Logic Models—The Key to Useful and Practical Program Evaluation

By:
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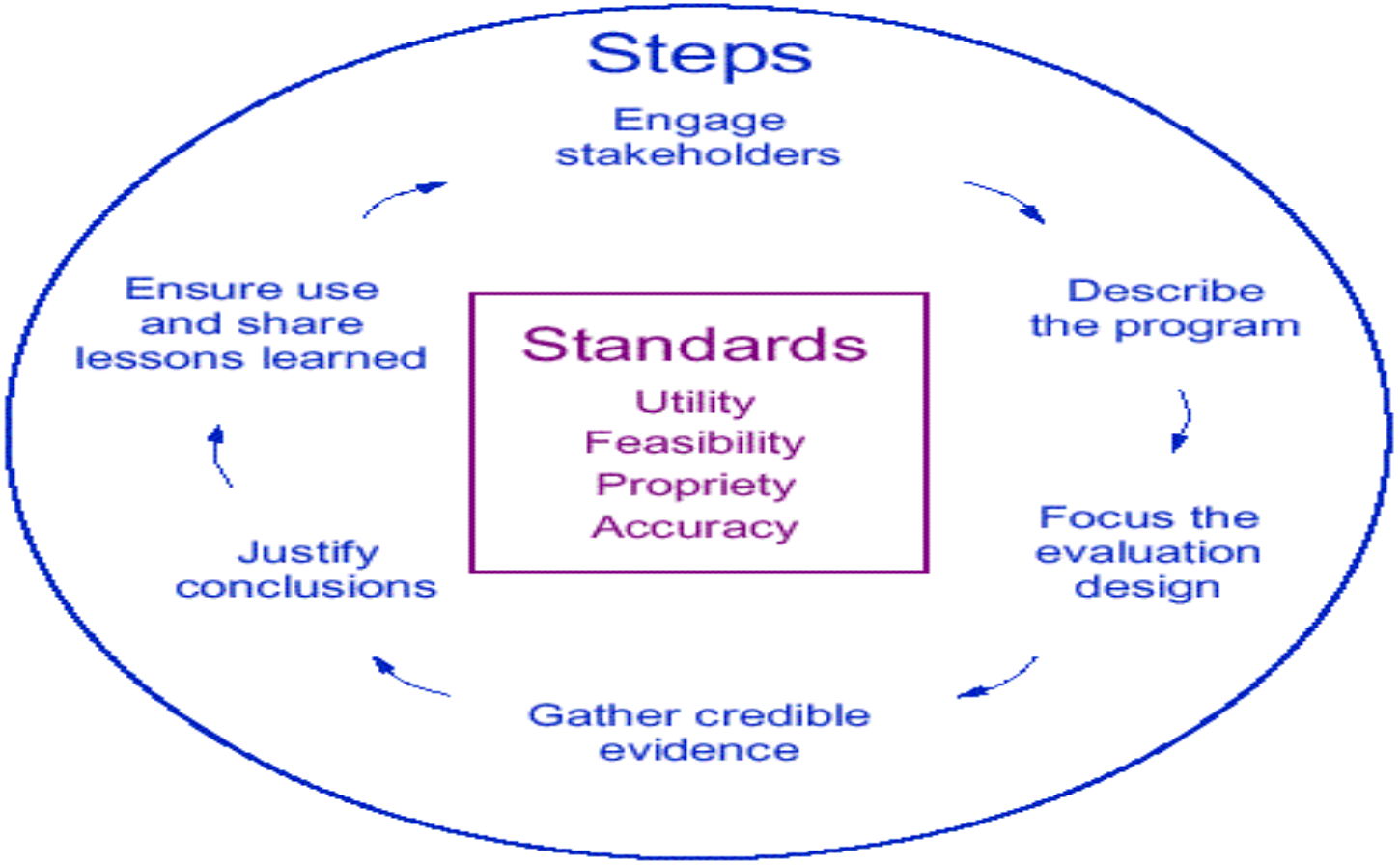
Framework for Program Evaluation

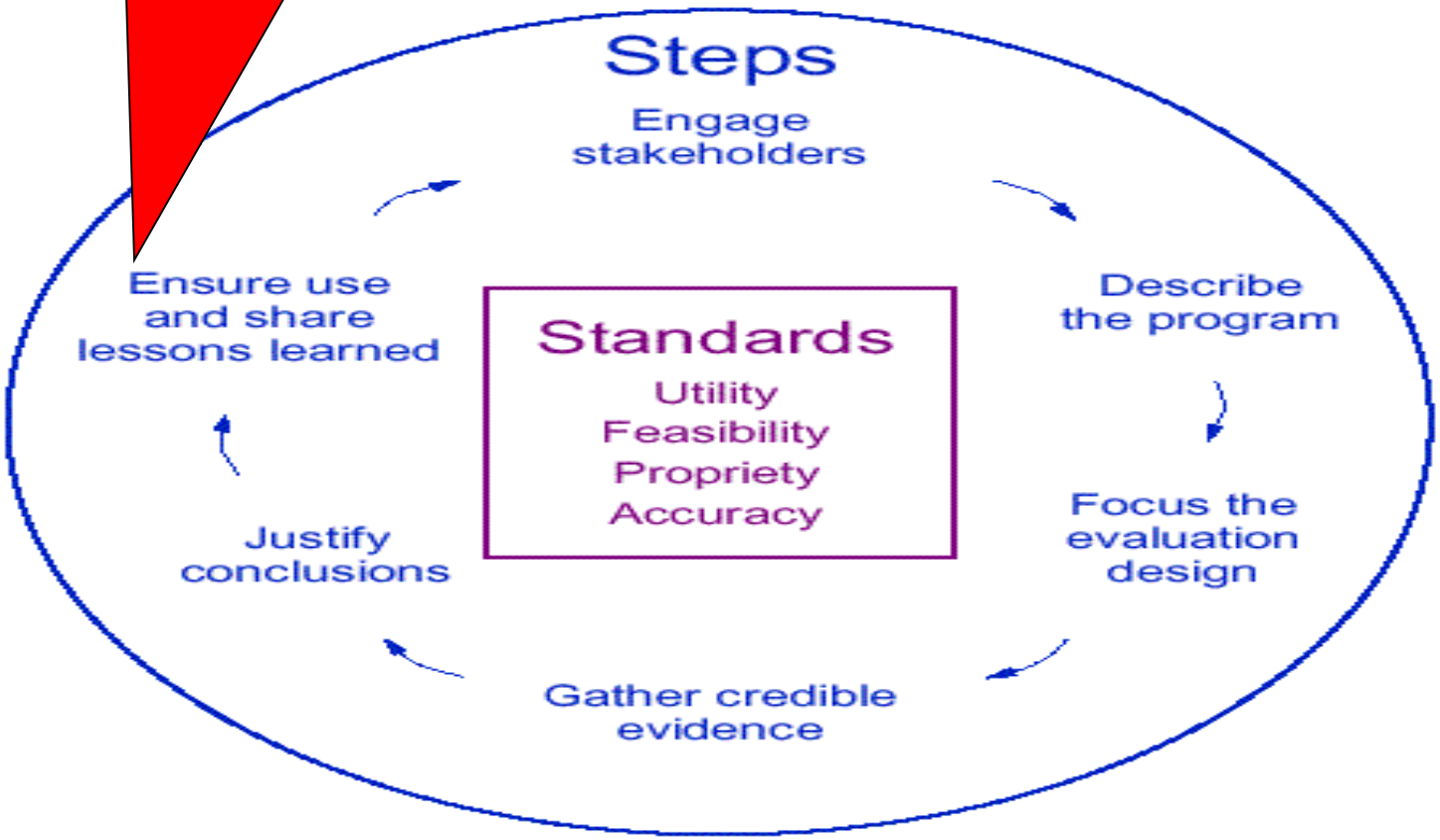
FIGURE 1. Recommended framework for program evaluation



Good M&E = use of findings

Evaluation Framework

FIGURE 1. R ended framework for program evaluation



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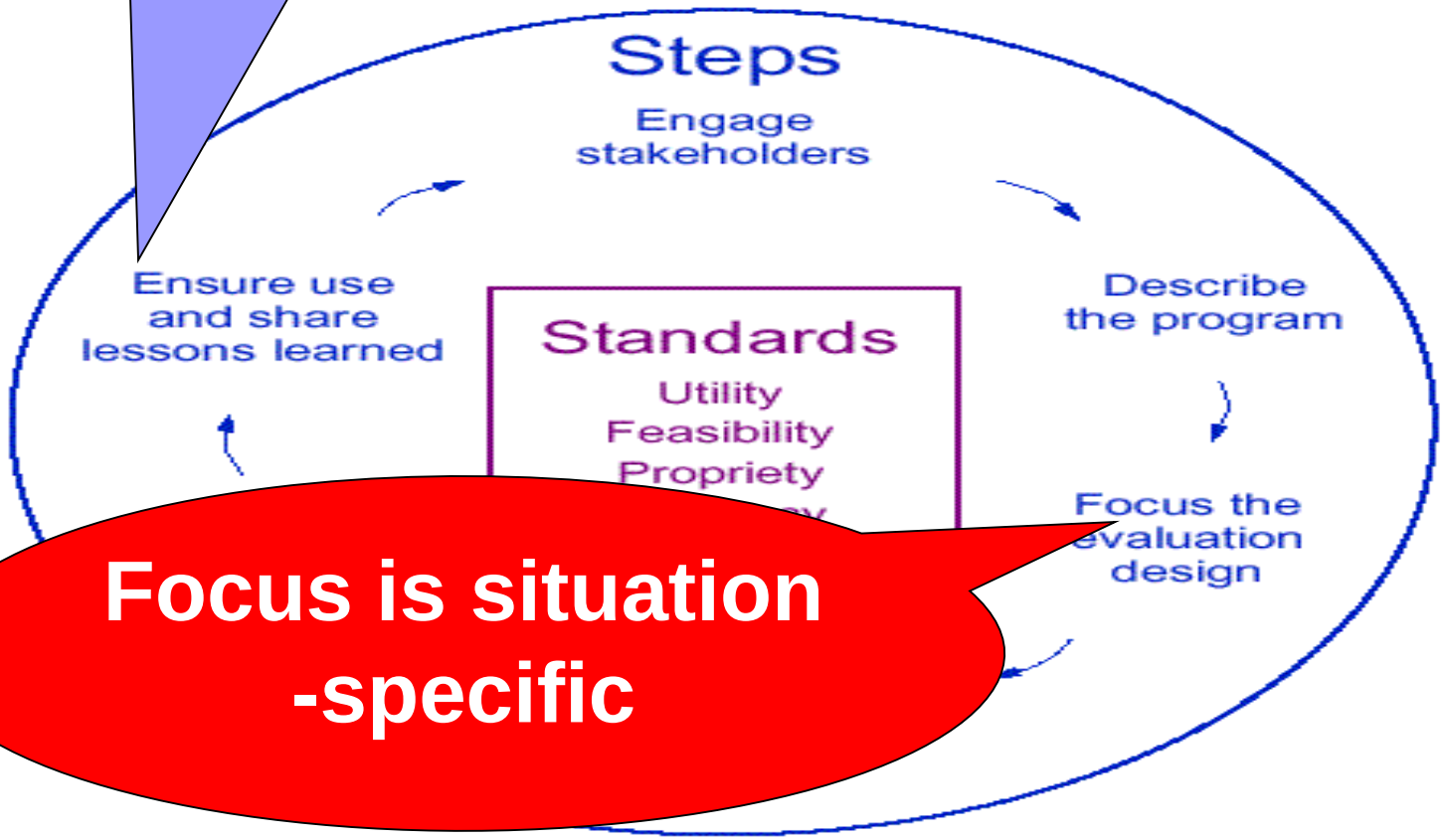
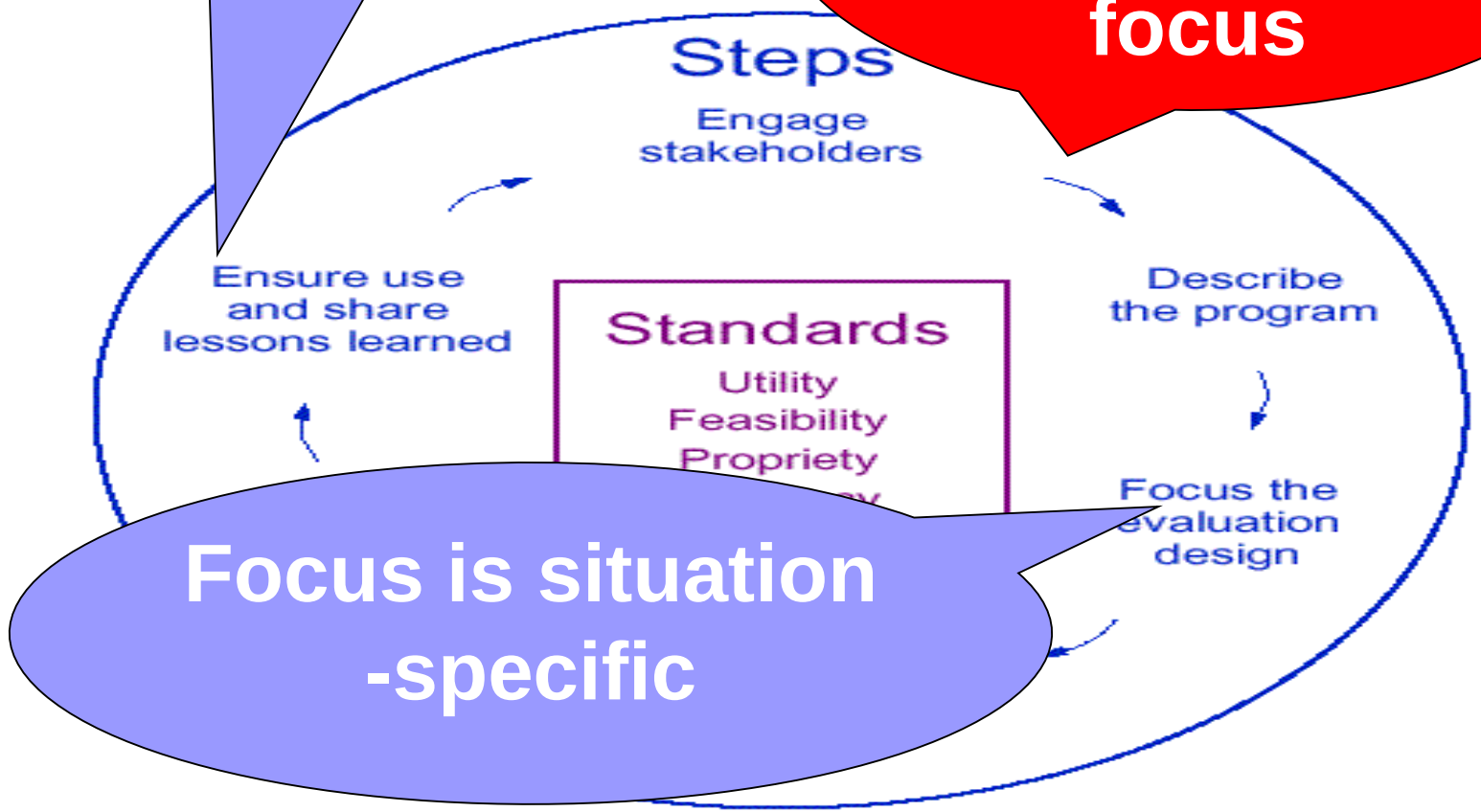


