Integrating Program Planning and Evaluation Using Logic Models

By:

Thomas J. Chapel, MA, MBA

TChapel@cdc.gov

Disclaimer…

The findings and conclusions in this presentation are those of the author and do not necessarily represent the views of the Centers for Disease Control and Prevention.

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Why We Evaluate…

"... The gods condemned Sisyphus to endlessly roll a rock up a hill, whence it would return each time to its starting place. They thought, with some reason…

3

Why We Evaluate…

...there was no punishment more severe than eternally futile labor....”

The Myth of Sisyphus

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Objectives: Be able to…

- State CDC Evaluation Framework steps and standards
- State the purpose of and components of logic models
- Construct simple logic models
- Use program theory insights to elaborate logic models
- Use logic models to frame/address questions in program planning and evaluation

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Integrating Processes to Achieve Continuous Quality Improvement

- Continuous Quality Improvement (CQI) cycle.
  - **Planning**—*What* actions will best reach our goals and objectives.
  - **Performance measurement**— How are we doing?
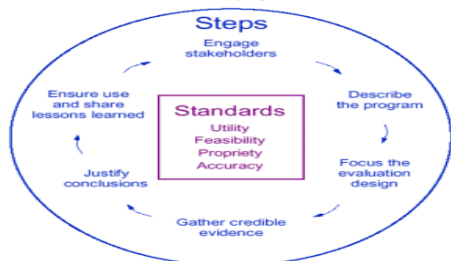 - **Evaluation**—W*hy* are we doing well or poorly?

What do we do?

Why are we doing well or poorly?

How do we do it?

How are we doing?

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Defining Evaluation

- **_Evaluation_** is the systematic investigation of the merit, worth, or significance of any *"object"*
    Michael Scriven

- **_Program_** is any organized public health action/activity implemented to achieve some result

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Enter the CDC "Evaluation" Framework
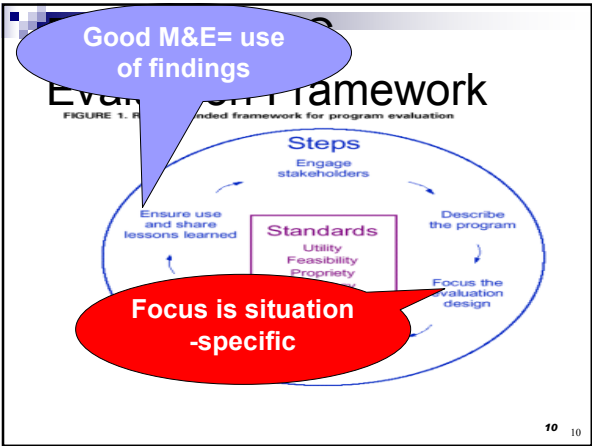
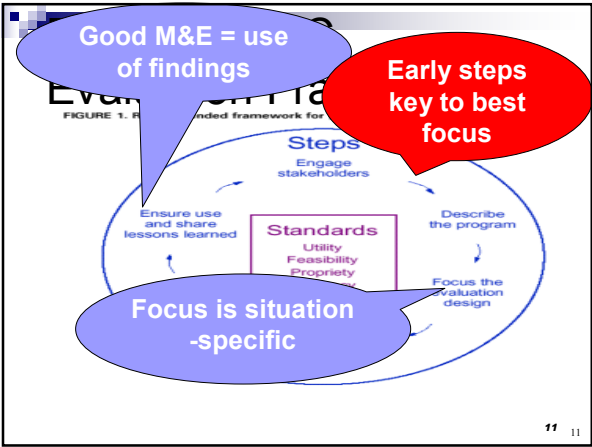FIGURE 1. Recommended framework for program evaluation

8 8

Evaluation Framework

Good M&E = use of findings

FIGURE 1. Recommended framework for program evaluation

9 9

Slide 10

Good M&E= use of findings

Evaluation Framework

FIGURE 1. Recommended framework for program evaluation

Steps
Engage stakeholders

Ensure use and share lessons learned

Standards
Utility
Feasibility
Propriety

Describe the program

Focus the evaluation design

Focus is situation-specific

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Slide 11

Good M&E = use of findings

Evaluation Fra...

FIGURE 1. Recommended framework for...

Early steps key to best focus

Steps
Engage stakeholders

Ensure use and share lessons learned

Standards
Utility
Feasibility
Propriety

Describe the program

Focus the evaluation design

Focus is situation-specific

11
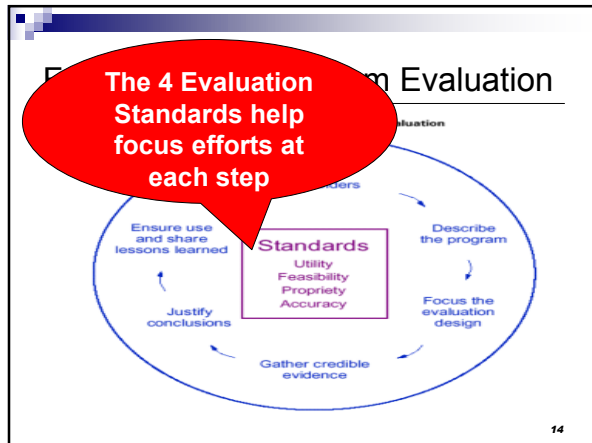
Slide 12

Underlying Logic of Steps

- **_No M&E is good unless_**… results are **_used_** to make a difference
- **_No results are used unless_**… a **_market_** has been created prior to creating the product
- **_No market is created unless_**…. the M&E is **_well-focused_**, including most relevant and useful questions
- **_And…_**

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Establishing the Best Focus Means…

- ***Framework Step 1:*** Identifying who cares about our program besides us? Do they define program and "success" as we do?"

- ***Framework Step 2:*** What are milestones and markers on the roadmap to my main PH outcomes?

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Framework for Program Evaluation

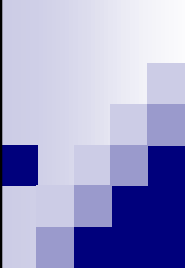The 4 Evaluation Standards help focus efforts at each step

The Four Standards

No one "right" evaluation. Instead, best choice at each step is options that maximize:

- ***Utility***: Who needs the info from this evaluation and what info do they need?
- ***Feasibility***: How much money, time, and effort can we put into this?
- ***Propriety:*** Who needs to be involved in the evaluation to be ethical?
- ***Accuracy:*** What design will lead to accurate information?

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Using Logic Models in Planning and Evaluation

Constructing Simple Logic Models

You Don't **_Ever_** Need a Logic Model, BUT, You **_Always_** Need a Program Description

Don't jump into planning or eval without clarity on:
- The big **_"need"_** your program is to address
- The key **_target group(s)_** who need to take action
- The kinds of actions they need to take (your intended **_outcomes_** or objectives)
- **_Activities_** needed to meet those outcomes
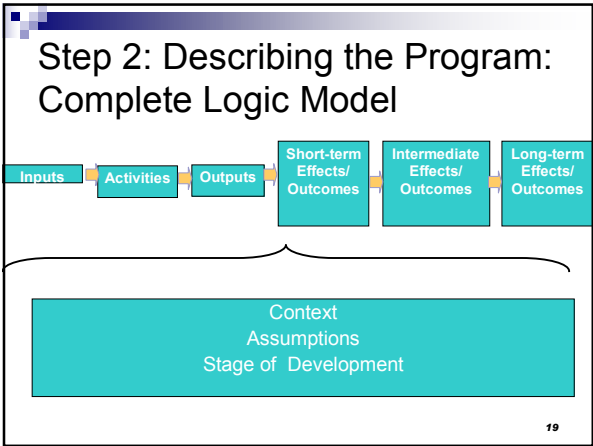- "Causal" **_relationships_** between activities and outcomes

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Logic Models and Program Description

- **_Logic Models :_** *Graphic depictions of the* **_relationship_** *between your program's activities and its* **_intended_** *effects*

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Step 2: Describing the Program: Complete Logic Model

Inputs → Activities → Outputs → Short-term Effects/ Outcomes → Intermediate Effects/ Outcomes → Long-term Effects/ Outcomes

Context
Assumptions
Stage of Development

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What the program and its staff actually do

Inputs → Activities → Outputs → Short-term Effects/ Outcomes → Intermediate Effects/ Outcomes → Long-term Effects/ Outcomes

Context
Assumptions
Stage of Development

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Results of activities: Who/what will change?

Inputs → Activities → Outputs → Short-term Effects/ Outcomes → Intermediate Effects/ Outcomes → Long-term Effects/ Outcomes

Context
Assumptions
Stage of Development

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Finding Activities and Outcomes

Plan

| Actions/Tactics | ← | Objectives | ← | Goals |

Eval

| Activities | → | ST or MT Outcomes | → | LT Outcomes or Impacts |

PM

| Process Measures / Progress Measures / Impl. Measures | Outcome Measures / Impact Measures / Key Performance Indicators / Success Factors |

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CDC'S STRATE

National Environmen
Tracking P

Goals:

Goal 3: Disseminate information to guide policy, practice, and other actions to improve the nation's health

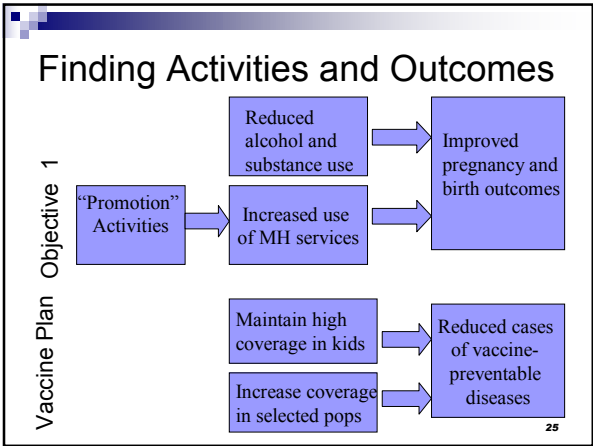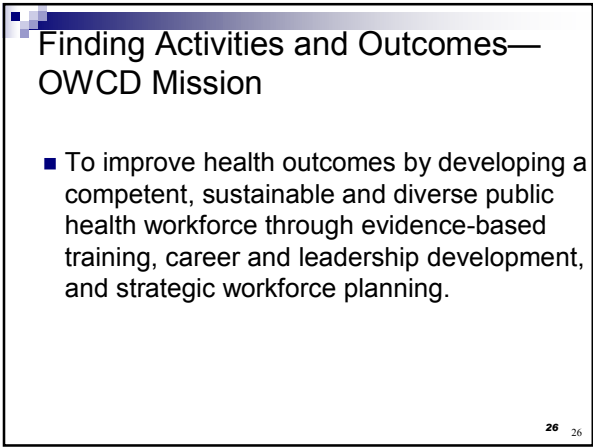GOAL 1 — Build a Sustainable National Environmental Public Health Tracking Network

GOAL 2 — Enhance Environmental Public Health Tracking Workforce and Infrastructure

GOAL 3 — Disseminate Information to Guide Policy, Practice, and Other Actions to Improve the Nation's Health

GOAL 4 — Advance Environmental Public Health Science and Research

GOAL 5 — Foster Collaboration Among Health and Environmental Programs

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Finding Activities and Outcomes—Two Examples

- Objective 1: Promote Healthy Pregnancy/Birth Outcomes.
  - 1.4: Decrease alcohol, tobacco, and other substance use before, during, and after pregnancy.
  - 1.5: Promote use of mental health services for women and couples before, during, and after pregnancy.

- Long-Term Goal: Vaccine Service Plan
  - Vaccine-preventable disease reduction by increased vaccine coverage of selected populations and maintenance of high coverage in children

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Finding Activities and Outcomes

Vaccine Plan   Objective 1

"Promotion" Activities → Reduced alcohol and substance use → Improved pregnancy and birth outcomes

"Promotion" Activities → Increased use of MH services → Improved pregnancy and birth outcomes

Maintain high coverage in kids → Reduced cases of vaccine-preventable diseases

Increase coverage in selected pops → Reduced cases of vaccine-preventable diseases

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Finding Activities and Outcomes—OWCD Mission

- To improve health outcomes by developing a competent, sustainable and diverse public health workforce through evidence-based training, career and leadership development, and strategic workforce planning.

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Implicit Logic Model

Inputs   Activities   Outcomes

Evidence Base → Conduct training / Do career leadership development / Do Strategic workforce planning → Competent, sustainable, diverse workforce → Improved health outcomes

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Identifying Org Issues from Mission—RFS Mission

- The mission of Refugee Family Services (RFS) is to support refugee women and children to achieve self-sufficiency in the U.S, by providing, education, direct services, and economic opportunity.

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Using Logic Models in Planning and Evaluation

Example—Activities and Outcomes

Constructing Logic Models:
Identify Activities and Outcomes by….

