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ABDUL LATIF JAMEEL POVERTY ACTION LAB

What is (Impact) Evaluation?
Why Evaluate?

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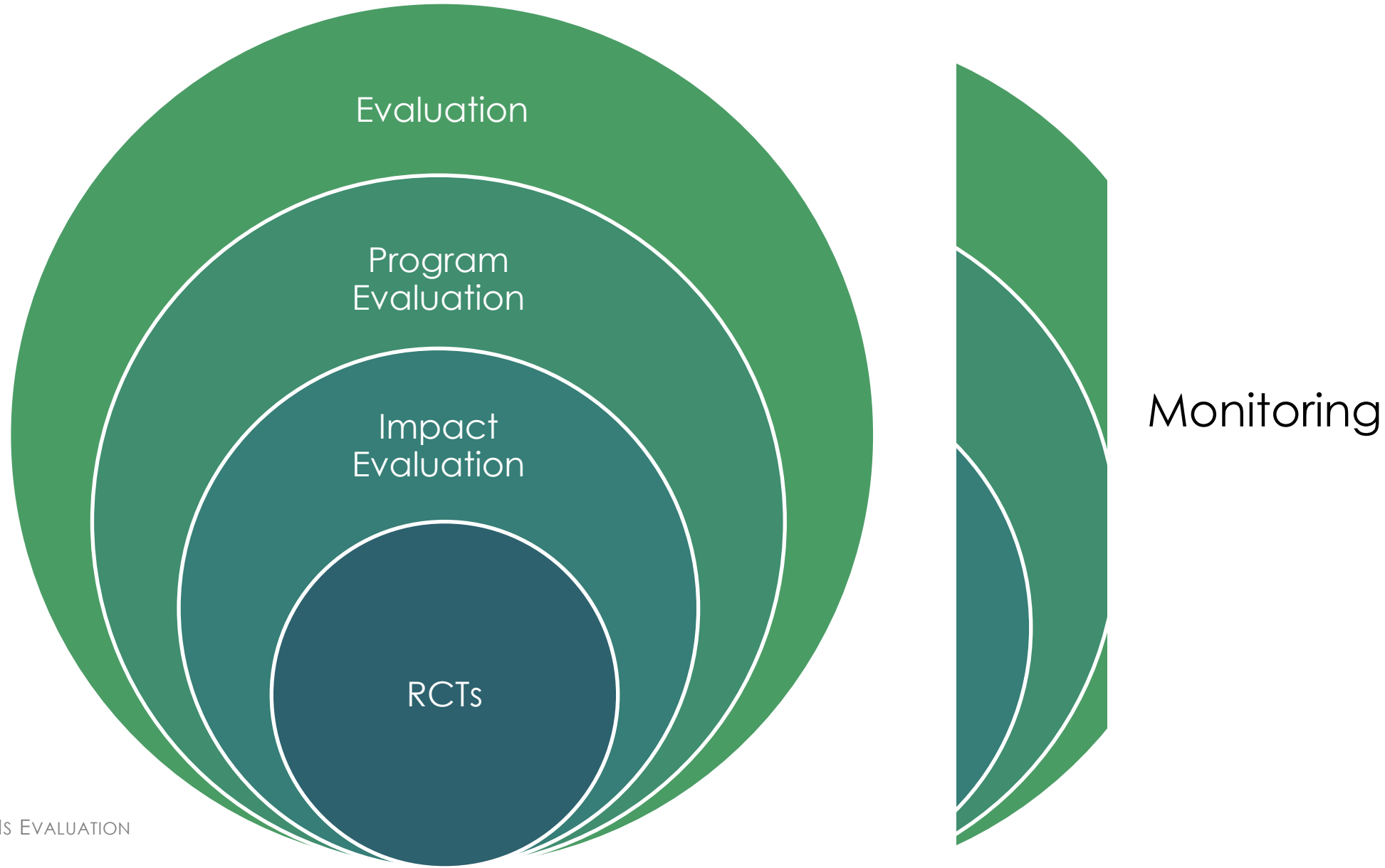
I. What is Evaluation?