Focus is situation -specific

Good M&E = use of findings

Early steps key to best focus



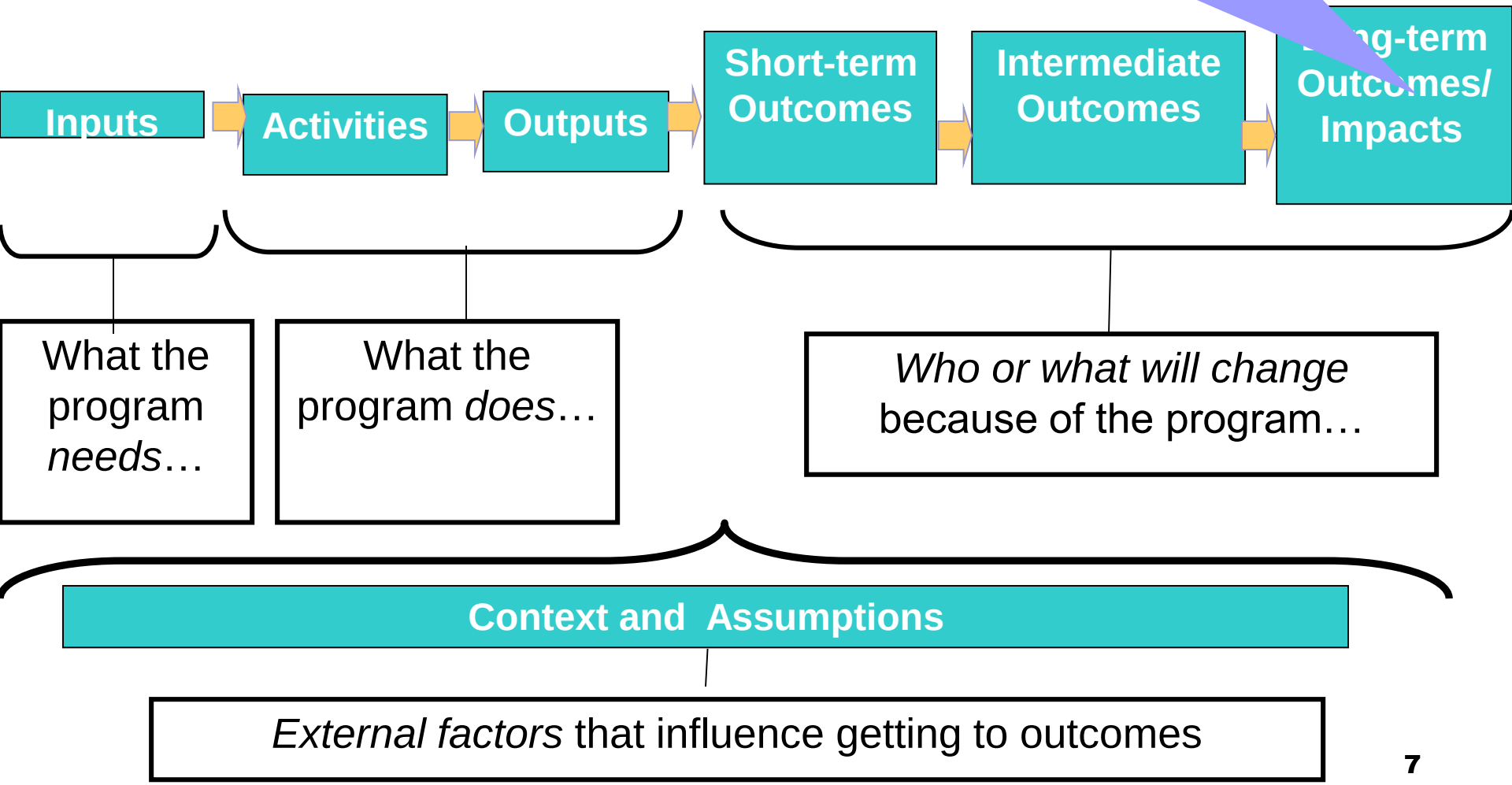
Focus is situation -specific

6 Things Every Program Needs to Know…

1. Big “need” to which it is contributing
2. Basic roadmap: “what”→ “so what” → need
3. “Accountable” outcome
4. ST outcomes that → accountable outcome
5. “Strong” activities that → ST outcomes, AND what “strong” means
6. Contextual factors that help/hobble

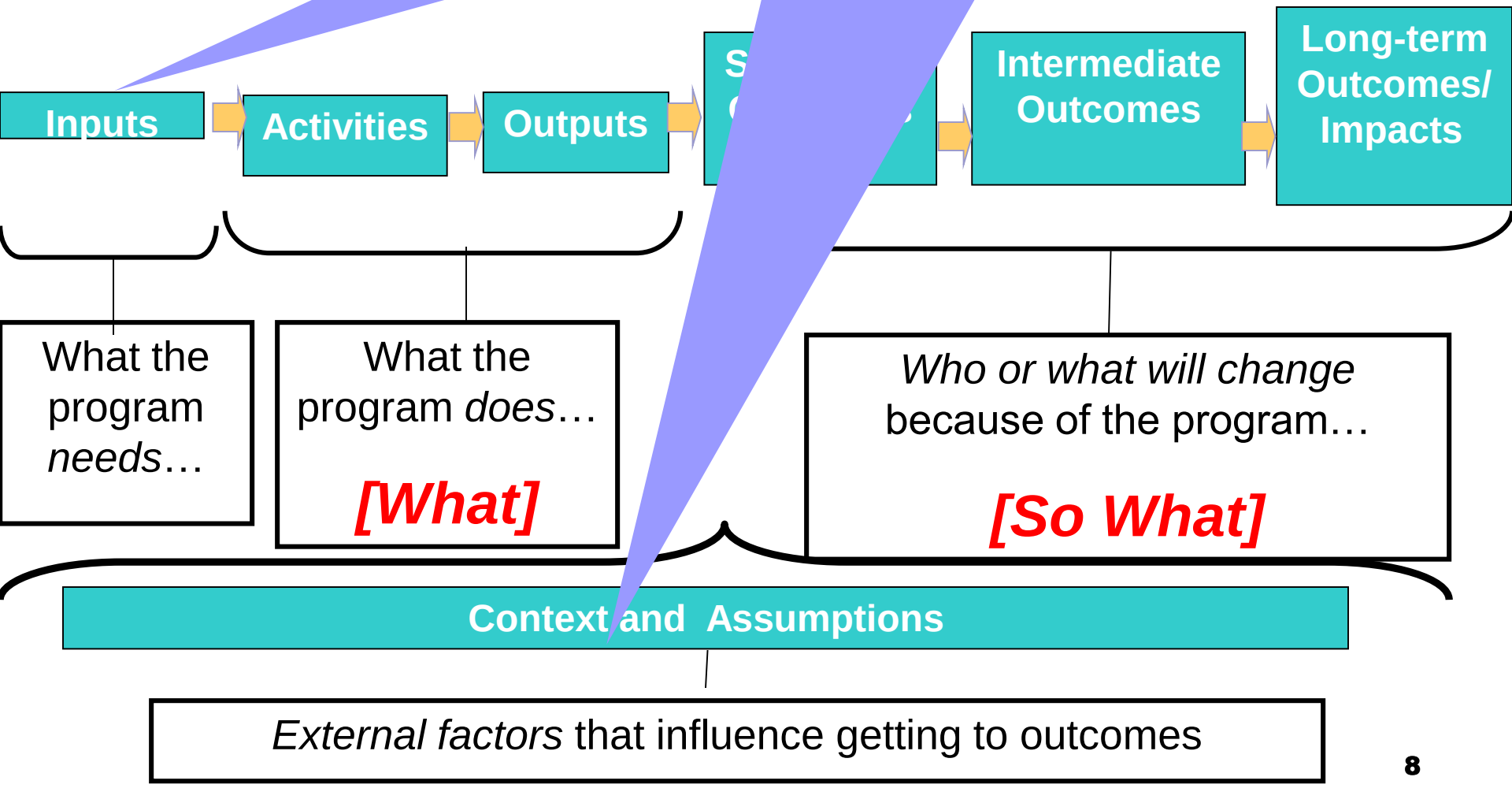
Simple Log

1. **Big "need" to which program is contributing**



Simple L

2. Roadmap of "what" and "so what"



Logic Models and Program Description

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

Case: 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 practices and selected nutritional interventions.

The Program

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*

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	Environmental assessment	Lead source identified	EBLL reduced
Screening	Environmental referral	Lead source gets removed	Develop'l slide stopped
ID of elevated kids	Family training	Families adopt in-home techniques	Quality of life improves
Case mgmt of EBLL kids	Referral to medical tx	EBLL kids get medical treatment	

Case Example

Half of all pregnancies are unplanned. Good preconception health is simply the level of health that will give a woman of child-bearing age her healthiest baby if she were to become pregnant. Preconception care means that women work with their health care providers to attain optimal preconception health, including:

- eating a good diet,
- participating in healthy physical activity,
- getting care for health problems (such as high blood pressure or Diabetes),
- avoiding tobacco, alcohol and drug misuse,
- waiting sufficient time between pregnancies, and
- getting routine health check-ups and screenings.

When a woman is healthy before pregnancy, her baby has an increased chance of being born healthy too. The goal of the program is to reduce the state's high infant mortality rate and the racial disparities in that rate. The HW/HB Preconception Care Program addresses women who:

- had a preterm birth, low birth weight baby, an infant death, stillbirth or fetal death (previous poor birth outcome),
- are African American/Black women and other ethnic or minority populations,
- are Medicaid eligible, medically underinsured, or uninsured,
- have chronic diseases including hypertension and diabetes,
- live in high-risk geographic locations,
- have psychosocial risk factors, or
- are in need of increased social supports.

Case Example

The program provides:

- Reproductive health services
- Nutrition counseling and services
- Pregnancy diagnosis and counseling,
- Contraceptive education, counseling, and access to a broad range of contraceptive methods,
- Testing and treatment for STDs and HIV/AIDs
- Screening for alcohol, drug, and tobacco use and referral to cessation/treatment programs
- Genetics information, education and referral
- Social work and counseling services to address family psychosocial needs

In addition, trained community support services personnel provide street level outreach, marketing and promotion, reinforce patient education and assist patients with social service needs

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- *Social work and counseling services to address family psychosocial needs*

- In addition, trained community support services personnel provide *street level outreach, marketing and promotion, reinforce patient education and assist patients with social service needs*

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Activities: IF we (the program) provides:

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- Social work and counseling services to address family psychosocial needs
- Street level outreach
- Marketing and promotion
- Reinforcement of patient education
- Assistance with social service needs

Case Example

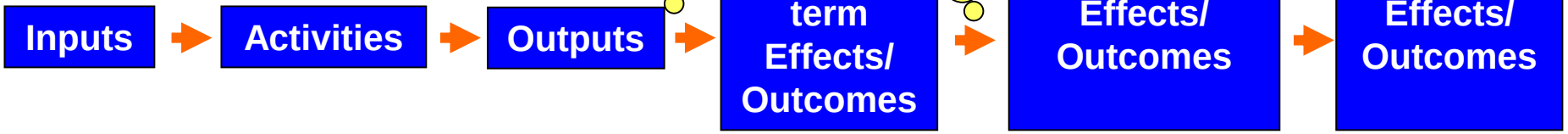
Outcomes: THEN: Women of child-bearing age

- eat a good diet,
- participate in healthy physical activity,
- get care for health problems (such as high blood pressure or Diabetes),
- avoid tobacco, alcohol and drug misuse,
- wait sufficient time between pregnancies, and
- get routine health check-ups and screenings
- have healthy babies
- reduced infant mortality rate
- reduced racial disparities in mortality rate.

Case Example

Activities: IF we (the program) provides:	Outcomes: THEN		
	Short-Term	**Mid-Term**	**Long-Term**
• Reproductive health services • Nutrition counseling and services • Pregnancy diagnosis and counseling, • Contraceptive education, counseling, and access to a broad range of contraceptive methods, • Testing and treatment for STDs and HIV/AIDs • Screening for alcohol, drug, and tobacco use and referral to cessation/treatment programs • Genetics information, education and referral • Social work and counseling services to address family psychosocial needs • Street level outreach • Marketing and promotion • Reinforcement of patient education • Assistance with social service needs	???	**Women of child-bearing age:** • eat a good diet, • participate in healthy physical activity, • get care for health problems (such as high blood pressure or Diabetes), • avoid tobacco, alcohol and drug misuse, • get routine health check-ups and screenings	**Women of child-bearing age:** • wait sufficient time between pregnancies, and • have healthy babies **Reduced:** • infant mortality rate • racial disparities in mortality rate.