1. Examining program descriptions, MISSIONS, VISIONS, PLANS, ETC and extracting these from the narrative, **_OR_**
2. *Reverse mapping*—Starting with outcomes, ask "how to" in order to generate the activities which produce them, **_OR_**
3. *Forward mapping*—Starting with activities, ask "so what" in order to generate the outcomes that are expected to result

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Then…Do Some Sequencing…

- Divide the *activities* into 2 or more columns based on their *logical* sequence. *Which activities have to occur before other activities can occur?*
- Do same with the *outcomes*. *Which outcomes have to occur before other outcomes can occur?*

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Listing Activities and Outcomes: Lead Poisoning

- Activities
  - □ Outreach
  - □ Screening
  - □ Case management
  - □ *Referral* for medical tx
  - □ Identification of kids with elevated lead (EBLL)
  - □ Environmental assessment
  - □ *Referral* for env clean-up
  - □ Family training

- Effects/Outcomes
  - □ Lead source identified
  - □ *Families* adopt in-home techniques
  - □ *Providers* treats EBLL kids
  - □ *Housing Authority* eliminates lead source
  - □ *EBLL reduced*
  - □ *Developmental "slide" stopped*
  - □ *Q of L improved*

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Global Logic Model: Childhood Lead Poisoning Program

Early Activities	Later Activities	Early Outcomes	Later Outcomes
If we do…	*And we do…*	*Then….*	*And then…*
Outreach	Refer EBLL kids for medical treatment	EBLL kids get medical treatment	
Screening	Train family in in-home techniques	Family performs in-home techniques	EBLL reduced
ID of elevated kids	Assess environment of EBLL child	Lead source identified	Develop'l slide stopped
Case manage EBLL kids	Refer environment for clean-up	Environment gets cleaned up	Quality of life improves
		Lead source removed	

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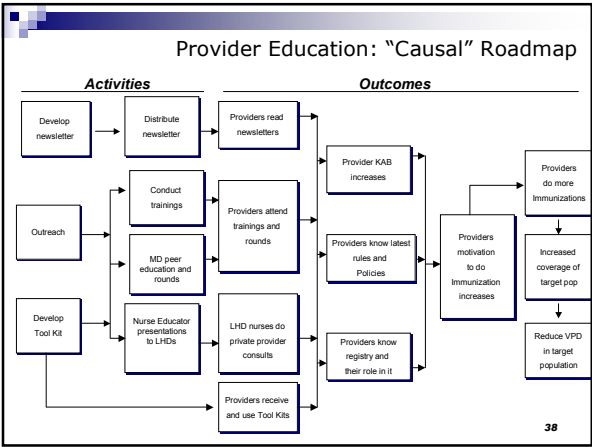## For Planning and Evaluation "Causal" Arrows Can Help

- **_Not_** a different logic model, but same elements in different format
- Arrows can go from:
  - *Activities to other activities:* **Which** activities feed **which** other activities?
  - *Activities to outcomes*: **Which** activities produce **which** intended outcomes?
  - *Early effects/outcomes to later ones*: **Which** early outcomes produce **which** later outcomes

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Lead Poisoning: "Causal" Roadmap

Activities   *Outcomes*

35
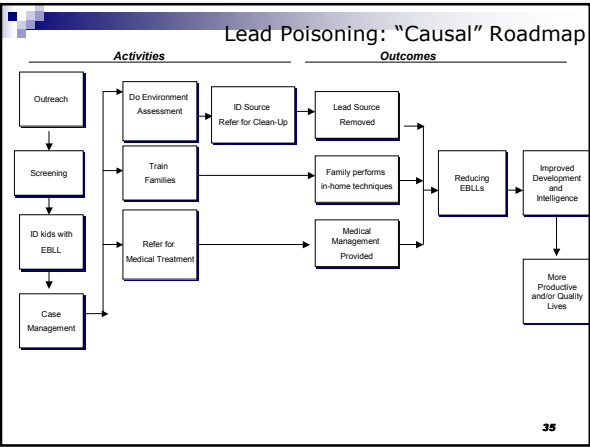
Activities and Effects: Prov Ed

- **Activities**
  - Outreach to providers
  - Develop newsletters
  - Distribute newsletter
  - Immunization trainings
  - Distribute Tool Kits
  - Nurse educator presentations to LHD nurse staff
  - Physician peer educator presentations at conferences and rounds

- **Effects/Outcomes**
  - **Providers:**
    - read newsletters
    - attend trainings/rounds
    - receive/use tool kits
  - **Provider** KAB increases
  - **Providers** know latest developments and policies
  - **Providers** know registry/role
  - **Provider** motivation to immunize increases
  - **LHD** nurses do private consults with providers
  - **Providers** do more immunizations

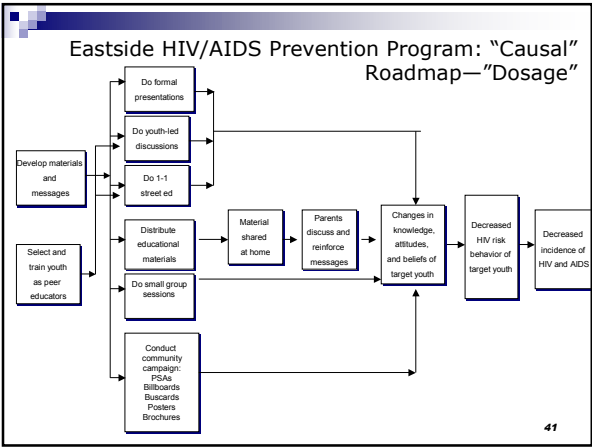 - *Coverage among target pops increases*
  - *VPD in target pops reduced*

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Global Logic Model: Provider Education

Early Activities	Later Activities	Early Outcomes	Later Outcomes
Do outreach to providers	Distribute newsletter	Provs read newsletters	KAB increases
Develop newsletter	Conduct immuno trainings	Provs attend trainings and rounds	Know policies
Develop Tool Kit	Nurse educator LHD presentations	Provs receive and use tool kits	Know registry
	Physician peer ed rounds	LHD nurses do private prov consults	Motivation increases
			Do more immuno
			Coverage increases
			VPD reduced

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Provider Education: "Causal" Roadmap

Activities

- Develop newsletter → Distribute newsletter → Providers read newsletters
- Outreach → Conduct trainings → Providers attend trainings and rounds
- Outreach → MD peer education and rounds
- Develop Tool Kit → Nurse Educator presentations to LHDs → LHD nurses do private provider consults
- Providers receive and use Tool Kits

Outcomes

- Provider KAB increases
- Providers know latest rules and Policies
- Providers know registry and their role in it
- Providers motivation to do Immunization increases
- Providers do more Immunizations
- Increased coverage of target pop
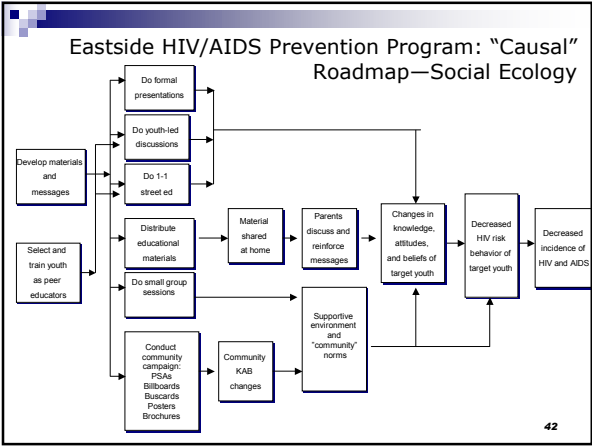- Reduce VPD in target population

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Group Exercise: *Constructing Simple Program Logic Model*

- Review list of activities and outcomes for your assigned case
- Tweak as needed and put each activity and outcome on a Post-It note.
- Place Post-it notes on 11x17 paper
- Arrange, as needed, to depict logical sequencing
- Draw lines to show causal connections

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Global Logic Model: Eastside HIV/AIDS Prevention			
Early Activities	**Later Activities**	**Early Outcomes**	**Later Outcomes**
If we …	*And we…*	*Then….*	*And then…*
Develop materials and messages	Do formal presentations	Educational materials are brought home and shared	Reduced HIV risk behavior
	Do group discussions		
	Distribute educational material		Reduced incidence of HIV
Select and train youth as peer educators	Do youth-led education	Change in knowledge about HIV and AIDS	
	Do 1-1 street education		
	Conduct community campaign:	Change in attitudes and beliefs	
	PSAs		
	Buscards/billboards		
	Posters/brochures		
			40

Eastside HIV/AIDS Prevention Program: "Causal" Roadmap—"Dosage"

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Eastside HIV/AIDS Prevention Program: "Causal" Roadmap—Social Ecology

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Using Logic Models in Planning and Evaluation

Elaborating Our Program "Theory"—Mediators

Program Theory and Logic Models—Two Schools of Thought

- Any logic model is a program theory

  versus.

- Program theory as a disciplined "test" to validate and elaborate initial logic models

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Mediator Relationships—Issue 1: *Filling in the Blanks*
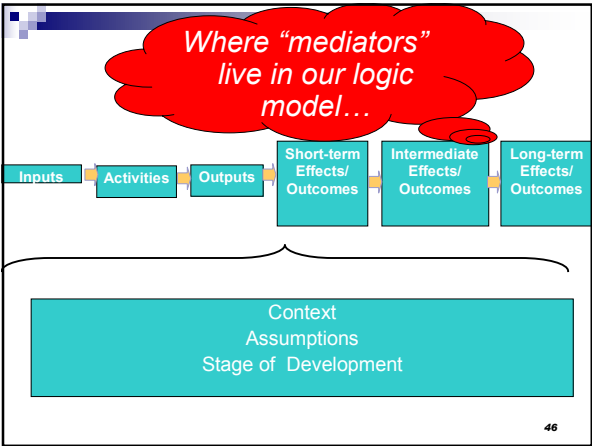
This?

Activities → Outcome
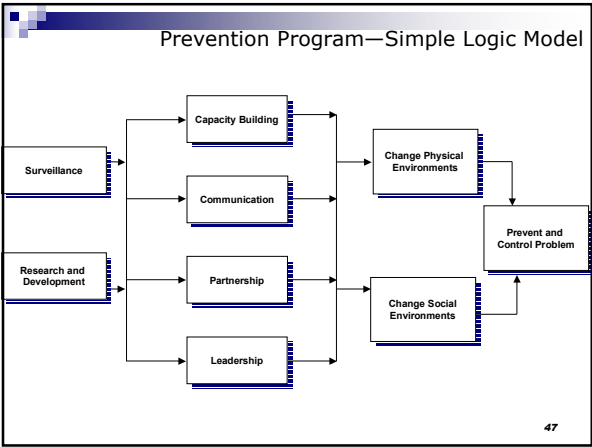
Or this?

Activities → Mediating Outcome → Mediating Outcome → Outcome

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Where "mediators" live in our logic model…

| Inputs | Activities | Outputs | Short-term Effects/ Outcomes | Intermediate Effects/ Outcomes | Long-term Effects/ Outcomes |

Context
Assumptions
Stage of Development

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Prevention Program—Simple Logic Model

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Prevention Program—Elaborated Logic Model

10/28/10

Implicit Logic Model

Inputs **Activities** **Outcomes**

Evidence Base → Conduct training / Do career leadership development / Do Strategic workforce planning → Competent, sustainable, diverse workforce → Improved health outcomes