II. Components of Program Evaluation

What is Evaluation?



Which one of these would make a good question for an impact evaluation?

A. Does nutrition education for pregnant women increase newborns' weight?

B. Do pregnant women have a right to sufficient food?

C. Are trainers spreading misinformation when delivering nutrition education?

Impact evaluation should usually be conducted:

A. Externally and independent from the implementers of the program being evaluated
B. Externally and closely integrated with program implementers
C. Internally
D. Don't know

I. What is Evaluation?

II. Components of Program Evaluation

Components of Program Evaluation

An Example

WATER, SANITATION & HEALTH in a low-income country

What is the best solution for reducing diarrheal disease?

A. Water source infrastructure
B. Supply & subsidization of purification methods (e.g. chlorine, clay filters, stoves to boil water)
C. Education on sanitation
D. Sanitation infrastructure (e.g. latrines)
E. I don't know / Other

Identifying the Problem

NEEDS ASSESSMENT

Questions answered by a Needs Assessment

- Does the problem we are proposing to solve actually exist?
  - What is the likely source of the problem?
  - What is the extent of the problem?
  - Who is in most need?
- What solutions have been proposed or tried before?
  - Did they work? Why & how?
  - Are they feasible in this context?

Needs Assessment

- Does the problem exist?
  - Diarrheal disease killed approximately 2.6 million people per year between 1990 and 2000
  - 20% of all child deaths (under 5 years old) are from diarrhea

.....what is the likely source?

Really the source of the problem?

- Water quality helps little without hygiene (Esrey, 1996)
  - 2.3 billion people lack basic sanitation facilities (WHO)

- People are more willing to pay for convenient water than clean water

- Chlorine is very cheap…
  - In Zambia, $0.18 per month for a family of six
  - In Kenya, $0.30 per month
- but less than 10% of households purchase treatment

Kremer, Michael, Amrita Ahuja and Alex Peterson Zwane. "Providing Safe Water: Evidence from Randomized Evaluations" Discussion Paper 2010--23, Cambridge, Mass.: Harvard Environmental Economics Program, September, 2010.

