Introduction to Program Evaluation— *Using CDC's Evaluation Framework*

AEA E-Study—2015
By:
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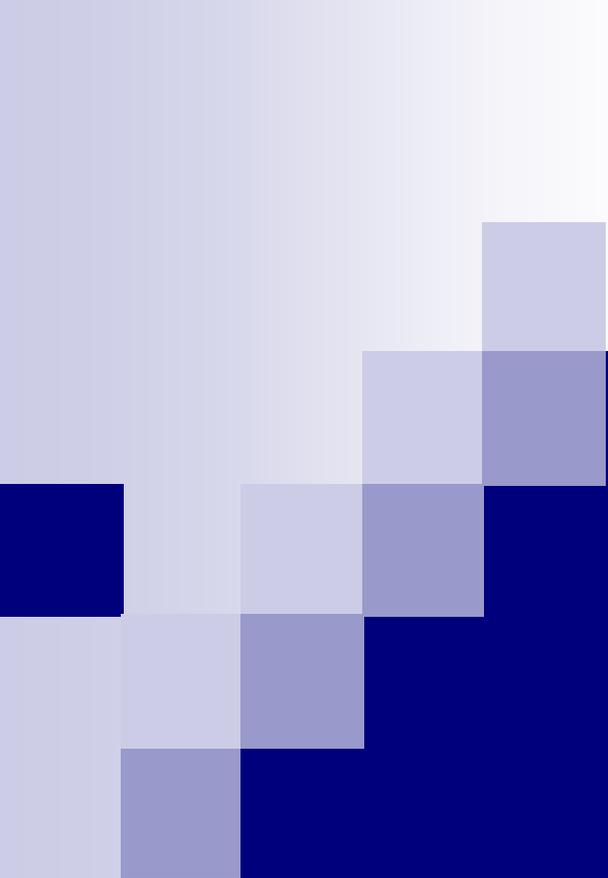**Chief Evaluation Officer**
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Session 1

- By the end of the session, you will be able to:

  - ☐ Compare the CDC Evaluation framework approach with traditional evaluation.

  - ☐ Identify the 6 steps to the CDC Evaluation framework.

  - ☐ Develop the most relevant evaluation focus for a given evaluation

Intro to Program Evaluation

Defining Terms

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

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**—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?

Research is…

- **<u>*Systematic*</u>** investigation, including research development, testing and evaluation, designed to develop or contribute to **<u>*generalizable*</u>** knowledge

"Non-Research" Attributes

- *Intent:* Identify and control a PH problem or improve a PH program/service

- *Intended beneficiary*: Participants or the participants' community

- *Data use*: Improve the program, the health of the participants, or the participants' community

- *Knowledge applicability*: Not generalizable beyond project

- "Research seeks to ***prove***, evaluation seeks to ***improve***…"

M.Q. Patton

Surveillance…

- ***Surveillance*** is continuous/routine data collection on various factors over regular intervals of time. Surveillance systems are:

  - A *data source for program evaluation*— especially of long-term and pop-based outcomes.

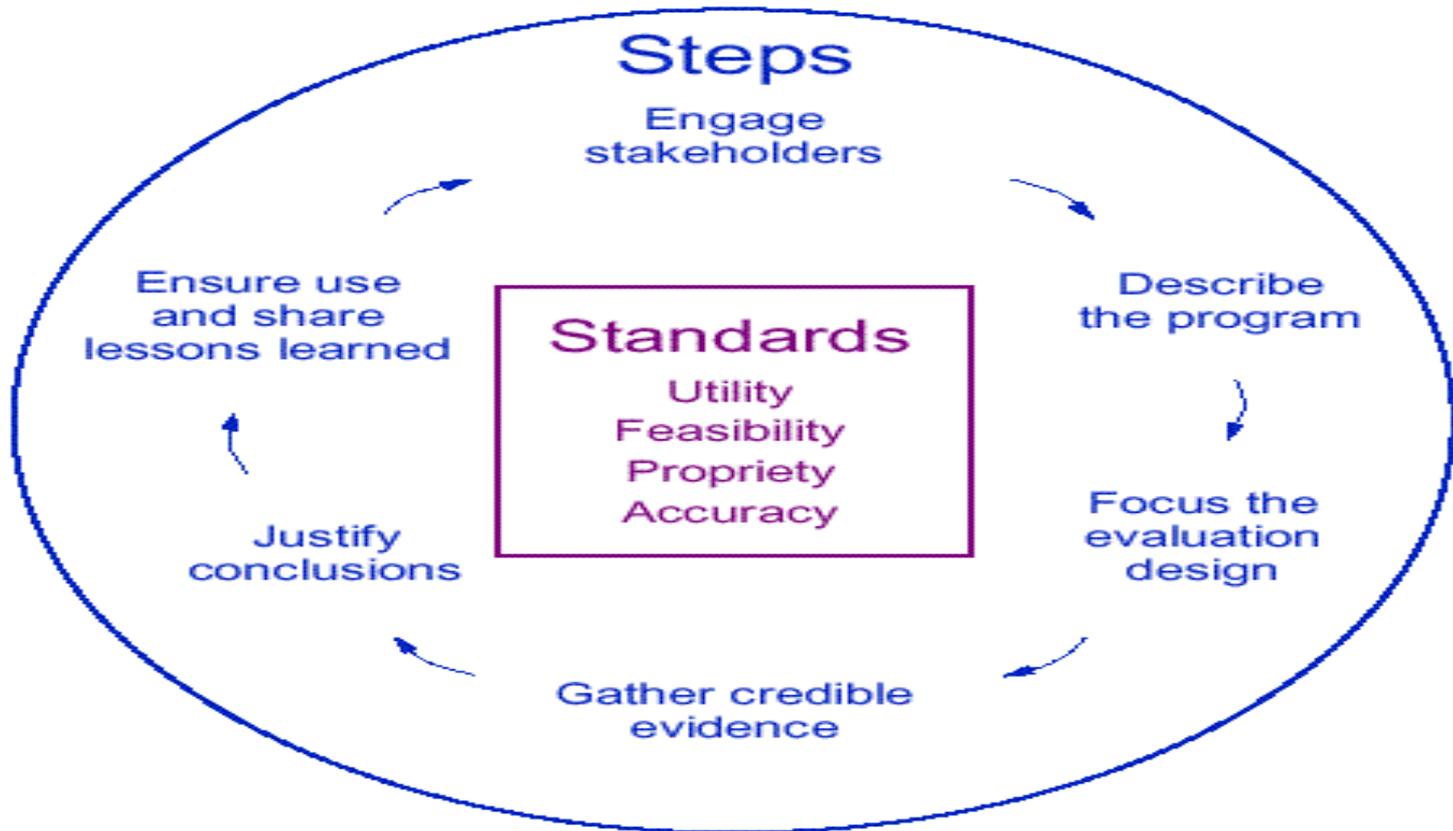 - A resource for *formative (pre-implementation) evaluation.*
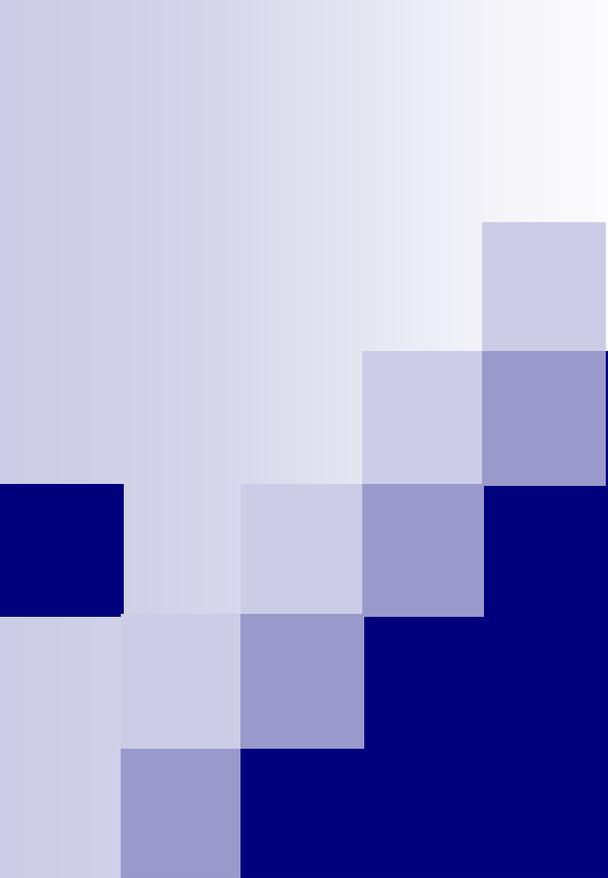
Intro to Program Evaluation
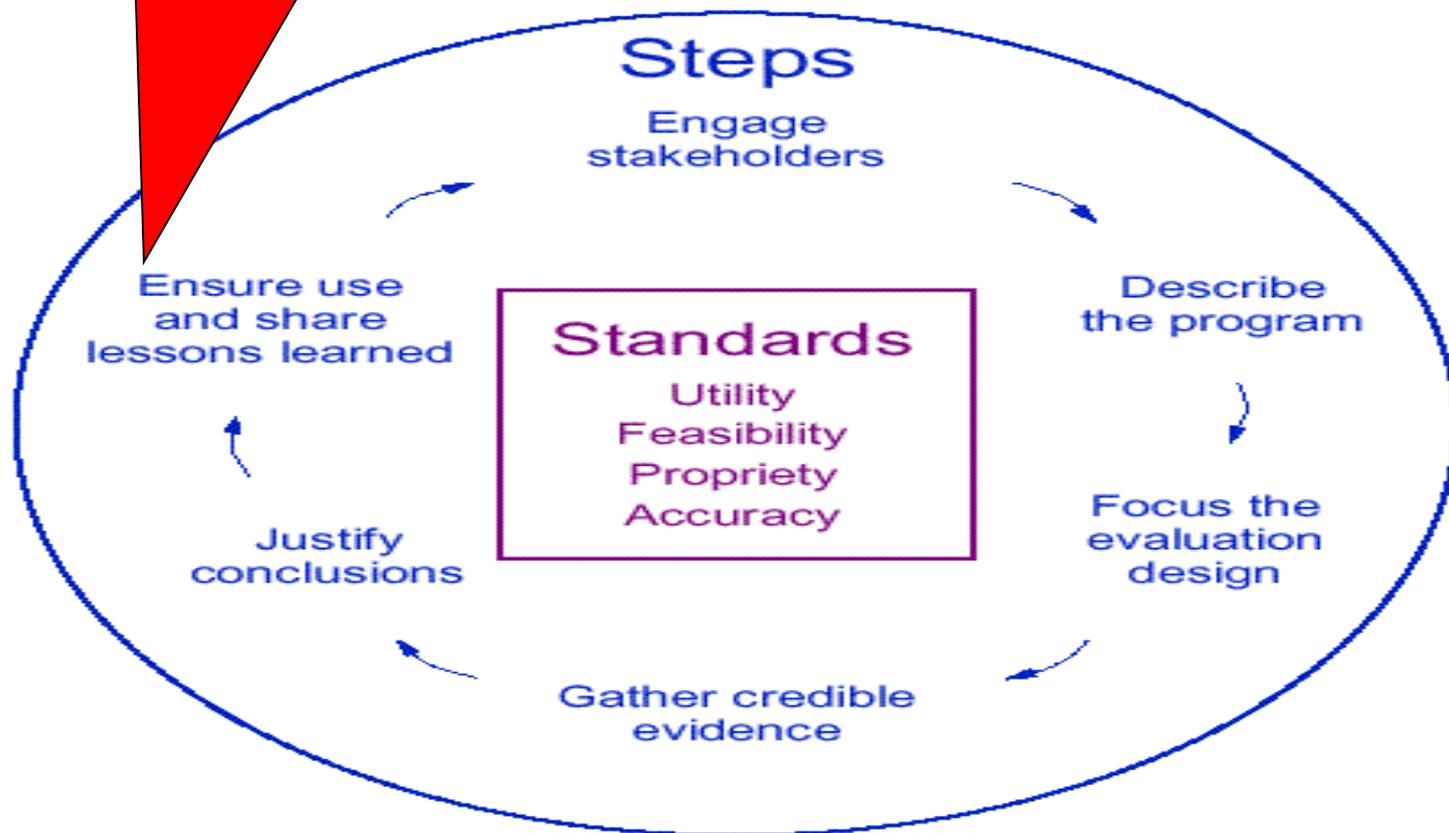
CDC's Evaluation Framework