Where "mediators" live in our logic model…



Context
Assumptions

Office of Workforce and Career Development (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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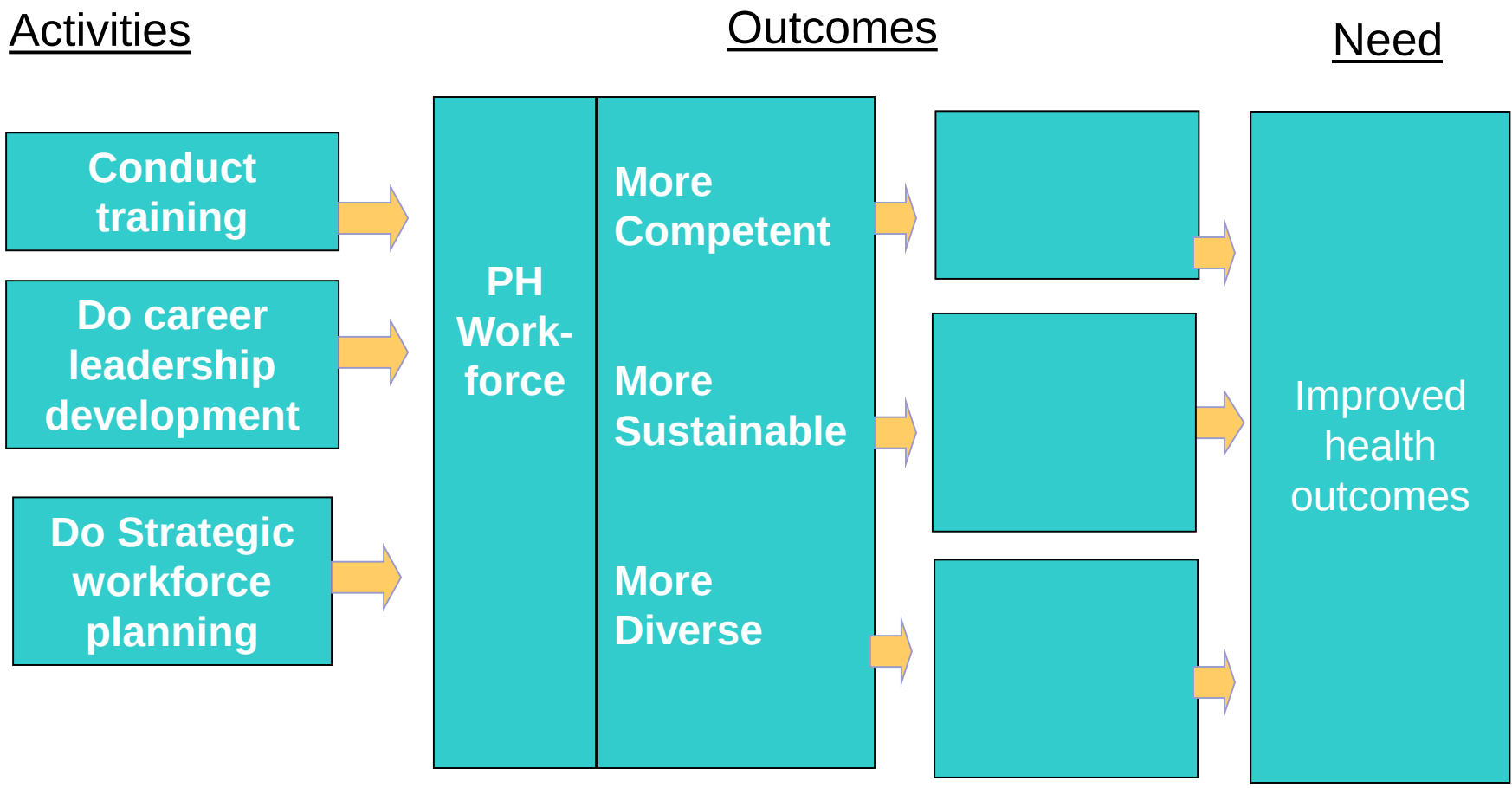
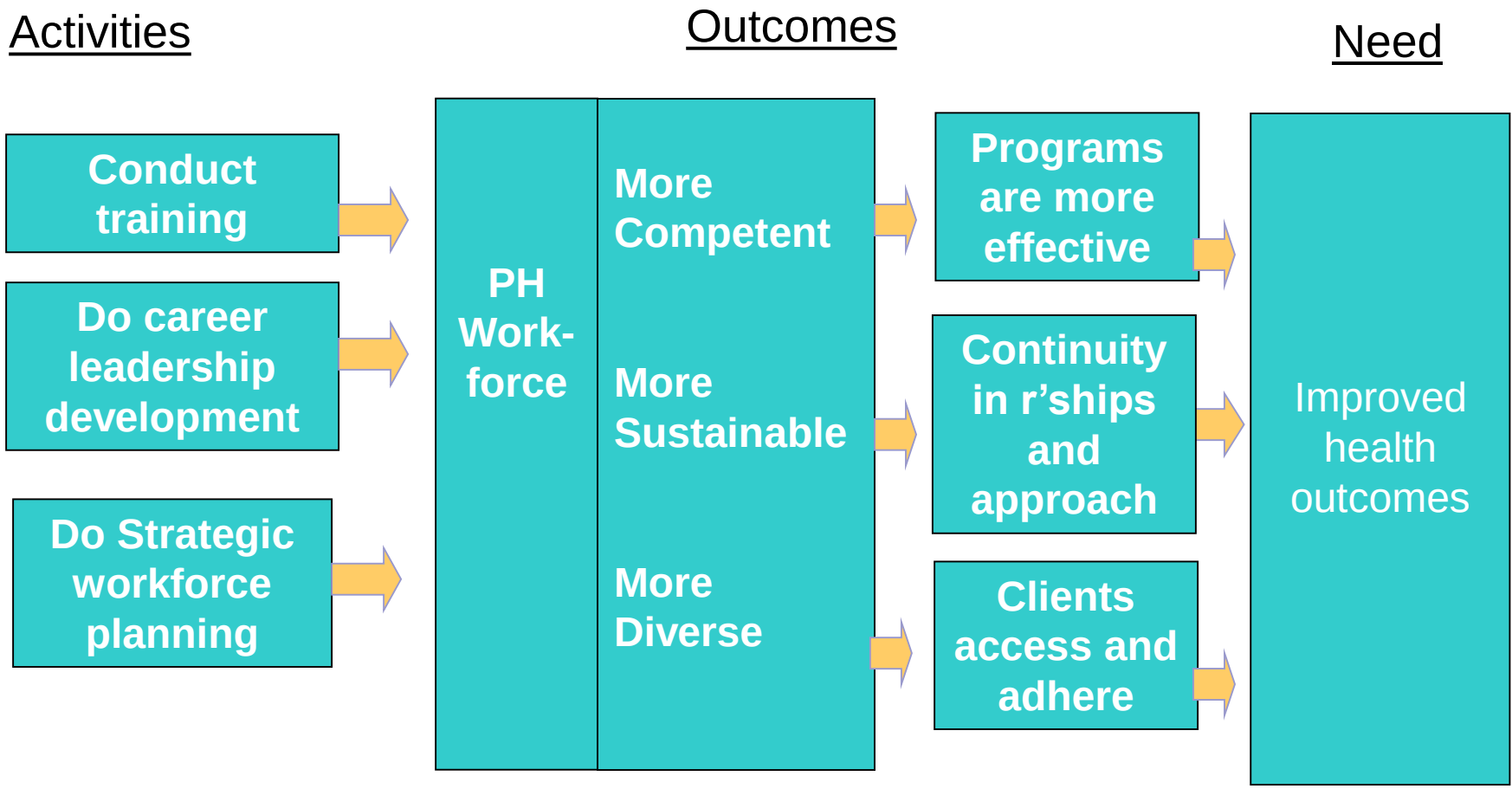
Implicit Logic Model



Implicit Logic Model—Mediators



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Activities: IF we (the program) provides:

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- Marketing and promotion
- Reinforcement of patient education
- Assistance with social service needs

Short-Term

"Right" women of child-bearing age:**

- aware of the program
- participate in program
- change/increase supportive knowledge attitudes and beliefs
- receive customized referrals and services
- fulfill/complete referrals

Mid-Term

Women of child-bearing age:

- eat a good diet,
- participate in healthy physical activity,
- get care for health problems (such as high blood pressure or Diabetes),
- avoid tobacco, alcohol and drug misuse,
- get routine health check-ups and screenings

Long-Term

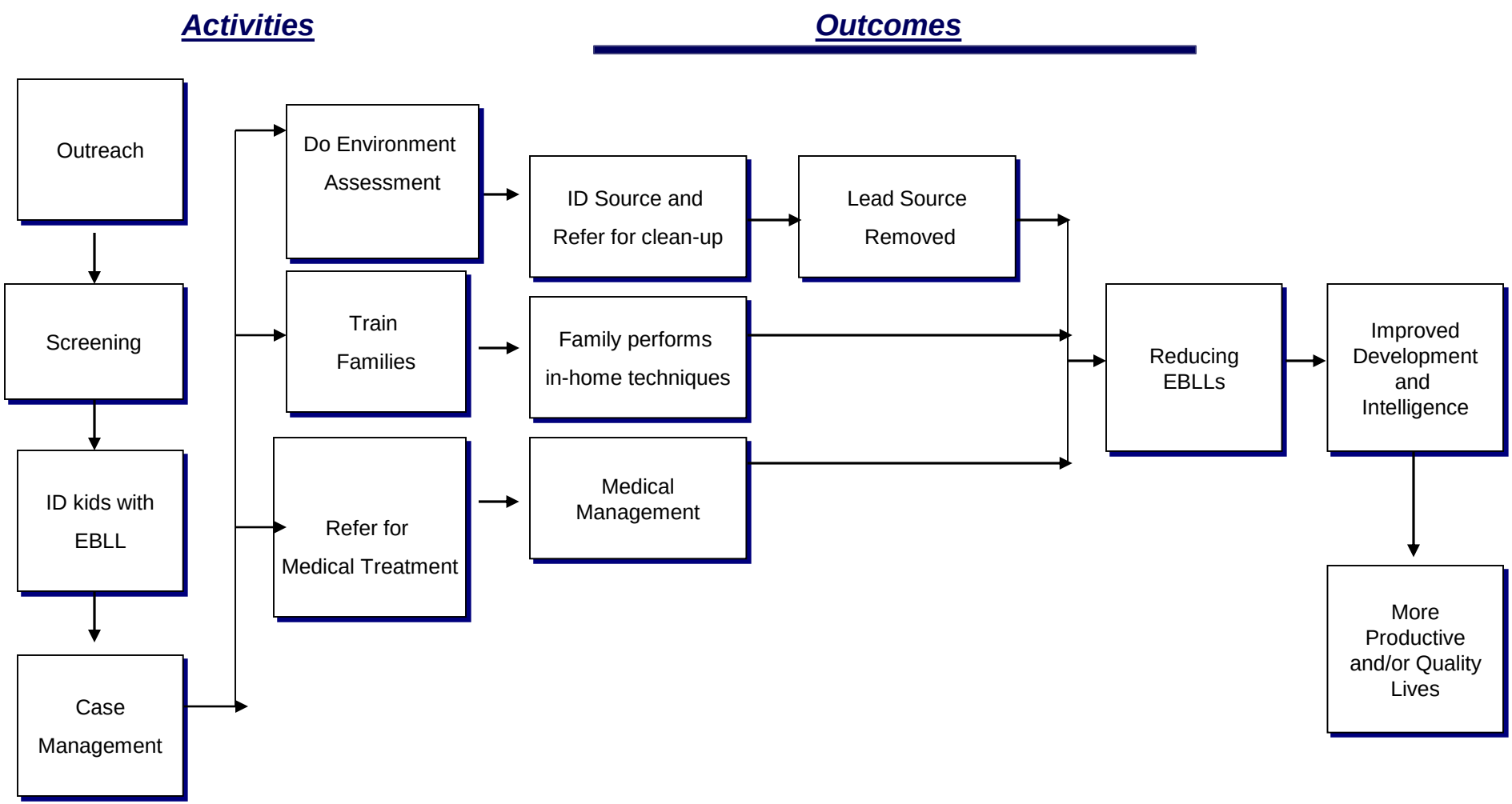
Women of child-bearing age:

- wait sufficient time between pregnancies, and
- have healthy babies

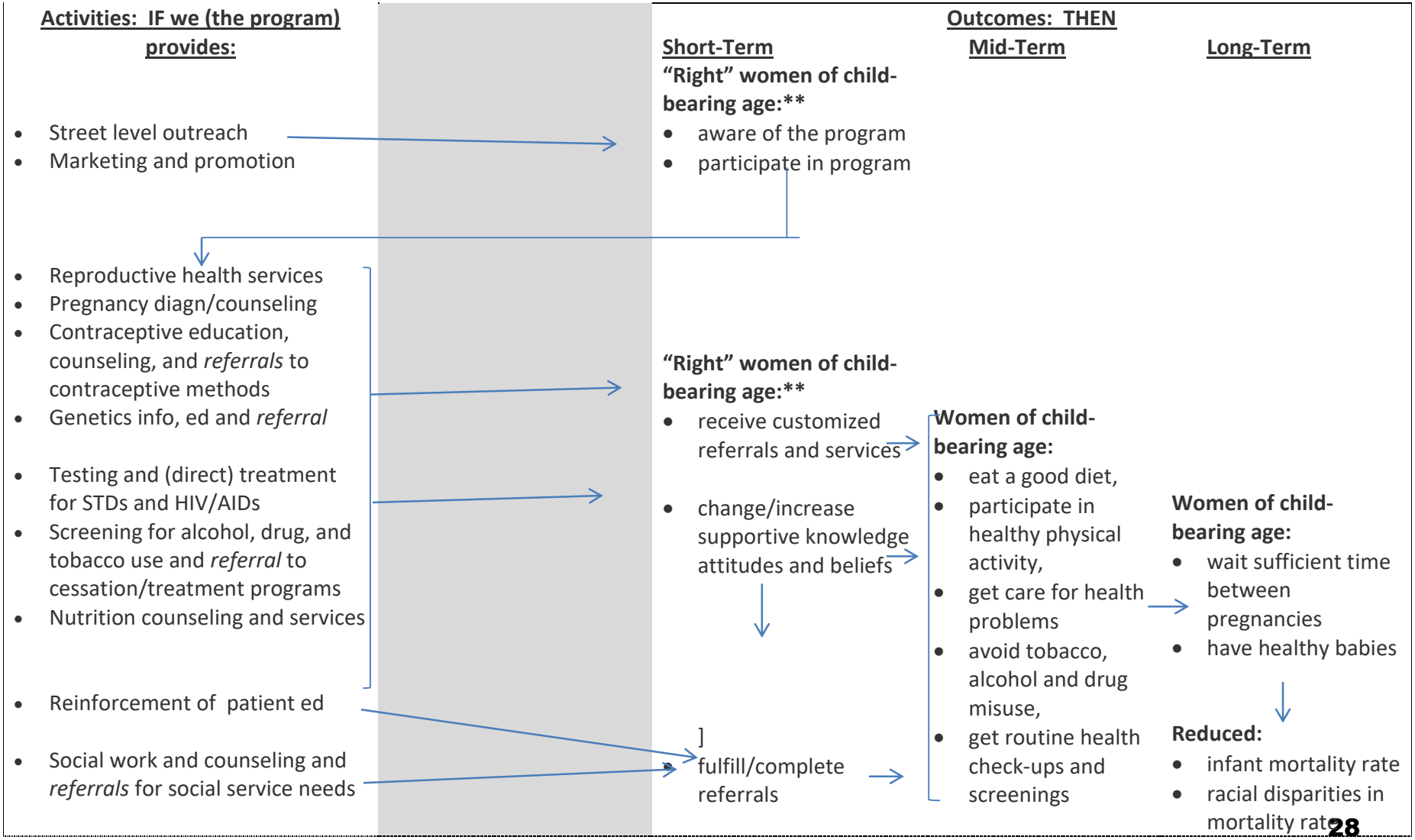
Reduced:

- infant mortality rate
- racial disparities in mortality rate.

Lead Poisoning: “Causal” Roadmap

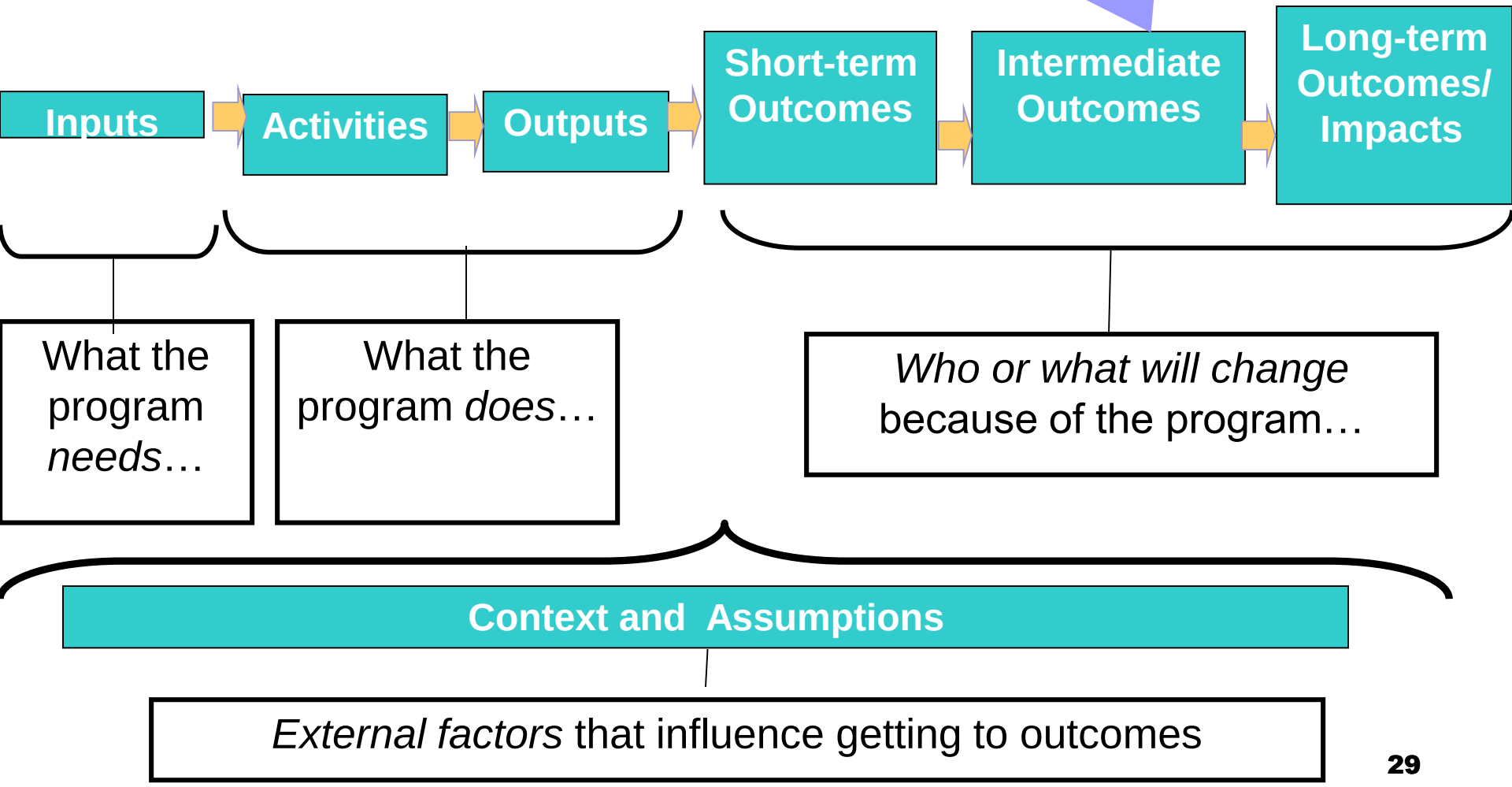


Case Example: "Causal Roadmap"



Simple Log

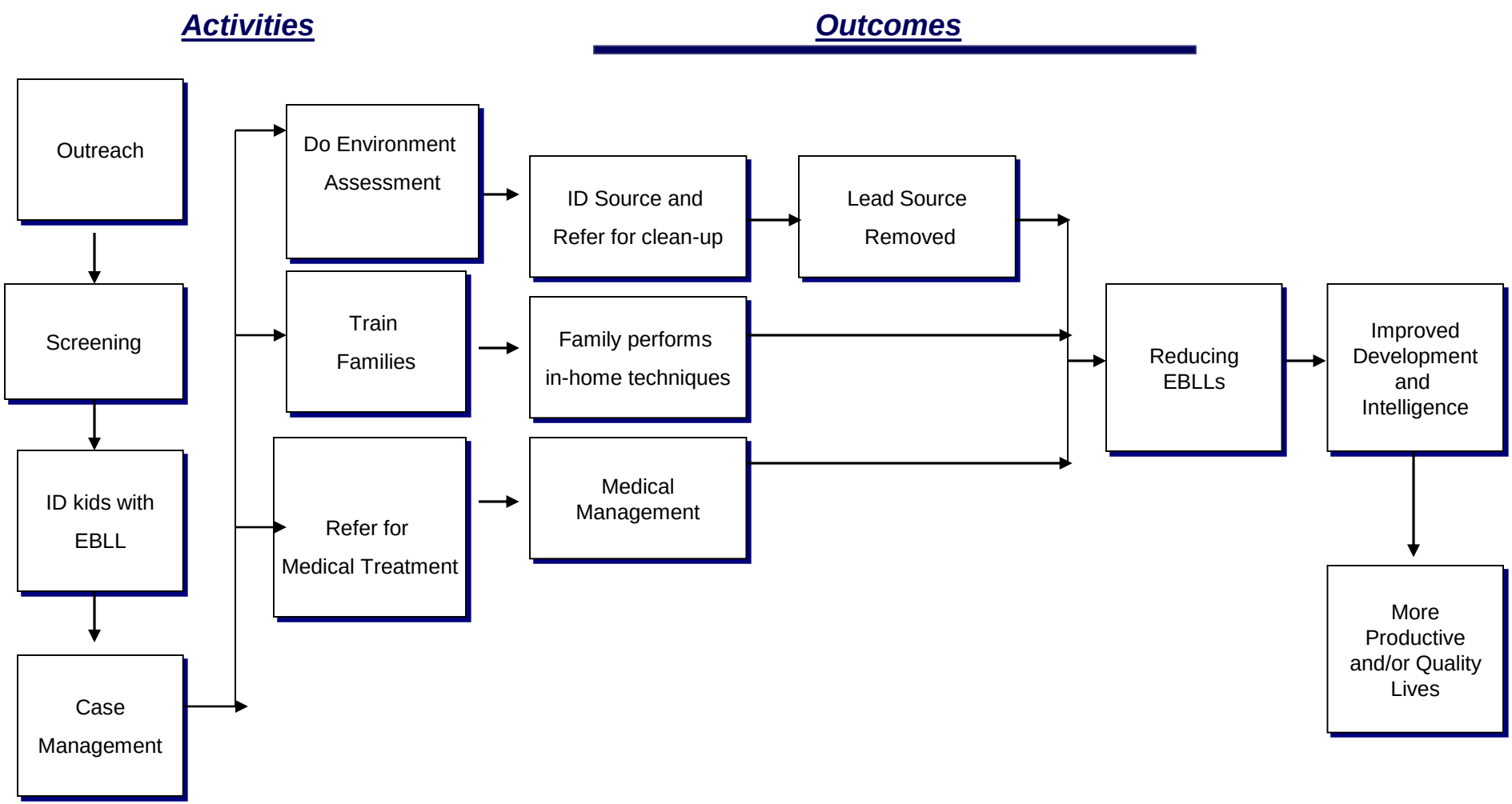
3. "Accountable" outcome



Choosing Accountable Outcome— “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

