

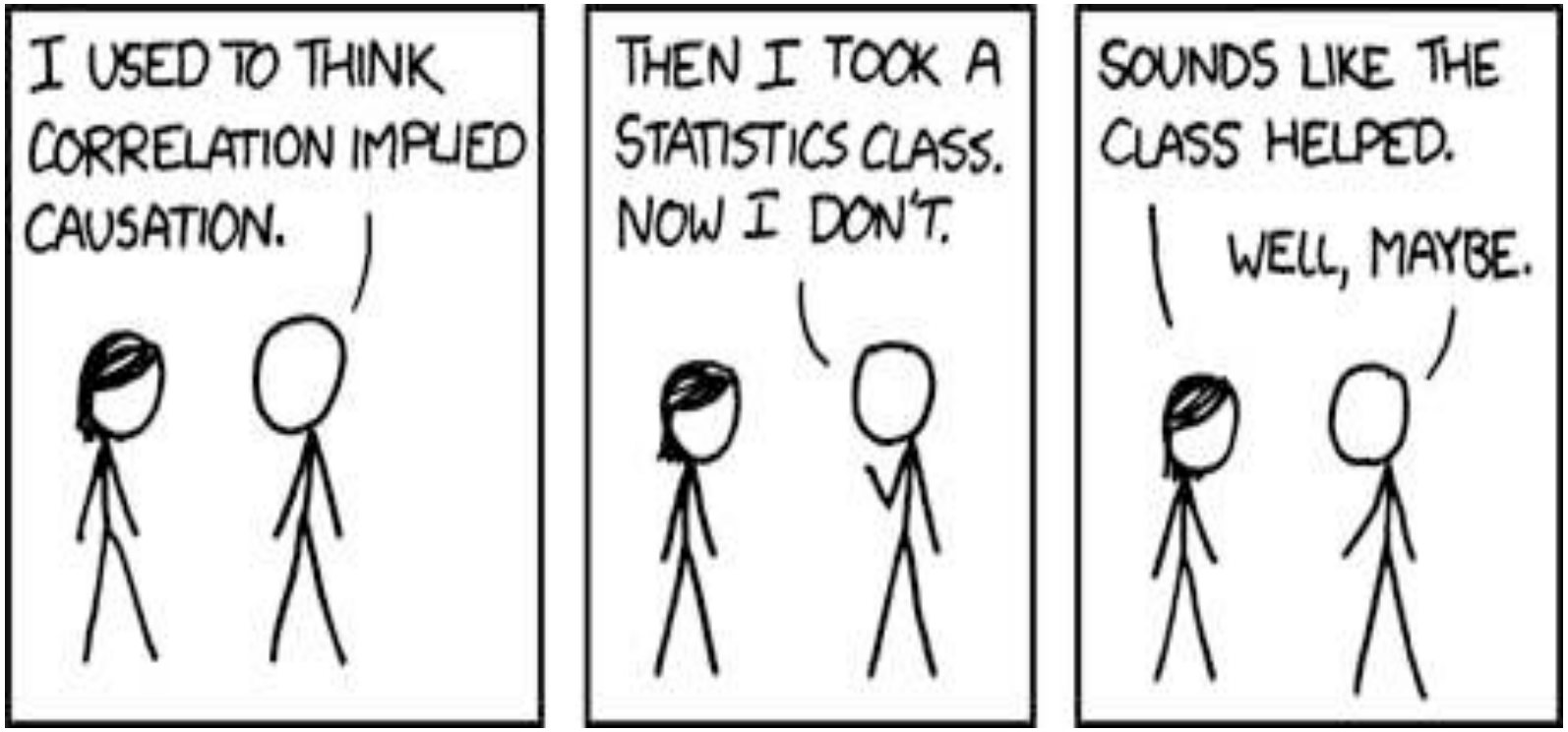
ipa
INNOVATIONS FOR POVERTY ACTION

IMPACT EVALUATION OF EDUCATION INTERVENTIONS

ALL CHILDREN READING ASIA WORKSHOP
BANGKOK, SEPTEMBER 20TH 2012

Richard L. Sawyer, IPA, Country Director, Mongolia

Correlation vs. Causation



Opening Question



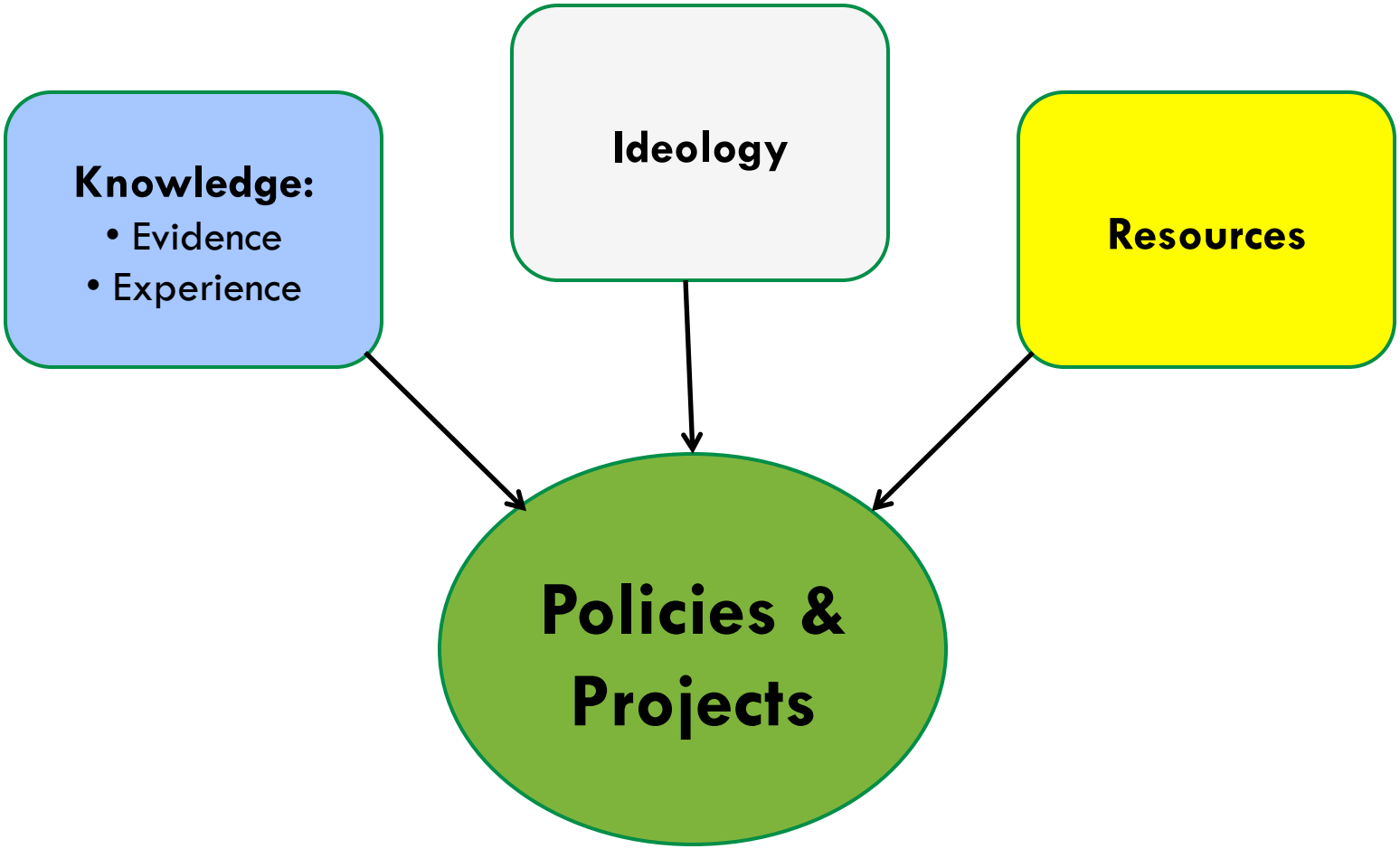
- What is the most cost-effective intervention to increase attendance in school?
  - Information on returns to schooling
  - School based de-worming
  - School meals
  - School uniforms
  - Girls merit scholarships
  - Conditional cash transfers

Why focus on impact evaluation?

