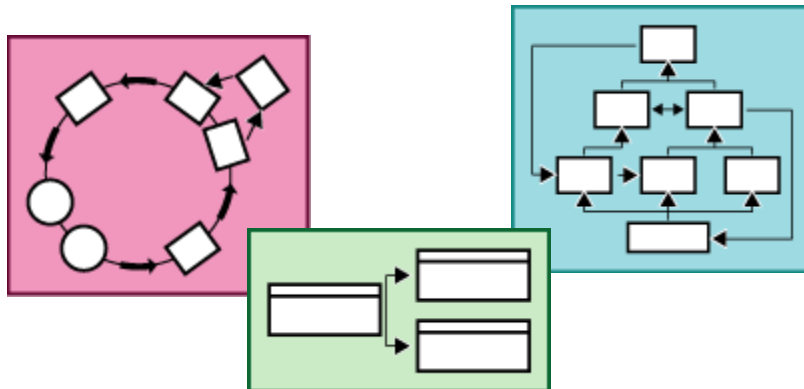# Developing a logic model:
Teaching and training guide

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Ellen Taylor-Powell, PhD
Distinguished Evaluation Specialist

Ellen Henert
Systems Design Specialist

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Developing a logic model:
Teaching and training guide

Logic models help us plan, implement, evaluate, and communicate more effectively. Many funders and organizations require logic models. This guide provides activities with handouts, slides, and other resources for facilitators to use in helping individuals and groups create and use logic models.

The materials in this guide, based on the University of Wisconsin-Extension logic model format, are appropriate for beginning-level logic model users. At various points, more advanced concepts and materials are provided. These are highlighted with the notation:

> Level 2

It is assumed that participants have already engaged in strategic planning and/or spent time understanding the situation and setting priorities as a precursor to developing a logic model.

Participants can learn independently about logic models using Module 1 of the online course "Enhancing Program Performance with Logic Models" http://www.uwex.edu/ces/lmcourse Many of the materials provided in this guide are adapted from this resource.

While materials in this guide are ordered and clustered by section, there is no "one" way to facilitate learning about logic models. Many activities and examples are provided for you to choose from to meet the learning needs of your audience. Or, create your own, based on the relevant experience and program contexts of your learners.

Brief history of 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, and evaluation field.

- **Private sector.** The private sector has experienced total quality management (TQM) and performance measurement movements.

- **Public sector.** The Government Performance and Results Act (GPRA) of 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. (United Way web site: http://www.unitedway.org/outcomes/)

- **International.** Players in the international arena have used variations of a logic model for a long time. The U.S. Agency for International Development (USAID) Log Frame of the 1970s is a historical precedent to the current logic modeling discourse. Most 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, 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).

Acknowledgements

Today, many variations and types of logic models exist. The logic model used in this guide 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 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 (1998), H. Hatry (1999), G. Mayeske (1994), McLaughlin & Jordan (1999), the Evaluation Forum in Seattle, WA., and the logic model development work done at the Center for Disease Control and Prevention.

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Sample logic model workshop agendas

90 minute workshop (participants = beginners)

Time	Activity	Materials needed
2:45	Welcome - Introductions Ice breaker	Sign-in sheet Poster, markers
2:55	**What is a logic model (LM)?**	
	Getting on the same page with terminology and basic concepts – mini-lecture with slides	Slides, handouts
	Table talk: WHY are so many funders requesting LMs? Rationale and benefit of LM	Question on poster paper
	Terminology – lingo game (emphasize activity vs. outcome)	Lingo game (answer sheet)
3:25	**Application**	
	Example LM handouts. Review key aspects of each to highlight similarities, differences, key concepts.	Handout – example LMs
	Large group: Do one together (Cookie baking example). Adhere cards to poster as group calls out: input-output-outcome	Poster paper – blank logic model; cards with tape
	Small group work. Use Parent education example. Distribute sets of cards; groups sort cards to create a LM	Set of Parent Education cards/ group answer sheet
4:00	**LM in evaluation**	
	Table talk – Why do we use a logic model in evaluation?	Question on poster
	Mini-lecture	Slides
4:10	**Wrap-up, workshop evaluation**	Evaluation cards

1 day workshop

8:30	Welcome, Introductions, Ice breaker
8:45	Logic model : Framework What it is; Why use it; Theory of change; Causal connections; Outcomes vs. activities
10:00	BREAK
10:15	Logic model: Practice Compare logic models; Draw a logic model of your program; Check your logic model
12:00	LUNCH
1:00	Logic model: issues and opportunities How, when, where do we use this?
2:00	Using your logic model in evaluation Why use a logic model; Evaluation questions; What to evaluate – when
2:30	BREAK
2:45	Indicators Linking an evaluation plan to your logic model
4:00	Wrap-up and next steps

2 day workshop

Day 1: Developing a logic model	Day 2: Using a logic model in evaluation
8:30 Welcome, Introductions, Ice breaker	8:30 Evaluation planning: focus, methods, indicators, analysis, use
8:45 Logic model: Framework What is it? Why use it?	9:00 Engaging stakeholders in focusing the evaluation Who wants to know what? Evaluation questions
10:00 BREAK	
10:15 Theories of change Focus on outcomes	10:00 BREAK
12:00 LUNCH	10:15 Data collection methods – what to use, when
12:45 Logic model: Practice Creating a logic model of your program	12:00 LUNCH
	12:45 Designing your evaluation
2:45 BREAK	2:45 BREAK
3:00 Checking our models	3:00 Evaluation design, continued
4:30 Wrap-up of Day 1; Announcements	4:00 Final wrap-up

Glossary of common terms

Accountability. Responsibility to provide evidence to stakeholders and funders about the effectiveness and efficiency of programs.

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

Benchmarks. Performance data that are used for comparative purposes.

Impact. The social, economic, civic and/or environmental consequences of the program. Impacts tend to be longer-term and so may be equated with goals. Impacts may be positive, negative, and/or neutral: intended or unintended.

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

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

Logic model. Graphic representation of a program showing the intended relationships between investments and results.

Measure. Either quantitative or qualitative information that expresses the phenomenon under study. In the past, the term measure or measurement carried a quantitative implication of precision and, in the field of education, was synonymous with testing and instrumentation. Today, the term measure is used broadly to include both quantitative and qualitative information.

Outcomes. Results or changes from the program such as changes in knowledge, awareness, skills, attitudes, opinions, aspirations, motivation, behavior, practice, decision-making, policies, social action, condition, or status. Outcomes may be intended and/or unintended: positive and negative. Outcomes fall along a continuum from immediate (initial; short-term) to intermediate (medium-term) to final outcomes (long-term), often synonymous with impact.

Outputs. The activities, products, and participation generated through the investment of resources. Goods and services delivered.
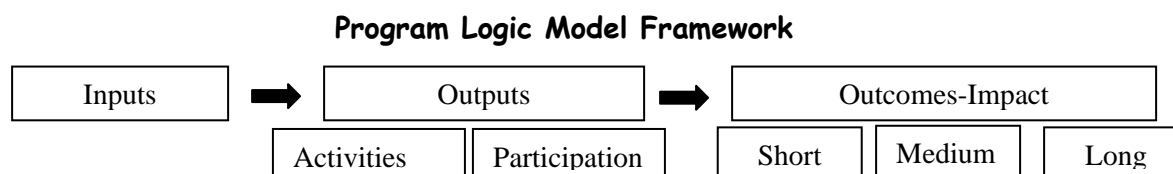
Program. An educational program is a series of organized learning activities and resources aimed to help people make improvements in their lives.

Program evaluation. The systematic collection of information about activities, characteristics and outcomes of programs used to make judgments, improve effectiveness, add to knowledge, and/or inform decisions about programs in order to improve programs and be accountable for positive and equitable results and resources invested.

Performance measurement. The ongoing monitoring and reporting of accomplishments, particularly progress towards pre-established goals.

Qualitative data. Data in a narrative or text format.

Quantitative data. Data in numerical format.

Program Logic Model Framework

Inputs	→	Outputs		→	Outcomes-Impact		
		Activities	Participation		Short	Medium	Long

Frequently Asked Questions (FAQs)

1. **What is the right way to construct a logic model?**
   There is no one or "right" way to develop a logic model. It all depends upon your purpose, how you will use the logic model (for planning, implementation, evaluation, or communications), who will use the logic model, your context and given resources.

2. **How general or specific should a logic model be?**
   Again, this depends upon your purpose and use and the level of program you wish to portray. A logic model needs to convey what is meaningful and understandable to its users. A logic model used for implementation or evaluation purposes may be more detailed than one used for communication. For complex, multi-level or multi-component initiatives, several logic models may be needed.

   Remember, a logic model is not supposed to be an exact representation of your program. It does not show all the detail. It is just a "model."

3. **When is the best time to develop a logic model?**
   Ideally, a logic model is developed during program design as part of program planning. You can modify and enhance the logic model as the program evolves. But, you can create a logic model at any time to bring clarity to what you are doing, create consensus or better understanding about the program, or to help focus an evaluation.

4. **What happens when my logic model shows that the outcomes we want don't connect to the activities that we are doing?**
   This suggests that either you need to change your activities to achieve the outcomes you want, or change the expected outcomes to relate better to the activities you are doing. This is the purpose of a logic model – to check these relationships and help ensure that our activities will achieve the outcomes we desire.

5. **Do we include specific, numeric targets – numbers to achieve – in our logic model?**
   It depends. Specific targets can serve as rallying points and provide clear measurable results for which the program aims. Often, they are used when there is sound evidence to support the number. They may not be appropriate when the evidence base is weak or the program is new and working in uncharted territory.

6. **Do we include data collection methods and measurement strategies in the logic model?**
   A logic model describes a program and its theory of change. It is useful in helping to focus an evaluation. But, evaluation questions, measurement strategies, and data collection methods are part of an evaluation plan – not usually included in the graphic that makes up a logic model.

7. **How is this new? It's just putting boxes around what we've been doing?**
   Some people do think the logic model isn't new. In fact, those familiar with the Bennett Hierarchy will see many similarities. The logic model does, however, focus our work on outcomes in a more concerted way, and on the linkages among investments and results that creates a theory of change.

8. **How can we move logic models from "just paper work" to a way of thinking – a mental process that undergirds our programming?**
Through practice and commitment.

9. **How do logic models relate to plans of work (work plans)?**
A logic model is a graphic depiction that provides an overview of a program. A plan of work is a narrative explanation of how the program will be implemented, providing specifics about activities, responsibilities and timelines among other things.

10. **What is the difference between process objectives and outcome objectives and the logic model lingo?**
Check with the people and organizations using these words to understand what they mean. In general, process objectives may be similar to outputs (how the program is implemented) and outcome objectives may be similar to outcomes (what the program is expected to achieve).

11. **Is storyboarding a type of logic modeling?**
When storyboarding is used to describe a program – to tell how it operates, what it does, who benefits and how – then it is a type of logic modeling.

12. **Doesn't a logic model depend upon impossible predictions about desired end results? How can we plan for a future that is uncertain?**
Many are uncomfortable with the linearity of logic models, the focus on achieving initial consensus around uncertain results and activities, and setting a path to be followed. It seems quite prescriptive. An alternative is to agree on some initial steps and review progress as you proceed. Next steps are determined in consultation with key stakeholders in relation to progress and current events. A thorough assessment of the initial situation, problem analysis, and goal setting are still the starting points in the process.

13. **Are there any limitations in using a logic model – anything we should be cautious about?**
Yes. The most common limitations include:
(1) a logic model represents intention, it is not reality;
(2) it focuses on expected outcomes so people may overlook unintended outcomes (positive and negative);
(3) it focuses on positive change – change isn't always positive;
(4) it may simplify the complex nature of causal attribution where many factors influence process and outcomes;
(5) it doesn't address whether we are doing the right thing – we may get caught up in creating a logic model and lose track of whether the program is the right thing to do; and
(6) may stifle creativity and spontaneity.

14. **Does a logic model always have to be so linear?**
NO. Various formats are in use; cultural adaptations continue to evolve.

Text for learning peripherals

Create table tents or posters with key concepts to reinforce learning.

Successful organizations have a clear understanding of their mission, vision, values, goals, and program strategies to attain their expected outcomes.	ASSUMPTIONS are the beliefs we have about the program, the people involved and how we think the program will operate.
A logic model depicts the program showing the relationships between what we do and what results.	Faulty assumptions are often the reason for poor results.
"If you don't know where you are going, you will end up somewhere else" - Yogi Berra	Logic models help make our assumptions EXPLICIT.
Logic models help us describe our program and focus our evaluation work.	Arrows are necessary on a logic model to show the expected causal connections…what is expected to lead to what.
What do you mean when you use the terms: goal, objective, outcome, impact?	A clear description of the program is the beginning-point for evaluation.
Logic models are useful in planning, implementing, evaluating, and communicating.	A logic model helps us match evaluation to the actual program so that we measure what is appropriate and relevant.
Program evaluation is the systematic collection of information about the activities, characteristics and outcomes of programs in order to make judgments about the program, improve program effectiveness, and/or inform decisions about future programming. [Patton, M. (1997) p. 23]	Program is a set of organized activities supported by appropriate resources to achieve an intended result. It may be narrow or broad in scope with the target being individual, group, system, or community change including: service interventions; education and training; outreach; community mobilization; advocacy; research; and policy development.
Multiple logic models, or nested logic models, may be necessary to characterize complex programs or multiple component initiatives.	Logic models may be simple or detailed and complex depending upon your purpose and use.
INPUTS are the resources that go into the program.	Some people call a logic model their "roadmap".
OUTPUTS are the activities a program undertakes. WHAT WE DO	Logic models come in many shapes, sizes and levels of detail.
OUTCOMES are the changes or benefits that result from our program activities.	"What gets measured, gets done" [Osborne and Gaebler, 1992)]
OUTCOMES = *SO WHAT!!*	This is a great looking logic model, but is this what we "should" be doing?
A logic model expresses your "theory of action" or "theory of change".	

Ice breakers

The terms "logic model" or "evaluation" or "planning" often conjure up anxiety and disinterest. Start with some ice breakers or fun activities to set the stage for learning.

⌘ Ice breaker #1
Is… Is not

Pass out 3x 5 cards.

On the note card, ask participants to write three responses to the following:

- A logic model is…
- A logic model is not…

After a few minutes, invite participants to call out their responses.

Responses might include:

Logic model is…	Logic model is not…
a chart	reality
a picture of a program	new
required by my funder	easy to develop

⌘ Ice breaker #2
That's me

Explain to participants that you will read a series of statements and if the statement is true for the individual, he is to stand up. Ask participants to sit down between statements.

You might use such statements as the following:

- I am new to logic models.
- I've created logic models before.
- I've attended other logic model trainings.
- Our program has clear outcomes that we all know and agree to.
- My funder requires me to do logic models.

⌘ Ice breaker # 3
Starting an exercise routine

Divide participants into groups of 10. Make a set of cards with one step printed on each card (see steps below). For fewer participants or to have more groups with fewer cards, reduce the number of steps. Pass out one card to each person. Explain that each card lists one step in starting an exercise program. Participants are to order themselves in sequence, WITHOUT TALKING, to describe the steps one might take in starting a personal exercise program. Participants may show their cards to each other but they may not talk.

Steps in starting an exercise program
Check with your doctor about any restrictions
Assess your fitness level
Make a personal commitment to exercise
Set specific, realistic goal
Find an activity(ies) that works for you
Invite family/friends to join you
Start slowly
Maintain exercise program
Achieve goal

⌘ Ice breaker # 4
Tell me about your program

Because a logic model is a description of a program, sometimes it helps to have participants start by talking about their programs – describing their programs. This ice breaker can help individuals open up, and help them focus on and describe their programs. [Adapted from Patton (1997)]

In an open discussion format, ask a series of basic questions (see below) about participants' programs. Keep the tone casual and informal. This is a time to just let participants talk about their programs in their own way.

Or, invite participants to interview each other to learn about each others' programs, using the set of questions. Then, ask each one to present the program of the other.

What IS your program? What does your program do?
Who comes to your program? Who is served?
What do they gain? How do they benefit?
How do you know/how would you know that your program is a success?

⌘ Ice breaker #5
Draw it!

Pass out large paper and markers for each person. Explain that often we can describe our programs using a metaphor. For example, a stone wall might represent a program. It consists of many small, interlocking parts that when the stones are all put into place and fit tightly, it creates a sturdy, finished wall, much like the program. Other examples might include an oyster, a tree, a rain shower, etc.

Invite participants to think of a metaphor that might serve to describe their program. Ask them to draw their metaphor on the paper and post their drawings when finished.

Ask for volunteers to share and describe their drawings.

Note: You might explain, that like the metaphor, a logic model "represents" a program but is not the program.

⌘ Ice breaker #6
Touch it, feel it!

Place a number of objects (toys, tools, mirror, leaf, picture of a tree, shell, etc.) on a table. Ask each person to choose one item that could be used to describe his/her program. Ask them to provide a description in one of these formats:

- My program is like [*name of object*] because…
- My program is like [*name of object*] in these ways…

Ask each individual to share her description with one other person in the group. If this is a group of participants who do not know each other, you might ask each individual to pair up with someone she does not know to share their descriptions.

Ask for volunteers to share their descriptions with all.

⌘ Ice breaker #7
Virtual lingo

Source: Gloria Fauerbach, Youth Development Agent, Iron County - UW Extension

Ask participants to stand up and use the hand they normally write with to write their first and last name in the air.

Now ask them to use their other hand to write their names in the air.

(Play Music) Now, write your names with your navel.

Turn to a neighbor and write Inputs, Outputs or Outcomes with any body part you choose.

Section 1: What is a logic model?

Desired outcomes

Participants will…

- increase their knowledge of logic models.

- increase their understanding of why use of logic models has become so widespread.

- increase their understanding of logic models as depicting a series of relationships, linking investments to results that represent a theory of change.

⌘ Activity #1
Getting started

Purpose

To provide background on logic models as an introduction to other activities

Materials needed

Poster paper, adhesive notes, markers
Slides 2-13

Process

- Adapt Ice breaker #1.

  - Write at the top of two poster papers and post in front of the group:

    o A logic model is…

    o A logic model is not…

  - Ask participants to partner with one other and write 3 answers to each statement on adhesive notes – one answer per note; then post their notes on the poster paper and read each others' ideas.

  - Pose question to group: What stands out?

- Invite participants to share their experiences developing and using logic models.

- Use the slides to share background and facilitate discussion

- Group participants in triads. Explain that they have the task of explaining to their spouse, partner, parent or friend what a logic model is. Ask them to write down 3 things they would say.

- Give them 3 minutes as a group to practice their explanation.
- Ask each group to present its explanation to the rest.

Reflection questions

- What did you learn about logic models that you didn't know before?
- If you have to explain logic models to someone else, what is one key characteristic you will include in your explanation?

⌘ Activity #2
Everyday logic models

Purpose

To demystify logic models by using everyday situations to illustrate logic models

Materials needed

Handout *Everyday logic models*

Handout *Worksheet – Our everyday logic model*

Poster paper, 3 x 5 cards

Slides 14-19

Reference: http://www.uwex.edu/ces/lmcourse (Module 1, Section 1)

Process

- Group people into small groups of 3-4 people.
- Distribute the handout *Everyday logic models*. Explain that we use logic models every day, whether or not we use the term.
- Ask the groups to read and discuss the handout and the 3 everyday examples provided.
- Remind participants that in each example, there is a "theory of change" – the sequence of events that is expected to create a change and help resolve the problem situation. And, in each example there are some assumptions that underlie the theory of change.
- Review the meaning of assumption as it applies to programs (slides 17-19).
- Ask each group to identify and list at least 2 assumptions for each example and write them next to the example.

- Invite volunteers to share the assumptions they listed for each logic model example.

  > Possible answers: Headache example, we assume that we can find/get the needed pills; that we take the pills as prescribed; that the pills lead to improvement – not a stomach ache or other negative side effect. Hunger example, we assume that we can get/find food (that food is available, accessible, or affordable); and that the food we eat actually satisfies our hunger and provides the nutrition we need to feel better.

- Explain that they will create a simple logic model of an event in their personal lives. Ask, "What is an event you've planned recently?" Write the examples they provide on poster paper.

  > Examples might include: family vacation; wedding; family reunion; house renovation; birthday party; retirement party.

- Distribute the handout *Worksheet: Our everyday logic model* (one to each participant) and 10-15 3x5 cards to each group.

- Explain that each group should choose one of the examples (or assign one to each group) and answer the 3 questions at the top of the worksheet. They are to write their answers on the 3x5 cards – one item per card. Then, they should arrange their cards in logical sequence on the table. Place the "goal" card to the far right. Then, arrange the other cards to show how they line up to accomplish their goal. Participants can add additional cards, if necessary. Then, each group should review its own "every day logic model." Finally, each group should answer the question: What assumptions do we have about the way this event will occur? Write the answers on a separate card.

- Once everyone is finished, invite participants to move around the room and look at the various "everyday logic models" they've created.

- Facilitate a discussion about the assumptions they have regarding their logic models.

Reflection questions

- What did this activity teach you about logic models?

- What was easy; what were the struggles, if any, in creating your own every day logic model?

- How is this similar to planning and describing a program?

⌘ Activity #3
Program examples

Purpose

To examine different example program logic models to see what they look like and how they are similar and different

Materials needed

Handout *Parent Education Program Example Logic Model*

Handout *Youth Financial Literacy Example Logic Model*

Handout *Elder Nutrition Example Logic Model*

Handout *Wisconsin First Book Example Logic Model*

> Make copies of each example logic model handout. Staple together as a packet with the "parent education example" on top. Make one set for each participant.

