# Introduction to Program Evaluation Using CDC's Evaluation Framework

Betty Apt 2010 Evaluation Institute June 13, 2010

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- Gain evaluation skills
- Increase familiarity with CDC's
   Framework for Program Evaluation
   in Public Health
- Gain confidence in planning and conducting an evaluation.



#### **Special Thanks to...**

Tom Chapel, MA, MBA

Chief Evaluation Officer

National Center for Chronic Disease

Prevention and Health Promotion

Centers for Disease Control and Prevention





Share the following with those at your table

- Your name;
- Work location;
- Your role in your program;
- Something fun/personal about you.



### Intro to Program Evaluation

**Defining Terms** 

#### **Defining Program Evaluation**

Program is any organized action/activity implemented to achieve some result

■ **Evaluation** is the systematic investigation of the merit, worth, or significance of any "object"

Michael Scriven



#### **Evaluation Attributes**

- Intent: Identify and control a problem or improve a program/service
- *Intended beneficiary*: Participants or the participants' community
- Data use: Improve the program, the participants, or the participants' community
- Knowledge applicability: Not generalizable beyond project



#### **Defining Research**

Research is the systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge.

### **Evaluation and Research Comparison**

Characteristics	Evaluation	Research
Purpose	<ul> <li>Determines         <ul> <li>program</li> <li>achievement</li> </ul> </li> <li>Improves         <ul> <li>practice/services</li> </ul> </li> </ul>	<ul><li>Creates new knowledge</li><li>Tests hypothesis</li></ul>
Use of Results	■Decision making	■Generalization

## "Research seeks to <u>prove</u>, evaluation seeks to <u>improve</u>..."

M.Q. Patton

### What Can Program Evaluation Do?

■ Increase Program Knowledge

Direct Program Improvement

Maximize Resources

Provide Accountability



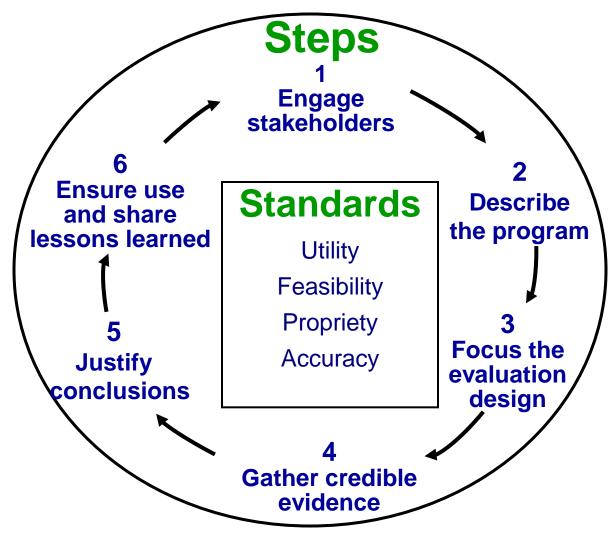
### Intro to Program Evaluation

#### CDC's Evaluation Framework

MMWR – September 17, 1999

Framework for Program Evaluation in Public Health

#### **CDC Evaluation Framework**





- 1. <u>Engage stakeholders</u>: Decide who needs to be part of the design and implementation of the evaluation for it to make a difference.
- 2. <u>Describe the program</u>: Draw a "soup to nuts" picture of the program— activities and all intended outcomes.
- 3. *Focus the evaluation*: Decide which evaluation questions are the key ones



#### Step-by-Step

- 4. Gather credible evidence: Choose and implement data collection sources and methods to answer the evaluation questions
- 5. <u>Justify conclusions</u>: Review and interpret data/evidence to determine success or improvement needs
- 6. Ensure use /lessons learned: Use evaluation results in a meaningful way.



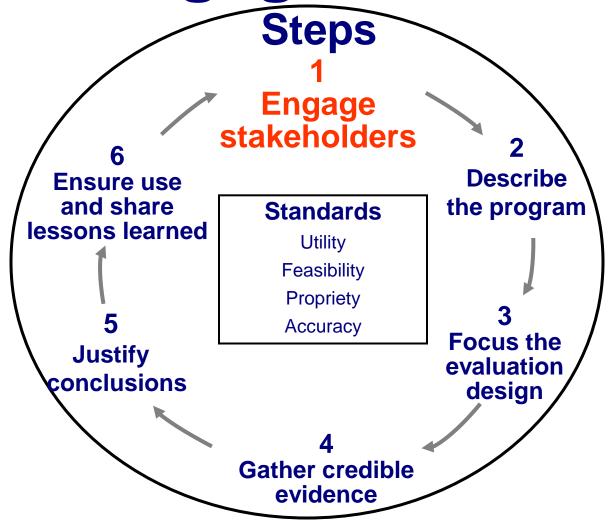
#### The Four Standards

- 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, and what needs to be done to ensure that the evaluation is ethical?
- Accuracy: What design will lead to accurate information?

### Intro to Program Evaluation

Step 1. Engaging Stakeholders

#### Step 1: Engage Stakeholders





Stakeholders are individuals or organizations who are interested in, or affected by, the program and, therefore, the evaluation.



### Reasons to Involve Stakeholders or

#### Why is this step important?

- Increase credibility of evaluation findings.
- Increase likelihood that evaluation results will be acted upon.
- Obtain input about what the purpose and design of the evaluation should be.
- Obtain "reality check" on utility and feasibility of evaluation plan and methods.

#### **Types of Stakeholders**

Types	Definitions	Examples	
<b>Decision makers</b>	Decide and direct program operations, including how evaluation findings are used	Funders, program manager, HD director, health commissioner, legislators,	
Implementers	Involved in program operations	Program manager, program staff	
Participants	Served by the program	Clients/patients, CBOs, community members, health service providers	
Partners	Support/invested in the program or target population	faith-based orgs., advocacy groups, school health programs	



#### **Choosing Stakeholders**

#### Give priority to the needs of stakeholders who:

- ■Can increase credibility of your evaluation
- Are responsible for day-to-day implementation of the activities that are part of the program
- ■Can *authorize* changes to the program that the evaluation may recommend.
- ■Can fund or authorize the continuation or expansion of the program.

#### **Types of Stakeholders**

Types	Definitions	Examples	
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#### **Involving Stakeholders**

There are several roles that stakeholders can have in the evaluation:

- Input on evaluation design
- Input on data collection methods



- Assistance with data collection
- Outreach to the target population for the evaluation
- Interpretation and use of results



### Sustaining Stakeholder Involvement

- Identify and communicate benefits of their involvement throughout the process.
- Clearly identify their roles and responsibilities.
- Explicitly incorporate their input, opinions, and insights or explain why not possible.
- Maintain open communication; address concerns.
- Maintain regular communications about progress.
- Promise only what you can deliver.

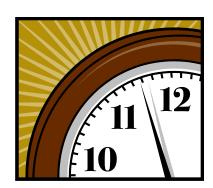


#### **Stakeholders Activity**

Read explanation on Lead Poisoning

Discuss and complete the Worksheet.

**About 10 minutes** 



#### Stakeholders for Lead Example

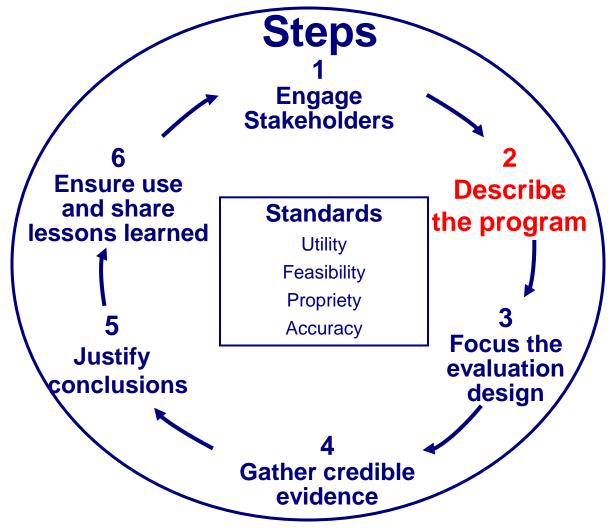
#### Who are the key stakeholders we need to:

Increase credibility of evaluation	Implement the improvements	Advocate for changes	Fund/authorize continuation or expansion		
Physician associations	State and local health departments	Advocacy groups  Maternal and child	Legislators and policymakers at Federal and state		
Community associations	ations  Physician associations		CDC		
		Private industry			
		Community associations	Court system		

### Intro to Program Evaluation

Step 2. Describing the Program

#### Step 2: Describe the Program





You need to know what the program is suppose to do and how it is suppose to do it, to be able to evaluate whether it is successful.

Evaluation compares "what is" to "what is suppose to be."

### Describing the Program Through...

- SMART objectives
- Logic Models



#### What is an objective?

- Describes what an activity, or program, is suppose to achieve.
- Should be determined during program planning, but isn't always
- Serves as the <u>basis for monitoring progress</u> towards achieving program goals, and setting <u>targets for accountability</u>.



