LOGIC MODELS

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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)

The Logic Models Guidebook: Better Strategies for Great Results. Knowlton LW, Phillips CC, SAGE Pub. 2013

Logic Model Types

Characteristic	Theory of Change	Program Logic Model
Time Frame	No time limit	Time bound
Level of detail	Low	High
Elements	Few ("do + get")	Many
Primary display	Graphics	Graphics + Text
Focus	Generic	Targets + specified results
Functionality	Conceptual	Operational

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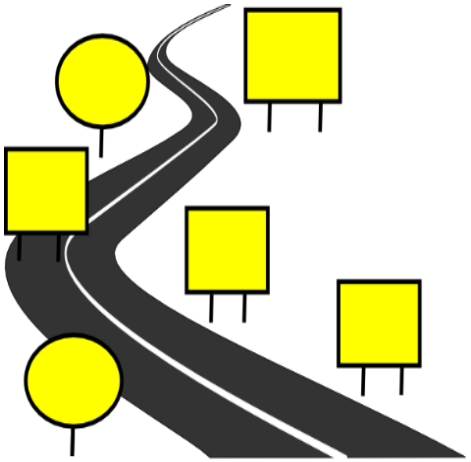
LOGIC MODEL: The *What*

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

WK Kellogg Foundation: Logic Model Development Guide, 2004

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*

WK Kellogg Foundation: Logic Model Development Guide, 2004

Logic Models in Daily Life

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

Trip Planning (planned work) | **Trip Results (intended results)**

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

→

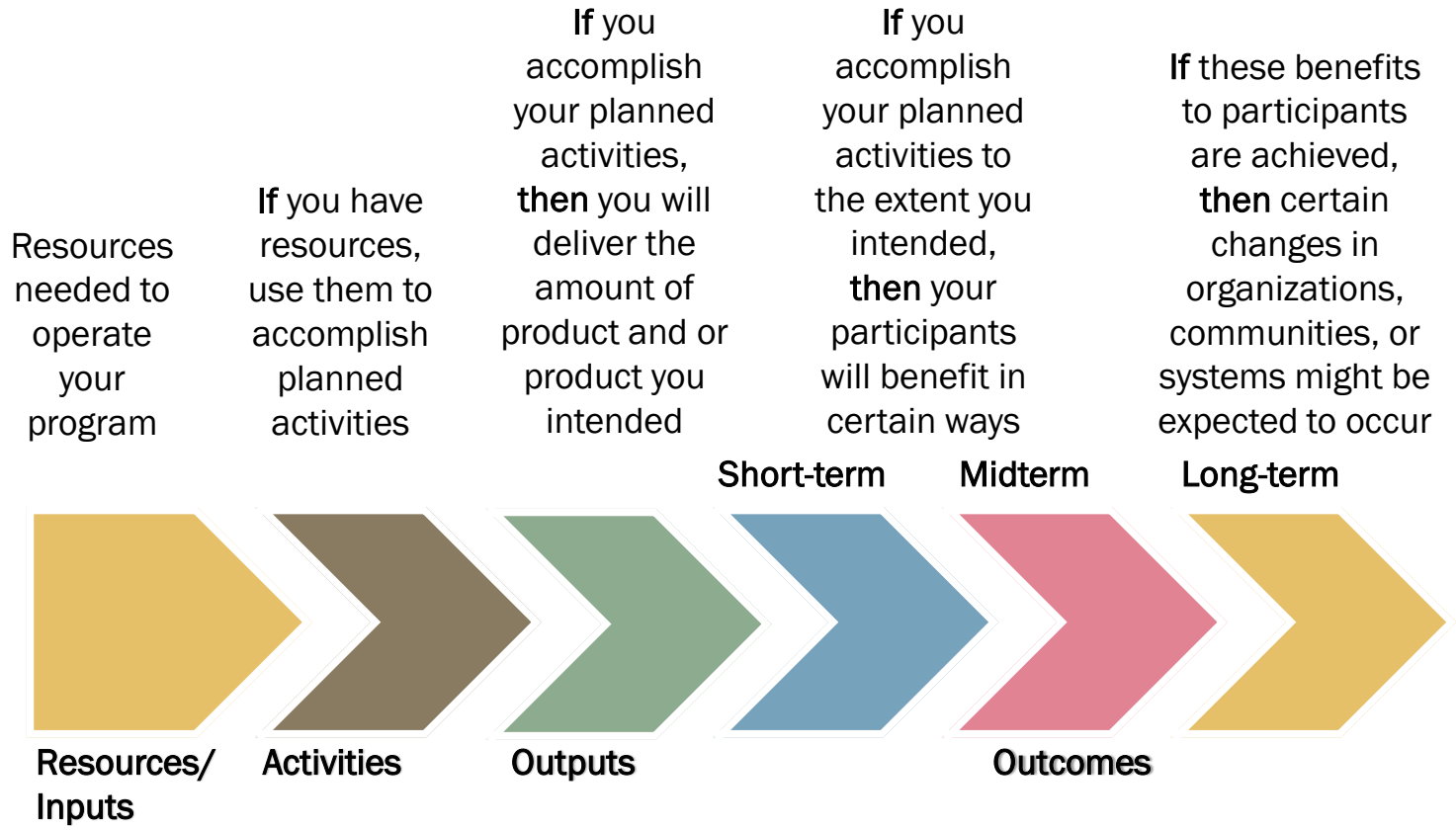
- Drive to Mountains
- Set up camp
- Cook, play, talk, laugh, hike