Framework for Program Evaluation

FIGURE 1. Recommended framework for program evaluation

Evaluation Framework

Good M&E = use of findings

FIGURE 1. Recommended framework for program evaluation

Steps

Engage stakeholders

Describe the program

Focus the evaluation design

Gather credible evidence

Justify conclusions

Ensure use and share lessons learned

Standards

Utility
Feasibility
Propriety
Accuracy

Evaluation Framework

FIGURE 1. Recommended framework for program evaluation

Good M&E= use of findings

Focus is situation -specific

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Evaluation Framework

FIGURE 1. Recommended framework for ...

Good M&E = use of findings
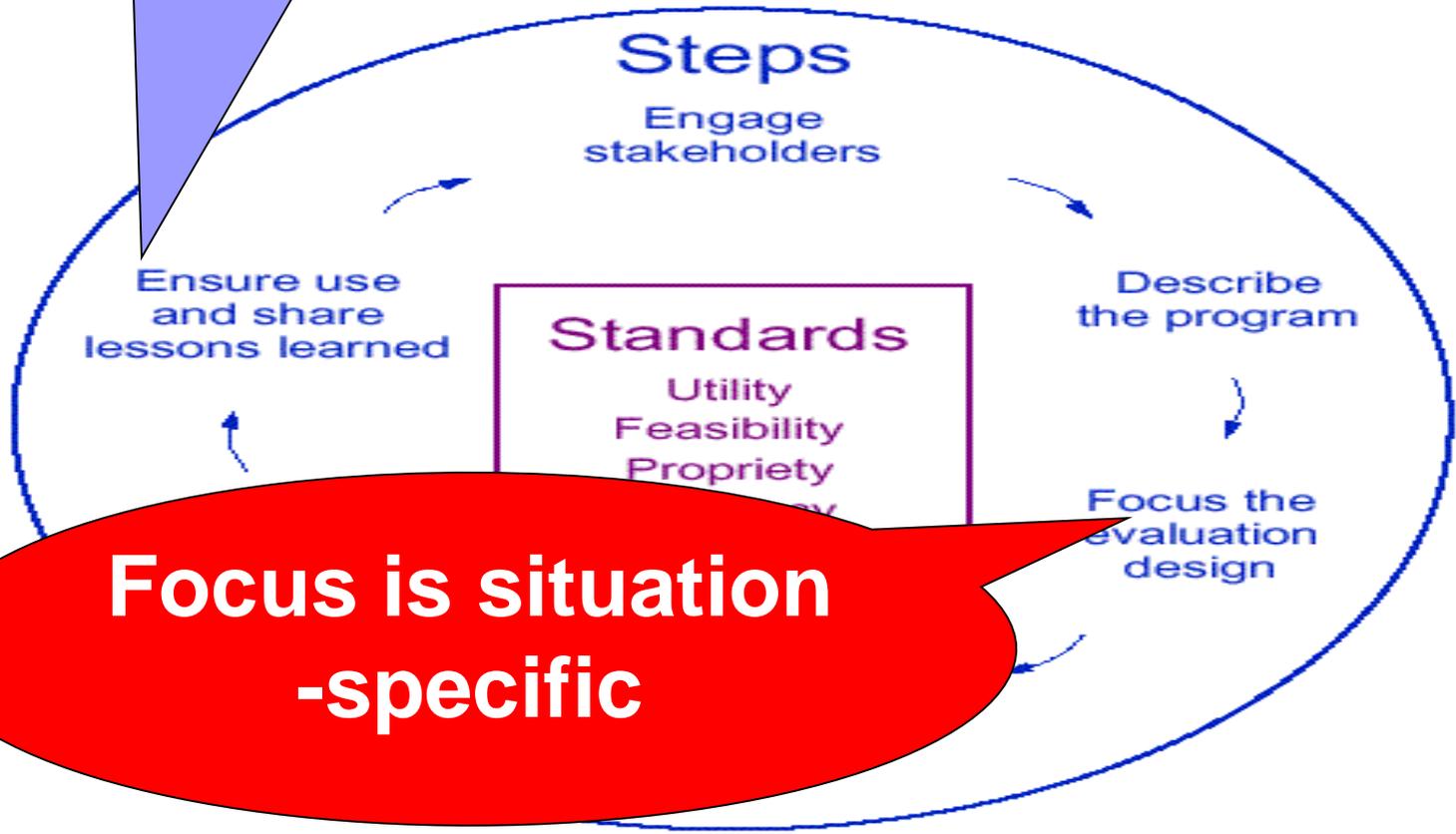
Early steps key to best focus

