Logic Models & Problem Analysis

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Housekeeping

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- Breaks
- Exits
- Restrooms
- Handouts
- Parking Lot

Objectives

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- Describe the parts of a logic model
- Explain what makes a logic model effective
- Describe problem analysis
- Use a logic model to plan outputs
- Describe several variations of logic models

Logic Models: an overview

Opening Activity

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Please use the card you were given to organize yourselves, in sequence, WITHOUT TALKING, to describe the steps one might take in starting a personal exercise program. You may show your cards to one another, but no talking!

Debrief

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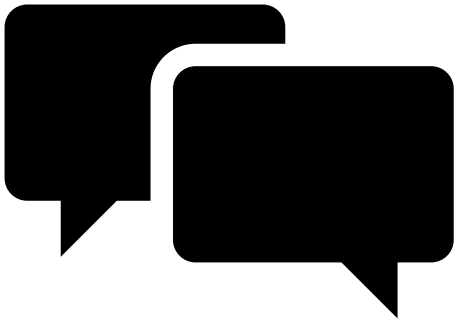
- How did you organize yourselves?
- What information helped you figure out your steps?
- When did you know you were successful?
- What would have made this easier?



A logic model...

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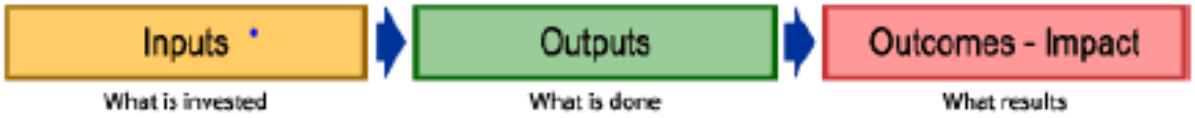
- is a **simplified picture** of a program, initiative, or intervention that is a response to a given situation.
- shows the **logical relationships** among the resources that are invested, the activities that take place, and the benefits or changes that result.
- is the **core** of program planning, evaluation, program management and communications.



Where do Logic Models come from?

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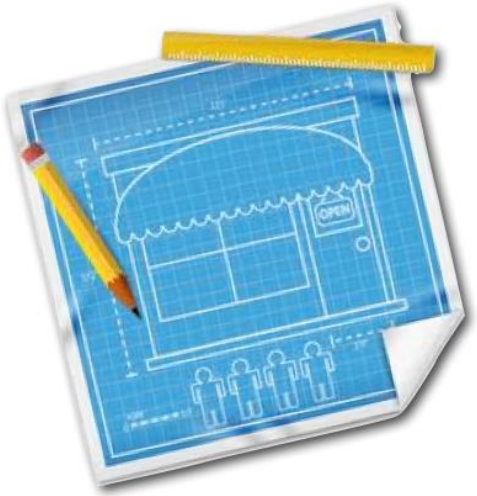
- Date to the 1970s
- Used in a variety of settings – private, public, nonprofit, international, evaluation fields
- Sometimes called blueprint, roadmap, causal chain, theory of change or program matrix



Taylor-Powell, E., & Henert, E. (2008) *Developing a logic model: Teaching and training guide.* Madison, WI: University of Wisconsin- Extension, Cooperative Extension, Program Development and Evaluation. http://www.uwex.edu/ces/pdande

What Logic Models Help Coalitions Do Better

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1. Align interventions with intended outcomes
2. Set priorities
3. Create an outcomes-based evaluation
4. Interpret evaluation results
5. Allocate resources
6. Engage stakeholders

Logic Models and The SPF

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Steps to Create a Logic Model

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1. Conduct a Problem Analysis
2. Chose the best format or layout
3. Add related data to each element
4. Map interventions
5. Critique the result to ensure it is community friendly

Questions

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What questions do you have?

Problem Analysis

Why do we do problem analysis?

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"If the only tool you have is a hammer, you tend to see every problem as a nail."

--Abraham Maslow

Problem Analysis Steps

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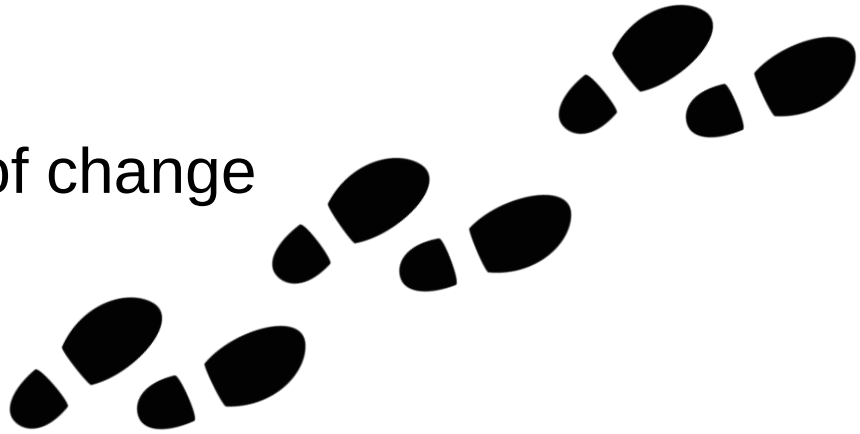
- Identify the priority issues to be addressed
- State the problem or goal to be addressed (naming and framing, problem statement)
- Identify personal and environmental factors that (may) contribute
- Identify targets and agents of change
- Generate potential solutions



Problem Statement (What)

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Clarify

- Start with what you know
- Decide what information is missing
- Gather information on the problem
    - Facts
    - Inference
    - Speculation
    - Opinion
- Define the problem.

Problem Statement (What)

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Decide

- How important is it?
- How feasible is it for us to address?
- What negative impacts could occur as a consequence of bringing a solution to this problem?

Problem Statement (What)

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Analyze: answer all of the question words

- *What* is the problem?
- *Why* does the problem exist?
- *Who* is causing the problem, and who is affected by it?
- *When* did the problem first occur, or when did it become significant?
- *How much*, or to what extent, is this problem occurring?

Problem Statement Activity

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Activity—Naming and Framing…

- In pairs, name and frame the issues important to the community in the scenario on the handout.
- Write down your definition of the problem – craft a problem statement.
- Pair off and share your problem statements with each other. Together, you can create a new problem statement, incorporating ideas from both.
- Next, move from pairs to groups of four, and again merge the statements into one.
- Continue joining the groups in larger and larger groups until everyone is together again, and you have one agreed upon statement.

Problem Statement Activity

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Activity—Prioritizing Problems…

- Look at the chart on your handout.
- Use your coalition experience to answer each question about these two problems
- Select the problem your group would address first and explain why

	Problem 1: Many underage teens smoke cigarettes or chew tobacco	Problem 2: Many teenagers use illegal drugs (marijuana, cocaine, et cetera)
How frequently does the problem occur?		
How many people are affected?		
For what amount of time are they affected?		
How severe is the effect?		
How important do group members perceive the problem to be?		
How important is the problem perceived to be by others?		
How likely is it that we can solve/significantly improve the problem?		
Are there any negative impacts?		

