# Program/Policy Evaluation and Assessment

# Understanding and Applying Program Logic Models

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#### How we view Programs

- Clusters of activities intended to achieve an objective or related set of objectives
- Open Systems approach
  - View programs as systems embedded in environment with which thy have give-and-take relationship
- Implications of open systems approach:
  - Programs have permeable boundaries
  - Programs are purposeful systems
  - Programs have structures
  - Programs exist in environments

## What is a Logic Model?

- Offers a visual summary of what programs are intended to accomplish
- Visual representation of structure of programs
- Describe and explain cause-and-effect linkages connecting resources, activities and results
- Lays down expected sequence of steps from services to outcomes

## What is a Logic Model?

- Program logic models are <u>applied theories</u> that reflect both local circumstances and broader underlying knowledge that is reflected in the intended linkages
- Logic models have become a central feature of program evaluation

## When to Use a Logic Model

- Used for orientation of stakeholders/partners to:
  - Develop consensus among partners
- Used in strategic planning to:
  - Clarify intended objectives and program design Clarifying strategies
  - Identify outcomes
  - Grant proposals and timelines
  - Partnership
- Used for project implementation to:
  - Make adjustments
  - Avoid unintended consequences

## When to Use a Logic Model

#### Communication and advocacy

- All logic models function as communication tools with stakeholders
- Define expectations
- Explain resource investment

#### Evaluation

- Document accomplishments
- Determine measures
- Prepare reports and media
- Play an important role in performance management

#### Inputs:

- Resources required to operate program
- A program uses inputs to support activities
- Examples: Money, people, equipment, facilities, technology, knowledge

#### Activities:

- Doing the things that are necessary to achieve intended outcomes
- Examples: <u>To</u> provide work skills training for clients;
   <u>to</u> provide parenting class on prenatal care

#### Outputs:

- Work done, immediate results of activities
- Tangible and countable
- A program's outputs should produce desired outcomes for participants
- Viewed as transition from program activities to program outcomes
- Examples: Number of clients served, number of patients admitted into a hospital

#### Outcomes:

- Are the intended results that corresponds to program objectives
- Typically programs have different outcomes
- Differentiated by when they occur (short-term, medium-term & long-term)
- Example: benefits for participants after being in a program

#### Outcome indicators:

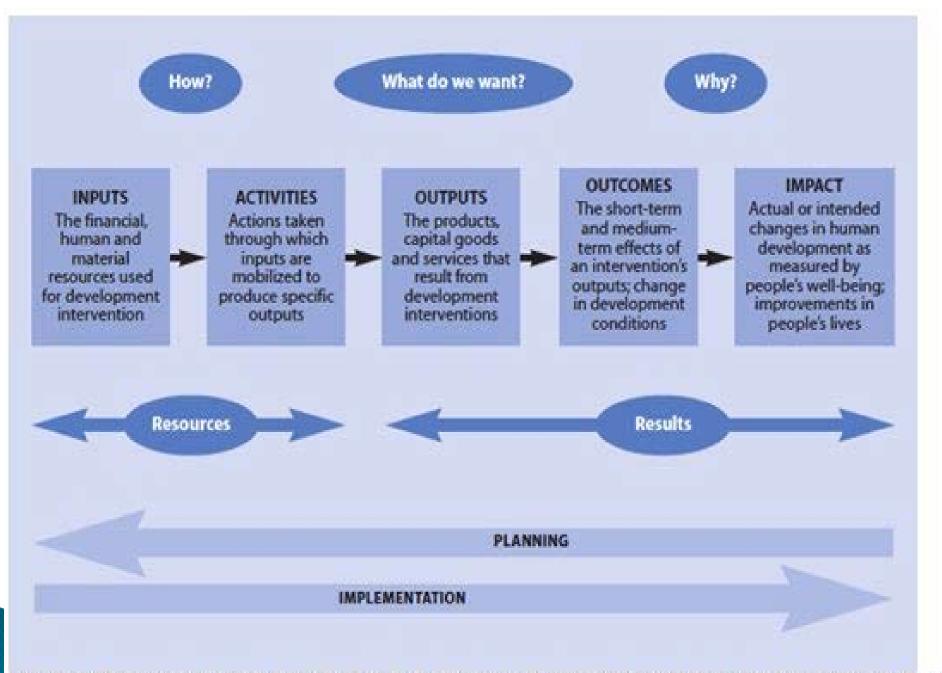
- Specific items of information that track a program's success on outcomes
  - Example: Number or % of participants exhibiting desired behavior change in a program