#### It is SMART

- Specific
- Measurable
- Achievable
- Relevant
- Time-Bound

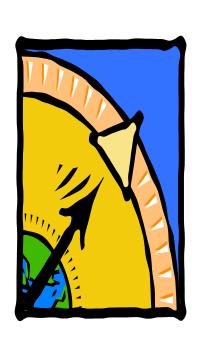


#### **Specific**

- "who" target population

  - ☐ Females ages 15-24 years old

- ■"what" action
  - Provide than in the property of the propert
  - ☐ Conduct 2 workshops on CT specimen collection for STD clinic staff



#### **M**easurable

"How much" change is expected

Increase the number of 5-24 yearolds tested for CT...

■ Increase the number of 15-24 yearolds tested for CT...from 20% to 40%.

#### **Achievable**

Should be realistic – personnel, money, etc.

Increase the knowledge of private providers about the item or STD.

At least 50% of training participants will report changes in clinical practices at a six-month follow-up.

## Relevant

Relates to the program goals.

At least 50% of participants who complete followup evaluations of the training will report increases in knowledge about STDs and obesity.

## Time-bound

"When" the objective will be measured/met

- During the Grant Year, ...
- By October 23, 2010, ...





## **Example 1**

By August 2010, STD prevention staff will provide at least 2 professional development workshops for clinical staff in jails AB on the diagnosis, treatment, and case management of STD infected inmates.

### **SMART?**

Specific: who, what, where

Measurable: how much change

Achievable: realistic

Relevant: relate to goals

Time-bound: when





During 2010, provide STD-HIV education and counseling to adolescents and incarcerated persons.

Specific
Measurable
Achievable
Relevant
Time-bound

SMART? NO



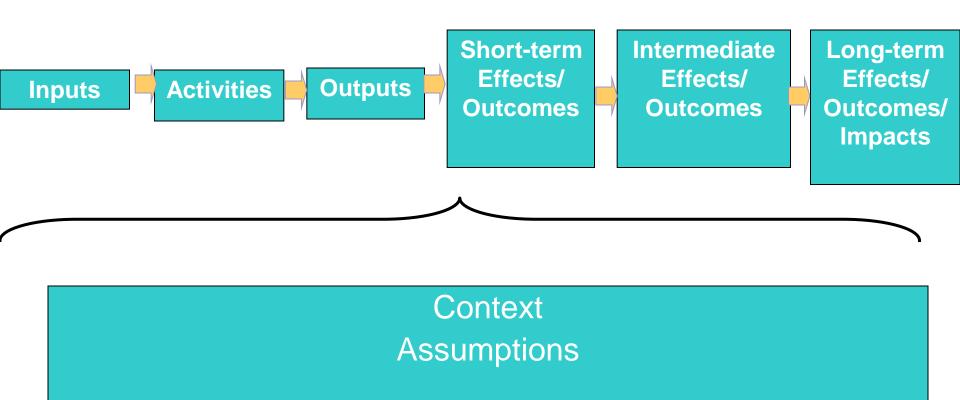


Logic Model: Graphic depiction of the <u>relationship</u> between your program's activities and its <u>intended</u> effects

in other words...

A graphic representation, or a type of flow chart, that shows how a program is suppose to work; how the components of the program should produce desired outcomes, and how they relate to one another.

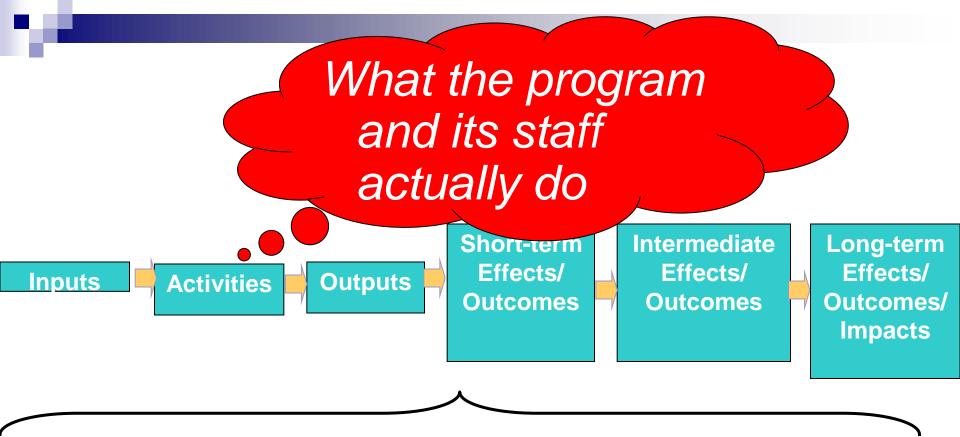
## Step 2: Describing the Program: Complete Logic Model



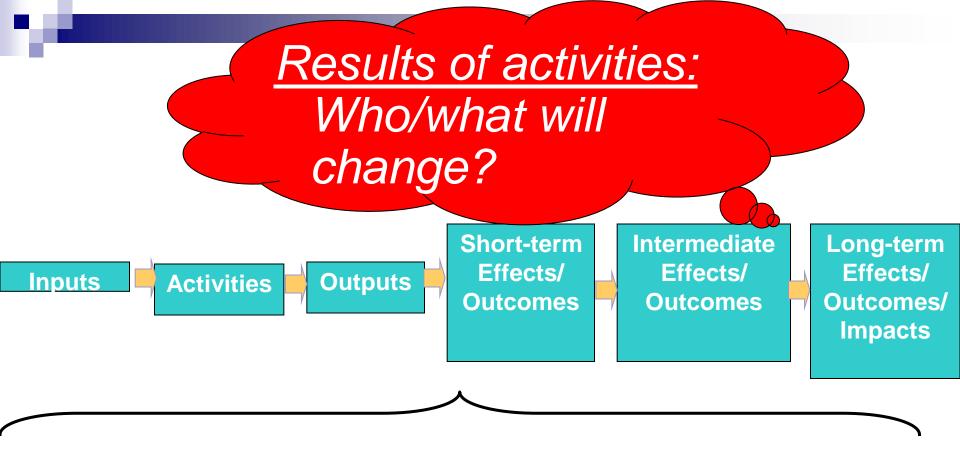
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## **Logic Model Components**

<b>Process Components</b>	Outcome Components
Inputs: program resources.	Short-term: immediate effects
Activities: actual program events.	Intermediate: effects that take longer to occur (e.g., behavior, policies), linked to short-term effects.
Outputs: direct products of activities.	Long-term: effects that may take several years to achieve (e.g., health outcomes).



Context Assumptions



Context Assumptions

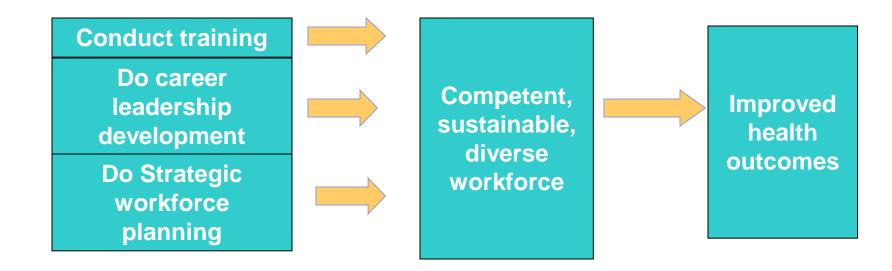
# Mission of the Office of Workforce and Career Development (OWCD)

■ 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.

### Global Logic Model for OWCD

### **Activities**

### **Outcomes**



## Intro to Program Evaluation

Constructing Simple Logic Models



## Constructing Logic Models: *Identify Activities & Outcomes by....*

- Examining program descriptions, MISSIONS, VISIONS, PLANS, ETC and extracting these from the narrative, <u>OR</u>
- 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



## Then...Do Some Sequencing...

Can 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?

## 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 environmental 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

### **Global Logic Model: Childhood Lead Poisoning Program**

Earl	y Activitie	25
	, , , , , , , , , , , , , , , ,	

If we do...

Outreach

Screening

ID of elevated kids

#### **Later Activities**

And we do...

Case mgmt of EBLL kids

Refer EBLL kids for medical treatment

Train family in inhome techniques

Assess environment of EBLL child

Refer environment for clean-up

### **Early Outcomes**

Then....

EBLL kids get medical treatment

Family performs in-home techniques

Lead source identified

Environment gets cleaned up

Lead source removed

#### **Later Outcomes**

And then...