Slides 20-27

Process

- Distribute the packet of logic model examples.

- Present and discuss the first one – Parent Education Example logic model. Explain the situation that gave rise to this program and the theory of action portrayed in the logic model. Encourage discussion using the following questions:

    1. Which are the inputs, outputs, and outcomes?

    2. How do the outcomes differ from the outputs?

    3. Who participates in this program? Who is the target?

    4. Does the logic model show a clear connection between what is invested and what is to result? Does it seem logical?

    5. What might be some underlying assumptions?

- Divide participants into groups of 3.

- Explain that they are to review and discuss the remaining three examples in the packet. Write the following questions on poster paper and post for the groups to discuss and answer as they review the examples:

    1. Are the inputs - outputs - outcomes logically connected?

    2. What is similar about the examples? What is different?

    3. Which model do you prefer? Why?

- Invite volunteers from each group to share key points from their discussions relative to each question.

Reflection questions

- What did you learn about logic models as a result of this activity?

- How are logic models similar? How are they different?

⌘ Activity #4
If-then relationships

Purpose

To help participants understand the concept of causal connections that underlie logic models through the use of if-then relationships

Materials needed

Handout *If-then relationships*

Handout *Worksheet – Let's practice sequencing*

Handout *Lines and arrows in logic models*

Slides 28-33

Optional handout *About causation* | Level 2 |

Reference: http://www.uwex.edu/ces/lmcourse
Module 1, Section 3: More about your program logic

Process

- Explain that logic models show the assumed causal connections that link what we do with desired results. This is a "theory of change" that underlies our programs. These connections can be expressed as if-then relationships.

- Distribute the 3 handouts.

- Divide participants into groups of three.

- Start with the handout *If-then relationships.* Instruct the groups to read the handout and discuss the concept of "if-then" relationships in their small groups. Invite volunteers to share key points from their group discussions.

- Turn to the handout *Worksheet –* Let's *practice sequencing.* Ask the small groups to complete the worksheet. When finished, ask each group to share its answers. Discuss and resolve any discrepancies in the way the groups ordered the items.

- Wrap up with the handout *Lines and arrows in logic models.* Discuss the complexity of programs and need for multiple lines and arrows to depict the flows of action.

- Ask the small groups to read the handout and prepare a 2 minute presentation they might use with a community board to explain the need to include lines and arrows in a logic model they are developing. Invite each group to "give" its presentation.

Reflection questions

- What did you learn about logic modeling as a result of this activity?

- What is ONE thing you will remember about "if-then" relationships and the theory of change that underlies logic models?

Section 2: Logic model components and language

Desired outcomes

Participants will…

- increase their understanding of the key parts of a logic model.

- increase their comfort level with using the logic model terminology.

Note to facilitator

This guide uses the University of Wisconsin-Extension logic model. However, when working with an organization, find out whether a preferred form is already in use or to be used.   Look at the United Way model, the WF Kellogg model, HUD model, and others for examples of components and terminology.

Reference: http://www.uwex.edu/ces/lmcourse (Module 1, Section 1)

⌘ Activity #5
What makes up a logic model?

Purpose

To give participants an understanding of what makes up a logic model and how the parts are connected to depict a theory of change.

Materials needed

Handout *Basic logic model*

Handout *Program Development Logic Model*

Handout *Logic model components: Definitions*

Handout *Logic model worksheet* (2 formats are included)

Slides 34-44

Process

- Distribute the handouts

- Invite participants to comment or ask questions about the handout *Basic logic model*

- Turn to the handout *Program Development Logic Model*. Explain that we are using the UW-Extension logic model. Many logic model frameworks are in use today. Each may look slightly different depending upon the agency and purpose. However, most are quite similar. To avoid confusion, we will use the framework developed by the University of Wisconsin-Extension.

- Suggest that many like to laminate this handout making it into a "placemat" for continued use.

- Pose the following questions to group:

    1. How does this logic model compare with the framework you use?

    2. What do you notice? What stands out?

- Divide the group into smaller groups of 2-3 individuals.

- Turn to the handout *Logic model components: Definitions* and divide the six components among the groups.

- Explain that each group has 5 minutes to prepare a mini-lesson about its component(s) to teach to the others. Each "teaching" should include examples of the component (e.g., an example of an outcome might be "youth participants increase their skills in leading a group").

- Ask each group to "teach" its lesson to the whole group.

- Distribute the blank logic model worksheet. Ask participants to think about his/her own program and write 2-3 items for each logic model component on the worksheet.

- When finished, invite each individual to share their worksheet with another participant. Each person will critique the other's work, assessing whether inputs – outputs – outcomes are accurately represented.

Note to facilitator

- Be prepared to answer questions about other terms in use: such as goal, process outcomes, and outcome objectives. You may wish to brainstorm all terms in use and facilitate a process to clarify meaning.

Reflection questions

- What is one thing you learned from this exercise about logic models?

- Did you experience any difficulties identifying these components for your own program?

⌘ Activity #6
Activities vs. Outcomes

Purpose

> People often struggle with the difference between outputs and outcomes. This exercise provides the opportunity to clarify that difference.

Materials needed

> Handout *Not how many worms…*
>
> Handout *Which are outcomes?*
>
> Slides: 45-46
>
> Large poster paper

Process

- Distribute the handout *Not how many worms* (or use slide 45). Explain that the use of metaphors provides a powerful way to learn.

- Review the popular children's story "The Little Engine that Could." It provides a great message about working as a team, who really steps up, etc.; but gives no evidence that toys and food got to children, only that services were delivered. [Patton (2001)]

- Pass out large poster paper. Ask individuals to work as pairs to think up a metaphor, children's story or popular saying that captures the distinction between activities and outcomes.

- Invite them to write or draw their creation on the paper and post for all to see. You may wish to use these as learning peripherals now and in the future.

- Distribute the handout *Which are outcomes?*

- Invite participants to complete it individually.

- Compare answers as a group – discuss discrepancies.

Additional resources

> Appendix A: Understanding outcomes in *Building Capacity in Evaluating Outcomes* ([Taylor-Powell (2008)]

⌘ Activity #7
Pin the card on the logic model

Purpose

To provide the opportunity for people to practice and reinforce their understanding of logic model components, using a fun and interactive exercise with chocolate chip cookies as the example

Materials needed

INPUT	OUTPUT	OUTCOMES

Make a large poster with Input; Outputs, Outcomes printed across the top.

Handout *Pin the card on the logic model – Cookie baking cards*
Make a set of cards using the handout, affix tape to the back of each card so it can be put easily on the poster.

Handout *Cookie baking logic model*

Treat – Chocolate chip cookies to eat!

Process

- Engage your learners by asking: "Who likes chocolate chip cookies? Who has made chocolate chip cookies?" Say that it looks like this is a well-informed group on the subject of chocolate chip cookie-baking! Explain that you have cards with items relevant to making chocolate chip cookies to be classified as input, output or outcome.

- Read each card. Ask the group to call out where it should be place on the poster. Place the card in its place on the poster.

- Go through all the cards. Invite conversation and discussion.

- Distribute the handout *Cookie baking logic model*. Ask participants to compare the depiction on the poster with what is displayed on the handout. Facilitate discussion about differences. For instance, cookies might be considered an outcome, but if no one likes or eats them, they are not of benefit. So, cookies do not stand as an outcome. A dirty kitchen can be considered an unintended outcome or a negative outcome. "Bakery assistant opens a bakery" can be thought of as an unintended positive outcome – often good things happen that we don't plan for in advance.

- Ask participants how they might improve, change, add other cards to the logic model.

NOTE: This activity can also be done as a small group card game.

- Make 1 poster and 1 deck of cards (for each group of 3-4).

- Distribute to each group. Explain they are to shuffle and deal the cards one at a time, face down, to each person around the table until all of the cards are gone. Each person should read the word(s) on their first card aloud to the group. As a team, they decide if the card describes an Input, an Output or an Outcome and place the card in is place.

- Groups work 5-7 min. to sort all cards to the Input, Output or Outcome groups to answer the questions on the posters.

Reflection questions

- What did you learn about logic models from doing this exercise?

- Which components seem harder to determine and define? Which ones seem easier to distinguish?

⌘ Activity #8
Logic model lingo

Purpose

To help participants better understand the meaning of common terms and feel more comfortable using the logic model terminology

Materials needed

Several handouts are included to reinforce the logic model language – choose one or several as appropriate for your participants.

Handout *Logic model lingo*

Handout *Getting to know the language*

Handout *What does the statement really convey?*

Process

- Distribute the handout(s) chosen. Ask participants to read the instructions at the top and complete the handout(s) individually

- When everyone is done, review each item and ask participants to call out their answers (see answer sheets).

- Facilitate questions and clarification. Remind participants that the items are written devoid of context and program description. Sometimes, an output may seem like an outcome, or a long-term outcome for one program could be a medium term outcome for another program. If there is discrepancy in the way an item is labeled, ask individuals to explain their positions.

- Wrap up with Ice breaker #7 – Virtual Lingo.

Section 3: Benefits of logic models

Desired outcomes

Participants will…

- increase their understanding of the value logic models can bring to their work.

⌘ Activity #9
Benefits of logic models

Purpose

To encourage participants to think about why a logic model is important and what value it might bring to their work

Materials needed

Poster paper; colored, blank 4x6 note cards; markers

Slides 47-50

Process

- Ask participants to name all the reasons they think using a logic model could be beneficial.

- Record responses on poster paper.

  Possible responses might include

  > Helps us to focus on outcomes
  > Builds understanding of our programs and accomplishments
  > Helps us to clarify what we intend
  > Helps reveal assumptions
  > Provides a common language
  > Guides and helps focus work; helps keep us from over-promising
  > Increases intentionality and purpose
  > Provides coherence across complex tasks and diverse environments
  > Can enhance teamwork
  > Guides prioritization and allocation of resources
  > Promotes communication

- Share anecdotes and testimonials that we've documented from our UWEX work:

    "Wow – so that is what my program is all about"

    "I've never seen our program on one page before"

    "I'm now able to say no to things; if it doesn't fit within our logic model, I can say no."

    "I can do this"

    "This took time and effort but it was worth it; our team never would have gotten here otherwise."

    "It helped us to think as a team – to build a team program vs. an individual program."

- Acknowledge that some people dislike the jargon and the "model" but experience shows that creating logic models leads to better understanding and appreciation of programs and helps focus an evaluation.

- Distribute colored note cards – one to each person – and markers. Ask participants to write down ONE benefit of logic models they consider most important. Invite participants to take their note card home, post it at their work space, and see if, over time, the benefit exists.

Reflection questions:

- What is a potential benefit of logic models you hadn't thought of before?

- What have you learned about the value of logic models?

Section 4: What does a logic model look like?

Desired outcomes

Participants will…

- increase their understanding that there is no one right or best logic model.

- increase their ability to choose a logic model format that best suits their purpose and program context.

⌘ Activity #10
Is there ONE logic model?

Purpose

To help participants realize that logic models can look different and that there is no single or "right" logic model

Materials needed

Pre-assignment: Ask participants to bring copies of the logic model used in their own agencies and/or by their funders. The facilitator should search the web and bring a variety of examples to share.

Handout *Logic models come in various shapes and sizes*

Handout *Two common logic model variations*

Poster paper, markers

Slides 51-52, notes page for slide 52

Process

- Distribute the handout *Logic models come in various shapes and sizes.*

- Invite participants to work in pairs to review and discuss the handout. Ask them to share with each other different types of logic models they've seen.

- Go over the handout together. Ask for volunteers to share key points about each one of the examples on the handout.

- Pose the question to the group:

  o Why is there so much variation in logic models?

- List answers on poster paper.

  > Possible answers might include: different purposes and different uses mean that logic models need to look different; different organizations have developed different formats to meet their own needs; it is an evolving field so models and approaches changes as more is learned; programs are different and need different formats; different people like to do things differently; cultural differences

- Ask participants to share the logic model examples they brought and/or the model currently in use in their own agency.

- Reinforce that there is no ONE right or BEST logic model. Encourage participants to know and use the model expected by their organization or funder(s).

Note to facilitator: For another activity, use or adapt Activity #3 from Section 1 that includes 4 different logic models for participants to explore and discuss.

- Distribute the handout *Two common logic model variations.*

- Facilitate a discussion relative to the examples using the explanation provided on the slide 52 notes page as required.

Reflection questions:

- What is one thing you learned about logic models?
- What is a new way to format a logic model that you hadn't seen before?

⌘ Activity #11
Comparing chart and flow-diagram logic models

Purpose

To help participants understand the difference between a table and flowchart logic model

Materials needed

Handout *Comparing table and flow chart formats*

Handout *Building native communities: financial skills for families*

Handout *Multiple chains and directional flows*

Slide 53

Process

- Distribute the handout *Comparing table and flow-chart diagram*s.

- As a group discussion, pose the following questions:

    1. What are differences between the table format and the flow chart formats?

    2. What might be the advantages and disadvantages of each?

- Distribute the handout *Building native communities*.

- Group participants into pairs.

- Explain that the *Building native communities* logic model uses a table format. Ask each pair to convert it into a flowchart logic model by drawing boxes around each unique item and connecting the boxes with arrows to show the assumed causal connections. If they think additional boxes are needed for additional inputs-outputs-or outcomes, they should create them. Encourage them to make their flowchart logic model as CLEAR and descriptive as possible. Encourage them to check all assumed connections and make sure they make sense (there are no intended "miracles").

- Invite volunteers to share their flow chart logic models and explain what they did.

    1. What additional boxes, if any, did you include?

    2. What, if any, challenges did you have in creating this flowchart model?

    3. How did this work to create this flow-chart logic model as a team?

- Remind participants that…

    o there are often multiple chains within one logic model. Different chains are often associated with different target audiences.

    o there may be vertical as well as circular flows of action. In fact, it may be more realistic to think of a program as a spiral moving forward involving various feedback loops. For example, a policy change can lead back to changes in individual knowledge and attitudes that, in turn, leads forward to the desired changes in individual behavior.

- Distribute the handout *Multiple chains and directional flows*.

- Invite participants to look at the handout and pose the following questions:

    1. What stands out? (numbering of the boxes helps in communications)

    2. What do the various arrows, and their direction, indicate? (feedback loops indicate that what happens at one place is expected to circle back to influence another change)

Reflection questions

- How are table and flow-chart logic models different?
- Which type to you (your agency) most often use?
- What is one thing you learned from this activity?

⌘ Activity #12
Families or nested logic models

Level 2

Purpose

To help participants apply logic model concepts to more complex initiatives and situations

Materials needed

Handout *Multiple logic models*

Handout *Multi-level system*

Handout *Multi- component*

Slides 54-64

Process

- Remind participants that logic models can be broad or specific. The level of detail depicted in a logic model depends upon its intended use and audience. For example, a logic model used to explain a program to key stakeholders may be less detailed than a logic model used by program staff to focus an evaluation or monitor activities.
- For broad, complex programs, multiple logic models may be necessary. A global model may depict the overall program while more specific logic models depict different levels or components within the overall program. These are called "families of logic models" or "nested logic models."
- Divide participants into groups of 3.
- Distribute the 3 handouts. Facilitate a discussion covering the main points on the handout *Multiple logic models.*
- Then, ask the groups to discuss the other 2 handouts, focusing on the following questions relative to each handout. Have one in the group

serve as recorder in order to share their key discussion points with the whole group:

1. What is the handout describing?

2. What makes sense to you? Doesn't make sense?

3. Do you know of an initiative that might be displayed in this way? Explain.

- Ask volunteers to share their key points.

- Use slides to illustrate examples.

Reflection questions

- What did you learn about logic models that you didn't know before?

- How might you apply the idea of 'nested' logic models in your work?

- What are the challenges/strengths of using nested or families of logic models?

⌘ Activity #13
Cultural adaptations

Purpose

To provide participants the opportunity to think about the cultural milieu in which they work and what type of logic model, if any, would be most suitable

Materials needed

Slides 65-66

Process

- Explain that many think the logic model is linear and Eurocentric and may not be culturally sensitive or appropriate.

- Invite participants to tell about the cultures found in their program contexts.

- Discuss as a group:

1. What might be some barriers to using a logic model in that program context?

2. Will the format of INPUTS → OUTPUTS → OUTCOMES be appropriate? Will the use of boxes and arrows make sense to people with whom you want to communicate?

3. Many funders require logic models in a certain format. How can you be sensitive to your cultural context and also fulfill the funder requirements?

Reflection questions

- What have you learned about logic modeling that you had not thought about before?

- How might logic modeling be more culturally sensitive?

- Are you aware of situations where you would not advise the use of logic models?

Section 5: Developing a logic model

Desired outcomes

Participants will…

- increase their ability to create logic models of their own programs.

Note to facilitator

Activities in this section that engage participants in creating a logic model of their own programs assume they have done thorough situational and problem analyses before beginning logic model development.

** See the handout *Getting started with logic model development* for individuals or program teams creating their own program logic models.

** See handout *Ideas for facilitating logic model development*

** See handout *Where should you start in creating a logic model?*

** Use slides 67-69 as appropriate.

Tips

- Use a flannel board, "sticky wall", or poster paper, and adhesive notes or 3x5 cards that can be written on, sorted, and moved around.

- Plan for several work sessions, spaced over time.

- Distribute and use the Blank Logic Model worksheet as a guide, or for "at-home" work.

⌘ Activity #14
Card sort

Purpose

To provide the opportunity for participants to practice developing a logic model using a simple program example

Materials needed

Handouts *Program element cards* and *Suggested placement of elements*. Three sets [cards and suggested placement (logic model)] are included for 3 different programs: Pregnant teen program; Parent education program; Hmong literacy program;

Choose one or more of the examples. Make enough cards for each team of 3-4 members to have one set of cards. Copy the suggested placement (logic model) for each person.

Optional handout *Logic model layout*

Optional slide 70

Process

- Divide participants into groups of 3-4.

- Distribute one set of cards to each group. Explain that each set of cards represents one program. Participants are to place the cards on the table in a logical order depicting the theory of action of the program. You may instruct the teams to lay out the cards from Inputs –> Outputs –> Outcomes (see optional handout), or let them use an open space on the table and lay out the cards in any way they please.

- When finished, invite participants to move around the room and look at all logic models, noting similarities and differences.

- Provide the "answer logic model" for each example

- Facilitate feedback and discussion:

    1. How does your logic model compare to the example logic model?

    2. How do your logic models differ from each other? What are similarities?

    3. What are the underlying assumptions in these descriptions of the program?

Reflection questions

- What did you learn about creating a logic model by doing this activity?

- What was easy about doing this activity? What was hard?

⌘ Activity #15
PRACTICE creating a logic model

Purpose

To provide the opportunity for participants to work together creating a logic model of a familiar program before working on their own logic models

Materials needed

Identify a program that is familiar to everyone. Create a large poster that looks like the following:

Name of the program:
Goal of the Program:
Situation:
INPUTS   OUTPUTS   OUTCOMES
Activities   Participation   Short-term   Medium-term   Long-term

Poster paper, adhesive notes; markers

Handout *Logic model worksheet*

Optional handout *Community collaborative case example*

Optional slide 71

Process

- Divide participants into groups of 4-5 individuals. Explain that each group will develop a logic model of a familiar program TOGETHER as practice.

- Present the poster and go over the program, its goal, and the situation that the program is addressing.

- Pass out one sheet of poster paper to each group. Ask each group to write across the top of its paper:

INPUTS	OUTPUTS		OUTCOMES		
	Activities	Participation	Short-term	Medium-term	Long-term

- Ask the group to create a simple logic model of the program. They may write directly on the poster paper or write items on adhesive notes to place on the poster paper. The advantage of using the adhesive notes is that they can be easily moved as participants work on their logic model.

- Ask the groups to draw lines and arrows to connect the various items on their logic models.

- When finished, ask each group to post its model on the wall. Review and discuss the various logic models. Create a composite logic model based on the "best" from each of the small group logic models.

Optional activity

- Group participants into small groups of 3-5 people. Explain that each group represents a group of friends that wants to start a book club. They are meeting today to get the book club started. As such, they should:

  o Develop a list of activities and outcomes (benefits) for their book club and resources they will need.

  o Write each item on an adhesive note. One item per adhesive note. Write using markers and large letters so everyone can see.

  o Place the adhesive notes on the poster paper

  o Move the notes around to depict the logical sequencing and draw lines and arrows to show the expected causal connections.

  o Post the poster paper and invite each group to explain what their book club will do.

- Tell participants they will apply this same exercise to their program. Distribute the handout *Logic model worksheet*.

- Provide space and time for individuals (or program teams) to work on their own programs. Provide poster paper, markers and adhesive notes for people to use as they wish.

- Invite participants to take their "models" home, work on them and come together again to share and refine.

Optional activity

- Use the handout *Community collaborative case example* or slide 71 following a similar process as above.

Reflection questions

- What was easy about doing this exercise? What was hard?

- What did you learn about creating a logic model of a program?

⌘ Activity #16
How good is your logic model?

Purpose

> To give participants a structure for reviewing their logic models and improving them as necessary

Materials needed

> Handout *Logic model review worksheet*
>
> Handout *How good is your logic model?*
>
> Slide 72

Process

- Distribute and review together the handout *Logic model review worksheet*
- Invite members who have worked on a logic model together to complete the worksheet together, or work individually.
- Share questions and observations.
- Allow time for participants to refine or improve their logic models as necessary.
- Distribute copies of the handout *How good is your logic model?* for participants to take home.