#### Outcome targets:

- Numerical objectives for a program's level of achievement on its outcomes
  - Example: Set target for amount of change expected

#### Benchmarks:

- Performance data used for comparative purposes
  - Example: comparing results to a similar successful program



Source: UNDP Handbook on Planning, Monitoring and Evaluation for Development Results (2009, p55)

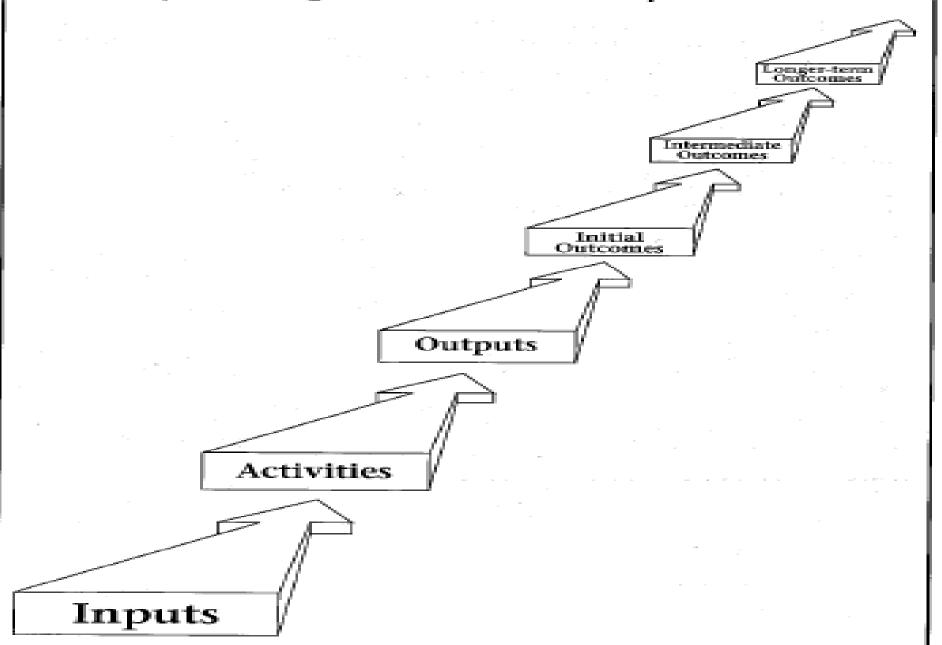
## Logic Modeling Approaches

- Basic Logic Modeling Approach
- 2. Logic Models that categorize and specify intended causal linkages

## Basic Logic Modeling Approach

- Categorizes program structures and processes to distinguish:
  - Program activities
  - Program outcomes
- Major features of basic logic model
  - Inputs
  - Activities
  - Outputs
  - Outcomes
- Often displayed in this order:
  - Resources → Activities → Outputs
  - Time related sequence is implied

#### Inputs Through Outcomes: The Conceptual Chain



## Basic Logic Modeling Approach

- This logic model can be used for developing performance measures
- Words and phrases can be used as basis for Program Construct
  - Words or phrases that describe key features of a program

## Basic Logic Modeling Approach

#### Limitations:

- Does not specify how various activities are linked to specific outputs
- Does not specify how particular outputs are linked to initial outcomes
- Good tool to categorize and describe, but not helpful as a causal model

