits can be accomplished.

If the medium term benefits for participants/organizations/decision makers, are achieved to the extent expected, then you would expect the longer-term improvements and final impact in terms of social, economic, environmental, or civic changes to occur. This is the foundation of logic models and the theory of causal association.

Such "if-then" relationships may seem too simple and linear for the complex programs and environments in which we work. However, we find that in working out these sequences, we uncover gaps in logic, clarify assumptions, and more clearly understand how investments are likely to lead to results.

Family Support Initiative



If the program invests time and money, **then** a resource inventory can be developed. **If** there is a resource inventory, **then** families will know what resources and services are available. **If** families know, **then** they will be able to access the appropriate services to meet their needs. **If** families access the appropriate services, **then** the needs of the families will be met.

Possible assumptions for the "Family Support Initiative"

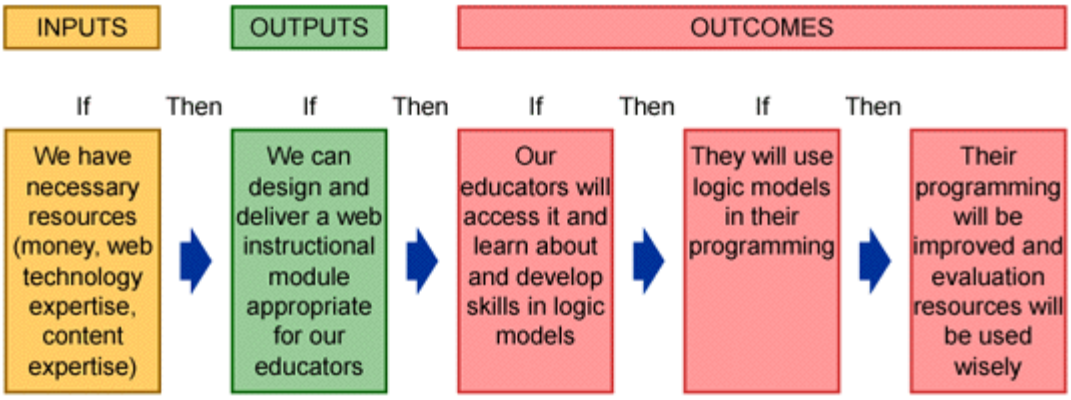
There is the assumption that a resource inventory is linked to improvement in client well-being and that the program will have the necessary time, money, and expertise to develop the resource inventory.

There is the assumption that once the resource inventory is developed, people will use it, particularly the identified target group.

There is the assumption that once accessed, the service will, in fact, meet the client's need.

Also, there is the underlying assumption that interagency coordination will make a difference relative to these families' needs.

Instructional Module

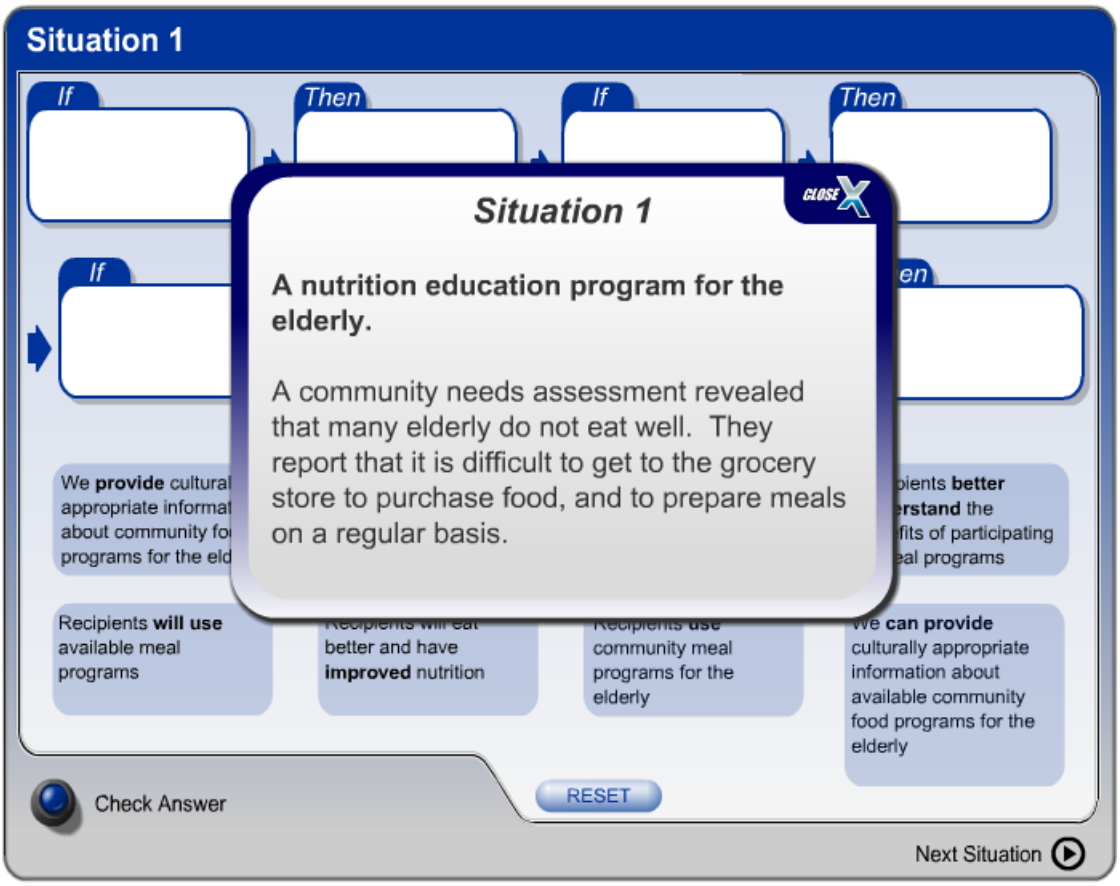


If we have necessary resources (money, Web technology expertise, content expertise), **then** we can design and deliver a Web-based instructional module appropriate for our educators. **If** we design and deliver this instructional module, **then** our educators will access it and learn about and develop skills in logic models. **If** the educators acquire this knowledge and skill development, **then** they will use logic models in their programming. **If** the educators use logic models in their programming, **then** programming will be improved and evaluation resources will be used wisely.

Let's Practice! If-Then Relationships

Non-Flash Alternative Activity

In this activity, you will have a chance to think about the if-then ordering for two examples of real programs. **Read** the situation statement and then **drag** the items in the boxes below into the empty spaces to depict a logical order of if-then relationships. At any time you can rearrange your statements or press reset to start over. You can **check** your answer with ours by clicking on "Check Answer".



If-Then Relationships Activity

Read about the sample situation. Then, read the if-then statements that follow. Place the if-then statements in the correct order by noting a number next to each statement. For example, the statement you feel is the first statement should have a number 1 next to it, the second a number 2, and so on.

Situation 1
A nutrition education program for the elderly. A community needs assessment revealed that many elderly do not eat well. They report that it is difficult to get to the grocery store to purchase food, and to prepare meals on a regular basis. They do not understand the relationship between nutrition and health.

If recipients use available services and prepare food more regularly,

If we have time, resources, expertise, and access to the target group,

then we can provide culturally appropriate nutrition information about available community services, easy food preparation, and the importance of nutrition.

then the recipients will better understand the linkage between nutrition and health.

If we provide culturally appropriate information about services and food preparation,

then recipients will use available services and prepare food more regularly.

then recipients will eat better and have improved nutrition.

If recipients better understand the relationship between nutrition and health,

Situation 2
When a local utility company sought a conditional-use permit to construct wind turbines in Quietburg, a controversial public issue emerged. Some residents were in favor of the development while others adamantly opposed it. An initial needs-assessment identified seven major areas related to the issue that needed attention.

If the residents have correct, balanced information and are effectively engaged,

If the residents make better-informed decisions,

then the controversial public issue will be resolved.

then the residents will have the best evidence, unbiased information, and have their voices heard.

then the residents can make better-informed decisions.

If we bring research and expert opinion to bear and facilitate public dialogue,

If-Then Relationships Activity Suggested Order

How did you do? Here is the suggested order for the if-then statements for these situations.

Situation 1

If we have time, resources, expertise, and access to the target group, then we can provide culturally appropriate information about available community services, easy food preparation, and the importance of nutrition.

If we provide culturally appropriate information about services and food preparation, then the recipients will better understand the linkage between nutrition and health.

If recipients better understand the relationship between nutrition and health, then recipients use available resources and prepare food more regularly.

If recipients use services and prepare foods, then recipients will eat better and have improved nutrition.

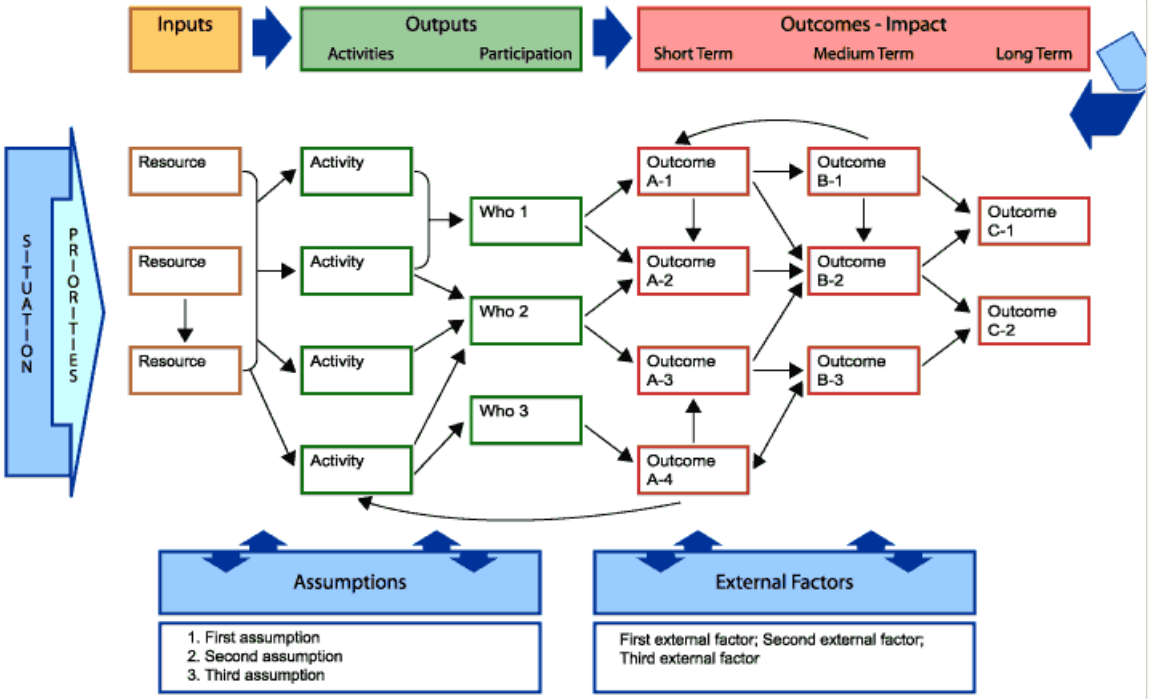
Situation 2

If we bring research and expert opinion to bear and facilitate public dialogue, then the residents will have the best evidence, unbiased information, and have their voices heard. If the residents have correct, balanced information and are effectively engaged, then the residents can make better-informed decisions. If the residents can make better-informed decisions, then the controversial public issue will be resolved.

Multiple Chains and Directional Flows

Our programs are seldom as simple as the single chain of if-then relationships previously considered. More likely, there are several chains of connections, and vertical as well as circular flows of action. It may be more realistic to think of a program as a spiral involving various feedback loops. For example, a policy change can lead back to changes in knowledge and attitudes that, in turn, lead forward to behavioral change. Certainly this spiral effect happens when we take the knowledge gained during implementation and use that knowledge to improve a program (for example, we see that the targeted numbers of participants are not attending so we feed that information back into redesigning our educational outreach and activities) or to inform the next planning cycle. Or, a program causes a change in an external factor that, in turn, affects program direction.

The following graphic depicts multiple chains and directions of expected causal linkages.



d

Listen to explanation of graphic

Audio transcript

Often program logic models have:

- Several branches (Funnell, 2000) or lines of connections (chains, causal models).
- Multiple lines or chains, and arrows.
- Feedback loops.
- Several or various theories of change (see Weiss, 1998 and Rogers, 2000).
- Alternative pathways of change.

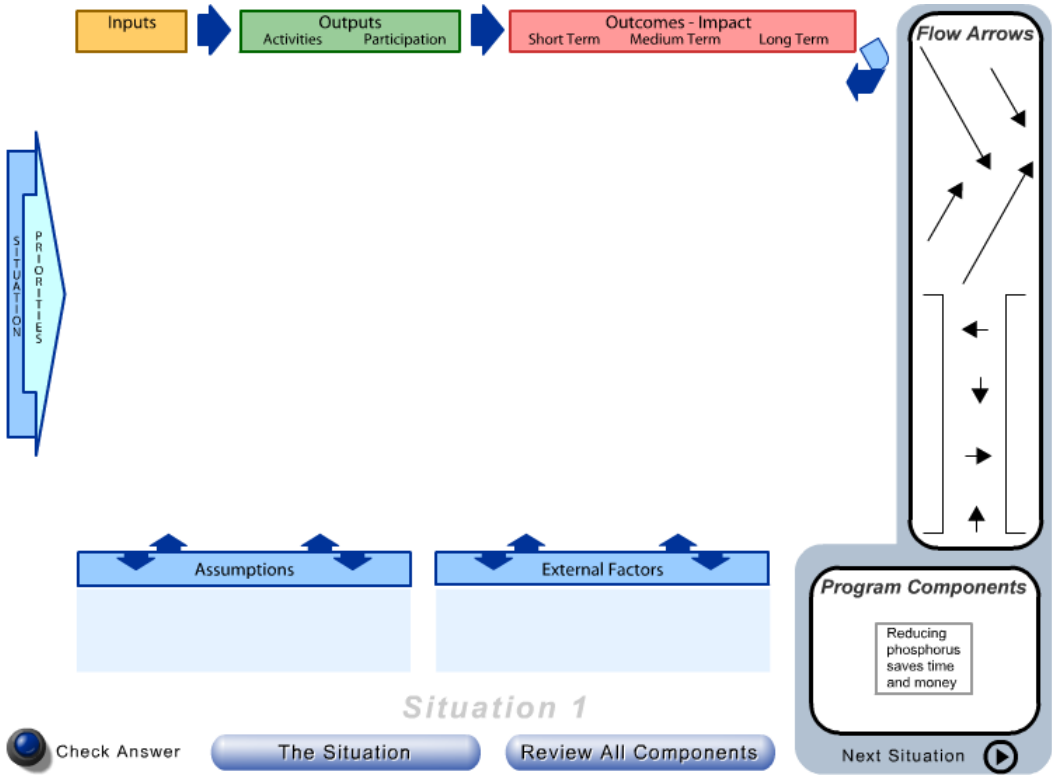
Audio Transcript

This graphic of a logic model more realistically depicts a multi-faceted program. The programs that many of us work in seldom are so simple that a single line of boxes and arrows accurately represent reality. In this logic model, you see a number of rows that depict various sequences of events and arrows showing both vertical and horizontal flows and feedback loops. The several lines or branches might represent different activities or target audiences and the sequence of events pertaining to each. Feedback loops are common in most programs. As we learn, we feed that information back into the program and modify it. Or, something may happen that causes the program to redirect. Actual program implementation is more complex and fluid than a single line of boxes and straight arrows represents.

Let's Practice! Show the Theory of Action

Non-Flash Alternative Activity

Now you have a chance to show the linkages in a logic model! This activity will present two situations. For each situation, read about it by clicking **The Situation.** Then, drag each program component (displayed one at a time in the **Program Component** box) to its appropriate location in the logic model framework provided. If you wish to see all possible components at once, click **Review All Components.** To add directional arrows to your logic model, click and drag the arrows from those available in the **Flow Arrows** box on the right side of the activity. Once you have completed your logic model, click **Check Answer** to see how you did. You can continue working on your logic model by clicking on **Return**.



Show Theory of Action Activity

Read about each situation. Then, consider the list of program components. Determine whether each component is an input, output, outcome, assumption, or external factor. When you have completed the activity, check the answers to learn how well you did.

Logic Model Framework Areas

- Input
- Output - Activity
- Output - Participation
- Outcome - Short-term
- Outcome - Medium-term
- Outcome - Long-term
- Assumption
- External factor

Situation 1: Agricultural runoff is one of the biggest contributors to non-point source water pollution. Cows on dairy farms produce large quantities of manure. In Why County, 75 percent of dairy farmers spread manure as fertilizer on fields to increase yields and meet the nitrogen needs of crops. Phosphorus is added as a nutritional supplement to animal diet to maximize milk production. The phosphorus ends up in the manure and eventually in the water supply.

Program Components:

- Reducing phosphorus saves time and money
- Staff
- Improved water quality
- Participants increased knowledge of tracking phosphorus levels
- Participants increased knowledge of link between cattle diet and water quality
- Educational workshops
- Low phosphorus feed is readily available
- Participants make appropriate adjustments to cattle feed
- Set up record keeping systems to track phosphorus
- Other sources reinforce use of high phosphorus diets
- Participants increase understanding of recommended phosphorus levels
- Participants monitor phosphorus levels in feed, manure, and soil
- Money
- Participants save on feed costs
- On-farm visits
- Research
- Participants have reductions in phosphorus use
- Partners
- Farmers at risk of overfeeding phosphorus
- Government programs regulate and offer incentives
- Materials

Show Theory of Action Activity

Situation 2: Low-income families often have high debt loads, minimal savings, and limited knowledge of sound money-management strategies. These patterns reduce their chances of achieving financial goals, jeopardize financial security, and increase vulnerability to unexpected financial emergencies. In Sunshine County, 14 percent of the population lives in poverty, struggling to meet monthly bills and financial goals. The child poverty rate is 22.9 percent, much higher than the state average of 14.9 percent. Earned Income Credit (EIC), an effective antipoverty program for families with children, adds to wages that are earned. The combined federal and state EIC can provide over $5000, and can increase income by as much as 57 percent. But many in Sunshine County who are eligible for these tax credits aren't getting them--either because these individuals haven't heard of EIC, don't know they are eligible for the tax credits, or don't know how to apply for them.

Program Components

- Curriculum
- Able to create spending and saving plan to meet goals
- Funding
- Use spending and savings plan to meet goals
- Adopt strategies to stretch limited resources to meet monthly bills
- One-on-one counseling during home visits
- Increased personal satisfaction, self-worth
- Culturally appropriate curriculum exists
- Staff can effectively deliver curriculum
- Increased knowledge of earned credit eligibility, how to apply, where
- Financial goals are met
- Increased knowledge of ways to gain control over budget
- Able to assess own financial situation
- Staff
- Economy takes a downturn
- Research base
- Increased knowledge of all aspects of basic family budgeting
- Set family financial goals
- Apply for and receive earned income tax credit when appropriate to increase income
- Low income families
- Financial information displays
- Education during small group meetings
- Money is managed to meet needs
- Earned Income Credit Program changes
- Recipients are motivated to make changes

Answers for Theory of Action Activity

Situation 1

This program's theory of action states that if we have staff, funding, key partners, and access to the research on phosphorus and nutrient management, then we can deliver research-based educational workshops, set up record-keeping systems, and work on-farm with farmers who feed too much phosphorus to their cattle. These farmers will then increase their knowledge of the link between phosphorus feed supplementation and water quality, understand what recommended phosphorus levels are, and learn how to track the phosphorus inputs and outputs on their farms. In turn, the farmers will actually monitor phosphorus levels and make appropriate adjustments in cattle feed. Ultimately, there will be less use of phosphorus, farmers will save money from decreased purchase of supplements, there will be less phosphorus delivered to water through runoff, and water quality will improve.

Assumptions: Reducing phosphorus saves time and money; low-phosphorus feed is readily available

External Factors: Government programs regulate and offer incentives; other sources reinforce use of high-phosphorus diets

For more information see: Whole Farm Phosphorus Report 2002.

Situation 2

What is the "theory" that links funding and staff time to improved money management?

In this program we see the theory of action as follows:

If we invest staff, curriculum products to teach family finance, funding, and access to the research base, then we can provide financial education through small group meetings, at walk-bys, and through one-on-one counseling during home visits to our target low-income families.

This financial education will lead to these individuals increasing their knowledge about basic money management and their ability to set financial goals and create a savings and spending plan; and learning new ways to gain control over their budgets, including knowledge about the earned income tax credit.

In turn, the individuals will actually set financial goals, use a savings and spending plan, adopt strategies that will help meet goals, and apply for income tax credit if appropriate (all behavioral changes).

Ultimately the individuals will reach their financial goals and manage their money to meet needs. In the process and as a result, these individuals increase their sense of personal control and self-worth.

Assumptions: A culturally appropriate curriculum exists that can be used in the financial education of these particular low-income families; staff can effectively teach and deliver the curriculum as planned; recipients are motivated to make changes in their management of financial resources.