Reflection questions:

- Do you think you will use the handout in your own work? When? How?
- How might you ensure that your logic model is a good as it can be?

Section 6: Logic model and evaluation

Desired outcomes

Participants will…

- increase their understanding of how logic models can help with evaluation.

Additional resources

Section 7: Using Logic Models in Evaluation: Indicators and Measures in the online course *Enhancing Program Performance with Logic Models* http://www.uwex.edu/ces/lmcourse

Appendix B: Understanding evaluation in *Building Capacity in Evaluating Outcomes* [Taylor-Powell, E. (2008)]

⌘ Activity #17
Using a logic model to focus an evaluation

Purpose

To provide the opportunity for participants to understand how a logic model can help focus an evaluation

Materials needed

Handout *What do you (and others) want to know about this program?*

Handout *Parent education example: questions*

Optional handout for discussion purposes or as 'take home' for participants: *Logic model and common types of evaluation*

Slides 73-86

Poster paper, markers

Process

- Distribute the handout *What do you (and others) want to know about this program?*

- Divide participants into groups of 3-4 individuals. Explain that they are taking the role of program staff for this parent education program. The logic model on the handout is "their" logic model – they developed it to describe a program they are starting. They are aware of the need to

think about evaluation as the program is planned. But, they don't know what they should be evaluating… what data should they be collecting?

- Ask each group to brainstorm information they might want to know, as the program staff, about this program. What questions would they want to answer through their evaluation of the program? Ask them to list their questions on a poster and cluster questions that are alike.

- Distribute the handout *Parent education example: questions.* Ask groups to compare their questions to those on the handout.

- Remind participants that we often don't have the resources to evaluate "everything". Ask them to identify their top priorities: what are the five most important questions? Highlight or mark these questions.

- Now, ask the small groups to change roles. They are now to assume the role of the program funder. As funders, what questions would they want answered about this program? Again, ask participants to list these on the poster paper and cluster questions that are alike. Prioritize the top five funder questions.

- Invite the small groups to share their lists of priority questions. Create a single list of questions, eliminating duplicates. For each question, ask participants to determine when data would need to be collected to answer the question.

- To wrap up, pose the following questions to the group:

  1. How did the logic model help you think about WHAT the evaluation should focus on – what questions the evaluation would answer?

  2. How did the logic model help you to think about WHEN you need to collect evaluation information – when to collect the data to answer these questions?

  3. Should we expect to measure the long-term outcomes with an end-of-workshop survey?

  4. Do you see any other benefits in using a logic model to help focus an evaluation? Any disadvantages?

Note to facilitator

Use slides provided as needed. See additional resources listed above for other resources related to evaluation.

Reflection questions:

- How does a logic model help focus an evaluation?

- How does a logic model help us focus on what is appropriate to measure and the timing of our measurements?

- How might you use a logic model in your own evaluation work?

Key resource list

Innovation Network
   http://www.innonet.org/

Targeting Outcomes of Programs
   http://citnews.unl.edu/TOP/english/

The Evaluation Forum.
   1932 First Avenue, Suite 403; Seattle, W 98101
   http://www.evaluationforum.com/publications/

Tobacco Technical Assistance Consortium.
   http://www.ttac.org/power-of-proof/setting_stage/logic_midels/6-5.html

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   Prevention. Office of the Director, Office of Strategy and Innovation.
   *Introduction to Program Evaluation for Public Health Programs: A Self-Study
   Guide.* Atlanta, GA. http://www.cdc.gov/eval/evalguide.pdf

United Way of America. *Measuring program outcomes: A practical approach*
   http://national.unitedway.org/outcomes/resources/mpo/

University of Kansas, Community Toolbox
   http://ctb.ku.edu/tools/en/section_1877.htm

University of Wisconsin, Online logic model course
   http://www.uwex.edu/ces/lmcourse

University of Wisconsin-Program Development and Evaluation
   http://www.uwex.edu/ces/pdande/evaluation/evallogicmodel.html
   http://www.uwex.edu/ces/pdande/evaluation/evallogicmodelworksheets.html

W.F. Kellogg logic model
   http://www.wkkf.org/
   http://www.wkkf.org/default.aspx?tabid=101&CID=281&CatID=281&ItemID=2813669
   &NID=20&LanguageID=0

Western CAPT. CSAP'S Western Center for the Application of Prevention Technology
   http://captus.samhsa.gov/western/resources/bp/step7/index.cfm

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EVERYDAY LOGIC MODELS

HEADACHE

You are suffering from a severe headache. Your experience says certain pills help. So, the logic model shows you first 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 are feeling better.

Get pills ➡ Take pills ➡ Feel better
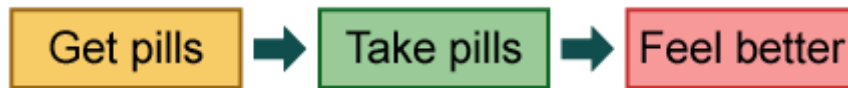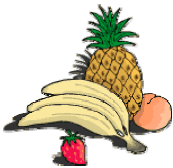
HUNGER

Think about being hungry. You are so hungry. What is involved to satisfy that hunger?

Probably what you want is food. So, first you need to find some food. Then, you need to eat that food. Then, you will be satisfied and feel better.

Find food ➡ Eat food ➡ Feel better

FAMILY VACATION

Summer vacation time is coming up. We like to camp and are planning our annual family camping trip. We have 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 -

Family members	Drive to state park	Family members learn about each other; family bonds; family has a good time
Budget	Set up camp	
Car	Cook, play, talk, laugh, hike	
Camping equipment		
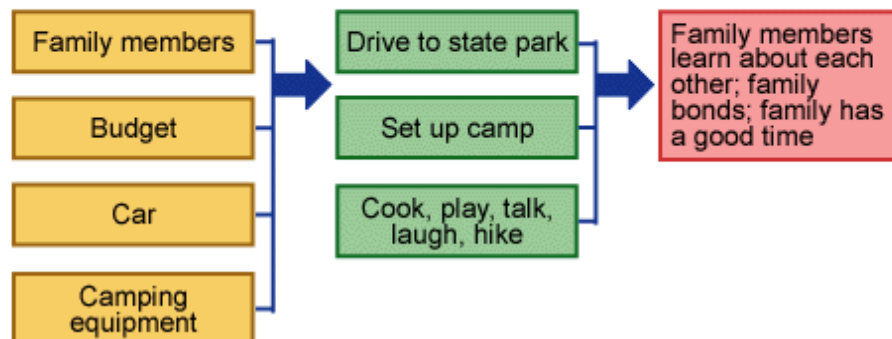
WORKSHEET: OUR EVERYDAY LOGIC MODEL

QUESTION 1. WHAT IS OUR GOAL?

QUESTION 2. WHAT DO WE NEED TO DO TO ACCOMPLISH OUR GOAL?

a.

b.

c.

d.

…

QUESTIONS 3. WHAT RESOURCES DO WE NEED?

a.

b.

c.

d.

…

ARRANGE YOUR CARDS ON THE TABLE…

GOAL

WHAT ASSUMPTIONS DO WE HAVE ABOUT THE WAY THIS EVENT WILL OCCUR?

1.

2.

3.

…

PARENT EDUCATION PROGRAM

Situation:
During a county needs assessment, a majority of parents reported they were having difficulty parenting and suffering stress as a result.

INPUTS

- Staff
- Money
- Partners
- Research

OUTPUTS

- Assess parent ed programs
- Design-deliver evidence-based program of 8 sessions
- Facilitate support groups
- Parents of 3-10 year olds attend

OUTCOMES

- Parents increase knowledge of child dev
- Parents better understanding their own parenting style
- Parents gain skills in new ways to parent
- Parents gain confidence in their abilities
- Parents identify appropriate actions to take
- Parents use effective parenting practices
- Reduced stress
- Improved child-parent relations
- Strong families

YOUTH FINANCIAL LITERACY

Situation:

High school youth lack basic skills in management of their personal finances. Many are unable to balance a checkbook and most have little knowledge of basic principles of earning, spending, saving and investing. Many young people fail in managing their first consumer credit experience and establish bad financial management habits that follow them through life.

INPUTS **OUTPUTS** **OUTCOMES**

Short-term Medium-term Long-term; final

Partnership of local financial institutions, schools, and Extension	**Assess needs**		**Youth increase their knowledge of money-management basics**	**Keep track of spending**	
	Review research	**High school youth**	**Increase their understanding of credit and debt**	**Reduce unnecessary spending**	**Youth establish sound financial habits**
Time					
	Develop and deliver age-appropriate curriculum		**Increase abilities to manage and use checking and savings accounts**	**Pay bills on time**	
Money					
Research - base			**Increase motivation to live within budget**	**Save money regularly**	

ELDER NUTRITION

Situation:
Older adults who make healthier choices live longer and better lives. Diet and exercise play the most important roles in determining the quality and length of life for the elderly. Older adults, especially the very old, consume inadequate amounts of key nutrients. Low-income adults tend to have poorer diets than their higher income peers.

INPUTS	OUTPUTS		OUTCOMES – IMPACT		
	Activities	Participation	*Short*	*Medium*	*Longer term*
Community-based nutrition educators Agency partners who collaborate Campus-based specialists that support county educators Research base Funding and other resources that support this program	Educational sessions ▪ Presentations ▪ Learn-while-you-wait ▪ Games and interactive learning activities ▪ Posters, print materials Topics: ▪ Eating more fruits and vegetables ▪ Storing and handling food safely ▪ Portion sizes ▪ Choosing Healthy snacks ▪ Balancing food with physical activity	Low-income Seniors at Senior Dining Sites and Senior Housing Sites	Short-term changes we expect: Participants increase their knowledge about the importance of choosing nutritious foods Participants increase their knowledge about food handling safety Participants think differently about their food choices Participants plan to make nutrition-related behavior changes, including physical activity	Medium term changes we expect: Participants eat more fruits and vegetables Participants handle foods safely Participants read labels Participants control portion size Participants choose more healthy foods Participants engage in appropriate physical activity	Long-term changes we expect: The elderly enjoy healthier lives

WISCONSIN FIRST BOOK[1]

Long-term Outcomes

Give young children who wouldn't otherwise have books an opportunity to be read to and own their first new books.

Children   Readers   Families

Intermediate Outcomes

| Increase emergent literacy skills | Share love of reading with young children | Read the books to children at home |

| Experience intergenerational relationships | Increase cultural societal awareness of community | Do an activity with children from the activity sheets |

Initial Outcomes

| Children are read to and receive books | Volunteers read in classrooms | Families receive new books and opportunities to read in the home |

Outputs

| # of Volunteer Hours | # of Readers | # of reading | # of Books | # of Children |

Activities

| Fundraising | Partnerships developed | Promotional items (displays, celebrations, quilt) |

Reading volunteers prepare to read (pre-read, gather crafts, travel)

Volunteers assist with project support, creating book bags, craft items, etc.

Reading volunteers trained

Volunteers recognized

Inputs

| Head Start/Even Start/Child Care Staff | First Book County Coordinator | Volunteers |

| Books & Activity Sheets | HCE Leadership/membership | Funding |

| UW-Ex. Family Living Educator UW-Ex. Family Living Programs | Wisconsin Public Television |

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[1] Source: Lynne Blinkenburg, Wisconsin Public TV

IF-THEN RELATIONSHIPS

Many who use logic models talk about them as a series of "if-then" sequences. If X, then Y. If Y, then Z.

Reading from left to right, a logic model portrays a series of if-then relationships.

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, in working out these sequences, we uncover gaps in logic, clarify assumptions, and more clearly understand how investments are likely to lead to results.

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.

When developing a logic model, think about the underlying assumptions. Are they realistic and sound? What evidence or research supports your assumptions?

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

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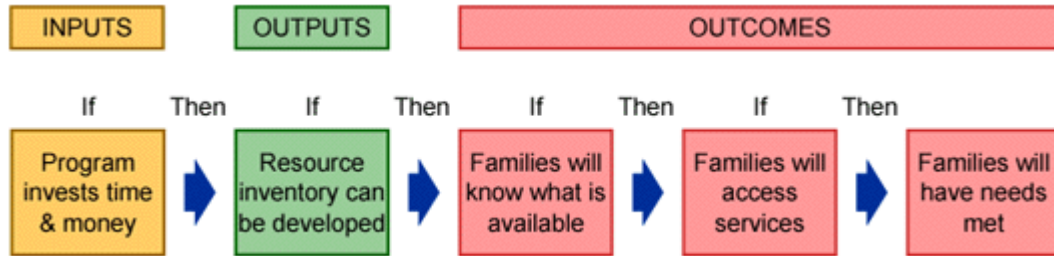
If the program invests time and money, **then** a resource inventory can be developed. **If** there is a resource inventory, **then** families will know what resources and services are available. **If** families know, **then** they will be able to access the appropriate services to meet their needs.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

Possible assumptions for the Family Support Initiative:
- a resource inventory is linked to improvement in client well-being.

- the program will have the necessary time, money, and expertise to develop the resource inventory.

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

- once accessed, the service will, in fact, meet the client's need.

- interagency coordination will make a difference relative to these families' needs.

INSTRUCTIONAL MODULE
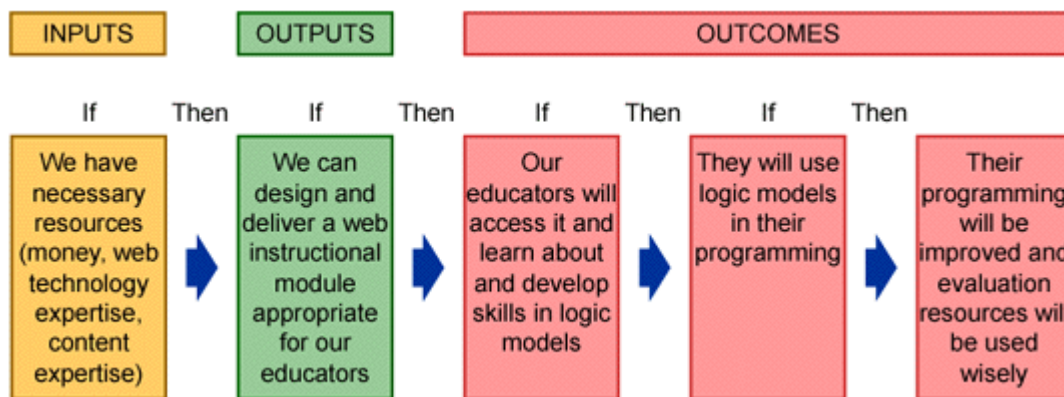
If we have necessary resources (money, web technology expertise, content expertise), **then** we can design and deliver a web-based instructional module appropriate for our educators. **If** we design and deliver this instructional module, **then** our educators will access it and learn about and develop 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.

WORKSHEET – LET'S PRACTICE SEQUENCING

Read about the situation; then, read the if-then statements that follow. Determine the correct order for the statements. Indicate your choices by placing the corresponding number in the first column. The statement you decide is first should have a number 1 next to it, the second a number 2, and so on. Identify and discuss the assumptions underlying the theory of change.

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 healthful 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 recipients will better understand the importance of good nutrition and regular meals and they will have increased knowledge about how to obtain and use food resources available in their community.
	If we provide culturally-appropriate information about community services, food preparation and the relationship between nutrition and health,
	then recipients will use available services and prepare healthful food more regularly.
	then recipients will eat better and have improved nutritional status.
	If recipients better understand the relationship between nutrition and health and the importance of regular meals and have better access to healthful food through the use of community services,

What assumptions underlie this theory of change?

SITUATION2

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,

What assumptions underlie this theory of change?

CORRECT SEQUENCES

SITUATION 1

7	If recipients use available services and prepare healthful food more regularly,
1	If we have time, resources, expertise, and access to the target group,
2	then we can provide culturally-appropriate nutrition information about available community services, easy food preparation, and the importance of nutrition.
4	then recipients will better understand the importance of good nutrition and regular meals and they will have increased knowledge about how to obtain and use food resources available in their community.
3	If we provide culturally-appropriate information about community services, food preparation and the relationship between nutrition and health,
6	then recipients will use available services and prepare healthful food more regularly.
8	then recipients will eat better and have improved nutritional status.
5	If recipients better understand the relationship between nutrition and health and the importance of regular meals and have better access to healthful food through the use of community services,

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.

If we provide culturally-appropriate information about community services, food preparation and the relationship between nutrition and health, then recipients will better understand the importance of good nutrition and regular meals and they will have increased knowledge about how to obtain and use food resources available in their community.

If recipients better understand the relationship between nutrition and health and the importance of regular meals and have better access to healthful food through the use of community services, then recipients will use available services and prepare healthful food more regularly.

If recipients use available services and prepare healthful food more regularly, then recipients will eat better and have improved nutritional status.

SITUATION 2

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

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 make better-informed decisions, then the controversial public issue will be resolved.

LINES AND ARROWS IN LOGIC MODELS

It is the **linkages** - not just what is labeled as input, output, or outcome - that give the model its power. **Lines and directional arrows** depict these linkages, or your **theory of action**. All lines and arrows may be included. Or, they may be abbreviated and implied. The flows may be vertical and horizontal, one-direction or two-directional, and show feedback loops. The feedback arrows often depict learning and modifications made, or envisioned, during the course of program implementation.
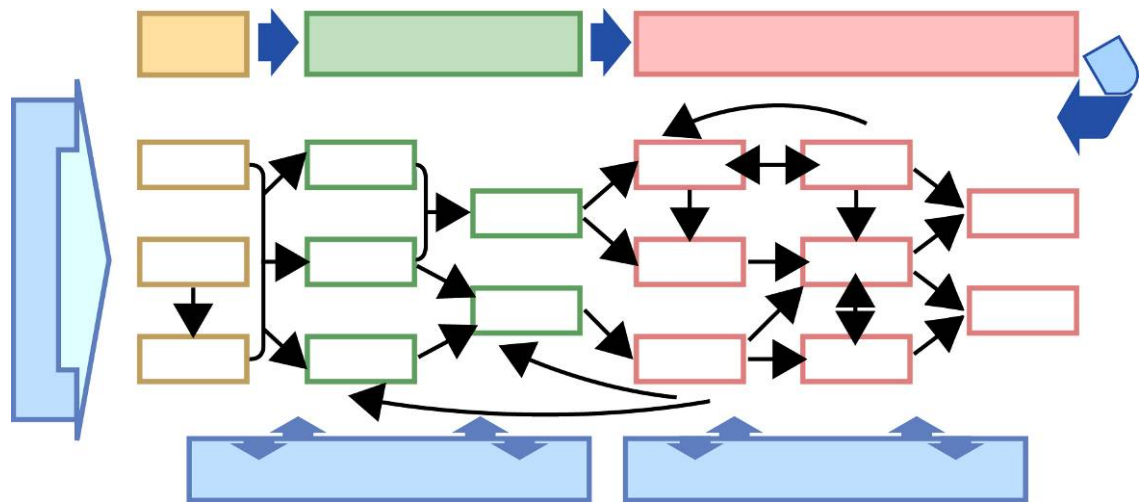
Drawing the lines and arrows is often messy and time-consuming, but necessary. Doing so helps make sure we've addressed all the logical connections. In the final display, we may only include the primary linkages; otherwise, the logic model may become too difficult to read.

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 depict a logic model as a circle that explicitly connects the end to the beginning. In actuality, program environments are dynamic and situations change so the beginning rarely stays the same.

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 a program's assumed causal connections. Yet, cause-effect relationships are problematic in our world of community 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 affect the development and implementation of community initiatives make it difficult to tease out 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. Many 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 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 functioning 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 by adding feedback loops and two-way arrows, 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. However, 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.

BASIC LOGIC MODEL

SIMPLEST FORM OF LOGIC MODEL

INPUTS	⟹	OUTPUTS	⟹	OUTCOMES

A BIT MORE DETAIL

INPUTS	OUTPUTS		OUTCOMES		
Program investments	Activities	Participation	Short	Medium	Long-term
What we invest	What we do	Who we reach	What results		
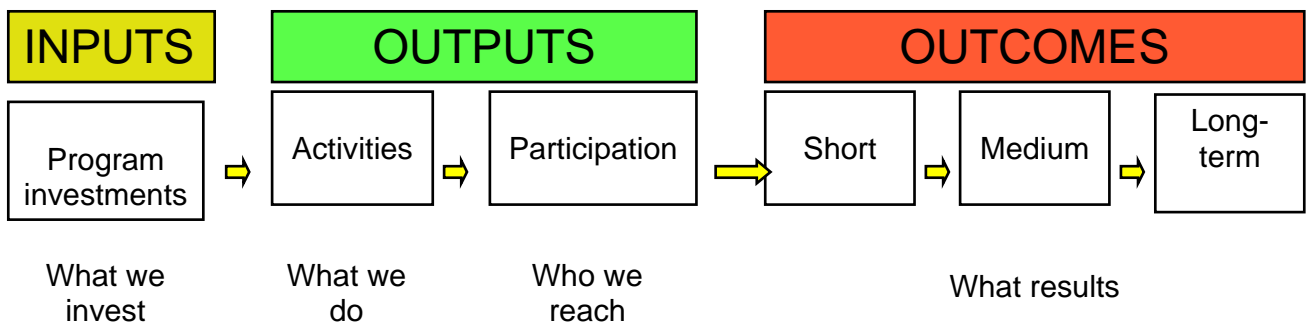
SO WHAT??
What is the VALUE?