Potential Solutions

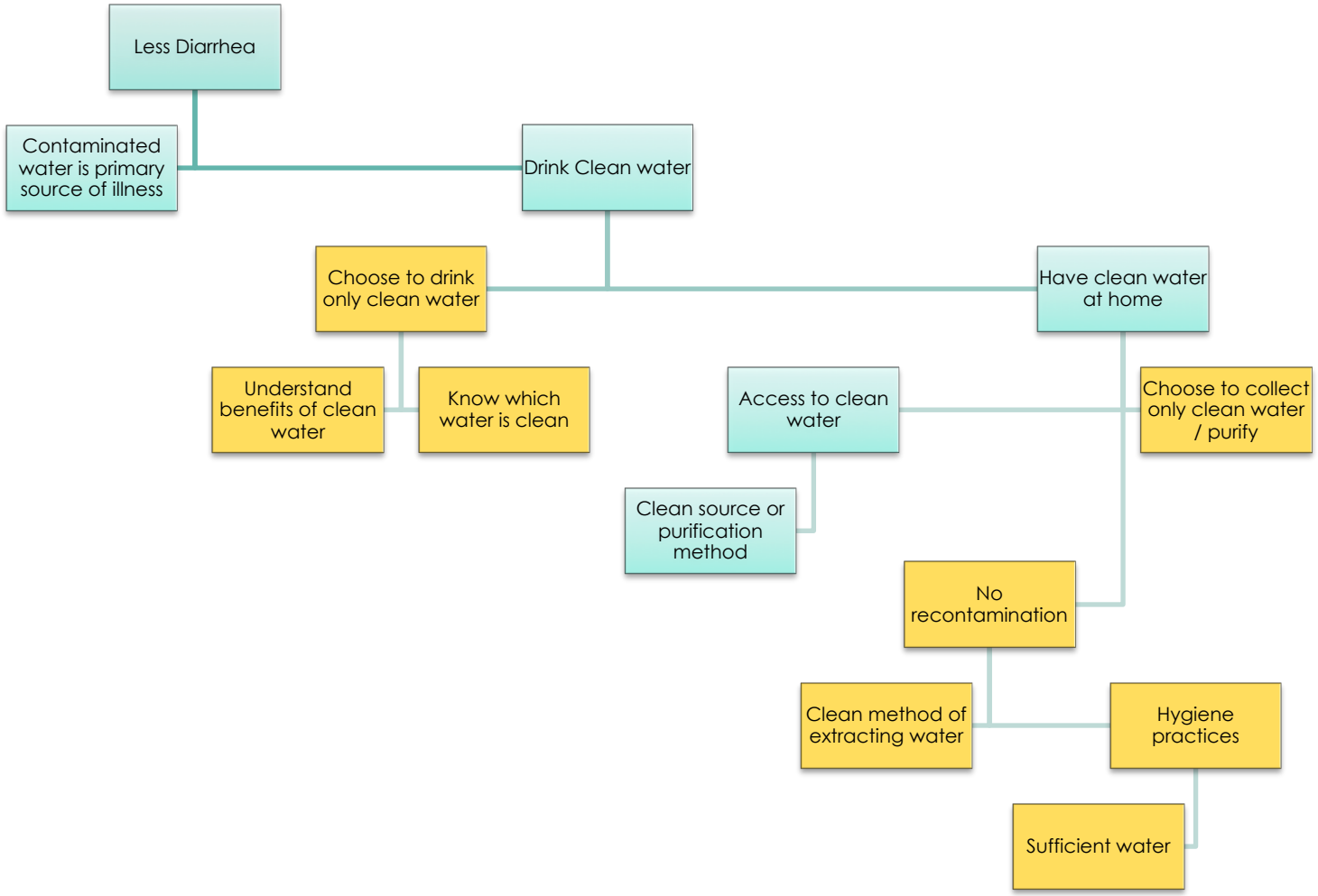
Blueprint for Change

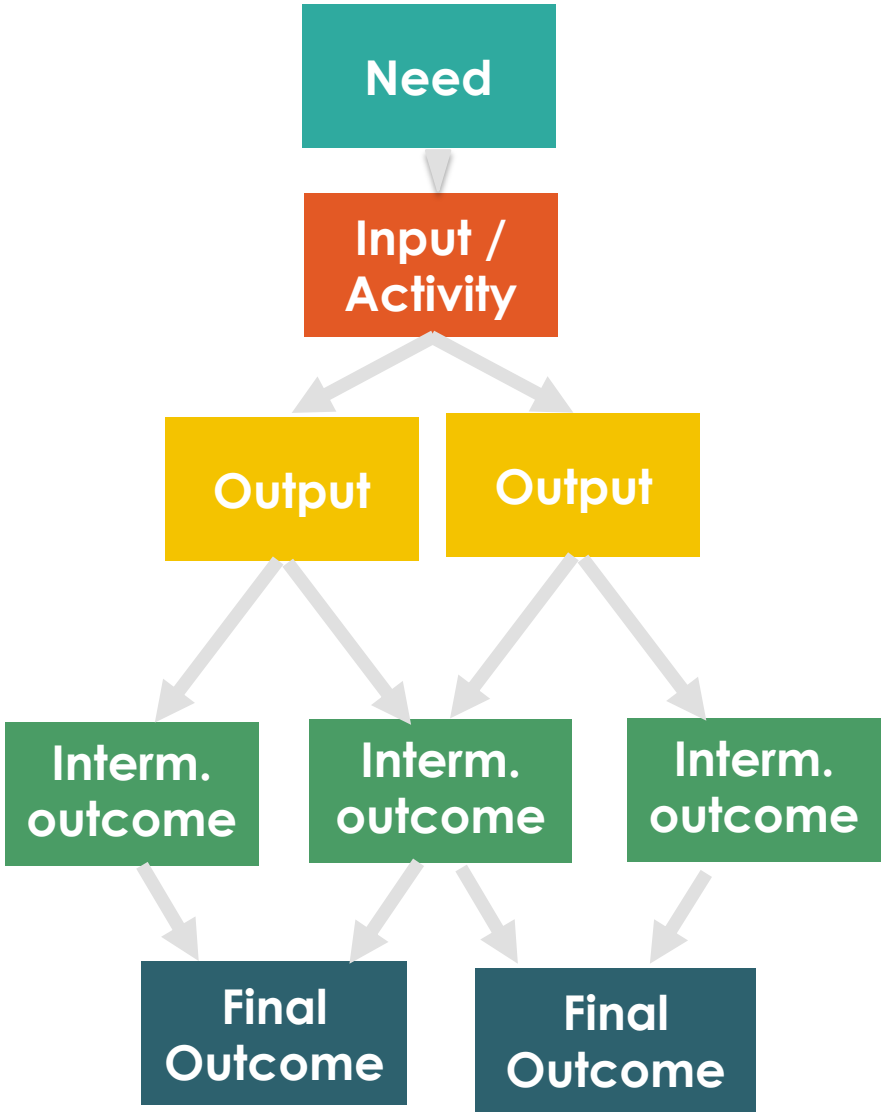
THEORY OF CHANGE

Questions answered by a Theory of Change

- What are the underlying reasons for the current conditions? What is currently lacking?
- How will the program address these needs?
- What are immediate inputs or activities of the program?
- How do these inputs feed into the ultimate goals of the program?

Theory of Change




Need
Input / Activity
Output
Output
Interm. outcome
Interm. outcome
Interm. outcome
Final Outcome
Final Outcome

Log Frame

	Objectives Hierarchy	Indicators	Sources of Verification	Assumptions / Threats
Final Outcome	Lower rates of diarrhea	Rates of diarrhea	Household survey	Waterborne disease is primary cause of diarrhea
