Learning Objectives

Webinar participants will:

> Know about the history of Logic Models (LM)
> Understand the different types and basics of LMs
> Recognize the benefits and uses of LMs
> Know the LM Vocabulary and define key LM components
> Understand how LMs inform program evaluation
> Describe the limitations of LMs
> Identify the available resources
Logic Model - History

> Use of Program logic models began in 1970s

> Carol Weiss (1995), Michael Fullan (2001) and Huey Chen (2005) are among the pioneers and champions for the use of program theory in program design and evaluation

> Logic models got recognition after the United Way of America’s publication ‘Measuring Program Outcomes’ in 1996

> Logic models usage increased after the W. K. Kellogg Foundation’s publication of the ‘Logic Model Development Guide’ in 2001 (updated in 2004)
## Logic Model Types

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Theory of Change</th>
<th>Program Logic Model</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Time Frame</em></td>
<td>No time limit</td>
<td>Time bound</td>
</tr>
<tr>
<td><em>Level of detail</em></td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td><em>Elements</em></td>
<td>Few (&quot;do + get&quot;)</td>
<td>Many</td>
</tr>
<tr>
<td><em>Primary display</em></td>
<td>Graphics</td>
<td>Graphics + Text</td>
</tr>
<tr>
<td><em>Focus</em></td>
<td>Generic</td>
<td>Targets + specified results</td>
</tr>
<tr>
<td><em>Functionality</em></td>
<td>Conceptual</td>
<td>Operational</td>
</tr>
</tbody>
</table>

LOGIC MODEL: The What

LMs Presents a “snapshot” of the program

- Systematic and visual representation of the relationships among the program resources, activities (planned work), and the intended changes or results
- Programs can have multiple LMs
- Constantly changing depending on the program needs
- Logical chain of ‘if-then’ relationships
- ‘If’ x occurs ‘then’ y will occur
LOGIC MODEL: The Why

Road Map
Program Implementation

Program Design and Planning
Program Evaluation and Reporting

WK Kellogg Foundation: Logic Model Development Guide, 2004
Logic Models are here to stay

> Logic models are widely used in all sectors of work

  > Private Sector - American Dental Association

  > Public Sector - Centers for Disease Control

  > Charitable Sector - W.K. Kellogg Foundation

  > International Arena - United Nations, World Bank

  > Evaluators
Logic Models in Daily Life

Imagine the planning that goes into deciding the Family’s Hiking Trip to the Mountains

**Trip Planning (planned work)**

- Family Members
- Budget
- Rent a car
- Hiking Gear
- Food, Water

**Trip Results (intended results)**

- Drive to Mountains
- Set up camp
- Cook, play, talk, laugh, hike

- Family members: - enjoy hiking - learn about each other
- family members bond

WK Kellogg Foundation: Logic Model Development Guide, 2004
What does a logic model look like?

**Resources/Inputs**
- Resources needed to operate your program

**Activities**
- If you have resources, use them to accomplish planned activities

**Outputs**
- If you accomplish your planned activities, then you will deliver the amount of product and or product you intended

**Outcomes**
- If you accomplish your planned activities to the extent you intended, then your participants will benefit in certain ways

**Short-term**

**Midterm**

**Long-term**

If these benefits to participants are achieved, then certain changes in organizations, communities, or systems might be expected to occur

WK Kellogg Foundation: Logic Model Development Guide, 2004
Logic Model Benefits & Uses

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

Benefits and Uses....

- Enhances team work and motivates staff
- Offers highly participatory learning opportunities
- Guides prioritization and allocation of resources
- Helps to identify important variables to measure and enable effective use of evaluation resources
- Increases resources, opportunities, recognition
- Supports replication; Provides credible reporting framework
- Often is required!