→

- 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?



WK Kellogg Foundation: Logic Model Development Guide, 2004

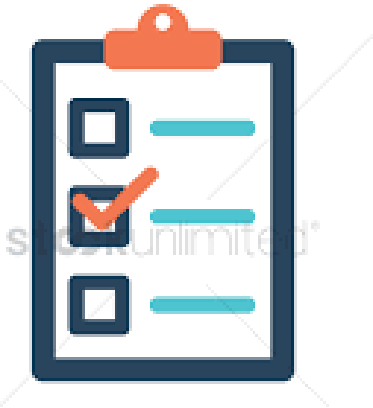
Logic Model Benefits & Uses

- 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

The Logic Models Guidebook: Better Strategies for Great Results. Knowlton LW, Phillips CC, SAGE Pub. 2013

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!



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Logic Model Vocabulary

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

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

The Logic Models Guidebook: Better Strategies for Great Results. Knowlton LW, Phillips CC, SAGE Pub. 2013

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.

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Check your Logic Model

- Is it meaningful?
- Does it make sense?
- Is it doable?
- Can it be verified?

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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

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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

Specific

Measurable

Achievable

Reliable

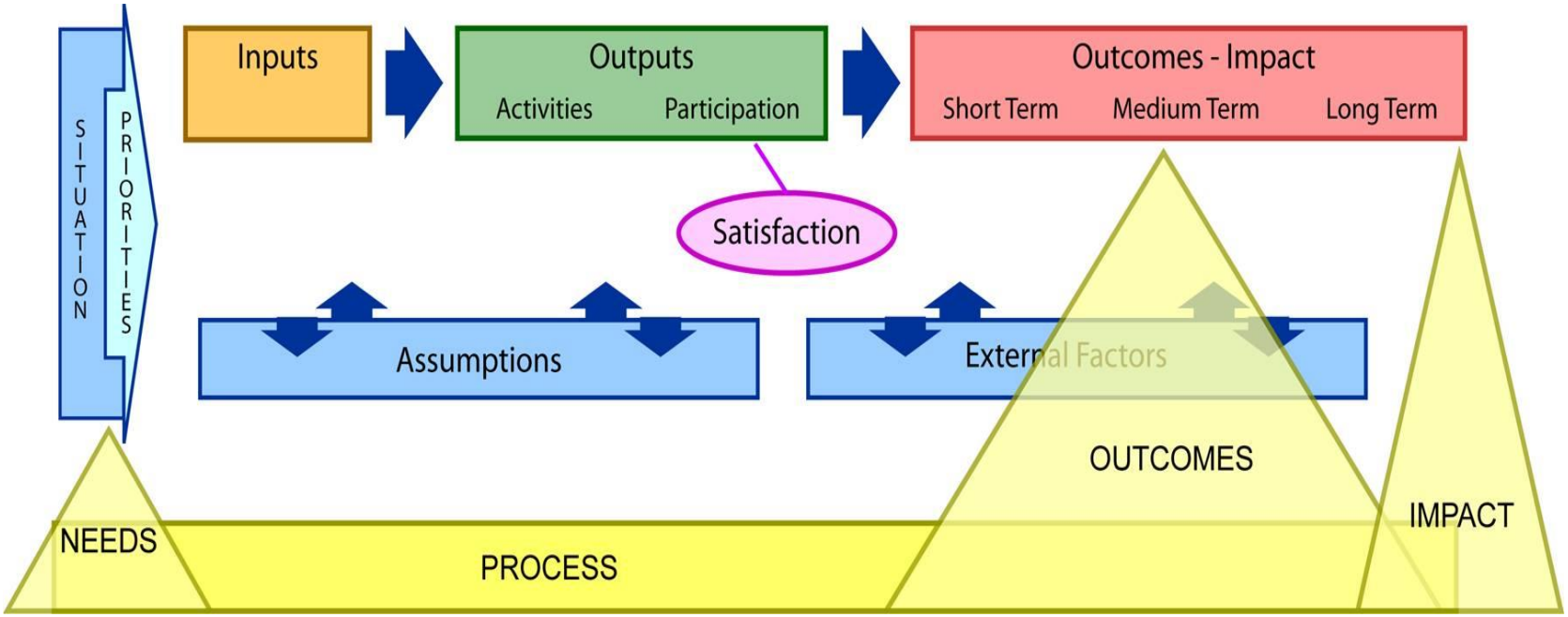
Timely

Who/what	Change (desired effect)	In what	By when
Schools participating in sealant programs	increase	Number of schools participating in sealant programs	The end of school year 2020
Children receiving dental sealants	increase	Number of school children receiving sealants	By the end of year 2019
Children with dental caries	reduce	Incidence of dental caries among children	By the end of five year grant period

Sometimes connecting outputs to outcomes is a challenge

Courtesy: Google Images

Beginning with the end in mind . . .



Evaluation

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:

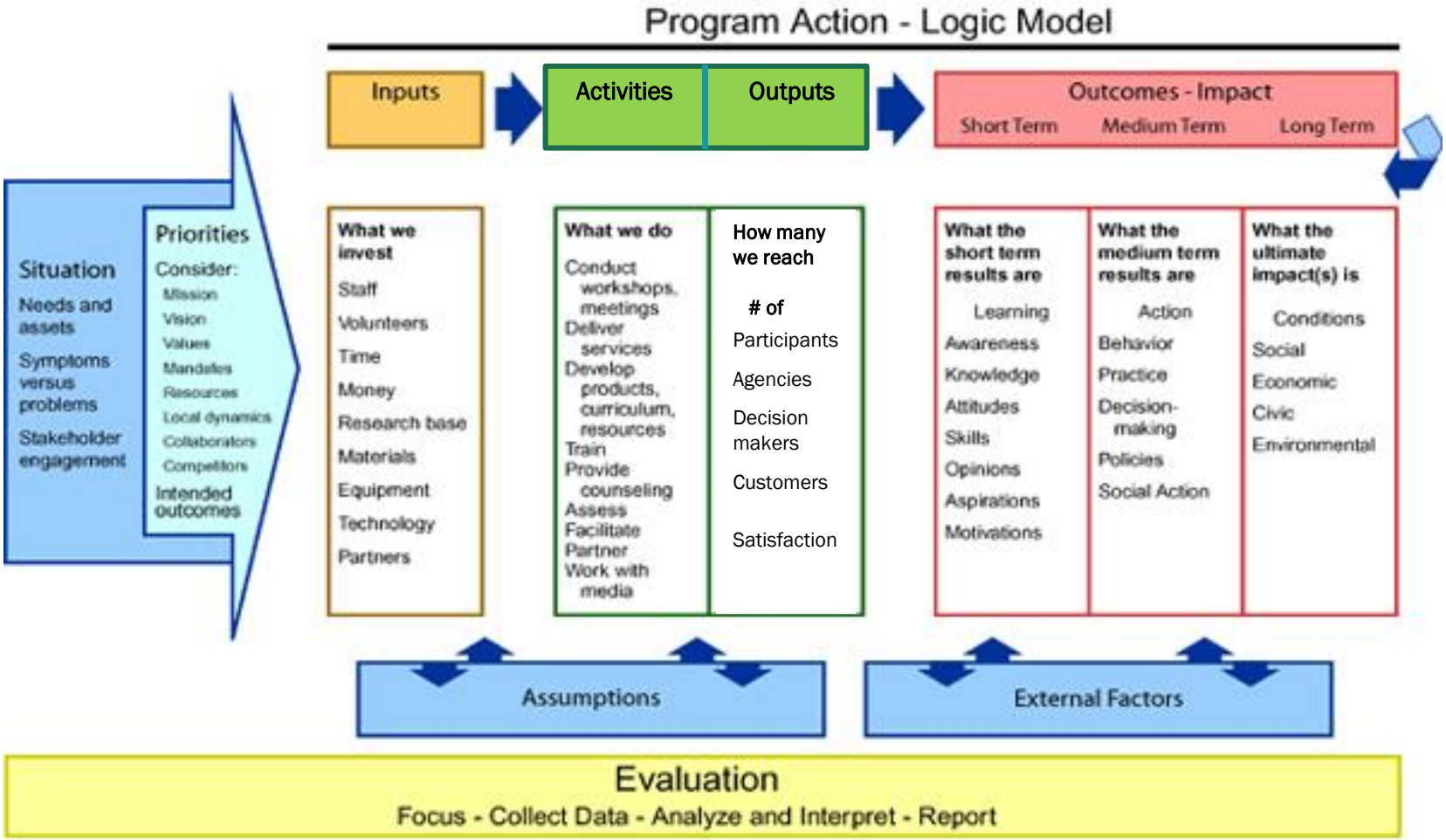
To what extent are desired changes occurring? For whom?