External factors: The Earned Income Tax Credit Program is changed; the economy takes a downturn

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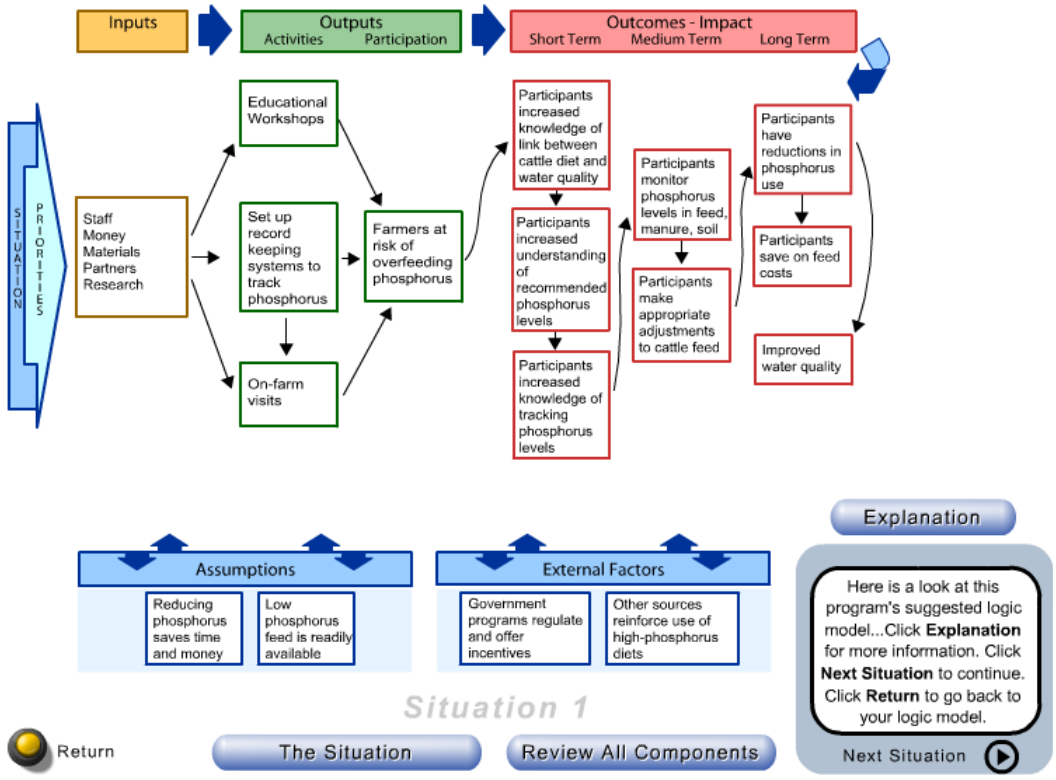

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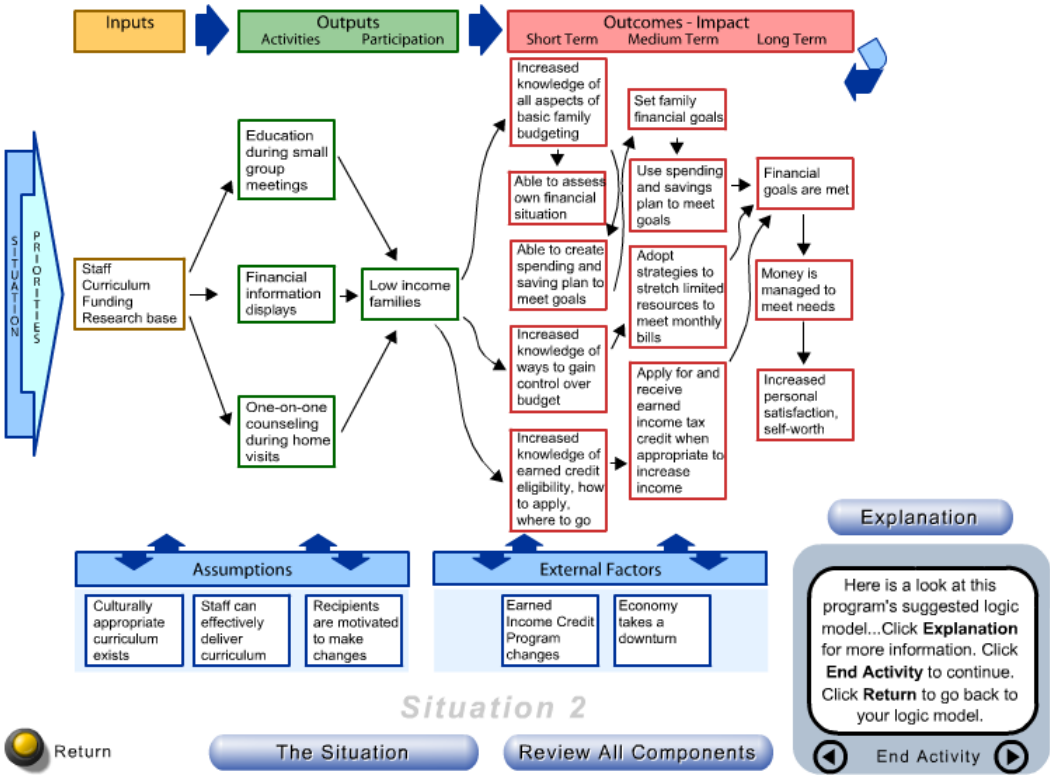


Section 3

Where does "Theory" Come From?

Your program theory may arise from one or more of:

- Local knowledge and wisdom
- Research and evidence base
- "Best" or "promising" practices
- Evaluation studies
- Other lessons from the field
- General social science theory of change

Often our programs are grounded, either explicitly or implicitly, in one of the general social science theories of change. The most common used in our education and outreach programs include:

- **Stages of change or "trans-theoretical" model:** Individuals move through a series of distinct stages or steps when making a change that involves a variety of activities and experiences of weighing pros and cons to the change and is influenced by confidence and temptation.
- **Diffusion of innovation:** Change occurs when an innovation is shared and communicated throughout a social system.
- **Ecological systems:** People are part of systems with behavioral change being influenced by a complex of physical and external variables.
- **Empowerment:** People change when their own needs, values and strengths are recognized and built upon.
- **Social marketing:** While not a grand social science theory, many education and outreach programs apply the concept of social marketing to increase the accepability of an idea or practice.

If you're interested, learn more about each of these theories.

Who decides or determines the final version of the program theory? Stakeholders? Staff? Researchers? Evaluators?

Wholey (1987) and Patton (1989) emphasize the role of stakeholders and program staff in a utilization-focused approach to program planning and evaluation. Chen and Rossi (1980, 1983) give credence to social science expertise and knowledge. The best idea appears to involve both the practitioner and researcher (Weiss, 1998).

Social Science Theories of Change

Stages of Change

The stage model of change emerged from theories in psychotherapy and behavioral change as formulated by Prochaska (1984). It is based on empirical research, first with smokers, and then a broad range of health and mental health behaviors. It can be, and has been, applied to many types of individual behaviors. The core constructs include: (1) change stages--change unfolds through a series of distinct stages or steps (precontemplation, contemplation, preparation, action, maintenance, termination); (2) change processes--individuals engage in a variety of activities and experiences when attempting to change; (3) decisional balance--individuals weigh the pros and cons of changing; (4) self-efficacy--individual change is influenced by confidence and temptation.

Individual behavioral change is complex. It is a process that unfolds over time through a sequence of stages. Change, however, is not necessarily linear--relapse is possible at any point.

For more information about the stages of change model, see the following:

- http://www.uri.edu/research/cprc/transtheoretical.htm
- Prochaska, J., DiClemente, C., & Norcross, J. (1992). In search of how people change. *American Psychologist*, 47, 1102-1114.
- Prochaska, J., Velicer, W., DiClemente, C., & Fava, J. (1988). Measuring processes of change: Applications to the cessation of smoking. *Journal of Consulting and Clinical Psychology*, 56, 520-528.
- Prochaska, J., et al.(1994). Stages of change and decisional balance for twelve problem behaviors. *Health Psychology*, 13, 39-46.

Diffusion Theory

Diffusion theory holds that change occurs when new ideas are invented, diffused, and adopted or rejected, leading to certain consequences. It has been widely applied in agriculture, public health, nutrition, and family planning programs. Diffusion is a process whereby an innovation is communicated through certain channels over time among members of a social system. Thus, the key concepts include: (1) innovation: an idea, practice, or objective that is perceived as new; (2) communication channels: any of various means by which messages get from one person to another; (3) over time: relates to the adoption process that consists of five steps--knowledge, persuasion, decision, implementation, and confirmation; (4) among members of a social system.

Initially diffusion was viewed as a one-way process by which messages are transferred from source to receiver. Further conceptualization depicts diffusion as a shared process where participants create and share information; the emphasis is on information exchange among participants (networks of individuals and/or groups) as part of a communication process as the stimulant of change.

For more information about diffusion theory, see the following:

- Rogers, Everett M. *Diffusion of innovations* (3d ed.). New York: Free Press.
- Oldenburg, B., Hardcastle, D., & Oko, G. (1997). Diffusion of innovations. In K. Glantz, F. Lewis, & B. Rimes (Eds.), *Health behavior and health education: Theory, research and practice.* San Francisco: Jossey-Bass.

Ecological Systems

The ecological systems model of change has evolved from sociology, psychology, economics, and public health. Ecology refers to the interrelationships between organisms and their environment. This model explicitly emphasizes the role of the physical and external environment in behavioral change. People are part of a system. It posits that behaviors are influenced by intrapersonal, social, cultural, and physical environmental variables that are likely to interact and that may exist at various levels. Ecological theory has a number of core concepts: (1) behavior is influenced by multiple aspects of the physical and social environment as well as one's personal attributes; (2) environments are complex and must be understood if change is to be effected; (3) participants can be described at various levels of aggregation: individuals, families, organizations, communities, populations; (4) everything is interconnected, e.g., people influence their

environments which in turn affect them; (5) systemic influences are not only multidimensional but also cumulative and interactive.

For more information about diffusion theory, see the following:

- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Sallis, J., & Owen, N. (1997). Ecological models. In K. Glantz, F. Lewis, & B. Rimes (Eds.), *Health behavior and health education: Theory, research and practice.* San Francisco: Jossey-Bass.

Empowerment

Empowerment is a process by which people gain control and mastery over their own lives and are able to influence others that affect their lives. It is based on the famous quote: "Give someone a fish and you feed her for a day; teach her to fish, and she will feed herself for the rest of her life." It emphasizes improvement and self-determination that has roots in community psychology, citizen participation, and action anthropology. Programs built using the empowerment model assume: (1) problems are best addressed by the people who are experiencing them; (2) people possess valuable knowledge about their own needs, values, and goals; (3) people possess strengths that should be recognized and built upon; (4) processes can be implemented that develop independent problem solvers and decision makers.

Empowerment is often applied to individuals. It can also be applied to programs, organizations, communities, societies, cultures.

For more information about empowerment, see the following:

- Fetterman, D., Kaftarian, S., & Wandersman, A. (Eds.). (1996). *Empowerment evaluation: Knowledge and tools for self-assessment and accountability*. Thousand Oaks, CA: Sage Publications.

Social Marketing

Social marketing is not a theory of change--of how change occurs. It is a process of applying efforts to increase the acceptability of a social idea or practice. It adapts commercial marketing and advertising techniques to programs in the effort to influence voluntary behavioral change of a target population. Introduced in the early 1970s, it uses the concepts of setting measurable objectives; doing consumer and market research; segmenting the market; product concept development and testing; directed communication-advertising; creating awareness; facilitation; incentives and exchange theory to maximize the target population's response. Key concepts of social marketing include: (1) a social idea or practice is introduced in manner that is compatible with target group; (2) awareness of the idea or practice is raised usually through mass media channels; (3) price of the product is fixed to fulfill the marketing campaign objective; (4) opportunity costs of the change go beyond monetary cost alone and must be included.

Steps in the social marketing process include: analyze the social environment research and select the target audience(s); design the social marketing strategy; plan the social marketing program mix; implement the effort; evaluate the social marketing effort.

For more information about social marketing, see the following:

- Kotler, P., & Roberto, E. (1989). *Social marketing. Strategies for changing public behavior*. New York: The Free Press (Macmillan, Inc.).
- Manoff, R. (1985). *Social marketing. New imperative for public health*. New York: Praeger.

Additional Information on theories of change can be found at:

- The Aspen Institute: http://www.aspeninstitute.org/

Section 3

Section Summary

- A logic model is a **model of logical connections.** Above all, it shows the relationships and theory of action among the various components of the program or initiative. The power of logic modeling lies in articulating the relationships and linkages in our programs to help ensure the achievement of positive benefits.

- **Logic models:**

  - Create an understanding of a program.
  - May depict multiple chains.
  - May depict vertical, horizontal, and circular flows.
  - May be difficult or messy to do; however, understanding can increase through doing them.
  - Make explicit the underlying theory of a program.

Section 4

What Does a Logic Model Look Like?

Section Overview

Listen to description of this section

Audio transcript

Section Goal

On completion of this section, you will realize that a logic model looks different depending on the purpose for which it is to be used, the type of initiative being modeled, and the cultural or organizational context.

More specifically you will:

1. Know that there is no one or right logic model and no one or right way to depict a logic model.
2. Understand that the explanatory flow of a logic model may differ depending on whether you are engaged in planning, implementation, evaluation, or communications and marketing.
3. Know that logic models may be described in varying detail depending on level and purpose.
4. Be able to suggest ways to enhance the cultural appropriateness of logic models.

Section Outline

The section outline will help you track your progress through this section.

Printable outline

Outline with links to each page of this section

Audio Transcript

Welcome to section 4, "What Does a Logic Model Look Like?"

By the time you complete this section, you will understand that logic models look as different as the programs they represent and the contexts in which they exist. Some are simple, horizontal diagrams; others, are constructed vertically. Some include circles or other shapes; others look like a chart or table. You will understand that logic models may look different depending if you are engaged in planning, implementation, evaluation, or communications. You will also explore the notion of multiple logic models and "nested" logic models that depict the various levels in a multi-tiered management system. Finally, we will spend some time thinking about how to make logic models more appropriate in cross-cultural settings.

Again, take a few minutes to look at the section outline and see what will be covered in this section. As you work through the section, take time to link to the additional resources that are provided as supplements to the on-screen learning.

Section 4 – What Does a Logic Model Look Like?

Print a copy of this outline to track your progress through this section.

Section 4

A Caution about the Linearity of Logic Models

Some people caution about the seeming linearity of logic models: they often are neat and tidy, with boxes lined up like a pipeline or like a string of dominoes that fall forward in linear progression. We know that programs are NOT neat and tidy. They are more likely to be a series of fits and spurts; to follow an iterative process of moving forward and then back two steps. Real programs are messy, as are the environments in which they exist.

Concerns about the linearity of logic models include the following:

- Top-down vs. shared or bottom-up approach to programming
- Vertical and horizontal flows in logic models
- Logic model is a systems model

Thus, as we saw in Section 3, logic models are usually not a single line of boxes connected by arrows. They are multiple chains with horizontal, vertical, and diagonal connectors between and among components, including the external environment. In fact, that's the hardest thing about developing a logic model--depicting the lines and arrows that show connections and the circular feedback loops in a way that communicates to users.

Concerns about...

Top-down vs. shared or bottom-up approach to programming

Some people see the logic model as a very structured, top-down approach to programming. It is equated with a program delivery model where the program is designed, delivered, and "produces" outcomes. Program participants are viewed as passive recipients in the flow of action. Rather, program development is a very dynamic, iterative process. Active participants are involved, interact with and influence the flow of action and outcomes achieved. They are partners, not objects, in program delivery. Possibilities and potential cause-effect relationships are numerous, not contained to predetermined boxes and arrows.

Vertical and horizontal flows in logic models

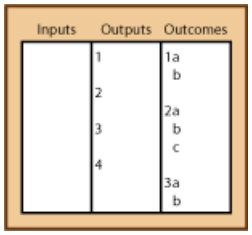
To depict the nonlinear nature of programs, many logic models use vertical, two-directional, and circular arrows and loops to depict the more interactive nature of causal relationships (Funnell, 2000; Rogers, 2000). For example, an increase in knowledge can lead to a change in practice that in turn leads to the need for other or more knowledge; or a change in attitude may influence behavior that influences attitudes; or a policy change may create greater awareness that leads to behavioral change; or positive reactions to the program lead to increased attendance that leads to more services being provided; or an external factor causes a programmatic change that in turn affects the external environment.

Logic model is a systems model

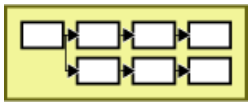
The discussion in the previous two notes describes the logic model as a systems model: not a simple, "input causes output causes outcome" model but one where cause-effect relationships are connected in multiple and nonlinear ways.

Logic Models Come in Various Shapes and Sizes

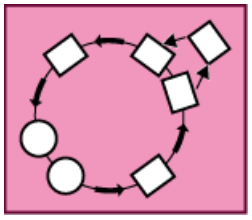
"Logic models come in as many sizes and shapes as the programs they represent"
(W. F. Kellogg Foundation, 2001, p. 7).



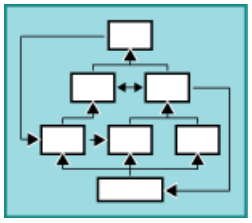
Sometimes a logic model is built as a table with lists of items in the input, output, and outcome columns. The model may include limited directional arrows to illustrate connections and relationships. It may include numbered lists to show order within a column or to indicate rows of connections across the columns.



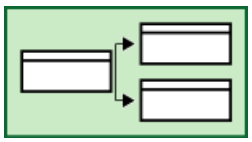
Other logic models use boxes, with lines and arrows connecting the boxes to illustrate the causal linkages.



Some logic models use circles and other shapes. We've had community groups use metaphors such as oysters, trees, footprints, and an octopus.



Some logic models are simple; others are complex.



Some logic models show only parts of a full model: some don't include assumptions, situation, or external factors; some only include outputs and outcomes.

Remember that the logic model is just a MODEL. In the effort to simplify and communicate using one page, we often produce logic models that abbreviate program complexities. Most important, the logic model must be **clear** and **understandable** to those who will use it. To capture the program theory, the logic model needs to show the logical linkages between and among elements.

- Think about who will use the logic model--to/with whom the logic model is to communicate: you or your staff, funders, administrators, elected officials.
- Settle on a graphic representation that best fits the **user** and **use.**
- Recognize that deciding on a single image that displays the program theory is often the most difficult part of developing and using a logic model.

Elements that Affect the Look of Logic Models

1. The purpose of the logic model:

- **For program planning** (more in Section 5):
  When designing a program, the logic model is often very detailed. We want to identify every element, show all the connections, list all the assumptions and factors in the external environment likely to interact. This helps identify potential gaps in logic, areas that need further exploration, externalities and risks that may be associated with the proposed action so that we can put contingency plans in place. It helps us determine resource needs and the likelihood of success.

  Some practitioners reverse the order of inputs-outputs-outcomes for program planning to emphasize outcomes as the beginning point for planning.

- **For program evaluation** (more in Section 7):
  The logic model has been widely used by program evaluators. The look and level of detail differs widely dependent upon evaluator training and evaluation purpose and design. Community-based practitioners who need to measure outcomes, may wish to show greater detail in the outcome chain and streamline the input and output components to the main ingredients.

- **For communications:**
  These may be the most simplified and streamlined logic models. The purpose is to communicate clearly and easily with our external stakeholders. We want to avoid jargon and confusion. Typically, logic models constructed for external communications depict the key elements and show the principal linkages leading from investments to results.

- **Program implementation-management:**
  Usually a very detailed logic model is used for program management purposes. In order to achieve the level of detail needed, multiple logic models may be used that depict different sequences or aspects of the overall program.

2. The type of program or initiative you are diagramming and its complexity
A logic model of a focused, small program will obviously be less complex than a logic model representing a large, comprehensive initiative. To characterize the latter, multiple logic models may be necessary. Level of detail is often confined by what can be realistically and understandably expressed on a single page.

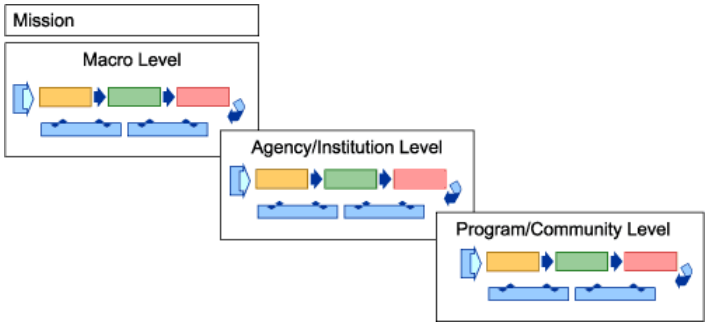
3. The agency orientation
Many agencies have developed their own variation of a logic model to reflect their particular needs and orientation.

A logic model is a tool for enhancing program performance. It is not an end in itself. Thus, the purpose for which the logic model is to be used dictates the level of detail employed and the information included.

Multiple Logic Models
Multi-level Management System

Multiple logic models may be needed to clarify various levels, issues or goals of a single management system. A national initiative, for example, might include the national (most macro) level, the state level, and the community level. Each level is depicted with a logic model in a series of hierarchically linked models. The level of detail may become more specific as the focus narrows.

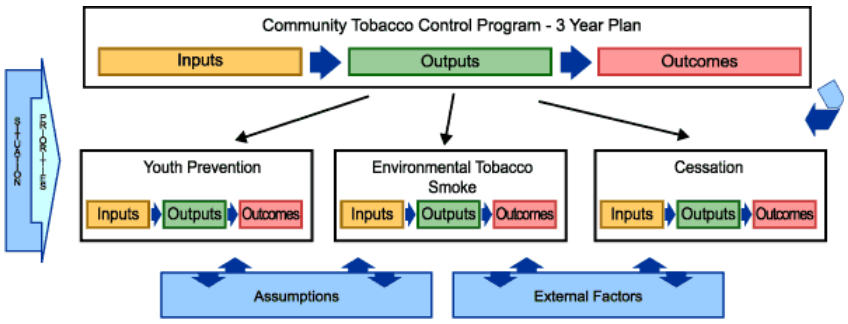
These "nested" logic models (Wauchope, 2001; Hernandez, 2000) depict the hierarchy of various levels and how they connect within a single system. Each logic model is built with reference to the level above (or below) and in relation to the organization's or program's overall mission. This concept is being applied to national community nutrition education work with disparate programs at multiple sites across the United States. This establishment of consistency of purpose and method is essential to the successful implementation of an accountability system.