Focus is situation-specific

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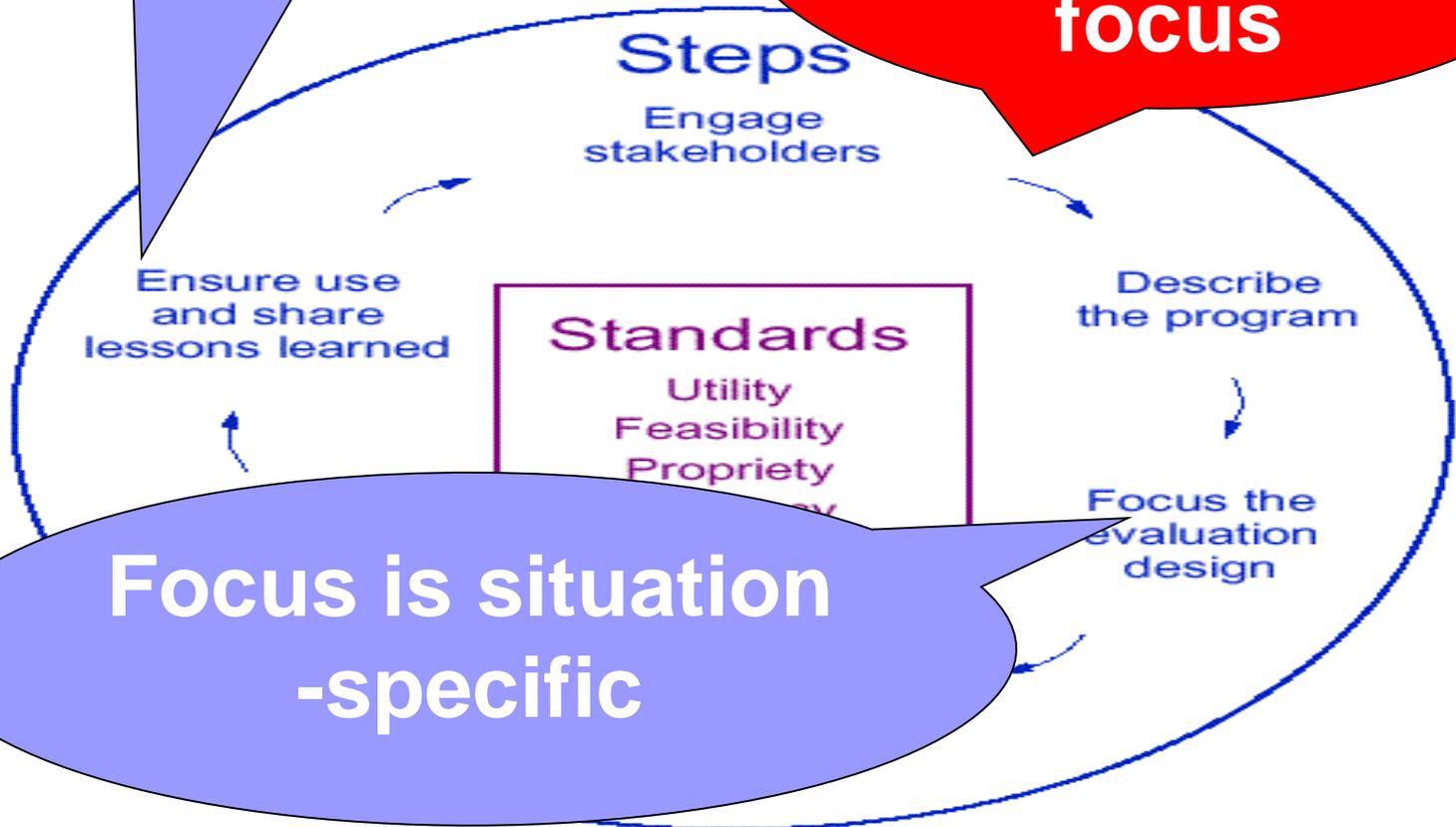
Step-by-Step

1. ***Engage stakeholders***: Decide who needs to be part of the design and implementation of the evaluation for it to make a difference.

2. ***Describe the program***: 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

Seeds of Steps 1-3 harvested later:

4. ***Gather credible evidence***: Write indicators and choose and implement data collection sources and methods

5. ***Justify conclusions***: Review and interpret data/evidence to determine success of failure

6. ***Use lessons learned***: Use evaluation results in a meaningful way.
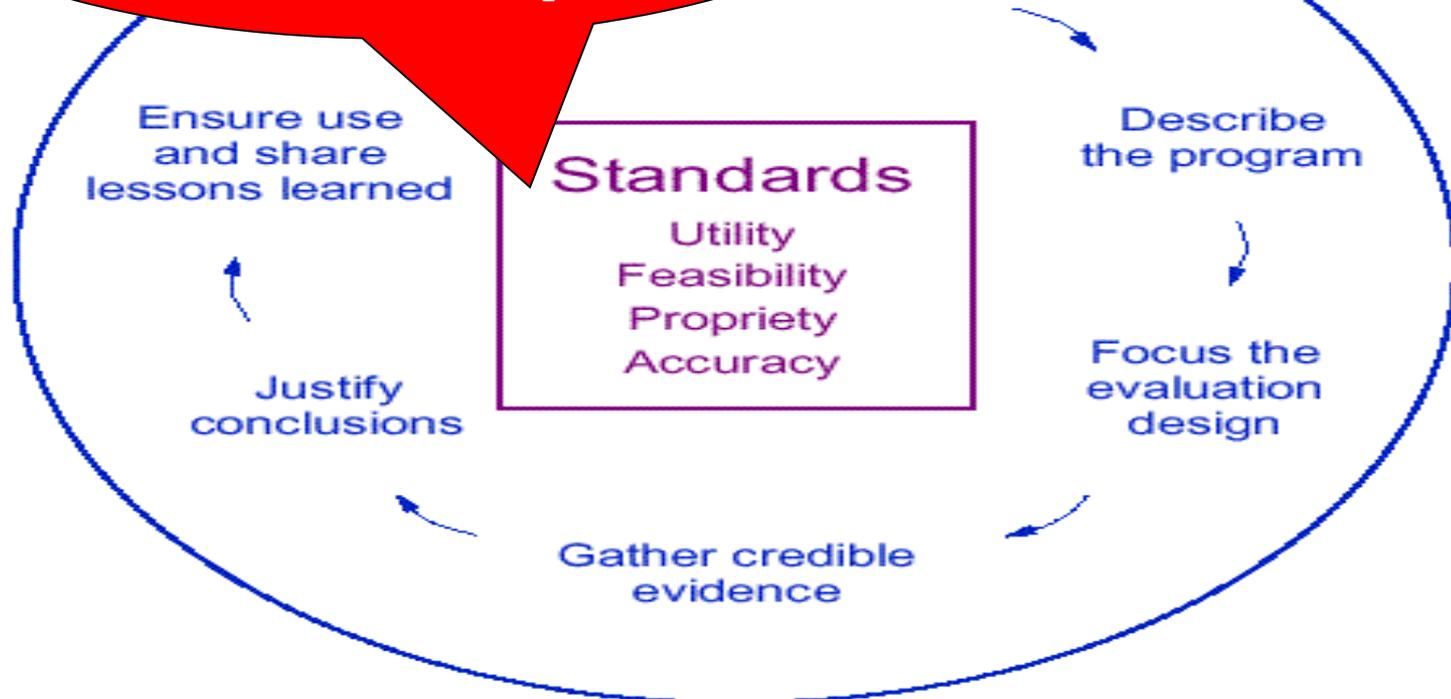
The Four Standards

