Logic Models
An Integral Part of Designing and Evaluating Your Program

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Learning Objectives

- Identify and differentiate between types of frameworks
- Understand the role of frameworks and logic models in the design and evaluation of your program
How do Frameworks Help Evaluation

- Refine and operationalize goals & objectives
- Clarify interrelationships between factors relevant to the project or program
- Define utilization of resources and select activities
- Identify measures and indicators
- Build consensus and working relationship between program staff and evaluation staff
Language: What do we mean by...

- Goal = Impact
- Impact = Long-term outcome
- Objectives (participant focused) = Outcomes (short and intermediate)
- Activities = Outputs
  - Outputs may signify “tangible” accomplishments as a result of activities; products
  - What we do and who we reach
Goals

- Goal: a broad statement of a desired, long-term outcome of the program

Example: Kids - 'Go for your life' (K-GFYL) is a settings-based health promotion intervention that aims to reduce the risk of childhood obesity by using an award-based program to improve the socio-cultural, policy, and physical environments related to healthy eating and physical activity across the community

Objectives

Statements of desired, specific, realistic and measurable program results

SMART

- **Specific**: identifies concrete events or actions that will take place
- **Measurable**: quantifies the amount of resources, activity, or change to be expended and achieved
- **Appropriate**: logically relates to the overall problem statement and desired effects of the program
- **Realistic**: provides a realistic dimension that can be achieved with the available resources and plans for implementation
- **Time-based**: specifies a time within which the objective will be achieved
Outputs vs. Outcomes

Example:
Number of school teachers trained in nutrition and physical activity curriculum is an output. Percentage of students (reached by newly trained teachers) with increased knowledge and skills related to healthy eating and physical activity is an outcome.

*Not how many worms the bird feeds its young, but how well the fledgling flies*  
(United Way of America, 1999)
Why are Frameworks Useful?

Designing frameworks assist in developing:

- Clearly understood program/project goals and measurable, long-term, short-term, and intermediate objectives
- Clearly defined relationships between program/project inputs, processes, outputs, and outcomes, and between program/project activities and the external context (environmental factors)
- Sound implementation and M&E plans
<table>
<thead>
<tr>
<th>Type of Framework</th>
<th>Brief Description</th>
<th>Program Management</th>
<th>Basis for Monitoring and Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conceptual</td>
<td>Interaction of various factors</td>
<td>Determine which factors the program will influence</td>
<td>No. Can help to explain results</td>
</tr>
<tr>
<td>Results</td>
<td>Logically linked program objectives</td>
<td>Shows the causal relationship between program objectives</td>
<td>Yes – at the objective level</td>
</tr>
<tr>
<td>Logical</td>
<td>Logically linked program objectives, outputs, and activities</td>
<td>Shows the causal relationship between activities and objectives</td>
<td>Yes – at the output and objective level</td>
</tr>
<tr>
<td>Logic model</td>
<td>Logically links inputs, processes, outputs, and outcomes,</td>
<td>Shows the causal relationship between inputs and the objectives</td>
<td>Yes – at all stages of the program from inputs to process to outputs to outcomes/ objectives</td>
</tr>
</tbody>
</table>
Conceptual Frameworks (research or theoretical frameworks)

- Diagram that identifies relationships between all relevant systemic, organizational, individual, or other salient factors that may influence program/project operation and the successful achievement of program or project goals.

- Ideally theory-based and reflect local realities
Conceptual Frameworks

- Individual characteristics
- Technical inputs
- Program supply
- Institutional capacity
- Service utilization
- Healthy practices
- Program sustainability
- Health status

Flowchart showing relationships between health status, program sustainability, institutional capacity, service utilization, healthy practices, technical inputs, program supply, and individual characteristics.
Conceptual Frameworks

M&E Purpose:
- To show where program fits into wider context
- To clarify assumptions about causal relationships
- To show how program components will operate to influence outcomes
- To guide identification of indicators
- To guide impact analysis (causal pathways)

Similar frameworks:
- Proximate Determinants
Conceptual Frameworks

Causes of Childhood Obesity in society

- Child obesity and disability
- Inappropriate dietary intake
- Insufficient access to healthy food
- Inadequate places for physical activity / Safety concerns
- Household eating habits
- Quantity & quality of actual resources - human, economic and organizational (e.g., schools) – and the way they are controlled
- Potential Resources: built environment, transportation, technology, people

Outcomes
- Immediate causes
- Underlying causes at household/family level
- Basic causes at societal level
Logic Models

- Diagrams that identify and illustrate the linear relationships flowing from program inputs, processes, outputs, and outcomes.