Problem Analysis Frameworks

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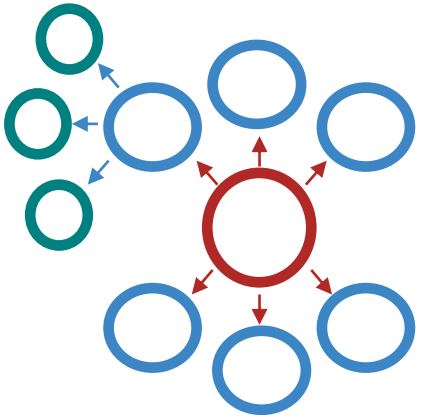
1. 5 Why's
2. Fishbone
3. ABC- Behavioral Analysis
4. Root Cause- But Why



ANTECEDENTS	CONSEQUENCES
Encourage Behavior: × Advertising with youth appeal. × Adults in a young person's life model behavior. × Desirable role models smoke.	Encourage Behavior: × Free merchandise in exchange for coupon / UPC. × Peer approval. × Role model or parental approval.
Youth Smoking	
Discourage Behavior: × Seeing disease consequences first hand.	Discourage Behavior: × Parents "reward" non-smoking. × School administrators remove extra-curricular activities for those youth who do smoke. × Performance in sports activities worsens. × Appearance is worse (skin, teeth, breath)

Figure 3.3

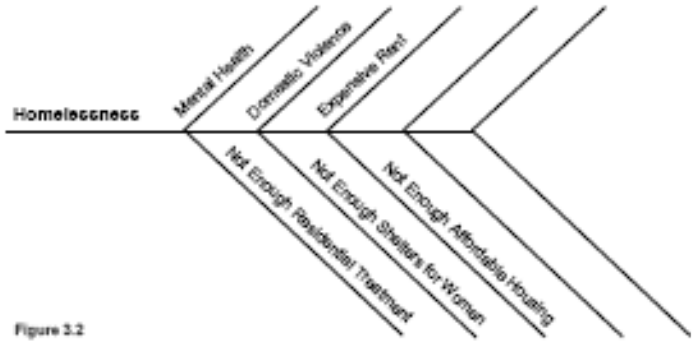


Figure 3.2

5 Why Process

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1. Assemble a team
2. Define the problem
3. Ask the first why
4. Ask why four more times
5. Know when to stop – when there are no more useful responses, you can go no further

Fishbone Diagram

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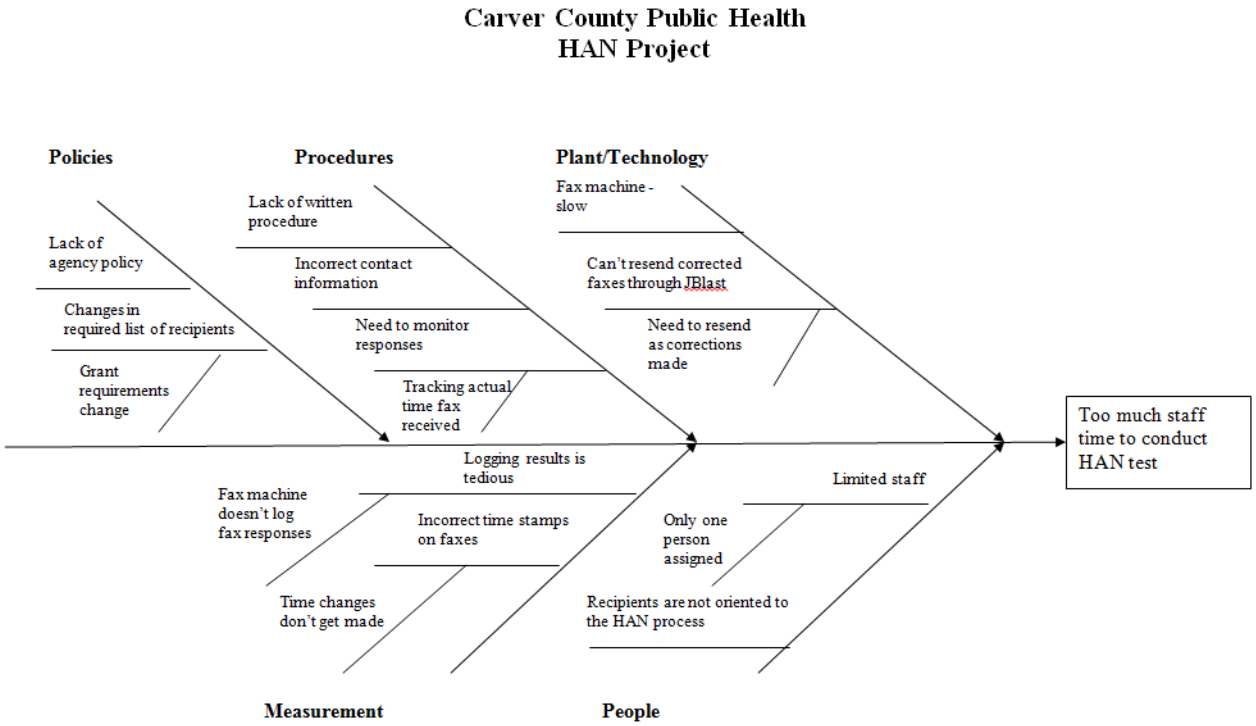

1. Problem Statement
2. Categorize
3. Contributing Factors
4. Ask Why
5. Deeper Causes
6. Test For Root Causes

ABC Behavioral Analysis

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- A = Antecedent, what happens before the behavior occurs
- B= Behavior, what happens
- C= Consequence, what happens next, the outcome or result