No one "right" evaluation. Instead, best choice at each step is options that maximize:
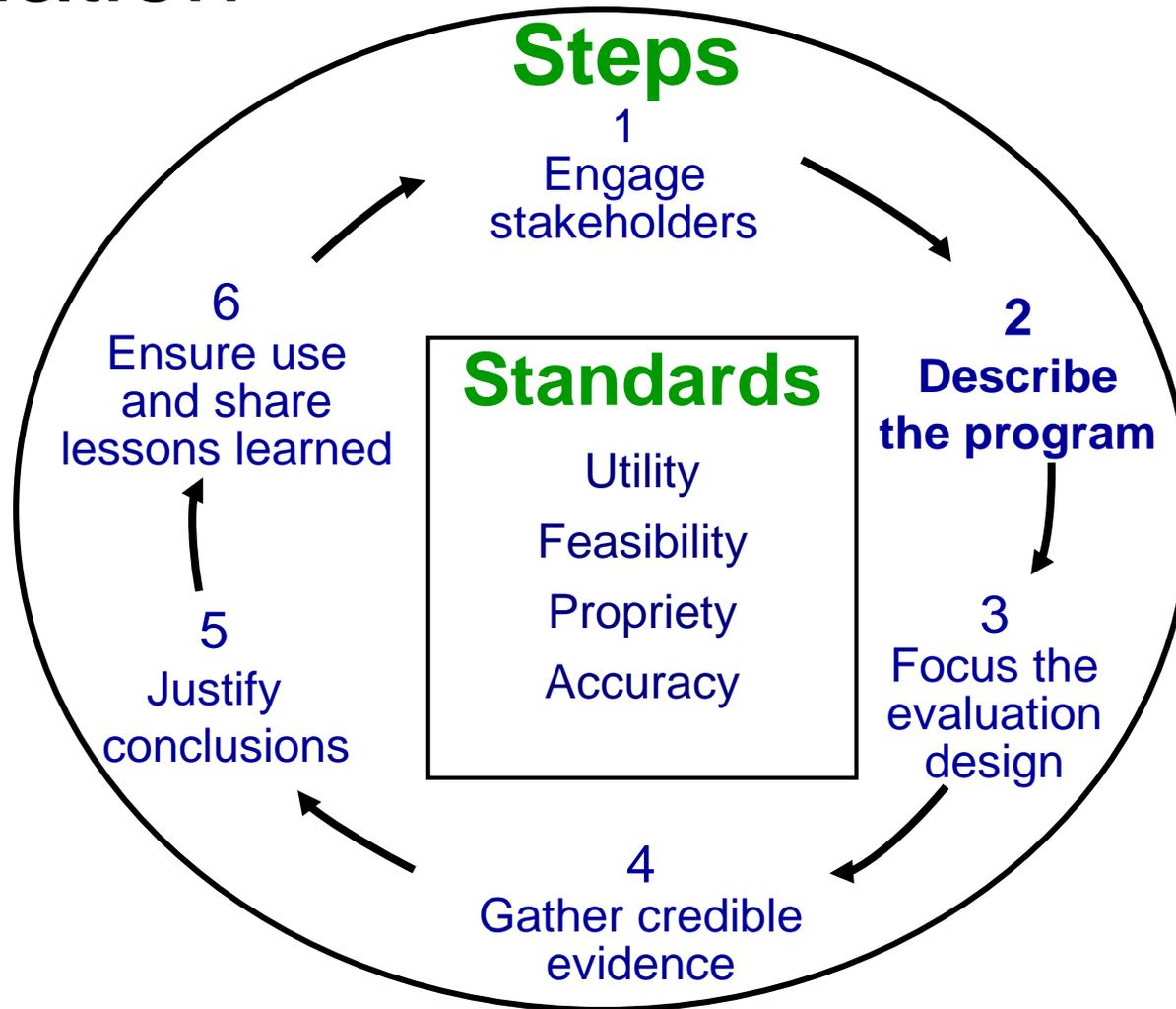
- ***Utility***: Who needs the info from this evaluation and what info do they need?

- ***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?
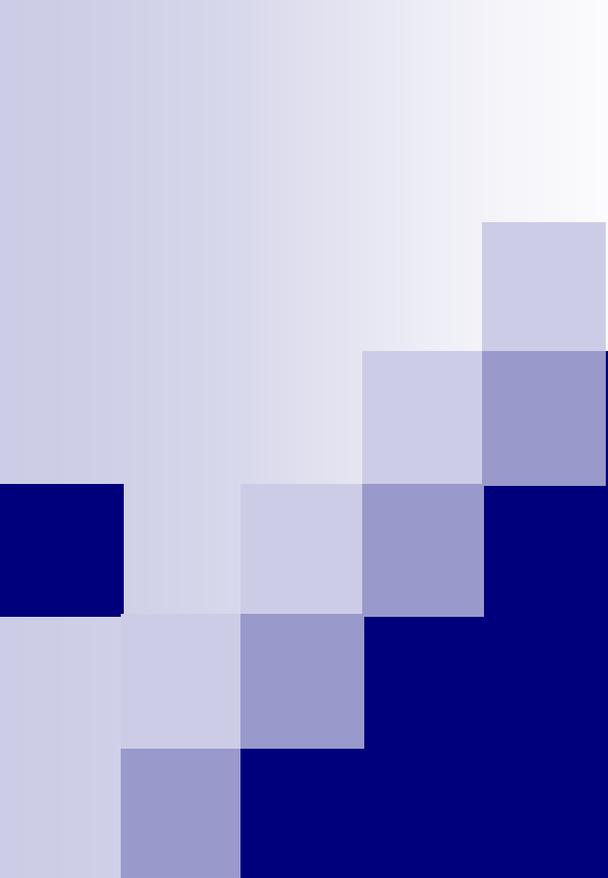
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Step 2. Describing the Program