PROGRAM DEVELOPMENT
Planning – Implementation – Evaluation

Program Action - Logic Model
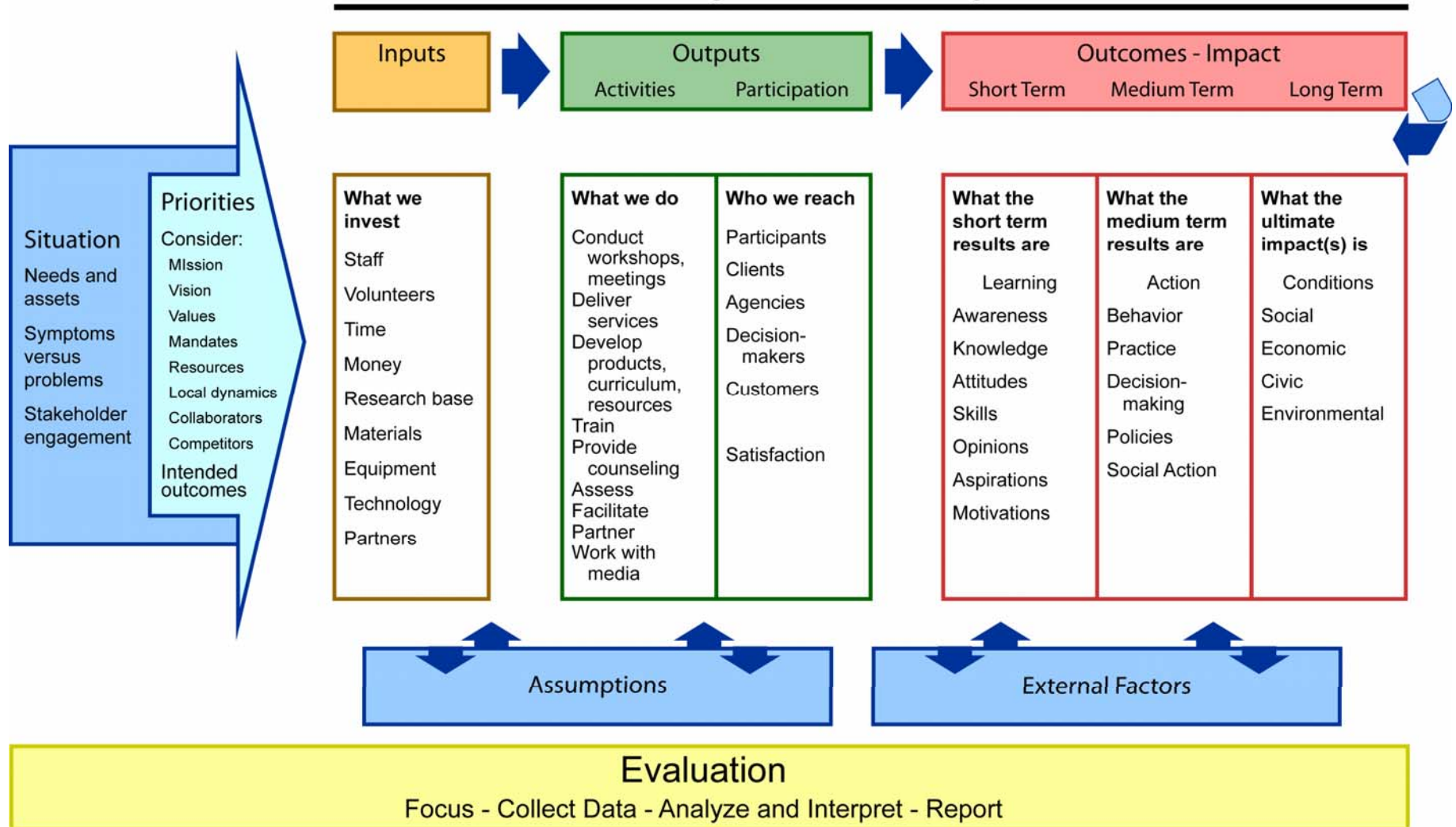
LOGIC MODEL COMPONENTS: DEFINITIONS

Even though programs are diverse, they all share common elements. Programs are developed in response to a situation. Programs have INPUTS, OUTPUTS, OUTCOMES. A logic model displays the relationships among these core elements and brings attention to underlying assumptions set within the program's environment of external factors.

SITUATION
The originating problem, or issue, set within a complex of sociopolitical, environmental and economic circumstances. The situation is the beginning point of logic model development.

INPUTS
What goes into the program: resources and contributions that are invested. Inputs include such elements as staff, money, time, equipment, partnerships, and the research base

OUTPUTS
What we do and whom we reach: activities, services, events, products and the people reached. Outputs include such elements as workshops, conferences, counseling, products produced *and* the individuals, clients, groups, families, and organizations targeted to be reached by the activities.

OUTCOMES
What results: the value or changes for individuals, families, groups, agencies, businesses, communities, and/or systems. Outcomes include short-term benefits such as changes in awareness, knowledge, skills, attitudes, opinions and intent. Outcomes include medium-term benefits such as changes in behaviors, decision-making and actions. Outcomes include long-term benefits (often called impact) such as changes in social, economic, civic, and environmental conditions.

ASSUMPTIONS
The beliefs we have about: the program, the people involved, and how we think the program will work. Assumptions include our ideas about the problem or situation; the way the program will operate; what the program expects to achieve; how the participants learn and behave, their motivations, etc.; the resources and staff; the external environment; the knowledge base; and the internal environment. Faulty assumptions are often the reason for poor results.

EXTERNAL FACTORS
Aspects external to the program that influence the way the program operates, and are influenced by the program. Dynamic systems interactions include the cultural milieu, biophysical environment, economic structure, housing patterns, demographic make-up, family circumstances, values, political environment, background and experiences of participants, media, policies and priorities, etc. Elements that effect the program over which there is little control.

LOGIC MODEL WORKSHEET

INPUTS	OUTPUTS		OUTCOMES		
	Activities	Participants	Short	Medium	Long-term

LOGIC MODEL WORKSHEET
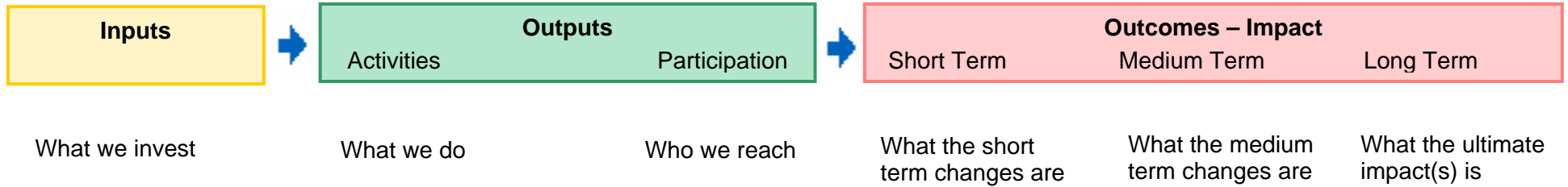
Inputs	Outputs		Outcomes – Impact		
	Activities	Participation	Short Term	Medium Term	Long Term
What we invest	What we do	Who we reach	What the short term changes are	What the medium term changes are	What the ultimate impact(s) is

Not how many worms

the bird feeds its young, but

how well the fledgling flies

(United Way of America, 1999)

WHICH ARE OUTCOMES?

NUTRITION EDUCATION PROGRAMS

___ (1) Older adults increased the amount of calcium-rich foods they eat

___ (2) A series of lessons on healthy eating was taught in collaboration with a drug treatment program

___ (3) Participants serve more than one kind of vegetable to their families every day after participating

___ (4) Participants report savings as a result of wiser spending at the grocery store

___ (5) 75 adults have consistently attended all the nutrition workshops

FOOD SAFETY PROGRAMS

___ (1) The ServSafe education program is working with 80% of all food service managers in the state

___ (2) Food poisonings dropped from 677 in 1996 to 225 in 1997

___ (3) Food service workers reported increased knowledge of safe handling practices

___ (4) Food safety skills were taught to state fair food vendors and restaurant workers

___ (5) Food safety information in English and Spanish is available on the University web site

SMALL BUSINESS DEVELOPMENT PROGRAMS

___ (1) The small business development network grew from 10 to 13 offices in two years

___ (2) Clients generated nearly $40 million in sales

___ (3) Clients received 12,138 hours of counseling in 1999

___ (4) 6,349 participants attended 380 seminars and workshops

___ (5) Clients created and retained 681 jobs

YOUTH CITIZENSHIP PROGRAMS

___ (1) 4-H groups in 45 counties participated in community service projects

___ (2) Teens volunteered in community service an average of 10 hours over the year

___ (3) Teens reported increased ability to identify and help solve a community need

___ (4) Teens feel more engaged in and responsible for their community

___ (5) A local industry contributed $1500 to the 4-H community service project

QUALITY ASSURANCE

___ (1) Producers decreased their use of medications and made biosecurity improvements to prevent health problems

___ (2) 724 adults and 1026 youth participated in training sessions

___ (3) Producers changed management practices because of what they learned

___ (4) Veterinarians co-taught the sessions

___ (5) Overall herd health increased reducing production costs

Adapted from United Way, *Outcome Measurement*, 1999

Answer key:
Nutrition: 1,3,4; Food safety: 2,3,; Small business: 2,5; Youth Citizenship: 3, 4; Quality Assurance: 1, 3, 5

PIN THE CARD ON THE LOGIC MODEL – COOKIE BAKING CARDS

Flour	**Baking soda**	**Salt**
Butter	**Brown sugar**	**Vanilla**
Sugar	**Eggs**	**Nuts**
Chocolate chips	**Cookie baker**	**Baker's helper**
Preheat oven	**Grease cookie sheet**	**Measure ingredients**
Sift together	**Stir ingredients**	**Drop by spoonful**
Bake dough	**Put cookies on plate**	**Hungry cookie eaters**
Hungry cookie eaters like the taste	**Hungry cookie eaters eat the cookies**	**Satiated cookie monsters**
Happy baker	**Dirty kitchen**	**Baker's helper opens a bakery**

COOKIE BAKING LOGIC MODEL

SITUATION: Kids are hungry for chocolate chip cookies

INPUTS

Cookie baker

Baker's helper

Butter

Sugar

Eggs

Flour

Vanilla

Baking soda

Brown sugar

Salt

Nuts

Chocolate Chips

OUTPUTS

Preheat oven

↓

Grease cookie sheet

↓

Measure ingredients

↓

Sift together

↓

Stir ingredients

↓

Drop by spoonful

↓

Bake dough

↓

Put cookies on plate

Hungry cookie eaters

Dirty kitchen

OUTCOMES

Hungry cookie eaters eat the cookies

↓

Hungry cookie eaters like the taste

Satiated cookie monster

Happy baker

Baker's helper decides to open a bakery
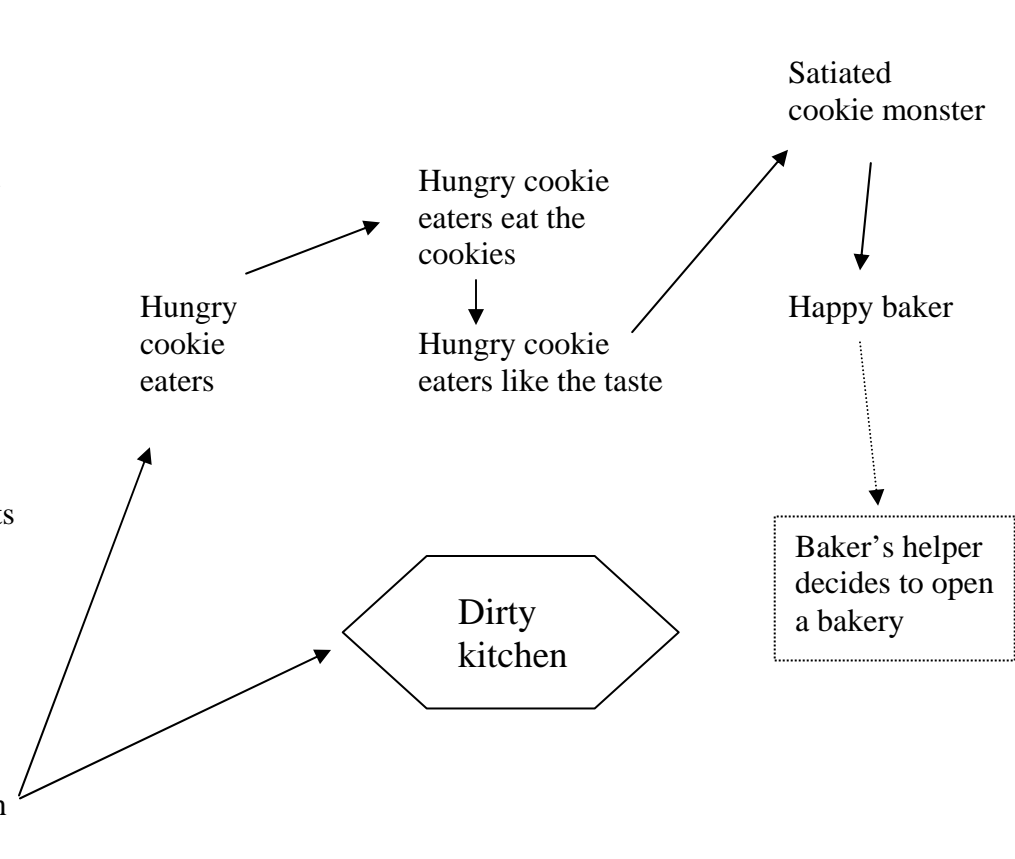
LOGIC MODEL LINGO

1	Input		0	Cannot identify
2	Output: Activity, Participation			
3	Outcome			
	a. Short - Learning			
	b. Medium - Action			
	c. Long-term – Ultimate benefit			

Place a number code, from above, on each line. Be prepared to explain your choice.

_____ a. Teens learned leadership skills

_____ b. A new curriculum was developed

_____ c. Students reported increased confidence in negotiation skills

_____ d. Training programs included seminars and workshops

_____ e. Parents from around the state attended

_____ f. Operators applied their new skills on the job

_____ g. Two agencies partnered to design the program

_____ h. Volunteers provided over 300 hours of support to the project

_____ i. Teen mentors were trained

_____ j. Owners learned how to develop a woodland management plan

_____ k. Sessions were held in 10 locations

_____ l. Reported cases of abuse declined

_____ m. Food safety skills were taught to food vendors and restaurant workers

_____ n. Books were distributed to children

_____ o. Parents increased their employment skills

_____ p. Increased numbers of high school students graduate

_____ q. We helped the community assess the needs of families

_____ r. Specialists educated owners about effective production methods

_____ s. Youth serving agencies increased their collaboration

_____ t. Teens established a teen court and hear cases monthly

_____ u. 3 two-day workshops were conducted in each region

_____ v. Newsletters are distributed in three languages

_____ w. 30 listeners per week tune into the radio broadcast

_____ x. Teens learned to counsel other teens on tobacco prevention

_____ y. Town enacted a policy for youth curfew

_____ z. More kids walk to school

LOGIC MODEL LINGO (ANSWERS)

1 Input	0 Cannot identify
2 Output: Activity, Participation	
3 Outcome	

     a. Short - Learning
     b. Medium - Action
     c. Long-term – Ultimate benefit

Place a number code, from above, on each line. Be prepared to explain your choice.

3a   a. Teens learned new leadership skills

2   b. A new curriculum was developed

3a   c. Students increased their confidence in negotiation skills

2   d. Training programs included seminars and workshops

2   e. Parents from around the state attended

3b   f. Operators applied new skills on the job

1   g. Two agencies partnered to design the program

1   h. Volunteers provided over 300 hours of support to the project

2   i. Teen mentors were trained

3a   j. Owners learned how to develop a woodland management plan

2   k. Sessions were held in 10 locations

3c   l. Reported cases of abuse declined

2   m. Food safety skills were taught to food vendors and restaurant workers

2   n. Books were distributed to children

3a   o. Parents increased their employment skills

3c   p. Greater percentage of high school students graduate

2   q. We helped the community assess the needs of families

2   r. Specialists educated business owners about effective production methods and business management

3b   s. Youth serving agencies have increased their collaboration

3b   t. Teens established a teen court and hear cases monthly

2   u. 3 two-day workshops were conducted in each region

2   v. Newsletters are distributed in three languages

2   w. 300 listeners per week tune into the radio broadcast

3a   x. Teens learned to counsel other teens on tobacco prevention

3b   y. Town enacted a policy for youth curfew

3c   z. More kids walk to school

Note: Several of the above are debatable given the program goal that is assumed.
Participants should be able to explain, defend their choice. To test outcomes, ask "so
what?"

GETTING TO KNOW THE LANGUAGE

Read the situation, then consider the list of program components. Determine whether each component is an input, output, outcome, assumption, or external factor, and check the corresponding box.

Situation: 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	Input	Output--Activity	Output--Participation	Outcome--Short-term	Outcome--Medium-term	Outcome--Long-term	Assumption	External factor
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								
Participants 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 reduce phosphorus use								
Partners								
Farmers at risk of overfeeding phosphorus								
Government programs regulate and offer incentives								
Materials								

SUGGESTED ANSWERS FOR GETTING TO KNOW THE LANGUAGE

Program Components	Input	Output--Activity	Output--Participation	Outcome--Short-term	Outcome--Medium-term	Outcome--Long-term	Assumption	External factor
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					√			
Participants 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 reduce phosphorus use					√			
Partners	√							
Farmers at risk of overfeeding phosphorus			√					
Government programs regulate and offer incentives								√
Materials	√							

WHAT DOES THE STATEMENT REALLY CONVEY?

Program	Statement	Input Output Outcome
Economic development	After a series of six seminars on starting a small business, participants opened 10 businesses, providing employment opportunities for 27 county citizens.	
Comprehensive planning	Evaluations showed that participants gained a better understanding of Smart Growth and comprehensive planning, and were more confident in their ability to make good decisions about how to approach comprehensive planning. The program helped to strengthen ties between Extension, Regional Planning and County Zoning offices.	
Food security	Over 50 community officials and interested citizens attended a poverty simulation in June that focused on specific County data surrounding the issue of poverty and food security.	
Land use and agriculture	1400 farmers were provided agricultural land use statistics by township. 35 elected county officials received agricultural land use statistics by township.	
Basin initiative	Evaluations at the end of the drinking water testing program showed 93% of respondents agreed that the program increased their understanding of groundwater and the potential for groundwater contamination. Intended actions as a result of the program included: future water testing, drilling a new well, checking into well abandonment, and updating teaching materials for a high school class.	
Developing leaders and organizations	Three agencies partnered to design and deliver a program.	
Tobacco control	Training and technical assistance on the logic model are being provided to the Division of Public Health and the Wisconsin Tobacco Control Board who are adapting the model for their long-term planning and evaluation initiatives.	
Strategic planning	Faculty members presented information regarding Strategic Planning Training at a national Community Resource and Economic Development Conference in Orlando, Florida. The juried presentation was made to Community Development Educators from across the country.	
Health and physical activity	After nearly 2 years of planning by multiple agencies, the 19 mile bike/walking trail was unveiled amid enthusiastic applause during the mid-summer community festival.	
Environment	Two hundred and five people attended the Land Stewardship Conference, including eight children who took part in a new "Kids' Corner" educational offering.	
Parenting education	Sixty-five percent of families that participated in the Wisconsin Bookworms program used recommend activities with their child at home; 81% read to their children more often and 50% visited the public library more often.	

SUGGESTED ANSWERS FOR WHAT DOES THE STATEMENT REALLY CONVEY?

Program	Statement	Input Output Outcome
Economic development	After a series of six seminars on starting a small business, participants opened 10 businesses, providing employment opportunities for 27 county citizens.	Outcome
Comprehensive planning	Evaluations showed that participants gained a better understanding of Smart Growth and comprehensive planning, and were more confident in their ability to make good decisions about how to approach comprehensive planning. The program helped to strengthen ties between Extension, Regional Planning and County Zoning offices.	Outcome
Food security	Over 50 community officials and interested citizens attended a poverty simulation in June that focused on specific County data surrounding the issue of poverty and food security.	Output
Land use and agriculture	1400 farmers were provided agricultural land use statistics by township. 35 elected county officials received agricultural land use statistics by township..	Output
Basin initiative	Evaluations at the end of the drinking water testing program showed 93% of the respondents agreed that the program increased their understanding of groundwater and the potential for groundwater contamination. Intended actions as a result of the program included: future water testing, drilling a new well, checking into well abandonment, and updating teaching materials for a high school class.	Outcome
Developing leaders and organizations	Three agencies partnered to design and deliver a program.	Output
Tobacco control	Training and technical assistance on the logic model are being provided to the Division of Public Health and the Wisconsin Tobacco Control Board who are adapting the model for their long-term planning and evaluation initiatives.	Output/ Outcome
Strategic planning	Faculty members presented information regarding Strategic Planning Training at a national Community Resource and Economic Development Conference in Orlando, Florida. The juried presentation was made to Community Development Educators from across the country.	Output
Health and physical activity	After nearly 2 years of planning by multiple agencies, the 19 mile bike/walking trail was unveiled amid enthusiastic applause during the mid-summer community festival.	Output
Environment	Two hundred and five people attended the Land Stewardship Conference, including eight children who took part in a new "Kids' Corner" educational offering.	Output
Parenting education	Sixty-five percent of families that participated in the Wisconsin Bookworms program used recommend activities with their child at home; 81% read to their children more often, and 50% visited the public library more often.	Outcome

LOGIC MODELS COME IN VARIOUS SHAPES AND SIZES
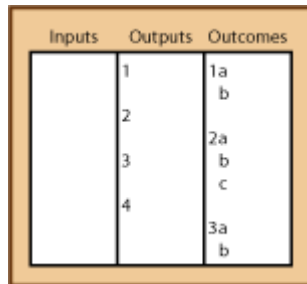
Table format. Sometimes a logic model is built as a table with lists of items in the input, output, and outcome columns. The model may include limited directional arrows to illustrate connections and relationships. It may include numbered lists to show order within a column or to indicate rows of connections across the columns.
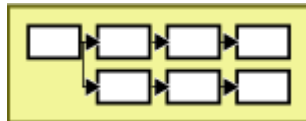
Flow-chart format. These logic models use boxes, with lines and arrows connecting the boxes to illustrate the causal linkages. Boxes may be numbered.
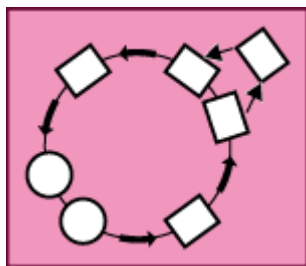
Some logic models use circles and other shapes. We've had community groups use metaphors such as oysters, trees, footprints, and an octopus to depict their programs. Individual cultural groups may prefer other forms and presentations such as circles and storyboarding.
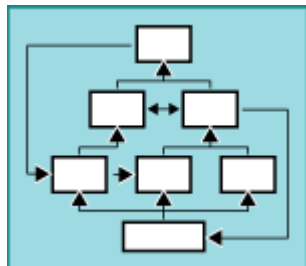
Some logic models are simple; others are complex. Some are vertical; others are horizontal
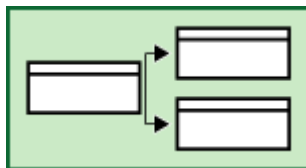
Some logic models are abbreviated and show only key components to be highlighted; some don't include assumptions, situation, or external factors; some only include outputs and outcomes.