**EBLL** reduced

Developmental slide stopped

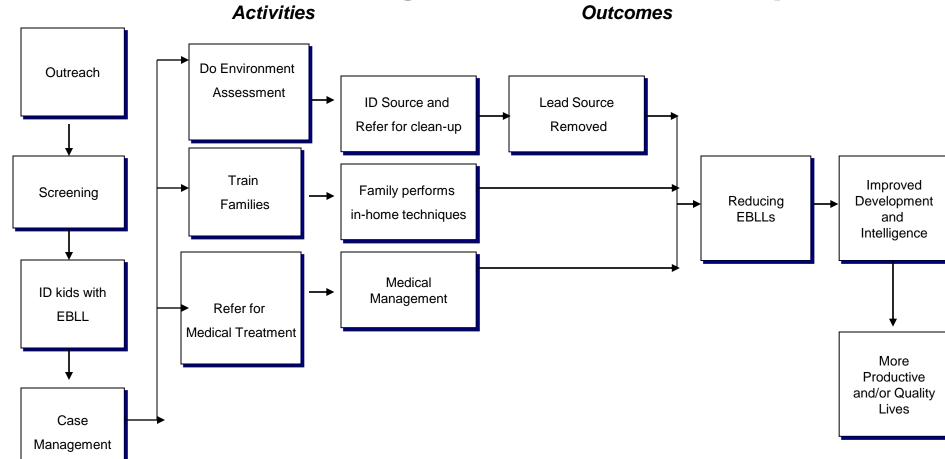
Quality of life improves



## "Causal" Arrows Can Help

- Help to show relationships: if...then should result in...
- 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

### Lead Poisoning: "Causal" Roadmap

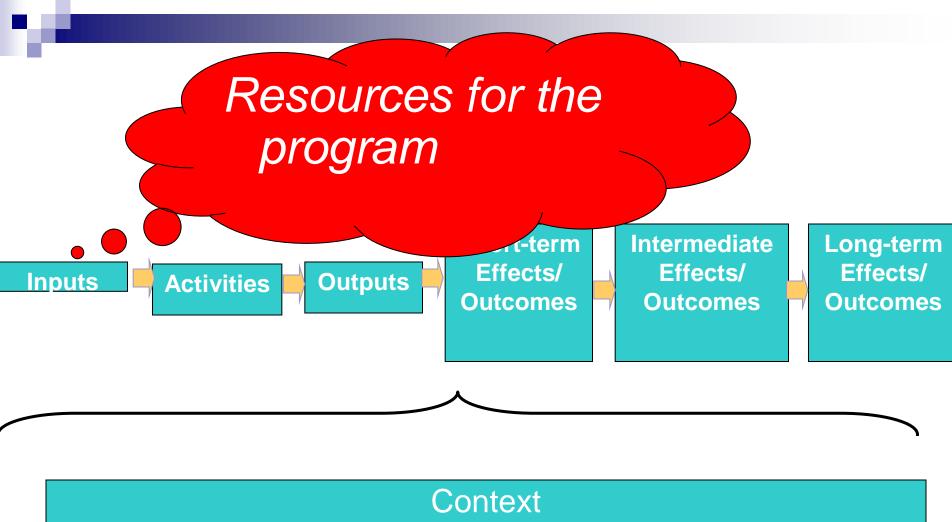


## Intro to Program Evaluation

Elaborating the Logic Model

## **Logic Model Components**

<b>Process Components</b>	Outcome Components
<u>Inputs</u> : program resources.	Short-term: immediate effects
Activities: actual program events.	Intermediate: effects that take longer to occur (e.g., behavior, policies), linked to short-term effects.
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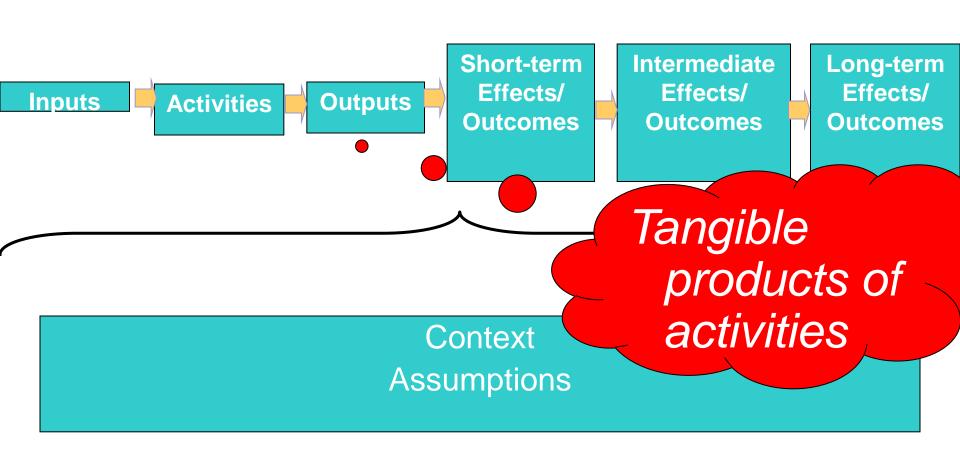


Context Assumptions



### Lead Poisoning: Sample Inputs

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



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## **Lead Poisoning: Sample Outputs**

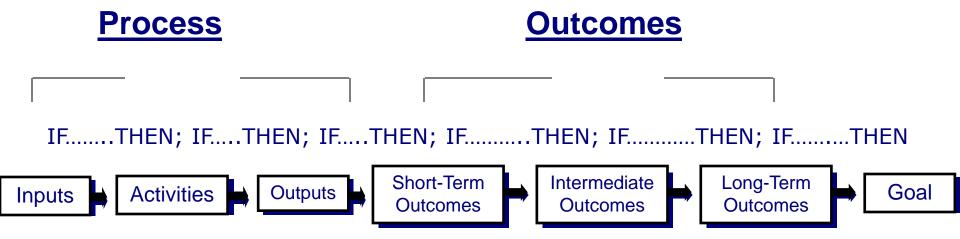
- Pool (#) of eligible kids
- Pool (#) of screened kids
- Referrals (#) to medical treatment
- Pool (#) of assessed homes
- Referrals (#) for clean-up

Note: Outputs often useful to evaluation in determining if activities produced enough results. For example, did you screen the number of kids you wanted to?

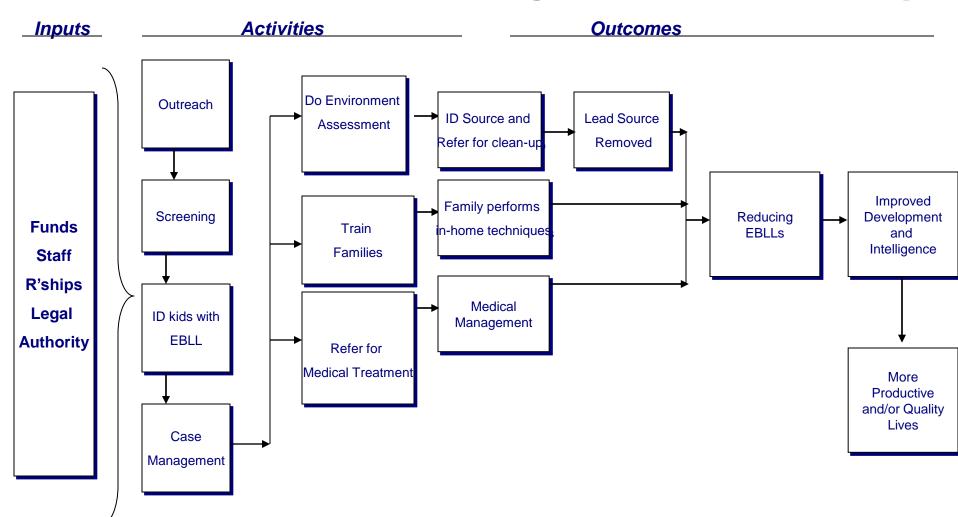
### Global Logic Model: Childhood Lead Poisoning Program

Inputs	Early	Later Activities	Outputs	Early Outcomes—	Later Outcomes
Funds	Activities	Refer for	Pool (#) of eligible	EBLL kids	
Trained	Outreach	medical treatment	kids	get medical treatment	EBLL reduced
staff	Screening	Train family	Pool (#) of screened	Family	reduced
R'ships with orgs	ID of	in in-home techniques	kids Referrals	Family performs in-	Develop'l slide
for med tx and clean	elevated kids	Assess	(#) to medical	techniques	stopped
up		environ't	treatment	Lead source	Quality of life
Legal authority		Refer house	Pool (#) of "leaded"	identified	improves
		for clean-up	homes	Environ cleaned up	
		Do case mgmt	Referrals (#) for	Lead	
			clean-up	removed	60

## **Logic Model Components**



### Lead Poisoning: "Causal" Roadmap





### **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?



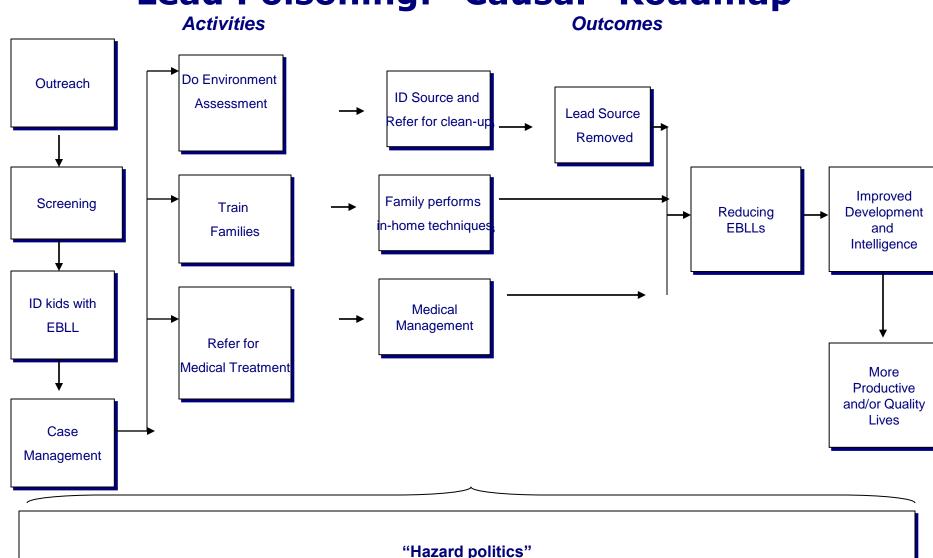
### **Contextual Factors**

- Political
- **E**conomic
- **S**ocial
- <u>Technological</u>



- Political—"Hazard" politics
- **E**conomic— Health insurance
- <u>Technological</u>— Availability of hand-held technology