## Logic Model Vocabulary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resources aka Inputs</strong></td>
<td>human, financial, organizational, and community resources that a program has</td>
</tr>
<tr>
<td><strong>Activities</strong></td>
<td>are what the program does with resources and are used to bring about the program changes or results</td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td>are the direct products of program activities and may include types, levels and targets of services to be delivered by the program</td>
</tr>
<tr>
<td><strong>Outcomes</strong></td>
<td>are the specific changes in program participants’ behavior, knowledge, skills, status and level of functioning.</td>
</tr>
<tr>
<td></td>
<td><em>Short-term</em>: 1-3 years; <em>Mid-term</em>: 4-6 years; <em>Long-term</em>: 7-10 years</td>
</tr>
<tr>
<td><strong>Impact</strong></td>
<td>is the fundamental intended or unintended change occurring in organizations, communities or systems as a result of program activities within 7 to 10 years.</td>
</tr>
</tbody>
</table>

WK Kellogg Foundation: Logic Model Development Guide, 2004
Logic Model Planning

READY, SET... BEGIN!

> Determine the purpose of your logic model
  > Who will use it? For what?

> Involve others

> Set boundaries for logic model

> Understand the program

> Examine available evidence

> Explore knowledge base

> Find out what others are doing or have done

Remember it’s a GROUP PROCESS
Logic Model Planning

> Occurs at any level: national plan, statewide plan, individual plan of work, specific project/activity plan

> Model vs. more detailed program plan/management plan

> Focus on outcomes: “start with end in mind”

> Remember, it is a framework for describing the relationships between inputs, activities and results.

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

Check your Logic Model

> Is it meaningful?

> Does it make sense?

> Is it doable?

> Can it be verified?
You can’t do “good” evaluation if you have a poorly planned program.

Beverly Anderson Parsons (1999)
LOGIC MODEL: Program Evaluation

- Identify the connection between what we do and impact the program is having
- Provide a common vocabulary and helps in program planning
- Help focus on quality and continuous improvement
- Help to keep balanced focus on the big picture as well as the component parts

Align Work Plan with Logic Model

1. List your strategies in the strategies/activities column of your logic model.

2. List the expected effects from your 5-year program goals in the long-term outcomes of your logic model
   - include your Indicators
   - Fill in the gaps

3. Perform checks to assure links across logic model columns

4. Ensure that the logic model represents the program but does not provide unnecessary detail

5. Revise and update the logic model periodically to reflect program changes

https://www.cdc.gov/eval/tools/logic_models/index.html
Writing good outcomes

**SMART objectives**

<table>
<thead>
<tr>
<th>Who/what</th>
<th>Change (desired effect)</th>
<th>In what</th>
<th>By when</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools participating in sealant programs</td>
<td>increase</td>
<td>Number of schools participating in sealant programs</td>
<td>The end of school year 2020</td>
</tr>
<tr>
<td>Children receiving dental sealants</td>
<td>increase</td>
<td>Number of school children receiving sealants</td>
<td>By the end of year 2019</td>
</tr>
<tr>
<td>Children with dental caries</td>
<td>reduce</td>
<td>Incidence of dental caries among children</td>
<td>By the end of five year grant period</td>
</tr>
</tbody>
</table>
Sometimes connecting outputs to outcomes is a challenge
Beginning with the end in mind . . .

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

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

Outcome evaluation:
To what extent are desired changes occurring? For whom?
Is the program making a difference?
What seems to work? Not work?
What are unintended outcomes?
Logic Model example

Program Action - Logic Model

Inputs
Activities
Outputs
Outcomes - Impact

Short Term
Medium Term
Long Term

Assumptions
External Factors

Evaluation
Focus - Collect Data - Analyze and Interpret - Report

Situation
Needs and assets
Symptoms versus problems
Stakeholder engagement

Priorities
Consider:
- Mission
- Vision
- Values
- Mandates
- Resources
- Local dynamics
- Collaborators
- Competitors
- Intended outcomes

What we invest
- Staff
- Volunteers
- Time
- Money
- Research base
- Materials
- Equipment
- Technology
- Partners

What we do
- Conduct workshops, meetings
- Deliver services
- Develop products, curriculum, resources
- Train
- Provide counseling
- Assess
- Facilitate
- Partner
- Work with media

How many we reach
- # of Participants
- Agencies
- Decision makers
- Customers
- Satisfaction

What the short term results are
- Learning
- Awareness
- Knowledge
- Attitudes
- Skills
- Opinions
- Aspirations
- Motivations