Intermediate Outcome	Households drink cleaner water	(Δ in) drinking water source; E. coli CFU/100ml	Household survey, water quality test at home storage	Households collect clean water. No recontamination
Output	Source water is cleaner	E. coli CFU/100ml	Water quality test at source	Knowledge of maintenance. Continued maintenance of water source.
Input (Intervention/ Activity)	Source protection is built	Protection is present, functional	Source visits/ surveys	Sufficient materials, funding, & labor

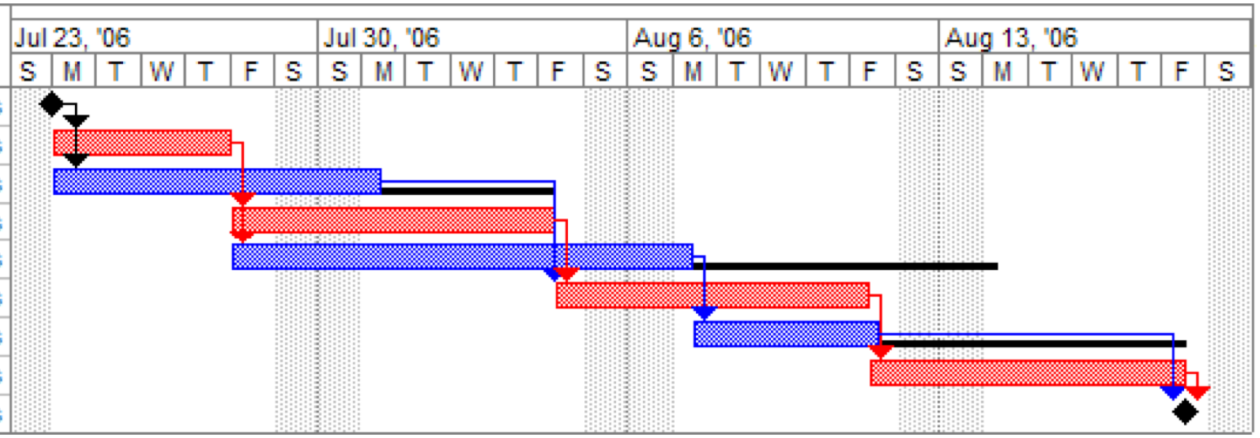
Making the program work

PROCESS EVALUATION

Questions answered by a Process Evaluation

- Was the program carried out as planned?
  - Are basic tasks being completed?
  - Is the intervention reaching the target population?
  - Is the intervention being completed well or efficiently and to the beneficiaries' satisfaction?