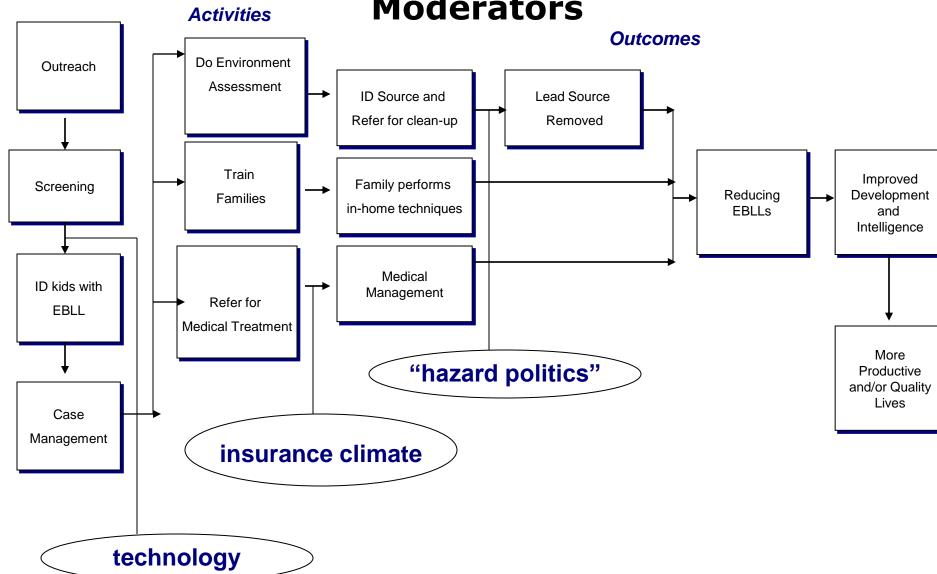
### **Lead Poisoning: "Causal" Roadmap**



Health insurance coverage

Availability of new technology

## Lead Poisoning: "Causal" Roadmap and Activities Moderators





- Review list of activities and outcomes for Eastside HIV/AIDS Prevention Program
- Put each activity and outcome on a Post-It note.
- Place Post-it notes on flip chart paper
- Arrange, as needed, to depict logical sequencing
- Draw lines to show causal connections



### **Global Logic Model: Eastside HIV/AIDS Prevention**

### **Early Activities**

If we ...

Develop materials and messages

Select and train youth as peer educators

#### **Later Activities**

And we...

Do formal presentations

Do small group discussions

Distribute educational material

Do youth-led community ed

Do 1-1 street ed

Conduct community campaign:

Buscards/billboards

Posters/brochures

### **Early Outcomes**

Then....

Educational materials are brought home and shared

Changes in knowledge, attitudes and beliefs

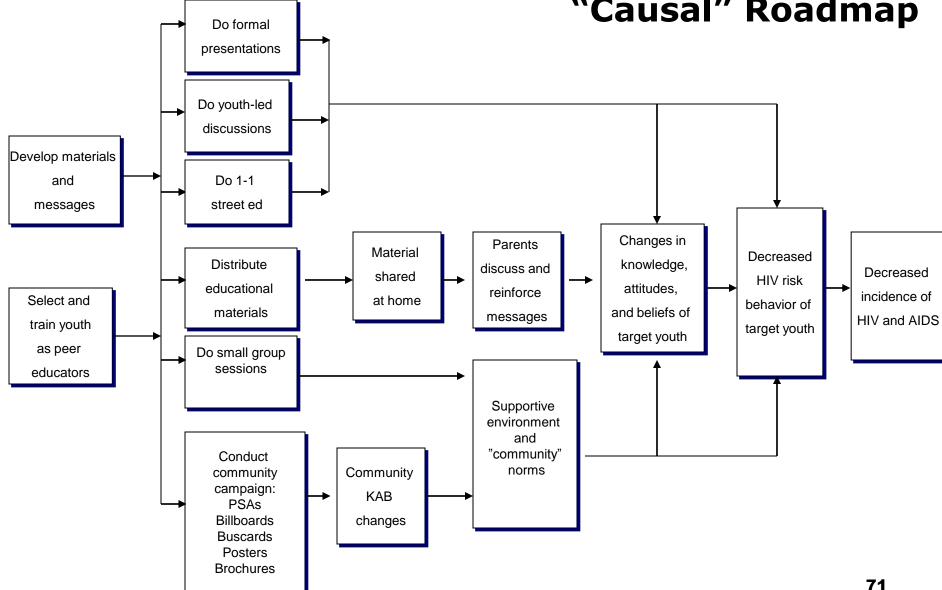
#### **Later Outcomes**

And then...

Reduced HIV risk behavior

Reduced incidence of HIV

## Eastside HIV/AIDS Prevention Program: "Causal" Roadmap



## **Types of Logic Models**

Types	Definition
Global	"Big picture" of entire program
Nested	Segment or part of a program



#### **INPUTS**

Funds

Assigned Staff

Technical assistance and collaboration

#### **ACTIVITIES**

- -Provide community and individual behavior change interventions on syphilis.
- -Provide med and lab services.
- -Provide Ct screening of females in JDCs.
- -Ensure syphilis partner services.
- -Promote leadership and program management.
- -Conduct surveillance and data management.
- -Provide professional development.

#### **OUTPUTS**

## Community/ Individual Behavior Change Interventions

-Interventions on syphilis implemented among at risk MSM.

#### **Medical and Lab Services**

- -Lab/med facilities and providers report test results.
- -Female admitees in juvenile detention facilities tested for Ct.

#### **Partner Services**

-Syphilis cases' partners identified.

#### Leadership and Program Management

- -Strategic plan in place.
- -Program operation plan to monitor program activities.
- -Appropriate program policies in place.

#### Surveillance and Data Management

-Reported cases of P&S syphilis and Ct sent to CDC in timely manner.

#### Training and Professional Development

- -Staff training needs regularly assessed.
- -Training opportunities on syphilis and Ct provided.

#### STD Outbreak Response Planning

-Plan includes required elements.

### SHORT-TERM OUTCOMES

Increased knowledge:

- -consequences;
- -Safe behaviors:
- -Self assessment of risk.

Increased intention to use condoms.

Indentified individuals identified and treated

#### INTERMEDIATE OUTCOMES

- •Increased safer sex behaviors:
- -Abstinence
- -Mutual monogamy
- -Fewer concurrent partners

### LONG-TERM OUTCOMES

-Reduced incidence and prevalence of STDS

## Global Logic Model for a State STD Program



#### **INPUTS**

Funds

Assigned Staff

Technical assistance and collaboration

#### **ACTIVITIES**

- -Provide community and individual behavior change interventions on syphilis.
- -Provide med and lab services.

#### -Provide Ct screening of females in JDCs.

- -Ensure syphilis partner services.
- -Promote leadership and program management.
- -Conduct surveillance and data management.
- -Provide professional development.

#### **OUTPUTS**

## Community/ Individual Behavior Change Interventions

-Interventions on syphilis implemented among at risk MSM.

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-Lab/med facilities and providers report test results.

## Female admitees in juv detention facilities tested for Ct.

#### **Partner Services**

-Syphilis cases' partners identified.

#### Leadership and Program Management

- -Strategic plan in place.
- -Program operation plan to monitor program activities.
- -Appropriate program policies in place.

#### Surveillance and Data

#### <u>Management</u>

-Reported cases of P&S syphilis and Ct sent to CDC in timely manner.

#### Training and Professional Development

- -Staff training needs regularly assessed.
- -Training opportunities on syphilis and Ct provided.

### STD Outbreak Response Planning

-Plan includes required elements.

### SHORT-TERM OUTCOMES

Increased knowledge:

- -consequences;
- -Safe behaviors:
- -Self assessment of risk.

Increased intention to use condoms.