#### Table 2.1 Program Logic Model of Laurel House

			Outcomes		
Inputs	Activities	Outputs	Initial	Intermediate	Long-term
<ul> <li>Funding:</li> <li>\$10 lunch         charge, and         Capital Health         Region and         United Way         funding</li> <li>179 staff         hrs/wk</li> <li>25 volunteer         hrs/wk</li> </ul>	<ul> <li>Various self-or group determined activities (in and out of the house)</li> <li>Learning about their illness</li> <li>Links to needed services and supports</li> <li>Goal setting</li> <li>Activities to enhance peer support networks</li> <li>Prevocational skills sessions</li> </ul>	<ul> <li>Number of clients served</li> <li>Number of life skills (e.g., coking and medicine) related sessions</li> <li>Number of referrals to supports</li> <li>Duration and frequency of attendance</li> <li>Number of meals</li> </ul>	Members indicate an increased mastery of life  They gain greater understanding and awareness of their illness and how to cope with it. For example:  Improved life skills (cooking and hygiene)  Are more aware of available services and supports  Members gain greater appreciation for the importance of developing a wider social network	Members develop stronger social networks and friendships, and employ coping and life skills	Members indicate an increased quality of life

# Logic Models that Categorize and Specify Intended Causal Linkages

- Presents framework that builds on basic logic modeling approach
- This approach does two things:
  - 1. Classifies main parts of logic model into: inputs, components, implementation activities, outputs, and outcomes
  - 2. Offers a template to specify how outputs and outcomes are intended to be linked, causally

Table 2.2 A Framework for Modeling Program Logics

	Intended Outcomes			
Inputs	Components	Implementation Activities	Outputs	Short-, Medium-, and Longer-Term Outcomes
<ul> <li>Money</li> <li>People (program providers)</li> <li>Equipment</li> <li>Technology</li> <li>Facilities</li> <li>Knowledge</li> </ul>	Major clusters of program activities	To provide To give To do To make	Work done     Program     activities     completed	Intended by the design of the program     Outcomes (or impacts) relate to program objectives
	1	Environment		New Element

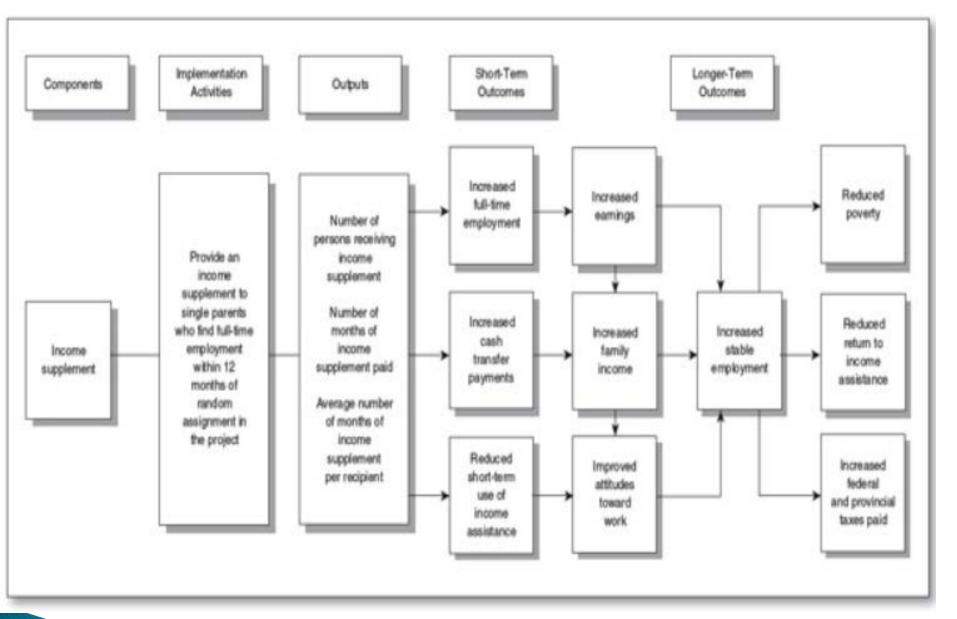


Figure 2.1 Income Self-sufficiency Program: Logic Model

## **Break Time**

#### General Features of Logic Models

- One or many components
- At least one implementation activity for each component
- At least one output for each component
- Unique configuration of outcomes
- Each short-term outcome needs to be linked to one or more subsequent outcomes
- Causal arrows (can be one-way or two-way)