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Implicit Logic Model

Inputs **Activities** **Outcomes**

Evidence Base → Conduct training / Do career leadership development / Do Strategic workforce planning → *Workforce is:* Competent / Sustainable / Diverse → Improved health outcomes
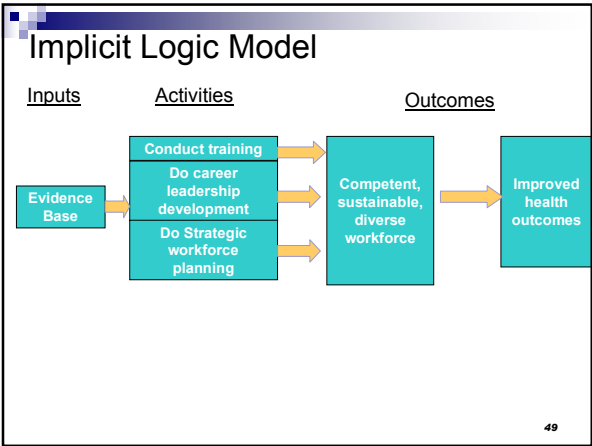
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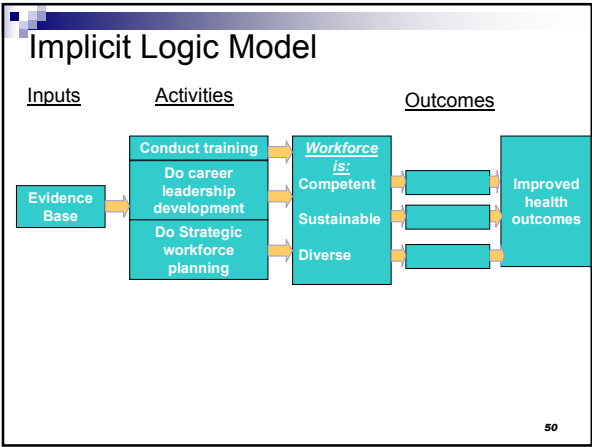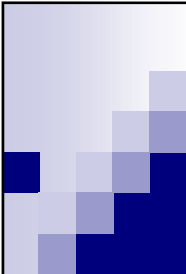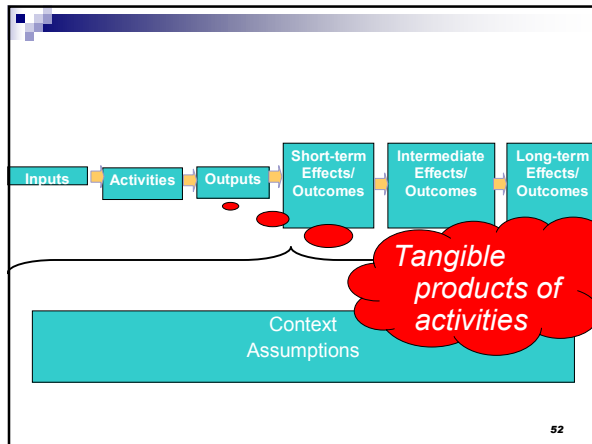## Using Logic Models in Planning and Evaluation

Elaborating Our Program "Theory"—Outputs, Inputs, and Moderators

Inputs | Activities | Outputs | Short-term Effects/ Outcomes | Intermediate Effects/ Outcomes | Long-term Effects/ Outcomes

Tangible products of activities

Context
Assumptions

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Lead Poisoning: Sample Outputs

- Pool (#) of eligible kids
- Pool (#) of screened kids
- Referrals (#) to medical treatment
- Pool (#) of assessed homes
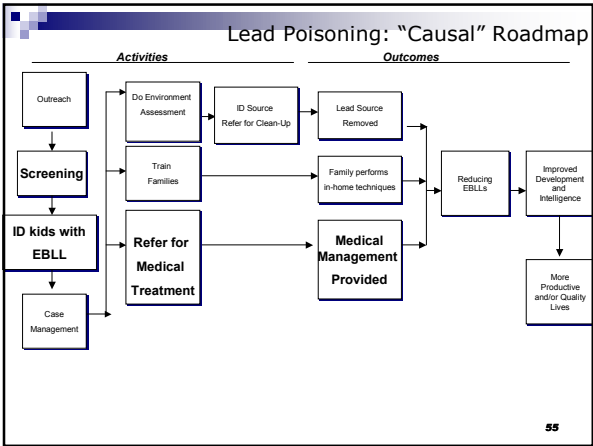- Referrals (#) for clean-up

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Doing the Right Things Right!
What Does "Good Training" Mean?

- Fidelity—reflect our "gold standard" plan?
- Reach—get to the "right" people?
- Penetration—get to enough of the "right" people?
- Exposure/Dose—give targets "enough" of our program to cause change?
- Staff/Target Match—delivered by "right" staff?
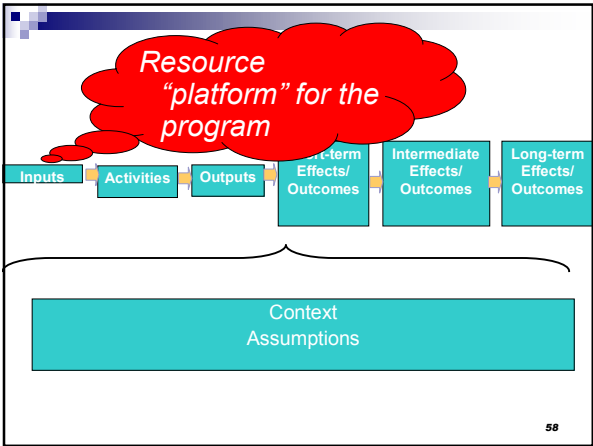
54 54

Lead Poisoning: "Causal" Roadmap

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Lead Poisoning: "Upgraded" Outputs

- Pool (#) of screened kids *(meeting likely risk profile)*
- Pool (#) of eligible kids *(with lead level >XXd/ul)*
- Referrals (#) to *(qualified or willing)* medical treatment providers
- Pool (#) of assessed *("leaded")* homes
- Referrals (#) for clean-up *(to qualified or willing orgs)*

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Global Logic Model: Childhood Lead Poisoning Program

Early Activities	Later Activities	Outputs	Early Outcomes—	Later Outcomes
Outreach		*(#) of eligible kids meeting risk profile*	EBLL kids get medical treatment	EBLL reduced
Screening		*(#) screened kids with lead < threshold*		Develop'l slide stopped
ID of elevated kids	Refer for medical tx	*(#) referrals to qualified medical tx*	Family performs in-home techniques	Quality of life improves
	Train family in in-home techniques	*(#) of families completing training*	Lead source identified	
Do case mgmt	Assess environ't	*(#) of "leaded" homes*	Environ cleaned up	
	Refer house for clean-up	*(#) referrals to qualified clean-up*	Lead source removed	

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Slide 58

Resource "platform" for the program

| Inputs | Activities | Outputs | ...-term Effects/ Outcomes | Intermediate Effects/ Outcomes | Long-term Effects/ Outcomes |

Context Assumptions

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Slide 59

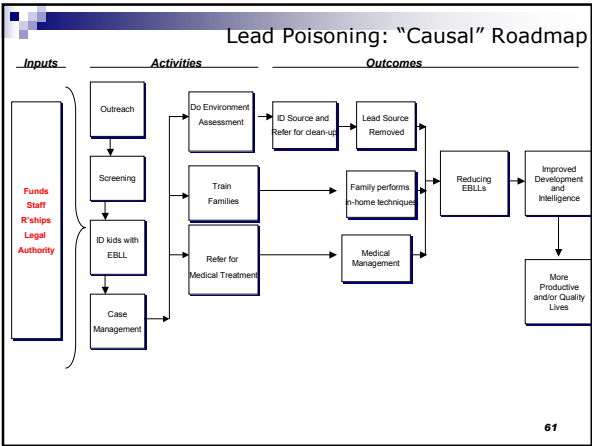### Lead Poisoning: Sample Inputs

- Funds
- Trained staff
- Legal authority to screen
- Relationships with orgs for med tx and env clean-up

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Slide 60

Global Logic Model: Childhood Lead Poisoning Program

Inputs	Early Activities	Later Activities	Outputs	Early Outcomes—	Later Outcomes
Funds	Outreach		*(#) of eligible kids meeting risk profile*	EBLL kids get medical treatment	EBLL reduced
Trained staff	Screening		*(#) screened kids with lead < threshold*	Family performs in-home techniques	Develop'l slide stopped
R'ships with orgs for med tx and clean up	ID of elevated kids	Refer for medical treatment	*(#) referrals to qualified medical tx*		Quality of life improves
		Train family in in-home techniques	*(#) of families completing training*	Lead source identified	
Legal authority	Do case mgmt				
		Assess environ't	*(#) of "leaded" homes*	Environ cleaned up	
		Refer house for clean-up	*(#) referrals to qualified clean-up*	Lead source removed	

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Lead Poisoning: "Causal" Roadmap

Inputs

Funds
Staff
R'ships
Legal
Authority

Activities

Outreach

Screening

ID kids with EBLL

Case Management

Do Environment Assessment

Train Families

Refer for Medical Treatment

Outcomes

ID Source and Refer for clean-up

Lead Source Removed

Family performs in-home techniques

Medical Management

Reducing EBLLs

Improved Development and Intelligence

More Productive and/or Quality Lives

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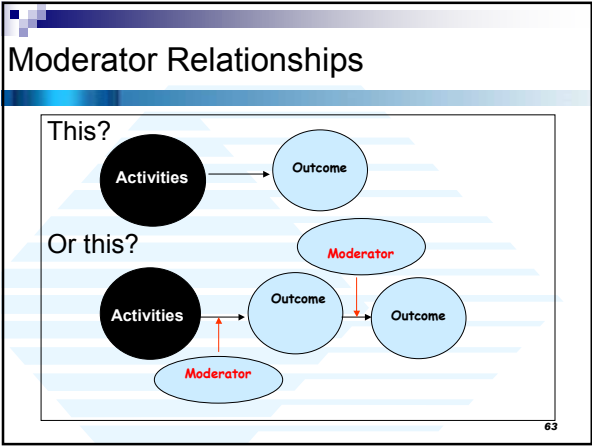

Moderators

- Is the relationship between activities and outcomes always the same, **_OR_**

- Are there characteristics of the situation or participant that influence the amount or intensity of the intended outcome produced?

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Moderator Relationships

This?

Activities → **Outcome**

Or this?

Moderator

Activities → **Outcome** → **Outcome**

Moderator

63
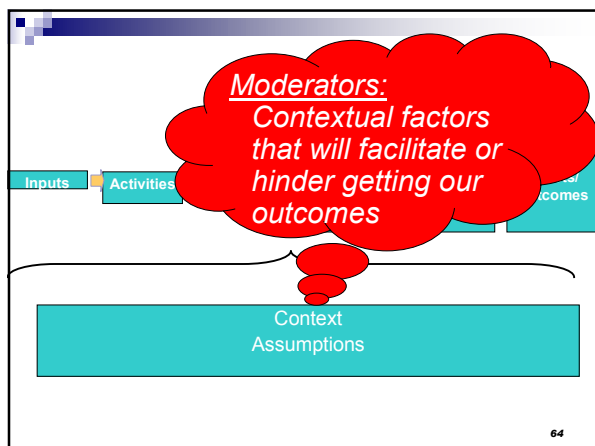
Contextual Factors

- *P*olitical
- *E*conomic
- *S*ocial
- *T*echnological

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Moderators—Lead Poisoning

- *P*olitical—*"Hazard" politics*
- *E*conomic— *Health insurance*
- *T*echnological— *Availability of hand-held technology*

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Lead Poisoning: "Causal" Roadmap and Moderators
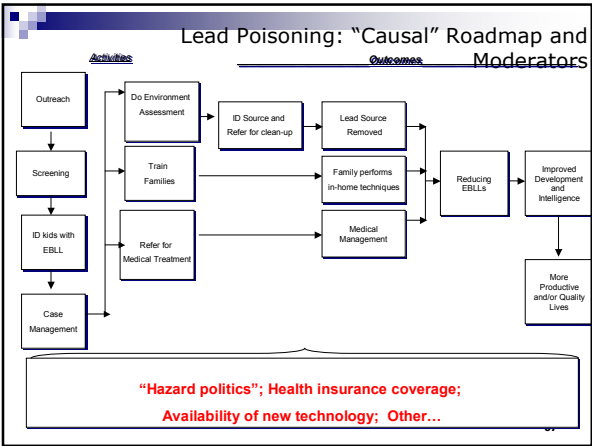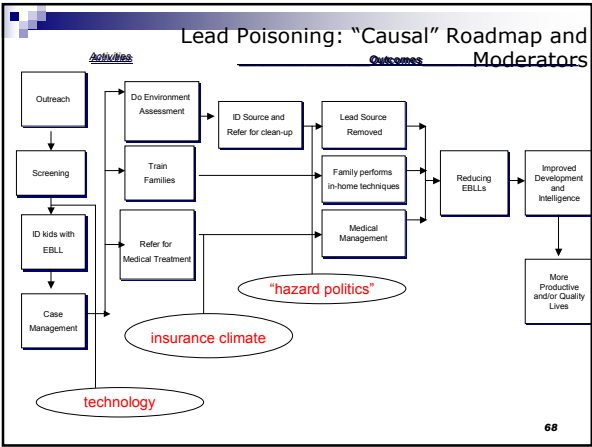
Activities **Outcomes**

Outreach → Do Environment Assessment → ID Source and Refer for clean-up → Lead Source Removed

Screening → Train Families → Family performs in-home techniques → Reducing EBLLs → Improved Development and Intelligence

ID kids with EBLL → Refer for Medical Treatment → Medical Management

Case Management

More Productive and/or Quality Lives

"Hazard politics"; Health insurance coverage; Availability of new technology; Other…

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Lead Poisoning: "Causal" Roadmap and Moderators

Activities **Outcomes**

Outreach → Do Environment Assessment → ID Source and Refer for clean-up → Lead Source Removed

Screening → Train Families → Family performs in-home techniques → Reducing EBLLs → Improved Development and Intelligence

ID kids with EBLL → Refer for Medical Treatment → Medical Management

Case Management

"hazard politics"

insurance climate

technology

More Productive and/or Quality Lives

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Note!