Multi-component Initiative

In a complex, multifaceted initiative several models might depict the various programmatic components, goals, sites, or target populations. Each of these "sub models" and its expected outcomes links to the overall logic model to ensure that programmatic outcomes are achieved. For example, for a community-wide nutrition education program, there may be one "program" logic model that provides the "big picture" of the total program and then separate, "sub" logic models for the specific programs, components, or target populations within the community-wide effort.

For instance, a community tobacco control effort might have goals related to youth prevention, clean indoor air, and cessation. A general logic model depicts the total effort. Separate, more detailed logic models depict the inputs-outputs-outcomes relative to each component/goal--for example an initiative to change a restaurant ordinance within the environmental tobacco smoke component. Expected outcomes for each of the sub-logic models link to the outcomes expressed in the overall model.



Section 4

Cultural Adaptations

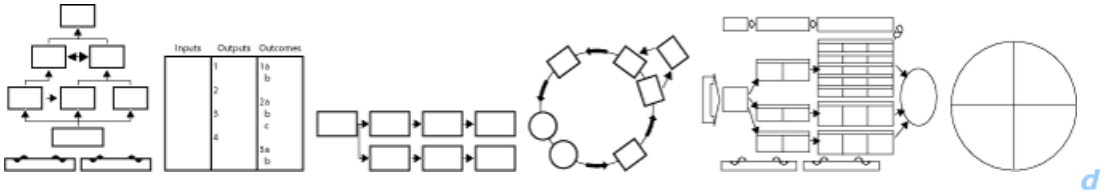
Some cultures may prefer the analogy of a circle, a web of life, or another culturally appropriate way to tell what a program does and what it is expected to accomplish. Cause-effect relationships, even if only logical associations, may not be part of a culture's meaning.

Eurocentric basis of traditional logical reasoning:

At question is the nature/philosophy of logic modeling, which is based on the Eurocentric tradition of logical reasoning that emphasizes and values a cognitive approach.

Kalyani Rai (University of Wisconsin-Milwaukee) expands the logical/thinking aspect of logic modeling to include other forms of being and understanding. To Thinking (conceptual/abstract), she adds Doing (personal experience), Seeing (symbolic/aesthetic), and Being (collective experience) in a circle that has four quadrants: intentional, behavioral, cultural, social. To fully understand, appreciate, and ultimately appropriately evaluate programs, we need to include the values and belief systems of the people involved.

Let's Practice! What Does Your Logic Model Look Like?



Look at these graphic displays. Think about…

What type of graphic display do you think will work best for you? Why?

Will one or multiple models better depict your work?

What level of detail do you need - who will use the logic model - for what purpose?

If desired, print this page (by pressing **Ctrl** and **P)**. **Note:** If you enter more than two lines of text, not all the information you enter will print.

Section 4

Section Summary

- Logic models look different depending on:
  - Purpose
  - Type and complexity of program
  - Agency orientation
- Any shape and form is possible for the logic model.
- Multiple levels and models may be necessary.

Section 5

How Do I Draw a Logic Model?

Section Overview

Listen to description of this section

Audio transcript

Section Goal

On completion of this section, you will be able to draw a logic model.

More specifically you will:

1. Learn that the **process** of constructing a logic model constitutes much of the value in logic model development.
2. Identify who needs to be involved in logic model development.
3. Know how to create a logic model for a new program that is being planned or for an existing program.

Section Outline

The section outline will help you track your progress through this section.

Printable outline

Outline with links to each page of this section

Audio Transcript

Hello again. Welcome to section 5 - "How do I draw a logic model?"

By the end of this section, we hope you will be able to draw your own logic model. As you work through this section, you will appreciate that the best way to construct a logic model is with others. While it may be quicker and easier to work alone, try not to. Many people believe that the real value of logic modeling is the PROCESS of creating one and the understanding and consensus that you build about a program as a result. In this section, you will start to identify others who should be engaged in the logic model development. You will actually have a chance to create a logic model for a program. Be creative during this process. We will provide a worksheet, and make some suggestions about how to go about drawing a logic model, but really it should be creative, dynamic process that best suits you and the people that you are working with.

Take a few minutes please and look at the section outline to know what we will cover during this section.

Section 5 – How Do I Draw a Logic Model?

Print a copy of this outline to track your progress through this section.

Section 5

Logic Model Development Is a PROCESS

- Time and practice are required before you can use logic models effectively. The best way to learn is practice, practice, practice!
- The process of constructing a logic model may be the most important aspect of logic model development. The process builds understanding, consensus, and clarity in thinking about the program - all of which are critical to the program's success.
- Logic models are refined and changed many times. Keep your logic model dynamic. Post it where everyone can see it. Change it as things change and you learn about your program.

Section 5

Getting Started

Step 1: Determine the purpose of the logic model and who will use it, for what?

- Why are you doing a logic model?
- Is your purpose to fulfill an administrative requirement; to show your fund provider(s) what you are doing; to put in a grant proposal; to determine a work plan; to evaluate your program?
- Is your purpose: planning, evaluation, communications, program management?

See Section 1, Page 3: A Logic Model is the Core of...*

Step 2: Involve others.

- Who should participate?
- Who should facilitate?

Step 3: Set the boundaries for the logic model.

- What will the logic model depict: a single, focused endeavor; a comprehensive initiative; a group process; or organizational endeavor?
- What level of detail is needed?
- Who will use the logic model? How?

Step 4: Understand the situation.

- Start with a comprehensive understanding of the situation - the problem analysis.

See Section 1, Page 10 and 11: Components of Logic Models - Situation.*

- Make the situation statement your anchor - the logic model grows out of the situation. Situations change so update as appropriate.
- Set priorities.

Step 5: Explore the research, knowledge base, and what others have done/are doing.

- Write down findings that are central to the problem you are addressing.

***Note:** Use the **Outline** tab to navigate to the referenced course material and back. Before navigating to the referenced material, make a note of your current location (Module 1, Section 5, Page 3) so that you can return here when you are ready! For more information on using the **Outline**, refer to the course Help pages.

Section 5

Involving Others

Developing a logic model is a GROUP PROCESS.

Not surprisingly, experience shows that best results are achieved when groups of staff and relevant stakeholders work together in developing the logic model.

Why do you think this is so?

Possible answers

Whom will you include? Think about your program - who needs to be part of building the logic model?

Possible "logic modelers" to think about

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Tips for facilitating the process

Other possibilities

Possible reasons that group process enhances logic model development

1. Different people add different knowledge and experience--more possibilities will surface.
2. Underlying assumptions get surfaced.
3. Thinking becomes clarified through discussion.
4. Consensus starts to build about what the program is, how it will work, and what it will accomplish.
5. Commitment to the program--to ensuring its success--is enhanced.

Possible "logic modelers"

- Staff and volunteers
- Fund providers
- Administrators
- Elected officials
- Board members
- Participants
- Agency representatives
- Local "expert"

Tips for facilitating the process:

- Use computer, electronic white-boards, flannel chart, newsprint/butcher paper, and post-its/cards that can be written on, sorted, and lined up.
- Several work sessions may be necessary, spaced over time.
- Use a summary chart or matrix to bring information together.
- Techniques common to "Tree Diagramming" and "Fish Bones" may be useful (Tague, 1995).

Other Possibilities for Facilitating the Process

Creating a logic model makes explicit the implicit ideas group members hold about their work and their programs. Depending upon the group and level of trust and shared understanding, the process may be relatively straightforward. For other groups, developing a shared vision and plan of action may take more time and be fairly tortuous. We have found that "drawing" the logic model, either individually or as a group, is fun and useful. Drawing a logic model can be part of a full strategic planning or visioning process.

Idea 1. Group members draw their program, collaborative, or vision (whatever is the focus and being depicted) on newsprint, using any metaphor, design, or thought process desired. This can be done as a group. Or, each individual or small subgroups may draw their own image. Each then shares the picture or scenario with the larger group. Similarities and differences, as well as strengths and weaknesses, among the models are noted and discussed. The final product is one that the group agrees to and shows a chain of events that leads to final outcomes.

Idea 2. Use a worksheet of the logic model chart with space for writing. The worksheet can be filled out individually or created as a group. You might start by visioning and gaining consensus on the long-term outcomes. Then, you may work backwards across the chart or fill in any of the boxes and columns that make sense (see following sections). Use arrows and connecting lines to depict flows and assumed linkages.

Idea 3. You may wish to engage an outside facilitator or evaluation consultant to help craft your logic model. The consultant would review all existing materials, proposals, make observations and gather input from the group members and other key stakeholders. The consultant might facilitate a process so that the group together develops the logic model. Or, the consultant might produce a logic model, based on the input gathered, and then ask the group to react and discuss.

(Adapted from Taylor-Powell, E., Rossing, B. and Geran, J. (1998). *Evaluating collaboratives: Reaching the potential.* Madison, WI: University of Wisconsin-Extension, Cooperative Extension.)

Section 5

Creating a Logic Model

Over the next few pages, we will work through the process of creating a logic model for different purposes and in different ways. Because there is no one, or "correct" way, to create a logic model, we offer a variety of ideas that you can adapt to your own work. You may be creating a logic model for a small focused program, a comprehensive intitiative, a process such as a team or community group working together, an organization, or a single event or product.

The ideas on the following pages are organized according to whether you are designing a NEW intitiative or whether you are working with an EXISTING program or inititative, and whether you are engaging in logic modeling for the purpose of planning, evaluation, communications or program management. You may want to go back to Section 1 to review these purposes.*

We will cover creating logic models for:

1. A NEW program or initiative where your purpose is planning

    A. Starting at the End

    B. Starting with Existing Resources

2. An EXISTING program that you want to evaluate, communicate about or manage.

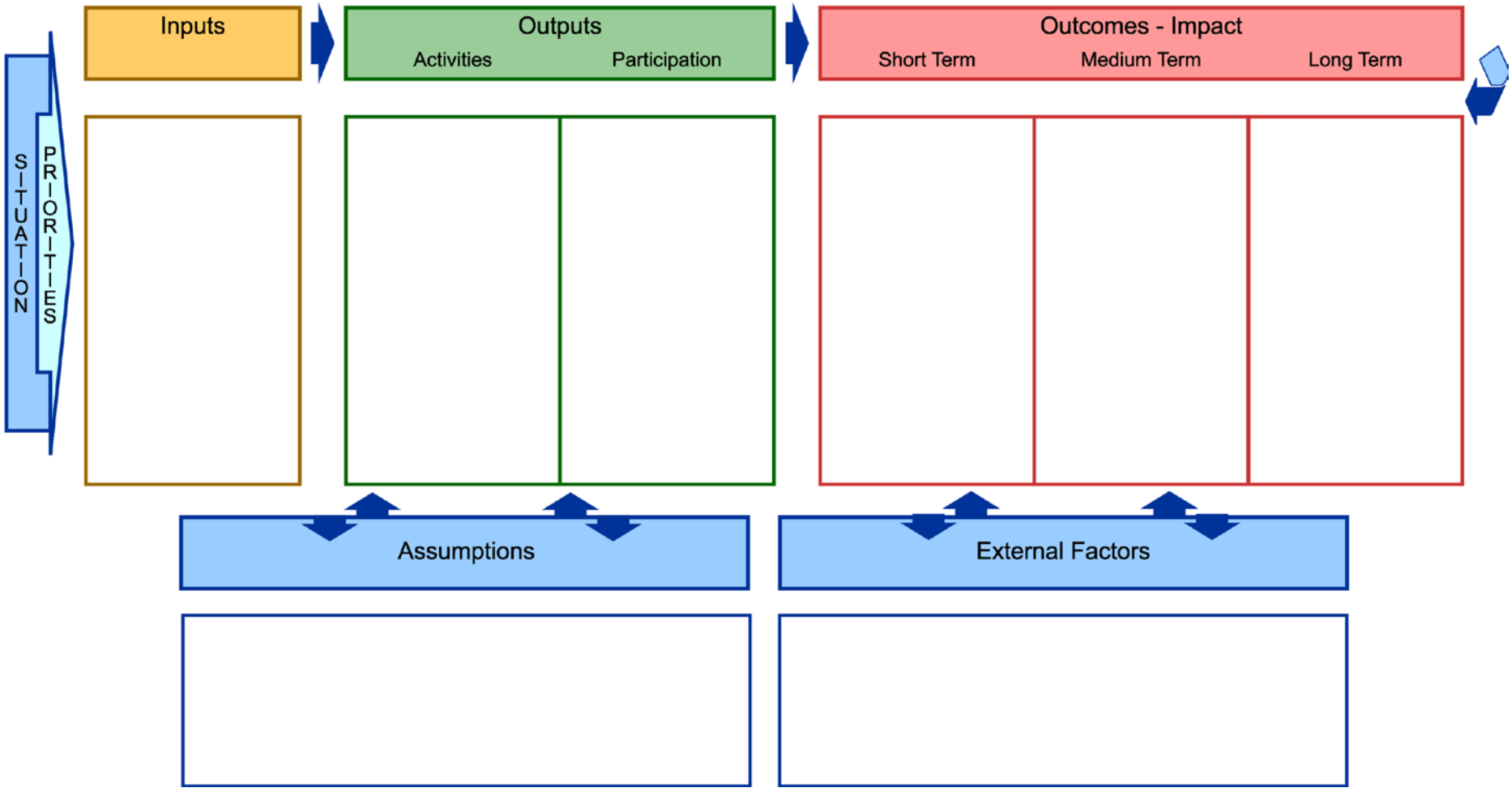
Print a copy of the Logic Model Worksheet as a guide for developing your own logic model.

***Note:** Use the **Outline** tab to navigate to the referenced course material and back. Before navigating to the referenced material, make a note of your current location (Module 1, Section 5, Page 5) so that you can return here when you are ready! For more information on using the **Outline**, refer to the course Help pages.

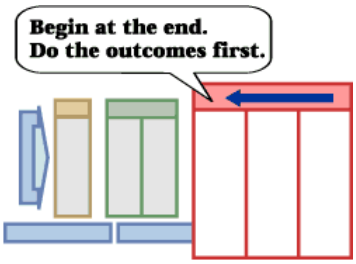
LOGIC MODEL WORKSHEET

Program title:

Situation Statement:



Creating a Logic Model for a NEW PROGRAM



PURPOSE: PLANNING

A. Starting at the End

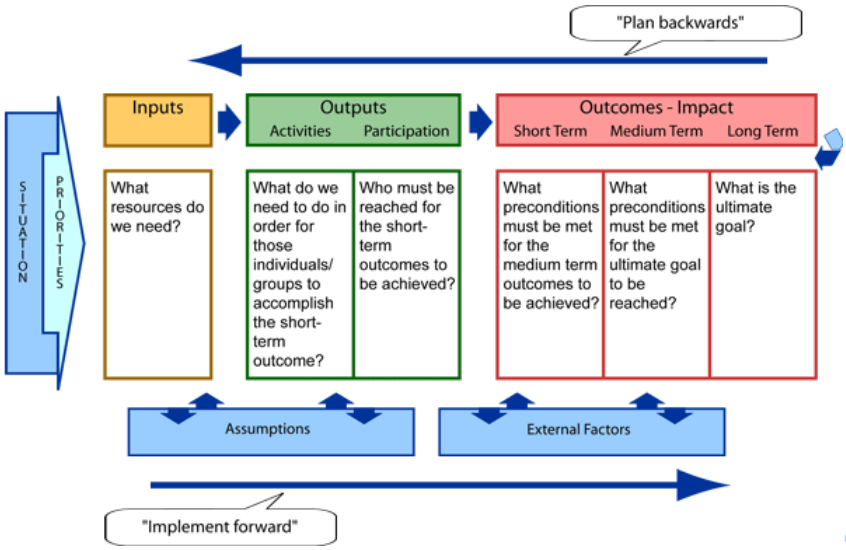
The following assumes you have completed the situational analysis and priority setting - the large blue arrow on left that initiates logic model development.

When planning, start where you want to end.

- Identify the long-term outcome(s).
- What is your end goal?
- What will be different?
- How will the community, producers, local citizens, the environment, be different as a result of the program?

Agree on a simple statement describing the ultimate, end result that you are hoping to achieve. This end result is the same as your goal. Spending time clarifying your long-term outcome, coming to consensus on what it will be, and making it specific, will save you time later. Review the material in Module 1, Section 2*, on defining outcomes, the outcome chain, and writing outcomes.

Once you have that long-term outcome (end result, goal) identified, then work backwards across the logic model.



A variety of approaches to creating a logic model:

Approach 1 Approach 2 Approach 3 Approach 4

Starting with the end in mind and working backwards opens up possibilities and helps us avoid being confined by existing resources. More typically we have started with existing resources.

* **Note:** Use the **Outline** tab to navigate to the referenced course material and back. Before navigating to the referenced material, make a note of your current location (Module 1, Section 5, Page 5) so that you can return to this place in the course when you are ready! For more information on using the **Outline** function, refer to the course Help pages.

Creating a Logic Model: Approach 1

Identify the long-term outcome(s) of interest. This often results from a visioning or strategic planning process. Then, work backwards across the model and ask:

1. What preconditions in the medium term must be met for the long-term outcome(s) to be achieved? You can also phrase the question, "What needs to exist as a precursor for the long-term outcome(s) to be achieved?"
2. Moving backwards ask what preconditions in the short term must be met in order to reach the medium-term outcomes? (These are your short-term outcomes.)
3. Who must be involved, reached, targeted, and/or a participant for the short-term outcomes to be achieved? Be specific about "who" (age, gender, defining characteristics).
4. What activities, products, events must be undertaken so that those specific individuals (or groups) will achieve the desired outcomes?
   Think about: How can these people be reached/engaged? How do they best learn? Cluster activities into strategies (activities that fit together conceptually) such as training, media work, coalition development, etc.
5. What resources are needed to conduct these activities, to reach those people, to effect those outcomes?
6. What assumptions have we made about…? What does research, experience, wisdom tell us?
7. What external factors outside our control may affect our theory of action?

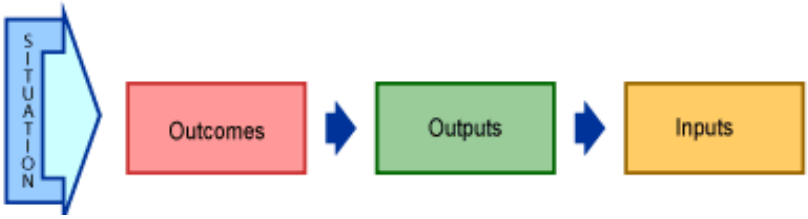
Creating a Logic Model: Approach 2

1. Identify the long-term outcome(s) of interest.
2. Move to the activities column. Often program staff and stakeholders have ideas about the **activities** they plan to undertake. This is often a comfortable place to start. Write down what you plan to "do" - what activities, services, product development the program will undertake. What is "the intervention?"
3. Next, complete the chain of connections that links the activities to the long-term outcome(s). Who needs to be reached/engaged? What leads to what? What is connected to what? Include as many items as are necessary to make the logical connections between activities and final result.
4. Now, identify the inputs you have and those you still need in order to achieve the pathway of change you've laid out.
5. List all assumptions.
6. List the external factors that may impede your expected theory of action.

Creating a Logic Model: Approach 3

1. Identify the long-term outcome(s) of interest.
2. Brainstorm all the things that have to happen to reach your long-term outcome(s). You might have someone record these as the group offers its ideas or each member can write down his/her own ideas on sticky notes.
3. Using a large work space, place these items in logical order: what precedes what; what is connected to what; what is a sequence of what? Check for gaps in the connections. Keep asking the question "**If** this, **then** will this occur?" Use any metaphor or creative process to capture the connections.
4. You may want to cluster activities into strategies (activities that fit together conceptually) such as training, media work, coalition development, etc.
5. Gather items that represent assumptions and environmental factors in a special place and see how they affect your model.
6. Identify resources needed to support the intended theory of action.

Creating a Logic Model: Approach 4

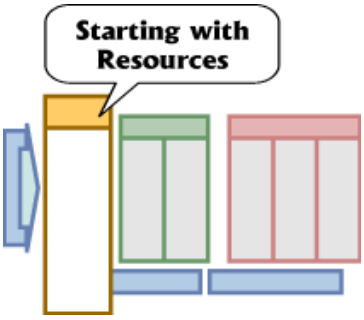


Some people reverse the order of the logic model so that "Outcomes" is the first label on the left after "Situation," followed by "Outputs," and, finally, "Inputs" is placed on the far right. This method may help people link directly from situation to expected long-term outcome and then subsequently to the necessary pre-conditions at each step.