Infected individuals identified and treated

#### INTERMEDIATE OUTCOMES

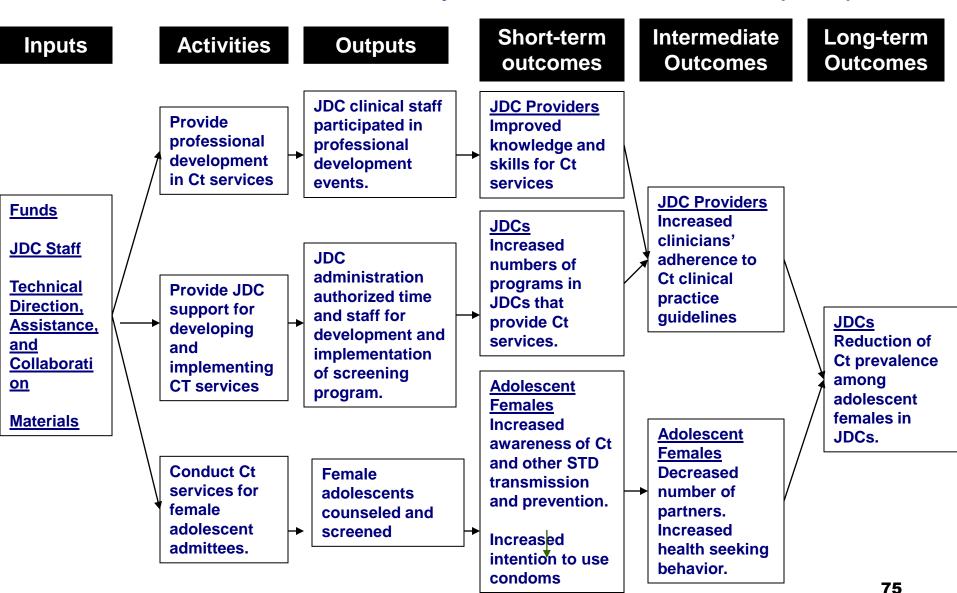
- Increased safer sex behaviors:
- -Abstinence
- -Mutual monogamy
- -Fewer concurrent partners

### LONG-TERM OUTCOMES

-Reduced incidence of STDs

## Global Logic Model for a State STD Program

## <u>Nested</u> Logic Model of Chlamydia (Ct)Screening Program for Adolescent Females in County Juvenile Detention Centers (JDCs)



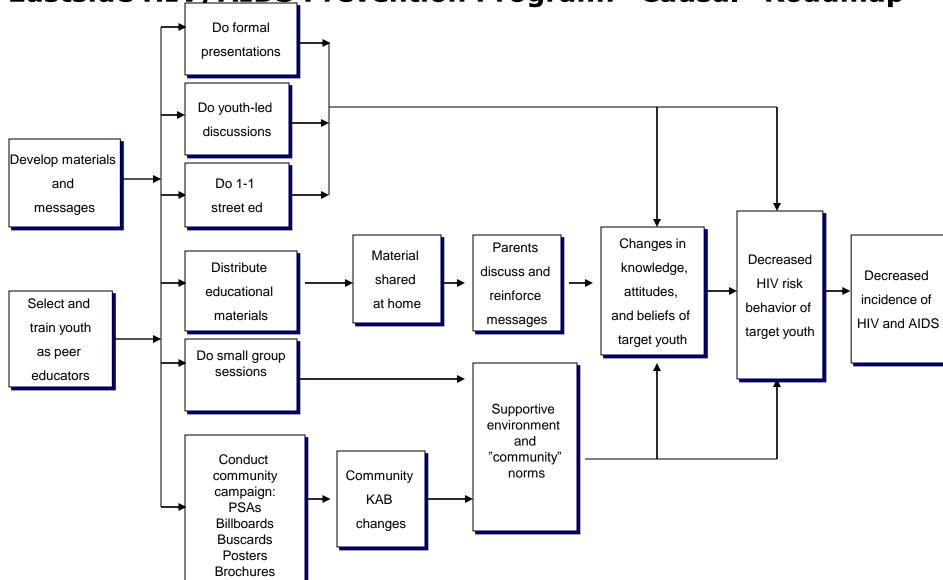
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## **Benefits of Logic Models**

- Builds clarity and understanding on how a program works among stakeholders.
- Provides roadmap of expected program progress and results.
- Identifies appropriate sequencing of program implementation activities.
- Identifies resources needed.
- Identifies gaps.
- Provides a framework and guide for program planning and evaluation.

## How to Use for Evaluation:

Eastside HIV/AIDS Prevention Program: "Causal" Roadmap



**77** 

# 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 <u>"need"</u> your program is to address
- The key <u>target group(s)</u> who need to take action
- The kinds of actions they need to take (your intended <u>outcomes</u> or objectives)
- *Activities* needed to meet those outcomes
- "Causal" <u>relationships</u> between activities and outcomes

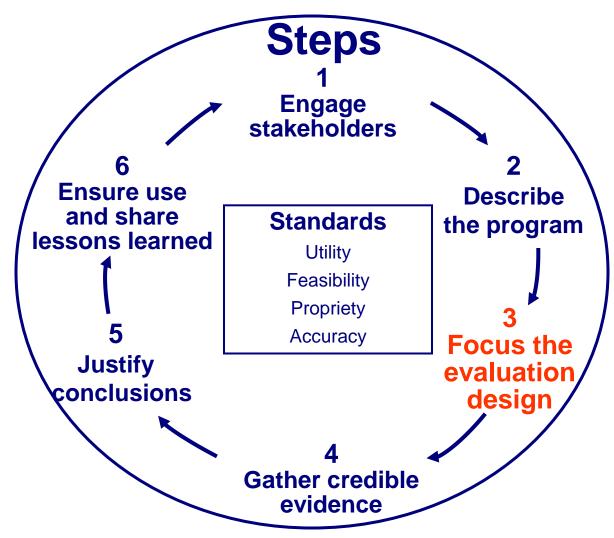


Program Description makes the program theory *clear*, not *true*!

## Intro to Program Evaluation

Step 3. Setting Evaluation Focus

## Step 3: Focus the Evaluation Design



## Why This Step is Important

You probably don't have the resources to evaluate every aspect of your program so, you need to focus your evaluation.

Determine which part of the program needs to be measured in <u>this</u> <u>evaluation, this time</u>?

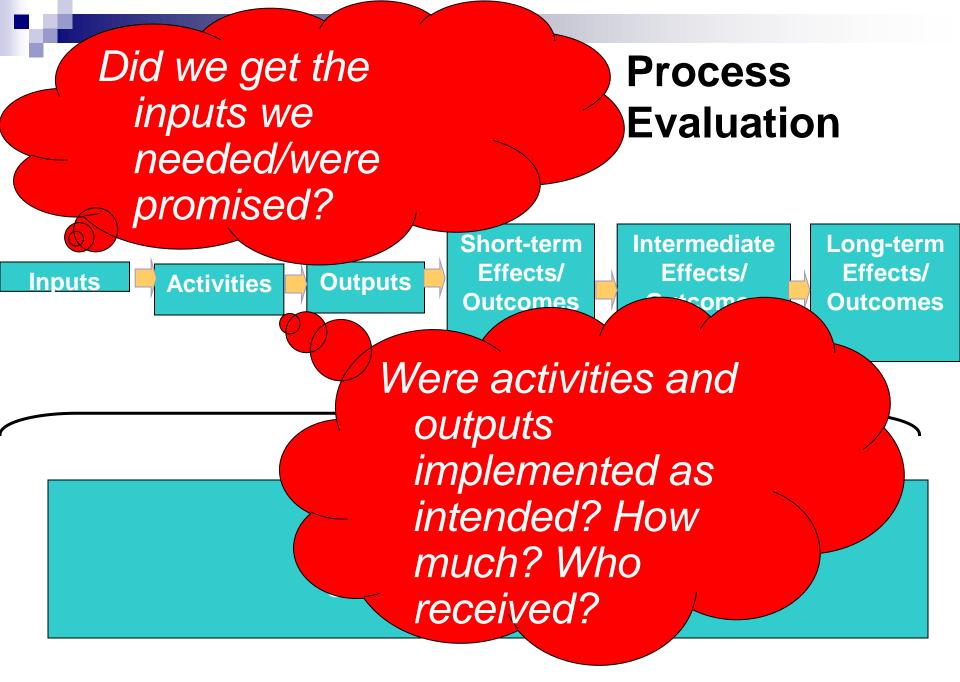


What question(s) does your evaluation need to answer about the program?