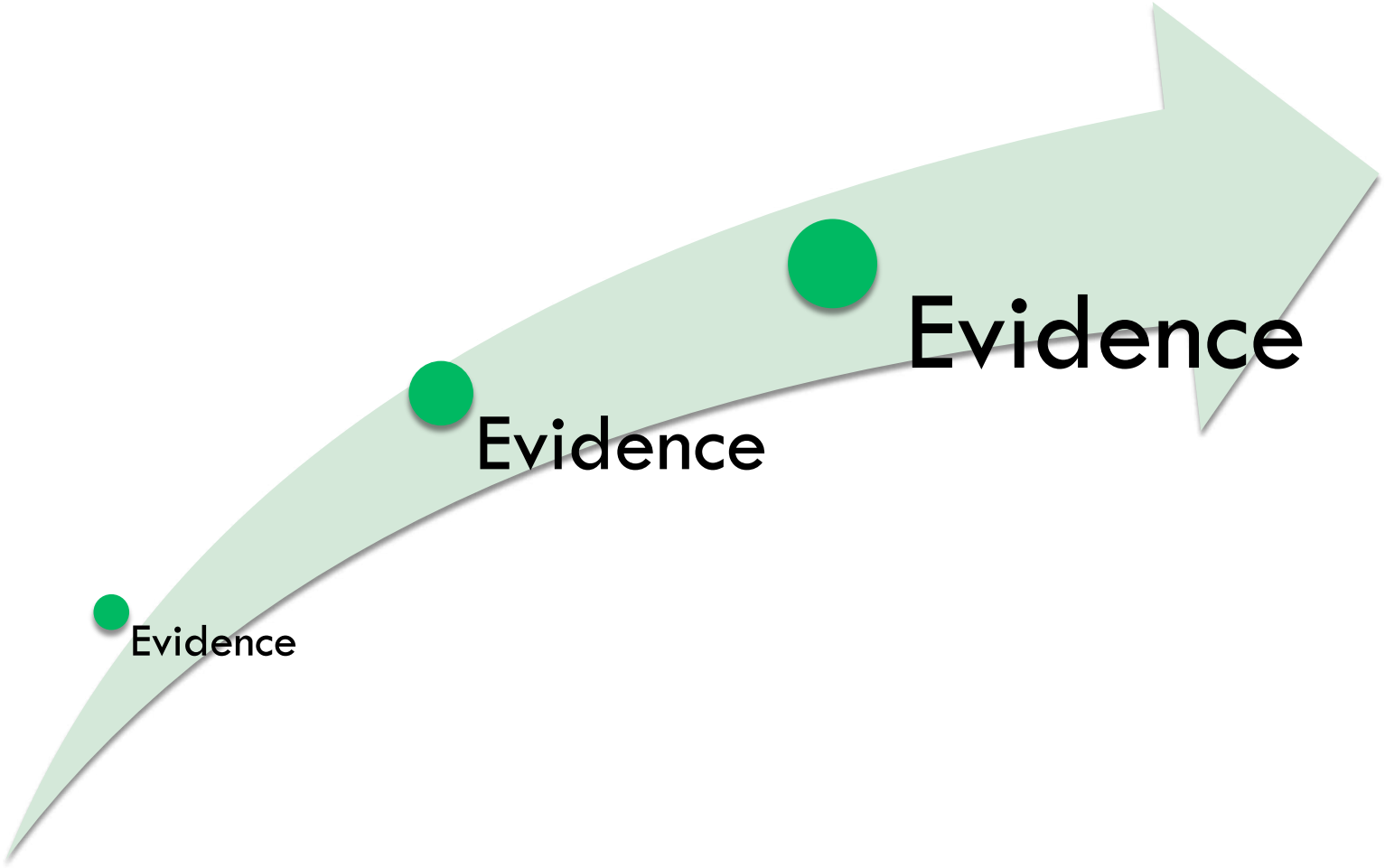


- Surprisingly little hard evidence on what works
- Can do more with given budget with better evidence
- If people and organization knew money was going to programs that worked, it could help increase pot for anti-poverty programs
- Instead of asking “do aid/development programs work?” should be asking:
  - Which work best, why and when?
  - How can we scale up what works?

What goes into policymaking?