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 is that the logic model 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.

TWO COMMON LOGIC MODEL VARIATIONS

THE UWEX LOGIC MODEL:

| INPUTS | → | OUTPUTS | → | Short-term OUTCOMES | → | Medium-term OUTCOMES | → | Long-term OUTCOMES |

| Activities | Participation |
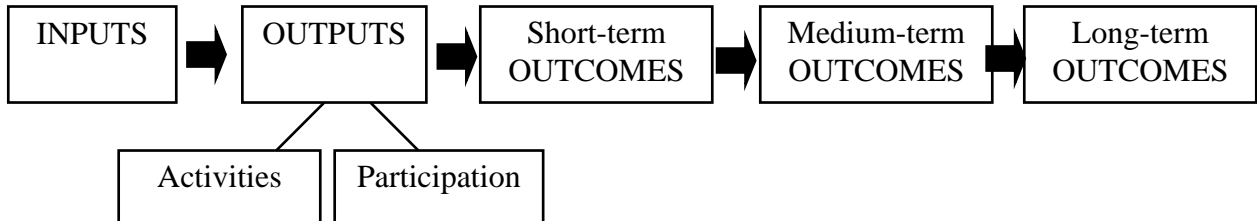
The UWEX model divides "OUTPUTS" into activities and participation. See the online logic model course for explanation: http://www.uwex.edu/ces/lmcourse

UNITED WAY AND OTHER AGENCIES MODEL

Another very common model separates activities and output and may not include "participation." This is the model typically used by United Way, Center for Disease Control and Prevention and many other agencies. It looks like the following:
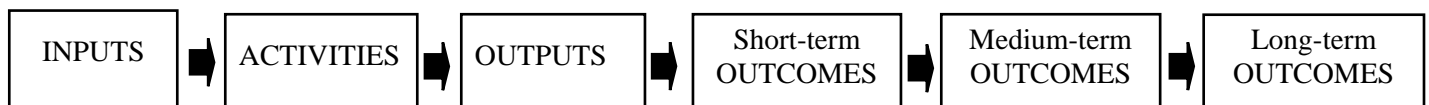
| INPUTS | → | ACTIVITIES | → | OUTPUTS | → | Short-term OUTCOMES | → | Medium-term OUTCOMES | → | Long-term OUTCOMES |

In this model, outputs are considered a "product" of the activity. For example, an activity might be "deliver services" and the output would be "# of services actually delivered." See the W.K. Kellogg Foundation Logic Model Development Guide, page 8, for explanation. In the UWEX logic model, such "products" are included as indicators of accomplishments and are measured in the evaluation plan.

COMPARING
TABLE AND FLOWCHART FORMATS

LOGIC MODEL – TABLE FORMAT

Inputs	Outputs		Outcomes – Impact		
	Activities	Participation	Short Term	Medium Term	Long
What we invest	What we do	Who we reach	What the short-term changes are	What the medium term changes are	What the ultimate impact(s) is
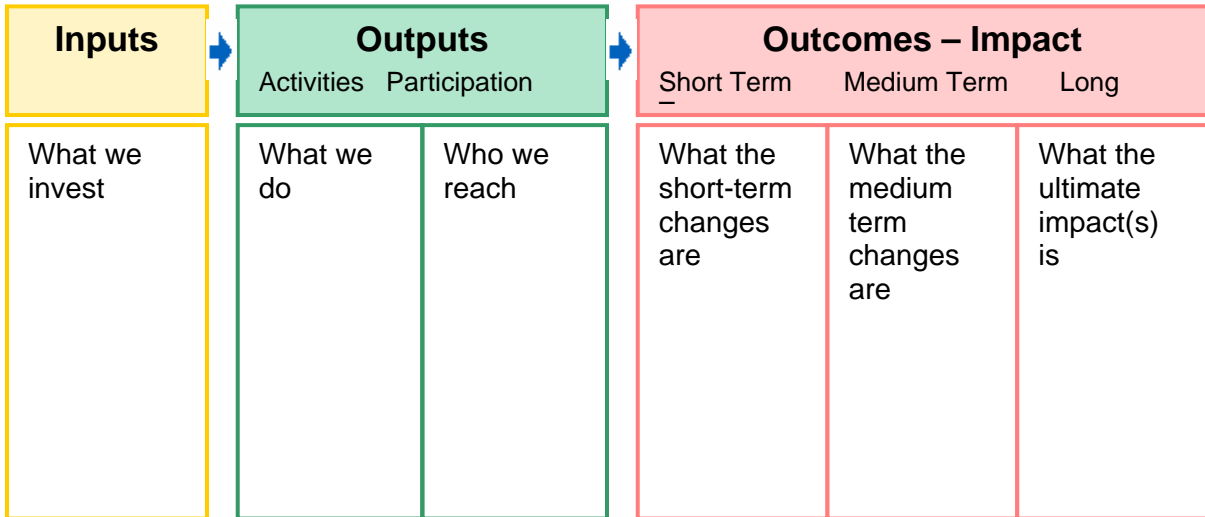
LOGIC MODEL – FLOWCHART FORMAT
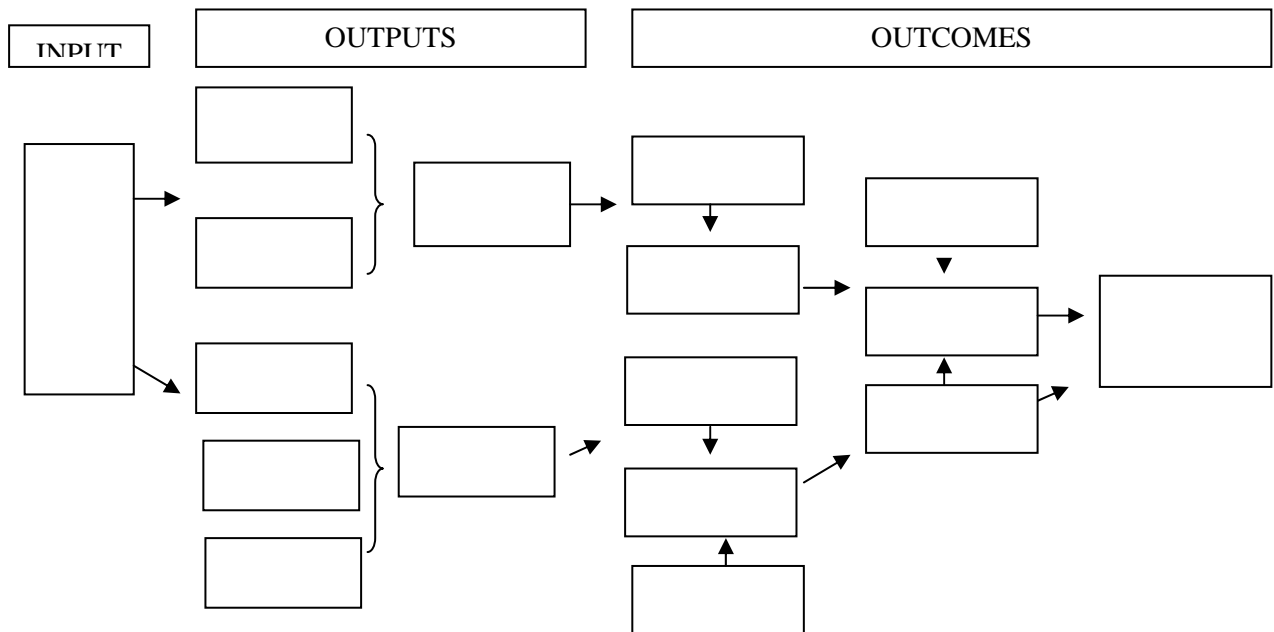
BUILDING NATIVE COMMUNITIES: FINANCIAL SKILLS FOR FAMILIES

Situation:
Many tribal members lack basic financial management knowledge and skills and do not use their local financial institutions that would help them manage their financial resources.

What we invest	What we will do	Who we reach	What will result – OUTCOMES		
			Short-term	Medium-term	Long-term; final
Fannie Mae/First Nations Curriculum	Test, adapt curriculum Partner with Credit Union Deliver six sessions 1. Building a healthy economy	Tribal families	Increased knowledge of family financial basics Increased knowledge of checking and savings accounts and how to use	Set financial goals Use savings and spending plan	Tribal families wisely manage their financial resources
Ext. Staff	2. Spending plans 3. Checking/savings accounts	Casino employees	Increased understanding of credit and credit reports	Maintain good credit standing	
Credit Union	4. Credit and credit reports 5. Accessing credit		Increased ability to fill out a credit application	Make informed financial decisions	
Grant $$	6. Know your local credit union	Credit union referrals	Increased ability to create a spending plan	Use credit union (financial institution)	
Federal funds	Do in-home counseling Build a resource library Disseminate information		Increased confidence in local credit union		

MULTIPLE CHAINS
AND DIRECTIONAL FLOWS

Our programs are seldom simple, single chains of if-then relationships. More likely, there are several chains of connections, and vertical as well as horizontal 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 might lead back to changes in knowledge and attitudes that, in turn, lead forward to behavioral change. Perhaps, as we implement a program, we find that the targeted numbers of participants are not attending, and we use that information to redesign our strategy or to inform the next planning cycle. Or, our program may cause a change in an external factor that, in turn, feeds back and leads to a change in the program direction.
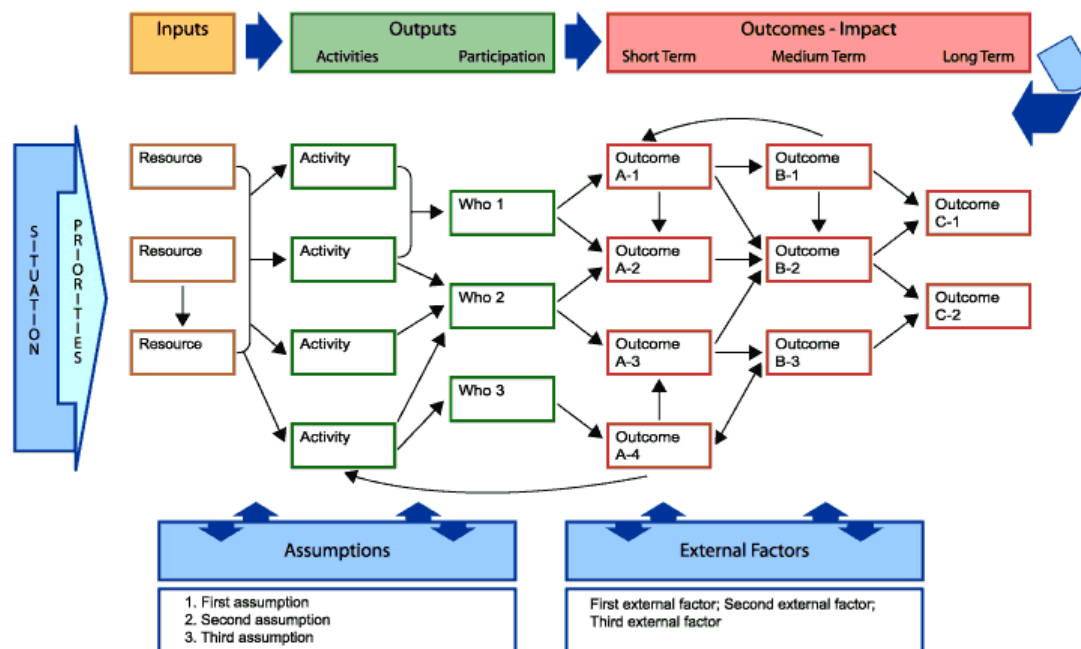
In this logic model, you see a number of rows (or chains) that depict various sequences of events. You also see arrows showing both vertical and horizontal flows and feedback loops. The several rows or chains might represent different activities or target audiences and the sequence of events pertaining to each. The graphic also shows double-headed arrows and feedback loops. Feedback loops are common in many 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. 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.

MULTIPLE LOGIC MODELS

MULTI-LEVEL

Multiple logic models may be needed to clarify various levels, issues or goals of a broad single 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. One example of the use of multi-level logic models is in a national community nutrition education effort with disparate programs at multiple sites across the United States. The establishment of consistency of purpose and method is essential to the successful implementation of an accountability system.
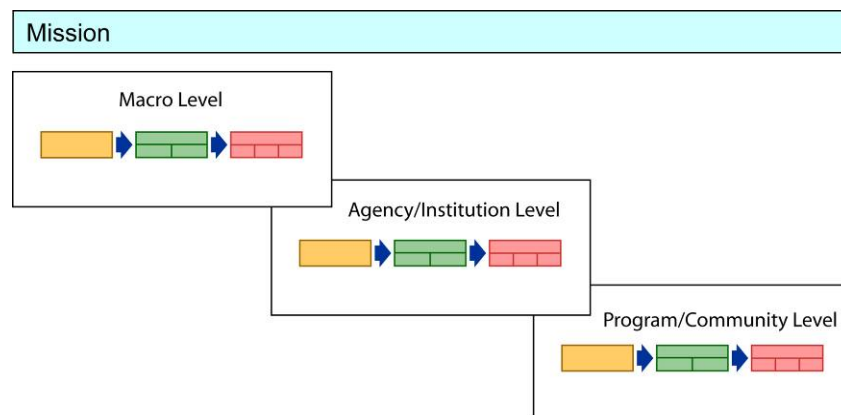
MULTI-COMPONENT

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.
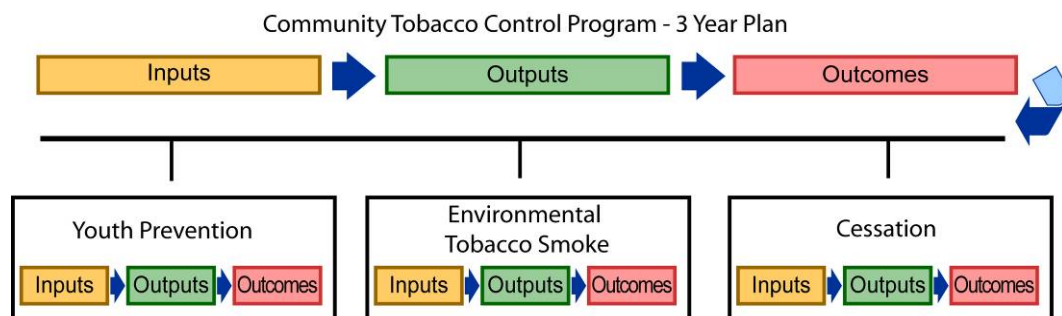
MULTI-LEVEL SYSTEM

Tobacco Control Example: Level One
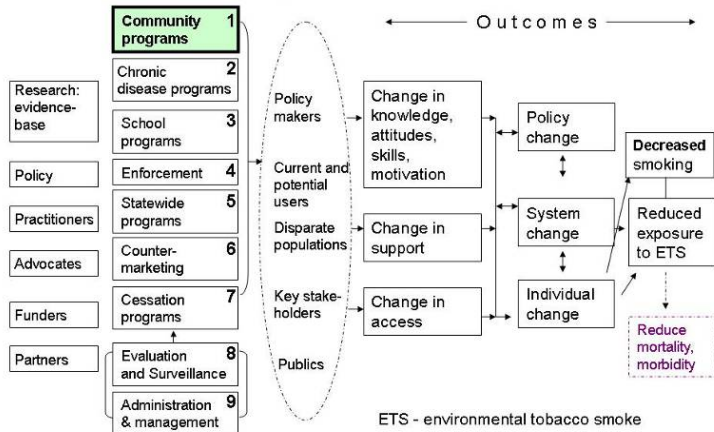
This first logic model – Level One- displays a global picture of a comprehensive, statewide tobacco control initiative comprised of nine major programs. Each of the nine can be detailed in its own logic model as shown below for one major program.

Tobacco Control Example: Level Two
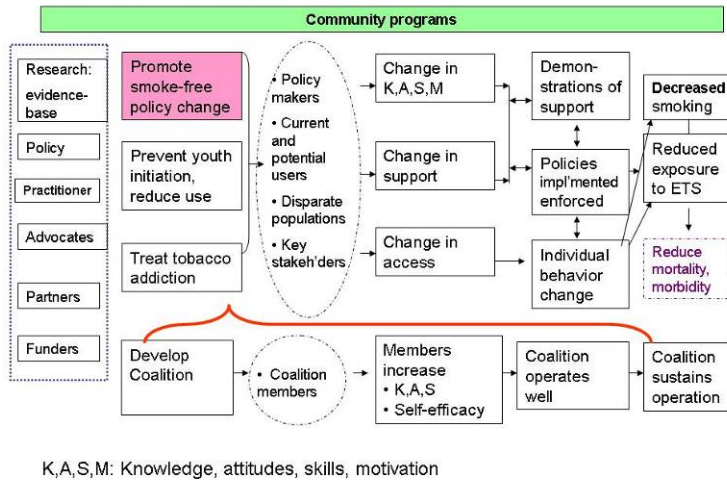
The second logic model - Level Two - highlights the community level program and shows this community program is comprised of four components. The fourth component, "Develop Coalitions," undergirds and supports the other three. Each component can be detailed in its own logic model as shown below for the "Promote smoke-free policy change" initiative.

Tobacco Control Example: Level Three
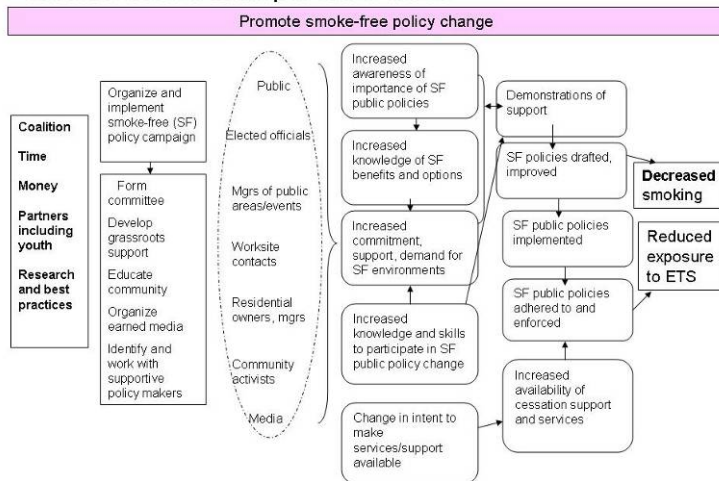
The third logic model - Level Three - depicts one aspect of the Community programs. It shows the actual program delivered. At this level we have enough detail to create an implementation and evaluation plan.

MULTI-COMPONENT

Parent Support Initiative
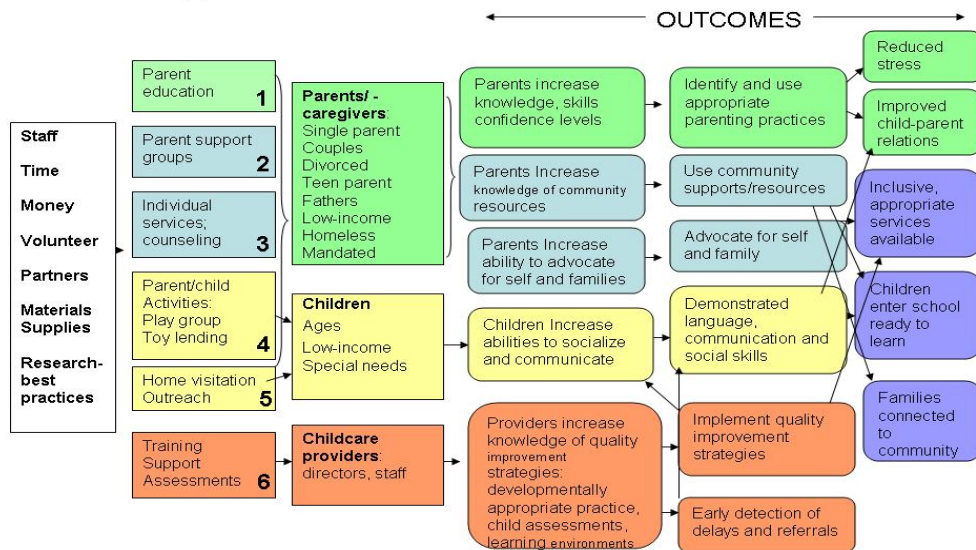
> This logic model displays a comprehensive parent support initiative comprised of 6 component parts. To provide more detail, each component can be "blown up" to depict the actual program delivered. For example, the parent education component is magnified in the following logic model.