Lead Poisoning: “Causal” Roadmap



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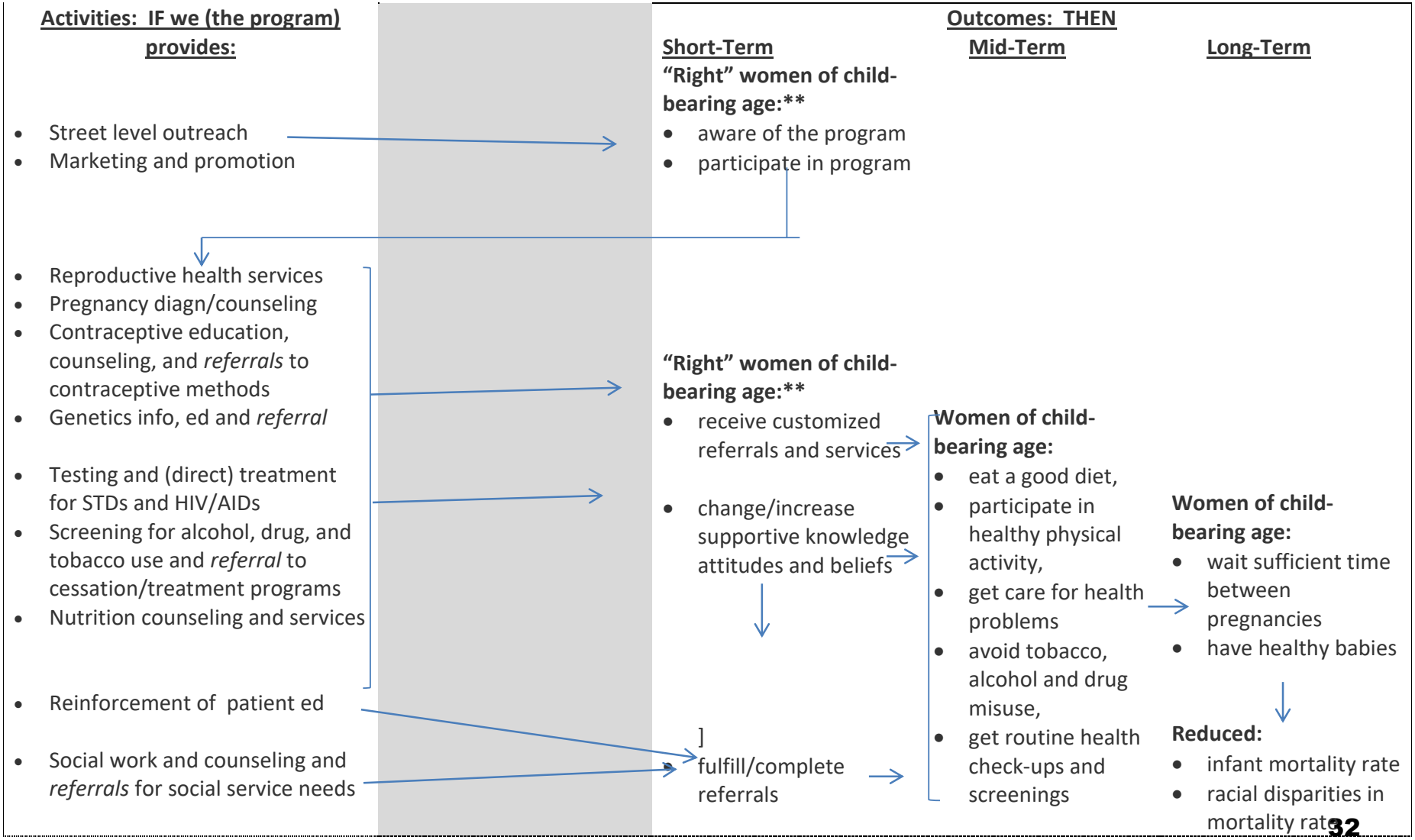
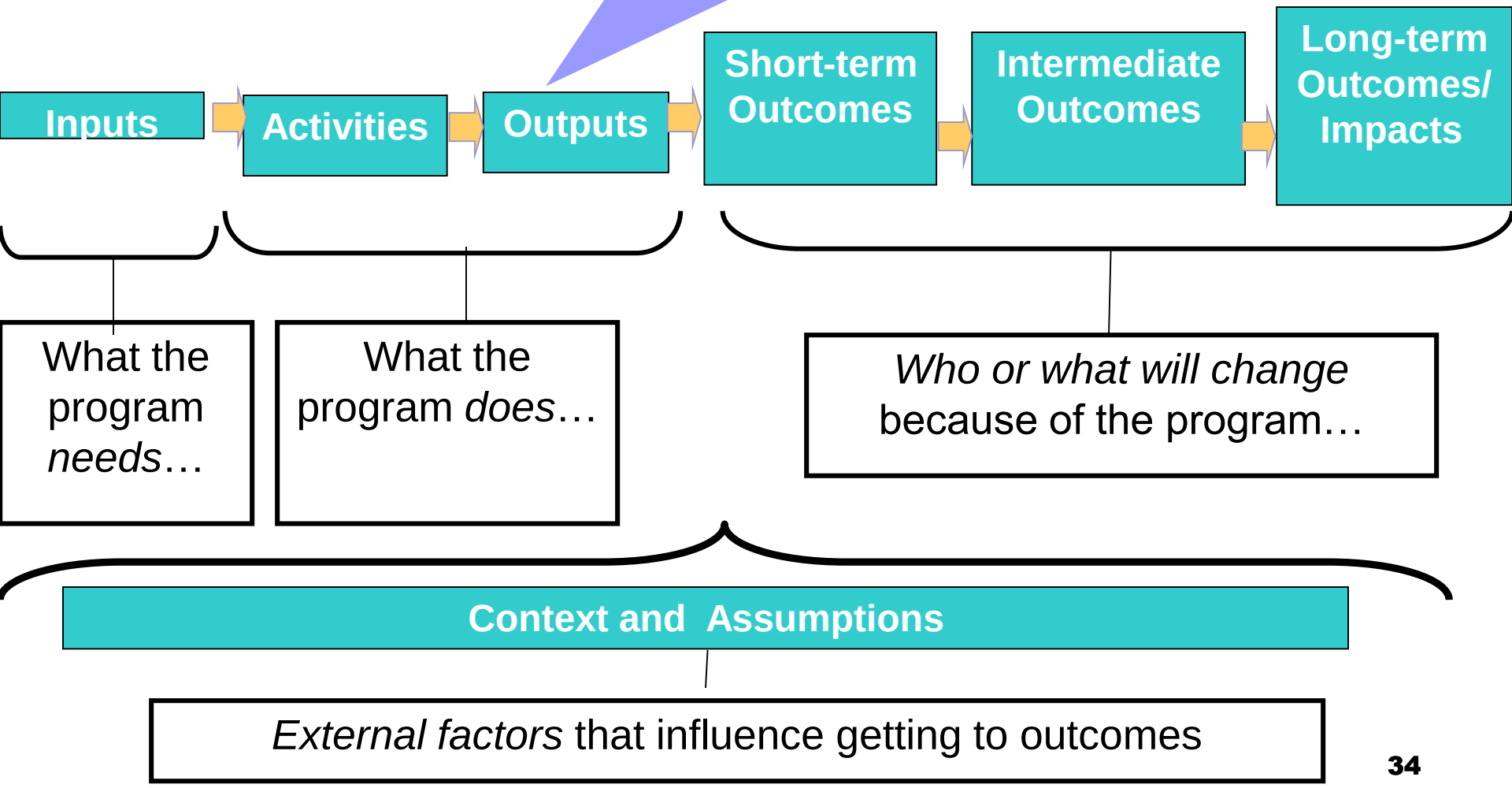


6 Things Every Program Needs to Know…What's Done!

1. **Big "need" to which it is contributing**
2. **Basic roadmap: "what"→ "so what" → need**
3. **ST outcomes that → accountable outcome**
4. **"Accountable" outcome**
5. "Strong" activities that → ST outcomes, AND what "strong" means [OUTPUTS]
6. Contextual factors that help/hobble [INPUTS/MODERATORS]

Simple Lo

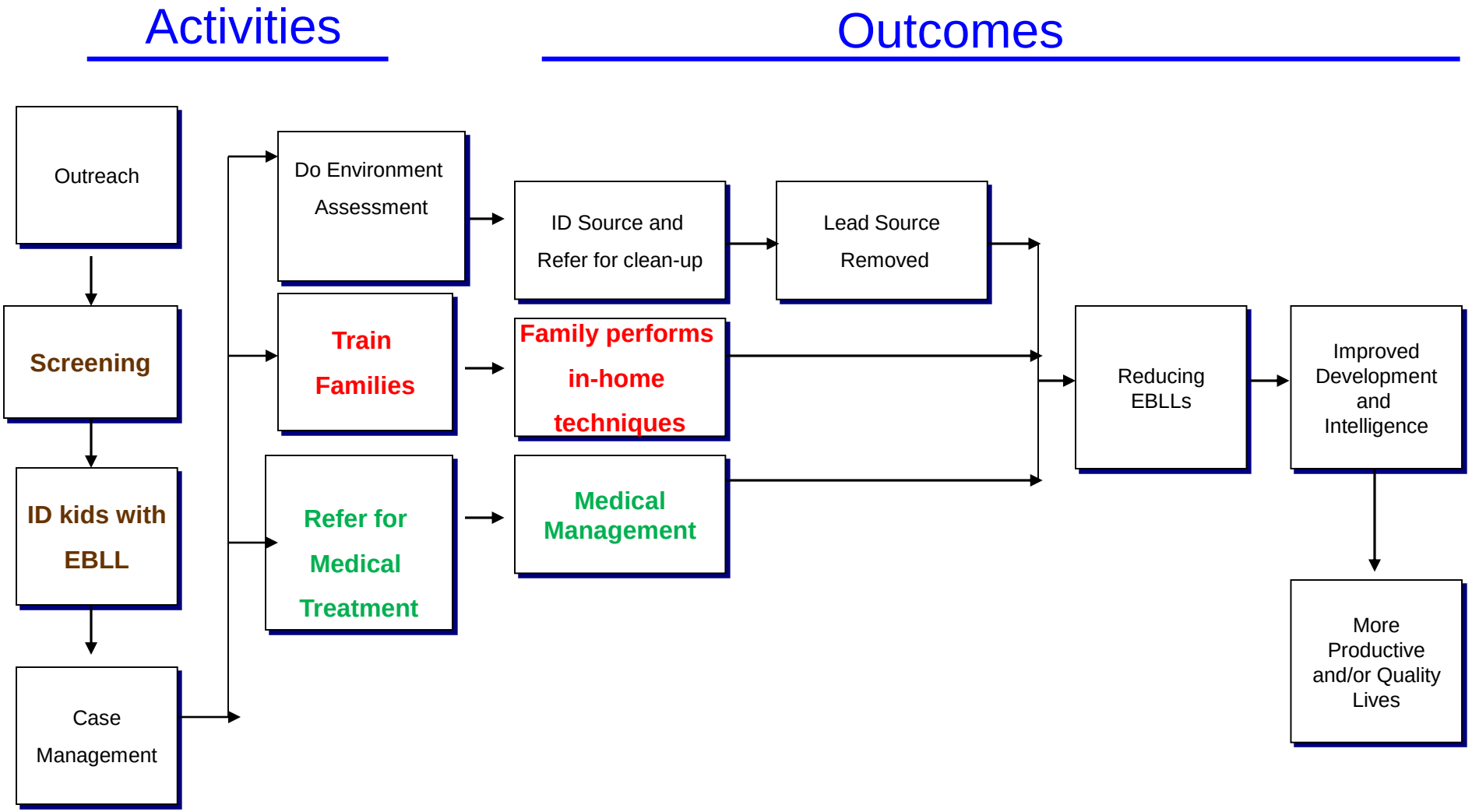
5. What "strong" activities means



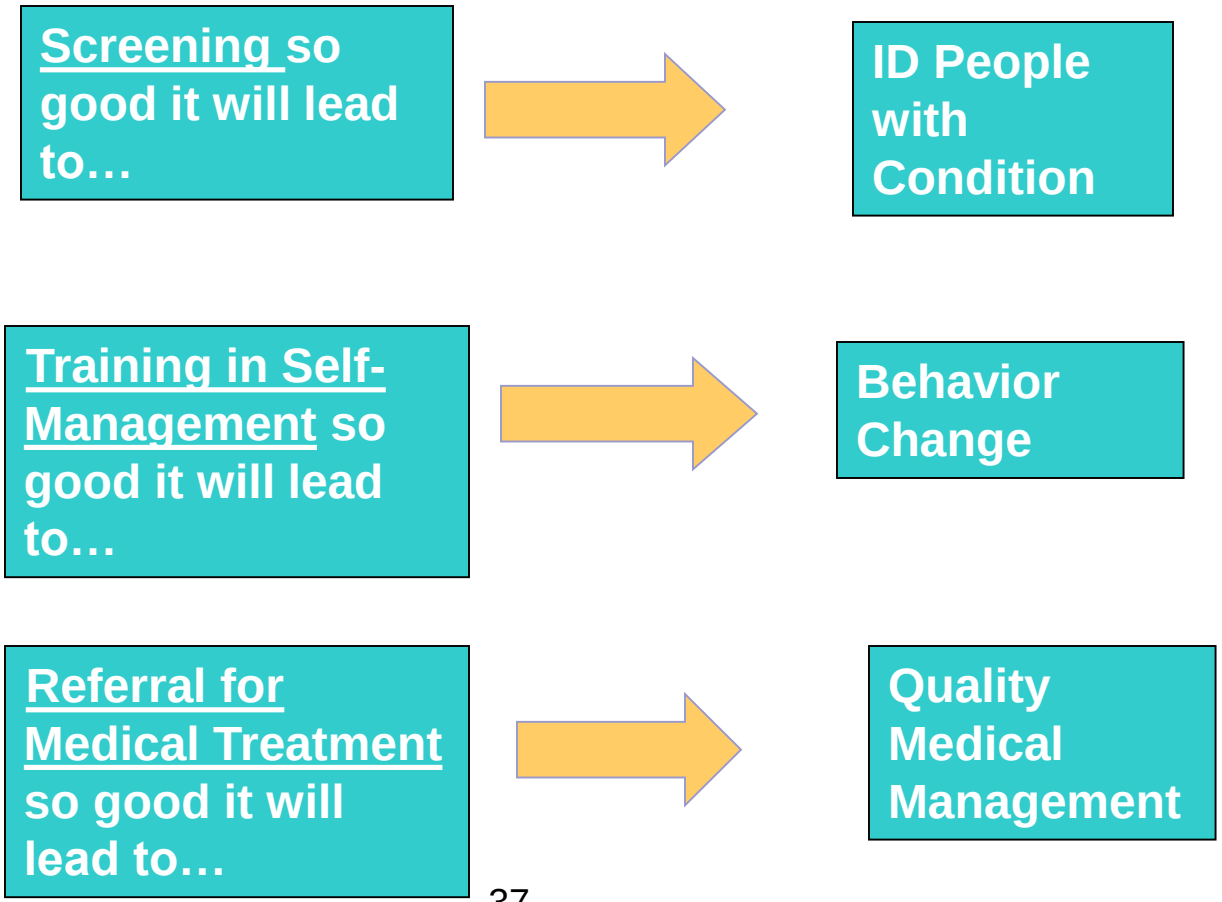
Traditional Outputs— Lead Program

- *Screening:* Pool (#) of screened kids
- *Training:* Pool (#) of clients trained
- *Referrals:* (#) referrals to medical treatment