ID	Task Name	Predecessors	Duration
1	Start		0 days
2	a	1	4 days
3	b	1	5.33 days
4	c	2	5.17 days
5	d	2	6.33 days
6	e	3,4	5.17 days
7	f	5	4.5 days
8	g	6	5.17 days
9	Finish	7,8	0 days



Process Evaluation

- Inputs:
  - Springs for encasement identified
  - Encasements for springs were built
  - Impact evaluation rollout proceeding as planned
  - Maintenance was performed

- Outputs:
  - 66% reduction in source water e coli concentration

Measuring how well it worked

IMPACT EVALUATION

Questions answered by an Impact Evaluation

- Did the program impact the problem / outcome?
  - Did concrete encasing of the springs impact diarrhea rates?

- If so, how much impact did the program have?
  - How much did diarrhea rates decrease?

What was the impact?

- Intermediate outcome:
  - 24% reduction in household E coli concentration

- Outcomes:
  - 25% reduction in incidence of diarrhea

Making Policy from Evidence

Intervention	Impact on Diarrhea
Spring protection (Kenya)	25% reduction in diarrhea incidence for ages 0-3

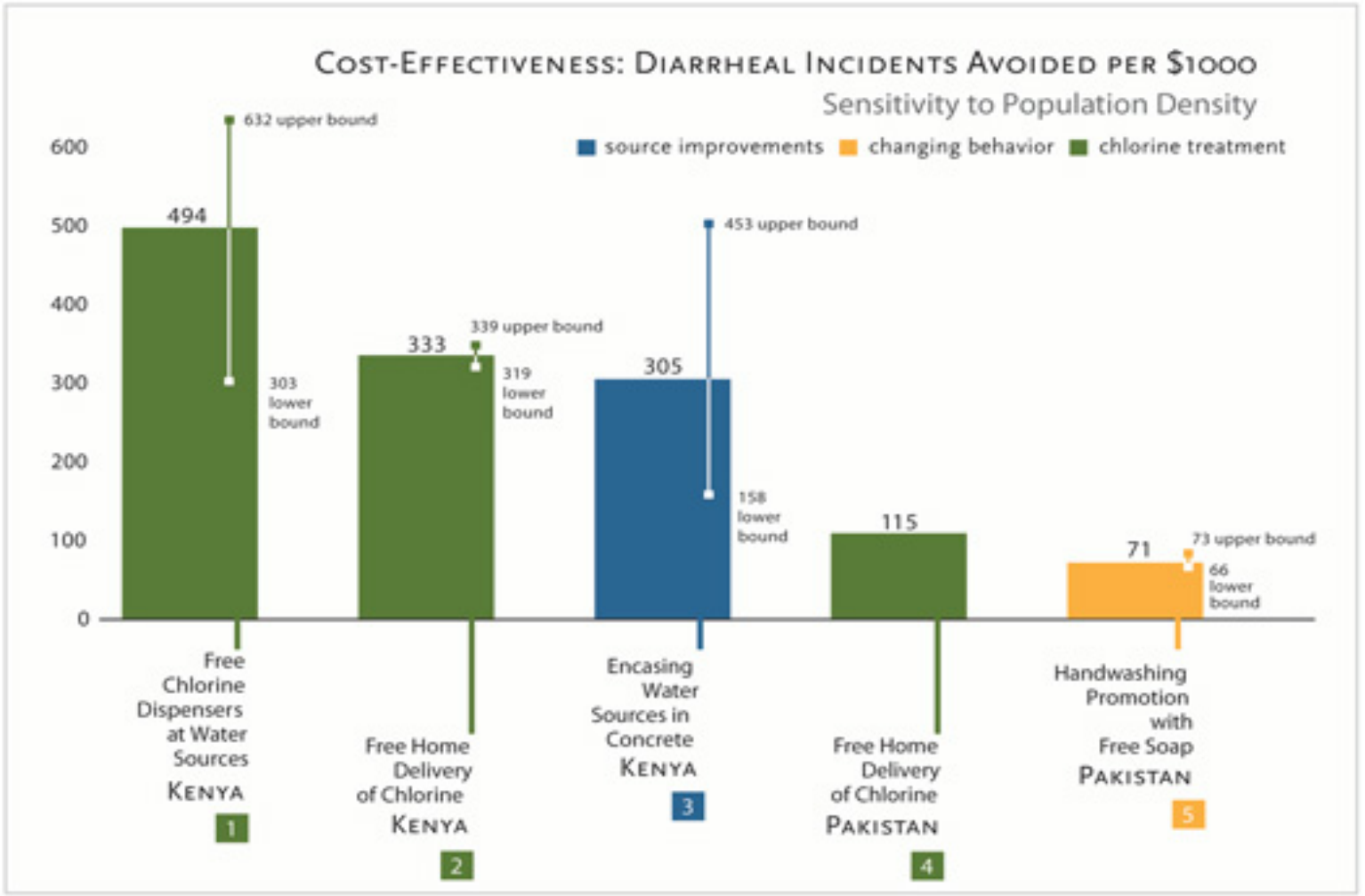
Making Policy from Evidence

Intervention	Impact on Diarrhea
Spring protection (Kenya)	25% reduction in diarrhea incidence for ages 0-3
Source chlorine dispensers (Kenya)	20-40% reduction in diarrhea
Home chlorine distribution (Kenya)	20-40% reduction in diarrhea
Hand-washing (Pakistan)	53% drop in diarrhea incidence for children under 15 years old
Piped water (Urban Morocco)	0.27 fewer days of diarrhea per child per week

Evidence-Based Policymaking

COST-EFFECTIVENESS ANALYSIS

Cost-Effectiveness Diagram



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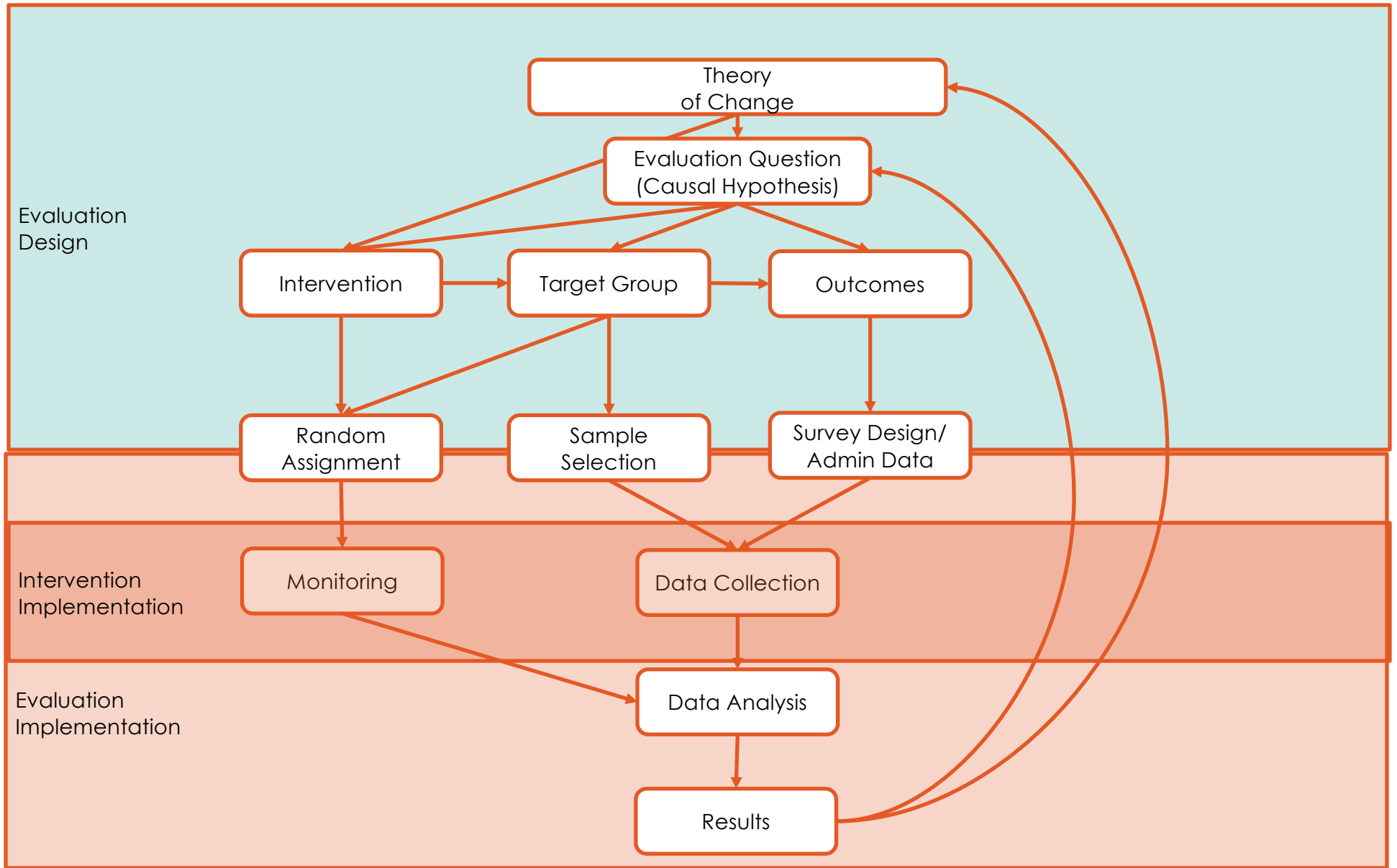
Running Randomized Evaluations



