Understanding program logic

Lynn Holt
Senior Policy Officer, Evidence, Evaluation & Policy

7 August 2009
Program Logic

• What is program logic and what does it look like?

• Is program logic relevant to my work and how do I use it?

• What are my options for assistance?
What is program logic?

Definition:

- It is a picture of why and how you believe a program/policy will work.
- It demonstrates design & implementation competence
- The foundation of program planning and the key tool of program evaluation
- Logic models are very powerful tool for creating a dialogue & shared understanding of a program between different stakeholders
- It provides a chain of reasoning that links investments with results
- A series of “if-then” relationships that, if implemented as intended, lead to the desired outcomes
A logic model comprises a series of ‘if-then’ relationships that express the program’s (or policy’s) explanation of why it produces the results it claims to ....
What can be included in logic model?

- Timelines
- Weighting of components
- Feedback loops
- Arrows to show directional relationships
- Systems boundaries - dotted lines + accountability
- Stakeholder priorities
- Corporate values/legislation
- Different types of relationships
  - Sequential multi strand (this needs to happen before this to get this)
  - Additive (this happens with this to get this)
  - Single line (this happens to get this)
What does a program logic model look like?

- It is a one page diagram of a policy/program.
- PL diagram can be linear left to right, include feedback loops, or can be in the form of an outcomes hierarchy.
- Illustrates and describes the causal relationships among policy/program elements and the problem to be solved.
- It synthesizes key activities intended to achieve program goals.
- Links inputs to activities and to expected outputs and outcomes.
- Identifies expected factors that will help or hinder policy/program implementation.
Common logic model used by Center for Disease Control and others

University of Wisconsin-Extension, Program Development and Evaluation
Another variant on Program Logic Modelling..... For policy and/or program development
We actually use the logic model every day. Think about being hungry. What does that feel like? What do you need? What do you want to do?

Probably what you want is some type of food. So, first you need to find that food. Then, you need to eat that food. Then, you will be satisfied and feel better.
Program Logic for Life-Taking action on diabetes

Source Life! Evaluation framework

- Establish program governance & administrative arrangements
- Establish monitoring and reporting arrangements
- Develop risk-screening tool for Type 2 diabetes
- Identify efficient interventions
- Establish lifestyle behaviours change programs
- Strengthen relationships with GPs & health professionals
- Social marketing to targeted communities and statewide

Issue: Increasing incidence of Type 2 diabetes

Program activities:
- Increased self awareness of risk
- Increased health professional identification of high-risk individuals
- Increased program enrolment

Outcomes:
- Changes in health behaviour
- Earlier diagnosis of Type 2 diabetes
- Improved management of risk for Type 2 diabetes
- Ongoing management of risk for Type 2 diabetes
- Decreased prevalence of Type 2 diabetes
- Improved management of risk for Type 2 diabetes
- Ongoing management of risk for Type 2 diabetes
- Decreased prevalence of Type 2 diabetes
Program Logic Benefits

- Focus on and be accountable for what matters – OUTCOMES
- Illustrates the logic or theory of the program
- Provides common language & promotes communication amongst all stakeholders
- Supports continuous improvement
- Helps identity gaps
- A basis for evaluation & accountability
- A basis for investment logic and benefits management
- Builds investor/funder/public confidence
- Makes assumptions EXPLICIT
Program Logic program example-BAEW –

source HPC-BAEW evaluation plan
Limitations of the logic model

- A logic model only represents reality: it is not reality. Reality is complex, interactive and recursive over time.
- A logic model diagrams expected outcomes, however unexpected outcomes may also occur.
- May be presented as a cause and effect model when intended to be based on assumptions about a program, it does not test cause and effect of program components.
Program assumptions that should be made explicit

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
• external environment: influences
• the knowledge base

And at the policy level, makes evaluation questions, and status of the answers, explicit rather than assumed......
The revelation of the assumptions through a program logic analysis can be linked back to the relevant evaluation questions and creates a context ready for testing the assumptions/answering the evaluation questions…………..
Program logic applied to the suite of preventative health interventions....

source Andrew Churchill presentation Preventative Health Summit 2009

<table>
<thead>
<tr>
<th>Preventative Health Interventions</th>
<th>Indicative Intervention Taxonomy</th>
<th>Program (Implementation) Logics</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulation</td>
<td>Regulation</td>
<td>Inputs Activities Outputs</td>
<td>Outcomes</td>
</tr>
<tr>
<td>Targeted community settings</td>
<td>Targeted community settings</td>
<td>Inputs Activities Outputs</td>
<td>Outcomes</td>
</tr>
<tr>
<td>Lifestyle change programs</td>
<td>Lifestyle change programs</td>
<td>Inputs Activities Outputs</td>
<td>Outcomes</td>
</tr>
<tr>
<td>Social marketing</td>
<td>Social marketing</td>
<td>Inputs Activities Outputs</td>
<td>Outcomes</td>
</tr>
<tr>
<td>Early identification</td>
<td>Early identification</td>
<td>Inputs Activities Outputs</td>
<td>Outcomes</td>
</tr>
<tr>
<td>Primary care promotion</td>
<td>Primary care promotion</td>
<td>Inputs Activities Outputs</td>
<td>Outcomes</td>
</tr>
<tr>
<td>System and workforce capacity</td>
<td>System and workforce capacity</td>
<td>Inputs Activities Outputs</td>
<td>Outcomes</td>
</tr>
<tr>
<td>Research &amp; Evaluation</td>
<td>Research &amp; Evaluation</td>
<td>Inputs Activities Outputs</td>
<td>Outcomes</td>
</tr>
<tr>
<td>Health surveillance</td>
<td>Health surveillance</td>
<td>Inputs Activities Outputs</td>
<td>Outcomes</td>
</tr>
</tbody>
</table>
Multi-component, embedded hierarchical program logics, – a way to describe and link different activities within a comprehensive initiative

Shared topic/outcomes/ultimate objectives……

From: University of Wisconsin-Extension, Program Development and Evaluation
How useful is program logic for your work?