Creating a Logic Model for a NEW PROGRAM

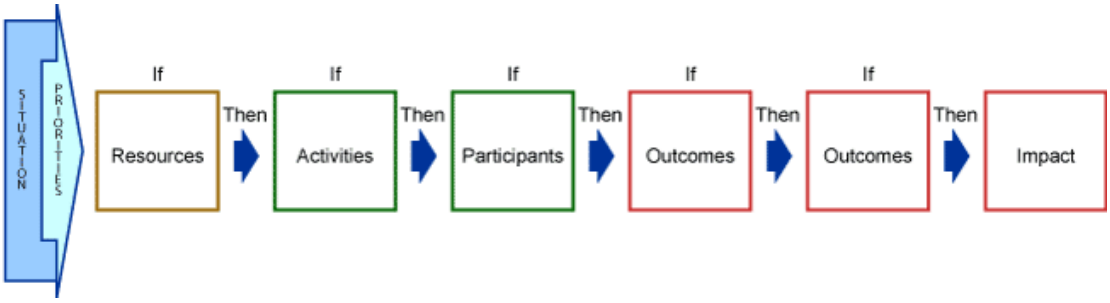
PURPOSE: PLANNING

B. Starting with Existing Resources

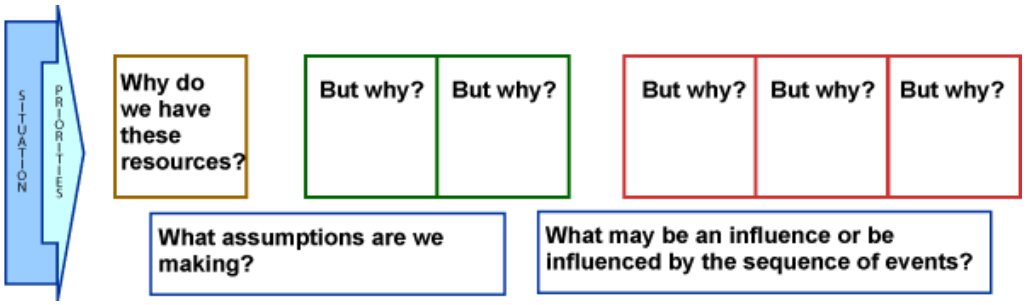


The following assumes you have completed the situational analysis and priority setting - the large blue arrow on left that initiates logic model development.

Sometimes we start with the resources we have and our knowledge base or an existing program that is ready to go (what we call an "on-the-shelf" program). This has been the more standard approach to planning. In this case, we start on the left side of the logic model with Inputs - the resources we have, or with Activities - the program that we have. Then we move to the right along the logic model using "if-then" statements. For example, **If** I use this curriculum on financial literacy for Native Americans, **then** I can target an underserved group in my county; **If** I target this population and advertise appropriately, **then** they will attend; If they attend, then they will…



You can also use the question "But, why?" For example: **But, why** do I advertise the workshop? So that people will attend. **But, why?** So that people will learn. **But, why?** So that people will be informed.



Answering the "why" questions in detail will help you create your logic model.

Consider alternate pathways and unintended, possible negative consequences.

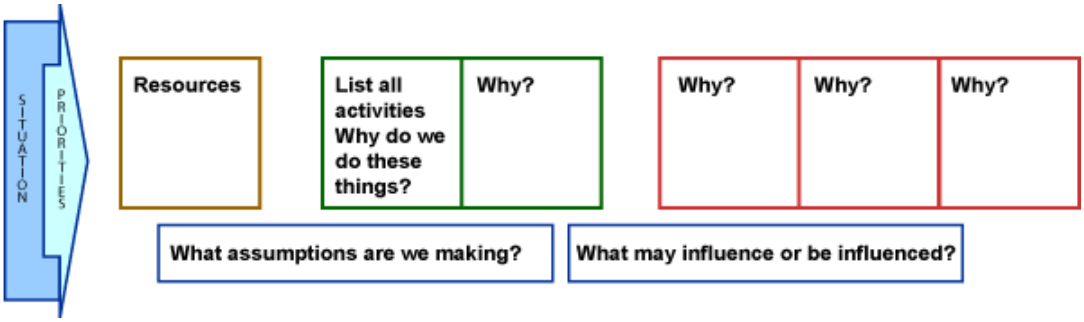
Creating a Logic Model for an EXISTING PROGRAM

PURPOSE: EVALUATION, MANAGEMENT, COMMUNICATIONS

Sometimes we are in the midst of a program when we want, or need, to create a logic model. Perhaps we want to communicate to others about our program, plan an evaluation (having forgotten to include an evaluation upfront when we were planning!!), or need to detail a management plan.

Some of the same approaches we previously discussed for planning also apply when we create logic models for evaluation, management and communications. We think about our program or initiative and usually start by asking: What is it that we do? What activities are we engaged in? Next we list all activities. Then we ask, "Why?" We continue asking "Why?" until the entire program and its logic are fully depicted and the logic model is complete.

Example:
Activity listed: Host Farmer Field Day
WHY? to disseminate latest research results to farmers in the county.
WHY? so farmers will know research.
WHY? so farmers will be able to see what research results might be appropriate to their farm.
WHY? so farmers can apply research that is appropriate for them.
WHY? so farmers can improve their operations.
WHY? so farmers are as profitable and sustainable as they can be.



Sometimes in the process of building a logic model for an existing program, we discover gaps in our logic, incomplete implementation, inadequate resources available, misunderstanding about the program among stakeholders, or dynamics from the external environment we hadn't considered. Engaging in logic model creation helps clarify and improve programs.

Section 5

Let's Practice! Draw Your Logic Model

Take some time now to practice what we've covered.

Create a logic model of a simple program.

You may use the worksheet you printed at the beginning of this section - our convention - but feel free to use your own design to represent your program logic.

- Based on what you've learned so far, think of a simple program you are working on or are planning.
- Using the worksheet or your own design, create a logic model for the program. Be sure to include all six components of logic models, and use lines and arrows to illustrate direct linkages between and among components.
- If you are working in a team or with a partner, spend some time working on this together.

Save this logic model for use in upcoming sections.

Section 5

Section Summary

This section illustrated various ways you can create a logic model. Remember - there is no one or correct way. We do recommend that if you are in a planning process, you consider starting with the end and working backwards. We hope you see how logic models can be used to improve your work.

- There is no one or right way to draw a logic model; experiment - find the process that works bests for you and your group.
- The recommended approach to planning a program is to "start" at the "end."
- A logic model is dynamic - change it as your program, the environment, or people change.
- Much of the value of a logic model is in the process of creating it, checking it, and modifying it. This process is an iterative one that involves stakeholders working together to clarify underlying assumptions, expectations, and the conditions under which success is most likely.

Section 6

How Good Is My Logic Model?

Section Overview

Listen to description of this section

Audio transcript

Section Goal

On completion of this section, you will know four criteria for assessing the quality of a logic model and common limitations of logic models.

More specifically you will:

1. Know that logic models need to be meaningful, plausible, doable, and testable.
2. Know some limitations of logic models.
3. Explore some common pitfalls encountered in creating and using logic models.

Section Outline

The section outline will help you track your progress through this section.

Printable outline

Outline with links to each page of this section

Audio Transcript

Welcome to section 6 "How good is my logic model?"

Now that you have learned what a logic model is and how to draw one, you will want to make sure that it is as good as it can be. By the end of this section you will be able to assess your logic model. You will be introduced to a number of qualities and characteristics that we think are important in ensuring that our logic models are credible and useful.

More specifically, you will know the four criteria for making sure your logic model is of high quality. These criteria include that it be meaningful, that is plausible, that it is doable, and that it is testable. You will also have a chance to think about some of the limitations of logic models and explore some of the common pitfalls that we are finding as we engage in creating and using logic models.

Again, spend a few minutes looking at the section outline to see what will be covered in this section. Get comfortable. We hope you find this section helpful.

Section 6 – How Good Is My Logic Model?

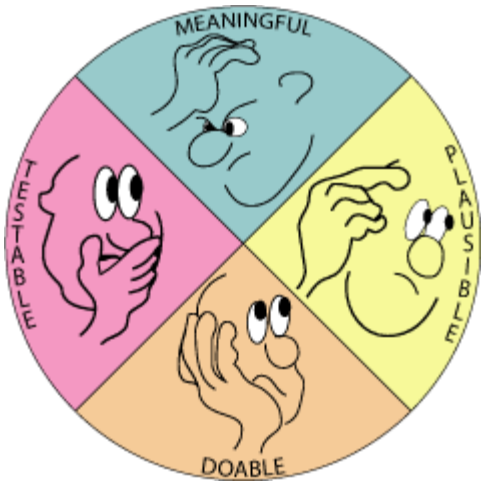
Print a copy of this outline to track your progress through this section.

Section 6

Standards of Quality

As you look at your logic model, we recommend four criteria to assess its quality and usefulness:

- Meaningful: it represents action that is valued and worth doing
- Plausible: it makes sense
- Doable: it can be carried out
- Testable: it can be verified



We will look at each of these criteria in turn.

To find out more about checking your logic models, explore some of the resources pertaining to this section.
Learn more…

Resources on evaluating logic models

Anderson, A. (2000). *Using theory of change in program planning and evaluation*. Aspen, CO: Aspen Institute. PowerPoint presentation at the annual meeting of the American Evaluation Association, Honolulu, HI.

Freddolino, P., et al. (1998). *It's a great idea but…: Barriers to the use of program logic models in the real world of program activities*. Okemos, MI: Michigan Public Health Institute.

Funnell, S. (2000). Developing and using a program theory matrix for program evaluation and performance monitoring. In P. Rogers, T. Hacsi, A. Petrosino, & T. Huebner (Eds.), Program Theory in Evaluation: Challenges and Opportunities, *New Directions for Evaluation*, 87, 91-101. San Francisco, CA: Jossey-Bass Publishers.

United Way of America. (1996). *Measuring program outcomes: A practical approach.* Arlington, VA: United Way of America.

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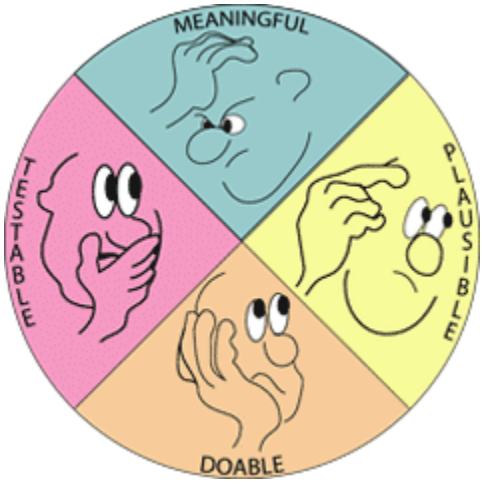
Section 6



Criteria 1
Meaningful: it represents action that is valued and worth doing

- Does the ultimate end outcome represent a meaningful benefit of value to the public? Does this outcome have inherent value? Can the outcome be associated with the program?
- Does the logic model represent the program's purpose? Does it depict an important response to the situation? Does it represent action that is really worth undertaking?
- Are all potential negative, unintended consequences or chains of events examined?
- Does the logic model communicate well?

Section 6

Criteria 2
Plausible: it makes sense

- Is there research, experience, evidence to suggest that the activities will reach/engage the intended participants and will lead to the short-term outcomes and that they, in turn, are connected to the intermediate and long-term outcomes?

- Is each listed outcome truly an "outcome"? Does the logic model clearly separate outcomes from outputs? Are all important outcomes included?

- Is the model truly logical? Do the relationships among the program elements make sense? Are there any missing steps or gaps in logic? Are all the casual relationships supported?


There are three ways to check…

- What about your assumptions? For every planned action and linkage in the logic model, identify and ask yourself, "Why do I think this is true?"

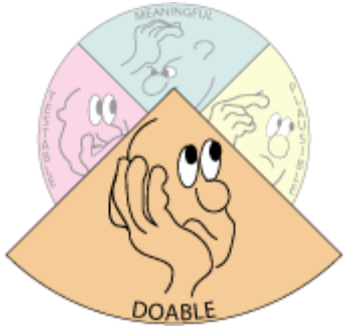
- What about external factors?

Three ways to check your logic model:

- Starting at inputs, at each level ask, "Why?": Why do we need these inputs? Why do we need to conduct these activities?
- Starting at the long-term outcome and working backward, you should find the answer to "How?" in the immediately preceding information. The question "How are we going to produce these outcomes?" should be answered by looking at the immediately preceding items.
- Sometimes components are necessary but not sufficient. Ask yourself, "What else?" For example, achieving healthy one-year-old babies requires not only achieving a healthy birth but also achieving proper care during the baby's first year. Asking '"What else?" helps spot gaps in logic.

Section 6

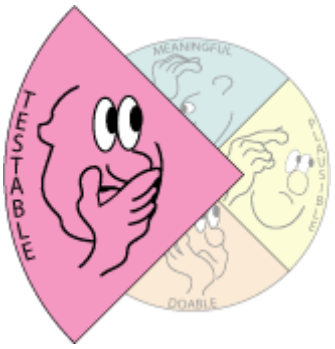
Criteria 3
Doable: it can be carried out



- Are there human, financial, political, technical, and institutional resources on hand to carry out the initiative?
- Do you have all the resources you need? Can you get the needed resources?
- Are the resources realistic? Is what you intend to do even possible given your resources?
- Have you identified the external factors that are likely to affect implementation? Can any be brought within your control by the addition of other activities?
- Does the logic model reflect the opinions and support of key stakeholders? Were any stakeholders left out?

Section 6

Criteria 4
Testable: it can be verified



- Is the logic model clear, specific, and complete enough for you (or an external evaluator) to track progress that will be useful and credible?

- How will you know if the planned action leads to the projected outcomes?

Evaluation measures and methods are discussed in Section 7.

Section 6

Let's Practice! Logic Model Review Exercise

Assess the logic model that you created in the previous section.

Use this checklist to review how good it is:

Logic Model Quality Criteria Checklist
Print this and keep for future use.

LOGIC MODEL QUALITY CRITERIA CHECKLIST

QUALITY CRITERIA	LOW 1	2	3	4	HIGH 5	COMMENTS
Is the logic model **meaningful**? • Outcome a meaningful benefit? • Program purpose represented? • Potential negative effects examined? • Communicates well?	1	2	3	4	5	
Is it **plausible**? • Research based? • All outcomes included? • Relationships make sense? • Assumptions and external factors identified?	1	2	3	4	5	
Is it **doable**? • Resources available, realistic? • Control of external factors? • Stakeholders involved?	1	2	3	4	5	
Is it **testable**? • Clear, specific and complete? • How will you know?	1	2	3	4	5	

Section 6

Common Pitfalls in Creating and Using Logic Models

- People may get hung up on the language
- People may work in columns and forget the connections
- People may confuse it for evaluation
- People may see it as an academic exercise
- People may complain that it is linear
- People may struggle with the level of detail
- People may not narrow the function/purpose
- People may view it as a panacea
- People may only want a paper product

Common pitfalls in creating and using logic models

People may get hung up on the language

People can be averse to the terms used--inputs-outputs-outcomes--and focus too much on the terminology. We find value in having a common language (and terms that have meaning across organizations and regions) even though it may take time for all to appreciate and understand the terminology.

People may work in columns and forget the connections

Understanding and distinguishing inputs, outputs, outcomes, and impacts is fundamental to logic modeling. Logic models are often lists of items within columns or "bins." To design, implement, and test a program's theory of action, however, it is necessary to depict all the linkages and relationships including those with the external environment. Herein lies the opportunity for improving program practice and generating new knowledge about what works and what doesn't under different circumstances.

People may confuse it for evaluation

Because the logic model has been and is being used extensively by evaluators, it has been erroneously called an "evaluation model." It may be thought of only when evaluation is undertaken. We find it equally useful for program planning and management.

People may see it as an academic exercise

When logic models are mandated or are required without adequate preparation and participation, they can become paper work and just an "academic exercise."

People may complain that it is linear

The common graphical depiction of logic models as boxes and arrows on a two-dimensional surface leads to complaints of linearity and irrelevance. This aspect can be an obstacle for some individuals and groups, so effort is needed to create representations that are meaningful and culturally relevant.

People may struggle with the level of detail

The level of detail that is depicted in a logic model needs to conform to what it is to be used for and by whom. A logic model that is dense with words and lines may be difficult to understand. We want to strive for simplicity but don't want to oversimplify.

People may not narrow the function/purpose

Often, we try to make a single logic model be "all things." Being clear about the purpose and function of the logic model--who will use it and for what--will help improve its usefulness.

People may view it as a panacea

As we rush to find ways to better account for investments and improve programming, we have the tendency to think the latest "bandwagon" will be a panacea. Logic models are only a framework, a way of thinking, a process to help with planning, implementing, and evaluating.

People may only want a paper product

When we focus too much on just the concrete paper product, we can lose sight of the value of the process--that creating and modifying logic models builds understanding, consensus, and knowledge and opens our eyes to new possibilities.

Limitations of Logic Models

Listen to description of the limitations of logic models

Audio transcript

- A logic model only represents reality; it is not reality.
    - Programs are not linear.
    - Programs are dynamic interrelationships that rarely follow sequential order.
- A logic model focuses on expected outcomes. We also need to pay attention to unintended or unexpected outcomes: positive, negative, or neutral.
- A logic model faces the challenge of causal attribution.
    - A logic model depicts assumed causal connections, not direct cause-effect relationships. It does not "prove" that the program caused the effect. These are working assumptions, not "truth."
    - The program is likely to be just one of many factors influencing outcomes.
    - Other factors that may be affecting observed outcomes must be considered.
- A logic model doesn't address the questions: "Are we doing the right thing?" "Should we do this program?"

Audio Transcript

We have spent a lot of time learning about logic models and understanding their use and their value. Unfortunately, as with everything, logic models do have limitations. Let's not think of them as a panacea or a cookie cutter to apply wholesale.

First, remember, as we've said before, a logic models is just that - a model. It is an attempt to represent reality - it is not reality. It's representation will only be as good as our understanding of the situation, the environment, the theory we are expressing, and our assumptions. Programs rarely are neat and orderly. The unexpected often happens. A logic model does give us a road map. It does help us articulate assumed causal linkages. It does help build consensus about what our program is and what our program can accomplish. It does help identify what and when to evaluate.

Second, as you've seen, the logic model focuses on expected outcomes. We have talked about this throughout the course. But what about the unexpected or unintended outcomes that often occur; either positive, negative or neutral. To the extent possible, we encourage you to think about alternative pathways of change; alternative outcomes that may occur and keep your eyes and ears open for the unintended and unexpected.

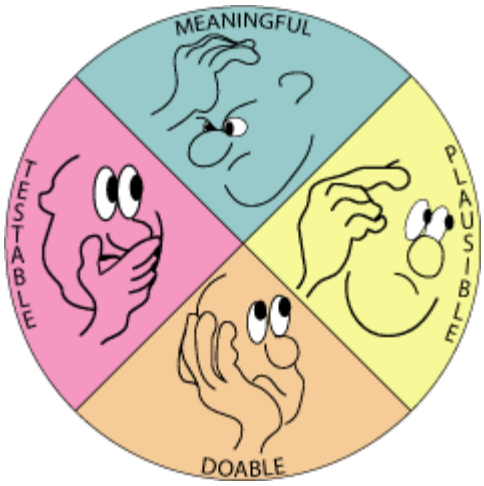
The third limitation that we want to mention is the challenge of causal attribution. A logic model depicts assumed causal connections and associations; the reasoning behind a program; not direct cause -effect relationships. The emphasis is on "reasonable, not definitive conclusions or absolute proof" in the words of Michael Patton in his book, Utilization-Focused Evaluation (1997:217). Some colleagues, researchers and academics may find this uncomfortable, but we work in the context of real programs. What actually is attributed to an effect will vary. There are likely to be many factors that influence observed outcomes.

Finally, and perhaps, most importantly, we always want to ask: are we doing the right thing? We can spend time and effort creating a logic model, but is the program the right thing to be doing? Is it worth doing? A logic model does not answer the question: Are we doing the right thing?

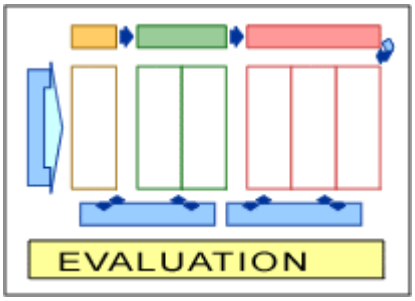
Section 6

Section Summary

- Always check your logic model against the following quality criteria:
  - Is it meaningful?
  - Is it plausible?
  - Is it doable?
  - Is it testable?
- Involve others in this review as appropriate.
- Logic models are not a cure-all. There are a number of pitfalls we need to pay attention to and some limitations. In particular, remember a logic model is only a "model"--it is not reality.



Section 7: Using Logic Models in Evaluation - Indicators and Measures



Section Overview

Listen to description of this section

Audio transcript

Section Goal

On completion of this section, you will see how the logic model helps in evaluation.

More specifically you will:

1. See how the logic model helps determine what you will evaluate - the focus of your evaluation.
2. See how the logic model helps you determine meaningful and useful evaluation **questions** - know **what** to measure.
3. Understand **indicators** and know what information best answers your evaluation questions.
4. Be able to identify appropriate **timing** for data collection.

Section Outline

The section outline will help you track your progress through this section.

Printable outline

Outline with links to each page of this section

Audio Transcript

Welcome to Module 7. And, CONGRATULATIONS ! for working your way through this entire course. We are finally at the last section in Module 1.

Upon completion of this section, you will better understand how the logic model helps in evaluation. Many of you may have come to this course because you want to improve your evaluation practice or need to measure outcomes. In this section you will see how the logic model helps with several key aspects of evaluation: determining what to evaluate; identifying appropriate questions for the evaluation; selecting indicators; knowing when to collect data; and what data collection methods might be most appropriate.

Section 7 presents the logic model as fundamental for these aspects of evaluation planning: two other parts of evaluation planning -- data analysis and interpretation, and use of results -- are not covered here. They are part of a comprehensive evaluation plan. We will direct you to a variety of other resources for help with those aspects of evaluation.

Please realize that this section is not an evaluation primer. Its purpose is to show how the logic model can facilitate more effective and efficient evaluation. You will be directed to other resources that address the technical aspects of measurement, instrument construction. This section covers evaluation issues that the logic model can help you with. It does not cover the many technical aspects of evaluation - measurement, instrument construction, sampling design, etc. For those, many other sources exist and will be referenced.