Lead Poisoning: "Causal" Roadmap



The Plot Thickens



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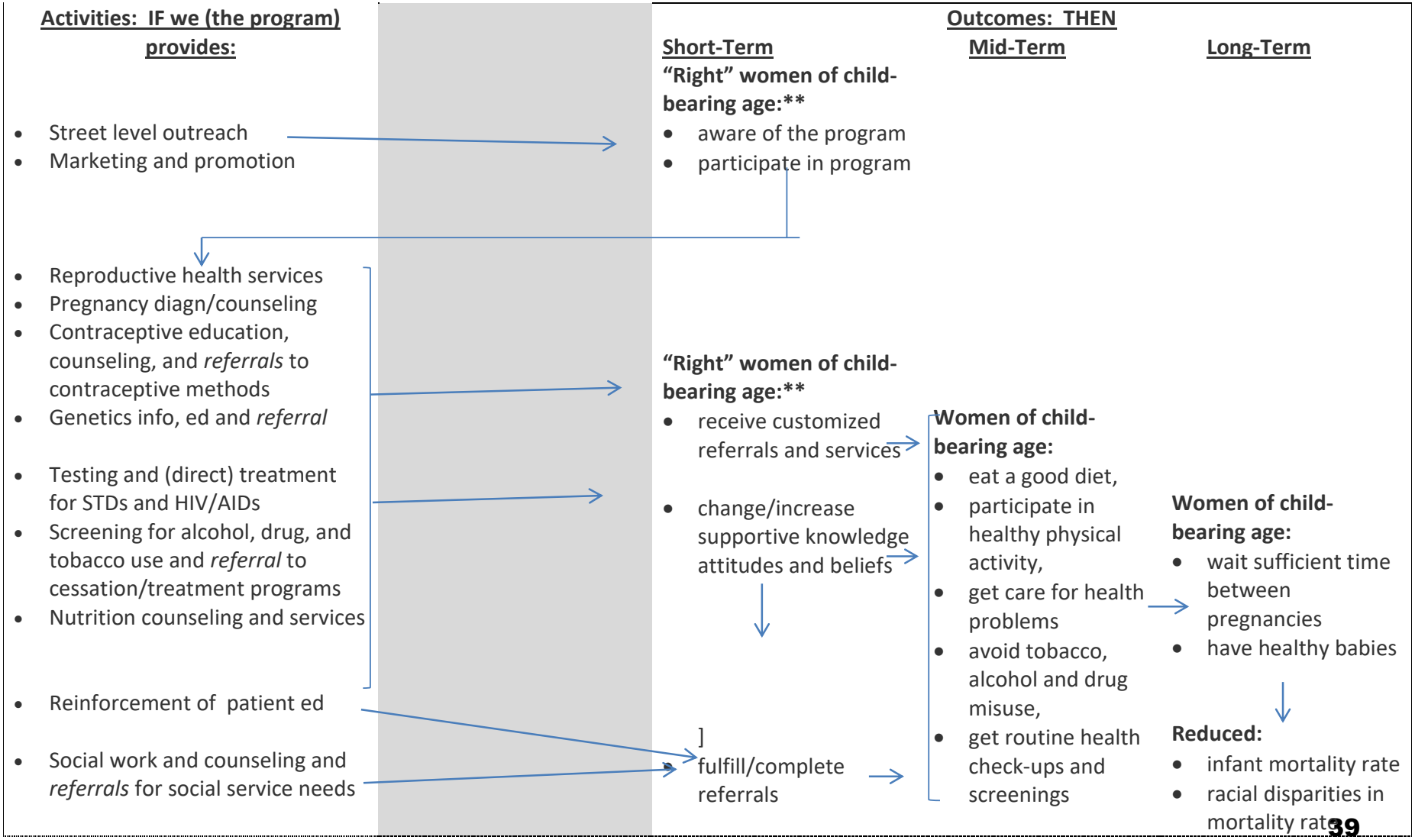
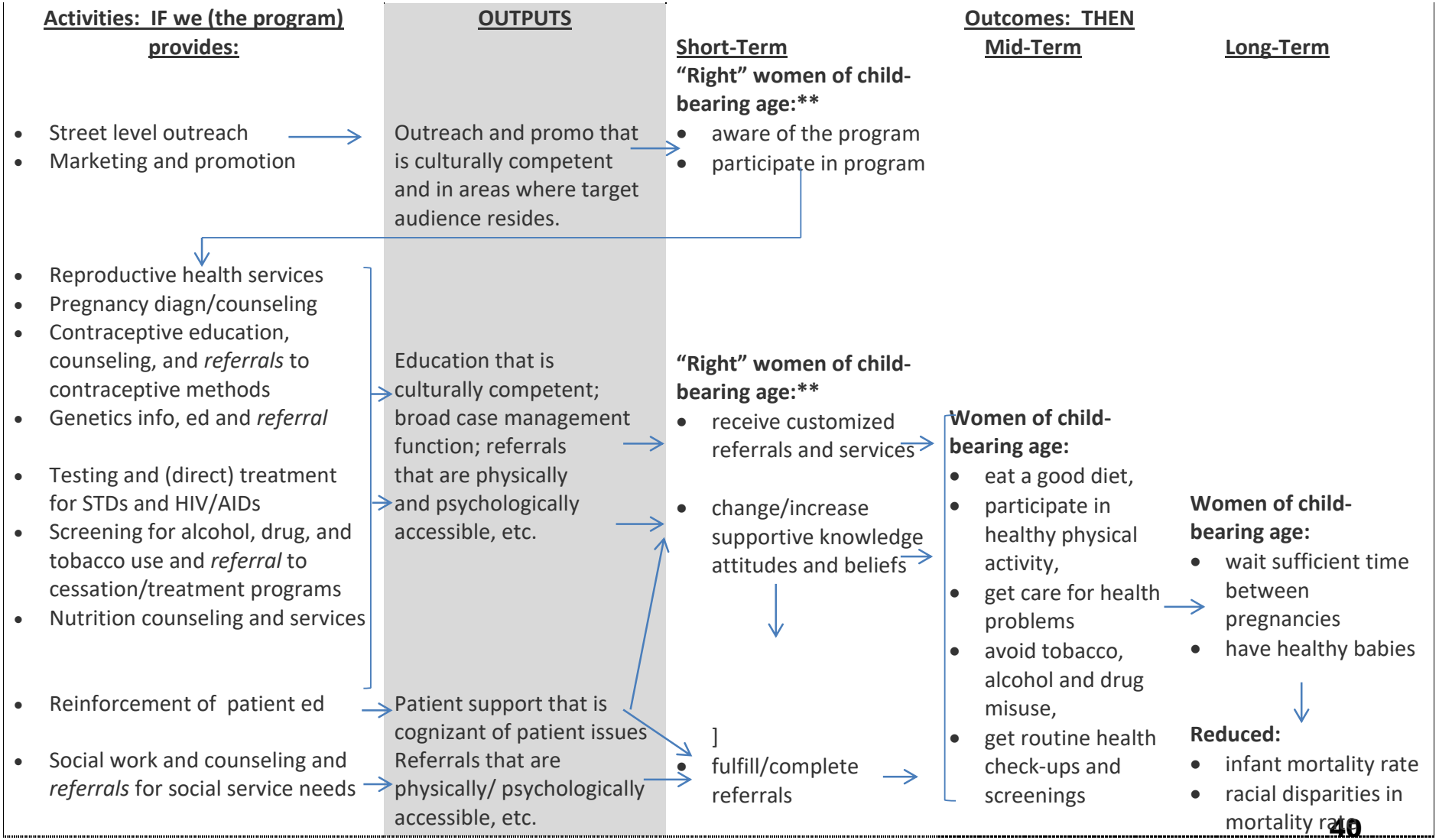
"Upgraded" Outputs: *More than Simple Counts*

- *Screening:* Pool (#) of screened kids *(meeting likely risk profile)*
- *Training:* Pool (#) of clients trained *(using culturally-competent curriculum and with appropriate supports)*
- *Referrals:* Pool(#) of referrals to *(qualified or willing)* medical treatment providers

Case Example: "Causal Roadmap"



Case Example



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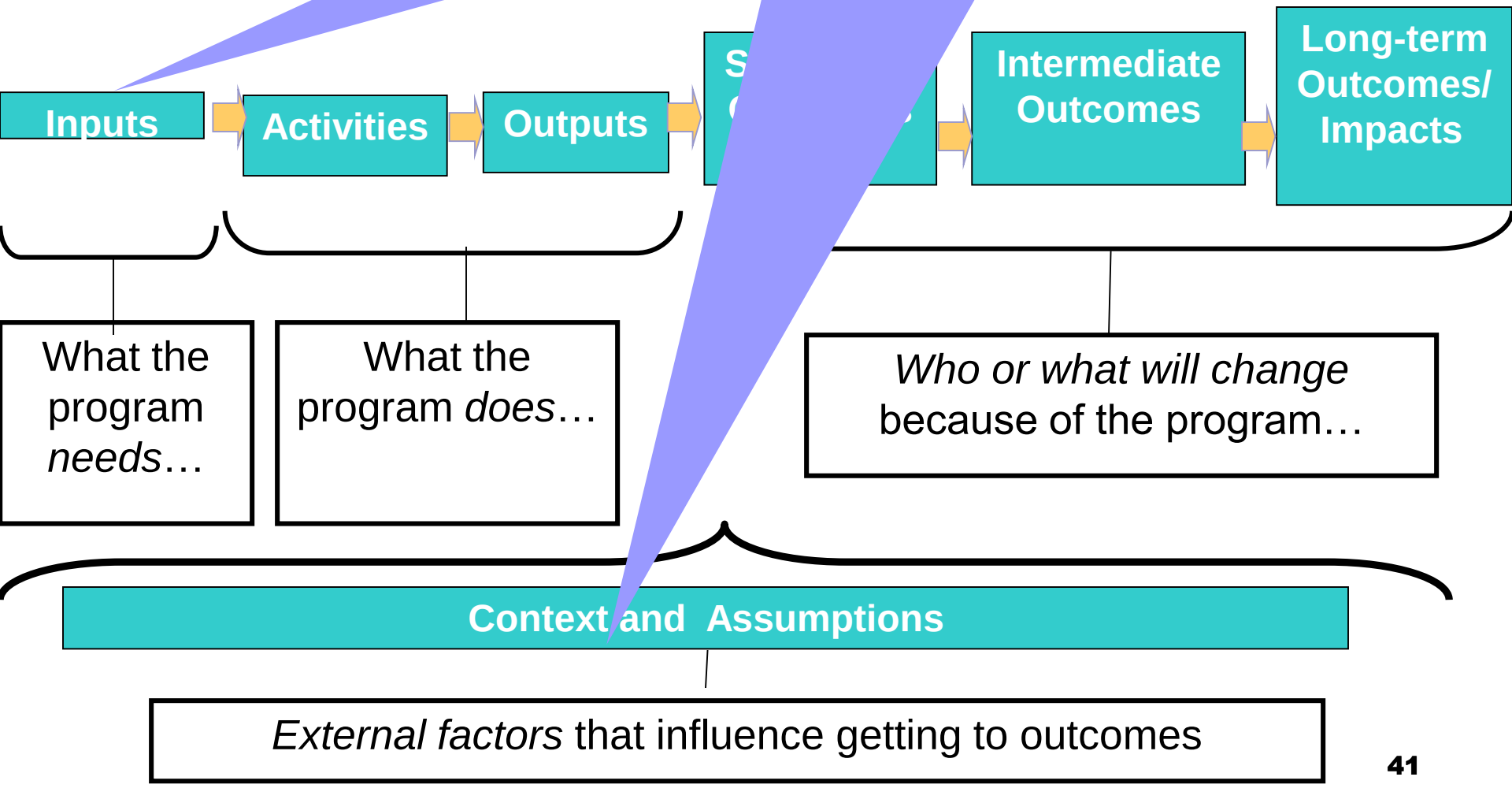
6. Outside factors that can help or hobble

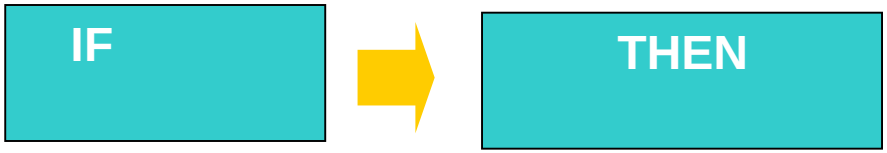


Inputs and Moderators

In search of "killer assumptions"

Understanding Our Program Logic—How Inputs and Moderators Help

From this…



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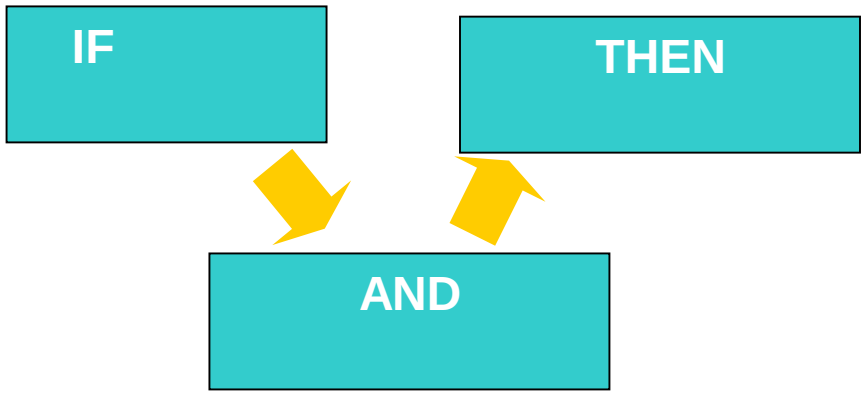
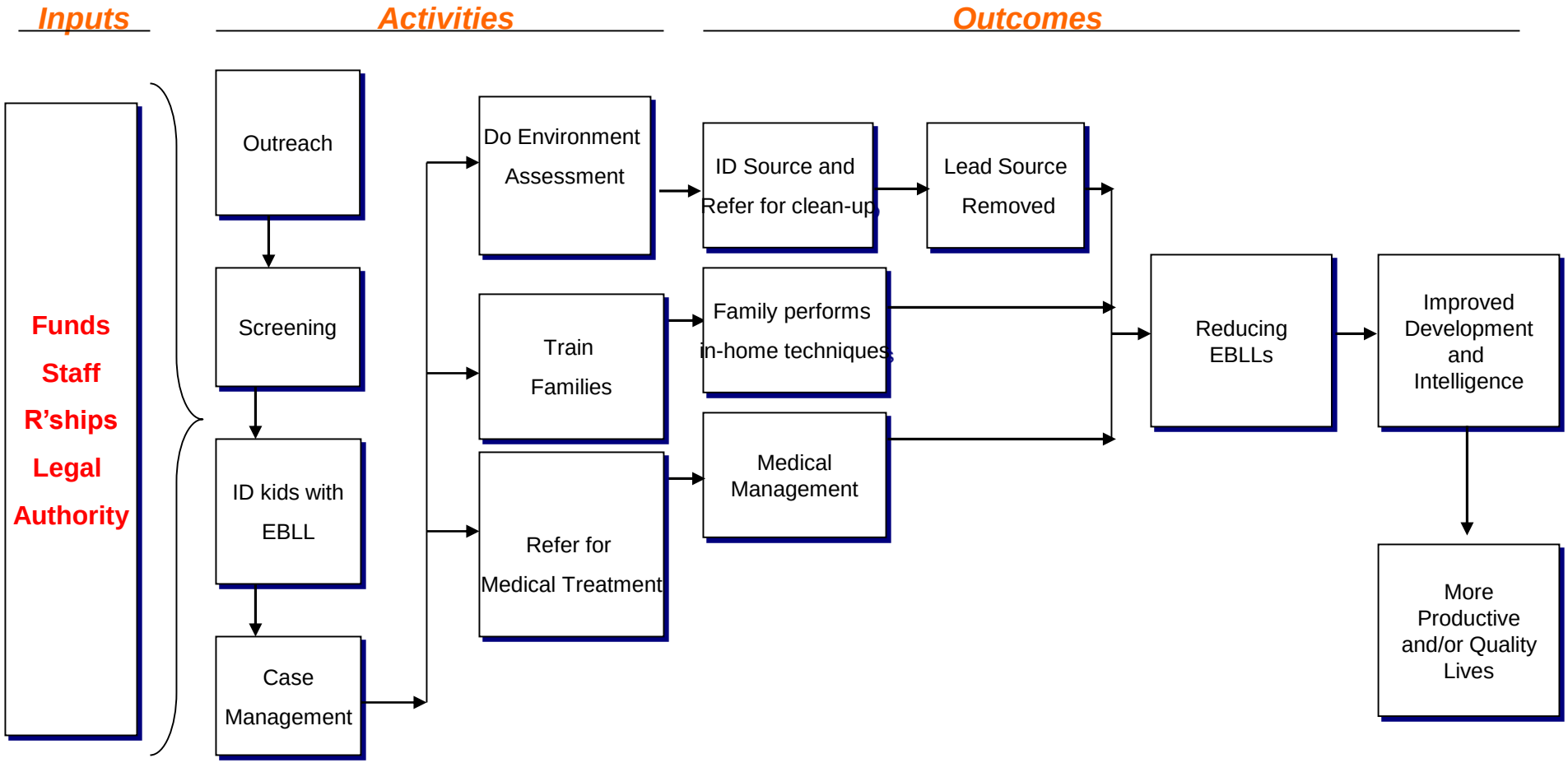