- Process essentially qualitative and involves exercise of judgement
- Review documentation description of program and objectives
- Meet with program managers purpose and activities of the program
- Meet with other stakeholders

- Draft a logic model
- Discuss with program managers/other stakeholders
- Revise as needed to reflect the processes and outcomes of the program
- Affirm adequacy of logic model

- Five Logic Model Development steps:
  - Describe intended use of model
  - 2. Determine appropriate level or scope and identify all model components
  - 3. Graphically depict logic model
  - 4. Check for completeness and clarity
  - Revise

#### Specifying Program Objectives:

- A key part of the process in developing and validating a program logic model is identifying the objectives of the program
- Implication for constructing program objectives is that competing and perhaps even conflicting views will need to be reflected
- Objectives are political statements and carry the freight of political discourse - promise something to a number of stakeholders

- Program objectives should have the following five characteristics:
  - 1. Specify the target population
  - 2. Specify the direction of the intended effect
  - 3. Specify the magnitude of the expected change
  - 4. Specify the time frame for the expected change to occur
  - Outcomes should be measurable

# Program Technologies: Working with Uncertainty

- Program Technologies are means-ends relationships used in programs to achieve program objectives
- Organizations have purposes and use Core Technologies to achieve their objectives
- Program Technologies embody theories, organizational constructs, and experience
- Likelihood of success of program technology is a reflection of how much we know about solving different kinds of problems

## Program Technologies: Working with Uncertainty

- When developing programs, we need to be aware of what has been tried elsewhere
  - Systematic reviews
- Program managers need to be realistic about the likelihood of success
  - Learn from mistakes of program processes
- In <u>low-probability</u> program technologies, it is possible evaluation of outcomes will yield unclear picture

Table 2.3 Program Technologies and Probability That Outcomes Will Be Achieved

Type of Programs	Level of Certainty in the Program Technology	Ex ante cost-benefit analyses, performance measurement	
Physical infrastructure programs	High-probability technologies include:  Highways maintenance programs Flood control programs		
	Rural water supply programs		
	Medium-probability technologies include:  Reforestation programs Agricultural land reclamation programs Fire prevention programs	Ex post outcomes—focused program evaluations	
Social programs (people programs)	Low-probability technologies include:  Workforce training for chronically unemployed  Child abuse prevention programs  Prison-based rehabilitation programs	Performance measures are problematic for these programs—they do not allow us to attribute actual outcomes to the programs.	

- Program theory is set of assumptions about relationship between program strategies/tactics and expected benefits
- Theory is defined as a particular conception or view of something to be done and the method of doing it
- Program theory can be called the program conceptualization or, program plan, blue print, or design

- One of the 10 evaluation questions focused on program appropriateness
- Growing interest in program theories in evaluation – understanding causal relationships
- Theory-driven evaluation: testing linkages in logic models as part of evaluation; how are key constructs linked
- Construct validity: extent of relationships among our variables in evaluation correspond to expected/theoretical relationship in logic model

- We can easily learn about program theories through:
  - Meta-analysis: synthesis of results from evaluation in a given area
  - Meta-evaluation: evaluation of one or more completed evaluation projects
  - Ad hoc systematic reviews: synthesize evaluations in particular fields or subfields