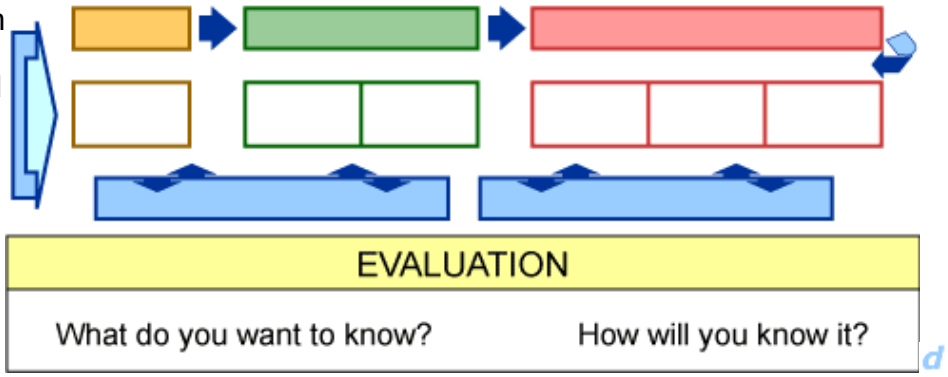
Section 7
Using Logic Models in Evaluation: Indicators and Measures

Print a copy of this outline to track your progress through this section.

Where Does Evaluation Fit in a Logic Model?

The logic model describes your program or initiative: what it is expected to achieve and how. Evaluation helps you know how well that program or initiative actually works. "What worked, what didn't, why?" "How can we make it better?"

Think about evaluation as integrated across your whole logic model as depicted in this graphic.



For our purposes we define **evaluation** as:

> The systematic collection of information to make judgements, improve program effectiveness and/or generate knowledge to inform decisions about future programs. (Patton, 1997)

Learn more...

- View the glossary listing of common evaluation terms at the end of this document
- Selected references on evaluation
- About Evaluation Standards

Selected Program Evaluation References

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Evaluation Standards

We can't omit the Evaluation Standards. These represent the agreed upon criteria for shaping and assessing our evaluation practice.

"A standard is a principle mutually agreed by people engaged in a professional practice, that, if met, will enhance the quality and fairness of that professional practice, for example, evaluation."

--- Joint Committee on Education Evaluation

These standards provide guidance for the conduct of practical evaluation that is sound and fair. They are to be applied while planning and implementing an evaluation, as well as to assess the quality of a completed evaluation. The standards fall into four major categories:

- **Utility:** Serve the information needs of intended users.
- **Feasibility:** Be realistic, prudent, diplomatic, and frugal.
- **Propriety:** Act legally, ethically, and with regard for the welfare of those involved and those affected.
- **Accuracy:** Reveal and convey technically accurate information.

Please review and use the full list of standards as you plan and implement evaluation:

Joint Committee on Standards for Educational Evaluation
http://www.wmich.edu/evalctr/jc/

(For an abbreviated version see
"Ways to Improve the Quality of Your Program Evaluations, Quick Tips 9"
http://www.uwex.edu/ces/pdande/resources/pdf/Tipsheet9.pdf)

Section 7

How Do Logic Models Help in Evaluation?

Perhaps you are wondering:
"Why spend so much time on logic models when all I need to do is… evaluate?" "…measure outcomes and tell my story."

First: Expending evaluation resources on a poorly designed program is a poor use of resources. "You can't do 'good' evaluation if you have a poorly planned program." (Beverly Anderson Parsons in WKKF, 2001, p. 4) Logic models can help improve program design so that evaluation is more useful and effective.

Second: Expending evaluation resources on programs that are not ready to be evaluated or aren't being implemented is also a waste of resources. Logic models can help determine if a program is ready, what data will be useful and when data collection is most timely.

Third: In order to organize an evaluation to reasonably test the program theory, you need a clear depiction of the theoretical base. (Weiss, 1998) A logic model provides that description.

More specifically logic models help with:

① **Focus** determine what to evaluate			
② **Questions**	③ **Indicators**	④ **Timing**	⑤ **Data Collection**
determine appropriate questions for your evaluation	know what information to collect to answer those questions	know when to collect data	determine data collection – sources, methods sample, instrumentation

The rest of this section will explore these five areas in more detail. They are key aspects of a comprehensive evaluation plan.

Print the "Evaluation Plan Worksheet" and use Page 1 as a guide as you proceed through this section.

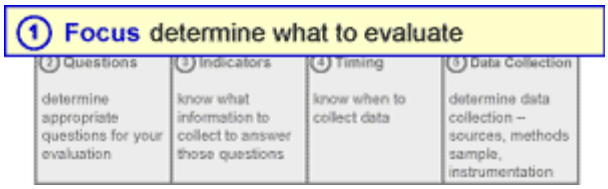
EVALUATION PLAN WORKSHEET

1. FOCUS What will we evaluate (which program or aspect of a program)?						
2. QUESTIONS What do you want to know?	**3. INDICATORS-EVIDENCE** How will we know it?	**4. TIMING** When should we collect data?	**5. DATA COLLECTION**			
			SOURCES Who will have this information?	**METHODS** How will we gather the information?	**SAMPLE** Who will we question?	**INSTRUMENTS** What tools shall we use?
1.	**1. a** **b** **c**					
2.	**2. a** **b**					
3.	**3. a** **b** **c**					
4.	**4. a** **b**					
5.	**c**					

6. How will the data be analyzed?	7. How will the data be interpreted?	8. How will the results be communicated?	
		To Whom	When? Where? How?

Section 7

What to Evaluate? - The Focus

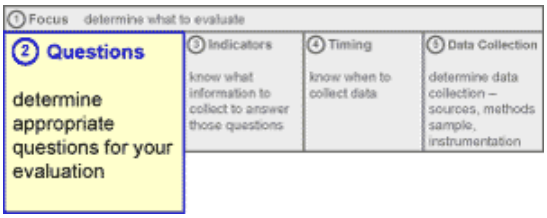


The logic model describes the program. One of the greatest benefits of the logic model is that it clarifies what the program is. Understanding what the program is, is the first step in any evaluation.

What, in particular, do you want to evaluate? Is the focus of the evaluation the whole program or a component of the program? Perhaps you want to focus on the media campaign of your outreach program or one particular target group.

Programs are often complex. You may not have the resources or the need to examine everything. Use the logic model to select the particular aspect, depth, component, or parts you will evaluate.

What Will the Evaluation Seek to Answer?
- The Questions



Evaluation is about asking questions (good, critical questions to help us learn and be accountable). Identifying "good" questions is an important aspect of creating useful evaluations.

What is important to measure? What will you spend time and resources on?

- You can't and won't measure everything. Answering a few questions well is better than answering many questions poorly
- Often an evaluation takes on a life of its own. We think we need more and more data. We need to keep the evaluation focused and as simple as possible. Otherwise, we run the risk of trying to do too much and end up with not very useful information or with many confounding variables.
- What we decide to measure depends on time, money, and expertise.
- What we decide to measure depends on who will use the results and for what purpose.

Remember that evaluation must fit the program and its stage of development. For example:

- It may be inappropriate to measure behavioral change when the program only consists of a single workshop or limited media effort; or to measure nutrition practices of the elderly when your program only reached seniors living in one apartment complex.
- It may be inappropriate to measure social norm change in the first year of a multiyear effort.

Because these issues are a critical part of evaluation, we will discuss them in greater detail in the following pages.

Learn more about...

- Use and Users
- Who wants to know what

Use and Users

All evaluation begins with questions raised by persons or groups.

- Who are these users, and what do they want to know?
- Who might be interested in the evaluation?

It is best to involve potential evaluation users in the construction of the logic model. This group exercise builds commitment and consensus. Those same and/or other stakeholders help shape the evaluation.

Think about:

- Who cares about the program?
- What do they care about?
- What questions are they asking about the program?
- Who are the supporters and the skeptics?

Who are some of the possible users?

Check our suggested answers:

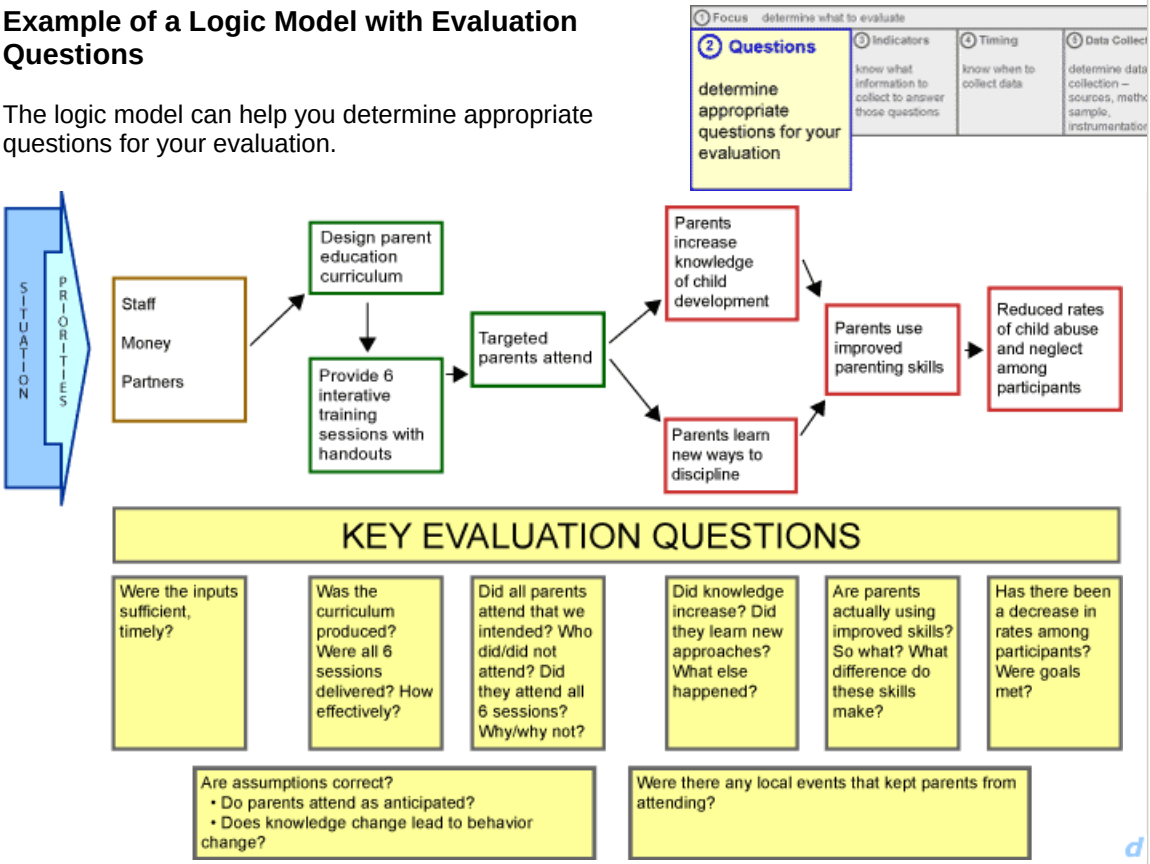
- People affected in some way by the program (either directly or indirectly) such as program participants, nonparticipants, critics
- Program staff
- Administrators
- Fund providers
- Elected and appointed officials
- Board members
- Community residents
- Colleagues
- Volunteers
- Collaborators, partners
- Media·
- Agencies, associations, foundations
- Businesses, companies

Who Wants to Know What? How Will the Information Be Used?

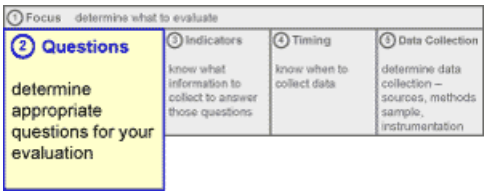
Who might use the evaluation?	**What** do they want to know?	**How** will they use the results?
Program staff	To what extent are we, the program staff, reaching the individuals we targeted? To what extent and in what ways is the program making a difference?	To report to fund providers To change the strategy if it isn't working
Participants	How are we, the participants, benefiting? How am I, an individual participant, doing compared to others?	To decide about continued participation To share with others/tell others about the program
Public officials	Is the program achieving its goals? Who are the partners? Who is the program serving? Is it worth the cost?	To decide about support To inform policy decision making and receive knowledge about what works and doesn't work
Partners	Are participants making the expected changes? Why? Why not? Are they satisfied? What are we, the partners, getting out of this? Are all partners carrying out their role?	To decide if and how to continue the partnership
Fund providers	Are program staff doing what they said they'd do? Is the program worth the cost?	To determine funding allocation decisions To inform future grant-making efforts

Example of a Logic Model with Evaluation Questions

The logic model can help you determine appropriate questions for your evaluation.



Common Categories of Evaluation Questions

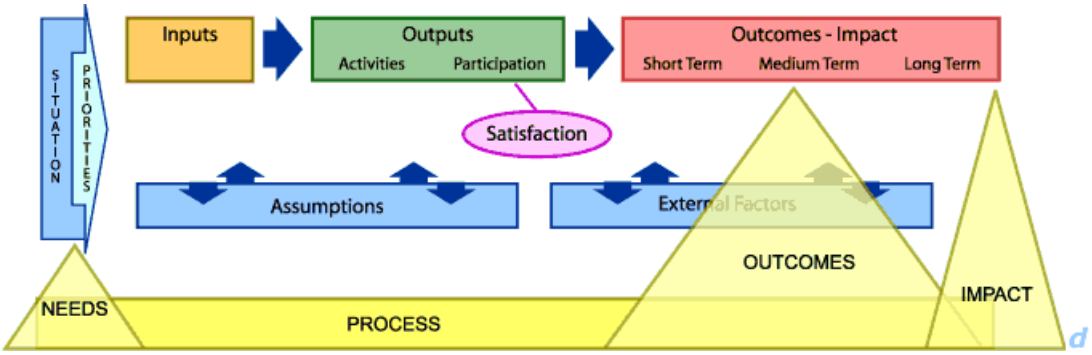


Most questions raised about programs are questions about:
needs, process, outcomes or impact.

View possible questions in each category:

Needs Process Outcomes Impact

This graphic shows how these questions fit with the logic model:



Learn more about...

- Four major types of evaluation - needs assessment, process evaluation, outcome evaluation and impact evaluation; and the role of "satisfaction"
- Formative and summative evaluation questions

Questions about needs

- Who has what need(s)?
- What is the level of concern/interest--among whom?
- What currently exists to address the identified need(s)?·
- What changes do people see as possible or important?
- What does research/experience say about the need(s)?
- Is there sufficient political support for addressing the need?
- How did the need(s) get identified--whose voices were heard? Whose weren't?
- What assumptions are we making?

Questions about process

- What does the program actually consist of? How effective is the program design?
- Whom are we reaching? How does that compare to whom we targeted?
- Who participates in what activities? Who doesn't? Does everyone have equal access?
- What teaching/learning strategies are used? What seems to work--for whom?
- How effective are the staff?
- How is the program operating? What internal programmatic or organizational factors are affecting program performance?
- What resources are invested? Are resources sufficient/adequate?
- How many volunteers are involved? What do they do? Strengths? Weaknesses?
- Which activities/methods are more effective for which participants?
- How much does the program cost per unit of service?
- To what extent are participants, community members, volunteers, partners, donors satisfied?·
- To what extent is the program being implemented as planned? Why? Why not?
- Are our assumptions about program process correct?
- What external factors are affecting the way the program is operating?

Questions about outcomes

- What difference does the program make?
- To what extent was the program successful, in what ways, for whom?
- Who benefits and how?
- What learning, action, and/or conditions have changed/improved as a result of the program? At what cost?
- Did we accomplish what we promised? What didn't we accomplish?
- What, if any, are unintended or negative consequences?
- What did we learn?

Questions about impact

- What difference does the program make?
- Who benefits and how?
- What learning, action, and/or conditions have changed/improved as a result of the program? At what cost?
- Did we accomplish what we promised? What didn't we accomplish?
- What, if any, are unintended or negative consequences?
- What did we learn?
- What is the net impact?

Four Major Types of Evaluation

The questions on the preceding page also relate to the four major types of evaluation:

1. **Needs assessment**
   A type of evaluation that determines what is essential for existence or performance (needs versus wants) and to help set priorities (e.g., is more money needed to support day care).
2. **Process evaluation**
   A type of evaluation that examines what goes on while a program is in progress. The evaluation assesses what the program is, how it is working, whom it is reaching and how (e.g., are participants attending as anticipated).
3. **Outcome evaluation**
   A type of evaluation to determine what results from a program and its consequences for people (e.g., increased knowledge; changes in attitudes, behavior, etc.)
4. **Impact evaluation**
   A type of evaluation that determines the net causal effects of the program beyond its immediate results. Impact evaluation often involves a comparison of what appeared after the program with what would have appeared without the program (e.g., mortality rates).

What about participant/customer/client **satisfaction?**

As you notice in the graphic on the preceding screen, **satisfaction** falls within the outputs component of our logic model. In contrast, within Total Quality Management (TQM), customer or client satisfaction is the apex of performance.

In theories of change, client satisfaction may be necessary, but it is not sufficient for outcomes to occur. For example, a participant may be satisfied with the program and express positive reactions such as "I liked the program," "It fit my needs," "I will come again." But, such satisfaction does not mean that the person learned anything or can do anything differently, or that life has improved for the person as a result of the program.

Satisfaction may indicate that a person is likely to fully participate in and complete a program. The learning environment can be an important factor contributing to changes in knowledge, attitudes, motivation, etc. Satisfaction, however, does not measure the results achieved.

Formative and Summative Questions

As we learned earlier in this section, a program can be evaluated at any time. Questions that can be asked in a program's life cycle fall into formative and summative categories. **Formative** and **summative** are common words in evaluation.

Formative Questions

Formative questions are asked during the program--while the program is operating. They may be asked on an ongoing basis or at periodic times over the course of the program's life. The questions are usually asked for the purpose of program improvement--to receive immediate feedback and input in order to know how things are going and what improvements--corrections and/or additions--might be needed.

Examples of formative evaluation questions

- To what extent are the parents that we targeted for this program attending? Are they completing the program?
- Are all youth participating in all sessions? If not, why not?
- Are the mentors spending the expected amount of time with the students?
- Do people appear to be learning?
- What seems to be working, not working? For whom? Why?

Summative Questions

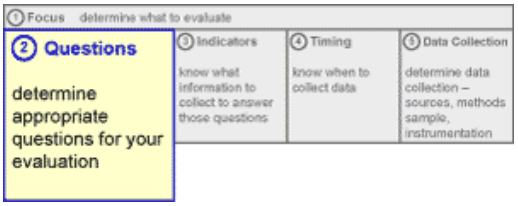
Summative questions ask about what resulted, what was effective. These questions are asked at or after completion of the program (or a phase of the program). They are asked largely for the purpose of deciding whether to continue, extend, or terminate a program.

Examples of summative evaluation questions

- To what extent did communication problems decline as a result of the cross-cultural training program?
- Do participants shop differently as a result of their participation in the program? How?
- Given the results, was the program worth the costs?

Formative and summative are not synonymous with process and outcome. **Formative** and **process** occur during the program's early stages and focus on improving the program; **summative** and **outcome** focus on what happens to participants/community/environment at the conclusion of the program or program phase. However, **formative** and **summative** relate to **intentions**--to collect data for ongoing program improvement or for decisions about program continuation or termination. **Process** and **outcomes** refer to the **phase of the program** being studied. You might ask formative or summative questions at any phase of a program's development cycle.

Clarifying the Evaluation Question(s)



As you think about the questions that your evaluation will answer, you may need to break larger questions into subquestions. The point is to be as clear as possible about what you REALLY want to know so that you can better collect the information needed.

We often see evaluation questions that are broad and vague. When asked, these questions yield broad and vague responses that are difficult to interpret and of little use for program decision making. It is worth your time and effort NOW to bring clarity to your evaluation question(s).

Let's consider "Get Checking" - a program aimed at high school students who lack basic financial literacy (budgeting, saving, borrowing and investing) with an emphasis on increasing skill in money management using a savings and checking account. An example of a broad evaluation question might be: **Did teens benefit from attending the "Get Checking" program?** What might be some possible sub-questions that would provide more focus to this question? What might you really want to know?

Take a few minutes and write some possible "sub-questions" here:

View some suggested sub-questions

If desired, print this page (by pressing **Ctrl** and **P)**.

In the end, your evaluation may not actually include or cover all the sub-questions, but having thought about them, you can prioritize your information needs.

Are the Questions Appropriate?

- Can the questions be answered given the program?
- Are the questions key, of high priority, practical?
- Are the questions understandable?

Broad Question: Did teens benefit from attending the "Get Checking" program?

Possible Sub-Questions:

- To what extent did participating teens increase their knowledge about how to open and manage a savings and checking account?
- How many participating teens actually opened an account at a participating financial institution?
- Which participating teens showed greater change in knowledge and behavior?
- Did teens who started the program complete the program?
- Did participating teens benefit in other ways?
- Did anything negative or unexpected result for participants or program staff or others?

Can the questions be answered given the program?

To determine what questions are appropriate based on the program is one of the main reasons for doing a logic model. By describing **what** the program **is,** the logic model helps determine what is appropriate to evaluate. For example, it may be inappropriate to ask if smokers in the county quit smoking when the program was focused only on building awareness and knowledge of local tobacco policies. Or, it would be inappropriate to survey all business owners about changes resulting from a program when the program was targeted to businesses employing fifty or fewer individuals.

Are the questions key, of high priority, practical?