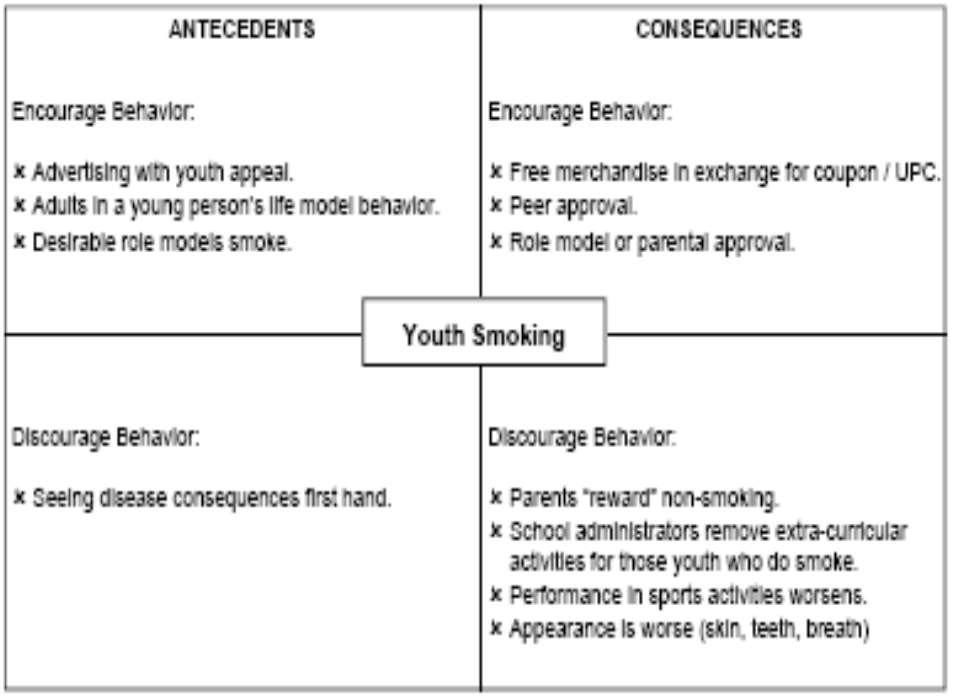

Figure 3.3

Root Cause

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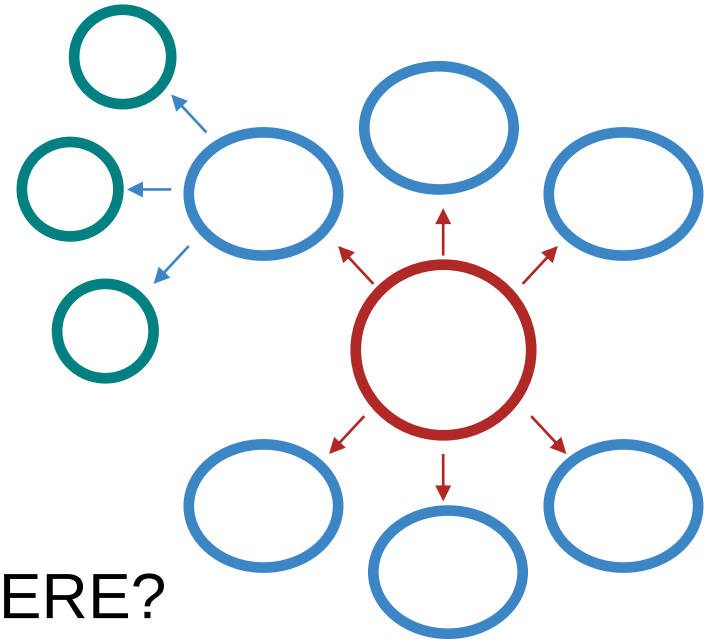

Components:

1. Problem
2. Root Causes / Risk Factors
3. Local Conditions

   WHY IS THIS HAPPENING HERE?

   - Tells exactly what is happening
   - We can see it in our community
   - We can take action on it

Retaining Ideas from Problem Analysis

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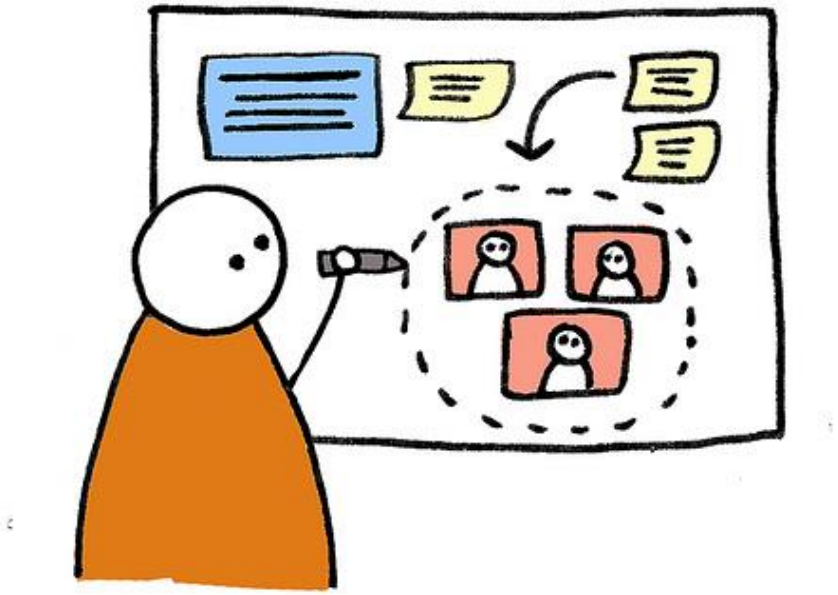
- Data support?
- Prevention science?
- Community experience?
- Community expectations?



Questions

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What questions do you have?

Break

Logic Models: components

Required Elements

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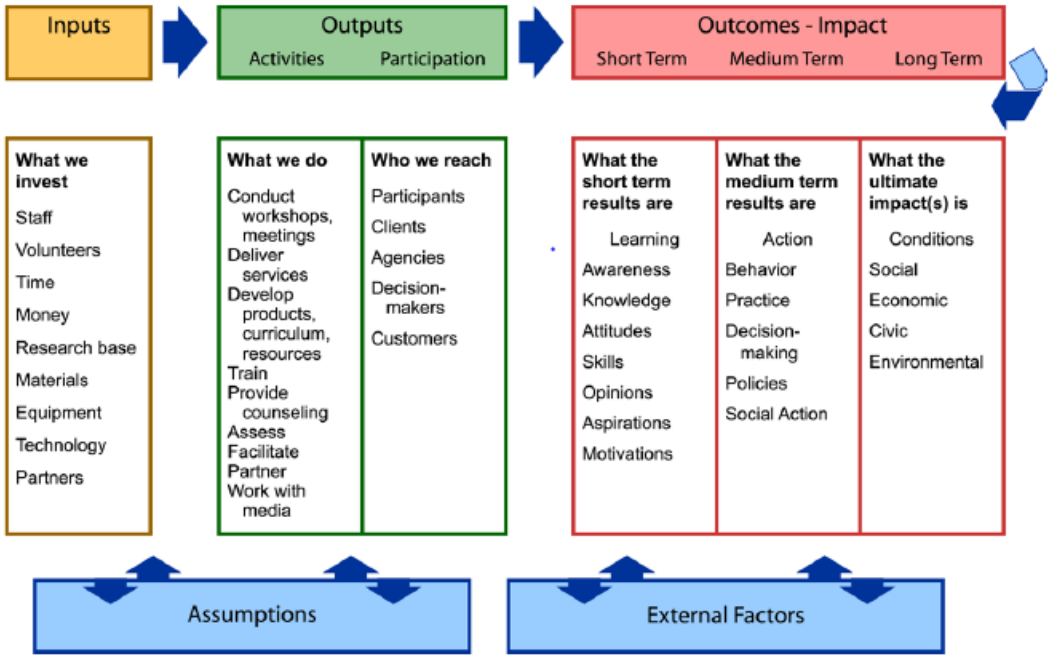
Problem Analysis

1. Problem Statement
2. Root Causes
3. Local Conditions

Data

4. Inputs
5. Outputs
6. Outcomes



Inputs and Outputs and Outcomes (oh my!)