## Figure 2.3 Model Synthesizing Key Causal Linkages Among Early Childhood Education Programs

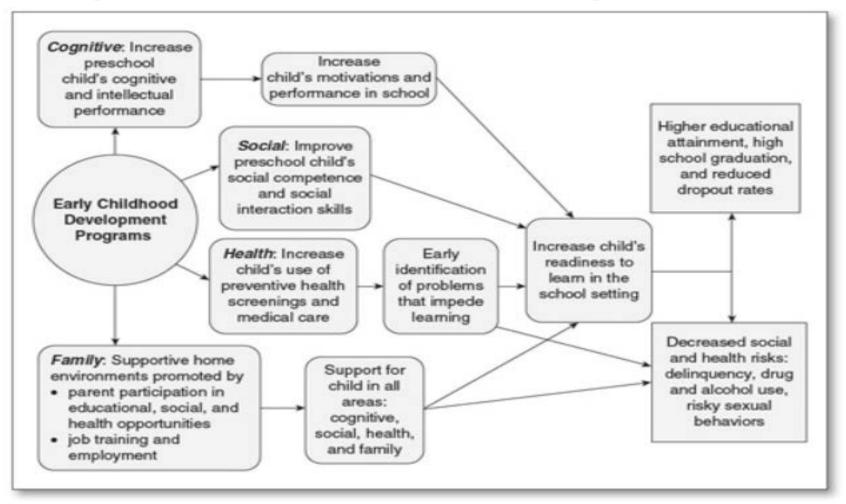
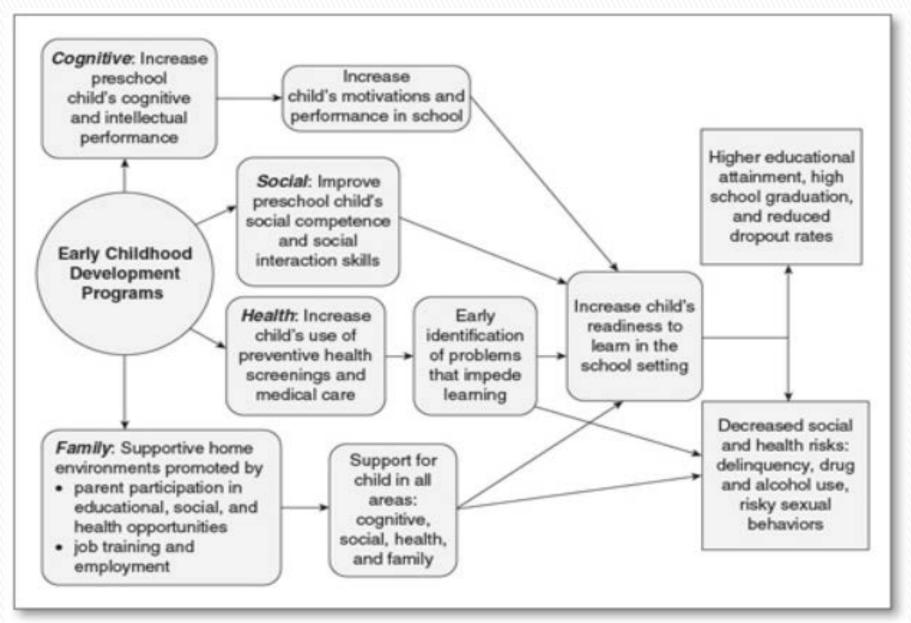


Figure 2.3 Model Synthesizing Key Causal Linkages Among Early Childhood Education Programs



#### Realistic Evaluation

- Critique of the "black box" approach
- Promote examination of conditions under which a program is expected to work
- Focus on configuration called context-mechanismoutcomes (CMOs) - cause and effect always mediated by context in which program is implemented
- Promote development of knowledge based on CMOs associated with program success or failures