Expand the Role of Evidence

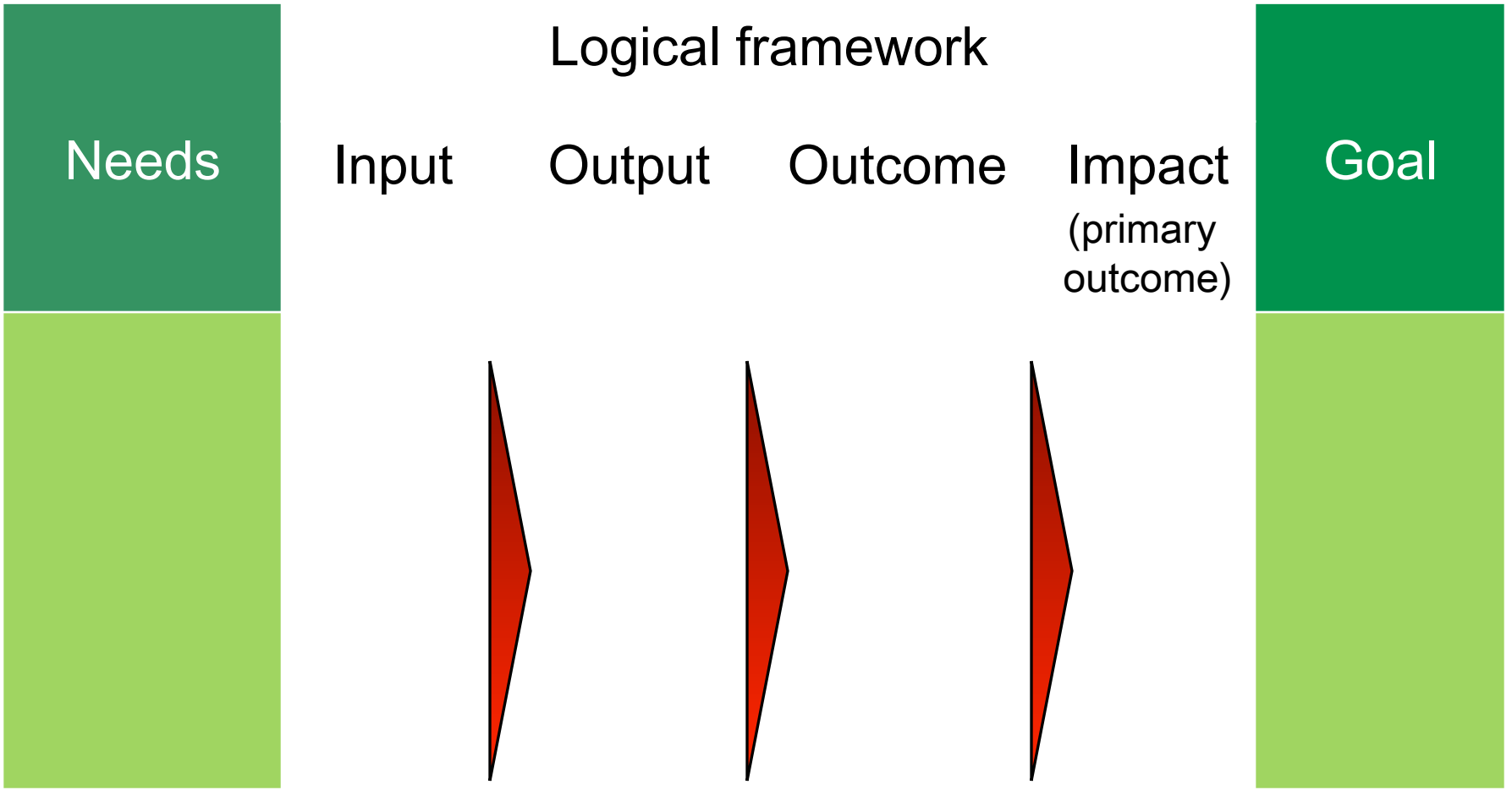


What Makes a Good Evaluation?



- Ask the right questions
  - For accountability
  - For lesson learning
- Answer those questions in unbiased and definitive way
- Share answers regardless of the results
- To do that you need a model:
  - Logical framework/theory of change
  - Who is the target?
  - What are their needs?
  - What is the program seeking to change?