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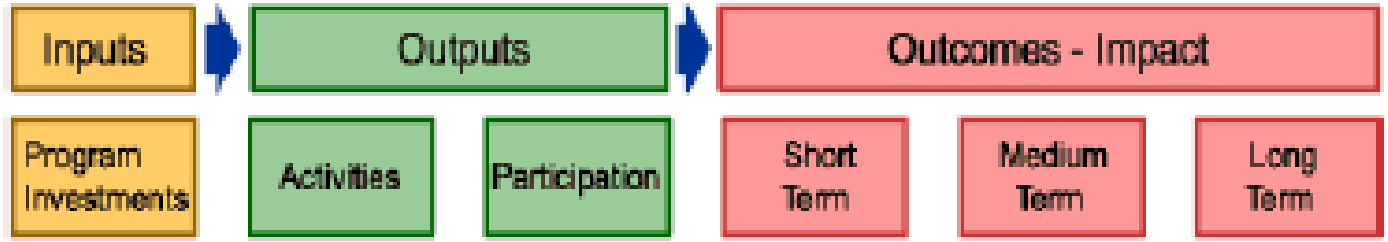

- Inputs: what resources we invest, barriers we face
- Outputs: what actions we take
- Outcomes: what results we see

Questions

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What questions do you have?

Logic Models: types

Logic Model Design

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Logic models look different depending on:

- Purpose
- Type and complexity of program
- Agency orientation

Any shape and form is possible for the logic model.

Multiple levels and models may be necessary.

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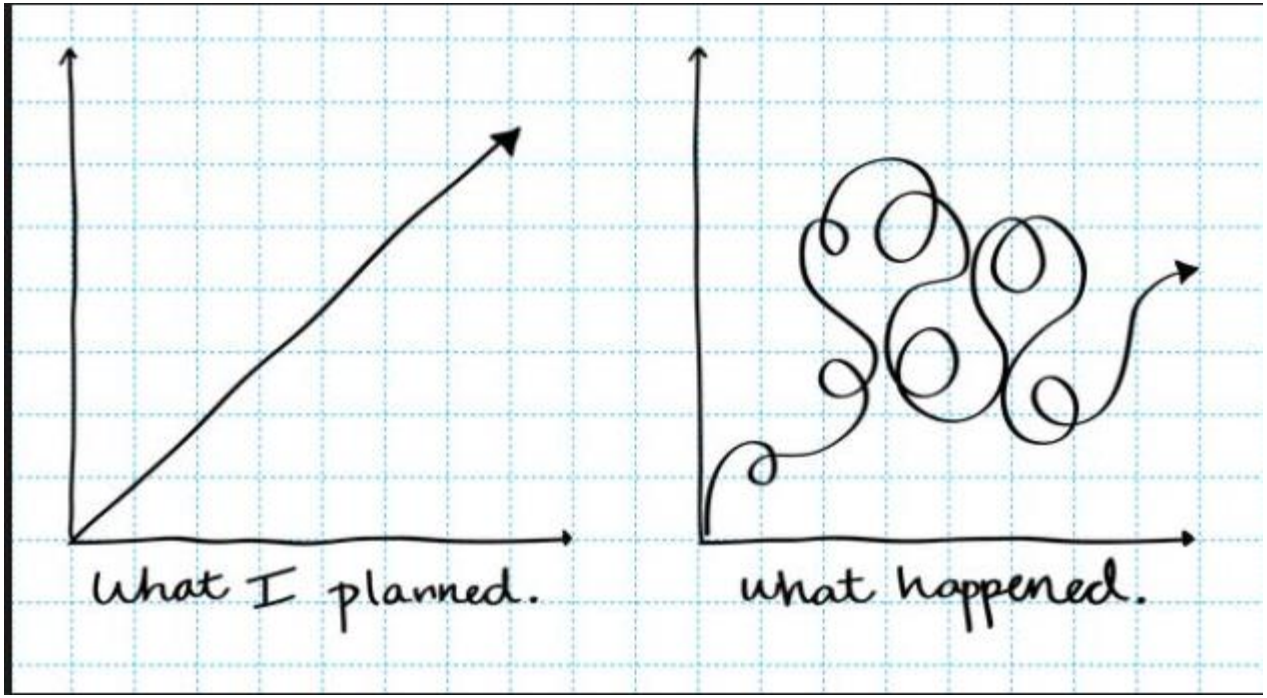

Two Basic Types

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Theory of Change Models

- Big Picture
- Strategies & results
- Idea exploration
- Includes underlying assumptions

Program Models

- Detailed
- Operational elements
- Illustrate essential linkages
- Rely on assumptions
- Define a dose

Basic Theory of Change Model

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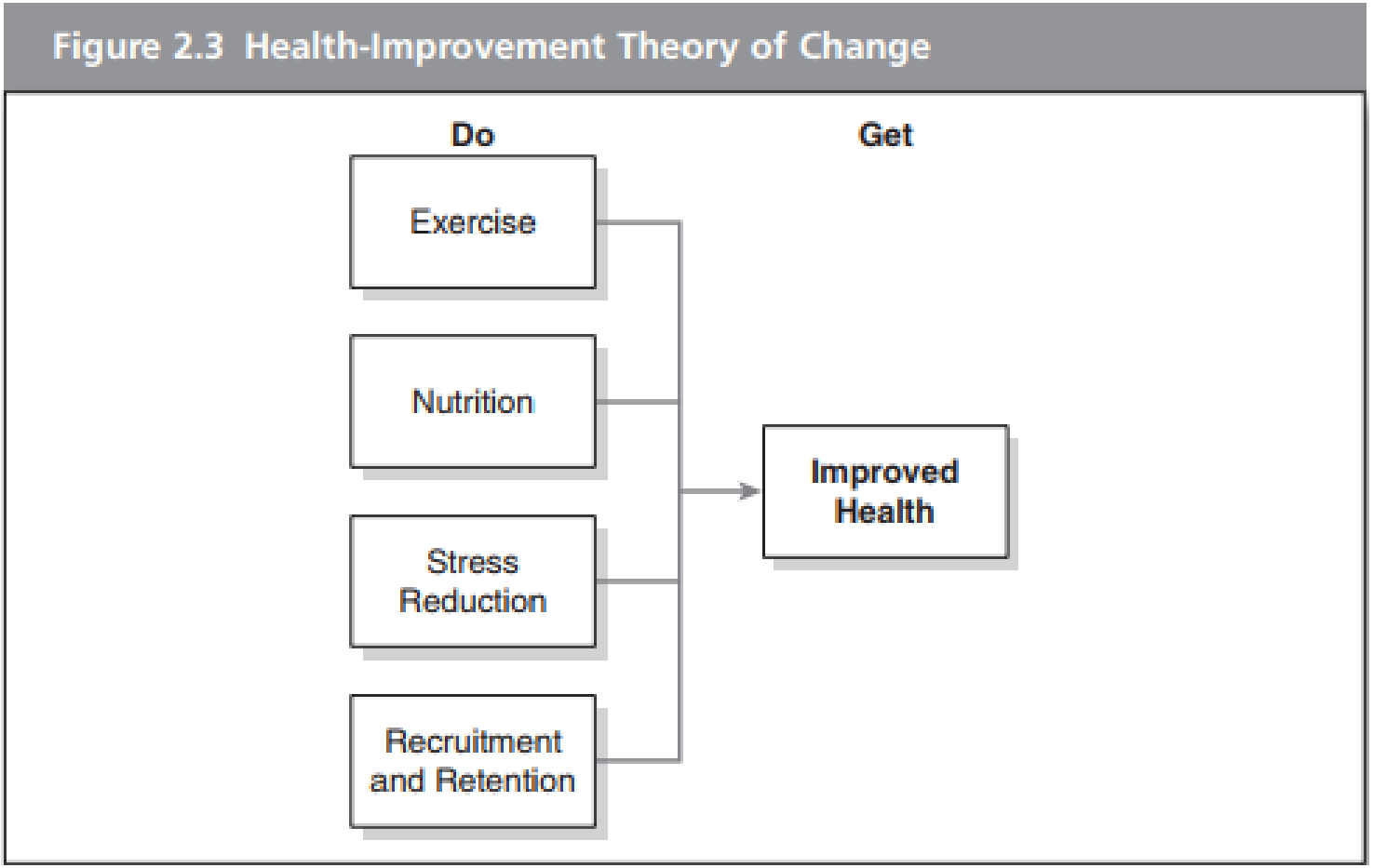