Lead Poisoning: Sample Inputs

- Funds
- Trained staff
- Legal authority to screen
- *Relationships with orgs for med treatment and environmental clean-up*

Lead Poisoning: "Causal" Roadmap



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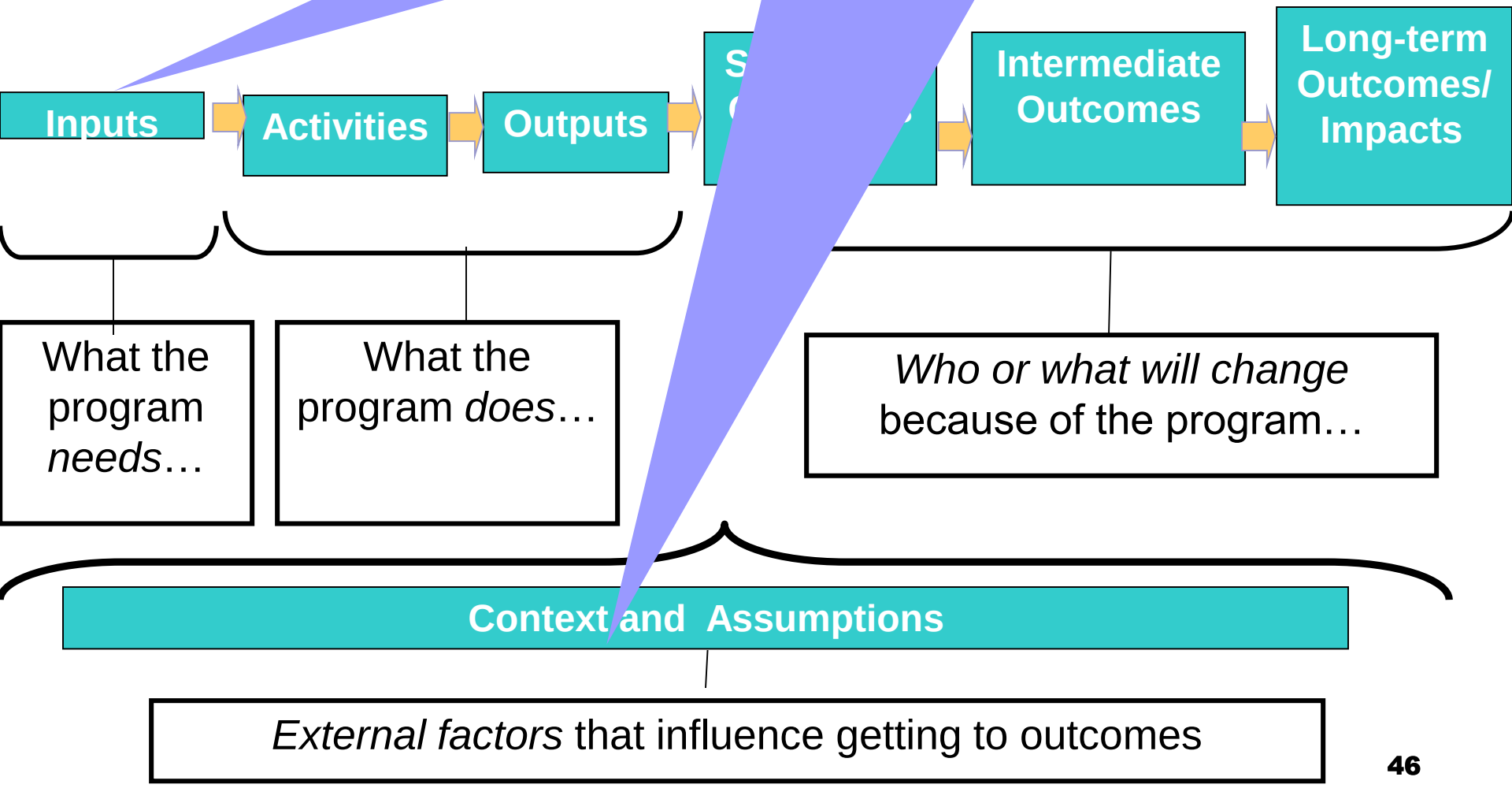