Parent Support Initiative

Parent Education Component
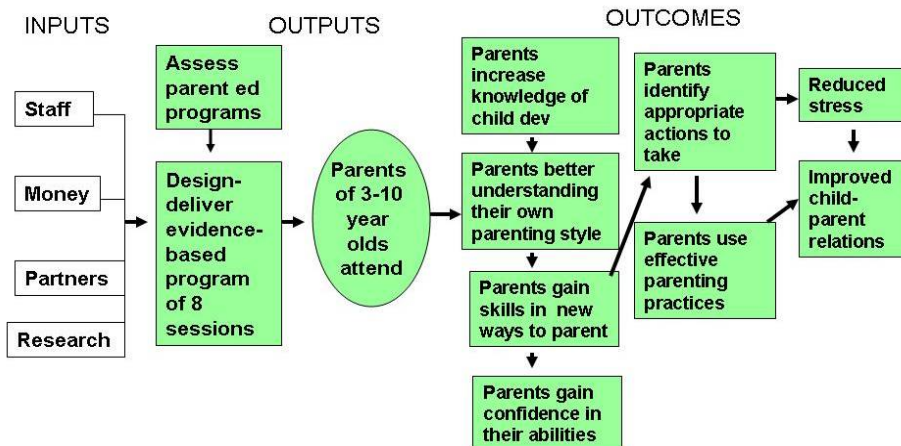
> This logic model provides greater detail about the theory of change that underlies the parent education component of the overall initiative.

GETTING STARTED WITH LOGIC MODEL DEVELOPMENT

STEP 1: PURPOSE AND USE

What is the purpose of your logic model? Why are you developing a logic model?

Who will use it? How?

STEP 2: INVOLVE OTHERS.

Who should participate in creating the logic model?

Who should facilitate the logic model development process?

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?

STEP 4: UNDERSTAND THE SITUATION.

What is the situation (problem) giving rise to this program?

STEP 5: EXPLORE THE RESEARCH, KNOWLEDGE BASE.

What do we know about the problem/audience/context? What are the relevant barriers and facilitators?

IDEAS FOR FACILITATING LOGIC MODEL DEVELOPMENT

Because much of the value of logic modeling is in creating a shared understanding of a program, it is advisable to create a logic model using a group process. Broader participation in logic model development results in a higher quality and more useful logic model.

Think about time that will be devoted to the process, number of meetings, size and composition of the group. Create a "plan" for developing the logic model with roles, responsibilities, timeline, and resources needed.

Any of the following options can be broken into smaller segments and accomplished over several meetings.

OPTION#1

- Cover wall with paper. Write the long-term impact on the far right side (or top, or bottom).

- Identify resources, activities, participants, outcomes. Individuals or groups of two might write each of these on individual post-it notes – one item per post-it note. Ensure that outcomes are written as outcome statements (see Appendix A) and that "participants" are specified.

- Post the notes on the wall; working together to position all the post-it notes in a logical order. Check the "if-then" relationships. Identify gaps, missing links in the causal chain. Add more post-it notes as necessary. Remove those that are duplicates or fail to fit in the order – place these in a "parking lot" for later consideration.

- Use markers to draw arrows connecting the post-it notes.

- Record and make copies for all.

- Plan another meeting to review and refine the logic model.

OPTION #2

- Divide people working on the same program into smaller subgroups.

- Each subgroup createsa logic model of the program, using techniques described above

- Sub-groups bring their individual models back to the whole group to compare and discuss.

- The whole group works together to merge and create one logic model for the program.

OPTION #3

1ˢᵗ meeting. Purpose: to create a 'chain of outcomes' for the program

- Invite members to a group meeting. Ask them to bring a list of program outcomes – each outcome written on a 3x5 index card (one outcome per card). Instruct members how to write the outcome as an "outcome statement" that designates WHO is intended to change and the CHANGE expected (e.g., participating teens will increase their money management skills).

- Cover wall with paper. On the right side, at the top, write LONG-TERM OUTCOME. On the left side, at the top, write SHORT-TERM OUTCOME.

- Ask each individual to tape his/her index card along a continuum from shorter to longer-term outcomes.

- Members should work together and line up their outcomes. Encourage members to cluster their outcomes by participant (target group) category with a chain of outcomes for each target group. You may wish to write the names of the various target audiences in a column on the left side.

- Facilitate discussion and consensus about what goes where. Identify gaps and add more cards as needed. Remove duplicates or any that fail to fit in the sequence – place them in a "parking lot" for later consideration.

- Discuss and list all assumptions underlying the chain of outcomes as depicted.

- Discuss and list all external factors that may influence or be influenced by the outcomes as depicted.

- Finalize the chain of outcomes and identify gaps, omissions, concerns, issues. Check the "holding lot" and include or reject items.

- Copy and send to each member. Schedule next meeting.

2ⁿᵈ meeting. Purpose: to link resources and activities to the identified outcomes

- Review and refine the "chain of outcomes." Move to ACTIVITIES and RESOURCES. Brainstorm:

  o What do we do (the activities) and who do we reach (participation)?

  o What resources do we invest?

- Volunteers record each item on a separate index card as the group brainstorms.

- Place more paper to the left of the "chain of outcomes." People place the index cards on the paper, connecting the resources and activities to the chain of outcomes.

- Draw lines and arrows connecting the various items on the logic model.

- Discuss and refine until members are satisfied with the composite logic model

- Some may want to spend more time than others trying to create the "perfect" logic model. They might be encouraged to work on the logic model separately.

OPTION #4

- Use web-based systems, email, or other distance communication methods to create a logic model for a geographically dispersed group.

- Adapt the preceding ideas to facilitate discussion and sharing of logic model drafts using distance communication.

OPTION # 5

- Subcommittee creates the logic model

- Certain individuals may have experience, interest, or particular expertise in logic model development. This individual or small group may be "in charge" of drafting the logic model. (You may hire an external consultant to do this)

- They create a draft for group review and input.

- They continue to refine and share the logic model with the full group until the logic model reflects the group's description of the program

TIPS:

- Work in small, interactive group settings that are collaborative and sensitive.

- Use everyday, culturally appropriate, examples to introduce ideas.

- Do not fixate on the use of difficult terminology. Use words and terms that make the most sense. Sometimes, simply linking activities to a range of results, which in turn lead to other results, may be more appropriate (without using the language of inputs-outputs-outcomes).

- Build on a sense of shared vision and participatory decision-making. If this is lacking, the value and use of logic model is likely to be minimal.

- Create a draft model; revise it; continue to refine it over time.

- Identify a mentor or coach for each logic model developed who questions the strengths and weaknesses of the underlying program theory and assumptions.

- Recognize that logic model development is not quick or easy

- Encourage participants to post their logic models where they can be seen and used

- Provide for ongoing technical assistance and support

WHERE TO START
IN CREATING A LOGIC MODEL?

Always start with the situational analysis and identification of the long-term desired end result – the goal of your program.

APPROACH 1: WORK BACKWARDS

1. **S**tart at the end. What is your long-term desired outcome?

2. Move backwards and identify the chain of outcomes that lead to the final, long-term result.

3. Move backwards: WHO must participate – who is expected to achieve the expected outcomes?

4. Move backwards: What ACTIVITIES must be provided/produced/completed so that the identified individuals (groups) will achieve the desired outcomes? If necessary, cluster activities into strategies (activities that fit together conceptually) such as training, media work, coalition development activities.

5. Move backwards: What RESOURCES are needed to make sure the activities are accomplished?

APPROACH 2: FOCUS ON ACTIVITIES

Program staff and stakeholders are often most comfortable talking about what they DO in the program or intend to do…the program ACTIVITIES.

Write down all activities involved in (or planned for) the program – workshops, services, products, etc.

For each activity, complete one of the following statements, continue repeating and completing the statement until your reach a logical end point.

"We do _____, SO THAT _____ will occur."

"IF we do_____, THEN_____ will occur."

You can also use the question "But, why?" For example: **But, why** do I advertise the workshop? Answer: so that people will attend. **But, why?** Answer: so that people will be increase their knowledge about…etc.

Continue until a chain of connections is created that links program activities to desired end results.

List the resources needed to ensure the chain of connections is achieved.

PROGRAM ELEMENT CARDS

PREGNANT TEENS PROGRAM

Program manager, registered nurse, 3 counselors	Agency resources are allocated to the teen parent program
Small community grant	Manuals, videos and other teaching tools
Agency and high schools identify pregnant teens to participate in the program	Parenting curriculum for teens is developed
Parenting classes are held in high school twice a week for 1 hr for teen moms from 3 months prior to one year after delivery	Teens attend parenting classes regularly
Teens increase knowledge of prenatal nutrition and health	Teens follow prenatal nutrition and health guidelines
Teens provide proper care, feeding and social interaction to babies	Teens deliver healthy babies
Teens increase knowledge of early childhood development and baby care	Teens' babies achieve milestones for motor, verbal and social development

SUGGESTED PLACEMENT OF ELEMENTS – PREGNANT TEENS PROGRAM

INPUTS   **OUTPUTS**   **OUTCOMES**

SHORT   MEDIUM   LONG-TERM

Program manager, registered nurse, 3 counselors

Agency and high schools identify pregnant teens to participate in the program

Agency resources are allocated to the teen parent program

Parenting curriculum for teens is developed

Teens attend parenting classes regularly

Teens increase knowledge of prenatal nutrition and health

Teens follow prenatal nutrition and health guidelines

Teens deliver healthy babies

Small community grant

Parenting classes are held in high school twice a week for 1 hr for teen moms from 3 months prior to one year after delivery

Teens increase knowledge of early childhood develop-ment and baby care

Teens provide proper care, feeding and social interaction to babies

Teens' babies achieve milestones for motor, verbal and social develop-ment

Manuals, videos and other teaching tools

PROGRAM CARDS – PARENTING EDUCATION PROGRAM

Staff	Parents of 3-10 year olds attend
Money	Parents increase knowledge of child development
Partners	Parents better understand their own parenting styles and child's needs
Research	Parents gain skills and confidence in effective parenting practices
Assess parent education programs	Parents identify appropriate actions to take
Design-deliver evidence-based program of 8 sessions	Parents use effective parenting practices
Facilitate parent support groups	Improved child-parent relations

SUGGESTED PLACEMENT OF ELEMENTS – PARENT EDUCATION PROGRAM

INPUTS   OUTPUTS   OUTCOMES

Staff

Money

Partners

Research

Assess parent ed programs

Design-deliver evidence-based program of 8 sessions

Facilitate support groups

Parents of 3-10 year olds attend

Parents increase knowledge of child dev

Parents better understanding their own parenting style

Parents gain skills in new ways to parent

Parents gain confidence in their abilities

Parents identify appropriate actions to take

Parents use effective parenting practices

Reduced stress

Improved child-parent relations

Strong families

PROGRAM CARDS – HMONG LITERACY PROGRAM

Three credit course in Hmong Language designed as part of ESL sequence	K-12 teachers seeking DPI certification attend course
Course offered at convenient times and locations around the state	Improved English language of Hmong elementary school students
Improved educational performance of Hmong students	Financing from 104generated tuition
Program Manager and Project Assistant manage the program	Improved communications between teachers, students, parents, community
Ad hoc faculty member and Chairperson of Department teach course	Teachers greet parents in Hmong
Teachers use Hmong in classroom	Teachers incorporate aspects of Hmong culture in teaching
Teachers increase knowledge in structure and grammar of Hmong language	Teachers incorporate knowledge of Hmong language into the way they teach English
Teachers learn Hmong greetings and basic conversation	Teachers gain understanding of differences between languages and cultures

SUGGESTED PLACEMENT OF ELEMENTS – HMONG LITERACY PROGRAM

INPUTS

OUTPUTS

OUTCOMES

Program manager and project assistant manage the program

3 credit course in Hmong language designed as part of ESL sequence

Ad hoc faculty member and chairperson of department teach course

K-12 teachers seeking DPI certification attend course

Financing from 104 generated tuition

Course offered at convenient times and locations around the state

Teachers increase knowledge in structure and grammar of Hmong language

Teachers incorporate knowledge of Hmong language into way they teach English

Improved English language skills of Hmong students

Teachers learn Hmong greetings and basic conversation

Teachers use Hmong in classroom

Improved communi-cations between teachers, students, parents, community

Teachers greet parents in Hmong

Teachers gain understanding of differences between languages and cultures

Teachers incorporate aspects of Hmong culture in teaching

Improved educational performance of Hmong students

LOGIC MODEL LAYOUT

Parent Education Program example

Situation: During a county needs assessment, a majority of parents reported that they were having difficulty parenting, felt stressed and were unhappy with their parent-child relationships.

INPUTS   OUTPUTS   OUTCOMES

Reduced stress

Improved child-parent relations

COMMUNITY COLLABORATIVE CASE EXAMPLE

A community collaborative, including the local school district, Extension, and the local UW-system campus has received a grant for a project titled "A Day at the University." The project is a post-secondary education day for Hispanic students grades 7-8 held on the local UW campus. The school district will release the students from school to attend the day long event which will include workshops, a student panel, lunch, and an "informance." Students will be given an assignment to be shared in their schools reflecting the knowledge gained during their "Day at the University."

Objectives for the day are: the students will gain an understanding that college is a possibility for them through advanced planning and wise choices; they will be able to explain basic types of financial aid and how to qualify; they will know some key resources available to help them as they move through high school; and they will meet several successful Hispanic community leaders who are college graduates.

CREATE A LOGIC MODEL BASED ON THIS DESCRIPTION

Write down questions that you'd ask the project staff to further clarify the project's theory of change.

LOGIC MODEL REVIEW WORKSHEET

INPUTS

Are all the major resources listed such as:

☐ Service providers, e.g., staff, volunteers

☐ Support from key groups or organizations

☐ Funding sources, e.g., private or public funding, donations, fee for service

☐ Research base

☐ Do the resources seem comprehensive?

☐ Do the inputs seem to match the program?

Comments: _____

ACTIVITIES

☐ Are all the major activities listed that comprise the program, e.g., outreach, counseling, case management, meal service, home visiting, training workshops, information and referral, small group sessions?

☐ Is it clear what the program will actually do?

☐ Do the activities seem sufficient?

Comments: _____

PARTICIPATION

☐ Is it clear who the activities are to reach and benefit? (e.g., youth ages 6-11)

☐ Are all primary audiences included?

☐ Are the mix and intensity of activities appropriate for the type of clients/participants? (e.g., greater intensity for higher-risk populations than for lower-risk ones)

Comments: _____

OUTCOMES

☐ Is each outcome truly an "outcome"?

☐ Are the outcomes written as change statements? Will things increase, decrease or stay the same?

☐ Are the outcomes linked as progressive steps towards a long-term goal?

☐ Are the outcomes meaningful and relevant?

☐ Are the outcomes realistic and attainable?

Comments: _____

OVERALL REVIEW QUESTIONS

☐ Do the inputs, outputs, and outcomes link together in a sequence to achieve the desired result? Is the logic model truly logical?

☐ Do the steps that turn inputs into outputs into outcomes seem sensible and logical?

☐ Can the program, as described in this logic model, be implemented with available resources? Is what you intend to do possible, given your resources? If not, what will be done?

☐ What might be unintended or negative outcomes?

☐ Does the one-page graphic communicate well?

Comments: _____

HOW GOOD IS YOUR LOGIC MODEL?

ASK YOURSELF:

- Is each listed outcome truly an 'outcome'? Does the logic model clearly separate outcomes from outputs, or are the distinctions blurred?

- Does the highest-level outcome represent a *meaningful benefit of value to the public*? Does it have inherent value? Can it be associated with the program?

- Is the model truly logical? Do the relationships among the program elements make sense? Are the casual relationships supported? Three ways to check:

- Starting at inputs, ask "why?" at each level: why do we need these inputs? Why do we need to conduct these activities?

- Starting at the impact level, and working backward, ask "how?" How are we going to produce these outcomes? The items immediately preceding an outcome should show "how."

- Sometimes components are necessary but not sufficient. Ask yourself, "What else?" For example, achieving healthy one-year-olds requires not only achieving a healthy birth but also achieving proper care during the baby's first year. Asking 'what else?' helps spot leaps of faith.

- Are the resources realistic? Is what you intend to do even possible given your resources?

- How valid are the assumptions? Are they based on experience and research, or are they best guesses?

- Does the logic model reflect the opinions and support of key stakeholders? Were any stakeholders left out?

Adapted from Mike Hendricks, EVALTALK, on-line, 7/9/98; Freddolino, P. 1998, Michigan Safe and Drug-Free Schools and Communities; Evaluation Training Workshop, Phase 1; Michigan Department of Community Health.

WHAT DO YOU (AND OTHERS) WANT TO KNOW ABOUT THIS PROGRAM?

INPUTS   OUTPUTS   OUTCOMES

Staff

Money

Partners

Research

Assess parent ed programs

Design-deliver evidence-based program of 8 sessions

Facilitate support groups

Parents of 3-10 year olds attend

Parents increase knowledge of child dev

Parents better understanding their own parenting style

Parents gain skills in new ways to parent

Parents gain confidence in their abilities

Parents identify appropriate actions to take

Parents use effective parenting practices

Reduced stress

Improved child-parent relations

Strong families

PARENT EDUCATION EXAMPLE: QUESTIONS

Staff	Develop parent ed curriculum			Parents increase knowledge of child dev.	Parents identify appropriate actions to take	
Money				Parents better understand their own parenting style		Improved child-parent relations
Partners	Deliver series of 8 interactive sessions		Parents of 3-10 year olds			
Research	Facilitate support groups			Parents gain skills in effective parenting practices	Parents use effective parenting practices	

What do you want to know?

What amount of $ and time were invested?	What is quality of curriculum? How many sessions were held? What is quality of delivery? #, quality of support groups?	Who/how many attended/did not attend? Did they attend all sessions/support activities? Were they satisfied – why/why not?	To what extent did knowledge and skills increase? For whom? Why? What else happened?	To what extent did behaviors change? For whom? Why? What else happened?	To what extent are relations improved? What else happened?

What in the program context and external environment affected operations and outcomes? Which of our assumptions are correct? Incorrect?

LOGIC MODEL AND COMMON TYPES OF EVALUATION
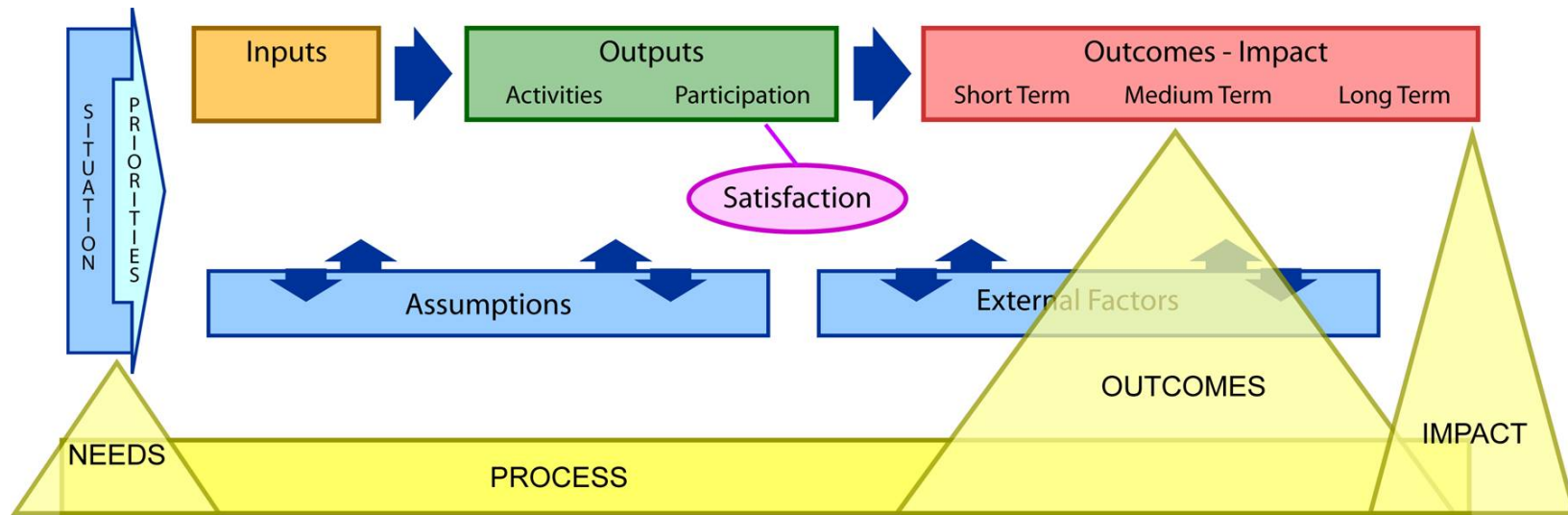
Types of evaluation

Needs/asset assessment:
What are the characteristics, needs, priorities of target population?
What are potential barriers/facilitators?
What is most appropriate to do?