CDC's Framework for Program Evaluation

Steps

1 Engage stakeholders

2 **Describe the program**

3 Focus the evaluation design

4 Gather credible evidence

5 Justify conclusions

6 Ensure use and share lessons learned

Standards

Utility

Feasibility

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Accuracy

You Don't **_Ever_** Need a Logic Model, BUT, You **_Always_** Need a Program Description
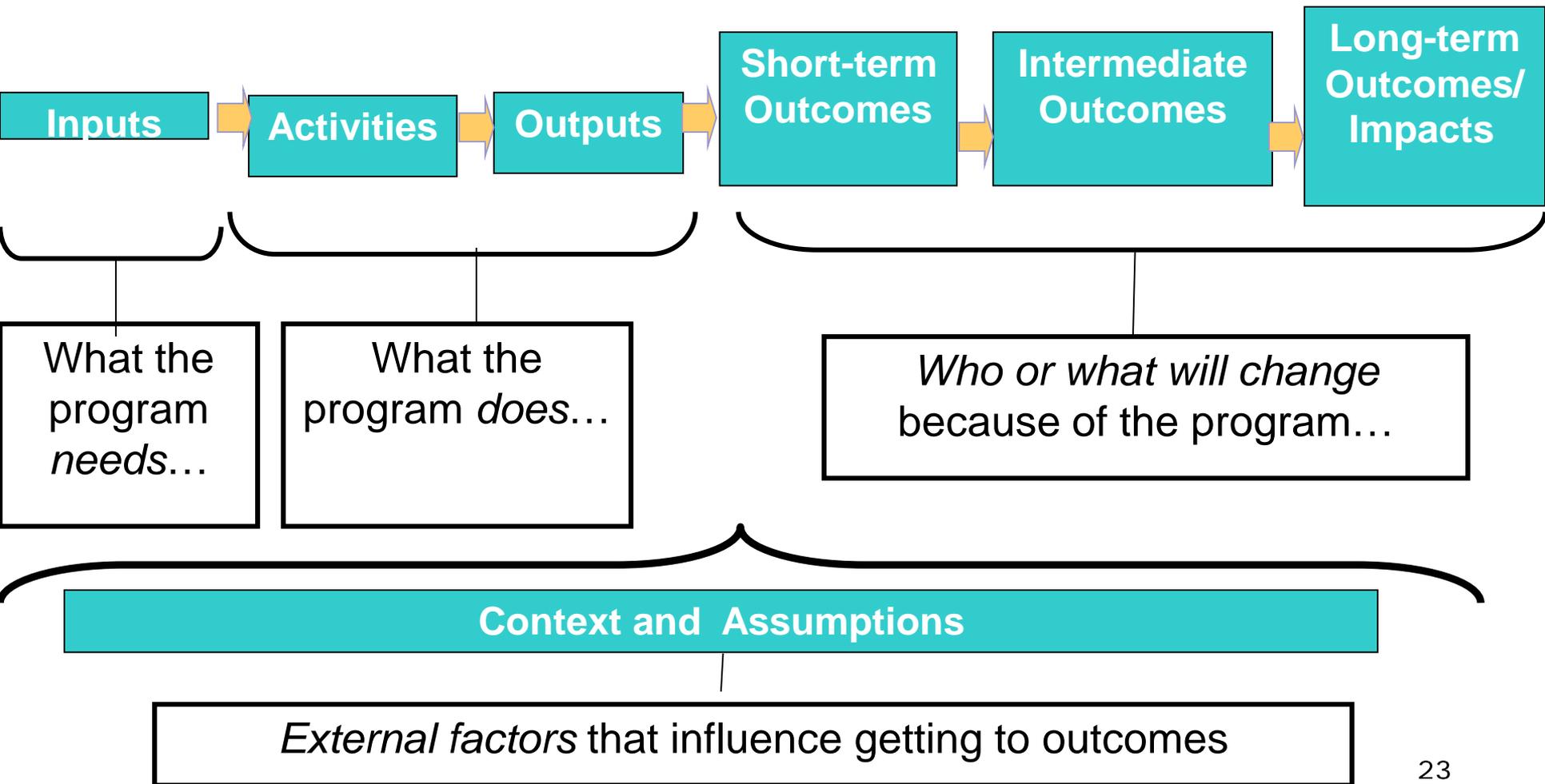
Don't jump into planning or eval without clarity on:

- 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

Logic Models and Program Description

- ***Logic Models :*** *Graphic depictions of the **<u>relationship</u>** between your program's activities and its **<u>intended</u>** effects*

"Complete" Logic Model

Inputs → **Activities** → **Outputs** → **Short-term Outcomes** → **Intermediate Outcomes** → **Long-term Outcomes/ Impacts**

What the program *needs*…

What the program *does*…

Who or what will change because of the program…

Context and Assumptions

External factors that influence getting to outcomes

What the program and its staff actually do

| Inputs | → | Activities | → | Outputs | → | Short-term Effects/ Outcomes | → | Intermediate Effects/ Outcomes | → | Long-term Effects/ Outcomes/ Impacts |
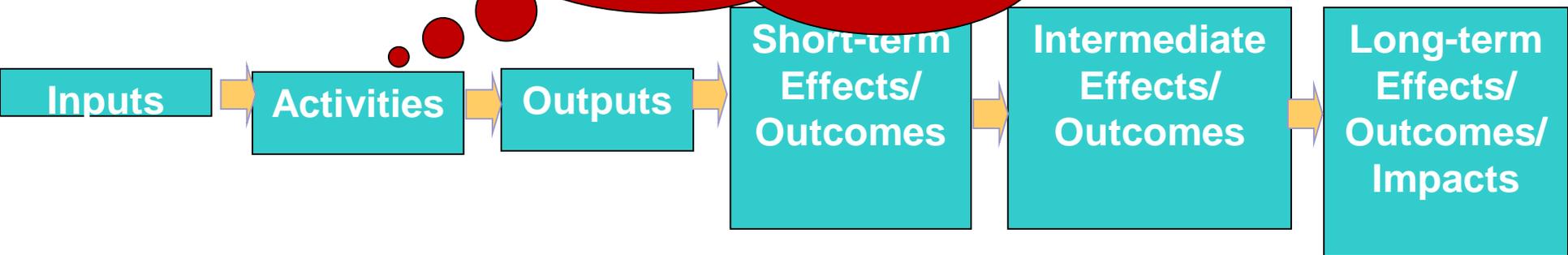
Context
Assumptions

Results of activities: Who/what will change?

Inputs → Activities → Outputs → **Short-term Effects/ Outcomes** → **Intermediate Effects/ Outcomes** → **Long-term Effects/ Outcomes/ Impacts**
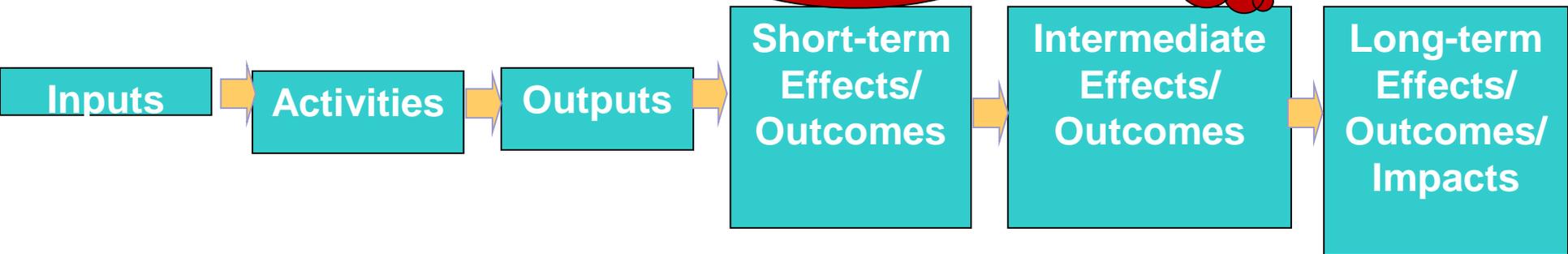
Context
Assumptions
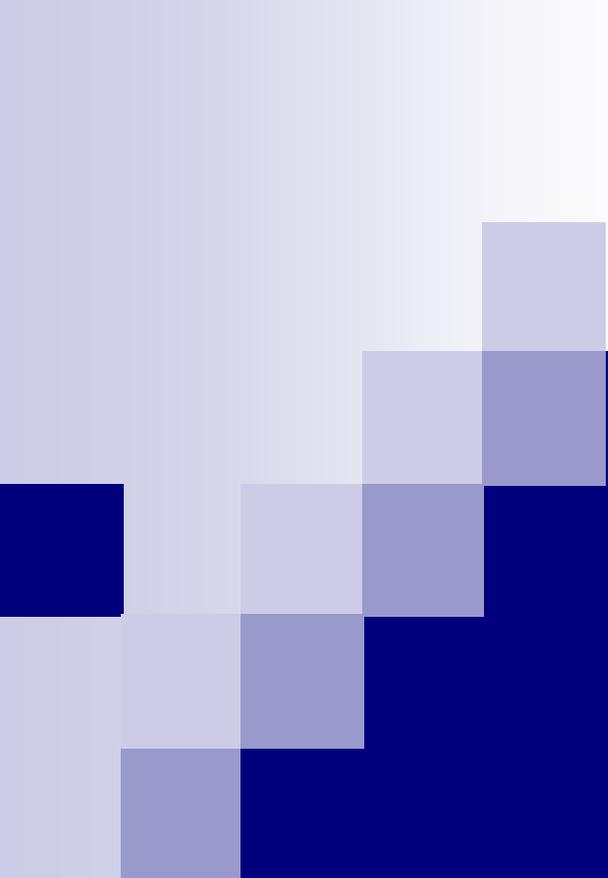
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Constructing Simple Logic Models