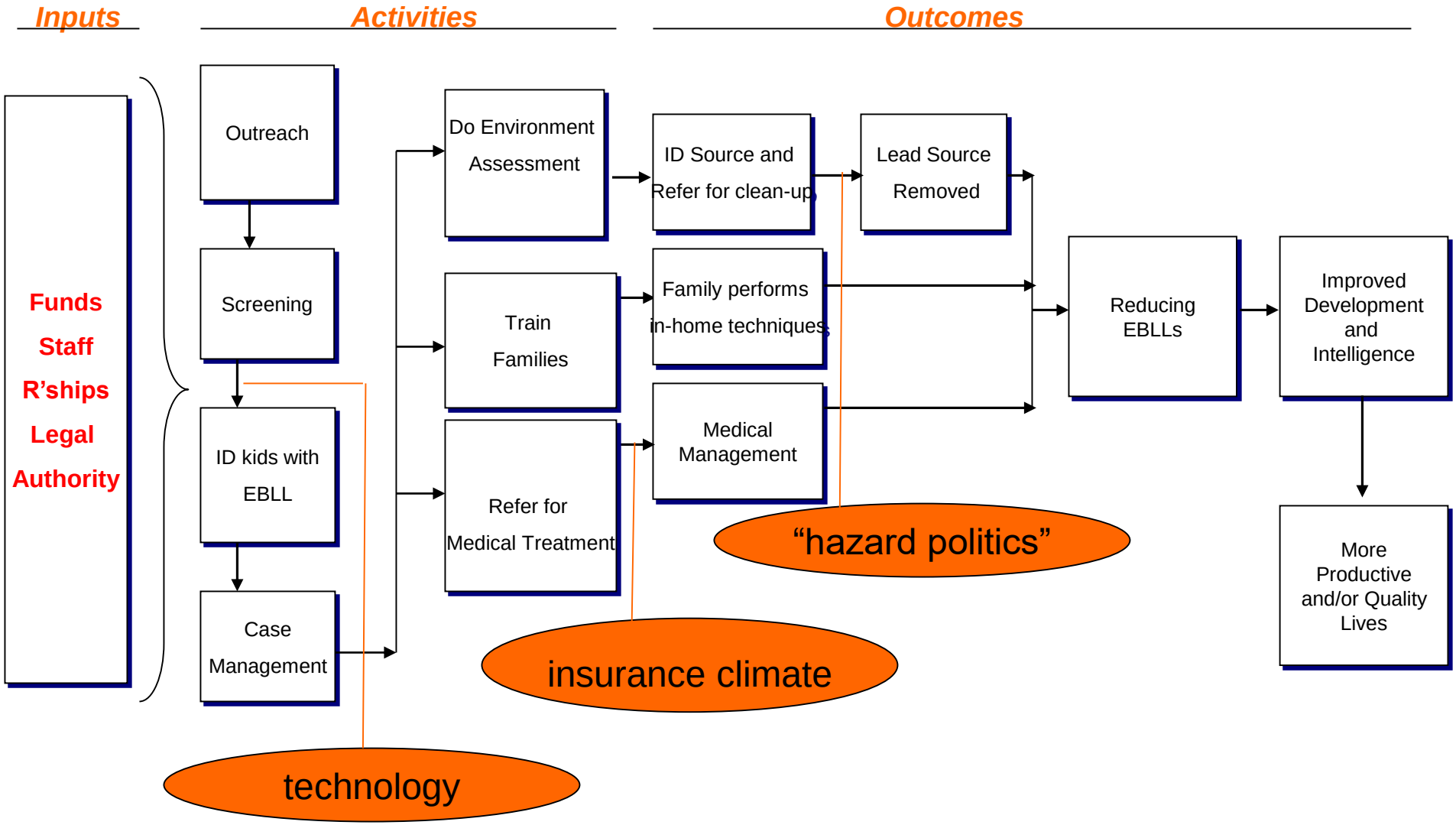
Contextual Factors

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

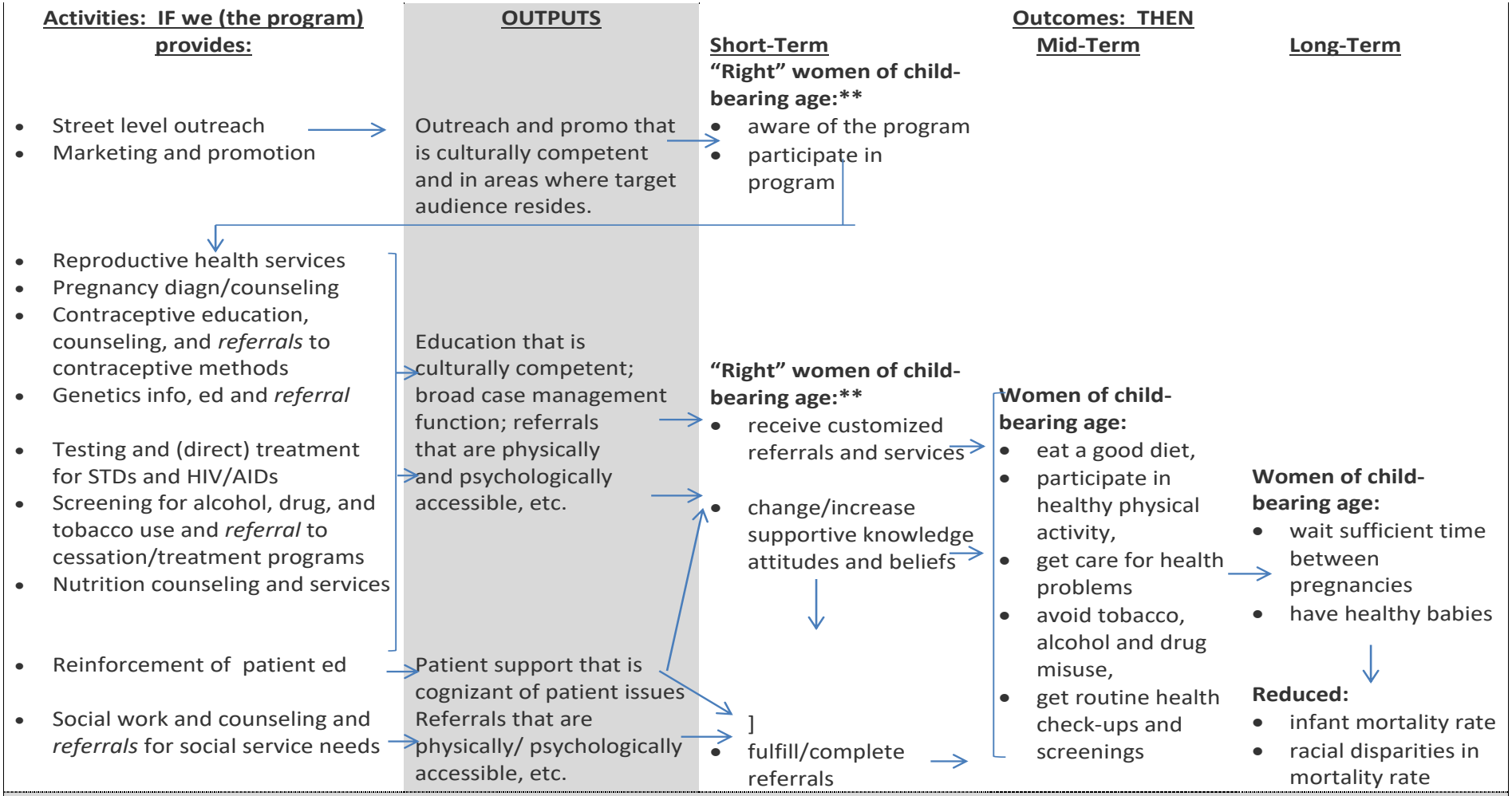
Moderators—Lead Poisoning

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

Lead Poisoning: "Causal" Roadmap



Case Example



Practical Program Evaluation

Putting the Logic Model to Use in Evaluation

m Evaluation

The 4 Evaluation Standards help focus efforts at each step

Setting Focus: Some Rules

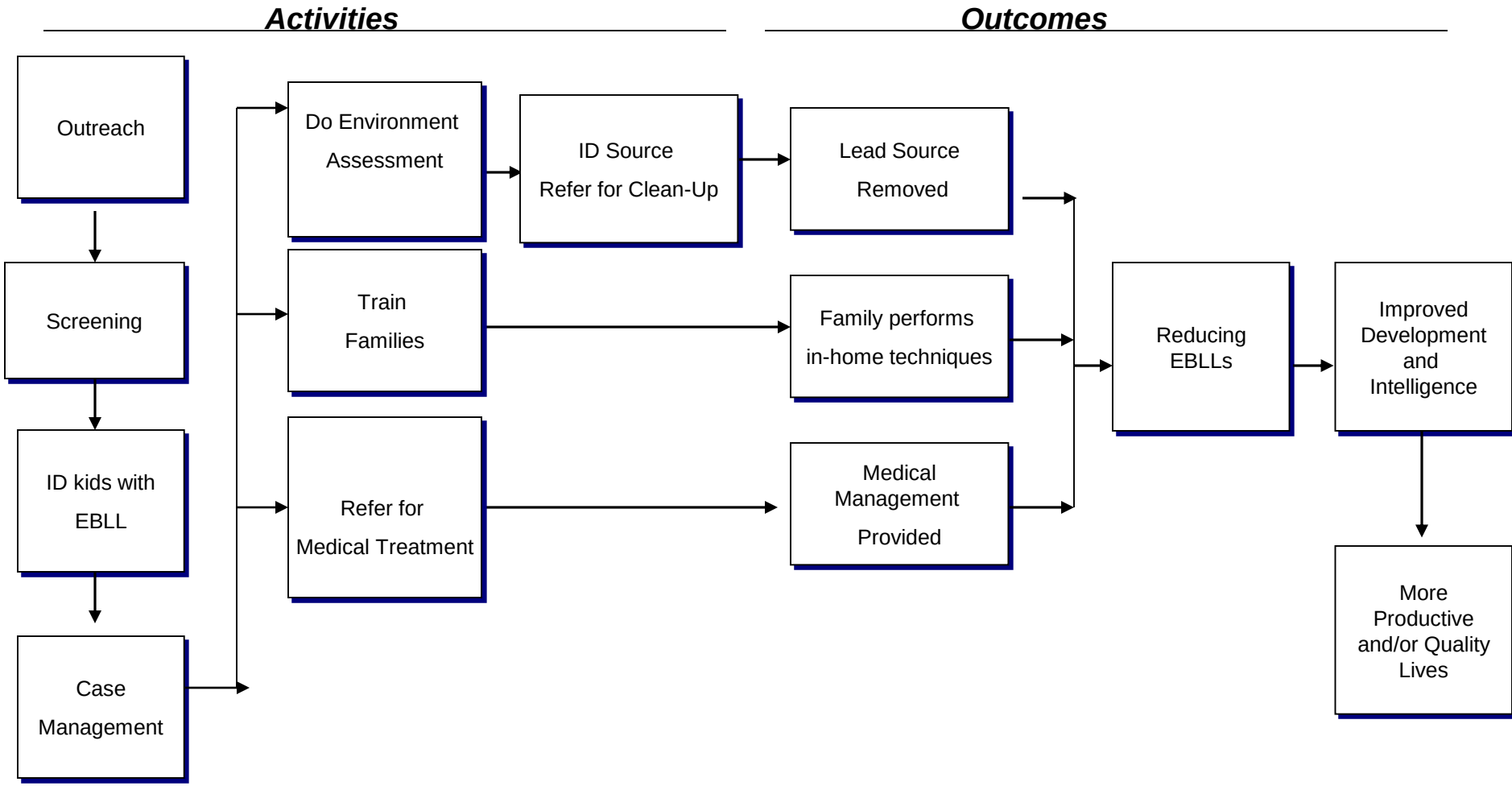
Based on “utility” standard:

- ***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?

(Some) Potential Purposes

- Test program implementation
- Show accountability
- “Continuous” program improvement
- Increase the knowledge base
- Other…
- Other…

Lead Poisoning: Roadmap for an Existing Program



“Reality Checking” the Focus

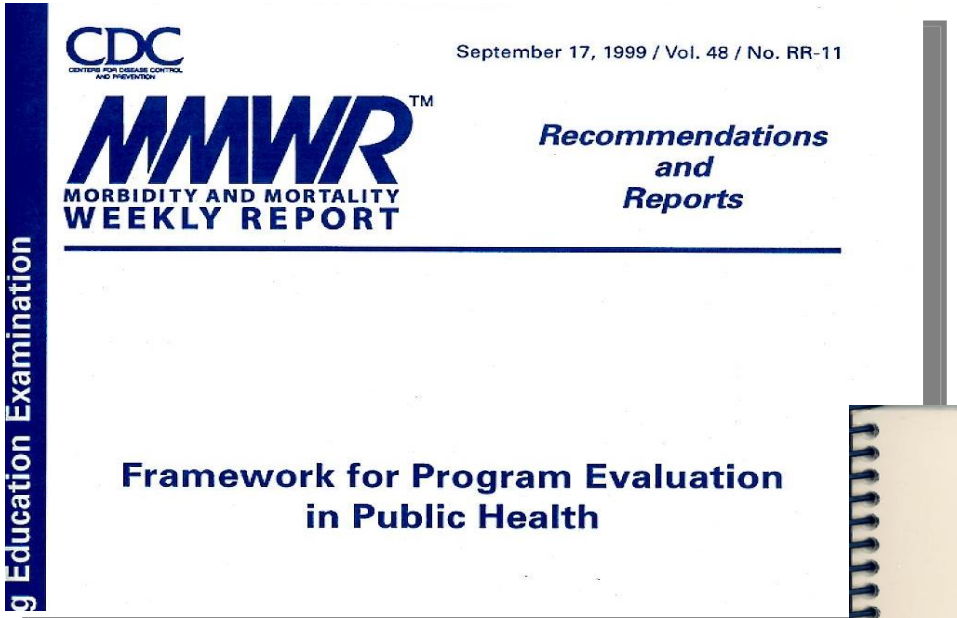
Based on “feasibility” standard:

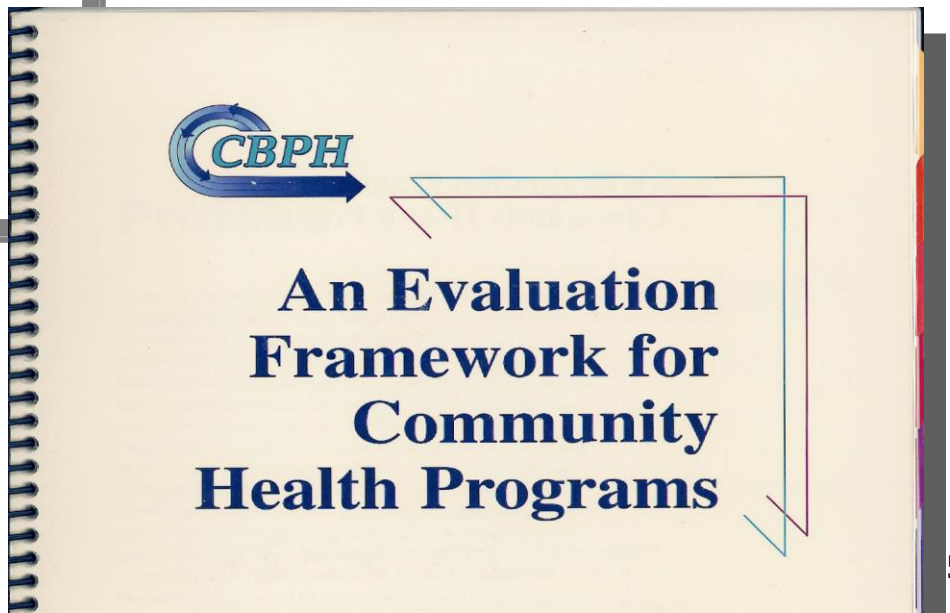
- ***Stage of Development:*** How long has the program been in existence?
- ***Program Intensity:*** How intense is the program? How much impact is reasonable to expect?
- ***Resources:*** How much time, money, expertise are available?

Practical Program Evaluation

Life Post-Session

Helpful Publications @ www.cdc.gov/eval



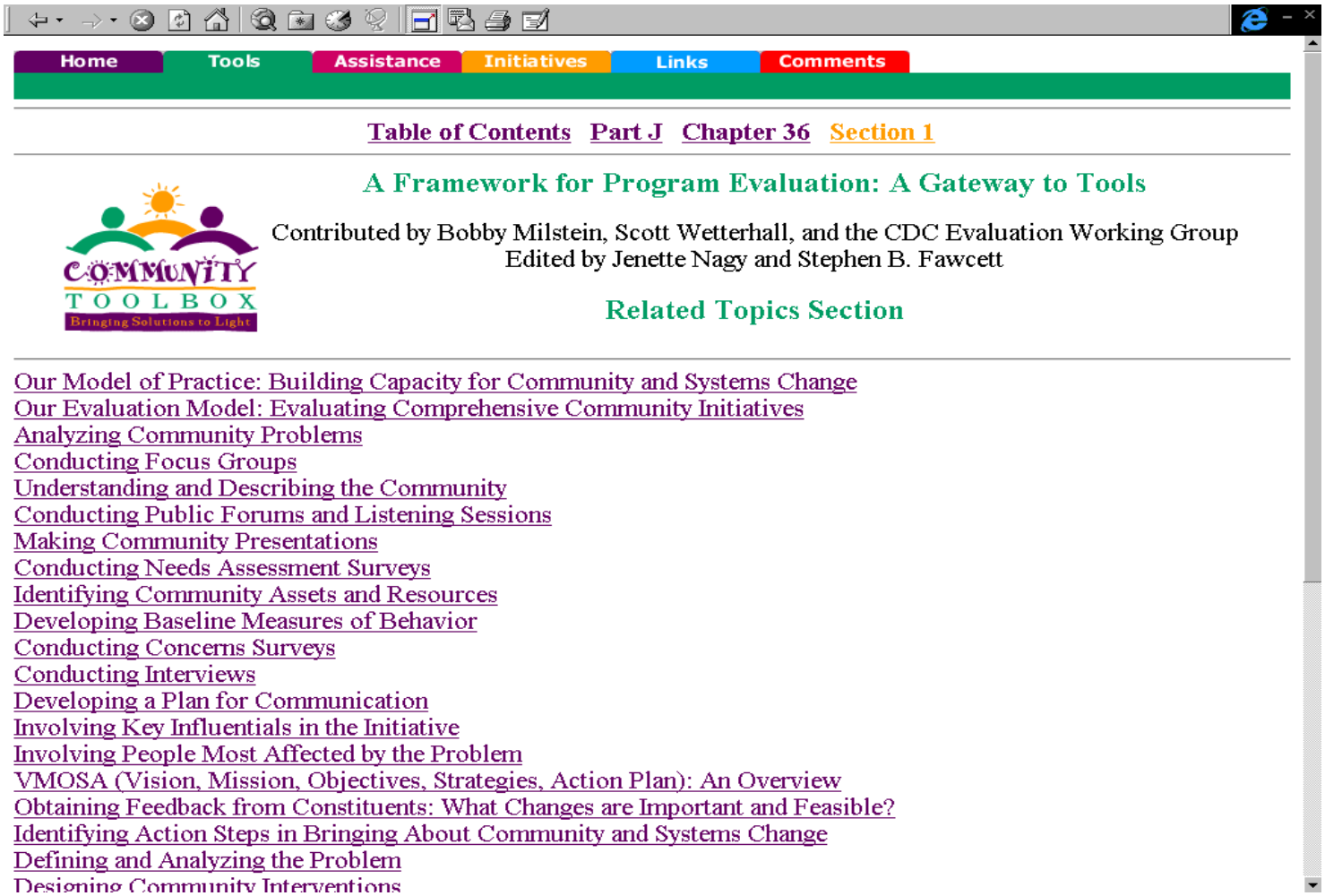


Helpful Resources

- 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/
  - W.K. Kellogg Foundation Evaluation Resources: http://www.wkkf.org/programming/overview.aspx?CID=281
  - University of Wisconsin-Extension: http://www.uwex.edu/ces/lmcourse/
- Texts
  - Rogers et al. Program Theory in Evaluation. New Directions Series: Jossey-Bass, Fall 2000
  - Chen, H. Theory-Driven Evaluations. Sage. 1990

Community Tool Box

http://ctb.ku.edu



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A Framework for Program Evaluation: A Gateway to Tools

Contributed by Bobby Milstein, Scott Wetterhall, and the CDC Evaluation Working Group
Edited by Jenette Nagy and Stephen B. Fawcett

Related Topics Section

Our Model of Practice: Building Capacity for Community and Systems Change
Our Evaluation Model: Evaluating Comprehensive Community Initiatives
Analyzing Community Problems
Conducting Focus Groups
Understanding and Describing the Community
Conducting Public Forums and Listening Sessions
Making Community Presentations
Conducting Needs Assessment Surveys
Identifying Community Assets and Resources
Developing Baseline Measures of Behavior
Conducting Concerns Surveys
Conducting Interviews
Developing a Plan for Communication
Involving Key Influentials in the Initiative
Involving People Most Affected by the Problem
VMOSA (Vision, Mission, Objectives, Strategies, Action Plan): An Overview
Obtaining Feedback from Constituents: What Changes are Important and Feasible?
Identifying Action Steps in Bringing About Community and Systems Change
Defining and Analyzing the Problem
Designing Community Interventions

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