Process evaluation:
How is program implemented?
Are activities delivered as intended? Fidelity of implementation?
Are participants being reached as intended?
What are participant reactions?

Outcome evaluation:
To what extent are desired changes occurring? Goals met?
Who is benefiting/not benefiting? How?
What seems to work? Not work?
What are unintended outcomes?

Impact evaluation:
To what extent can changes be attributed to the program?
What are the net effects?
What are final consequences?
Is program worth resources it costs?

Developing a logic model

A logic model is…

- A depiction of a program showing what the program will do and what it is to accomplish.
- A series of "if-then" relationships that, if implemented as intended, lead to the desired outcomes
- The core of program planning and evaluation

Simplest form

In its simplest form, a logic model is a graphic representation that shows the logical relationships between:

•The resources that go into the program – INPUTS

•The activities the program undertakes – OUTPUTS

•The changes or benefits that result – OUTCOMES

Logic models can be applied to:

- a small program
- a process (i.e. a team working together)
- a large, multi-component program
- or even to an organization or business

LOGIC
- *the principles of reasoning*
- *reasonable*
- *the relationship of elements to each other and a whole*

MODEL
- *small object representing another, often larger object (represents reality, isn't reality)*
- *preliminary pattern serving as a plan*
- *tentative description of a system or theory that accounts for all its known properties*

The American Heritage Dictionary, 2nd Ed

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

Yogi Berra

Where are you going?

How will you get there?

What will show that you've arrived?

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Many people say a logic model is a road map

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Logic model may also be called…

- Theory of change
- Program action
- Model of change
- Conceptual map
- Outcome map
- Program logic

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Accountability era

- What gets measured gets done
- If you don't measure results, you can't tell success from failure
- If you can't see success, you can't reward it
- If you can't reward success, you're probably rewarding failure
- If you can't see success, you can't learn from it
- If you can't recognize failure, you can't correct it.
- If you can demonstrate results, you can win public support.

Reinventing Government, Osborne and Gaebler, 1992

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What logic model is not…

- A theory
- Reality
- An evaluation model or method

It is a framework for describing the relationships between investments, activities, and results.

It provides a common approach for integrating planning, implementation, evaluation and reporting.

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A bit of history

Dates to late 1960's
Current accountability demands; logic model in widespread use

Public Sector - GPRA
Non-Profit Sector
Private Sector
International Agencies
Evaluation

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Let's not think that this Logic Model is brand new. Actually, the concepts have been around since the late 1960's in the writings of Suchman, 1967 and Wholey's evaluability assessment model.

It has come to the forefront again, and is being developed and applied in a variety of settings as a result of a variety of factors:

Private sector: part of total quality management and performance measurement movement

Public sector, the GPRA has moved all federal agencies to focus on results and link investments to results, not just activities.

Non-profit sector is concerned with improving programs to produce valued impacts with the United Way being a frontrunner in outcome measurement using the logic model.

International programs. The players in the international arena for a long time have used variations of a logic model. The Log Frame of the US Agency for International Development of the 1980's is a historical precedent to the current logic modeling discourse.

And, professional evaluators have played a prominent role in using and developing the logic model. This is why it is often called an 'evaluation framework.' This is a result of evaluators being asked to evaluate impact and finding, too often, that programs didn't exist, or weren't being implemented in a way that would achieve the expected impact. Consequently, evaluators began working with programmers to lay out the logic of programs. We see the outgrowth particularly in Chen's theory-driven evaluation (1990) and Weiss (1997) theory-based evaluation.

? Why the hype? ?
What's the benefit?

- Focus on and be accountable for what matters – OUTCOMES
- Provides common language
- Makes assumptions EXPLICIT
- Supports continuous improvement
- Promotes communications

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Logic modeling is a way of thinking… not just a pretty graphic
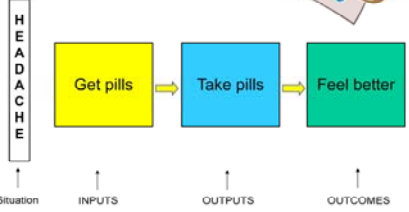
"We build the road and the road builds us."
-Sri Lankan saying

Everyday example

HEADACHE → Get pills → Take pills → Feel better

Situation | INPUTS | OUTPUTS | OUTCOMES

Let's take a simple example – one that we can all relate to.

How many of us have had a headache at one time or another? (headache – SITUATION)

What do we do? Our experience may be that certain pills help

So, we need to get the pills (INPUTS),

Then we take the pills (OUTPUTS)
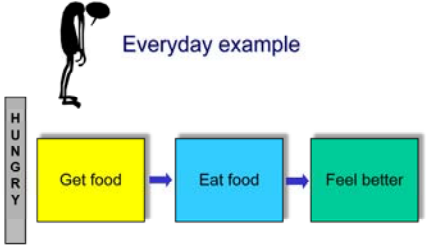
As a consequence, our headache goes away and we feel better. (OUTCOME)

Number of embedded assumption: assumes that we can find/get the needed pills; that we take the pills as prescribed; that the pills lead to improvement – not a stomach ache or other negative side effect. All programs have such assumptions – often the basis for failure or less than expected results

But, you can see the logic of the diagram and the end results – the impact that is expected. What really matters isn't whether we get the pills and take the pills, but whether we feel better as a result

Everyday example

HUNGRY → Get food → Eat food → Feel better

In this case, we are hungry.

Our experience tells us that if we could just get some food
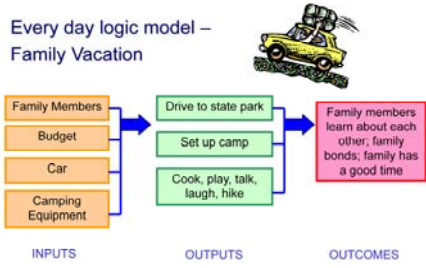
Then, eat the food;

Then we will not longer be hungry and we will feel better.

The real thing is that we want to feel better- the desired end result.

Every day logic model – Family Vacation

Family Members, Budget, Car, Camping Equipment → Drive to state park, Set up camp, Cook, play, talk, laugh, hike → Family members learn about each other; family bonds; family has a good time

INPUTS | OUTPUTS | OUTCOMES

In this example, it is summertime and we want to take a family vacation.

We have had experience and know (our own personal research tells us) that camping is something we all enjoy doing together. So, in order to take a camping trip, we need..

If this…, then that….

Logic models involve a mental process. A logic model shows the series of connections and logical linkages that is expected to result in achievement of our goal.

Assumptions

Assumptions underlie much of what we do. It is often these underlying assumptions that hinder success or produce less-than-expected results. One benefit of logic modeling is that it helps us make our assumptions explicit.

Assumptions are the beliefs, principles, ideas we have about the program, the people involved and the way we think the program will operate. Assumptions underlie all that we do. Examples of assumptions include:

  Community coalitions are an effective strategy for addressing community problems

  Our partners will participate actively in program delivery

  The funding will be adequate and available when needed

  The target participant want to learn and change their behaviors

In a 2004 study by Kaplan and Garrett, assessing underlying assumptions was found to be one of the most important parts of logic modeling but it is often minimized or overlooked. [Kaplan & Garrett (2005)]

Assumptions

The beliefs we have about the program, the participants, and how the program will work. Includes ideas about:

- the problem or existing situation
- program operations
- expected outcomes and benefits
- the participants and how they learn, behave, their motivations
- resources
- staff
- external environment: influences
- the knowledge base
- etc.

Possible answers: what you will learn, driving time, the workshop, its value, who you'd see… etc.)

Assumptions

As you left the house today and came to this workshop, what were some of your assumptions about the day?

Why is it important that we think about assumptions?

Possible answers: what you will learn, driving time, the workshop, its value, who you'd see… etc.)

A youth financial literacy program

Teens establish sound financial habits

Teens make better decisions about the use of money

Teens gain knowledge and skills in money management

A high school financial planning program – 7 unit curriculum - is developed and delivered in high schools

Partners invest resources

SLIDE 8 – Now, a financial education program; this one targeted to high school students – may be some of you recognize this program…

  The situation is that:

  The projected theory of change underlying the program is that IF partners invest resources, then HS financial program of 7 units can be developed and delivered

  Then, teens can gain knowledge and skills in money managenet

  Then, teens will make better decisions about their use of money

  Then, teens will establish sound financial habits

Theory of change in this program is based on the common knowledge and skill development leads to behavioral change

Teens – homogenous group
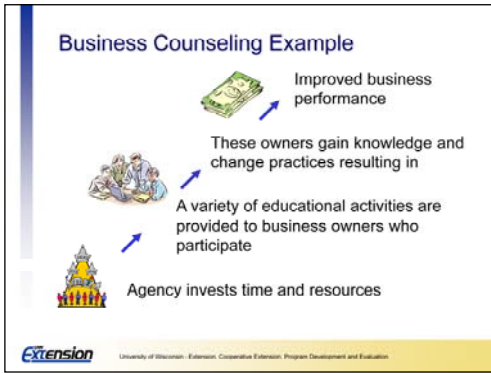
Let's apply this to a typical Extension example
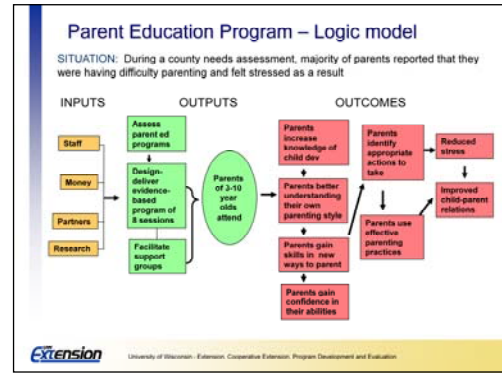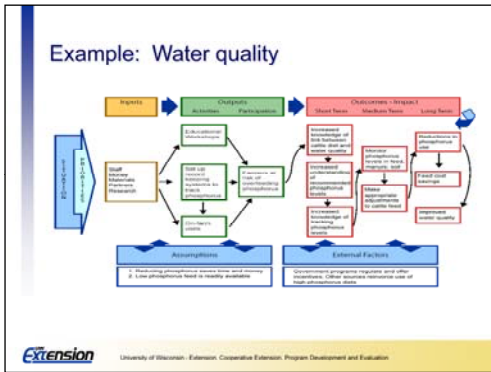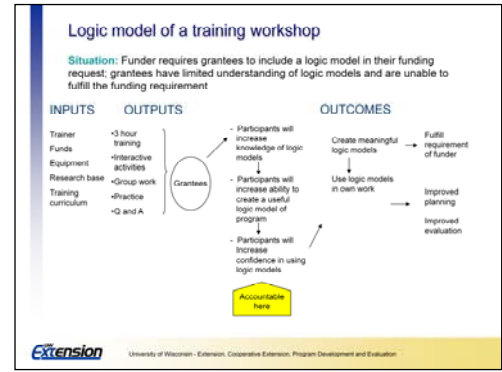
This logic model depicts a 3 hour training workshop. The trainer will measure outcomes at the short-term level – "accountable here" - commensurate with the scope of the training and what could be expected from a 3 hour workshop.
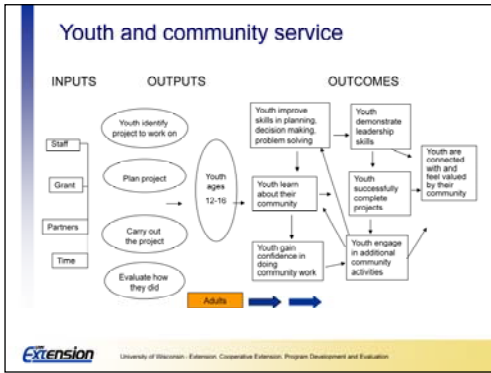
This logic model illustrates the forward and backward connections (feedback loops) that are common in programs.

Another chain of outcomes could be developed for the adults
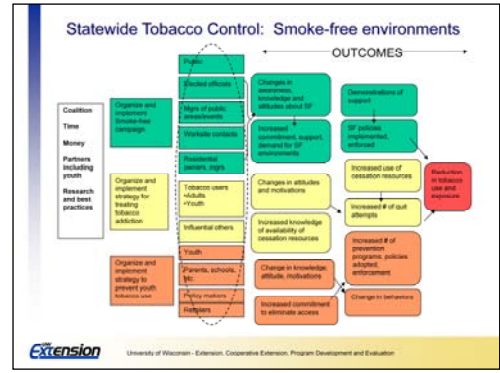
Multiple chains – showing multiple clusters of programs
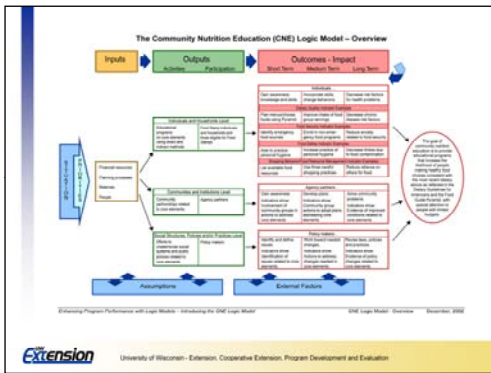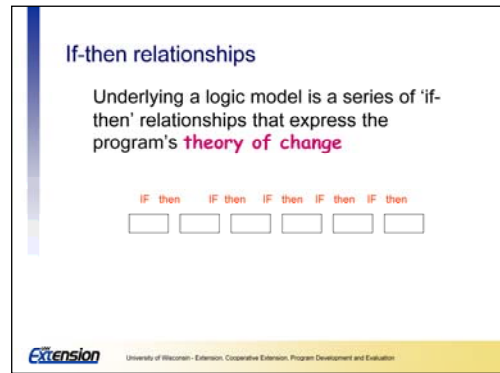
Theory of change

"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 long-term outcomes over a specified period."

(Anderson, 2000)

Logical chain of connections showing what the program is to accomplish

INPUTS	OUTPUTS		OUTCOMES		
Program investments	Activities	Participation	Short	Medium	Long-term
What we invest	What we do	Who we reach	What results		

How will activities lead to desired outcomes?
A series of if-then relationships

Tutoring Program Example

IF	then	IF	then	IF	then	IF	then	IF	then	IF	then
We invest time and money		We can provide tutoring 3 hrs/week for 1 school year to 50 children		Students struggling academically can be tutored		They will learn and improve their skills		They will get better grades		They will move to next grade level on time	

Don't forget the arrows

- Arrows and feedback loops show the links between inputs, outputs and outcomes

- Arrows depict the underlying causal connections

A common problem is that activities and strategies often do not lead to the desired outcomes.

Check your 'if-then' statements and ensure that they make sense and lead to the outcomes you want to achieve.

A logic model makes the connections EXPLICIT.

"I think you should be more explicit here in Step Two."

Simplest form of logic model

in its simplest form, a logic model is a graphic representation that shows the logical relationships between:

• The resources that go into the program – INPUTS

• The activities the program undertakes – OUTPUTS

• The changes or benefits that results – OUTCOMES

A bit more detail

SO WHAT??
What is the VALUE?

Fully detailed logic model

Here we have a full depiction of program development. We see that everything starts with a clear articulation of the originating situation from which priorities are set. This sets into motion the programmatic response – as displayed in the logic model of what is expected to occur…the connections and relationships between inputs-outputs- and outcomes.

Often not included in the graphical LM display but important to articulate are

Assumptions

External factors, for example, do financial institutions exist; are they accessible

(barriers and facilitators)

Evaluation runs over the course of the program and is part of the program design.

Looks linear but is not…

While the situation statement may not be present on the logic model graphic itself, it is the critical first step in logic model development.

INPUTS include such resources as staff, time, money, staff, technology, research base, partnerships
In order to be able to deliver

OUTPUTS are the activities that are undertaken to reach targeted participants/populations. Thus, outputs include Activities and Participation. Some people refer to "participation" as "reach" – who the program is to reach;

Activities might include (Examples)

Create a community-wide coalition

Train staff and volunteers

Develop a communication strategy

Implement an action plan

Participation (who the program is to reach; who is supposed to participate - individuals, families, groups, businesses, organization, communities). Examples might include:

All low income families living in the city of Grant

Businesses with fewer than 50 employees

Community groups in Palmetto neighborhood

Middle school youth identified as low achievers

All dairy producers in Milk County

Employees of Able City Government

Be as specific as possible with "who" is targeted.

Note SATISFACTION: Satisfaction is not an outcome because being "satisfied" with something doesn't mean that someone has changed or improved. Being satisfied is often a precursor to learning, but does not guarantee learning. Participants may be satisfied with the program, or like you as a person, or want to come again, but   such reactions do not indicate that they have changed or benefited in any way.   Thus, in the UWEX logic model, satisfaction is considered an Output, not an Outcome.

OUTCOMES
In order to facilitate/achieve outcomes, that extend along a continuum – or chain of outcomes from short to long-term or impact.
For example, changes in knowledge, skills, attitudes and intent:

Change in knowledge might be increased understanding of the purpose of a budget, or loan terms

Change in skills might be how to develop a spending plan

Change in attitude might be

Change in confidence might be increased confidence to ask questions; go to a bank and seek service

Change in intent might be

Change in behavior

Change in decision making

Change in individual, family, financial institution, community conditions

Unit of analysis??

Sebstad provides illustrative outcomes for 5 thematic areas

Outcomes are the changes or benefits for individuals, families, groups, businesses, organizations, and communities.
Outcomes occur along a path from short-term achievements to longer-term end results (impacts). Outcomes include

Short-term: Changes in awareness, knowledge, skills, attitudes, opinions, motivation, intent such as

Increased knowledge of poverty's impact on individuals and the community

Goal represents a general, big picture statement of desired results.

Increased skills in leading a group

Greater intention to exercise

Medium-term: Changes in behaviors, decision making, action

Participating youth use a spending plan

Producers make informed decisions concerning farm transfer

Community installs bike paths

Long-term: Changes in social, economic, civic, environmental conditions such as

Reduced debt

Improved water quality

Increased community safety

The ultimate result of a program is usually referred to as "impact". Impacts might be achieved in one year or take 10 or more years to be achieved. Such long-term impacts may or may not be reflected in the logic model, depending on scope of the initiative, purpose and audience of the logic model.

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Tend not be included in a logic model graphic:

- Situational statement
  - Priorities
- List of assumptions
- List of external factors
- Evaluation methods

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Slide 42

Hierarchy of effects

Source: Bennett and Rockwell, 1995, Targeting Outcomes of Programs

Social-economic-environmental improvements

Actions — Changes in behaviors and practices

Learning — Changes in knowledge, attitudes, skills, aspirations

Reactions — Degree of satisfaction with program; level of interest; feelings toward activities, educational methods

Participation — Number and characteristics of people reached; frequency and intensity of contact

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Many Extension staff will remember the Bennett hierarchy of the 1970's that was so popular and widely used throughout Extension. The Bennett hierarchy is a precursor of the present day logic model. You can see the similarities in this graphic.

Rockwell and Bennett have since developed a toolkit titled, Targeting Outcomes of Programs (TOP) that is available on the web at http://citnews.unl.edu/TOP/english/
See it for more information.

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Slide 43

Language: What do you mean by…

- Goal = Impact
- Impact = Long-term outcome
- Objectives (participant focused) = Outcomes
- Activities = Outputs
  - Outputs may signify "tangible" accomplishments as a result of activities; products

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Slide 44

Goal – outcome definition

Goal represents a general, big-picture statement of desired results. "We find that it is useful to think of **goals** as the answer to the question 'What are issues that you would like the program to address?' (e.g., the goal of the program is to address existing community laws and norms about ATOD use) and **outcomes** as the answer to: 'What changes do you want to occur because of your program?' (e.g., the outcome of the program will be to increase the number of community residents who believe teenaged smoking is dangerous)."

(Western CAPT)

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Outputs vs. Outcomes

Example:
Number of patients discharged from state mental hospital is an output.
Percentage of discharged who are capable of living independently is an outcome

Not how many worms the bird feeds its young, but how well the fledgling flies
(United Way of America, 1999)

One of the most important distinctions in logic model development is the difference between outputs and outcomes
what we do VERSUS what results (outcomes-benefits)

Program	Outputs	Outcomes
Crime control	Hrs of patrol # responses to calls # crimes investigated Arrests made	Reduction in crimes committed Reduction in deaths and injuries resulting from crime; Less property damaged or lost due to crime
Highway construction	Project designs Highway miles constructed Highway miles reconstructed	Capacity increases Improved traffic flow Reduced travel times Reduction in accidents and injuries

From Poister, 2003

So, why bother? What's in this for you?

"This seems like a lot of work."

"Where in the world would I get all the information to put in a logic model?"

"I'm a right brain type of person – this isn't for me."

"Even if we created one, what would we do with it?"

LM Benefits: What we are finding:

- Provides a common language
- Helps us differentiate between "what we do" and "results" --- outcomes
- Increases understanding about program
- Guides and helps focus work
- Leads to improved planning and management
- Increases intentionality and purpose
- Provides coherence across complex tasks, diverse environments

Increases understanding about program and how different people view the program

Wonderful technique for starting a conversation

Different stakeholders may have different view of program – all may have the same end goal in mind, but different strategies for getting there. Way to arrive at consensus or understanding

If this is our program, what do we need to measure

Funding – more favorable if you can clearly demonstrate how and why they will succeed

- Enhances teamwork
- Guides prioritization and allocation of resources
- Motivates staff
- Helps to identify important variables to measure; use evaluation resources wisely
- Increases resources, opportunities, recognition
- Supports replication
- Often is required!