  - What is the precise program or part of program being evaluated?

Logical Framework



Role of Impact Evaluation



- The program happened, how did it change lives?
- What does Theory of Change say we might expect to change?
- Primary outcome (impact)
- Also distributional questions

How to Measure Impact?

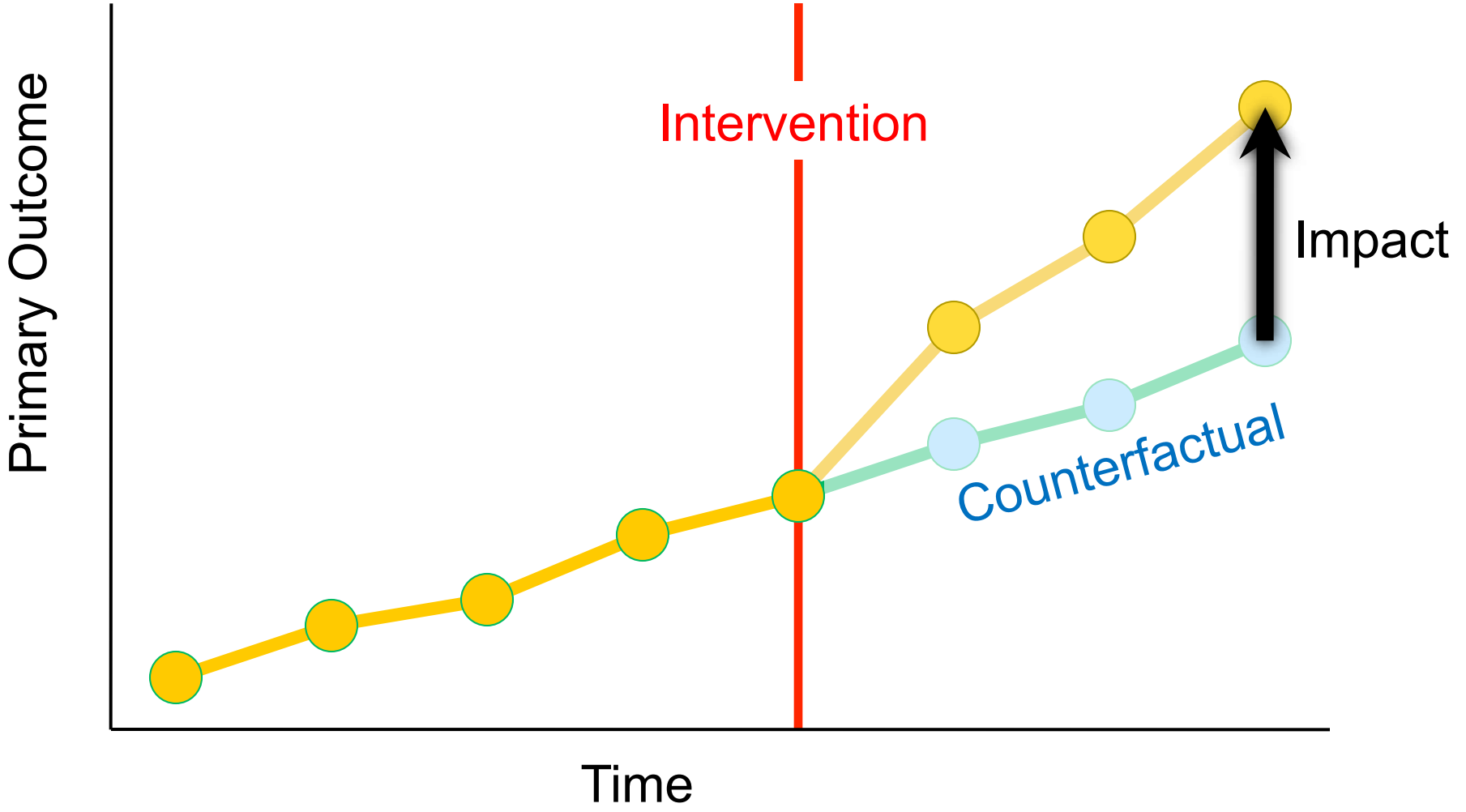


- What would have happened in the absence of the program?