From Sage Publications *Introducing Logic Models* https://www.sagepub.com/sites/default/files/upm-binaries/50363_ch_1.pdf Figure 2.3

TOC: Representational

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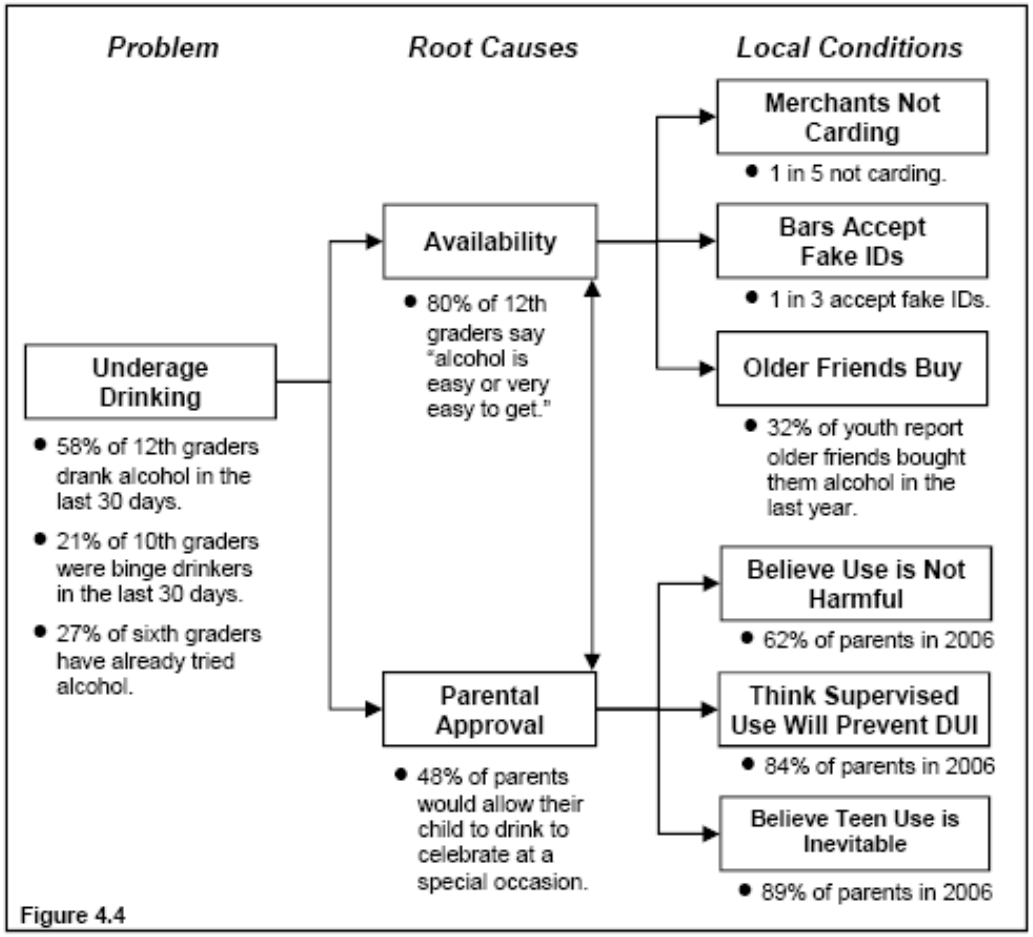

Figure 4.4

TOC: Metaphorm

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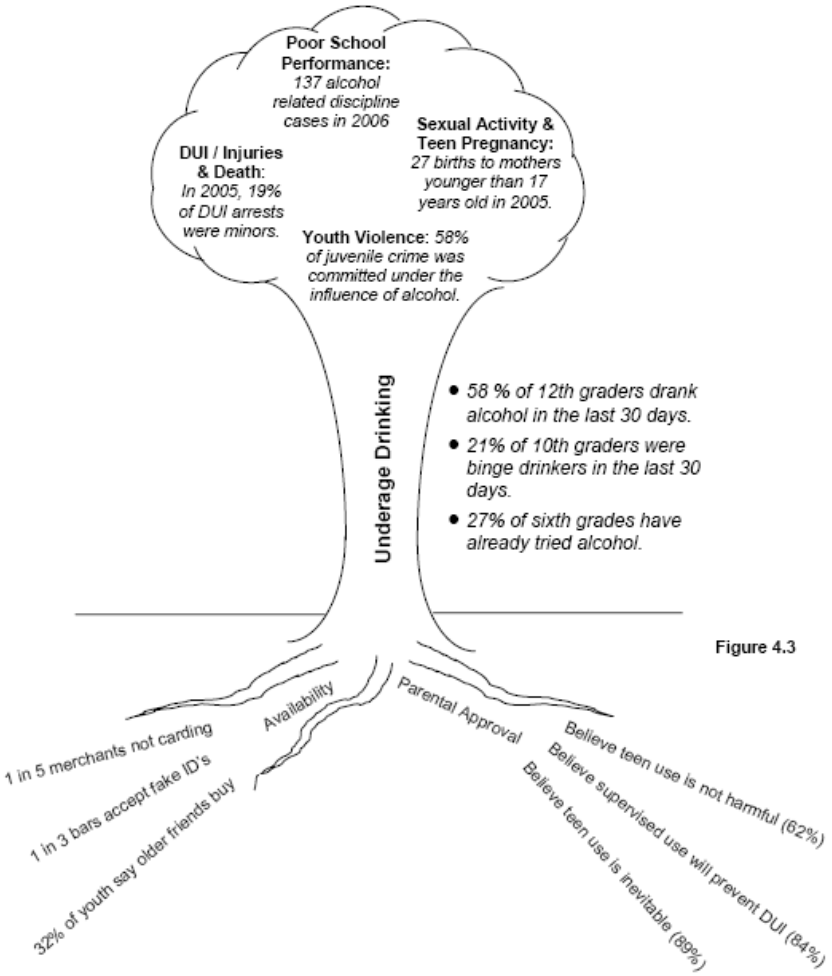

