Logic Model Development

5th Annual Homeless Summit
Learning Objectives

• Learn about the purpose of logic models
• Understand how to develop a logic model
• Construct a logic model
Activity

• A logic model is…

• A logic model is not…
Snap Shot

- The terms “logic model” or “evaluation” or “planning” often conjure up anxiety and disinterest.

And they can be really simple.....
A logic model is...

• A depiction of a program showing what the program will do and what it will accomplish.
• A series of “if-then” relationships that, if implemented as intended, lead to the desired outcomes
• The core of program planning and evaluation
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.
Logic model may also be called...

- Theory of change
- Program action
- Model of change
- Conceptual map
- Outcome map
- Program logic
The development of a Logic Model is a way of thinking…

“We build the road and the road builds us.”
-Sri Lankan saying
Why bother with Logic Models?

• Why logic models? (fundraising with your board, donors, and grantmakers)
• Logic models are useful in planning, implementing, evaluating, and communicating.
• Focus on and be accountable for what matters – OUTCOMES
• Provides common language
Why bother with Logic Models?

• Makes assumptions EXPLICIT
• Supports continuous improvement
• Promotes communications
• Builds team understanding of your project/service/program to be funded….$$$
• Clearly explains the positive impact of your work
Some people call a logic model their “roadmap”

• Logic models come in many shapes, sizes and levels of detail
• **INPUTS** are the resources that go into the program
• **OUTPUTS** are the activities a program undertakes. (Answers WHAT WE DO...)
• **OUTCOMES** are the changes or benefits that result from our program activities. (Answers SO WHAT...)

San Bernardino County Office of Homeless Services
BASIC LOGIC MODEL

SIMPLEST FORM OF LOGIC MODEL

INPUTS ➔ OUTPUTS ➔ OUTCOMES
Everyday example

HEADACHE

Situation

Get pills
INPUTS

Take pills
OUTPUTS

Feel better
OUTCOMES
Everyday example

1. Get food
2. Eat food
3. Feel better
If-then relationships: Underlying a logic model is a series of “if then” relationships that express the program’s theory of change.
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)
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
NEED/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.

This tends to be identified during Strategic Planning…
INPUTS

• What goes into the program: resources and contributions that are invested.

• Inputs include such elements as…
OUTPUTS

What we do and whom we reach: activities, services, events, products and the people reached.

Outputs include such elements as workshops, conferences, counseling, classes, 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. This is what connects to our missions and overarching goals.
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.
<table>
<thead>
<tr>
<th>Program</th>
<th>Outputs</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crime control</td>
<td>Hrs of patrol</td>
<td>Reduction in crimes committed</td>
</tr>
<tr>
<td></td>
<td># responses to calls</td>
<td>Reduction in deaths and injuries resulting from crime;</td>
</tr>
<tr>
<td></td>
<td># crimes investigated</td>
<td>Less property damaged or lost due to crime</td>
</tr>
<tr>
<td></td>
<td>Arrests made</td>
<td></td>
</tr>
<tr>
<td>Highway construction</td>
<td>Project designs</td>
<td>Capacity increases</td>
</tr>
<tr>
<td></td>
<td>Highway miles constructed</td>
<td>Improved traffic flow</td>
</tr>
<tr>
<td></td>
<td>Highway miles reconstructed</td>
<td>Reduced travel times</td>
</tr>
<tr>
<td></td>
<td>Highway miles reconstructed</td>
<td>Reduction in accidents and injuries</td>
</tr>
</tbody>
</table>
Cookie Exercise
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

OUTCOMES
Satiated cookie monster
Hungry cookie eaters eat the cookies
Hungry cookie eaters like the taste
Happy baker
Baker's helper decides to open a bakery

Dirty kitchen
A BIT MORE DETAIL

INPUTS

Program investments

What we invest

OUTPUTS

Activities

What we do

Participation

Who we reach

OUTCOMES

Short

What results

Medium

Long-term

SO WHAT??
What is the VALUE?
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.