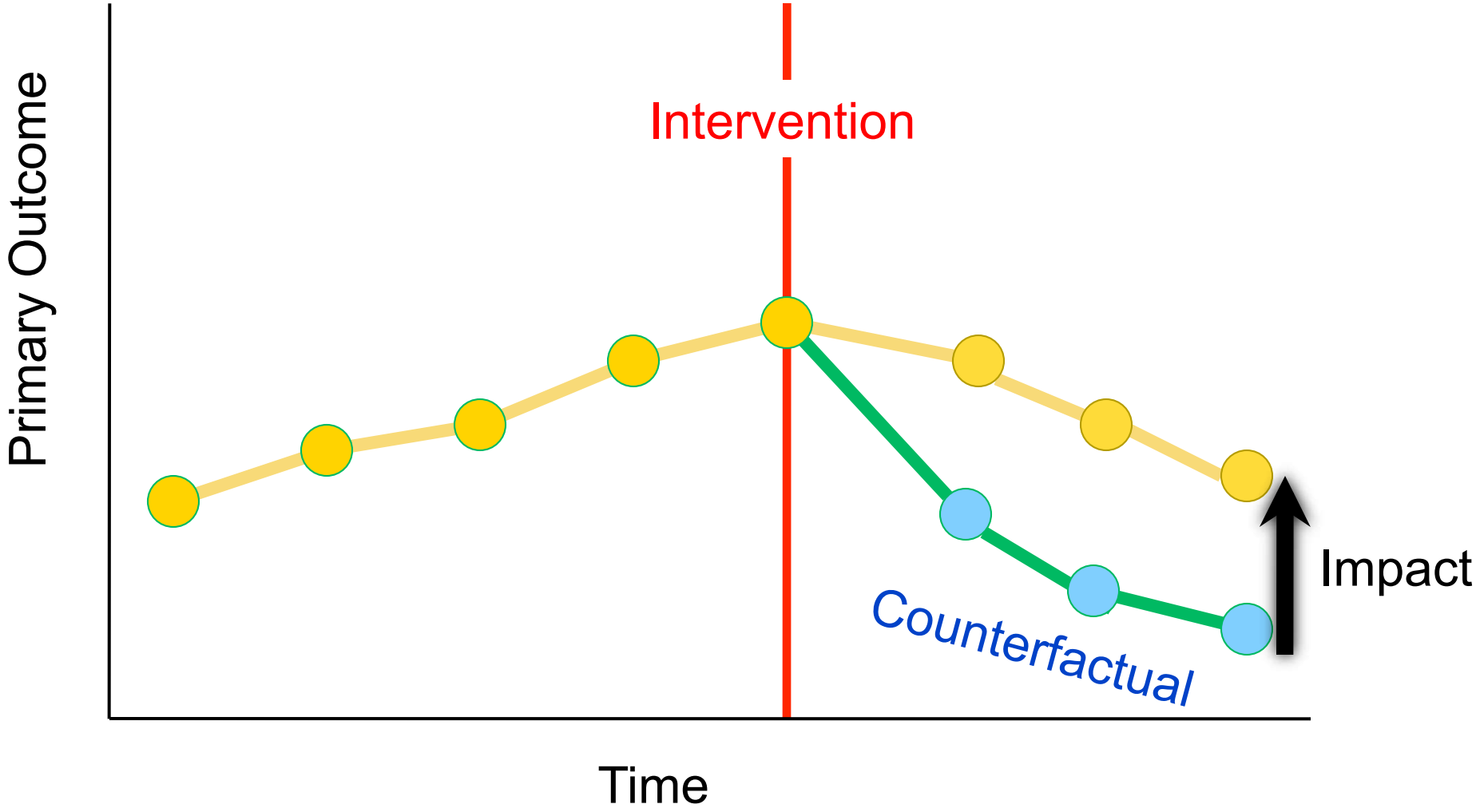
- Take the difference between

  What happened (with the program)
  - *What would have happened (without the program)*
  = IMPACT of the program