Logic Models make the program theory ***clear***, not ***true***!

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Avoiding "garbage in, garbage out" in your logic model—An inductive approach

- Continuous Quality Improvement (CQI) cycle.
  - □ **Planning**—*What* actions will best reach our goals and objectives.
  - □ **Performance measurement**— How are we doing?
  - □ **Evaluation**—W*hy* are we doing well or poorly?

What do we do?

How do we do it?

How are we doing?

Why are we doing well or poorly?

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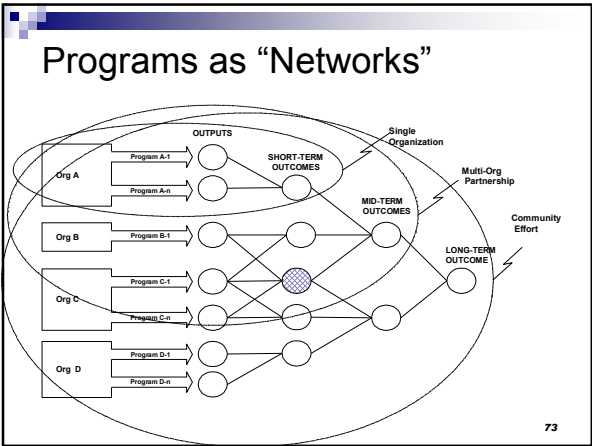## Avoiding "garbage in, garbage out"—Thinking about accuracy from the start

- Pay attention to the link between activities and things that "bound" them.
- Does my program make sense given:
  - □ **Context**
  - □ **Assumptions**
  - □ **Resources**

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How Detailed?

- Function of purpose of the logic model
  - □ Stakeholders—global view alone
  - □ Managers—detailed action plans

- BUT, view collection of models as a related family--"nested" models

- Not different models, but each an elaboration of level above

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Programs as "Networks"

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How Detailed?

- Function of purpose of the logic model
  - ☐ Stakeholders—global view alone
  - ☐ Managers—detailed action plans

- BUT, view collection of models as a related family--"nested" models

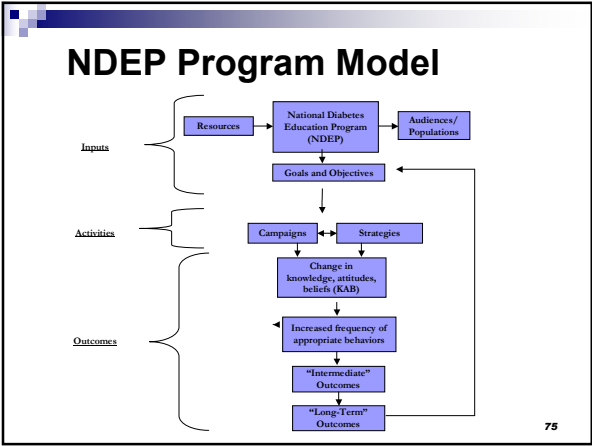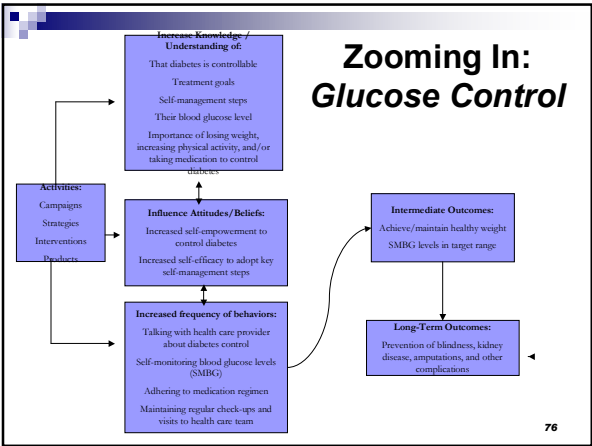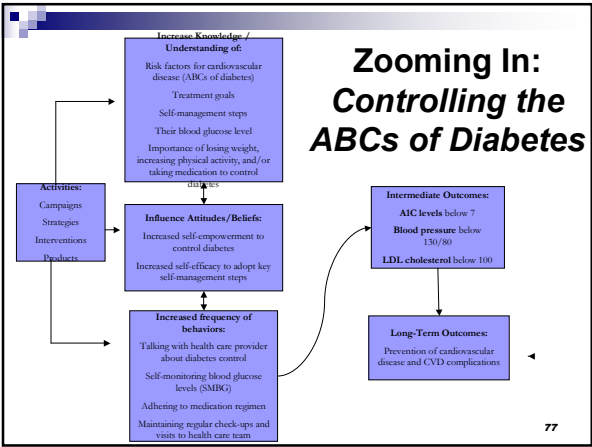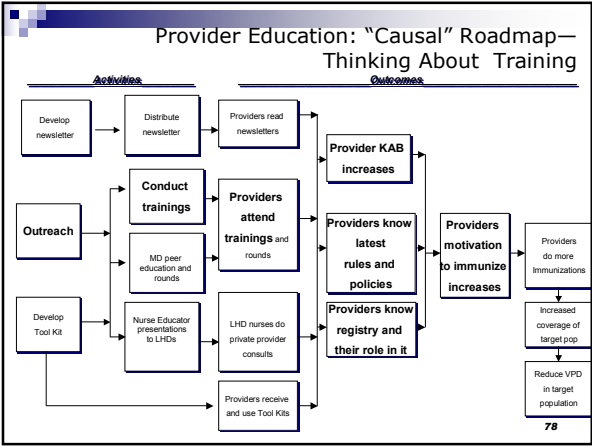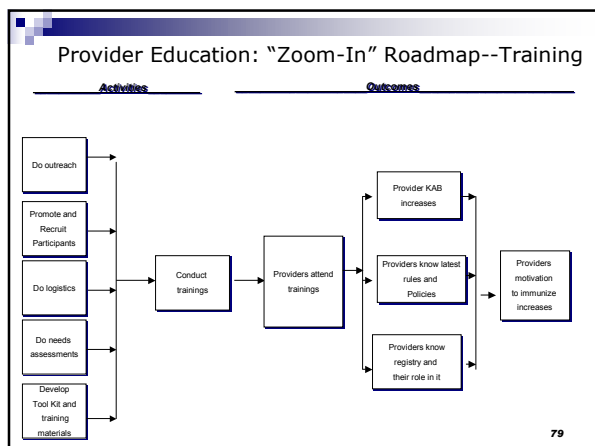- Not different models, but each an elaboration of level above

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NDEP Program Model

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Zooming In: *Glucose Control*

Increase Knowledge / Understanding of:
- That diabetes is controllable
- Treatment goals
- Self-management steps
- Their blood glucose level
- Importance of losing weight, increasing physical activity, and/or taking medication to control diabetes

Activities:
- Campaigns
- Strategies
- Interventions
- Products

Influence Attitudes/Beliefs:
- Increased self-empowerment to control diabetes
- Increased self-efficacy to adopt key self-management steps

Increased frequency of behaviors:
- Talking with health care provider about diabetes control
- Self-monitoring blood glucose levels (SMBG)
- Adhering to medication regimen
- Maintaining regular check-ups and visits to health care team

Intermediate Outcomes:
- Achieve/maintain healthy weight
- SMBG levels in target range

Long-Term Outcomes:
- Prevention of blindness, kidney disease, amputations, and other complications

76

Zooming In: *Controlling the ABCs of Diabetes*

Increase Knowledge / Understanding of:
- Risk factors for cardiovascular disease (ABCs of diabetes)
- Treatment goals
- Self-management steps
- Their blood glucose level
- Importance of losing weight, increasing physical activity, and/or taking medication to control diabetes

Activities:
- Campaigns
- Strategies
- Interventions
- Products

Influence Attitudes/Beliefs:
- Increased self-empowerment to control diabetes
- Increased self-efficacy to adopt key self-management steps

Increased frequency of behaviors:
- Talking with health care provider about diabetes control
- Self-monitoring blood glucose levels (SMBG)
- Adhering to medication regimen
- Maintaining regular check-ups and visits to health care team

Intermediate Outcomes:
- A1C levels below 7
- Blood pressure below 130/80
- LDL cholesterol below 100

Long-Term Outcomes:
- Prevention of cardiovascular disease and CVD complications

77

Provider Education: "Causal" Roadmap— Thinking About Training

Activities

- Develop newsletter
- Distribute newsletter
- Providers read newsletters
- Outreach
- Conduct trainings
- MD peer education and rounds
- Providers attend trainings and rounds
- Develop Tool Kit
- Nurse Educator presentations to LHDs
- LHD nurses do private provider consults
- Providers receive and use Tool Kits

Outcomes

- Provider KAB increases
- Providers know latest rules and policies
- Providers know registry and their role in it
- Providers motivation to immunize increases
- Providers do more Immunizations
- Increased coverage of target pop
- Reduce VPD in target population

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Provider Education: "Zoom-In" Roadmap--Training

Activities

- Do outreach
- Promote and Recruit Participants
- Do logistics
- Do needs assessments
- Develop Tool Kit and training materials

Conduct trainings → Providers attend trainings

Outcomes

- Provider KAB increases
- Providers know latest rules and Policies
- Providers know registry and their role in it

→ Providers motivation to immunize increases

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Using Logic Models in Planning and Evaluation

Recap—Components of Logic Models

Key Take-Away Points

1. Never need an LM, always need a program description
2. Many LM formats work—match choice to situation
3. A little bit of LM goes a long way
4. LM's make programs clear, not true

81 81

More Key Take-Away Points

1. LMs work with or without an evidence base
2. LMs can be used prospectively or retrospectively
3. PROCESS USE is sometimes the big yield
4. Activities and outcomes yield much insight
5. But, other components add value WHEN used right

82 82

Outputs

1. What they tell us: Not just quantity but quality; what does it mean to do our activities "right"?
2. Prospective Use: Clarifies what level of quality intensity is needed; may cause us to rethink or rescale program
3. Retrospective: First focus for our process evaluation

83 83

Eastside: Outputs

1. # of peer educators who have completed training; # who meet demog of targeted at risk youth
2. % of busses with pre-tested buscards; % of "right" routes with busses with buscards
3. # of 1:1 street encounters with kids meeting high risk profile; % of street encounters with an "intake" or profile completed
4. # of materials distributed directly to parents; % of materials pre-tested for acceptability with parents

84 84

Inputs

1. What they tell us: Resource platform needed to mount our program; "killer assumptions"
2. Prospective Use: Add activities to assure inputs; implement only where inputs in place; forge ahead to sure failure
3. Retrospective Use: Include "errant" inputs in the evaluation; validate problem for "next time"; document efforts to attain inputs

85 85

Eastside: Inputs

1. Approval from school board
2. Approval from buscompany
3. Prior (sufficient) info on community norms, demog, values
4. Prior (sufficient) inventory of relevant and useful materials

86 86

Moderators

1. What they tell us: Context factors (P-E-S-T) that need to be aligned for activities→ outcomes; "killer assumptions"
2. Prospective Use: Add activities to remove bad/assure good context; implement only where moderators supportive; "work around"; forge ahead to sure failure
3. Retrospective Use: Include "errant" moderators in the evaluation; validate problem for "next time"

87 87

Eastside: Moderators

1. Political:
   1. Parent-school board/school r'ship
   2. Health dept/school r'ship
   3. Testing mania
2. Economic:
   1. Car/bus ridership
3. Social
   1. Norms/values about risk behaviors and solutions
   2. Literacy/language
4. Technological/Other
   1. Condom/clean needle access

88 88

Using Logic Models in Planning and Evaluation
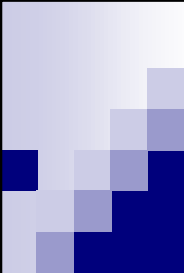
Putting Your Logic Model to Use

Informs Two Steps in CDC Eval F'work

- ***In F'work Step 1. Engage Stakeholders:***
  - ☐ Who are major stakeholders for our efforts?
  - ☐ Where in this model do they want to see success?
  - ☐ Who needs to be engaged upfront to ensure use of results?

- ***In F'work Step 3. Setting Eval Focus:***
  - ☐ Today, 1 year, 5 years, 10 years, where in the model should I be measuring changes?
  - ☐ If no change, where should I look for problems?

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Using Logic Models in Planning and Evaluation

Step 1. Engaging Stakeholders

Who are Stakeholders?

- Three major groups:
  - Those served or affected by the program
  - Those involved in program operation
  - Primary intended users of the evaluation findings

92

Which S'holders Matter Most?