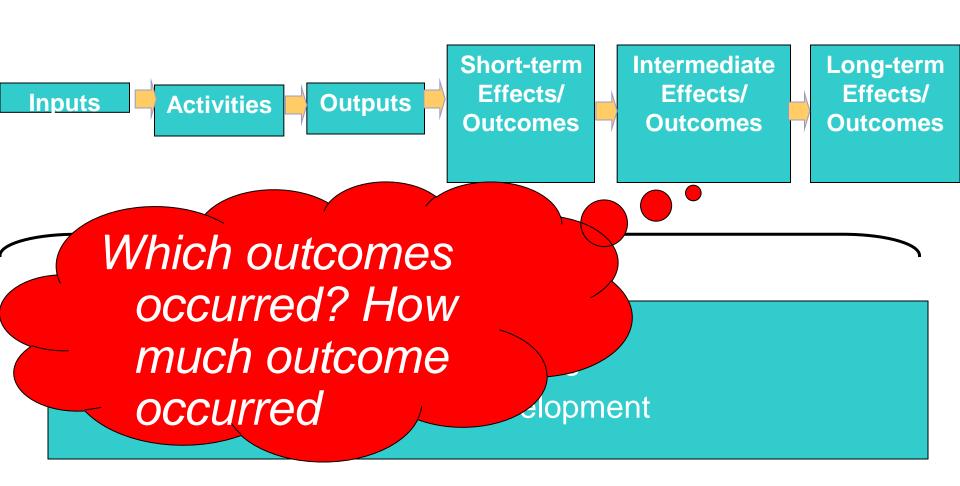


## **Evaluation Questions Can Be About Anything**

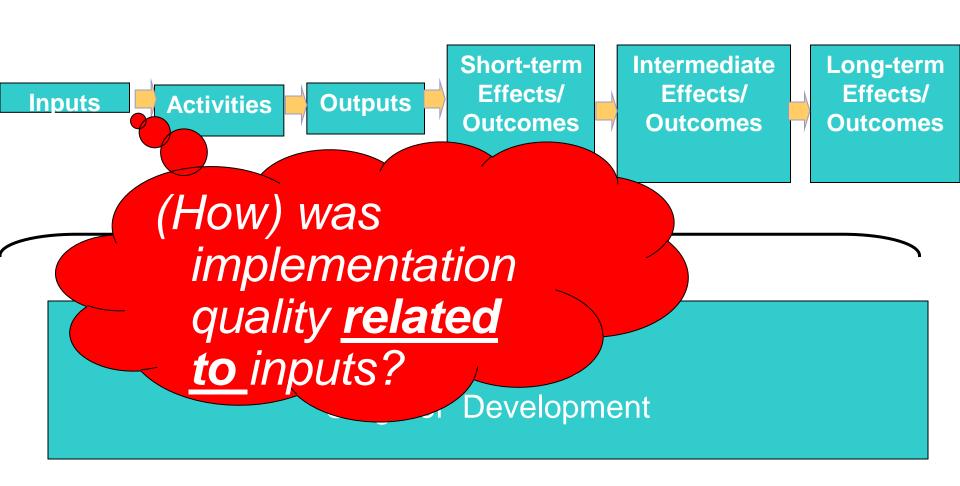
- Evaluation questions can focus on any/all parts of the logic model, or on the program objectives (which should be incorporated in the logic model)
- Evaluation questions can pertain to
  - ☐Boxes---did this component occur as expected
  - ☐ Arrows---what was the relationship between components



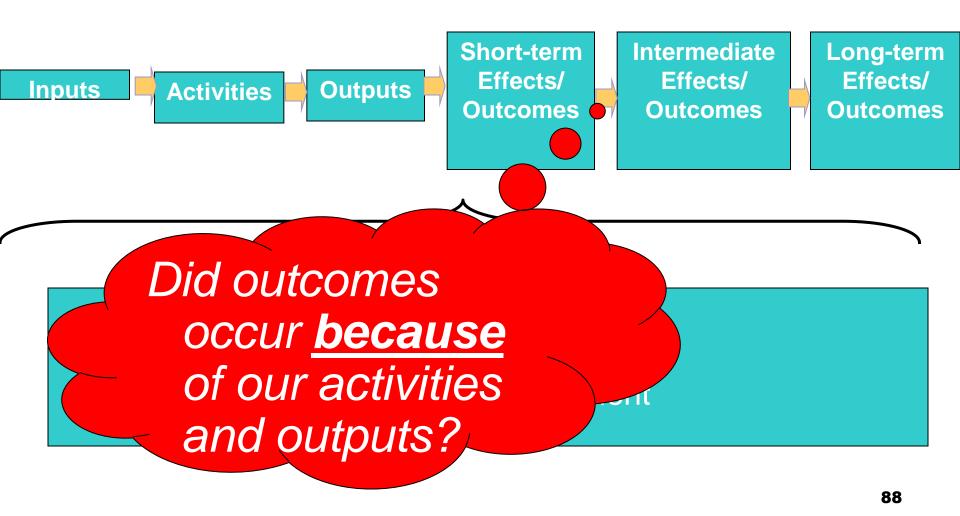
### Outcome Evaluation



## **Efficiency Evaluation**



## Causal Attribution



## **Setting Focus: Some Rules**

## Based on "utility" standard:

- Purpose: Why is the evaluation being conducted?
- <u>User:</u> Who wants the info and what are they interested in?
- *Use:* How will they use the info?



What are key stakeholders most interested in?

Which of their questions must I address in the focus for THIS evaluation?

## **Potential Purposes/Uses**

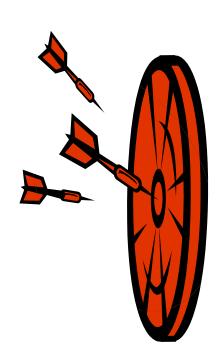
- Show accountability for funding
- Test program implementation
- "Continuous" program improvement
- Increase the knowledge base
- Other...
- Other...

## Definitions and Examples of Process & Outcome Evaluation

Types	Definitions	Examples
Process	<ul> <li>Determines if program activities are implemented as intended.</li> <li>Tracks who, what, when, and where program information.</li> <li>Provides feedback loop for program improvement.</li> <li>Conducted throughout project life.</li> </ul>	Did the target population attend all the training sessions? If no, why not?
Outcome	<ul> <li>Measures program effects; changes in target population's knowledge, attitudes, self-efficacy, skills, intentions, behaviors; or organizational changes (e.g., policy adoption).</li> <li>Linked to process evaluation.</li> <li>Provides feedback loop for program improvement.</li> </ul>	Did skills increase among intervention participants?

## Purpose of Evaluation Questions

- Helps focus the evaluation.
- Guides the evaluation planning process.
- Facilitates decision-making about evaluation methods to use.
- Helps ensure use of the evaluation findings



## **Steps to Developing Evaluation Questions**

- 1. Involve stakeholders.
- 2. Determine the purpose of the evaluation
- 3. Brainstorm on possible evaluation questions.
- 4. Finalize questions, based on stakeholder needs, resources, and feasibility.

## "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?



## **Evaluation Scenario**

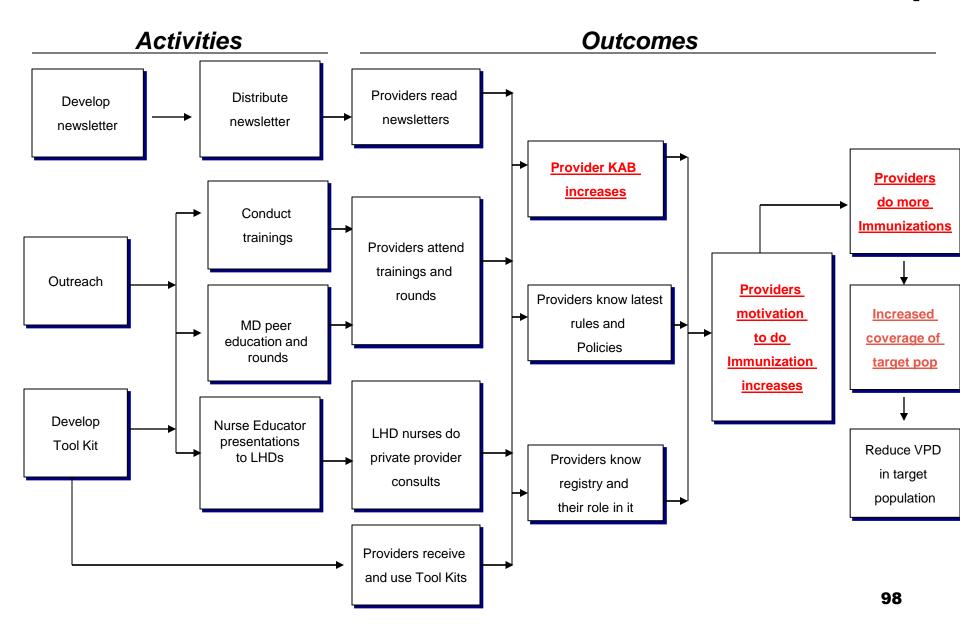
At Year 5, declining state revenues mean you need to justify to legislators the importance of your efforts so as to continue funds.

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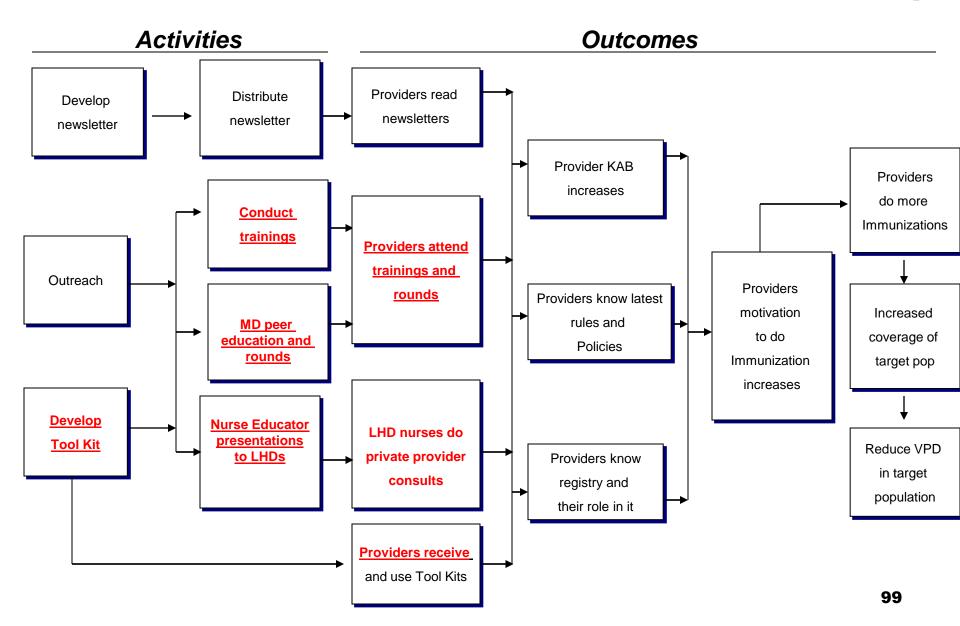
**Purpose:** Determine program impact **User:** Your org and/or the legislators **Use:** 