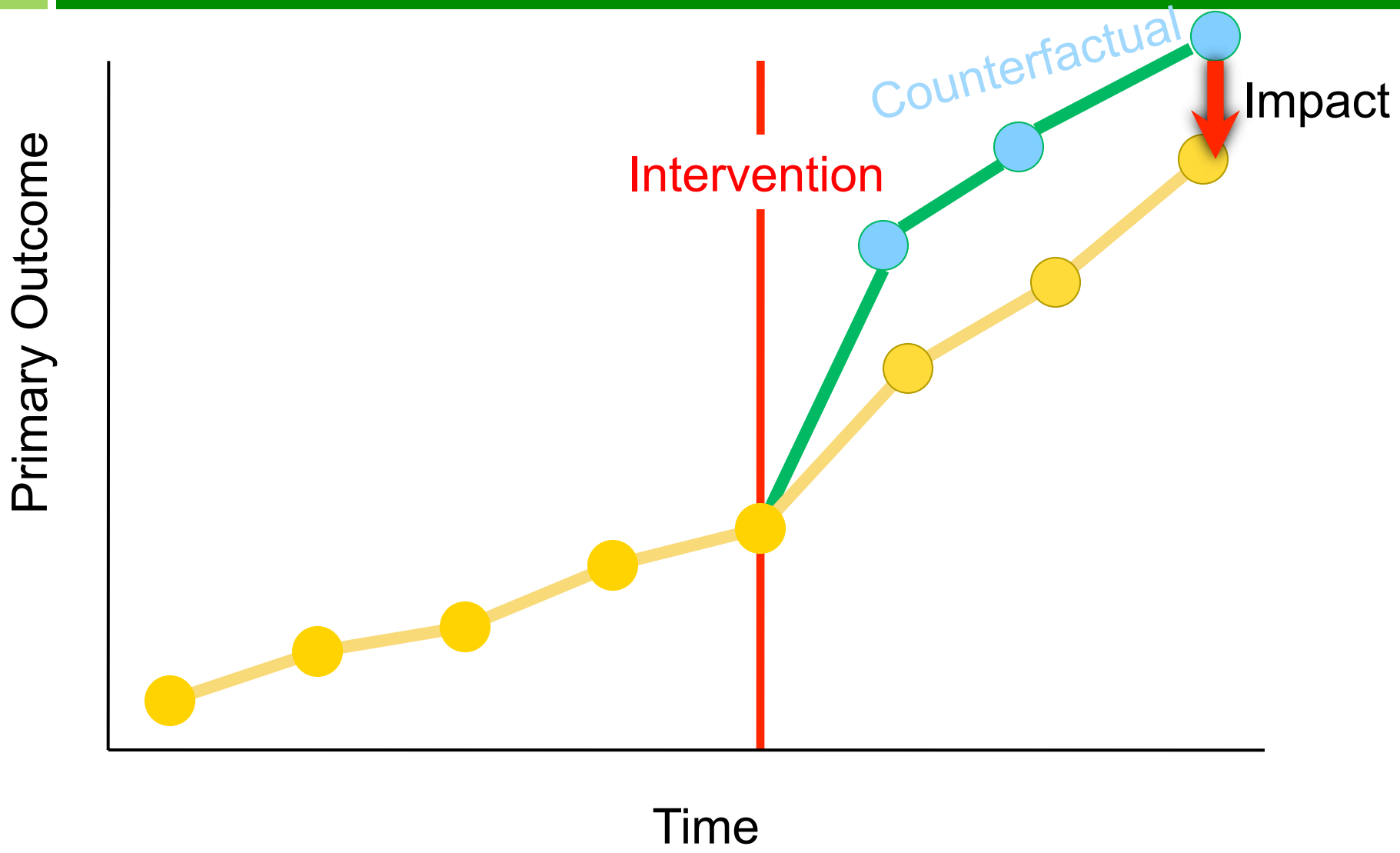
How to Measure Impact?



How to Measure Impact?



How to Measure Impact?



How Impact Differs from Process?



- When we answer a process question, we need to describe what happened.

- When we answer an impact question, we need to compare what happened to what would have happened without the program

Counterfactual



- The ***counterfactual*** represents how program participants would have performed in the absence of the program

- ***Problem***: Counterfactual cannot be observed

- ***Solution***: We need to "mimic" or construct the counterfactual

→ Different impact evaluation methodologies differ in how they construct the counterfactual