Figure 4.3

TOC: Circular

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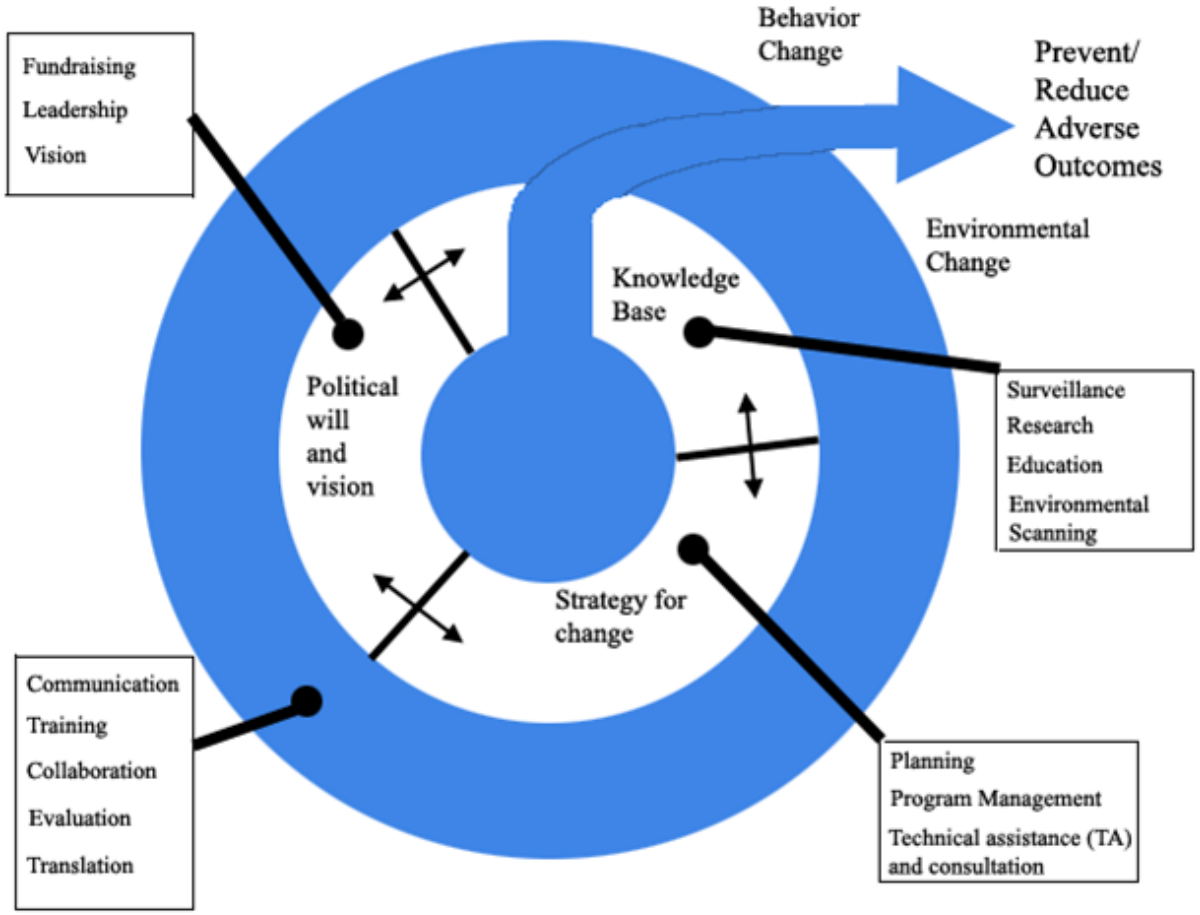

Reviewing a Theory of Change Model

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Guiding Questions

1. Are the results specified with shared meaning among all stakeholders?
2. Did we uncover our assumptions and carefully examine research, practice, and theory as the grounding for our choices in strategies?
3. Did we “toggle” between strategies and results to ensure plausibility given our assets and limitations?
4. Have we carefully reviewed similar programs to learn what strategies worked under what conditions to secure results?
5. Does the model clearly show the relationship of strategies to results?

Discuss

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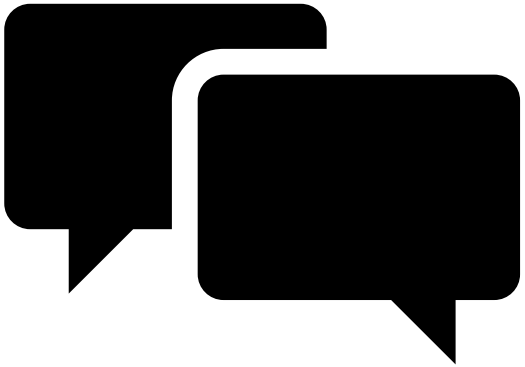
- What do you think are the benefits of using this kind of model?
- What do you think are the limitations?