Is the program making a difference?

What seems to work? Not work?

What are unintended outcomes?

Logic Model example



California LOHP Logic Model

Using these resources **INPUTS**	*We engage in these activities* **ACTIVITIES**	*To produce these results* **OUTPUTS**	*Which will yield these benefits* **OUTCOMES**
Existing Infrastructure OHP Funding & Staff Additional Infrastructure to be developed with funding from the Prop 56 funding Additional resources as they become available	**Identify program activities related to the following** 1. Program Infrastructure – Staffing, Management & Support 2. Data Collection & Surveillance 3. Needs assessment 4. Identification of resources & assets 5. Oral Health Action Plan 6. Interventions/Programs 7. Partnerships & Coalitions 8. Communications & literacy 9. Policy Development 10. Training & TA 11. Evaluation 12. Program Coordination & Collaboration with Internal/ External Partners	**Identify Outputs Examples** 1. Staff hired, Advisory Committee formed, AC meetings conducted 2. # of data systems identified 3. # of needs identified 4. # of assets, resources 5. # of OHP goals 6. # of interventions / programs 7. # of partnerships/ coalitions 8. # of communications 9. # of policies 10. # of trainings 11. EP developed 12. # of external partners	**Outcomes** **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

Will lead to achieving **STATE ORAL HEALTH OBJECTIVES**

California Local Oral Health Program Logic Model, Appendix 4

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

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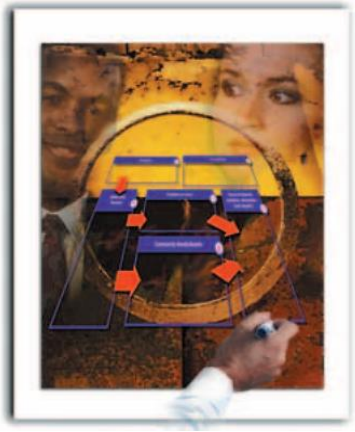
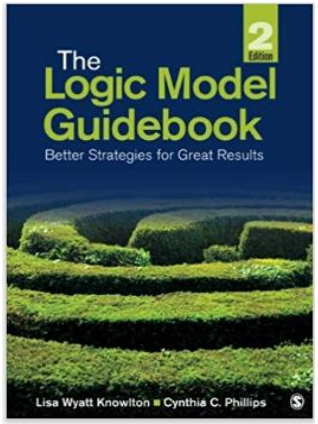
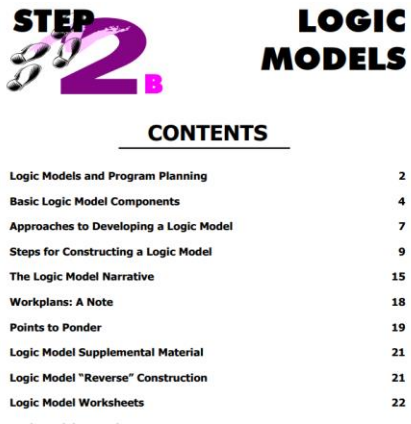
LM Resources



[WK Kellogg Foundation Logic Model 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!