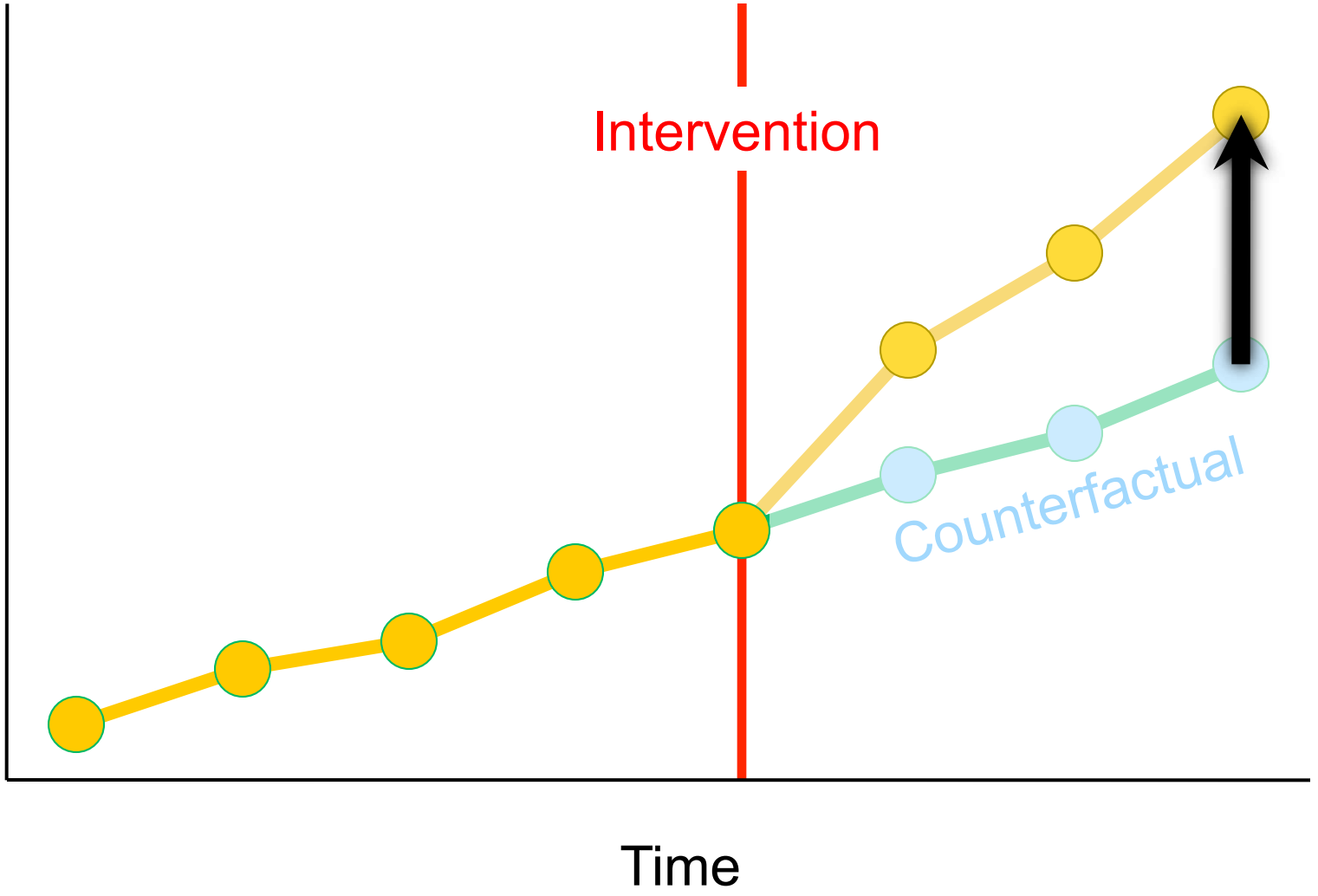
Methodologies for Impact Evaluation



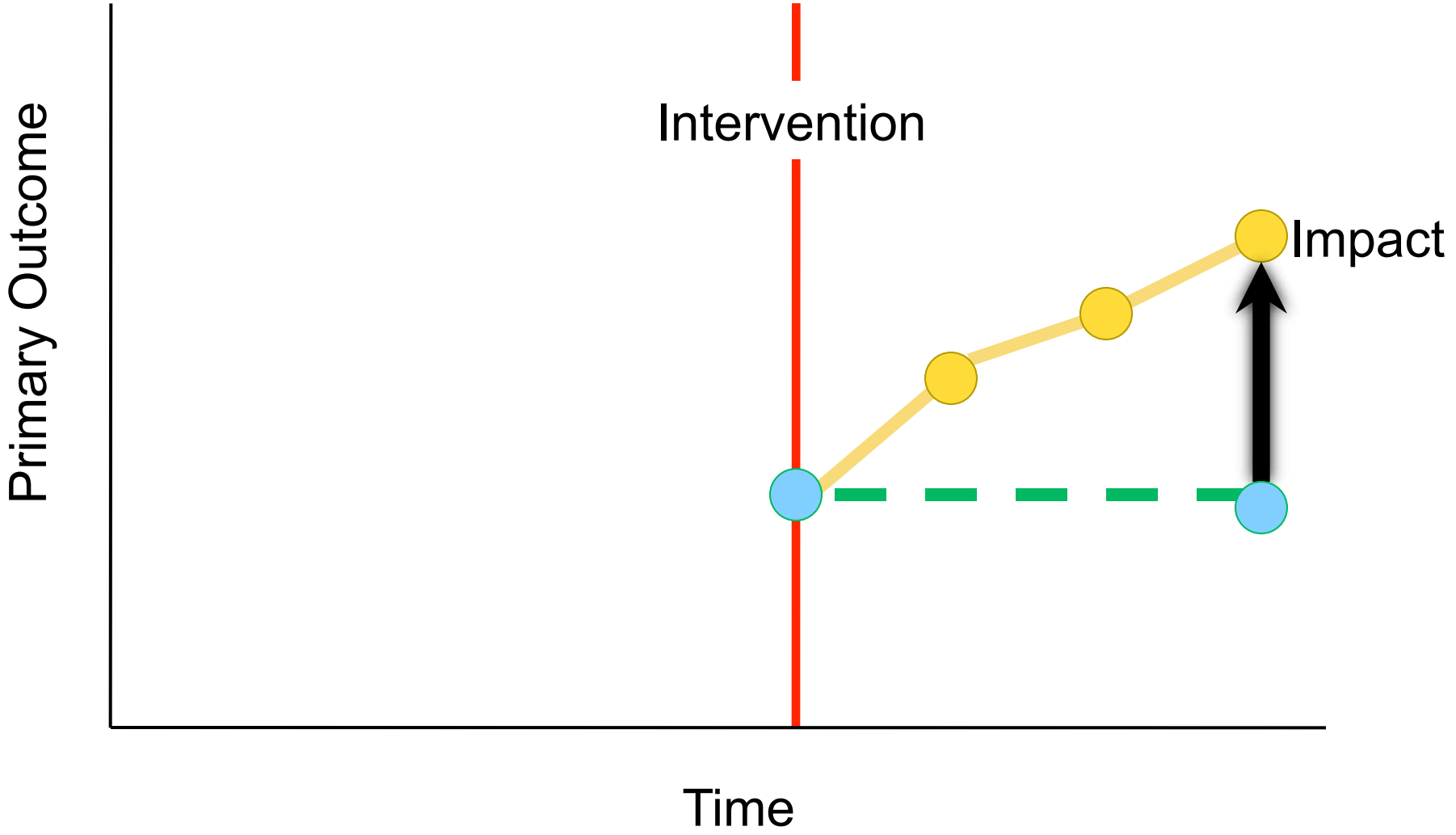
- Non-experimental
  - Regression
  - Pre-post
  - Simple Comparison
- Quasi-experimental
  - Instrumental Variables
  - Regression Discontinuity Design
- Experimental
  - Randomized Evaluations