- □ You want 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

### **Provider Education: "Causal" Roadmap**



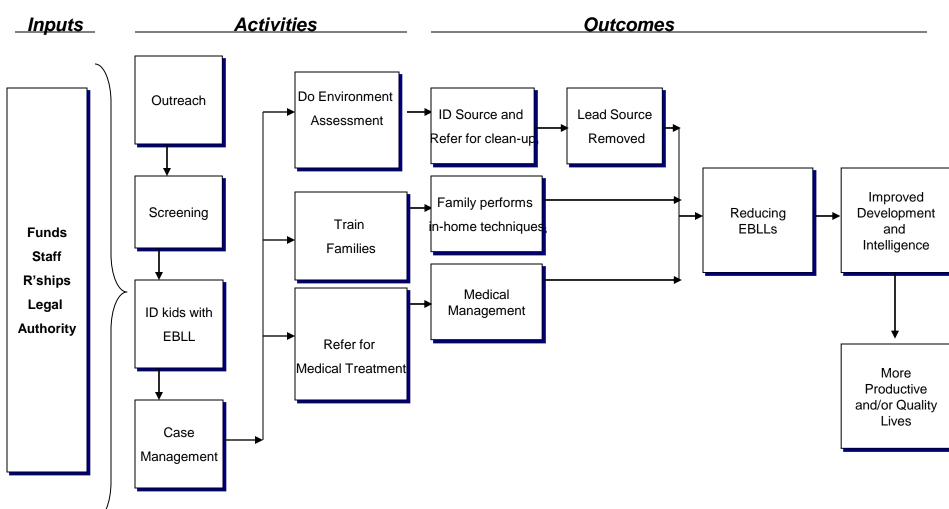
### **Provider Education: "Causal" Roadmap**



## **Group Activity: Focusing Evaluation**

- Review the Lead Poisoning case study and Logic Model as needed.
  - 2. Brainstorm possible evaluation questions, considering:
  - What do stakeholders want this evaluation to answer?
  - Who will use the evaluation results?
  - How will the evaluation results be used?
  - How mature is the program?
- 3. Jot the questions down under "Proposed Evaluation Questions."
- 4. Consider the <u>priority criteria</u> provided to select your final evaluation questions.
- 5. Put a check mark beside the questions in your finalized list.

### Lead Poisoning: "Causal" Roadmap





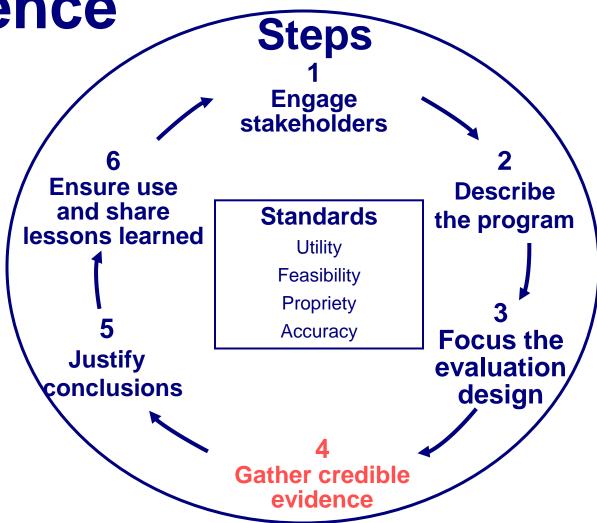
## Taking Stock...What We've Done:

- Described the program to be evaluated by clarifying its objectives and the relationship of its activities and outcomes
- Ensured clarity and consensus with stakeholders
- Identified a focus for the evaluation through determining the evaluation's use and questions it needs to answer.

## Taking Stock....What's Next:

- Identify indicators
- Choose data collection sources and methods
- Define data analysis plan
- Determine how best to report findings to ensure use

Step 4: Gather Credible Evidence



## Intro to Program Evaluation

Step 4: Gathering Credible Evidence

#### **Evaluation Plan Matrix Data Analyses Evaluation Indicators Data Collection Data Collection Data** Questions **Sources Methods Procedures Person Schedule Procedure Timeline** Person Responsible Responsible

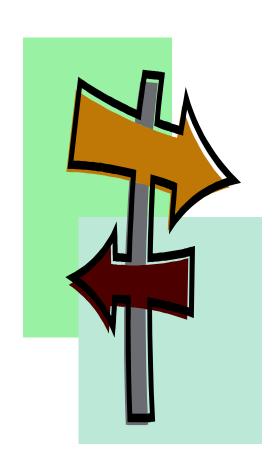
### **Evaluation Plan**

Evaluation Questions	Indicators Info I need to have be able to answer question	Data Source(s)	Data Collection Methods
			107

## What is an Indicator?

The piece of information that you need to give you the answer to your evaluation question

- A measure that shows whether progress made
- The "how will I know" answer



#### **Provider Education Program Evaluation**

#### **Evaluation Questions**

Conduct immunization trainings

Physician peer ed rounds

Provs attend trainings and rounds

Provs receive and use tool kits

LHD nurses do private provider consults

KAB increases

Motivation increases

#### **Indicators**

# trainings conducted in each region of the state

Nurse educator LHD presentations # nurse educators' presentations made to (targeted) LHDs

# physician-hosted peer ed rounds at (targeted) hospitals

# participants in trainings

# participants completing series of trainings

% participants by discipline

% participants by region

% providers who report use of toolkit

# "call-to-action" cards received from toolkit

% trained nurses in LHDs will do provider consults with (targeted) provider practices in county

% providers showing increases in (targeted) KAB items

% increase in provider KAB on (targeted) items

% providers reporting increased motivation to immunize

% increase in provider motivation to immunize



- May vary in level of specificity:
  - □ Concept: Timely jail screening
    - Indicator: Inmates are screened prior to release, OR
    - Indicator: % inmates screened prior to release
    - *Indicator:* 80% of felony inmates screened within 24 hours of booking

### **Evaluation Plan**

Evaluation Questions	Indicators Info I need to have be able to answer question	Data Source(s)	Data Collection Methods
			111

## What are Data Sources?

Where or from whom you will get data to measure each of your indicators and answer your evaluation questions.

Data Sources	Examples
Documents	grant proposals, meeting minutes, surveillance reports, interview records
Individuals	clients, staff, private providers, partnership members
Observations	data obtained from observations of clients, staff, environment (reception area), program activities, etc.
	142

## Advantages/Disadvantages

Data Source	Advantages	Disadvantages
Documents	data available and accessible	value of data depends on how accurately it was recorded
		may lack data needed for the evaluation.
Individuals	can be collected directly from target population	may be unreliable due to social desirability and/or recall difficulty
Observations	<ul> <li>can supplement self-report</li> <li>provide information on behavior, skills environment</li> </ul>	■ value of data depends on training of observer & specificity of instrument

### **Evaluation Plan**

Evaluation Questions	Indicators Info I need to have be able to answer question	Data Source(s)	Data Collection Methods
			114

## Ways to Gather Evidence...

- Written survey
- Personal interview
  - □ individual, group
  - structured,semi-structured,conversational
- Observation
- Document analysis
- Case study
- Group assessment
  - brainstorming, delphi, nominal group, fishbowl
  - □ Role play, dramatization
- Expert or peer review
- Portfolio review
- Consensus modeling

- Testimonials
- Perception tests
- Hypothetical scenarios
- Storytelling
- Geographical mapping
- Concept mapping
- Freelisting
- Sociograms
- Debriefing sessions
- Cost accounting
- Photography, drawing, art, videography
- Diaries/journals
- Logs, activity forms, registries

## Cluster Into These Six Categories...

- Surveys
- Interviews
- Focus groups
- Document review
- Observation
- Secondary data analysis

## **Choosing Data**Collection Methods

- Function of *context*:
  - □Time
  - □ Cost
  - □ Ethics
- Function of *content* to be measured:
  - ☐Sensitivity of the issue
  - □"Hawthorne effect"
  - □Validity
  - □ Reliability



## Reliability and Validity

- Reliability: stability and consistency of a measurement
- Validity: accuracy of a measurement to assess what it is intended to measure

## Trade-offs of Different Data Collection Methods

Method/Factor	Time	Cost	Sensitive Issues	Hawthorne Effect	Ethics
Survey: Mail					
Personal Interview					
Focus Groups					
Document Review					
Survey: Phone					
Observation					
Secondary Data					

## **Data Collection Methods**

Methods	Advantages	Disadvantages
Surveys	<ul><li>Anonymity possible</li><li>Can administer to groups</li><li>Efficient &amp; cost effective</li></ul>	<ul><li>Forced choices is limiting</li><li>Wording may bias response</li><li>Impersonal</li></ul>
Individual interviews	<ul><li>Can build rapport</li><li>Can probe for more info</li><li>Can get breadth/depth of info</li></ul>	■Time consuming ■Expensive ■Interview style may bias
Focus groups	<ul> <li>Can get breadth &amp; depth of info in short time frame</li> <li>Can convey key info re program</li> </ul>	■Need trained facilitator  ■Time consuming to analyze responses
Observation	■Can assess fidelity as activities occur	<ul><li>Interpretation of behavior difficult</li><li>Expensive &amp; time consuming</li></ul>
Document review	■Info already exists ■Doesn't disrupt program	■Depends on quality of info ■Time consuming

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## **Tips for Data Collection**

- Use existing data when feasible
- Understand agency policies and regulations that may effect data collection
- Identify who will be responsible
- Be clear about the data you want to collect and sensitive to the time and effort needed to be expended by the data providers
- Design instruments as needed
- Code instruments for easier analysis.