Who is:
Affected by the program?
Involved in program operations?
Intended *users* of evaluation findings?

Of these, who do we most need to:
Enhance *credibility?*
Implement program changes?
Advocate for changes?
Fund, authorize, expand program?

93

What Unique Needs/Preferencs Do They Have….

Might agree/disagree on:

➢The activities and outcomes depicted?

  ➢The "roadmap"?

    ➢Which outcomes in roadmap = program "success"?

      ➢How *much* progress on outcomes = program "success"?

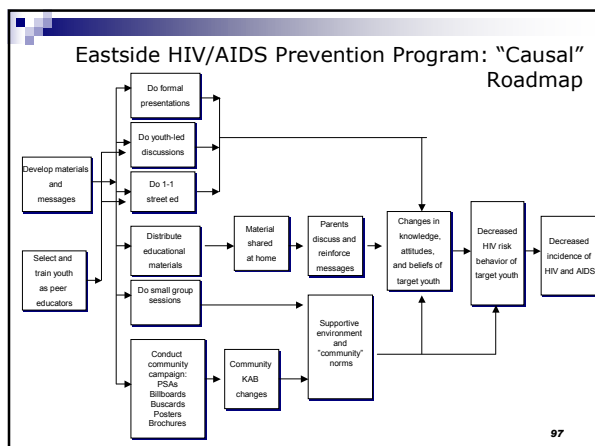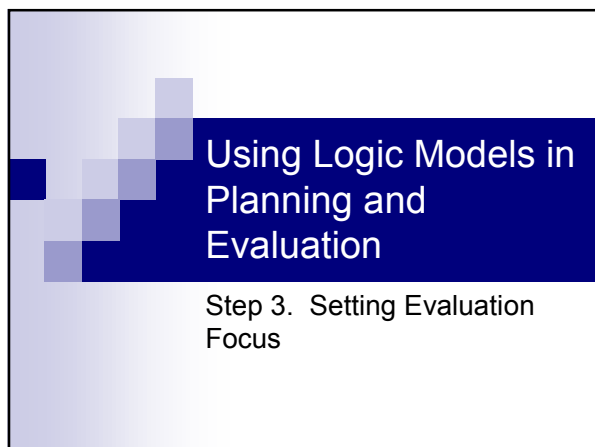   ➢Choices of data collection/analysis methods?
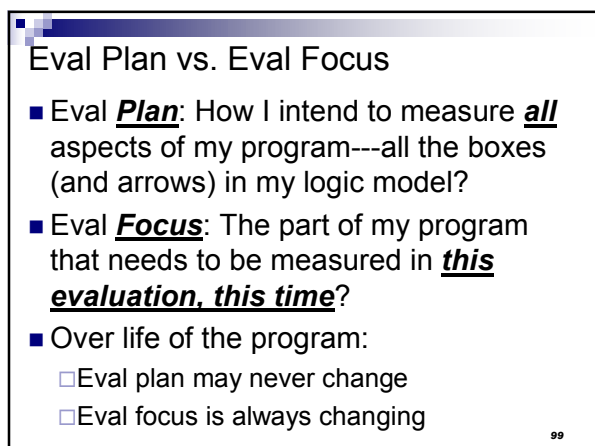
94

Case Exercise—Stakeholders

- We need [*this stakeholder*]…
- To provide/enhance our [any/all of: *credibility, implementation, funding, advocacy*]…
- And, to keep them engaged as the project progresses…
- We'll need to demonstrate [*which selected activities or outcomes*].

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Lead Poisoning: "Causal" Roadmap

Inputs   **Activities**   **Outcomes**

96

Eastside HIV/AIDS Prevention Program: "Causal" Roadmap

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Using Logic Models in Planning and Evaluation

Step 3. Setting Evaluation Focus

Eval Plan vs. Eval Focus

- Eval ***Plan***: How I intend to measure ***all*** aspects of my program---all the boxes (and arrows) in my logic model?
- Eval ***Focus***: The part of my program that needs to be measured in ***this evaluation, this time***?
- Over life of the program:
  - ☐ Eval plan may never change
  - ☐ Eval focus is always changing

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Evaluation Can Be About Anything

- Evaluation can focus on any/all parts of the logic model
- Evaluation questions can pertain to
  - Boxes---did this component occur as expected
  - Arrows---what was the relationship between components

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Phases and Types of Evaluation

Program Stage	Before Program Begins	New Program	(More) Established Program	Mature Program
Phase	FORMATIVE		SUMMATIVE	
Evaluation Type	Needs Assessment	Process Evaluation	Outcome Evaluation	Impact Evaluation
(Some) Questions Asked	To what extent is the need being met? What can be done to address this need?	Is the program operating as planned?	Is the program achieving its short-term outcomes/ objectives?	Is the program achieving it's long-term outcomes and impacts??

Source: Based on slides from Jennifer Nichols, Porter Novelli

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Process Evaluation

Did we get the inputs we needed/were promised?

Inputs | Activities | Outputs | Short-term Effects/ Outcomes | Intermediate Effects/ | Long-term Effects/ Outcomes

Were activities and outputs implemented as intended? How much? Who received?
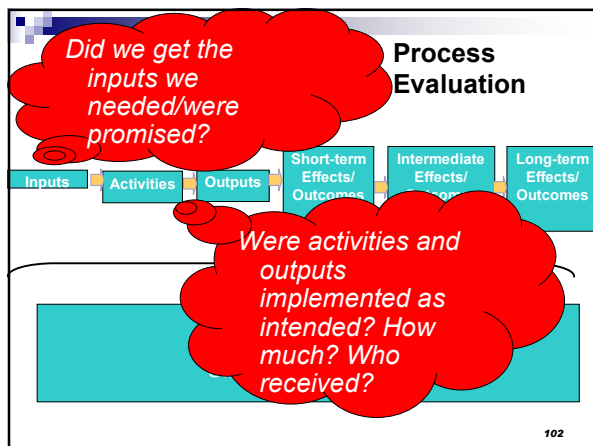
102

Outcome Evaluation

| Inputs | Activities | Outputs | Short-term Effects/ Outcomes | Intermediate Effects/ Outcomes | Long-term Effects/ Outcomes |

Which outcomes occurred? How much outcome occurred

...lopment

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Efficiency Evaluation

| Inputs | Activities | Outputs | Short-term Effects/ Outcomes | Intermediate Effects/ Outcomes | Long-term Effects/ Outcomes |

(How) was implementation quality __related to__ inputs?

Development

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Causal Attribution

| Inputs | Activities | Outputs | Short-term Effects/ Outcomes | Intermediate Effects/ Outcomes | Long-term Effects/ Outcomes |

Did outcomes occur __because__ of our activities and outputs?

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Setting Focus: Some Rules

Based on "utility" standard:

- ***Purpose:*** Toward what end is the evaluation being conducted?
- ***User:*** Who wants the info and what are they interested in?
- ***Use:*** How will they use the info?
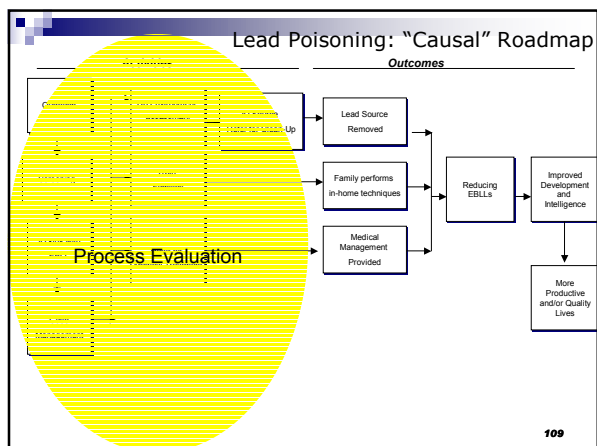
106

Step 1 Helps Here…

From Step 1:

- What are key stakeholders most interested in?
- Must I address their needs in the focus for THIS evaluation?

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(Some) Potential Purposes/ Uses

- **Show accountability**
- Test program implementation
- "Continuous" program improvement
- Increase the knowledge base
- Other…
- Other…

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Lead Poisoning: "Causal" Roadmap

Outcomes

Lead Source Removed

Family performs in-home techniques

Medical Management Provided

Reducing EBLLs

Improved Development and Intelligence

More Productive and/or Quality Lives

Process Evaluation
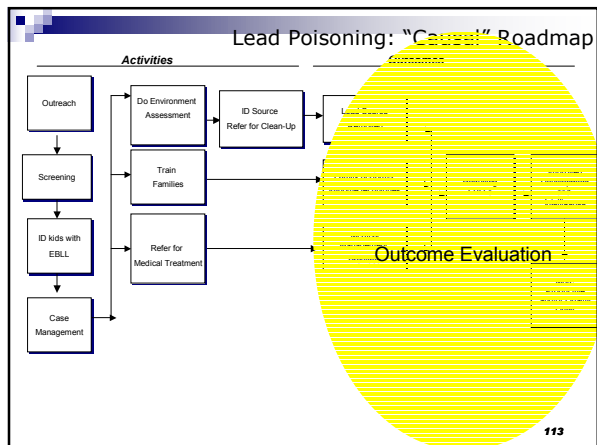
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Process Evaluation

- The type and quantity of services provided
- The number of people receiving services
- What actually happens during implementation
- How much money the project costs
- The staffing for services/programs
- The number of coalition activities and meetings
- Assessment of program fidelity

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Process Evaluation

- The type and quantity of services provided
- The number of people receiving services
- What actually happens during implementation
- How much money the project costs
- The staffing for services/programs
- The number of coalition activities and meetings
- Assessment of program fidelity

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(Some) Potential Purposes

- Test program implementation
- **Show accountability**
- **"Continuous" program improvement**
- Increase the knowledge base
- Other…
- Other…

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Lead Poisoning: "Causal" Roadmap

Activities

Outreach

Do Environment Assessment

ID Source
Refer for Clean-Up

Screening

Train
Families

ID kids with
EBLL

Refer for
Medical Treatment

Outcome Evaluation

Case
Management

113

Outcome Evaluation

- Results of program services
- Changes in individuals
  - Knowledge/awareness
  - Attitudes
  - Beliefs
- Changes in the environment
- Changes in behaviors
- Changes in disease trend

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"Reality Checking" the Focus

Based on "feasibility" standard:
- **_Stage of Development:_** How long has the program been in existence?
- **_Program Intensity:_** How intense is the program? How much impact is reasonable to expect?
- **_Resources:_** How much time, money, expertise are available?

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Global Logic Model: Provider Education

Early Activities	Later Activities	Early Outcomes	Later Outcomes
Do outreach to providers	Distribute newsletter	Provs read newsletters	KAB increases
Develop newsletter	Conduct immuno trainings	Provs attend trainings and rounds	Know policies
Develop Tool Kit	Nurse educator LHD presentations	Provs receive and use tool kits	Know registry
	Physician peer ed rounds	LHD nurses do private prov consults	Motivation increases
			Do more immuno
			Coverage increases
			VPD reduced

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Provider Education: "Causal" Roadmap

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Some Evaluation Scenarios

- ***Scenario I:*** At Year 1, other communities want to adopt your model but want to know "what are they in for"
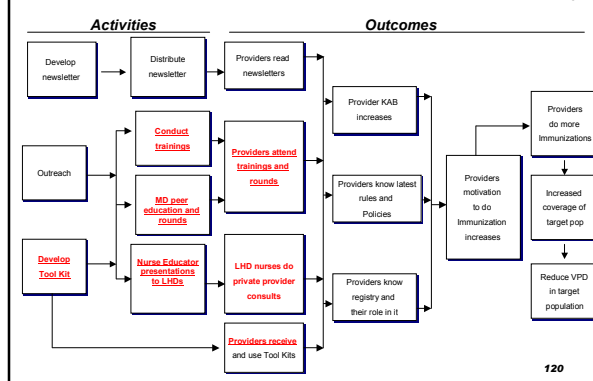
118

Scenario 1:

- ***Purpose:*** Examine program implementation
- ***User:*** The "other community"
- ***Use:*** To make a determination, based on your experience, whether they want to adopt this project or not

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Provider Education: "Causal" Roadmap

Activities   *Outcomes*

- Develop newsletter → Distribute newsletter → Providers read newsletters
- Outreach → **Conduct trainings** → **Providers attend trainings and rounds**
- **MD peer education and rounds**
- **Develop Tool Kit** → **Nurse Educator presentations to LHDs** → **LHD nurses do private provider consults**
- **Providers receive** and use Tool Kits

Provider KAB increases

Providers know latest rules and Policies

Providers know registry and their role in it

Providers motivation to do Immunization increases

Providers do more Immunizations

Increased coverage of target pop

Reduce VPD in target population

120

Some Evaluation Scenarios

- ***Scenario II:*** At Year 5, declining state revenues mean you need to justify to legislators the importance of your efforts so as to continue funds.