As we've said before, you can't and don't need to evaluate everything. In most cases, it will be necessary to prioritize the evaluation questions. Try to distinguish between what you **need** to know and what might merely be **nice** to know. What are the key, most important questions?

Consider time, resources, and the availability of assistance needed to answer the questions. As appropriate, bring stakeholders together and negotiate a practical set of questions. Remember, it is better to answer a few questions thoroughly and well.

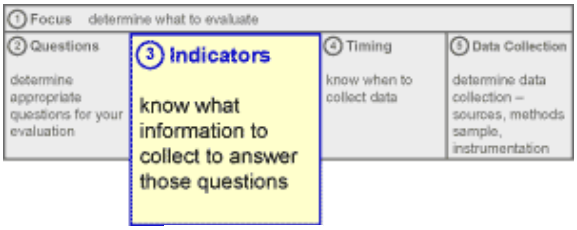
Given the current interest in and demand for outcomes, often our evaluation questions focus on outcomes. Remember, however, that to attribute your program or your role to outcomes you also need to ask questions about the process that contributed to those outcomes.

Are the questions understandable?

Finally, ensure that your evaluation question(s) are understandable. Avoid the use of jargon or vague words that can have multiple meaning. Always define key terms so that everyone understands the meaning.

Section 7

How Will You Know It? - The Indicators



An indicator is...
...the evidence or information
...that represents the phenomenon you are asking about.

For example:

Indicator of fire = smoke

Indicator of academic achievement = good grades

Indicators help you know something. They define the data that will be collected. They can be seen (observed), heard (participant response), read (agency records), felt (climate of meeting), touched, or smelled. It is the **evidence** that **indicates** what you wish to know--that answers your questions.

For each aspect you want to measure, ask yourself these questions. Invite others to provide their perspectives.

- What would it look like?
- How would we know it?
- If I were a visitor, what would I see, hear, read that would tell me this "thing" exists;
  what would answer my question?

Let's Practice!

What is an indicator of…	View possible answer:
high blood pressure?	?
crop stress due to drought?	?
a clean neighborhood?	?
a popular movie?	?
good appliances for the home?	?
a good carpenter?	?

Possible indicator of high blood pressure:

blood pressure reading greater than 140 over 90

Possible indicator of crop stress due to drought:

curled leaves

Possible indicator of a clean neighborhood:

absence of litter on streets

Possible indicator of a popular movie:

high box office receipts

Possible indicator of good appliances for the home:

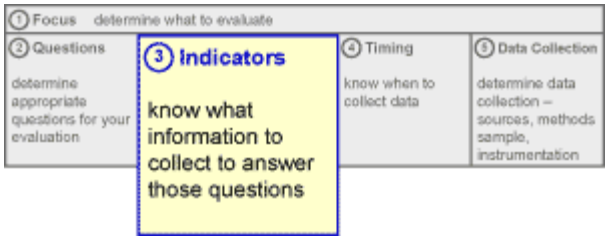
good consumer report

Possible indicator of a good carpenter:

quality craftmanship

Section 7

Logic Models and Indicators

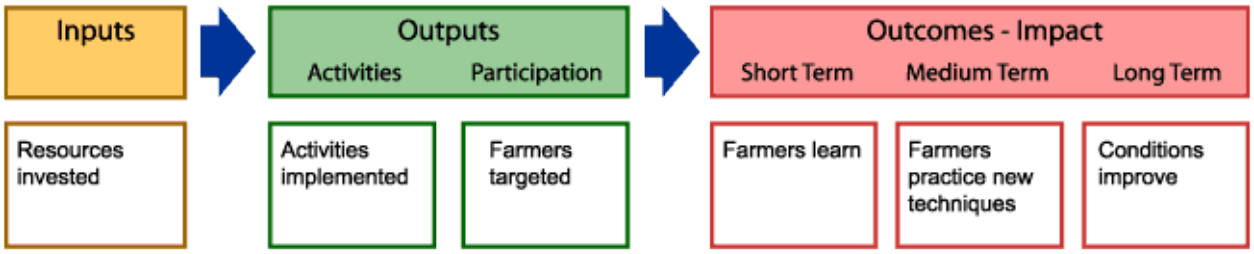


Sample Logic Models Showing Indicators

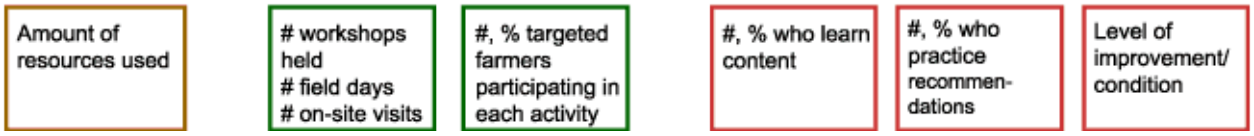
Farmer education program

Parent education program

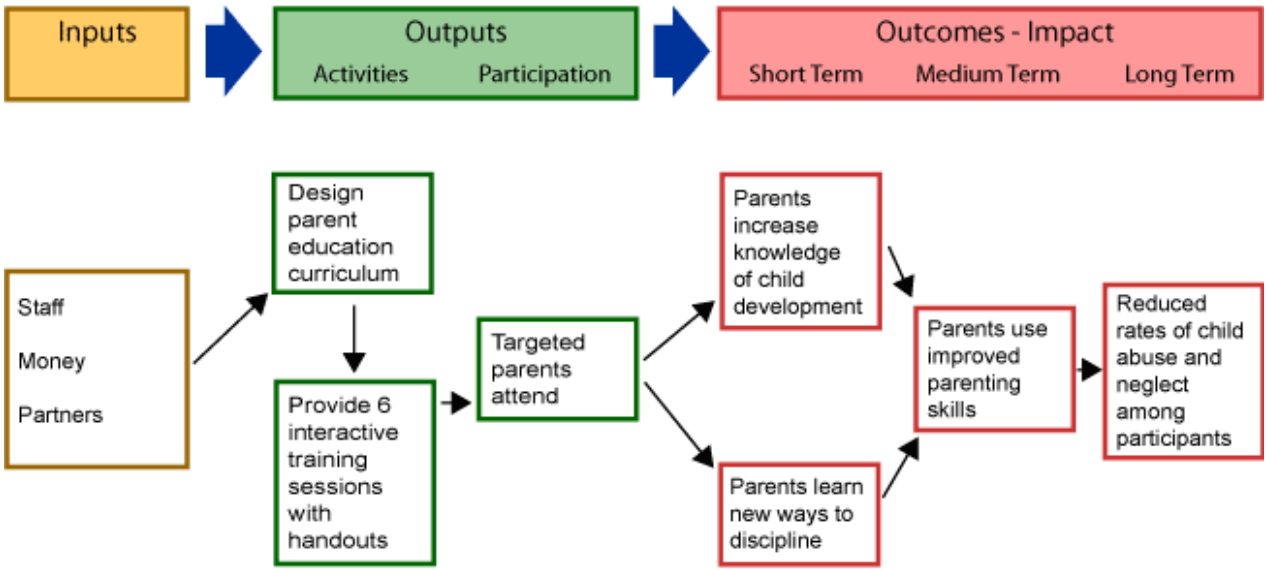
Farmer education program



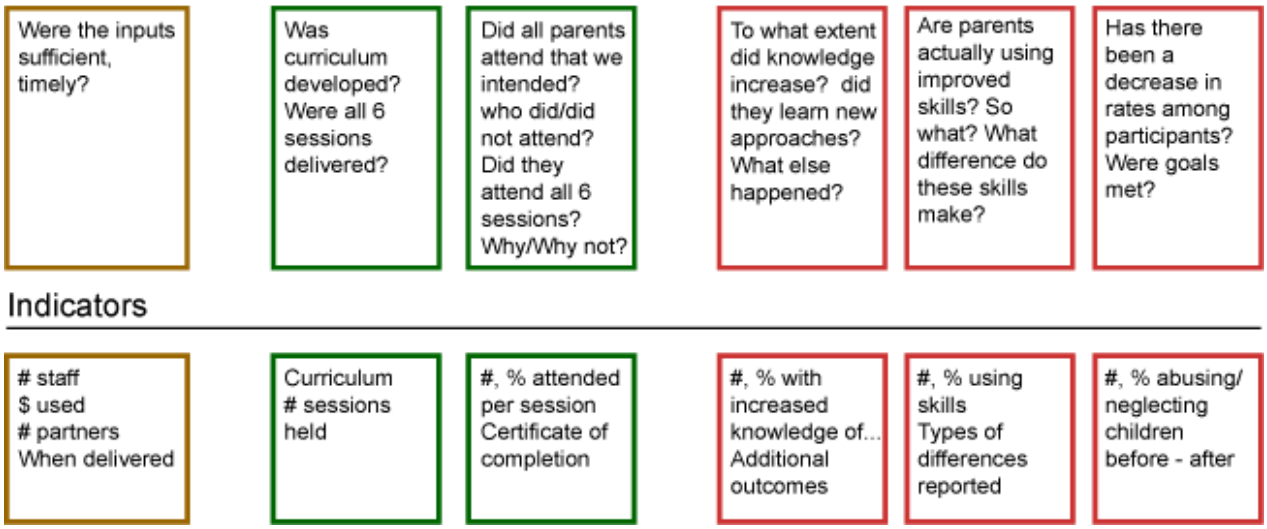
Indicators



Parent education program

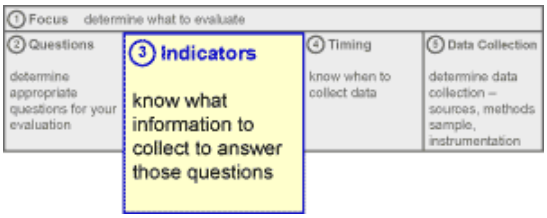


Key Evaluation Questions



Indicators

Selecting Meaningful Indicators



Some indicators may be straightforward and easy to measure. Sometimes one indicator may be all that is necessary for clear explanation. For example, school graduation rate is an agreed upon indicator for the outcome **decreased school dropout rate.** Other times, several indicators may be required.

For example, **improved parental involvement in school** may require numerous indicators such as:

1. attendance at school meetings,
2. participation in parent-school organizations,
3. calls made to the school,
4. attendance at school functions, and so forth.

Selecting indicators takes time and thought. Keep refining the indicators until they clearly explain the aspect of interest. Engaging key stakeholders in identifying indicators helps ensure the selection of meaningful indicators.

> "We sat down with all the youth-serving groups and discussed, 'What does a healthy child look like?'
>
> We determined that he or she should have a sense of independence, of hope, of contribution to the community, of self, of worth, of belonging, and of closeness in relationships. Then we discussed how to measure these qualities in young people we work with. It really forced us to focus on what we are doing."
> (Mary Beth Malm, United Way of America, 1996, p. 62).

Learn more about...

- Quantitiative and qualitative indicators
- Obtaining agreement on indicators
- Examples of indicators
- Indicators and targets

Let's Practice! Try your hand at identifying indicators.

Including Quantitative and/or Qualitative Indicators

5 (Quantity) Happy (Quality) Kids

Indicators are often expressed as numbers or percentages (number of…; percent of…; ratio of…; incidence of…; proportion of…).

However, not all indicators are numbers; qualitative indicators may be important.

Remember, **"Not everything that counts can be counted."**

Examples of **quantitative** and **qualitative indicators**

- In an economic development program, an outcome might be "communities will implement growth management plans."
  Indicators might include:
  (1) number, percent of communities that implement a plan (quantitative indicator)
  (2) quality of the implemented plan according to set of standards (qualitative indicator)
- In a conflict management program, one outcome might be "confidence in own ability to resolve conflict."
  An indicator of this outcome might be: self-reported confidence (qualitative indicator)

Agree on Indicators

Ensure that you have general agreement across your audiences and users on **what** will indicate that which you want to know.

For example, what would indicate:

- Quality performance?
- Success?
- Effective implementation?

Think about something you want to know about your own program:

What would indicate it?

Examples of Indicators

Indicators . . . the concept can be difficult. Let's spend some time with them.

Evaluation Question	Indicators
Did the program increase youth-adult partnerships?	#, % of Boards with youth participating in meetings before and after #, % of Boards with youth on committees #, % of Boards with youth in leadership positions
Have producers reduced nitrogen application rates?	#, % producers using less nitrogen after program compared to before # acres managed according to 'best moment practice' guidelines
Did the apprenticeship program result in more youth staying in the area?	#, % of youth who complete the apprenticeship program #, % of youth who take jobs and stay in the community as a result of the program
Has the quality of life of senior citizens improved?	#, % of seniors reporting specific ways in which their lives have improved number of key family members who say that their seniors are more pleased with life
Does the mentoring program lead to improved school performance?	#, % of participants whose grades improve #, % of participants who have improved school attendance participants feel more competent in school
Do livestock farms improve their own formal bio-security program(s)?	#, % of livestock operations that improve, strengthen or intensify their formal infectious animal disease prevention practice(s) and related bio-security practice(s)
Do members actively participate in the coalition?	#,% who attend meetings #,% who serve on committees #,% who implement activities members feel engaged
Have local government officials increased their knowledge and skills in elections and financial administration?	#, % local government officials attending #,% reporting change in knowledge on budgeting, accounting, record keeping, and election management #, % reporting increased comfort with parliamentary procedures and election management

Using the "Examples of Indicators"chart, think about the following questions.	**Possible Answer**
Why do we include number and percent?	A number in itself does not indicate the magnitude or rate of the result (e.g., 5 of 10 or 5 of 200?). The percent by itself does not indicate the size of the result (e.g., 30 percent of what?) It is usually best to include both the number and percent.
Why do we include multiple indicators?	Several indicators are usually necessary to better measure the item. There is no standard for the number of indicators to use. Several are usually necessary; more than three or four may mean that the item is too complex and should be better defined.
Why are some indicators quantitative and some qualitative?	"Not everything that counts can be counted." Sometimes we need narrative or qualitative information as evidence. In fact, a mix of quantitative and qualitative indicators is often preferred.
Would **x** be culturally appropriate in another setting?	Be attentive to the cultural relevance of the indicator.
Why do we include the specific knowledge that is expected to improve?	The more specific the indicator, the more specific will be your results making aggregation and comparisons possible.
Why do some of the indicators seem to be "extras"?	It is important to cover all aspects of the item being measured. Sometimes doing so means including additional indicators. Also, think about possible negative or unintended consequences and include those indicators.

Indicators and Targets Sometimes, programs set, or are required to set, performance targets (projections). These are specific, usually quantitative figures, to be reached as a measure of success.

For example:

- 30 percent of participants will use a savings and spending plan.
- 50 percent of the county's abandoned wells will be sealed.
- 100 percent of municipal buildings will have a no-smoking policy.

When setting a target, it is always best to consider previous performance, history, and experience. When you have experience or information, it may be wise to wait until you've collected enough data to be confident that the target you set is plausible.

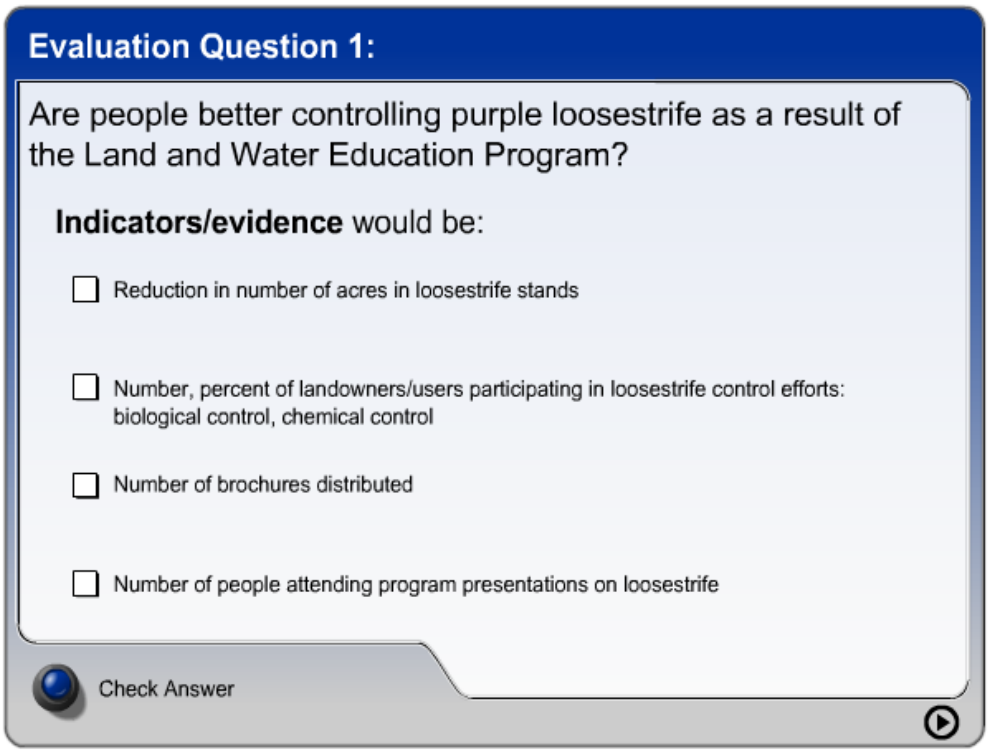
Targets may refer to:

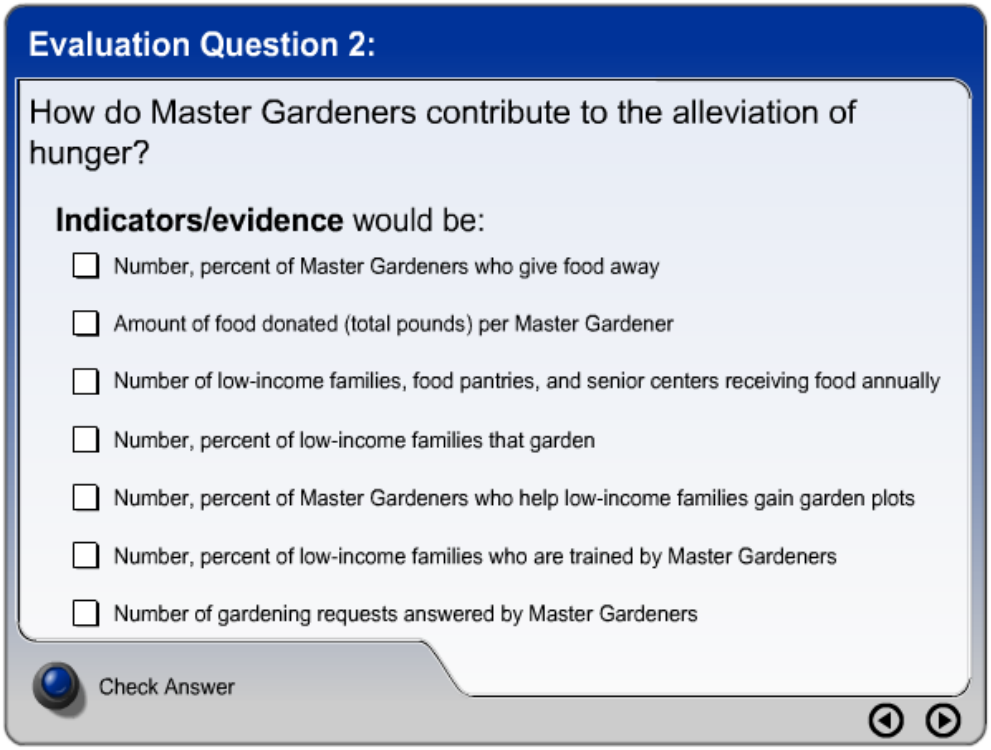
- The number or percentage of people that are expected to change/do something.
- The amount of change that is expected.

(See Hatry, 1999, pp. 128-30, 192-96, for discussion of things to keep in mind when establishing targets.)