What the medium term results are
- Action
- Behavior
- Practice
- Decision-making
- Policies
- Social Action

What the ultimate impact(s) is
- Conditions
- Social
- Economic
- Civic
- Environmental
# California LOHP Logic Model

<table>
<thead>
<tr>
<th><strong>Existing Infrastructure</strong></th>
<th><strong>Identify program activities related to the following</strong></th>
<th><strong>Identify Outputs Examples</strong></th>
<th><strong>Outcomes</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>OHP Funding &amp; Staff</td>
<td>1. Program Infrastructure – Staffing, Management &amp; Support</td>
<td>1. Staff hired, Advisory Committee formed, AC meetings conducted</td>
<td><strong>Short Term</strong></td>
</tr>
<tr>
<td></td>
<td>2. Data Collection &amp; Surveillance</td>
<td>2. # of data systems identified</td>
<td>• ↑ capacity</td>
</tr>
<tr>
<td></td>
<td>3. Needs assessment</td>
<td>3. # of needs identified</td>
<td>• ↑ collaboration</td>
</tr>
<tr>
<td></td>
<td>4. Identification of resources &amp; assets</td>
<td>4. # of assets, resources</td>
<td>• Targeted surveillance</td>
</tr>
<tr>
<td></td>
<td>5. Oral Health Action Plan</td>
<td>5. # of OHP goals</td>
<td>• Collaborative communications</td>
</tr>
<tr>
<td></td>
<td>6. Interventions/Programs</td>
<td>6. # of interventions / programs</td>
<td>• Coordinated system to address specific needs</td>
</tr>
<tr>
<td></td>
<td>7. Partnerships &amp; Coalitions</td>
<td>7. # of partnerships/ coalitions</td>
<td><strong>Intermediate</strong></td>
</tr>
<tr>
<td></td>
<td>8. Communications &amp; literacy</td>
<td>8. # of communications</td>
<td>• ↑ utilization of data and resources</td>
</tr>
<tr>
<td></td>
<td>9. Policy Development</td>
<td>9. # of policies</td>
<td>• ↑ # of engaged partners</td>
</tr>
<tr>
<td></td>
<td>10. Training &amp; TA</td>
<td>10. # of trainings</td>
<td>• ↑ # of policies and programs that support oral health</td>
</tr>
<tr>
<td></td>
<td>11. Evaluation</td>
<td>11. EP developed</td>
<td>• ↑ engagement of dental, medical and social services workforce</td>
</tr>
<tr>
<td></td>
<td>12. Program Coordination &amp; Collaboration with Internal/ External Partners</td>
<td>12. # of external partners</td>
<td>• ↑ # of people engaged in healthier habits</td>
</tr>
</tbody>
</table>

- **Short Term**
  - ↑ capacity
  - ↑ collaboration
  - Targeted surveillance
  - Collaborative communications
  - Coordinated system to address specific needs

- **Intermediate**
  - ↑ utilization of data and resources
  - ↑ # of engaged partners
  - ↑ # of policies and programs that support oral health
  - ↑ engagement of dental, medical and social services workforce
  - ↑ # of people engaged in healthier habits
  - ↑ # of people receiving evidence-based interventions

- **Long Term**
  - Reduction in
    - Dental caries prevalence & untreated caries
    - Tooth loss
    - Oral & pharyngeal cancers
    - Emergency room visits
    - Children treated under general anesthesia
    - Reduction in health disparities
Logic Model Limitations

> Represents reality, but is not reality
> Focuses on expected outcomes
> Challenge of causal attribution
  > Many factors influence process and outcomes
> Doesn’t address whether we are doing the right thing
> Logical representation does not equal plausibility, feasibility, or success
> Does not account for unintended consequences and program critics

LM Resources

WK Kellogg Foundation
Logic Model Guidebook
Development guide

Logic Model
Guidebook
Knowlton & Phillips

CDC Program Evaluation Step 2
Logic Models
Questions?

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Evaluation

Please don’t forget to complete the survey at the end of this webinar.

Your feedback is very important to us, so we thank you for taking the time to share your thoughts!