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>OUTPUTS</th>
<th>OUTCOMES – IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community-based nutrition educators</td>
<td>Educational sessions</td>
<td>Short-term changes we expect:</td>
</tr>
<tr>
<td>Agency partners who collaborate</td>
<td>Presentations</td>
<td>Participants increase their knowledge about</td>
</tr>
<tr>
<td>Campus-based specialists that support county</td>
<td>Learn-while-you-wait</td>
<td>the importance of choosing nutritious foods</td>
</tr>
<tr>
<td>educators</td>
<td>Games and interactive</td>
<td></td>
</tr>
<tr>
<td>Research base</td>
<td>learning activities</td>
<td>Participants handle foods safely</td>
</tr>
<tr>
<td>Funding and other resources that support</td>
<td>Posters, print materials</td>
<td></td>
</tr>
<tr>
<td>this program</td>
<td>Topics:</td>
<td></td>
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<tr>
<td></td>
<td>Eating more fruits and</td>
<td></td>
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<tr>
<td></td>
<td>vegetables</td>
<td></td>
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<tr>
<td></td>
<td>Storing and handling food</td>
<td></td>
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<tr>
<td></td>
<td>safely</td>
<td></td>
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<tr>
<td></td>
<td>Portion sizes</td>
<td></td>
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<tr>
<td></td>
<td>Choosing Healthy snacks</td>
<td></td>
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<tr>
<td></td>
<td>Balancing food with</td>
<td></td>
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<tr>
<td></td>
<td>physical activity</td>
<td></td>
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<tr>
<td></td>
<td>Low-income Seniors</td>
<td>Medium-term changes we expect:</td>
</tr>
<tr>
<td></td>
<td>at Senior Dining Sites</td>
<td>Participants eat more fruits and vegetables</td>
</tr>
<tr>
<td></td>
<td>and Senior Housing Sites</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participants handle foods safely</td>
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<tr>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Participants read labels</td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Participants control portion size</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participants choose more healthy foods</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Participants engage in appropriate physical activity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term changes we expect:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The elderly enjoy healthier lives</td>
</tr>
</tbody>
</table>
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**
- Partnership of local financial institutions, schools, and Extension
- Time
- Money
- Research - base

**OUTPUTS**
- Assess needs
- Review research
- Develop and deliver age-appropriate curriculum
- High school youth

**OUTCOMES**

**Short-term**
- Youth increase their knowledge of money-management basics
- Increase their understanding of credit and debt
- Increase abilities to manage and use checking and savings accounts
- Increase motivation to live within budget

**Medium-term**
- Keep track of spending
- Reduce unnecessary spending
- Pay bills on time

**Long-term; final**
- Youth establish sound financial habits
- Save money regularly
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.”
Logic Model Language

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

1 Input

2 Output: Activity, Participation

3 a. Outcome: Short-term – Learning

3 b. Outcome: Medium-term – Action

3 c. Outcome: Long-term – Ultimate benefit

0 Cannot identify
Teen Parenting Program
Group Activity
Things we invest are in-kind as well as externally funded resources

If we invest these resources to implement these activities for these participants then

we can expect these outcomes....

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**Logic Model Worksheet**

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Outputs</th>
<th>Outcomes – Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>What we invest</td>
<td>Activities Participation</td>
<td>Short Term Medium Term Long Term</td>
</tr>
<tr>
<td>What we do</td>
<td>Who we reach</td>
<td>What the short term changes are What the medium term changes are What the ultimate impact(s) is</td>
</tr>
</tbody>
</table>
Logic Model Checklist

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

Innovation Network http://www.innonet.org/
Targeting Outcomes of Programs http://citnews.unl.edu/TOP/english/
Tobacco Technical Assistance Consortium. 
http://www.ttac.org/power-of-proof/setting_stage/logic_midels/6-5.html
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

San Bernardino County Office of Homeless Services
Questions?

Thank you for your time!

San Bernardino County Office of Homeless Services
### Logic Model Lingo

<table>
<thead>
<tr>
<th></th>
<th>Input</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Cannot identify</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Input</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Output: Activity, Participation</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Outcome</td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Short - Learning</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Medium - Action</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>Long-term – Ultimate benefit</td>
<td></td>
</tr>
</tbody>
</table>

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 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: __________________________________________
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
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
- Dirty kitchen

Outcomes:
- Hungry cookie eaters
- Hungry cookie eaters eat the cookies
- Hungry cookie eaters like the taste
- Happy baker
- Baker’s helper decides to open a bakery
- Satiated cookie monster