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J-PAL Executive Education Course: Evaluating Social Programs, June 10 – 14, 2019; E62-262 (MIT Sloan)

	Monday June 10	Tuesday June 11	Wednesday June 12	Thursday June 13	Friday June 14
8:00 – 9:00	Registration/Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
9:00 – 9:40	**Opening remarks** *Mary Ann Bates*	**Lecture 3:** ***Why Randomize*** *Dan Levy*	**Lecture 5:** ***Sampling & Sample Size*** *Anja Sautmann*	**Lecture 6:** ***Threats and Analysis*** *Maggie McConnell*	**Lecture 8:** ***Generalizability*** *Mary Ann Bates*
9:40 – 10:30	**Lecture 1:** ***What is Evaluation*** *Maya Duru*				
10:30 – 10:45	Coffee Break	Coffee Break & Group Photo		Coffee Break	Coffee Break
10:45 – 11:00	Group introductions **Group Case Study 1:** *Measurement* *Decision on group project*	Group work on presentation: *Indicators*		Group work on presentation: *Threats and Analysis*	**Feedback survey** Post Test
11:00 – 12:00			**Group Case Study 4:** *Threats & Analysis*		**Group presentations**
12:00 – 1:00	Lunch	Lunch	Lunch	Lunch	Lunch
1:00 – 2:30	**Lecture 2:** ***Measurement: Outcomes, Impact, and Indicators*** *Vincent Pons*	**Lecture 4:** ***How to Randomize*** *Joseph Doyle*	**The RCT Experience from a Practitioner's Perspective** *Antonio Gutierrez* *Saga Innovations*	**Lecture 7:** ***Start-to-Finish*** *Dan Keniston*	**Group presentations**
2:30 – 2:45	Coffee Break	Coffee Break	Coffee Break	Coffee Break	
2:45 – 4:00	Group work on presentation: *Theory of change, research question*	**Group Exercise:** *Randomization Mechanics*	**Group Exercise:** *How to do Power Calculations*	Group work on presentation: *Finalize presentation*	
4:00 – 5:00	**Group Case Study 2:** Why Randomize	**Group Case Study 3:** How to Randomize	Group work on presentation: *Randomization Design, Power and sample size*		**Closing remarks**
5:00 – 8:00	**Happy Hour** *Glass House*				

References, Reuse, and Citation