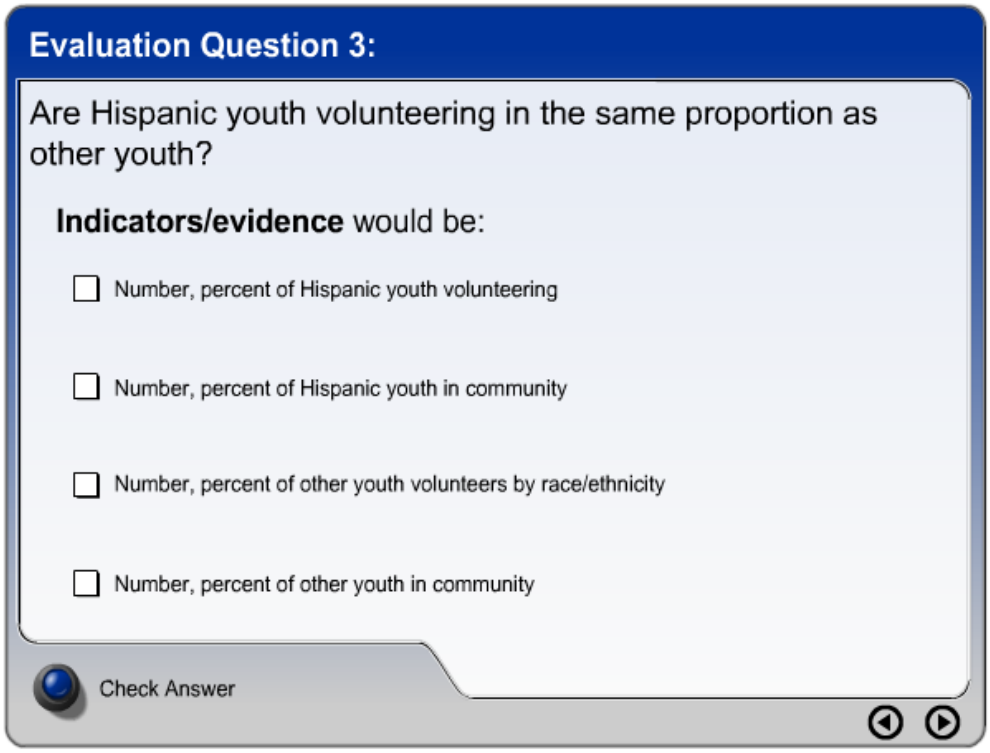
Indicator Practice

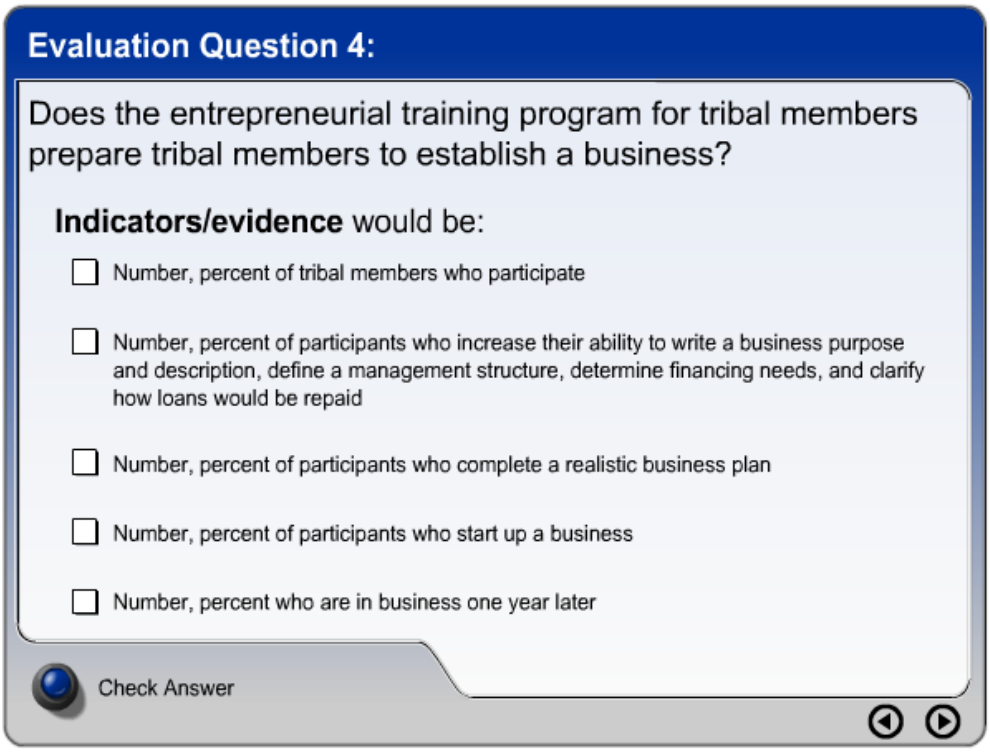
It's your turn now. Read the evaluation question and select what you believe are indicators/evidence relating to that question. Select **all** answers you think are correct. Then check your answers on the following pages.



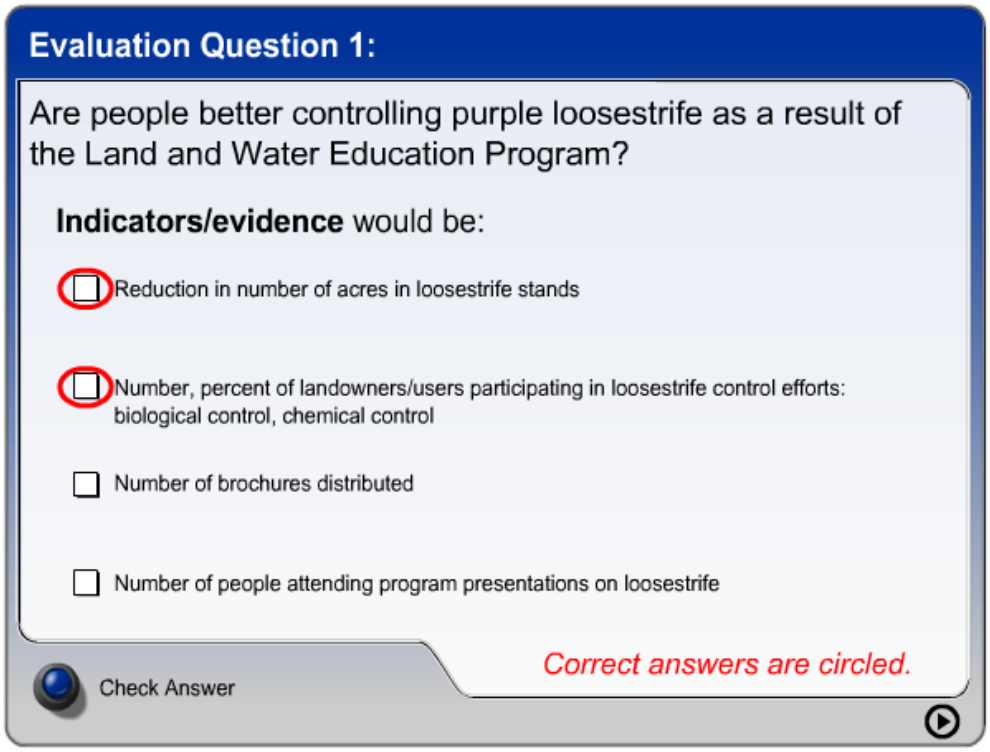


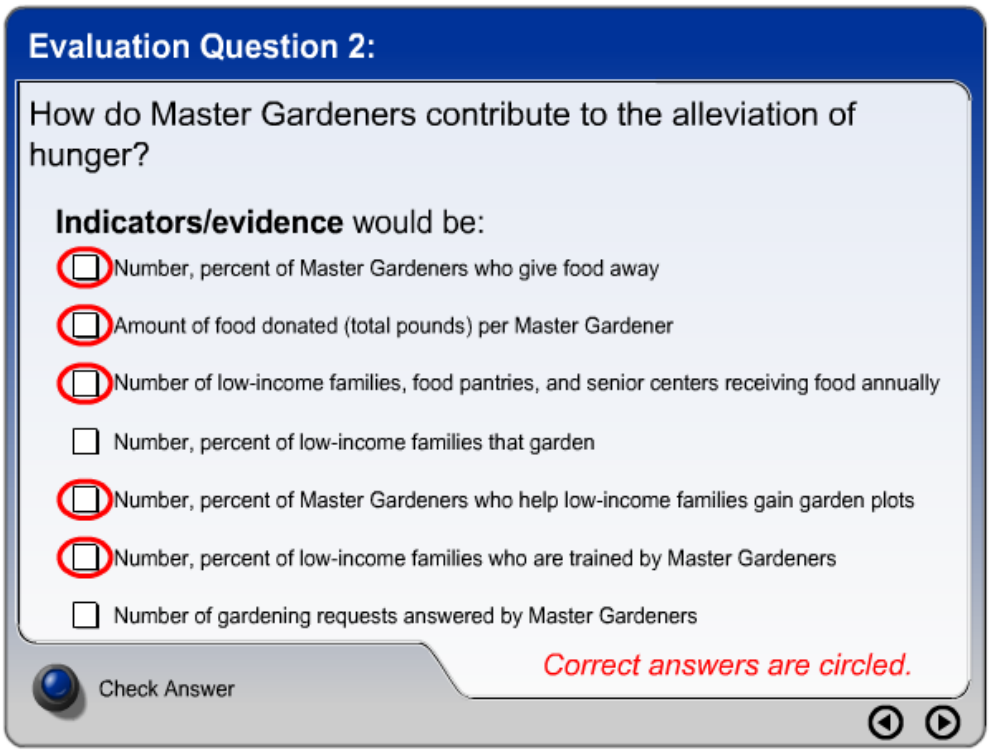
Indicator Practice



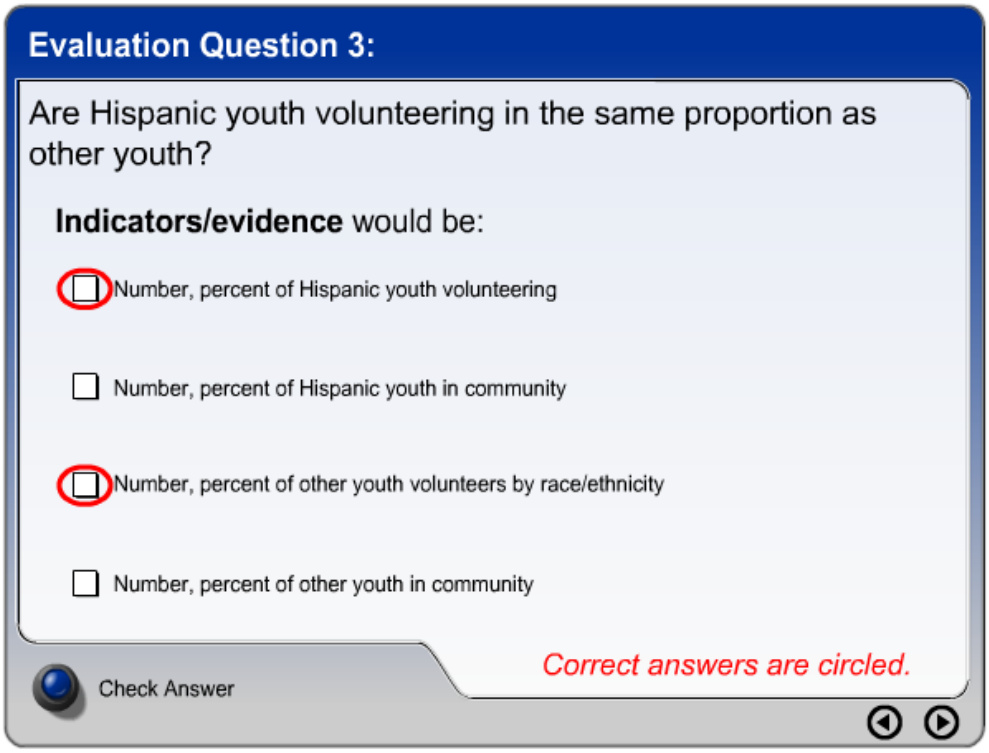


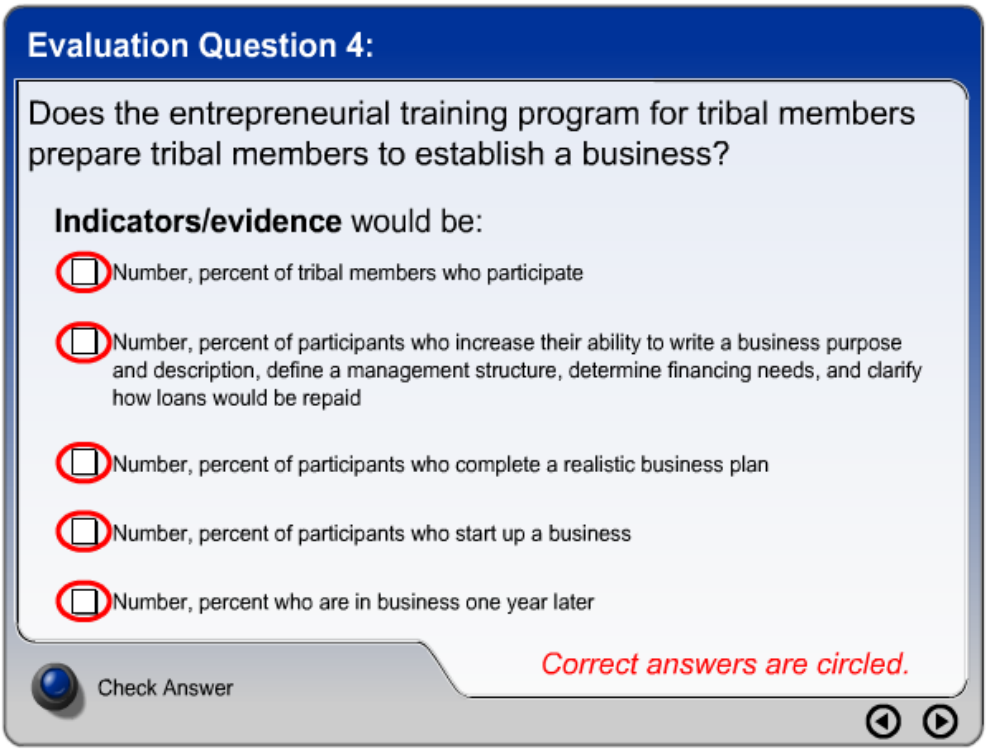
Indicator Practice – Answers



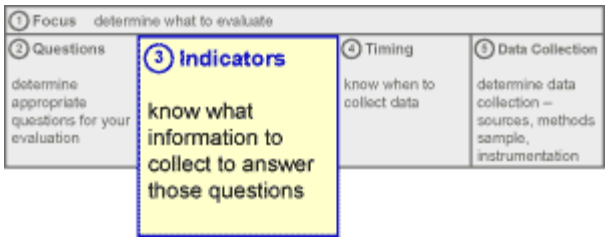


Indicator Practice – Answers





Properties of Indicators



Indicators should be **all** of the following:

- Direct
- Specific
- Useful
- Practical
- Adequate
- Culturally appropriate

The "Indicator Criteria" document provides further explanation of these terms.
You may want to print the document and use it as a resource.

Caution:
When you determine your indicators, remember not to confuse your indicators with **how** you will collect the data. The method you will use to collect information for each indicator--survey, self-report, observation, interview, or some other data collection method--is not the indicator.

The Indicator Review Worksheet can be used to check your own indicators according to the criteria explained in this section.

We've also included a worksheet that integrates the evaluation questions and indicators with the logic model, and an example:

Worksheet: Logic model, key evaluation questions, indicators

Example: Logic Model, key evaluation questions, indicators

Indicator Criteria

Direct	An indicator should measure as directly as possible what it is intended to measure. For example, if the outcome being measured is a reduction in teen smoking, then the best indicator is the number and percent of teens smoking. The number and percent of teens that receive cessation counseling does not directly measure the outcome of interest. However, sometimes we do not have direct measures or we are constrained by time and resources. Then, we have to use proxy, or less direct, measures.
Specific	Indicators need to be stated so that anyone would understand it in the same way and the data that are to be collected. Example indicator: number and percent of farmers who adopt risk management practices in the past year. In this example, we do not know which risk management practices are to be measured, which farmers or what time period constitutes the past year.
Useful	Indicators need to help us understand what it is we are measuring! The indicator should provide information that helps us understand and improve our programs
Practical	Costs and time involved in data collection are important considerations. Though difficult to estimate, the cost of collecting data for an indicator should not exceed the utility of the information collected. Reasonable costs, however, are to be expected.
Culturally appropriate	Indicators must be relevant to the cultural context. What makes sense or is appropriate in one culture, may not be in another. Test your assumptions.
Adequate	There is no correct number or type of indicators. The number of indicators you choose depends upon what you are measuring, the level of information you need, and the resources available. Often more than one indicator is necessary. More than five, however, may mean that what you are measuring is too broad, complex or not well understood. Indicators need to express all possible aspects of what you are measuring: possible negative or detrimental aspects as well as the positive. Consider what the negative effects or spin-offs may be and include indicators for these.

INDICATOR REVIEW WORKSHEET

Program name:
Reviewer:

Instructions to reviewer: Please rate <u>each indicator</u> on <u>each criteria</u> using the following scale. Write your rating in the space provided. Please add comments. Explanation of criteria is attached.

Rating: 1 = Good 2 = Needs improvement 3 = Unacceptable

Question to be answered: _____

Indicators:
1 _____
2 _____
3 _____
4 _____

Criteria	Indicator	Rating	Comments
Direct?	**1**		
	2		
	3		
	4		
Specific?	**1**		
	2		
	3		
	4		
Useful?	**1**		
	2		
	3		
	4		
Practical?	**1**		
	2		
	3		
	4		
Culturally appropriate?	**1**		
	2		
	3		
	4		
Adequate? Together the indicators measure the question			

Discuss independent reviews as a group if possible.

LOGIC MODEL AND KEY EVALUATION QUESTIONS WITH INDICATORS - WORKSHEET

SITUATION STATEMENT:

INPUTS	OUTPUTS		OUTCOMES		
	ACTIVITIES	PARTICIPANTS	SHORT	MEDIUM	LONG-TERM

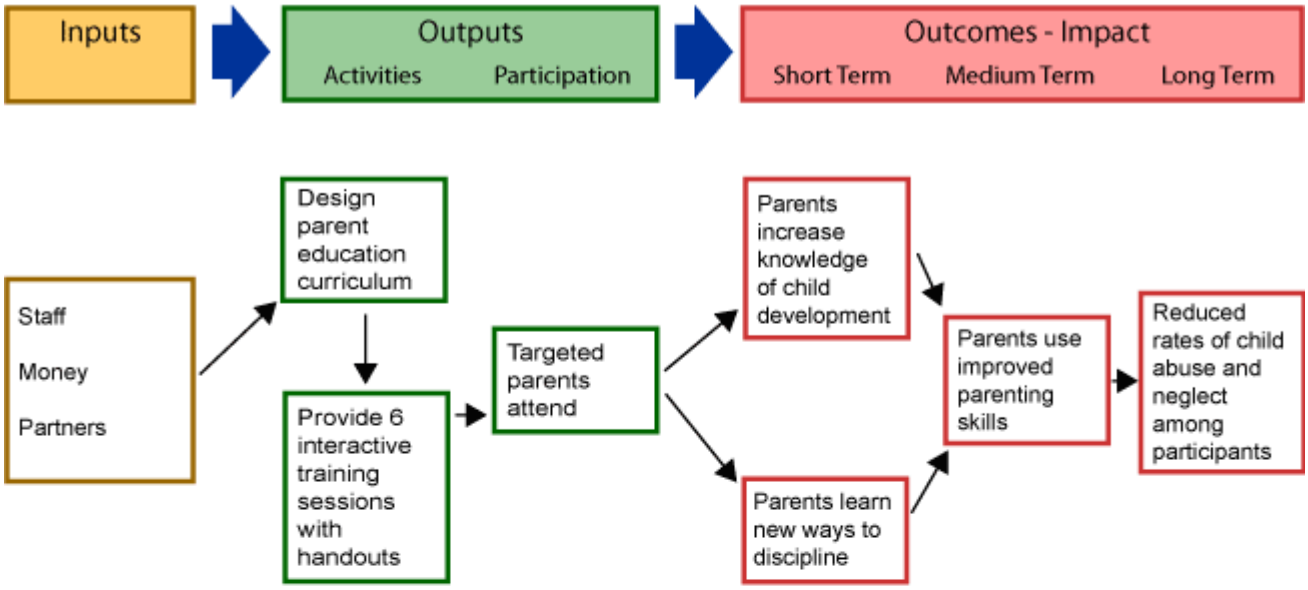
Assumptions
1.
2.
3.

External Factors
1.
2.
3.

Key questions:

Indicators:

Example: Logic Model, key evaluation questions, indicators



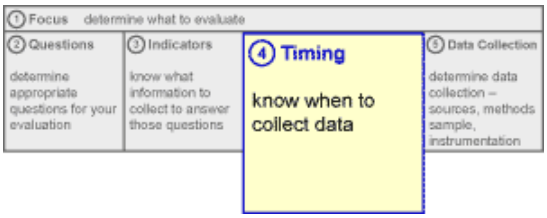
Key Evaluation Questions

Were the inputs sufficient, timely?	Was curriculum developed? Were all 6 sessions delivered?	Did all parents attend that we intended? who did/did not attend? Did they attend all 6 sessions? Why/Why not?	To what extent did knowledge increase? did they learn new approaches? What else happened?	Are parents actually using improved skills? So what? What difference do these skills make?	Has there been a decrease in rates among participants? Were goals met?

Indicators

# staff $ used # partners When delivered	Curriculum # sessions held	#, % attended per session Certificate of completion	#, % with increased knowledge of... Additional outcomes	#, % using skills Types of differences reported	#, % abusing/ neglecting children before - after

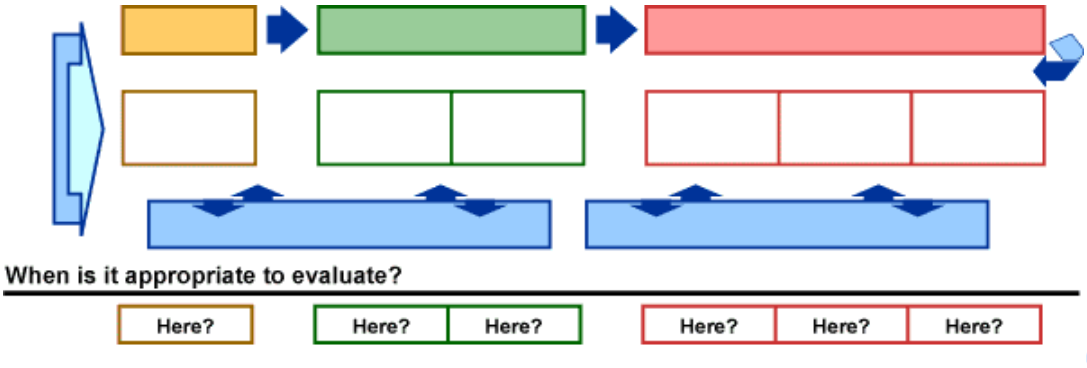
Timing



Scheduling Data Collection

Another benefit of using a logic model to help with evaluation is in identifying **WHEN** it is appropriate to collect data.

Look at your logic model and your evaluation questions, and see **WHEN** along the pathway you will want to collect data--when the program can be expected to be at the stage to make the desired data collection possible and meaningful. Problems in the past with asking questions and collecting data when programs were not ready led to evaluability assessment and was a precursor to logic models. For example, evaluation information about who is participating should be collected at each session, while data to answer questions about behavior change would have to be collected at some point after completion of the program.