Basic Program Logic Model

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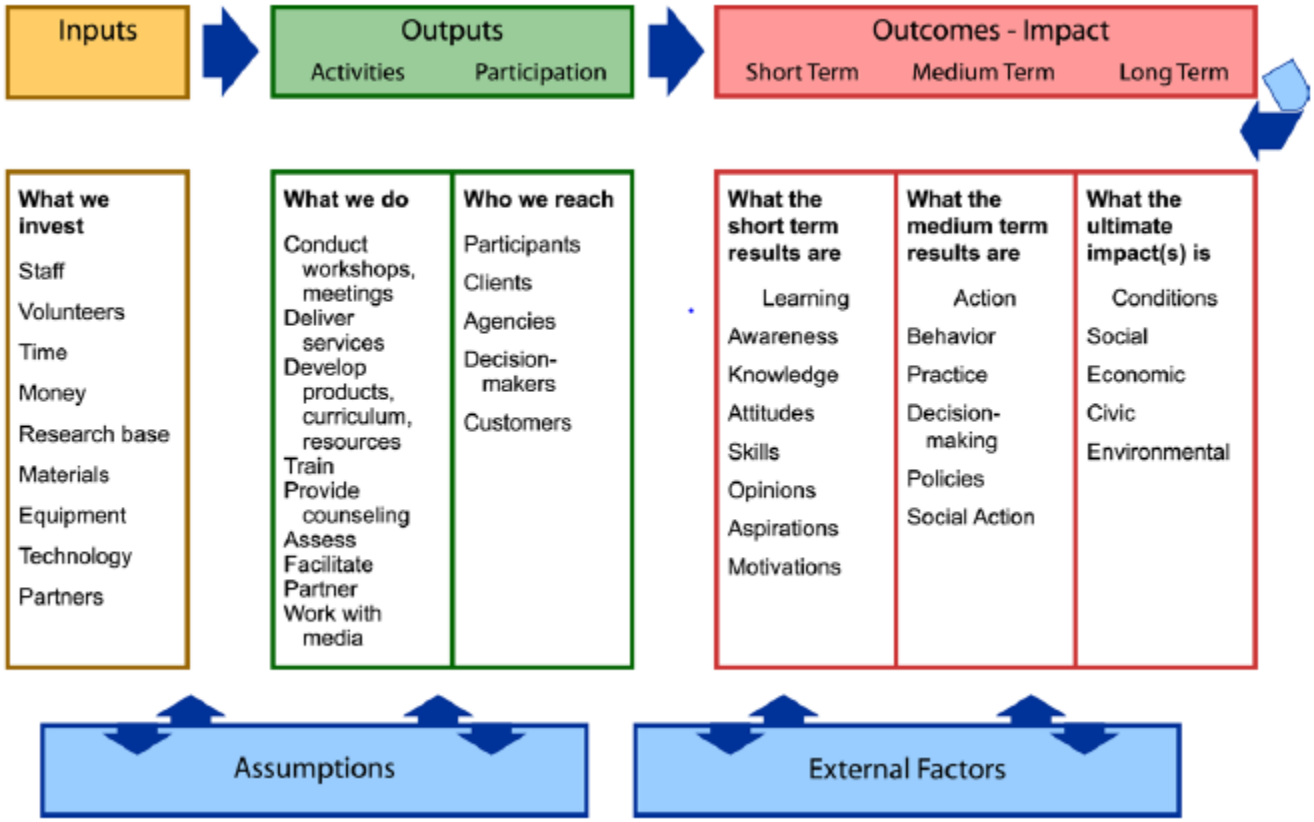

Logic Model: Research-Performance

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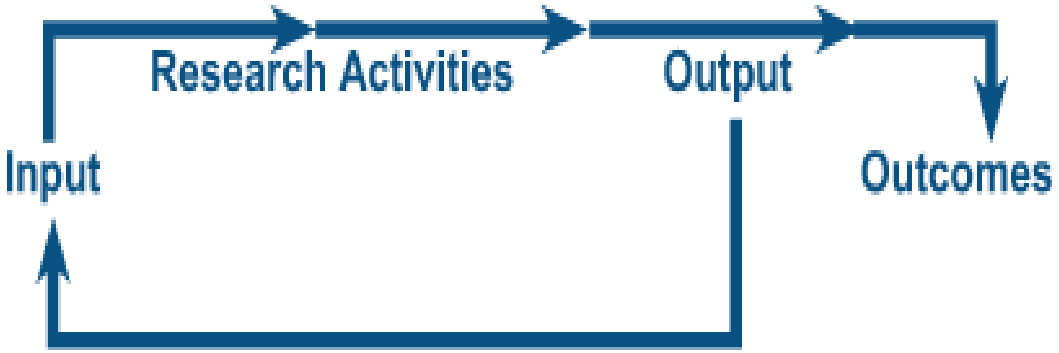

Logic Models: Table

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Inputs	Outputs	Outcomes
	1	1a 1b
	2	2a 2b 2c
	3	3a 3b
	4	4

Discuss

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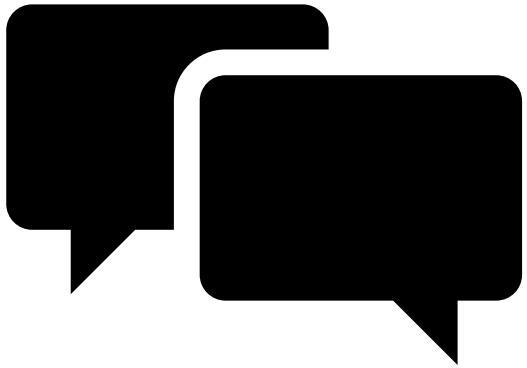
Given how subjective program logic models are, what are the implications for the outside “reader” of a model? What does a model that will be read and perhaps used by those other than those who constructed it have to communicate?



When to Use

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Theory of Change Models

- Show general representation of your work
- Inform program planning

Program Models

- Show explicit details of your work
- Support evaluation design
- Determine whether progress is being made

Logic Model Limitations

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- No guarantee of logic, or success
- Deterministic, incomplete approximations of open systems
- Existence of a model doesn't mean that community is ready to implement
- Must be treated as a living document, and open to change

Questions

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What questions do you have?