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

Case Exercise—Childhood Lead Poisoning

Lead poisoning is a widespread environmental hazard facing young children, especially in older inner-city areas. Exposure lead has been linked to cognitive disruption and behavioral disorders, especially when exposure occurs early in life. The main sources of lead poisoning in children are paint and dust in older homes with lead-based paint. Lead poisoning effects can be ameliorated through medical interventions. But, ultimately, the source of lead in the environment must be contained/eliminated through renovation or removal of the lead-based paint by professionals. Short of that, families can reduce the bad effects on their children through intensive housekeeping

Case Exercise—Childhood Lead Poisoning

County X, with a high number of lead-poisoned children, has received money from CDC to support its Childhood Lead Poisoning Prevention Program.   The program aims to do outreach and identify children to screen, screen and identify those with elevated blood lead levels (EBLL), assess their environments for sources of lead, and case manage both their medical treatment and the correction of their environment. They will also train families of EBLL children in selected housekeeping and nutritional practices. While as a grantee they can assure medical treatment and reduction of lead in the home environment, the grant cannot directly pay for medical care or for renovation of homes.

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*

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?*

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

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

Lead Poisoning: "Causal" Roadmap
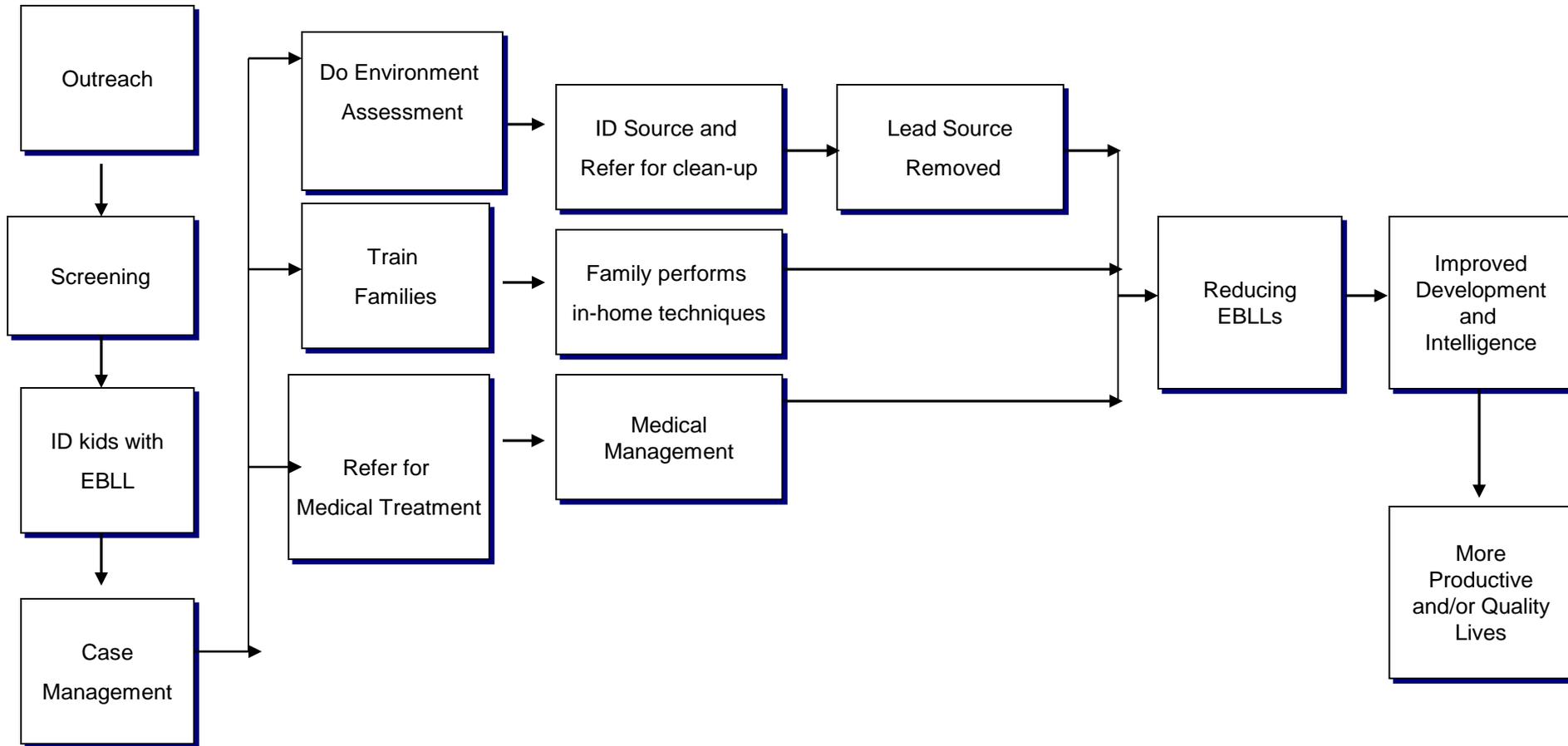
Note!

Program description step makes the program theory ***clear***, not ***true***!

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?