121

Scenario 2:

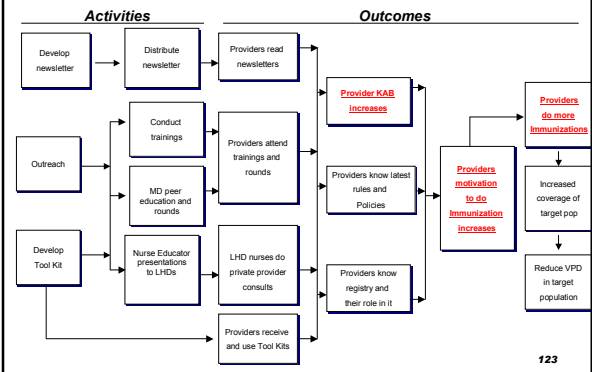**Purpose:** Determine program impact

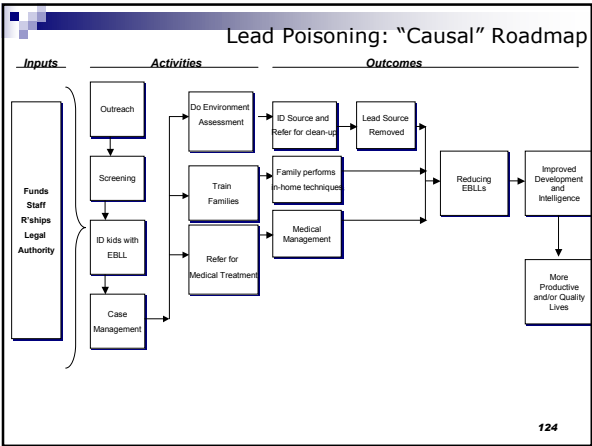**User:** Your org and/or the legislators

Use:

- *You* want to muster evidence to prove to legislators you are effective enough to warrant funding, or
- *Legislators* want you to show evidence that proves sufficient effectiveness to warrant funding

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Provider Education: "Causal" Roadmap

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Lead Poisoning: "Causal" Roadmap

Inputs | **Activities** | **Outcomes**

Funds
Staff
R'ships
Legal
Authority

Outreach

Screening

ID kids with EBLL

Case Management

Do Environment Assessment

Train Families

Refer for Medical Treatment

ID Source and Refer for clean-up

Lead Source Removed

Family performs in-home techniques

Medical Management

Reducing EBLLs

Improved Development and Intelligence

More Productive and/or Quality Lives

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Group Exercise: *Evaluation Focus*

1. *User*
2. *Purpose/Use*
3. *These parts of the logic model are in the focus to meet purpose/use…*
4. *Some specific questions…*
5. *Is this focus feasible given stage, intensity, resources?*

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Eastside HIV/AIDS Prevention Program: "Causal" Roadmap

Develop materials and messages

Select and train youth as peer educators

Do formal presentations

Do youth-led discussions

Do 1-1 street ed

Distribute educational materials

Do small group sessions

Conduct community campaign:
PSAs
Billboards
Buscards
Posters
Brochures

Material shared at home

Parents discuss and reinforce messages

Community KAB changes

Supportive environment and "community" norms

Changes in knowledge, attitudes, and beliefs of target youth

Decreased HIV risk behavior of target youth

Decreased incidence of HIV and AIDS

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Collaborative Pregnancy Prev Program: "Causal" Roadmap

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Taking Stock…What We've Done:
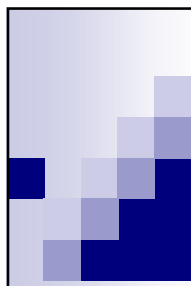
- Clarified relationship of activities and outcomes
- Identified inputs, outputs, and moderators
- Ensured clarity and consensus with stakeholders
- Helped identify a focus for my evaluation

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Taking Stock…What's Next:

- Elaborate evaluation questions
- Write indicators
- Affirm evaluation design
- Choose data collection sources and methods
- Define data analysis plan
- Determine how best to report findings to ensure use

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Using Logic Models in Planning and Evaluation
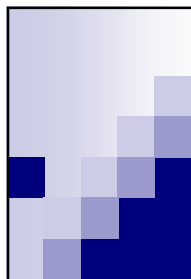
Putting Your Logic Model to Use in Program Planning

By Clarifying Sequence of Activities → Outcomes…

- Helps you identify/refine/affirm:
  - Mission/vision
  - Goals/objectives
  - Most important intended outcomes—the "staked claim"
  - Strategy/workplan
  - "Critical path"
  - Key strategic issues

131

Defining Your "Vision" and "Mission"

Logic Models and Program Mission and Vision

- Vision—How the world will be different because of our program. i.e. "A world without…"

[Look in the distal side of the model]

- Mission—What major levers we will employ to change the world.

[Look at the intermediate outcomes and major activities to achieve them][133]

Traditional Program Logic Model

Vision—the "ideal state" of the world we aspire to, and the big lever we hope to influence

Inputs → Activities → Outputs → Short-term Outcomes → Intermediate Outcomes → ...term

Vision

What the program *needs*…

What the program *does*…

Who/what will ch... ...e of the prog...

134

Traditional Program Logic Model

Mission—two components: the purpose for which we were created, __and,__ the big areas we deploy to make a difference

Inputs → Acti... ...uts → Short-term Outcomes → Intermed... Outcon... → ...ng-term ...comes/ ...acts

Mission

Mission

What the program *needs*…

...ram

Who/what will ... ...use of the pr...

135

Provider Education: "Causal" Roadmap:
Program Vision

Activities — *Outcomes*

Develop newsletter → Distribute newsletter → Providers read newsletters

Conduct trainings

Outreach → MD peer education and rounds → Providers attend trainings and rounds

Develop Tool Kit → Nurse Educator presentations to LHDs → LHD nurses do private provider consults

Providers receive and use Tool Kits

Provider KAB increases

Providers know latest rules and Policies

Providers know registry and their role in it

Providers motivation to do Immunization increases

**** Providers do more/ Immunizations

**** Increased coverage of target pop

**** Reduce VPD in target population

136
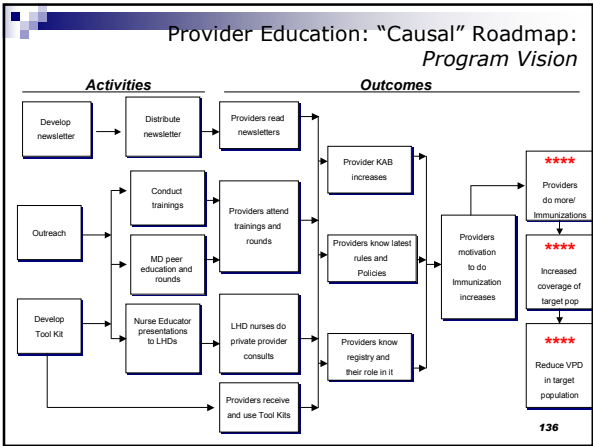
Logic Models and Program Mission and Vision

- Vision—VPDs are eliminated because providers ensure good vaccine coverage

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Logic Models and Program Mission and Vision

- Mission—Providers ensure good vaccine coverage because our program provides the information, training, and role models needed to educate and motivate them

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Provider Education: "Causal" Roadmap: *Program Mission*

Eastside HIV/AIDS Prevention Program: "Causal" Roadmap

Collaborative Pregnancy Prev Program: "Causal" Roadmap
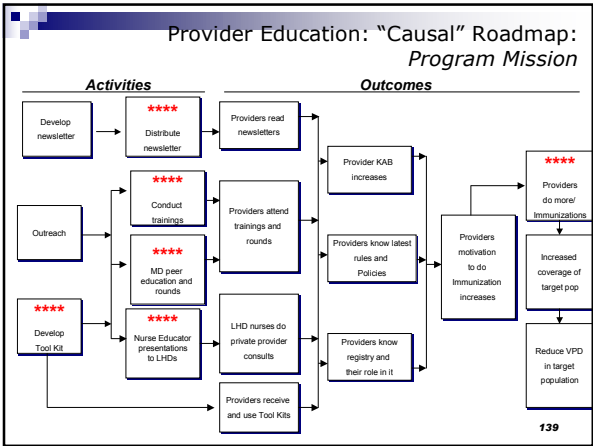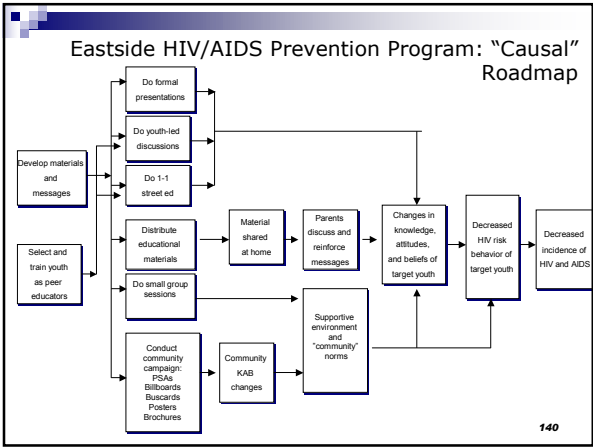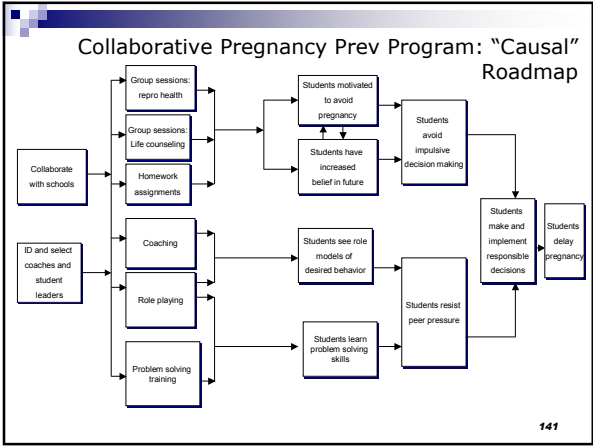
Defining Goals and Objectives

These must be integrated…

- Continuous Quality Improvement (CQI) cycle.
  - **Planning**—*What* actions will best reach our goals and objectives.
  - **Performance measurement**— How are we doing?
  - **Evaluation**—*Why* are we doing well or poorly?

What do we do?

How do we do it?

How are we doing?

Why are we doing well or poorly?

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Traditional Program Logic Model—A Program "Roadmap"

Inputs

Short-term Out…

…g-term …omes/ …acts

Strategies

Objectives

Goals

What t… progra… *needs*…

…use

…p

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Traditional Program Logic Model—A Program "Roadmap"

Strategies Objectives Goal

Inputs Activities Outputs Short-term Outcomes Intermediate Outcomes Outcomes/ Impacts

Strategies Objectives Goal

What the program *needs*…

What the program *does*…

Who/what will change because of the program…

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Provider Education: "Causal" Roadmap:
LT Goals

Activities

Develop newsletter

Distribute newsletter

Outreach

Conduct trainings

MD peer education and rounds

Develop Tool Kit

Nurse Educator presentations to LHDs

Outcomes

Providers read newsletters

Providers attend trainings and rounds

LHD nurses do private provider consults

Providers receive and use Tool Kits

Provider KAB increases

Providers know latest rules and Policies

Providers know registry and their role in it

Providers motivation to do Immunization increases

Providers do more/ Immunizations

****
Increased coverage of target pop

****
Reduce VPD in target population

146

And Now in Narrative…

- To make a significant reduction in incidence of vaccine preventable diseases in targeted populations by making substantial increases in vaccine coverage in these same populations, *OR*
- To reduce VPD by 50% by 2010 in [name] target groups by increasing vaccine coverage to 85% in these groups by 2008.
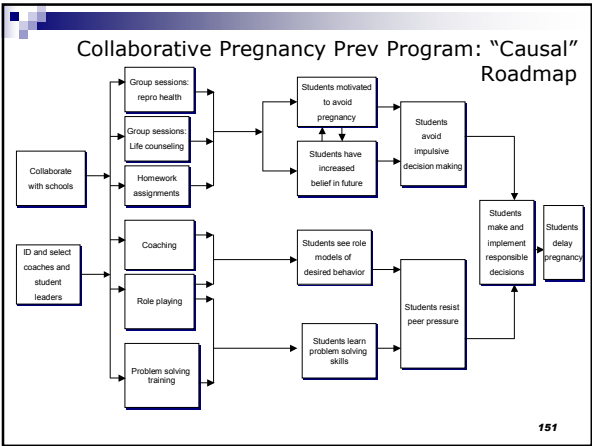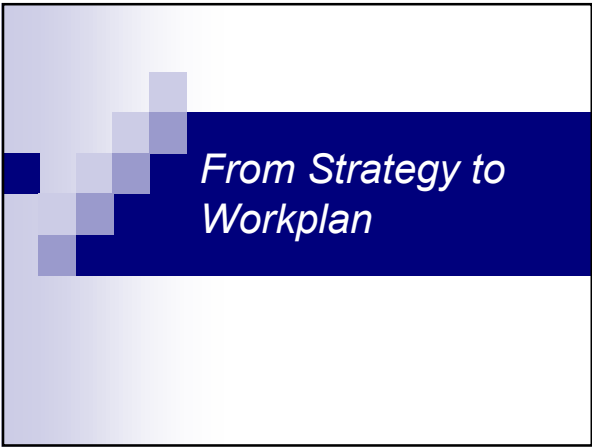
147