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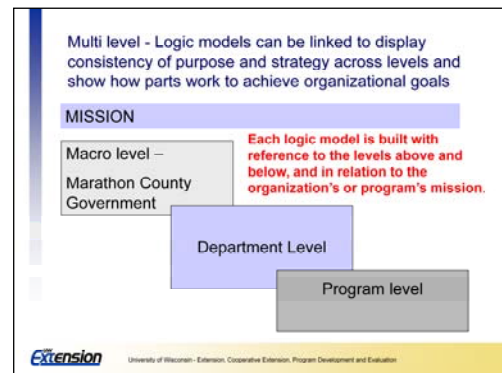
Testimonials

"Wow – so that is what my program is all about"

"I've never seen our program on one page before"

"I'm now able to say no to things; if it doesn't fit within our logic model, I can say no. "

"I can do this"

"This took time and effort but it was worth it; our team never would have gotten here otherwise."

"It helped us to think as a team – to build a team program vs. an individual program."

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Aha's;

Wow, that is what my program is all about; feelings of good job done

I can do this (referring to evaluation)

This took a lot of time and was hard work but it was worth it; our team never would have gotten here otherwise.

To begin to think in process ways; helped us to think as a team - to work build a team program vs. an individual program

What does a logic model look like?

- Graphic display of boxes and arrows; vertical or horizontal
  - Relationships, linkages
- Any shape possible
  - Circular, dynamic
  - Cultural adaptations; storyboards
- Level of detail
  - Simple
  - Complex
- Multiple models
  - Multi-level programs
  - Multi-component programs

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Logic model is graphic display

Any shape is possible but importance lies in showing expected causal connections

Level of detail: simple, complex

Multiple models – families of models for multi-level programs; multi-component programs

Reinforce that a logic model needs to be:
- visually engaging,
- appropriate in its level of detail,
- easy to understand,
- reflective of the context in which the program operates.

Common variations

UWEX logic model

Inputs → Outputs → Outcomes
Activities | Participation | Short | Medium | L-term
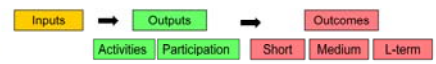
Other common logic model used by United Way, Center for Disease Control and others

Inputs → Activities → Outputs → Outcomes
Short | Medium | L-term

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We have been using the logic model developed by Wisconsin University Extension that has become the model for Extension nationwide.

Other agencies may use a slightly different configuration of these components. For grant writing, it is important to know what logic model format is required.

In the UWEX model, activities and participation are categorized as part of Outputs. We emphasize participation – target audience.

Another very common model separates activities and output and may not include 'participation'. This is the model typically used by United Way, Center for Disease Control and Prevention and many other agencies.

In this model, outputs are considered a "product" of the activity. For example, an activity might be 'deliver services' and the output would be '# of services actually delivered'.

Other models may or may not include Assumptions and External Factors. Some models include indicators and measures within the logic model framework. While there are some differences in the components and layout of logic model components in use today, a common theme is that the components depict a sequence of events that links investments to result.

Ask participants:

What different logic model components have you seen in use?

What specific logic model configuration is your organization using?

Feedback loops and multi-dimensions
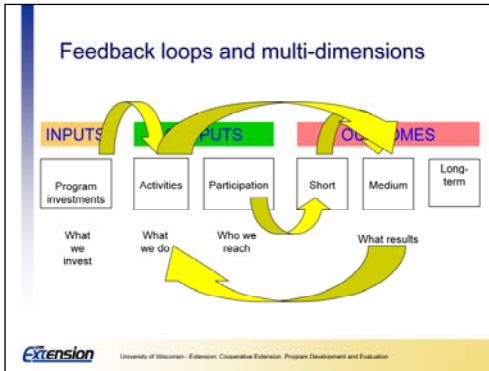
Programs aren't linear

Arrows in logic models help to show expected causal connections – the causal roadmap

In planning, may lay out in fairly linear fashion – sequence of expected relationships; but in practice – implementation, seldom occurs like that

Loop back; jump forward

As lay out logic model, useful also to consider alternative causal pathways

"Families" of models or "nested" models

Multiple models may be needed to describe and explain complex systems or initiatives.
Bring coherence across an organization
- Multi-level: a way to describe and link activities across an organization to depict varying levels such as national-state-county levels OR, institution-division-unit levels.
- Multi-component programs: A series of models to depict various components (goals, sites, target populations) within a comprehensive initiative.

Nested logic models – families of logic models

- View from space – big picture; overall roadmap
- View from mountaintop – more detail: by component program, player, participant group
- View from ground level – "you are here"

2nd generation of logic modelling

Family of related logic models, or nested models. Often helpful with complex programs where one logic model sketches out the broad pathways of change – the macro or view from space, and others elaborate different layers (national, state, county) or separate components in greater detail. Individually, each model conveys only essential information but together they tell the complete story of how the initiative functions.

Each one is an elaboration of the one above – not different

Think about "zooming in" – with each subsequent model unpacking activities and relationships in greater detail. Often need more detail for program staff but may be too much for discussion with funders and stakeholders.

How detailed? Depends upon purpose – use

        stakeholders vs. program managers and staff

Multi level - Logic models can be linked to display consistency of purpose and strategy across levels and show how parts work to achieve organizational goals

MISSION

Macro level – Marathon County Government

Each logic model is built with reference to the levels above and below, and in relation to the organization's or program's mission.

Department Level

Program level

Staff able to understand how the outcomes they achieve fit into the larger organization.

Each subsequent level is embedded in the organization's macro theory of change that is expressed in its mission statement.
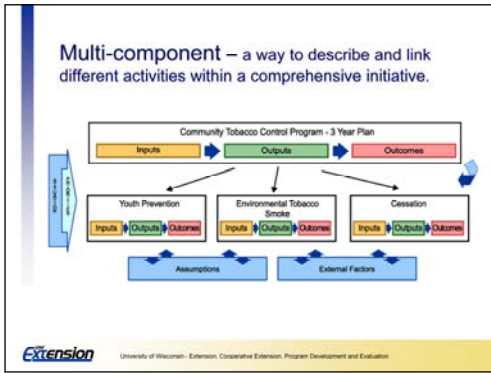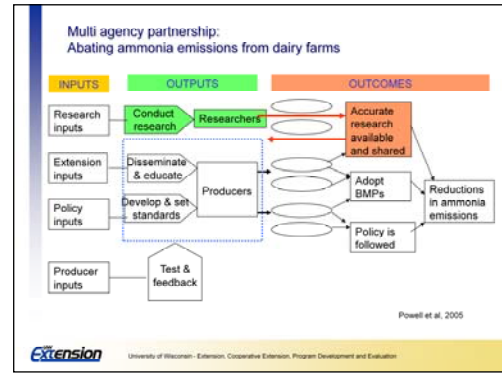
The overarching – generic model that shows in broad brush strokes the overall initiative that brought 4 key partners – Research, Extension, Policy makers and Producers – together to address the problem of deleterious ammonia gas coming off dairy farms.
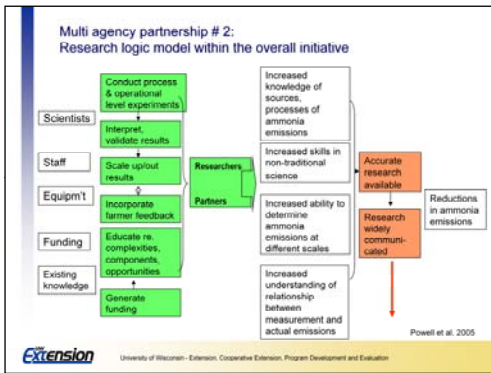
This sub-logic model shows the Research part of the overall initiative.
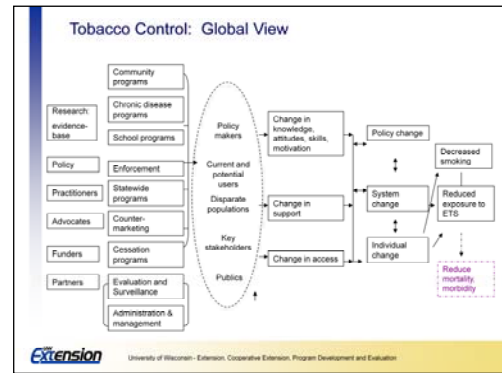
Counter-marketing: paid television, radio, billboard, and print counter-advertising, media advocacy, efforts to reduce or replace tobacco industry sponsorships and promotions.
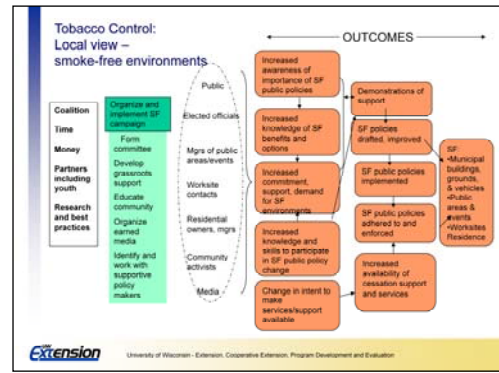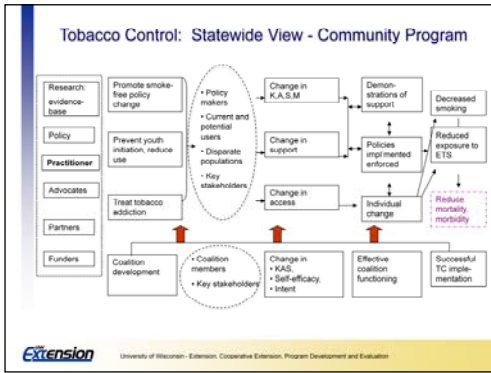
Tobacco users: Populations with tobacco-related health disparities
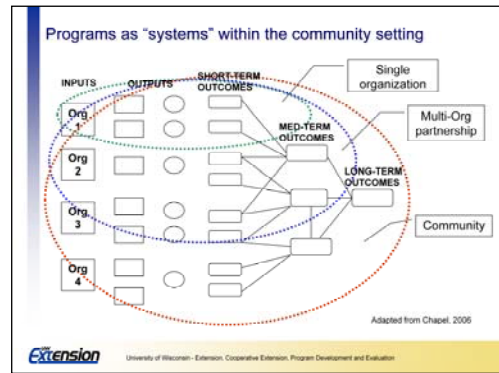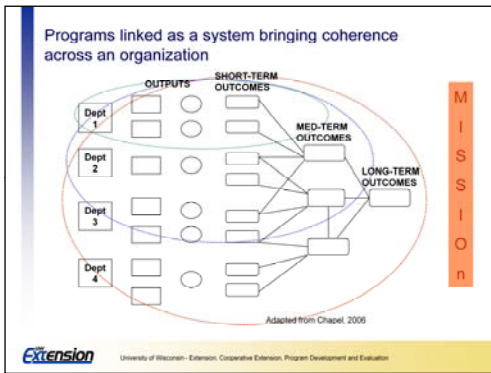
Didn't include arrows since becomes too crowded – confusing
Dotted lines = porous boundaries with influences from within and without
System within which this sits – total environment

Credit: CDC

Culture is…

A set of socially transmitted and learned behavior patterns, beliefs, institutions, and all other products of human activity and thought that characterize a particular population, community, profession, or organization.

Cultural appropriateness of logic model

- Is a logic model culturally appropriate?

- What, if anything, would help make a logic model or its use suitable for the cultural context?

- What would you do?

First things first…

- Determine purpose of logic model
  - Who will use it? For what?
- Involve others
- Set boundaries for logic model
  - Level of specificity
- Understand situation
- Explore research, knowledge base, what others are doing/have done

Group process

Limitations

Logic Model…
- Represents intention, is not reality
- Focuses on expected outcomes
- Challenge of causal attribution
  - ✓ Many factors influence process and outcomes
- Doesn't address:
  Are we doing the right thing?

Logic model only represents reality, it is not reality

Programs are not linear

Programs are dynamic interrelationships that rarely follow sequential order

Logic model focuses on expected outcomes: also need to pay attention to unintended or unexpected outcomes: positive, negative, neutral

Challenge of causal attribution

Program is likely to be just one of many factors influencing outcomes

Consider other factors that may be affecting observed outcomes

Does not "prove" that program caused results

Contribution vs. attribution

Doesn't address: Are we doing the right thing

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Cautions:

- Can become too time consuming – and just paperwork
- May become too focused on outcomes without adequate attention to inputs and outputs and the logical relationships that connect them to end results
- May end up perfecting the key to the wrong lock
  - Is the program focusing on the right thing?
- Mixing levels within one logic model
- Attending to context only at front end
- Thinking that logic model has to be "correct"
  - Map of Pyrennes vs Alps
- Becomes 'fixed' rather than flexible and dynamic

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Paperwork: Tedious; negate team energy; Time consuming – way to avoid doing

Excessive focus on intended outcomes. Turner (1998) cautions about excessively narrow reliance on a priori theories of program interventions and overlooking unanticipated consequences. Weiss (1997) technique of negative program theory can be useful addition to combat this concern. Negative program theory explores how program, even if competently implemented, might result in negative or some other outcomes

Time consuming – so much time and energy spent on developing the model that it is not used to guide evaluation; only cursory data are collected and analyzed

Common to search for evidence that confirms the causal chain…might be taken as all that is required for evaluation, leading to poor decision making

Universal vs. context specific: most logic models describe mechanisms that are thought to be universal; However, context often plays an influential role; mechanisms operate within particular contexts. Program models/theories might articulate both the mechanisms that are understood to cause the intended outcomes and the contexts in which these mechanisms are effective (Pawson and Tilley, 1997)

Rogers (2000) cites Weick (1995: 54-57) – lm might be a useful heuristic for purposeful action without being correct. He recounts the story of a reconnaissance unit lost in the snow in the Swiss Alps for 3 days who eventually managed to find their way safely back to camp with the help of a map – a map, they later discovered, of the Pyrenees not the Alps. "This incident raises the intriguing possibility that when you are lost, any old map will do…Once people begin to act,…they generate tangible outcomes…in some context…and this helps them discover…what is occurring,…what needs to be explained,…and what should be done next." Weick goes on to quote Sutcliffe: "Having an accurate environmental map may be less important than having some map that brings order to the world and prompts action"

Developing a logic model: Teaching and training guide

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Parent Education Program example

Situation: During a county needs assessment, a majority of parents reported they were having difficulty parenting, felt stressed and were unhappy with their parent-child relationships.

INPUTS	OUTPUTS	OUTCOMES

Reduced stress

Improved child-parent relations

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Developing a logic model: Teaching and training guide

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A community collaborative, including the local school district, Extension, and the local UW-system campus has received a grant for a project titled "A Day at the University." The project is a post-secondary education day for Hispanic students grades 7-8 held on the local UW campus. The School District will release the students from school to attend the day long event which will include workshops, a student panel, lunch, and an "informance." Students will be given an assignment to be shared in their schools that reflects the knowledge gained during their "Day at the University."

Objectives for the day are that the students will gain an understanding that college is a possibility for them through advanced planning and wise choices, they will be able to explain basic types of financial aid and how to qualify, they will know some key resources available to help them as they move through high school, and they will meet several successful Hispanic community leaders who are college graduates.

1) Create a logic model based on this description
2) Write down questions that you'd ask the project staff to further clarify the project's theory of change.

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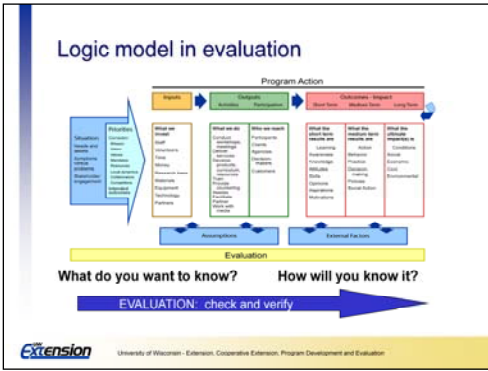Developing a logic model: Teaching and training guide

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Check your logic model

1. Is it meaningful?
2. Does it make sense?
3. Is it doable?
4. Can it be verified?

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Developing a logic model: Teaching and training guide

Logic model in evaluation

Logic Model helps with Evaluation

Logic model and common types of evaluation
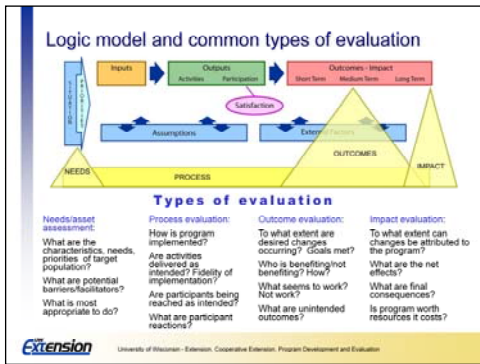
See that the questions we might ask line up with the common types of evaluations: need assessment, process evaluation, outcome evaluation and impact evaluation (and the type of questions inherent in each type)
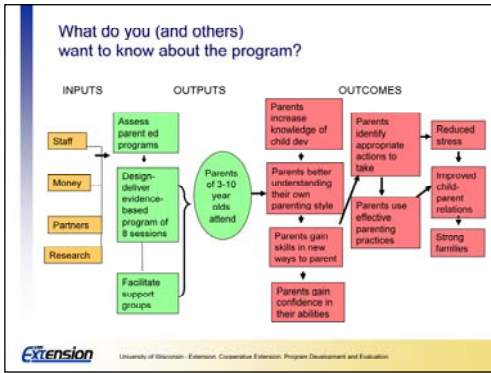
Match evaluation questions to program
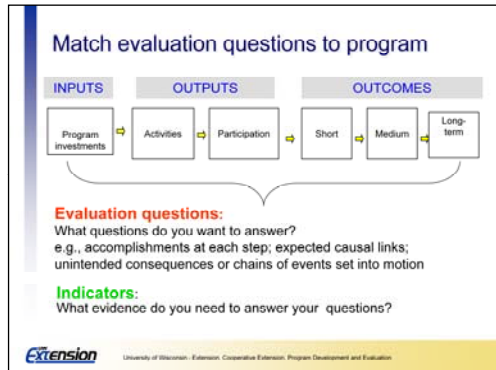
Remember, the logic model is a depiction of the program – evaluation needs to match the program. Tailor questions and indicators to particular program and purpose of the evaluation.

Match evaluation questions to the program – stage of program development and purpose: improvement, assess worth/merit; new knowledge; compliance

Indicators

Once we've identify and prioritized what it is that we will measure, then we move to determining how we will measure it. What would be the indicators for the outcomes and process variables you've selected. How would you know it?
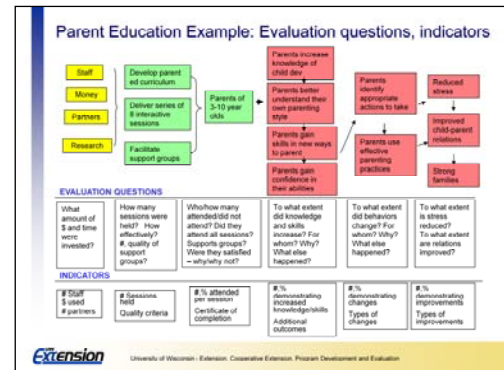
Again, some of you have begun to lay this out in your evaluation plans…What data or evidence will you use to say/know that adoption has occurred; physical activity has increased; service linkages are better?
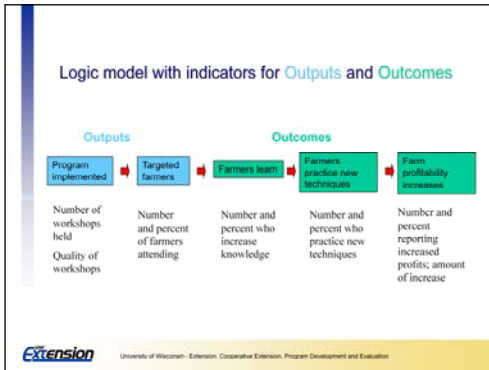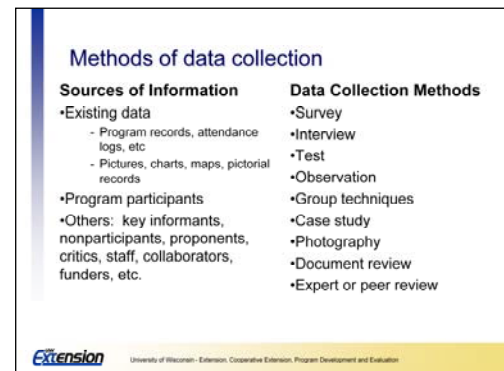
Explain how fits with collecting data over course of program; integrate into planning and program delivery

Typical activity indicators to track

- Amount of products, services delivered
- #/type of customers/clients served
- Timeliness of service provision
- Accessibility and convenience of service
  - Location; hours of operation; staff availability
- Accuracy, adequacy, relevance of assistance
- Courteousness
- Customer satisfaction

For example:
# of clients served
# of consultations
# of workshops held
# of attendees
# of referrals
Quality of service

Methods of data collection

Sources of Information

•Existing data
 - Program records, attendance logs, etc
 - Pictures, charts, maps, pictorial records

•Program participants

•Others: key informants, nonparticipants, proponents, critics, staff, collaborators, funders, etc.

Data Collection Methods

•Survey
•Interview
•Test
•Observation
•Group techniques
•Case study
•Photography
•Document review
•Expert or peer review

Then, we come to collecting the information – often what many see or define as evaluation.

Many of you have identified existing sources of data that you can use – and others have identified specific people (participants, key informants, others) who will be their sources of information

Think about the range of social science data collection methods available to you. What suits your questions, respondents, cultural setting the best?