- Inputs or resources affect processes or activities which produce immediate results or Outputs, ultimately leading to longer term or broader results, or Outcomes.
Logic Models

Purposes:
• Provides a streamlined interpretation of planned use of resources and desired ends
• Clarifies project/program assumptions about linear relationships between key factors relevant to desired ends

Other terms used:
• M&E Frameworks, Logical Frameworks
If-then relationships

Underlying a logic model is a series of ‘if-then’ relationships that express the program’s theory of change.
Logical chain of connections showing what the program is to accomplish

INPUTS

- Program investment
  - What we invest

OUTPUTS

- Activities
  - What we do
- Participation
  - Who we reach

OUTCOMES

- Short
- Medium
- Long-term

- What results
Logic Models: Training

**INPUT**
- Develop training curriculum for teachers

**PROCESS**
- Conduct training events

**OUTPUT**
- Teachers trained in new curriculum
- Increase in students reached by (newly) trained teachers

**OUTCOME**
- Increase in student knowledge and skills
- Behavior change

**IMPACT**
- Declining obesity levels in target population
Logic Model

Portion of model for obesity prevention

**INPUT**
- Human and financial resources to develop and print educational brochure

**PROCESS**
- Distribute brochure to schools
- Meet with school staff to promote distribution of brochure

**OUTPUT**
- Brochure distributed to schools and parents

**OUTCOME**
- Increased knowledge of the importance of fresh fruits and vegetables

**IMPACT**
- Decreased obesity
The Community Nutrition Education (CNE) Logic Model – Overview

Inputs → Outputs - Participation → Outcomes - Impact

<table>
<thead>
<tr>
<th>Individuals</th>
<th>Short Term</th>
<th>Medium Term</th>
<th>Long Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain awareness, knowledge and skills.</td>
<td>Incorporate skills, change behaviors.</td>
<td>Decrease risk factors for health problems.</td>
<td></td>
</tr>
<tr>
<td>Dietary Quality Indicator Examples</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plan menus/choose foods using Pyramid</td>
<td>Improve intake of food group servings</td>
<td>Decrease chronic disease risk factors</td>
<td></td>
</tr>
<tr>
<td>Food Security Indicator Examples</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify emergency food sources</td>
<td>Enroll in non-emergency food programs</td>
<td>Reduce anxiety related to food security</td>
<td></td>
</tr>
<tr>
<td>Food Safety Indicator Examples</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Able to practice personal hygiene</td>
<td>Increase practice of personal hygiene</td>
<td>Decrease illness due to food contamination</td>
<td></td>
</tr>
<tr>
<td>Shopping Behavior/Food Resource Management Indicator Examples</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>List available food resources</td>
<td>Use three careful shopping practices</td>
<td>Reduce reliance on others for food</td>
<td></td>
</tr>
</tbody>
</table>

The goal of community nutrition education is to provide educational programs that increase the likelihood of people making healthy food choices consistent with the most recent dietary advice as reflected in the Dietary Guidelines for Americans and the Food Guide Pyramid, with special attention to people with limited budgets.

Enhancing Program Performance with Logic Models – Introducing the CNE Logic Model

CNE Logic Model - Overview

December, 2002

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'Go for your life' childhood obesity prevention program Kids: Logic Model

Membership
Access to centrally developed:
- social marketing
- merchandise
- resources
- professional development
Support by:
- local government co-ordinators
- 'Health professionals' network

Implementation activities
- Social marketing
- Policy development and implementation
- Sociocultural and physical environmental changes
- Professional development
- Capacity building
- Community engagement

⇒ AWARD

Impacts
COMMUNITY & ORGANISATION:
- Improved policy and practices
- Improved community links and partnerships
- Health promoting environments
- Improved knowledge, skills, beliefs, perceptions

FAMILY:
- Increased physical activity-related behaviours
- Increased healthy eating
- Increased knowledge, skills, beliefs, perceptions

Outcomes
- CHILD: Increased healthy weight
- Decreased obesity
- Increased quality of life
Resources

- CDC selected bibliography for logic models: http://www.cdc.gov/eval/logic%20model%20bibliography.PDF
- Obesity Research Logic Models: http://orin.tamu.edu/
  http://outcomescentral.org/
- Website with examples (with narrative) of logic models http://www.uwex.edu/ces/pdande/evaluation/evallogicmodelexamples.html
- http://www.insites.org/publications.html#every
Questions? Comments?

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