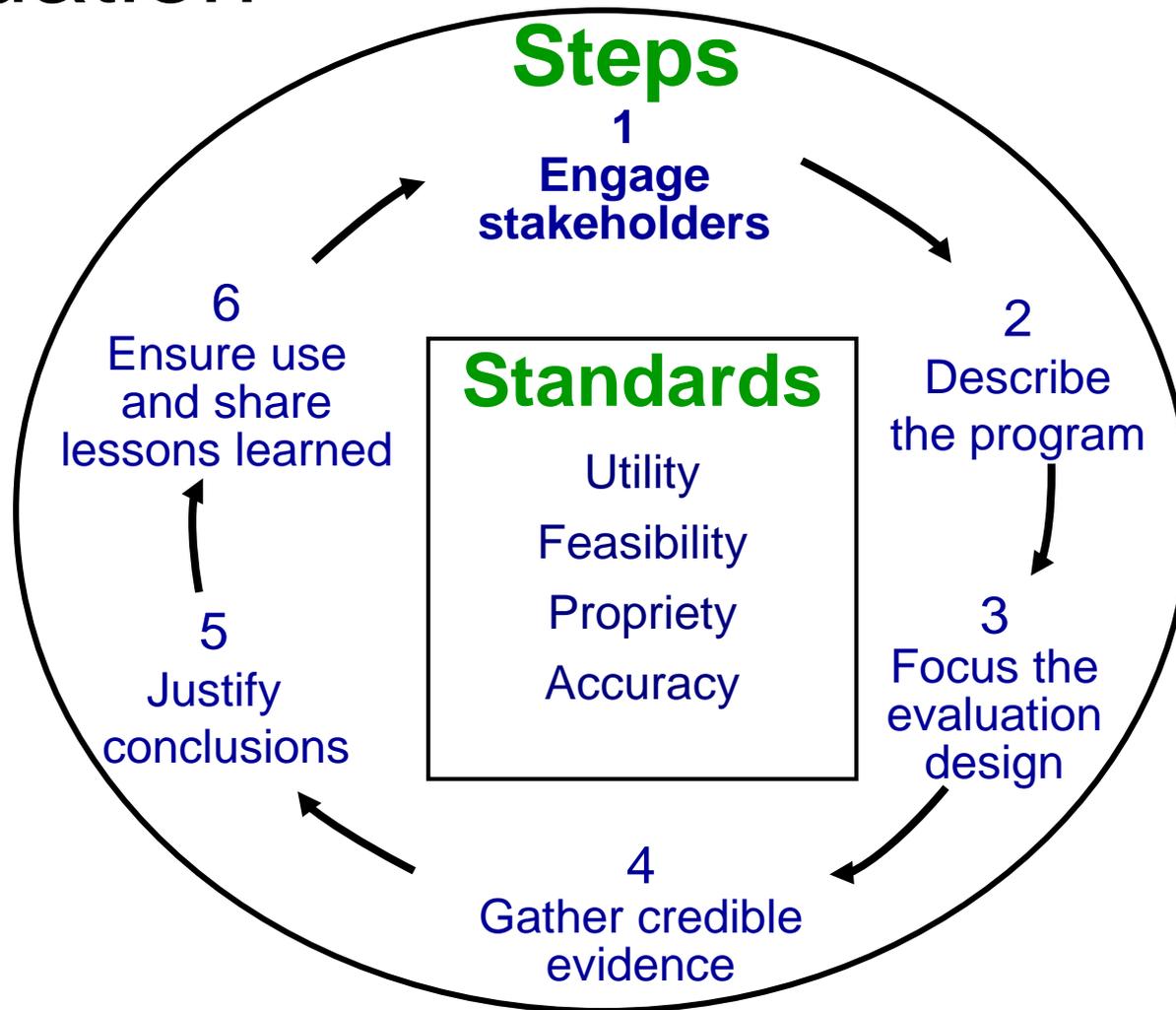- ***In F'work Step 3. Setting Eval Focus:***
  - ☐ Today, 1 year, 5 years, 10 years, where in the model should I be measuring changes?
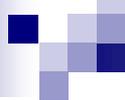 - ☐ If no change, where should I look for problems?
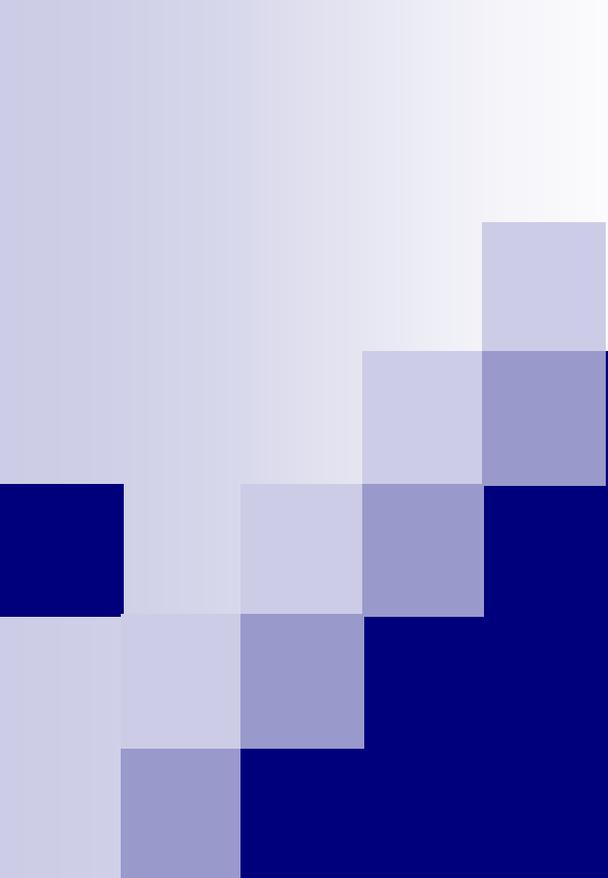
Intro to Program Evaluation

Step 1. Engaging Stakeholders

CDC's Framework for Program Evaluation

Steps

1
Engage stakeholders

6
Ensure use and share lessons learned

2
Describe the program

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Who are Stakeholders?

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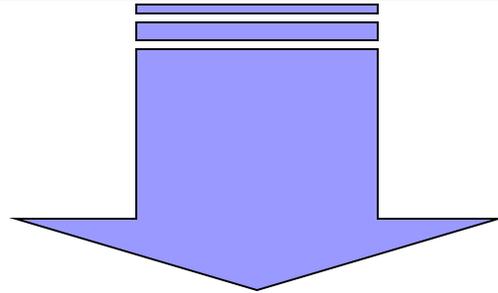   - Primary intended users of the evaluation findings

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?

What Unique Needs/Preferences 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"?

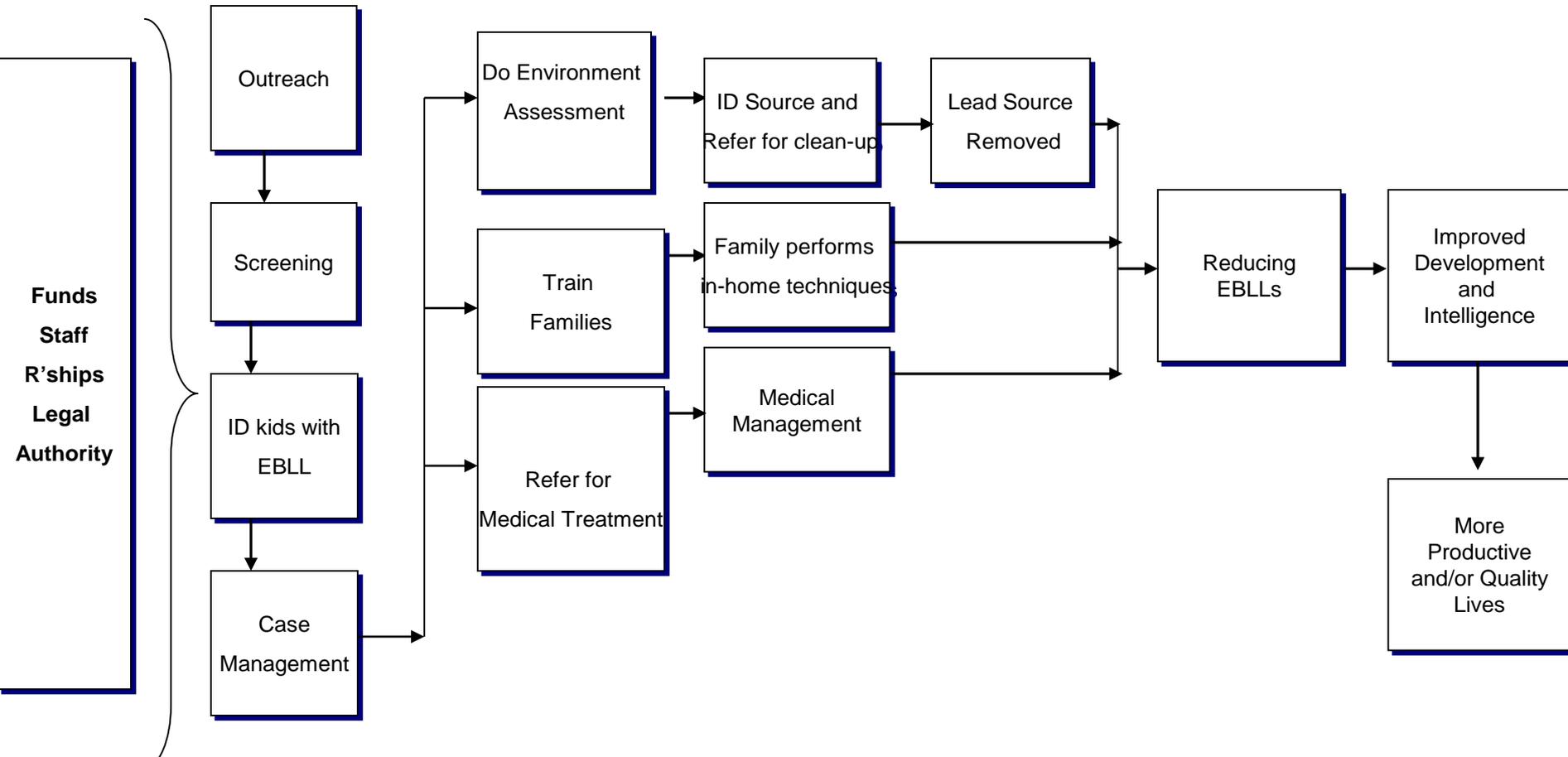   ➢Choices of data collection/analysis methods?