Provider Education: "Causal" Roadmap:
ST/MT Goals/Objectives

148
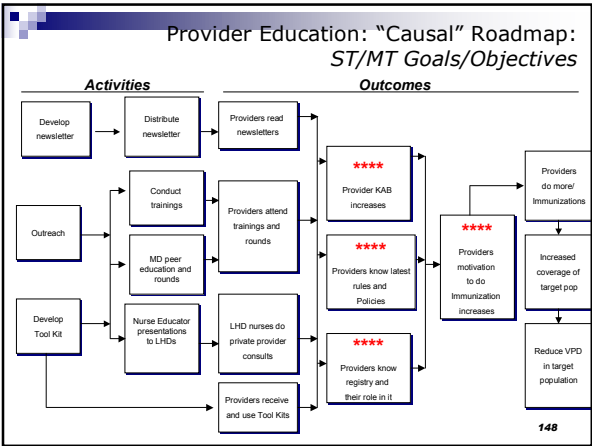
And Now in Narrative…

- By 2008, to increase to 50% the percentage of immunizations for [named target] VPDs administered by private physicians.
- By 2006, to increase to 85% the percentage of primary care physicians who:
  - Have appropriate levels of KAB regarding need and proper administration of [named] vaccines.
  - Know the content of our state's rules and regulations regarding administration of [named[vaccines
  - Express intent to offer and to administer vaccines to appropriate patients presenting at their practice
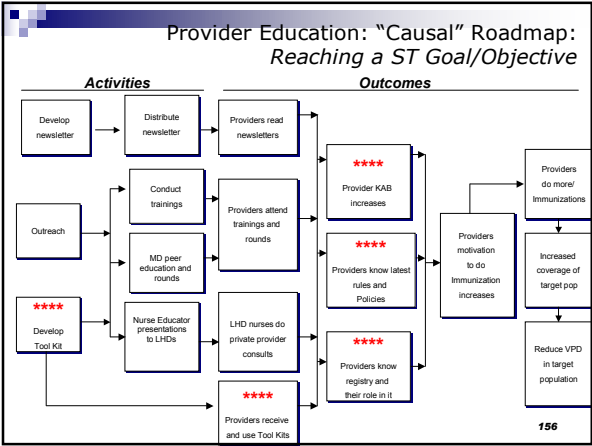
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Eastside HIV/AIDS Prevention Program: "Causal" Roadmap

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Collaborative Pregnancy Prev Program: "Causal" Roadmap

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From Strategy to Workplan
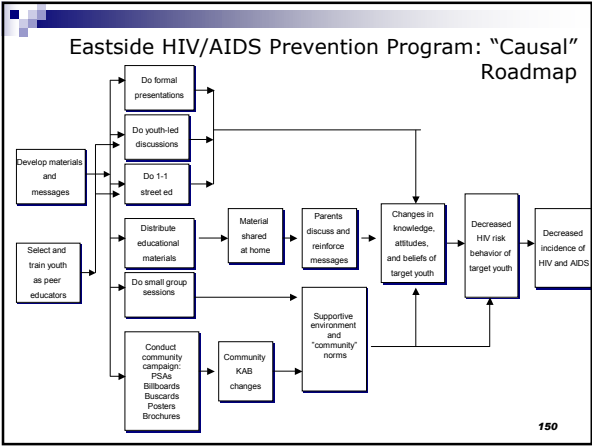
Models are Roadmaps…

- Just as model shows how ST/MT goals (objectives) lead to LT ones and how….
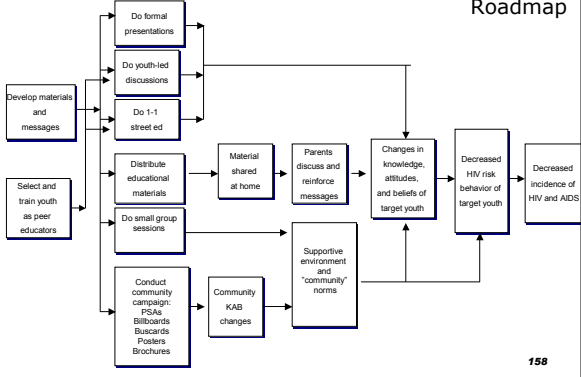- Model also shows what activities need to be in place to meet my ST/MT goals (objectives)

153
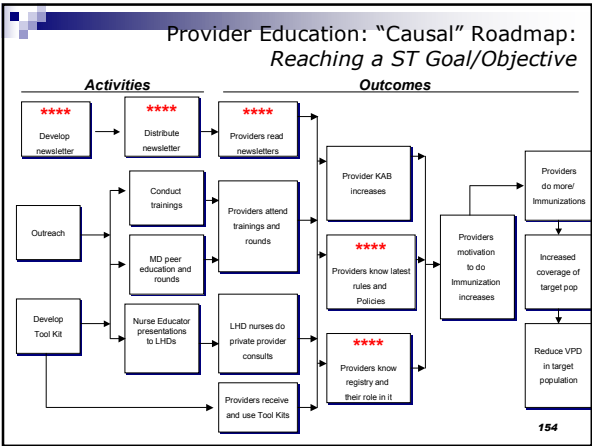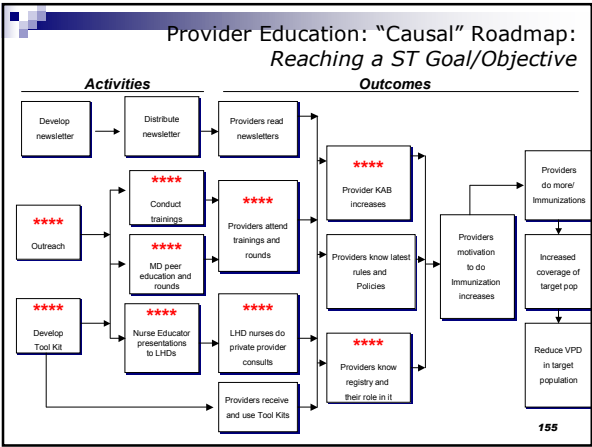
An Example in Narrative…

- By 2006, 80% of targeted primary care physicians will acknowledge receipt of a tool kit and 50% will have used it:
  - By end of 2004, develop and pre-test tool kit with target audience of PCPs
  - By end of 2005, distribute tool kit to all PCPs in our state who practice in areas with high percentages of [named] target population
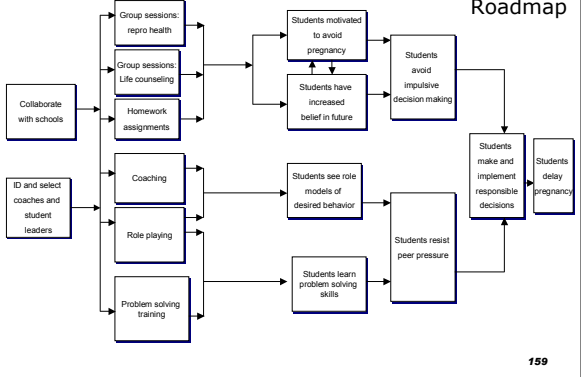
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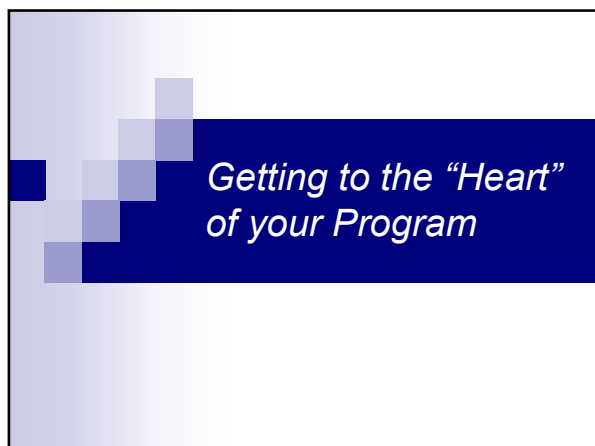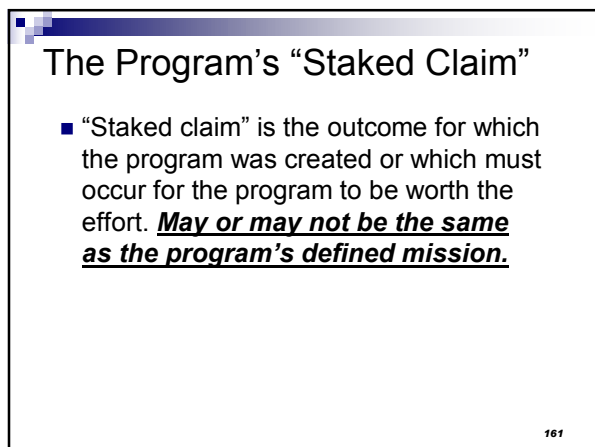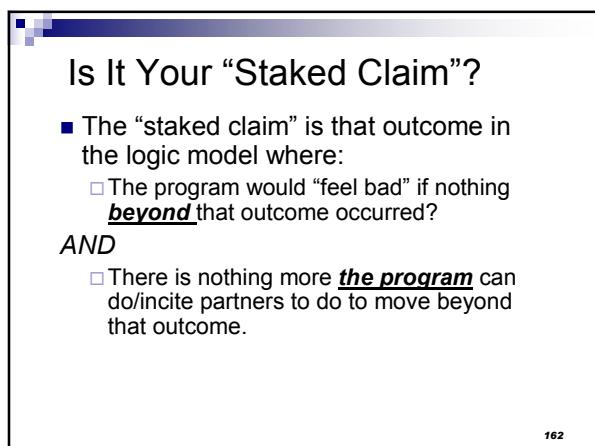### Eastside HIV/AIDS Prevention Program: "Causal" Roadmap

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Collaborative Pregnancy Prev Program: "Causal" Roadmap

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*Getting to the "Heart"
of your Program*

The Program's "Staked Claim"

- "Staked claim" is the outcome for which the program was created or which must occur for the program to be worth the effort. ***May or may not be the same as the program's defined mission.***

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Is It Your "Staked Claim"?

- The "staked claim" is that outcome in the logic model where:
  - □ The program would "feel bad" if nothing ***beyond*** that outcome occurred?
- *AND*
  - □ There is nothing more ***the program*** can do/incite partners to do to move beyond that outcome.
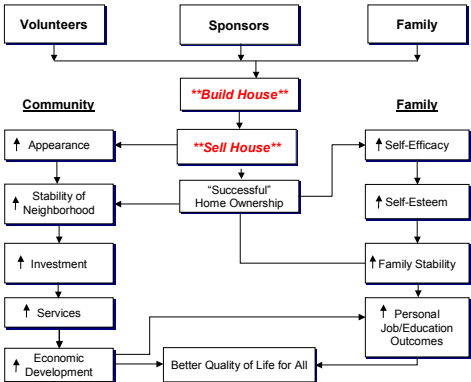
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Choosing Key Outcomes— "Staking Our Claim"

- Want to include outcome(s) that is (are):
  - □ *Relevant*—sufficiently *"downstream"* to matter to stakeholders
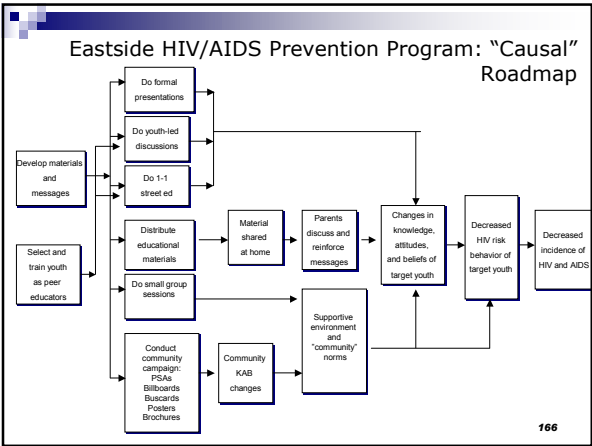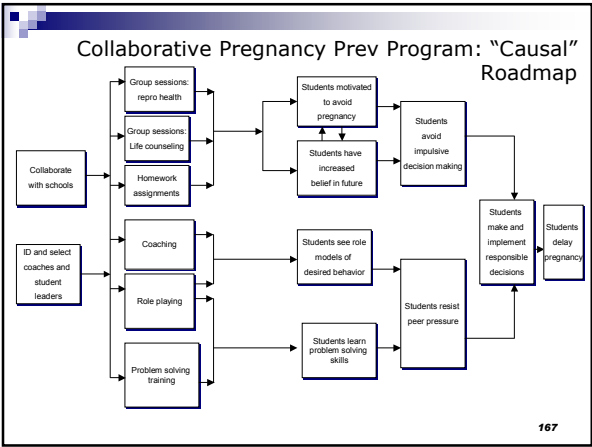 - □ *Responsive*—sufficiently "*upstream*" that program's efforts can be expected to make a difference