- Poses important questions that can be answered through systematic processes - assists **planning**
- Assists in developing agreed action to complex issues - **communication**
- Provides a coherent chain of reasoning - **implementation**
- Performance management - **measurement**
- Program **evaluation**
Program logic- Planning

• Planning tool

  – provides a logic model & process for planning from where you are to where you want to be.

  – Illustrates the structure that drives the need for the initiative.

  – Demonstrates the desired end state and how investments are linked to activities to achieve the desired results.
Communication is the key ingredient for success and sustainability of a program/policy.

A program logic framework provides a simple, clear graphic representation that helps communicate the intent of the program or initiative, and it creates a dialogue for refinement.

Communication will occur at all levels, ie program staff, those funding the programs, or other key stakeholders.
A logic model displays the connections between resources, activities and outcomes.

Forms the basis for developing a more detailed management plan.

During the course of implementation, a logic model is used to explain, track and monitor operations, processes and functions.

It serves as a management tool as well as a framework to monitor commitment to the plan.
Program logic – Measurement design

How and when will you know? – choosing Indicators

- An indicator will provide the evidence or information that represents the phenomenon you are asking about.

- Indicators define the data to be collected and the logic model will define when to collect it.

- Indicators are used to monitor activities – outputs & impacts/outcomes

- For each aspect to be measured, ask yourself these questions. Invite others to provide their perspectives.
  - What would it look like?
  - How would we know it?
  - If I were a visitor, what would I see, hear, read that would tell me this "thing" exists; what would answer my question?
  - Lays out all aspects of the project
Program logic – draft indicators for a health promotion program in the workplace

- Employer participation
- Worker participation
- Employer satisfaction
- Worker satisfaction
- Self-directed
- Professionally directed
- Program directed
- Smoking
- Nutrition
- Alcohol
- Physical activity
- Blood pressure
- Cholesterol
- Blood sugar
- Overweight
- Cardiovascular risk
- Type 2 diabetes risk

- Participation (%)
- Satisfaction (%)
- Behaviour change (%)
- Sustained change (%)
- Reduced risk (%)

[Diagram showing the flow of indicators from program logic to specific health outcomes]
A logic model is not an evaluation model but rather a process and a framework. The logic model facilitates effective evaluation by helping you:

- Determine what to evaluate, identifying what is important.
- Providing a theoretical framework when evidence is less robust
- Clarify the business case
- Identify appropriate questions for your evaluation based on the program.
- Identify outcomes and specify program milestones
- Determine data collection sources, methods, selection of indicators and instrumentation.
- Determine when to collect data.
- Providing a mechanism for gaining cooperation and acceptability from stakeholders for monitoring
Steps in the Logic Model Process

1. Establish a team or work group.
2. Define the problem and context for the program or project and determine what aspect of your program/project you will logic model.
3. Define the elements of the program in a table.
4. Verify the logic table with stakeholders.
5. Develop a diagram and text describing logical relationships.
6. Verify the Logic Model with stakeholders.
Logic development policy vs program

- Policy logic development – high strategic level

- Provides logic/theory & rationale - exposes assumptions influencing policy and then program effectiveness

- Illustrates how and why the policy and then program will be effective

- A theoretical model assumes causal linkages within the program specifically the change processes activated or facilitated by the program.

- It is the" big picture" of implementation.

- Provides **the business case**...
Preventative Health Policy Logic Model

Programs Taxonomy & Logics

Outcomes Hierarchy

Tier 3: Health (and other) Systems Performance

Tier 2: Determinants Of Health

Tier 1: Health Status & Outcomes

National Taskforce:
Legislation enacted & enforced
Advertising attributes
Availability & pricing attributes
Intervention recipients
Programs expenditure

National Taskforce:
Incidence of Risk (overweight, smoking, drinking)
Physical Activity
Fruit & Vegetable Consumption

National Taskforce:
Hospital Separations
Avoidable Deaths
NRA:
Workforce Participation
Incidence of Chronic Disease
Health System Sustainability
Preventative Health Policy Logic Model

Evaluation Framework

Outcomes Hierarchy
- Short Term
- Medium Term
- Long Term

Tier 3: Health (and other) Systems Performance
- National Taskforce:
  - Legislation enacted & enforced
  - Advertising attributes
  - Availability & pricing attributes
  - Intervention recipients
  - Programs expenditure

Tier 2: Determinants Of Health
- National Taskforce:
  - Incidence of Risk (overweight, smoking, drinking)
  - Physical Activity
  - Fruit & Vegetable Consumption

Tier 1: Health Status & Outcomes
- National Taskforce:
  - Hospital Separations
  - Avoidable Deaths
  - NRA:
    - Workforce Participation
    - Incidence of Chronic Disease
    - Health System Sustainability
Each Intervention Category will be made up of initiatives and sub-programs

Policy authors

Program implementers
To recap - Benefits of a program logic approach

- Focus on and be accountable for what matters – OUTCOMES
- Illustrates the logic or theory of the program
- Provides common language amongst all stakeholders
- Supports continuous improvement
- Promotes communications
- Helps identity gaps
- A basis for evaluation & accountability
- A basis for investment logic and benefits management
- Builds investor/funder/public confidence
- Makes assumptions EXPLICIT
Further reading............

Centers for Disease Control and Prevention (US) evaluation site:
http://www.cdc.gov/eval/resources.htm

University of Wisconsin-Extension Program Development and Evaluation site:
http://www.uwex.edu/ces/pdande/
http://www.uwex.edu/ces/lmcourse/