Data collection can occur at several possible points in time.

- Baseline (learn more about baseline data)
- Beginning of program--specific event/activity
- During implementation
- End of program--end of specific event/activity
- Monthly, quarterly, annually
- Follow-up: when?

Baseline Data

What data do you need and/or want to collect BEFORE the program starts? By thinking about evaluation upfront in the program development process and by using a logic model, you will be able to identify data you need to collect for comparison purposes.

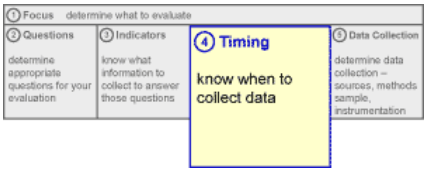
Any evaluation question that expresses an increase, reduction, or other type of change requires a basis for comparison. Such information can be collected retrospectively, but usually is more accurate and credible if collected as baseline.

Markers, Milestones, Benchmarks

We use the terms **markers, milestones, benchmarks** interchangeably to refer to those points along the pathway of change--your logic model--at which you want and need to collect data to show progress, capture significant process achievements, or lay a "stake in the sand" for making comparisons and documenting trends. Consider whether there will be any **critical events** on the occurrence of which you should collect data.

By looking at the total logic model, you can determine **WHEN** to collect what data to demonstrate progress and to have information available for program improvement and modifications.

Evaluation Designs



As we think about when to collect data, we are reminded of the research design that will help us to eliminate plausible rival explanations.

Consider the following designs as you further refine your evaluation plan.

1. AFTER ONLY (post program)
   In this design, evaluation is done after the program is completed; for example, a postprogram survey or end-of-session questionnaire. It is a common design but the least reliable because we do not know what things looked like before the program.
2. RETROSPECTIVE (post program)
   In this design, participants are asked to recall or reflect on their situation, knowledge, attitude, behavior, etc. prior to the program. It is commonly used in education and outreach programs but memory can be faulty.
3. BEFORE-AFTER (before and after program)
   Program recipients or situations are looked at before the program and then again after the program; for example, pre-post tests; before and after observations of behaviors. This is commonly used in educational program evaluation and differences between Time 1 and Time 2 are often attributed to the program. But, many other things can happen over the course of a program that affect the observed change other than the program.
4. DURING (additional data "during" the program)
   Collecting information at multiple times during the course of a program is a way to identify the association between program events and outcomes. Data can be collected on program activities and services as well as on participant progress. This design appears not to be commonly used in community-based evaluation probably because of time and resources needed in data collection.
5. TIME SERIES (multiple points before and after the program)
   Time series involve a series of measurements at intervals before the program begins and after it ends. It strengthens the simple before-after design by documenting pre and post patterns and stability of the change. Ensure that other external factors didn't coincide with the program and influence the observed change.
6. CASE STUDY
   A case study design uses multiple sources of information and multiple methods to provide an in-depth and comprehensive understanding of the program. Its strength lies in its comprehensiveness and exploration of reasons for observed effects.

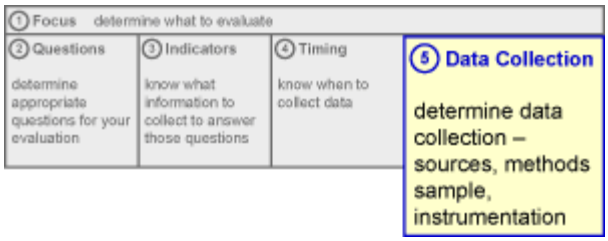
To strengthen above designs use comparisons (people, groups, sites)

All of the above, one-group designs can be strengthened by adding a comparison--another group(s), individual(s) or site(s). Comparison groups refer to groups that are not selected at random but are from the same population. (When they are selected at random, they are called control groups.) The purpose of a comparison group is to add assurance that the program (the intervention) caused the observed effects, not something else. It is essential that the comparison be very similar to the program group.

Consider the following possiblities as comparisons:

- Between program participants (individuals, groups, organizations) and nonparticipants
- Between different groups of individuals or participants experiencing different levels of program intensity
- Between locales where the program operates and sites without program intervention (e.g., streambed restoration, community revitalization)

Data Collection



Once we have defined our questions and identified indicators, we turn to data collection.

Many excellent resources are available for help with this important aspect of evaluation. Learn more…

Sources of information:

- Existing information:
  - Program documents
  - Existing databases
  - Agency records
  - Research reports
  - Etc.
- People:
  - Participants/nonparticipants
  - Key informants
  - Partners
  - Staff
  - Policy makers
  - Etc.
- Pictorial records and observations:
  - Photographs
  - Videotapes
  - Maps
  - Observation

Data Collection Resources

Sources of evaluation information:
http://www.uwex.edu/ces/pdande/resources/pdf/Tipsheet11.pdf

Methods for collecting evaluation information:
http://www.uwex.edu/ces/pdande/resources/pdf/Tipsheet8.pdf

Other links relevant for data collection:

For collecting data and methods
http://learningstore.uwex.edu/pdf/G3658-04.pdf

For questionnaire design
http://learningstore.uwex.edu/pdf/G3658-2.pdf

For direct observation
http://learningstore.uwex.edu/pdf/G3658-5.PDF

For surveys
http://learningstore.uwex.edu/pdf/G3658-10.PDF
http://www.tfn.net/~polland/qbook.html

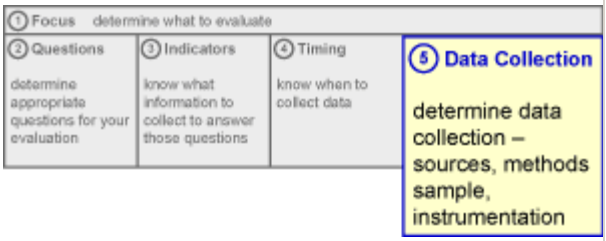
For end-of-session questionnaires
http://learningstore.uwex.edu/pdf/G3658-11.PDF

For focus groups
http://www11.hrdc-drhc.gc.ca/edd/v_report.a?p_site=EDD&sub=ETKFG

For quasi-experimental designs
http://www11.hrdc-drhc.gc.ca/edd/v_report.a?p_site=EDD&sub=QEE

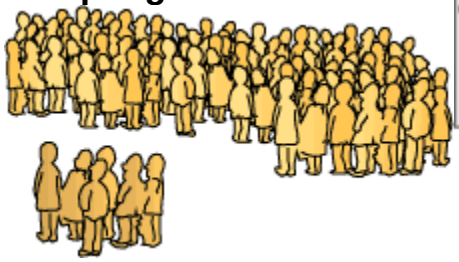
For evaluating collaborative
http://learningstore.uwex.edu/pdf/G3658-8.PDF

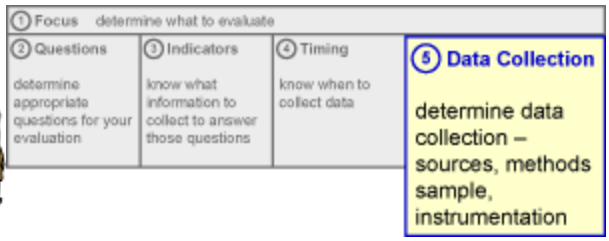
Methods of data collection



- Survey
  - Mail (surface, electronic)
  - Telephone
  - On-site
- Interview
  - Structured/unstructured
- Case study
- Observation
- Portfolio reviews
- Tests
- Journals
- Etc.

Sampling





Will you use a sample or include the whole population? If you do sample, what type of sample will you use? Do you need to be able to generalize your findings to the whole population? What size will your sample be?

Decisions about sampling usually depend on the purpose of the evaluation, the questions you are asking, the size of the population, and the methods you are using to collect information. Again, it is not our intent in this section to cover all aspects of research design and evaluation. We suggest you access other resources to help select an appropriate sample.

Additional resources on sampling are available. Learn more…

Sampling Resources

For sampling:

http://www.socialresearchmethods.net/kb/sampling.php

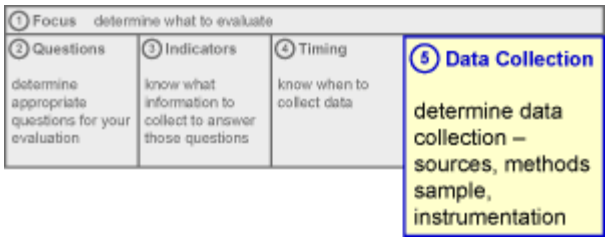
http://learningstore.uwex.edu/pdf/G3658-3.PDF

For purposeful sampling in qualitative studies see Chapter 5 in Patton, 1990: 169-186

For drawing a random sample:

http://www.randomizer.org

Instrumentation



Most data collection requires some sort of form or instrument for compiling information, such as a recording sheet, a questionnaire, an observation protocol, or a videotape or audiotape. Think about the data collection method you've chosen and decide what is needed to record the information. If possible, use tested and validated instruments. Often, however, we must design and test our own instruments.

In that case, check to ensure that the instrument will:

- Secure the information you want.
- Be understood by the respondent and the recorder.
- Be simple and easy to follow.
- Be culturally sensitive.

To help avoid potential problems, pilot test the instruments with people similar to your proposed respondents and recorders.

WRAP-UP: A Complete Evaluation Plan

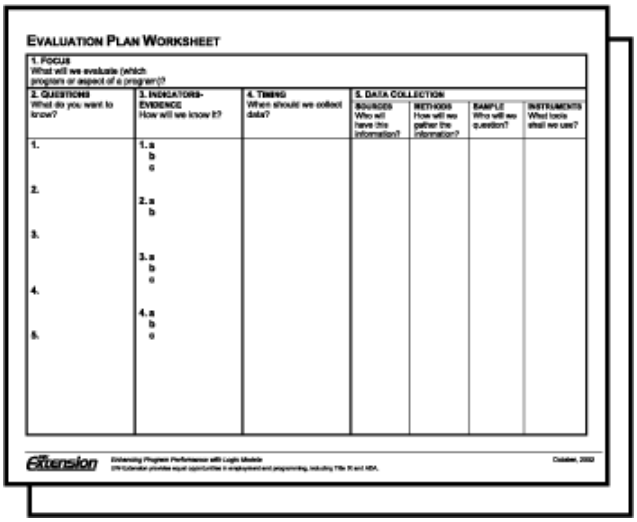
We've covered the initial aspects of developing a comprehensive evaluation plan: focusing the evaluation and collecting the data. These aspects are those for which the logic model provides assistance. Two additional components of comprehensive evaluation plans are not covered in this course: analyzing the data and using the information.

Remember: The core components of a complete evaluation plan include:

I. Focusing the evaluation	**II. Collecting information**	**III. Analyzing information**	**IV. Using information**
Questions-- What do you want to know? Indicators-- How will you know it?	Sources Methods Timing Samples Instrumentation	Analysis Interpretation	To whom When How

Many resources are available for help with planning, analyzing, and reporting evaluation information. Learn more…

Print and use the Evaluation Plan Worksheet for comprehensive evaluation planning. (See Section 7, Page 3 of 20)



EVALUATION PLAN WORKSHEET

1. FOCUS
What will we evaluate (which program or aspect of a program)?

2. QUESTIONS What do you want to know?	3. INDICATORS-EVIDENCE How will we know it?	4. TIMING When should we collect data?	5. DATA COLLECTION SOURCES Who will have this information?	METHODS How will we gather the information?	SAMPLE Who will we question?	INSTRUMENTS What tools shall we use?
1.	1. a b c					
2.	2. a b					
3.	3. a b c					
4.	4. a b c					
5.						

Extension

Planning, Analyzing, and Reporting Resources

For planning an evaluation

http://learningstore.uwex.edu/pdf/G3658-1.PDF
http://learningstore.uwex.edu/pdf/G3658-1W.PDF

Links for data analysis and reporting

For analyzing basic quantitative data

http://learningstore.uwex.edu/pdf/G3658-6.PDF
http://www.wallacefoundation.org/wallace/wb/workbookiquan.pdf

For information on more complex analyses

http://www.statsoft.com/textbook/esc1.html

For reporting results

http://www.uwex.edu/ces/pdande/resources/pdf/Tipsheet14.pdf
http://ctb.ku.edu/tools/en/sub_section_main_1376.htm [Community tool box, KSU]
http://www.iwh.on.ca/products/eval.php [Guide to evaluating the effectiveness of strategies for preventing work injuries. Page 115]

Section 7

Section Summary

- Our advice is to keep evaluation straightforward and simple. Focusing on **what you need to know** and **who will use the information for what** helps to contain an evaluation and keep it useful.

- Our discussion of evaluation has merely scratched the surface. Our purpose in this section was to show you how the logic model helps in evaluation. Many other available resources can assist you with the technical aspects of evaluation.

- A logic model is not an evaluation model but rather a process and a framework. The logic model facilitates effective evaluation by **helping** you:

    - Determine what to evaluate.

    - Identify appropriate questions for your evaluation based on the program.

    - Know what information to collect to answer your evaluation questions--the indicators.

    - Determine when to collect data.

    - Determine data collection sources, methods, and instrumentation.

Glossary

This Glossary provides you with definitions of some terms and concepts used in *Enhancing Program Performance with Logic Models*.

Accountability

Responsibility for effective and efficient performance of programs. Measures of accountability focus on (1) *benefits* accruing from the program as valued by customers and supporters (2) how resources are invested and the results attained.

Anonymity

An *attempt* to keep the participants unknown to the people who use the evaluation and, if possible, to the investigators themselves.

Assets

Strengths, *opportunities*, valuable quality or thing.

Assumptions

The beliefs we have about the program, the participants, and the way we expect the program to operate; *the* principles *t*hat guide our work. Faulty assumptions may be the reason we don't achieve the expected outcomes.

Baseline

Information *about* the situation or condition prior to a program or intervention.

Benchmarks

Performance *data* used either as a baseline against which to compare future performance or as a marker of progress toward a goal.

Cluster evaluation

A type of evaluation that seeks to determine the impacts of a collection of related projects on society as a whole. *Cluster* evaluation looks across a group of projects to identify issues and problems that affect an entire area of a program. Designed and used by the W. K. Kellogg Foundation to determine the effectiveness of its grant making.

Confidentiality

An attempt *to* remove any elements that might indicate the subject's identity.

Context evaluation

A type *of* evaluation that examines how the project functions within the economic, social, and political environment of its community and project setting.

Cost-benefit analysis

Process to estimate the overall cost and benefit of a program or components within a program. Seeks to *answer* the question "Is this program or product worth its costs?" Or "Which of the options has the highest benefit/cost ratio?" This is only possible when all values can be converted into money terms.

Developmental evaluation

Evaluation in which the evaluator is part of a collaborative team that monitors what is happening in a program, both processes and outcomes, in an evolving, changing environment of constant feedback and change.

Effectiveness

Degree to *which* the program yields desired/desirable results.

Efficiency

Comparison of outcomes to costs.

Empowerment evaluation

Use of *evaluation* concepts, techniques, and findings to foster improvement and self-determination. Program participants maintain control of the evaluation process; outside evaluators work to build the evaluation capacity of participants and help them use evaluation findings to advocate for their program.

Environment (external factors)

The surrounding environment in which the program exists and which influences the implementation and success of the initiative, including politics, climate, socio-economic factors, market forces, etc.

Evaluation

Systematic inquiry to inform decision making and improve programs. **Systematic** implies that the *evaluation* is a thoughtful process of asking critical questions, collecting appropriate information, and then analyzing and interpreting the information for a specific use and purpose.

Formative evaluation

Conducted during the development and implementation of a program, this evaluation has as its primary purpose *the* providing of information for program improvement.

Impact

The social, *economic*, and/or environmental effects or consequences of the program. Impacts tend to be long-term achievements. They may be positive, negative, or neutral; intended or unintended.

Impact evaluation

A type of *evaluation* that determines the net causal effects of the program beyond its immediate results. Impact evaluation often involves a comparison of what appeared after the program with what would have appeared without the program.

Impact indicator

Expression or indication of impact. Evidence that the impact has/is being achieved.

Implementation evaluation

Evaluation activities that document the evolution of a project and provide indications of what happens within a project and why. Project directors use information to adjust current activities. Implementation evaluation requires close monitoring of program delivery.

Indicator

Expression of what is/will be measured or described; evidence that signals achievement. Answers the question "How will I know it?"

Inputs

Resources *that* go into a program including staff time, materials, money, equipment, facilities, volunteer time.

Measure/measurement

Representation of quantity or capacity. In the past, these terms carried a quantitative implication of precision *and*, in the field of education, were synonymous with testing and instrumentation. Today, the term "measure" is used broadly to include quantitative and qualitative information to understand the phenomena under investigation.

Mixed methods

The use *of* both qualitative and quantitative methods to study phenomena. These two sets of methods can be used simultaneously or at different stages of the same study.

Monitoring

Ongoing assessment *of* the extent to which a program is operating consistent with its design. Often means site visits by experts for compliance-focused reviews of program operations.

Outcome evaluation

A type of *evaluation* to determine what results from a program and its consequences for people.

Outcome monitoring

The regular or periodic reporting of program outcomes in ways that stakeholders can use to understand and judge results. *Outcome* monitoring exists as part of program design and provides frequent and public feedback on performance.

Outcomes

Results or changes of the program. Outcomes answer the questions "So what?" and "What difference does the program make *in* people's lives?" Outcomes may be intended and unintended; positive and negative. Outcomes fall along a continuum from short-term/immediate/initial/proximal, to medium-term/intermediate, to long-term/final/distal outcomes, often synonymous with impact.

Outputs

Activities, services, *events*, products, participation generated by a program.

Participatory evaluation

Evaluation in which the evaluator's perspective carries no more weight than that of other stakeholders, including participants, and the *evaluation* process and its results are relevant and useful to stakeholders for future actions. Participatory approaches attempt to be practical, useful, and empowering to multiple stakeholders and actively engage all stakeholders in the evaluation process.

Performance measure

A particular value or characteristic used to measure/*examine* a result or performance criteria; may be expressed in a qualitative or quantitative way.

Performance measurement

The regular measurement of results and efficiency of services or programs.

Performance targets

The expected result or level of achievement; often *s*et as numeric levels of performance.

Personnel evaluation

Involves an assessment of job-related skills and performance.

Policy evaluation

Evaluation of policies, plans, and proposals for use by policy makers and/or communities trying to effect policy change.

Probability

The likelihood of an event or relationship occurring, the value of which will range from 0 (never) to 1 (always).

Process evaluation

A type of evaluation that examines what goes on while a program is in progress. It assesses what the program **is.**

Product evaluation

The evaluation of functional artifacts.

Program

An educational program is a series of organized learning activities and resources aimed to help people make improvements in their lives.

Program evaluation

The systematic *process* of asking critical questions, collecting appropriate information, analyzing, interpreting, and using the information in order to improve programs and be accountable for positive, equitable results and resources invested.

Qualitative analysis

The use of *systematic* techniques to understand, reduce, organize, and draw conclusions from qualitative data.

Qualitative data

Data that *is* thick in detail and description; usually in a textbook or narrative format.

Qualitative methodology

Methods that examine phenomena in depth and detail without predetermined categories or hypotheses. Emphasis *is* on understanding the phenomena as they exist. Often connoted with naturalistic inquiry, inductive, social anthropological world view. Qualitative methods usually consist of three kinds of data collection: observation, open-ended interviewing, and document review.

Quantitative analysis

The use *of* statistical techniques to understand quantitative data and to identify relationships between and among variables.

Quantitative data

Data in a *numerical* format.

Quantitative methodology

Methods *that* seek the **facts** or **causes** of phenomena that can be expressed numerically and analyzed statistically. Interest is in generalizability. Often connoted with a positivist, deductive, natural science world view. Quantitative methods consist of standardized, structured data collection including surveys, closed-ended interviews, tests.

Random number

A number *whose* value is not dependent upon the value of any other number; can result from a random number generator program and/or a random numbers table.

Reliability

The consistency of a measure over repeated use. A measure is said to be reliable if repeated *measurements* produce the same result.

Reporting

Presentation, formal or informal, of evaluation data or other information to communicate processes, roles, and results.

Response rate

The percentage of respondents who provide information.

Self-evaluation

Self-assessment of program processes and/or outcomes by those conducting or involved in the program.

Situation

The context and need that give rise to a program or initiative; logic models are built in response to an existing situation.

Situational analysis

A systematic process for assessing needs (discrepancy or gap between what exists and a desired state) and assets (qualities or strengths) as a foundation for program priority setting.

Stakeholder

Person or group of people with a vested interest--a stake--in a program or evaluation, including clients, customers, beneficiaries, elected officials, support groups, program staff, funders, collaborators.

Stakeholder evaluation

Evaluation in which stakeholders participate in the design, conduct, analysis, and/or interpretation of the evaluation.

Statistical significance

Provides for the probability that a result is not due to chance alone. Level of significance determines degree of certainty or confidence with which we can rule out chance. Statistical significance does not equate to value.

Statistics

Numbers or values that help to describe the characteristics of a selected group; technically, statistics describe a sample of a population.

Summative evaluation

Evaluation conducted after completion of a program (or a phase of the program) to determine program effectiveness and worth.

Theory-based evaluation

Evaluation that begins with identifying the underlying theory about how a program works and uses this theory to build in points for data collection to explain why and how effects occur.

Utilization-focused evaluation

A type of evaluation that focuses its design and implementation on use by the intended audience. The evaluator, rather than acting as an independent judge, becomes a facilitator of evaluative decision making by intended users.

Validity

The extent to which a measure actually captures the concept of interest.

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