Logic Models: putting it into practice

Activity

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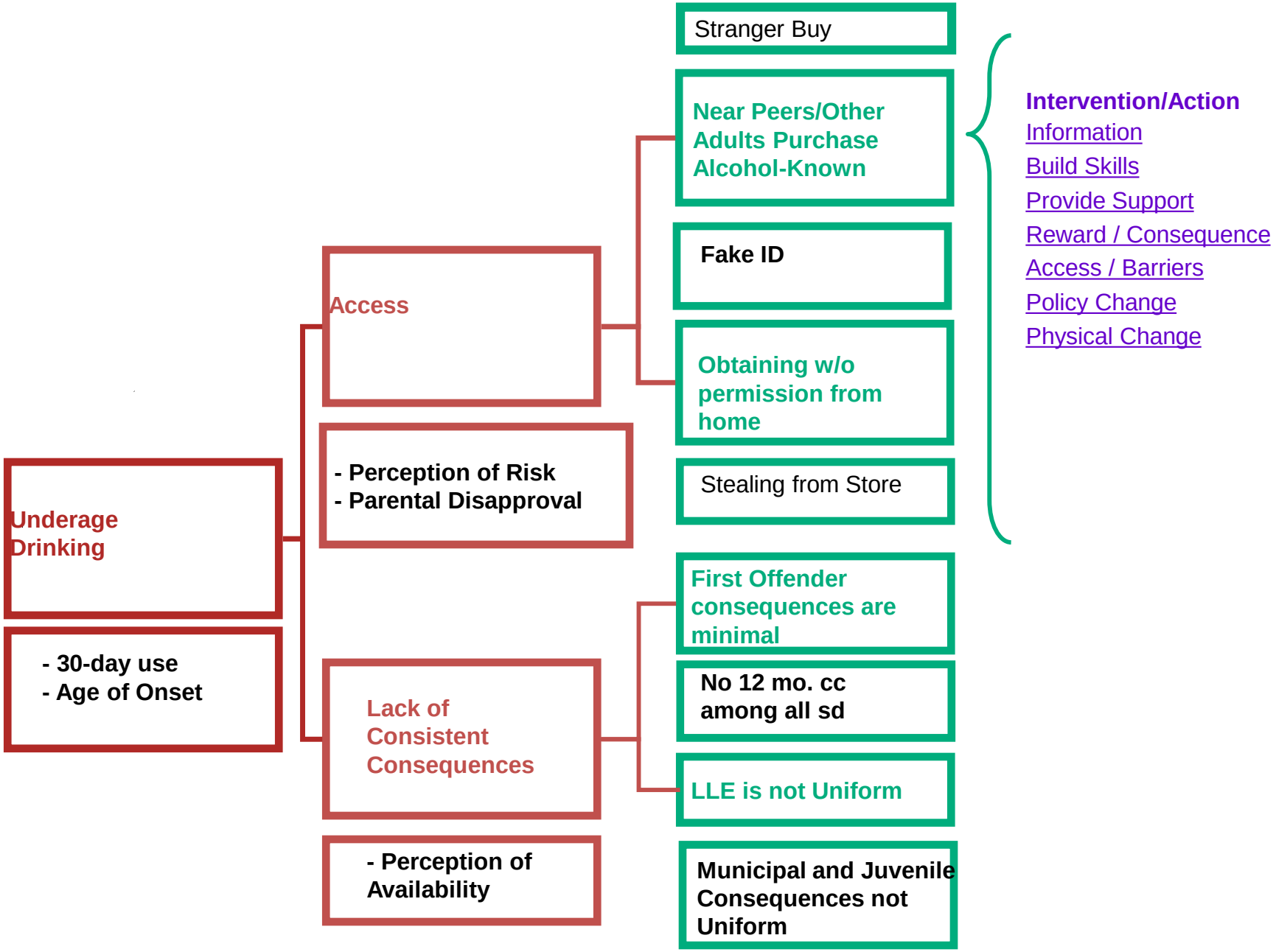
Use the Case Study and your Problem Statement from Appendix B to categorize information into the inputs, outputs, and outcomes sections of the assigned logic model format.

Mapping Interventions



Questions

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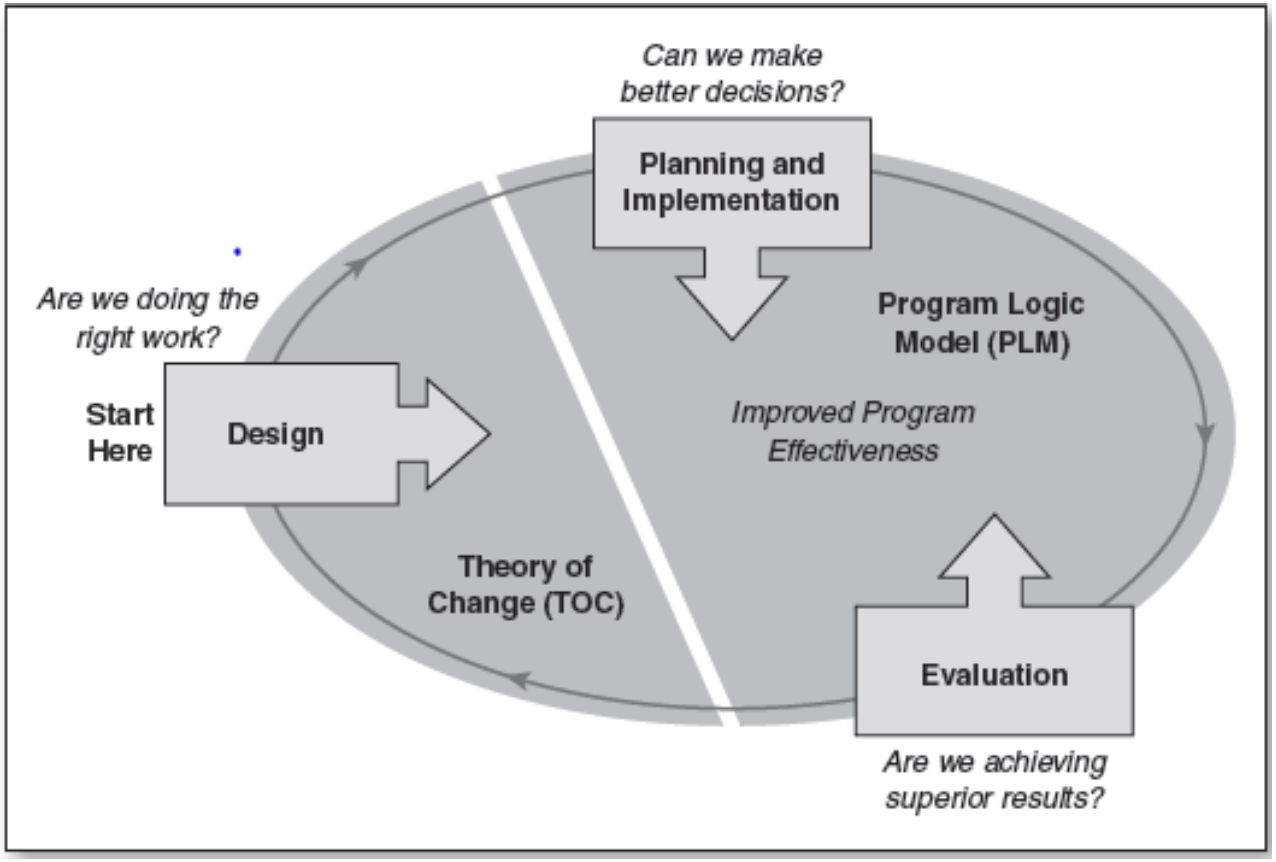
What questions do you have?

Logic Models: critiquing

Logic Models and Organization Effectiveness

- Are you doing the right work?
- Can you make better decisions?
- Are you getting superior results?

Logic Models and Organization Effectiveness



Ways to Critique Logic Models

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1. **Line Logic**
   a. Cause and effect
   b. Time

2. **Completeness**

3. **Adequate to Produce Results**

Activity: Critique your Logic Models

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Use these criteria to critique a sample logic model

- Is there line logic?
- Is it covering everything?
- Will it produce results?

Final Questions

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What questions do you have?

Closing

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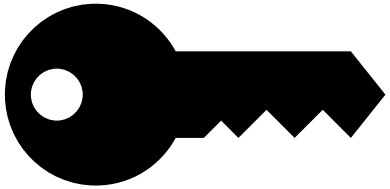
What were your key takeaways from today's session?



Thank You!