## **Using Mixed Data Sources/Methods**

Involves using more than one data source and/or data collection method.

#### Advantages:

- Allow examination of different facets of the same phenomenon
- Obtain comprehensive information
- Increase validity of results

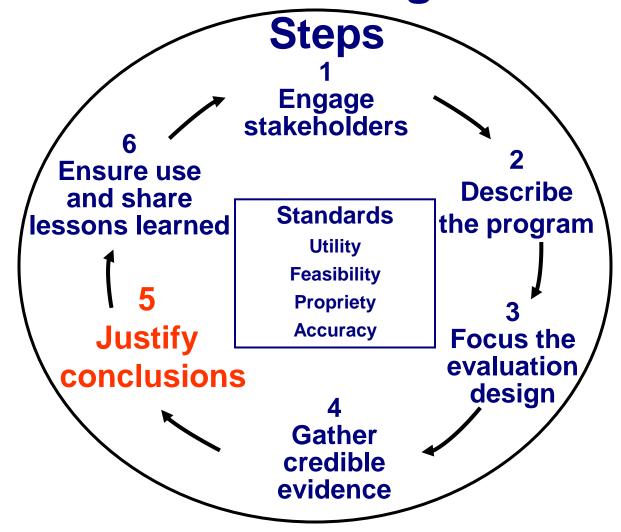
## Evaluation Plan for a Provider Education Program

Evaluation Questions	Indicators Info I need to have be able to answer question	Data Source(s)	Data Collection Methods
Were trainings conducted?	# of trainings conducted	Training log	Review of logs
Did providers attend trainings?	% of invited providers who attended trainings % of providers who completed the whole series	Travel Records Sign-in sheets	Review of sign-in sheets for all the sessions
Did training increase KAB?	% providers who showed increase in KAB % Increase in KAB	Pre- and post-test results Report of changes in practice	Administer Pre- & Post- tests  Survey 6 months following training
			123

# Intro to Program Evaluation

Step 5 Justifying Conclusions

### **CDC Framework for Program Evaluation**



## Justifying Conclusions

"It is not the facts that are of chief importance, but the light thrown upon them, the meaning in which they are dressed, the conclusions which are drawn from them, and the judgements delivered upon them."

- Mark Twain

## Now that I have this data, what do I do with it?



Create a data management system

- Analyze your data
  - Quantitative
  - Qualitative



- Determine data management responsibilities
- Determine what software, if needed, will be used to analyze data
- Review the data for completeness and accuracy
- Transfer/transcribe data
- Code data
- Enter data

# Things to Consider When Analyzing Data

#### **Qualitative Methods**

Review	transcri	pts tho	roughly

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Depending on the analysis, specific qualitative
analysis skills may be needed

#### **Quantitative Methods**

	Deve	lop a	database	for al	I fields	from	instrument
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Depend	ing on typ	e of an	alysi	is, spec	ific
quantita	tive skills	may be	nee	eded	



Always refer to your evaluation questions and indicators.

Identify findings that will help answer the evaluation questions.

Stakeholders may provide some insight about the findings



- Analyzing and synthesizing data are key steps now
- BUT REMEMBER: "Objective data" are interpreted through a prism of stakeholder "values"
- Seeds planted in Step 1 are harvested now. What did we learn in stakeholder engagement that may inform what we analyze and how?

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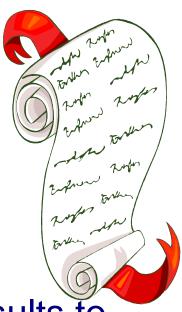
## Some Prisms may be...

- Cost and cost-benefit
- Efficiency of delivery of services
- Health disparities reduction
- Population-based impact, not just impact on those participating in the intervention
- Causal attribution

## **Developing Recommendations**

Your evaluation's recommendations should be:

- Linked with the original purpose of your evaluation.
- Based on answers to your evaluation questions.
- Linked to findings from your evaluation
- Tailored to the users of the evaluation results to increase ownership and motivation to act.

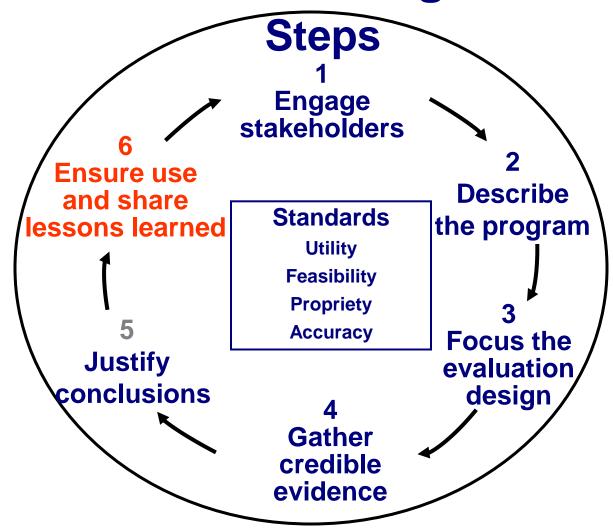


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# Intro to Program Evaluation

Step 6 Ensuring Use and Lessons Learned

### **CDC Framework for Program Evaluation**



## Step 6: Ensuring Use

■ The ultimate payoff

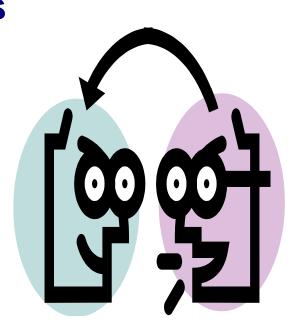
Enhanced by work done in early steps!





Share the results and lessons learned from the evaluation with stakeholders and others

 Use your evaluation findings to modify, strengthen, and improve your program





## How to Share the Evaluation Results/Recommendations

- Consider information needs of the audience/stakeholders.
- Tailor message and format of dissemination to the users of the evaluation results
  - Oral
  - Written
    - Full Report
    - Executive Summary



## **Type of Dissemination Methods**

#### Evaluation Reports

- Provide an executive summary.
- Use examples, graphics, quotes to highlight findings.
- Present data simply and concisely.
- Use active verbs to shorten sentences.
- Organize results by evaluation question.





#### Oral Presentations

- Place evaluation in the context of the program.
- ☐ Use slide show; provide handouts
- Involve audience in discussion of how to use findings to improve program, help set policy, etc.



# Intro to Program Evaluation

Life Post-Session

## Underlying Logic of Steps

- No eval is good unless... results are <u>used</u> 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 eval is well-focused, including most relevant and useful questions
- And...



- 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?



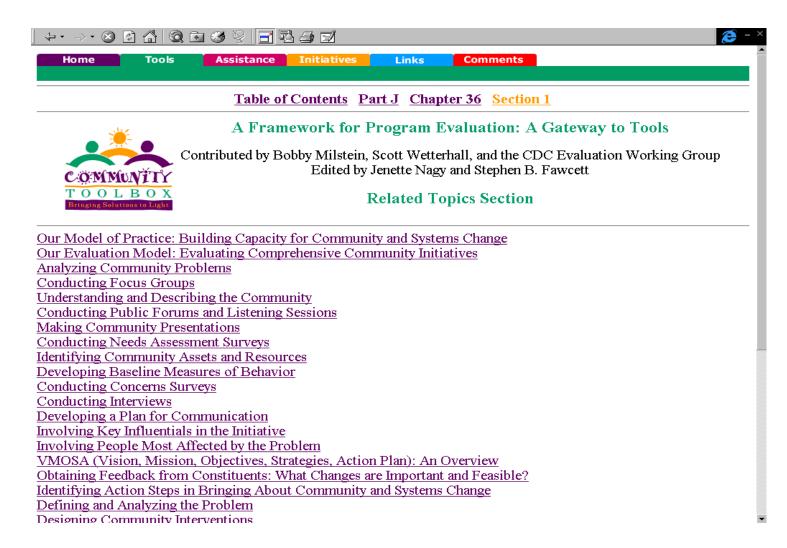
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## Helpful Resources

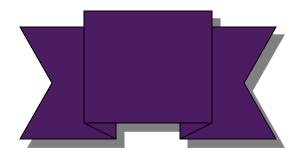
	Framework for Program Evaluation in Public Health
	http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4811a1.htm
	Intro to Program Evaluation for PH Programs—A Self-Study Guide: <a href="http://www.cdc.gov/eval/whatsnew.htm">http://www.cdc.gov/eval/whatsnew.htm</a>
	Practical Use of Program Evaluation among STD Programs <a href="http://www.cdc.gov/std/program/pupestd.htm">http://www.cdc.gov/std/program/pupestd.htm</a>
	Learning & Growing through Evaluation: State Asthma Program Evaluation Guide
	http://www.cdc.gov/asthma/program_eval/guide.htm
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Log	gic Model Sites Innovation Network: <a href="http://www.innonet.org/">http://www.innonet.org/</a> Harvard Family Research Project: <a href="http://www.gse.harvard.edu/hfrp/">http://www.gse.harvard.edu/hfrp/</a>

- 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- 144
  Bass, Fall 2000

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



## Thank You



## **Questions?**

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