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Habitat for Humanity: *The full story: The mission…*

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Habitat for Humanity: *The "staked claim"…*

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Eastside HIV/AIDS Prevention Program: "Causal" Roadmap

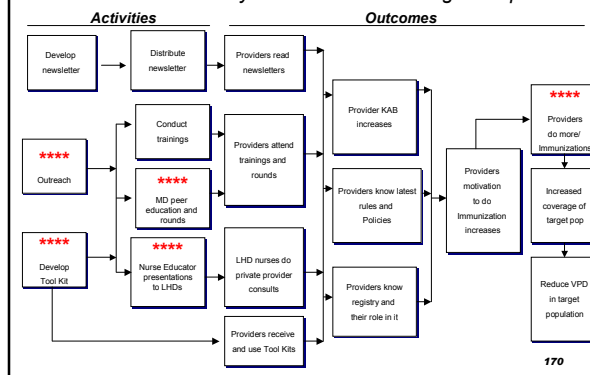## Collaborative Pregnancy Prev Program: "Causal" Roadmap
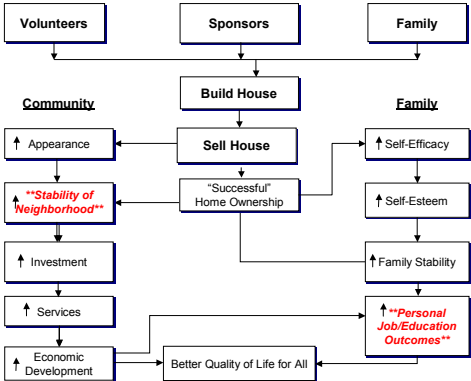
Identifying Your Priority Path
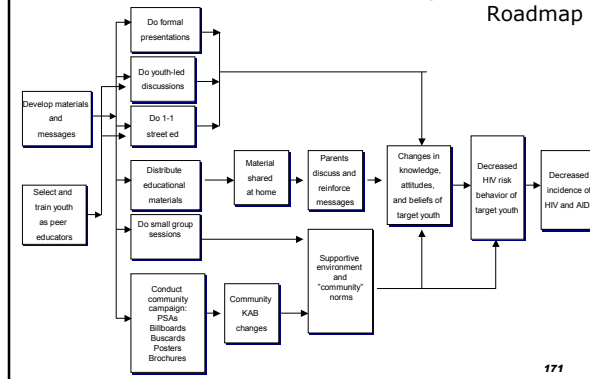
What Is My "Priority Path"?

- "Staked claim" gives clarity on where you need to get to be "successful"
- But roadmap is a large landscape
- Critical path--If I can't do it all, which path(s):
  - ☐ Are likely to get me there quickest?
  - ☐ Are most cost-effective?
  - ☐ Are most likely to have long-term impact?
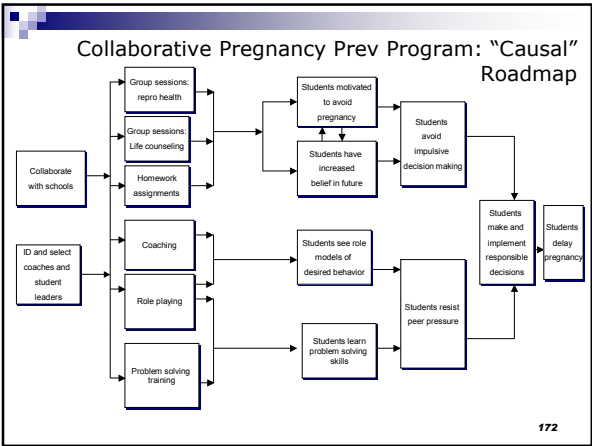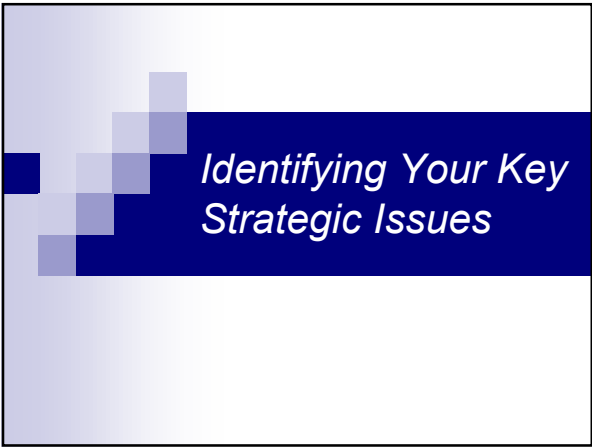 - ☐ Are the "vital organs" I need to preserve at all costs?

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Provider Education: "Causal" Roadmap:
Priority Path= "Role Modeling" Components

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Eastside HIV/AIDS Prevention Program: "Causal" Roadmap

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Collaborative Pregnancy Prev Program: "Causal" Roadmap

Collaborate with schools → Group sessions: repro health, Group sessions: Life counseling, Homework assignments → Students motivated to avoid pregnancy, Students have increased belief in future → Students avoid impulsive decision making → Students make and implement responsible decisions → Students delay pregnancy

ID and select coaches and student leaders → Coaching, Role playing, Problem solving training → Students see role models of desired behavior, Students learn problem solving skills → Students resist peer pressure → Students make and implement responsible decisions

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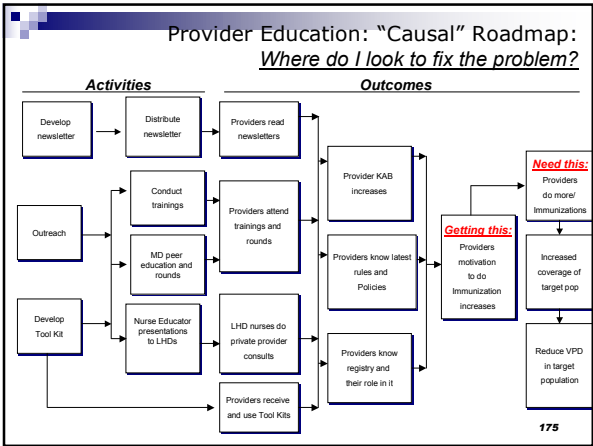## *Identifying Your Key Strategic Issues*

What If You're Falling Short of Your "Staked Claim"?

Logic model helps you visualize:

- ☐ What activities are not happening?
- ☐ What "arrows" need strengthening?
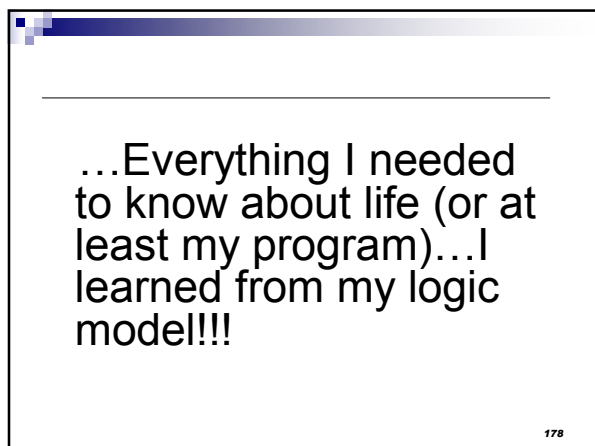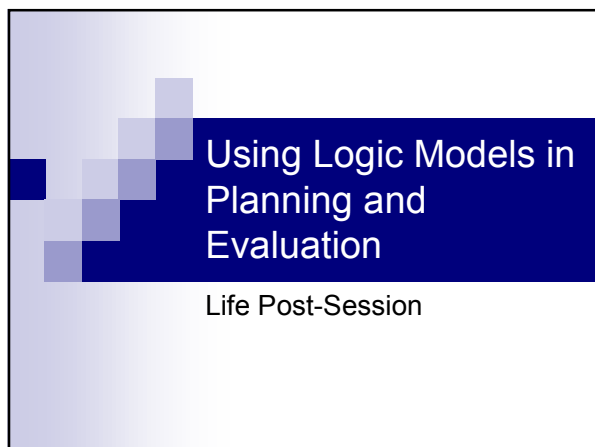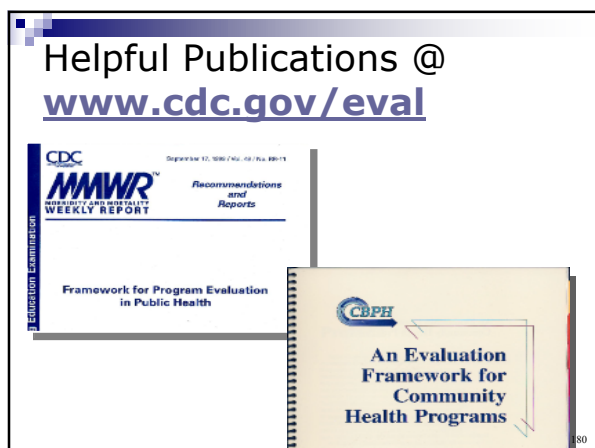- ☐ What activities might I need to add to increase "oomph"!

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Provider Education: "Causal" Roadmap:
Where do I look to fix the problem?

Activities

- Develop newsletter → Distribute newsletter → Providers read newsletters
- Outreach → Conduct trainings, MD peer education and rounds → Providers attend trainings and rounds
- Develop Tool Kit → Nurse Educator presentations to LHDs → LHD nurses do private provider consults
- Providers receive and use Tool Kits

Outcomes

- Provider KAB increases
- Providers know latest rules and Policies
- Providers know registry and their role in it

Getting this: Providers motivation to do Immunization increases

Need this: Providers do more/ Immunizations

Increased coverage of target pop

Reduce VPD in target population

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In Short…

Upfront Small Investment…

- Clarified relationship of activities and outcomes
- Ensured clarity and consensus with stakeholders
- Helped define the right focus for my evaluation
- Clarified vision, mission, goals, objectives, and their interconnection
- Helped me clarify my "critical path"
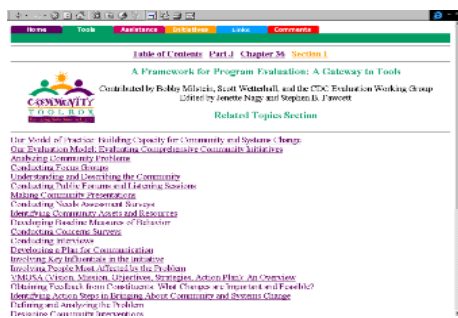- Help me cut to the "heart" of my program and…
- How best to get there

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…Everything I needed to know about life (or at least my program)…I learned from my logic model!!!

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Using Logic Models in Planning and Evaluation

Life Post-Session

Helpful Publications @ **www.cdc.gov/eval**

CDC
MMWR
MORBIDITY AND MORTALITY WEEKLY REPORT

September 17, 1999 / Vol. 48 / No. RR-11

Recommendations and Reports

Framework for Program Evaluation in Public Health

CBPH

An Evaluation Framework for Community Health Programs

Helpful Resources

- NEW! Intro to Program Evaluation for PH Programs—A Self-Study Guide: http://www.cdc.gov/eval/whatsnew.htm
- Logic Model Sites
  - □ Innovation Network: http://www.innonet.org/
  - □ Harvard Family Research Project: http://www.gse.harvard.edu/hfrp/
  - □ University of Wisconsin-Extension: http://www.uwex.edu/ces/lmcourse/
  - □ CDC/DASH:http://www.cdc.gov/healthyyouth/evaluation/resources.htm#4
  - □ CDC/STD: http://www.cdc.gov/std/program/progeval/TOC-PGprogeval.htm

- Texts
  - □ Kellogg Foundation Logic Model Development Guide: www.wkkf.org
  - □ W.K. Kellogg Foundation Evaluation Resources: http://www.wkkf.org/programming/overview.aspx?CID=281
  - □ Rogers et al. Program Theory in Evaluation. New Directions Series: Jossey-Bass, Fall 2000
  - □ Chen, H. Theory-Driven Evaluations. Sage. 1990

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Community Tool Box
http://ctb.ku.edu

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