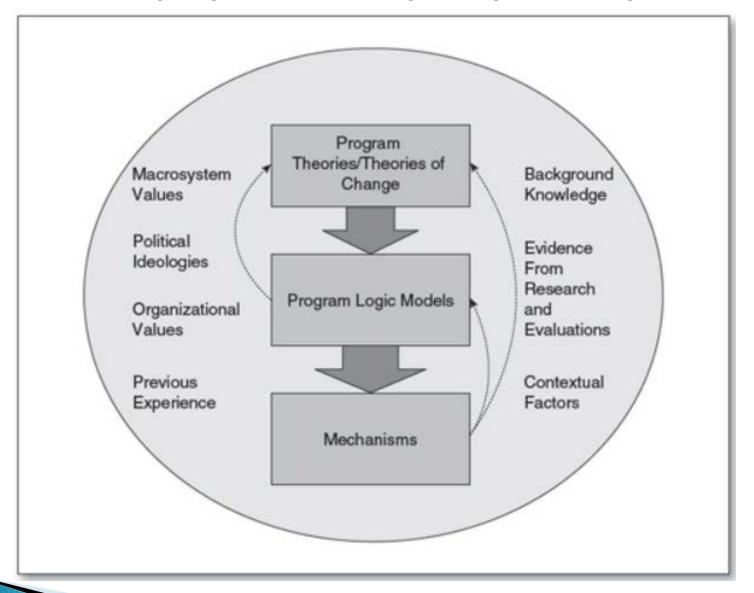
## Logic Models as Embedded Theories of Change

- Program logic models are context-specific
- Assessment of cause-and-effect entails examining combination of embedded factors and evidence-informed theories
- Process of building theories of change involves integrating knowledge from variety of disciplines
- What do we know about the substantive theories or theoretical mechanisms that help us design and implement programs that are effective?

## Connecting Theories, Program Logic Models, and Program Mechanisms

- Using evidence to guide and influence program design and implementation
- Evidence-based practice evaluation
- Theory-driven evaluations
  - Compare and assess large number of completed evaluations

Figure 2.5 Connecting Program Theories, Program Logics, and Program Mechanisms



# Putting Program Theory Into Perspective: Theory-Driven Evaluation and Evaluation Practice

- Evaluation theory (theory-driven evaluation) part of evaluation field since 1990s
- Gaps still exist between theory and practice of theory-driven evaluations
- Program logic models often include theory that is aimed at particular organizational setting
  - How well is theory holding up in the particular setting

# Program Objectives, Program Environments, and Organizational Objectives

#### **Factors in Public Sector**

- Other programs
- Senior executives
- Other departments/ agencies
- Other governments or levels of government
- Funding agencies
- Elected officials
- Regulatory agencies
- Courts and tribunals

#### **Factors in Society**

- Clients
- Interest/advocacy organizations
- Media including mass and social media
- Private sector organizations particularly for public-private partnerships
- Exogenous trends and events

#### Logic Models for Performance Measurement

- Program evaluation and performance measurement are complementary facets of evaluation
- Evaluators expected to play a role in developing and implementing performance measurement systems
- Logic models important tools for developing performance measures for programs
- Logic models can be used to frame discussion of what to measure when setting up performance measurement and monitoring

#### Logic Models for Performance Measurement

- Identification of key performance measures/ indicators (KPIs) important issue for public sector and NGOs
- One strategy for deciding what to measure is to use structured guidance
  - One way to do this is the use of Balanced Scorecard (BSC)
- Logic of BSC is that organizations have four functional areas:
  - 1. Financial activities
  - Customer/client focused activities
  - 3. Activities focused on internal learning & development
  - 4. Internal business activities
- Limitation: one size fits all; logic models more flexible

## Strengths and Limitations of Program Logics

#### Strengths

- Facilitate communication about programs that is not possible with words alone
- Help categorize, describe and distinguish program from environment
- Used to develop performance measures

#### Limitations

Less valuable in evolving situations

## **Break Time**

# Class Exercise: Constructing a Logic Model for a Program

- Faculty members from St. Louis University have been working with the Bilingual International Services (BIAS) on a health coaching program.
- We are now trying to set up an internship program with interns serving as health coaches.
- Please read the word document and we will construct a logic model based on the information in the document.