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*].

Lead Poisoning: "Causal" Roadmap

Case Exercise—Lead Stakeholders

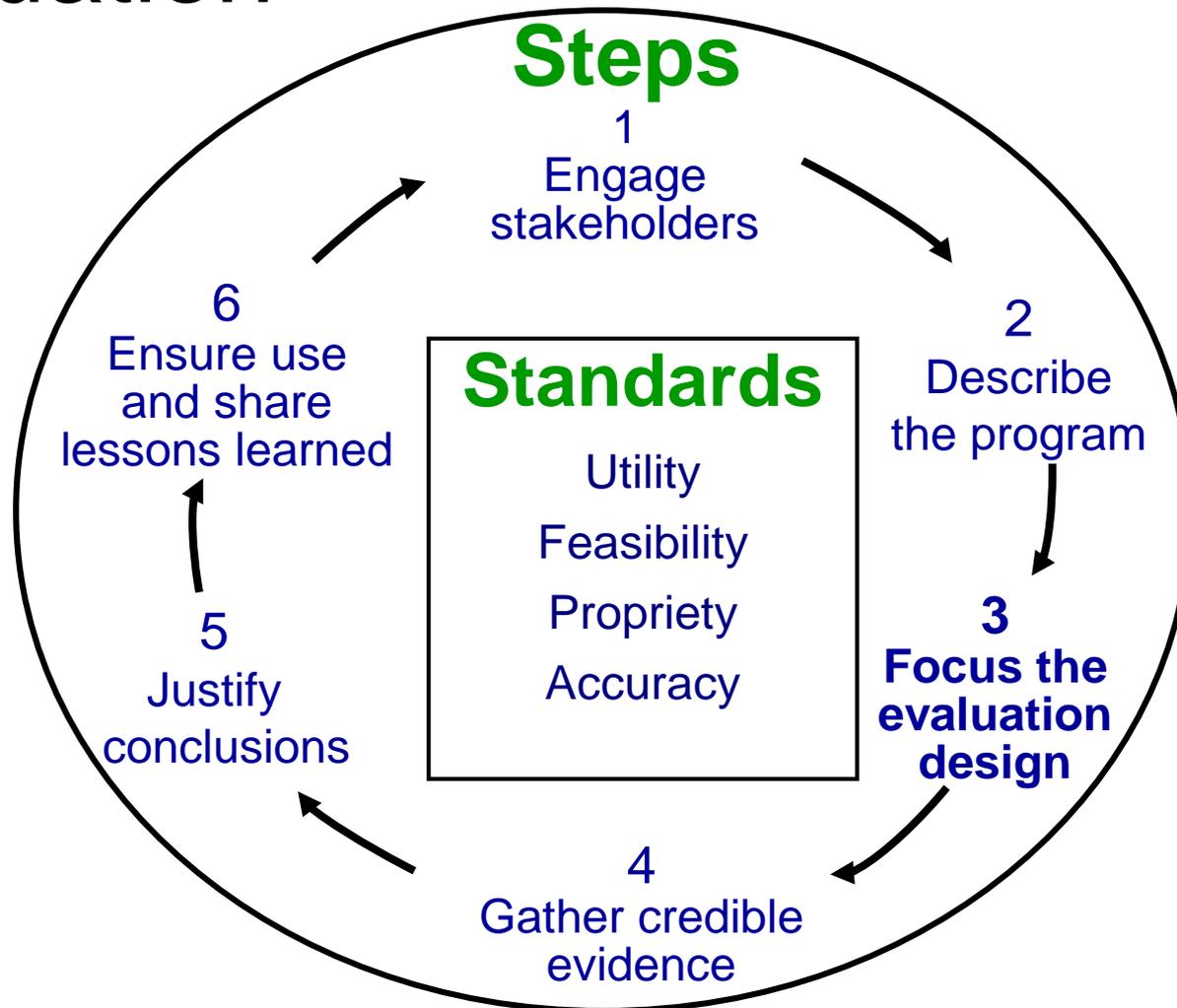| Who are the key stakeholders we need to:			
Increase credibility of our efforts	**Implement the interventions that are central to this effort**	**Advocate for changes to institutionalize this effort**	**Fund/authorize the continuing or expanding this effort**
Physician associations Community associations	State and local health departments Housing authorities	Advocacy groups Maternal and child health groups Physician associations Community associations	Legislators and policymakers at Federal and state level CDC Private industry Court system

Case Exercise—Lead Stakeholders

Stakeholder	What component of intervention/outcome matters most to them
Physician Associations	Sufficient "yield" of EBLL kids to make their screening efforts "worth their time" Clear referral mechanisms that are easy and work
Community associations	Cleaning up housing in their neighborhood Support for families with EBLL kid
Housing authorities	No additional monetary and time burden for toxic clean ups
State and local health departments	Efforts lead to improved health outcome
Advocacy groups	EBLL be seen as a housing problem and not a "failure" or example of bad child rearing by poor families
Congress and policymakers	That efforts lead to improved health outcome "Cost-effectiveness" of the effort
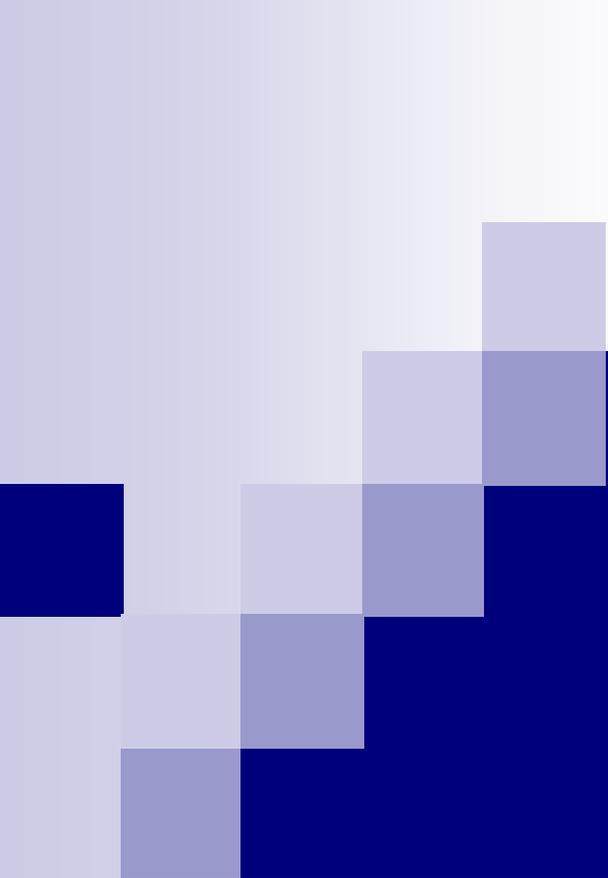
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Step 3. Setting Evaluation Focus

CDC's Framework for Program Evaluation

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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

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

Phases and Types of Evaluation

	Before Program Begins	New Program	(More) Established Program	Mature Program
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