→ Key Question: How good is the counterfactual?

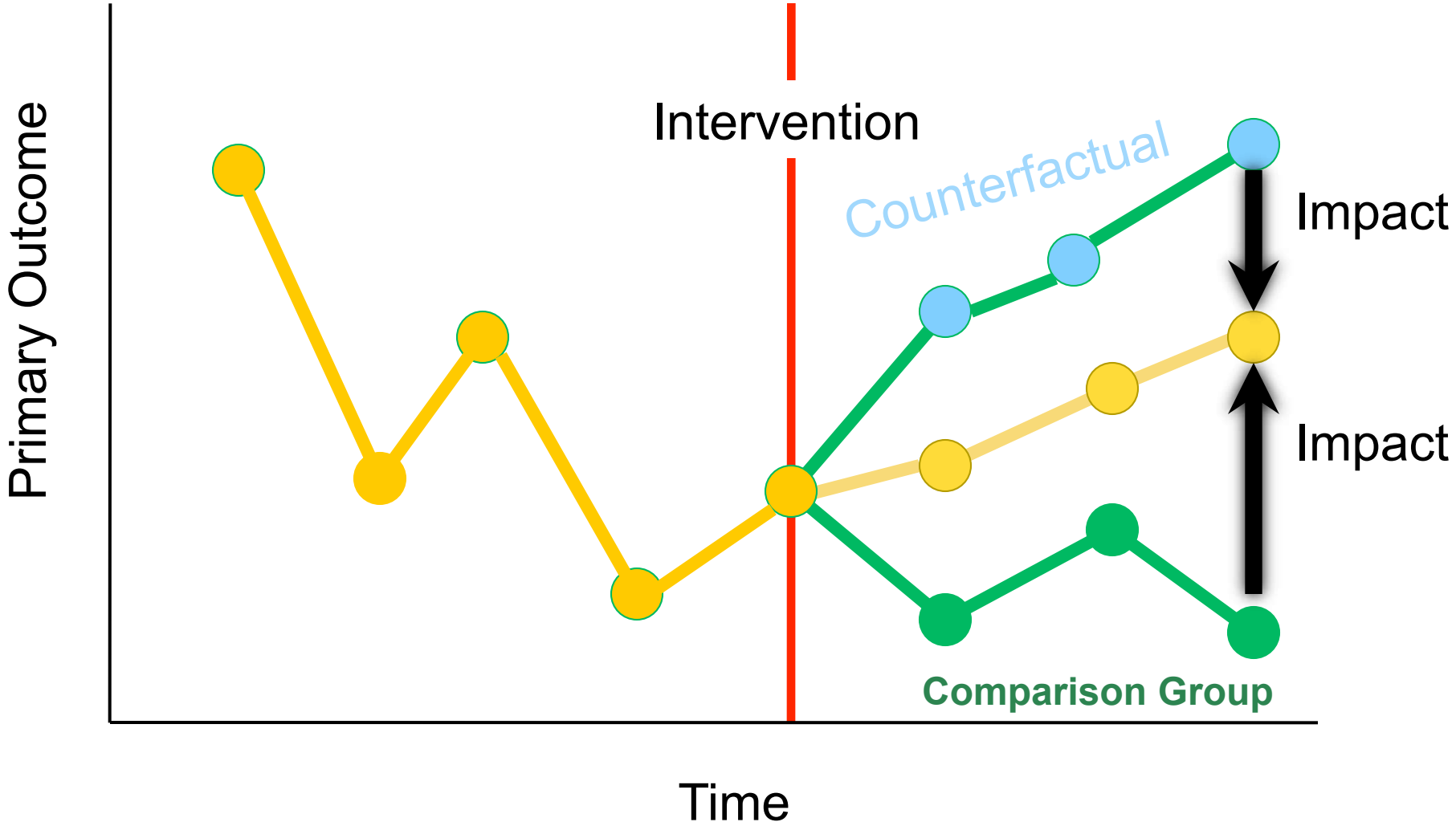
Randomized Evaluations



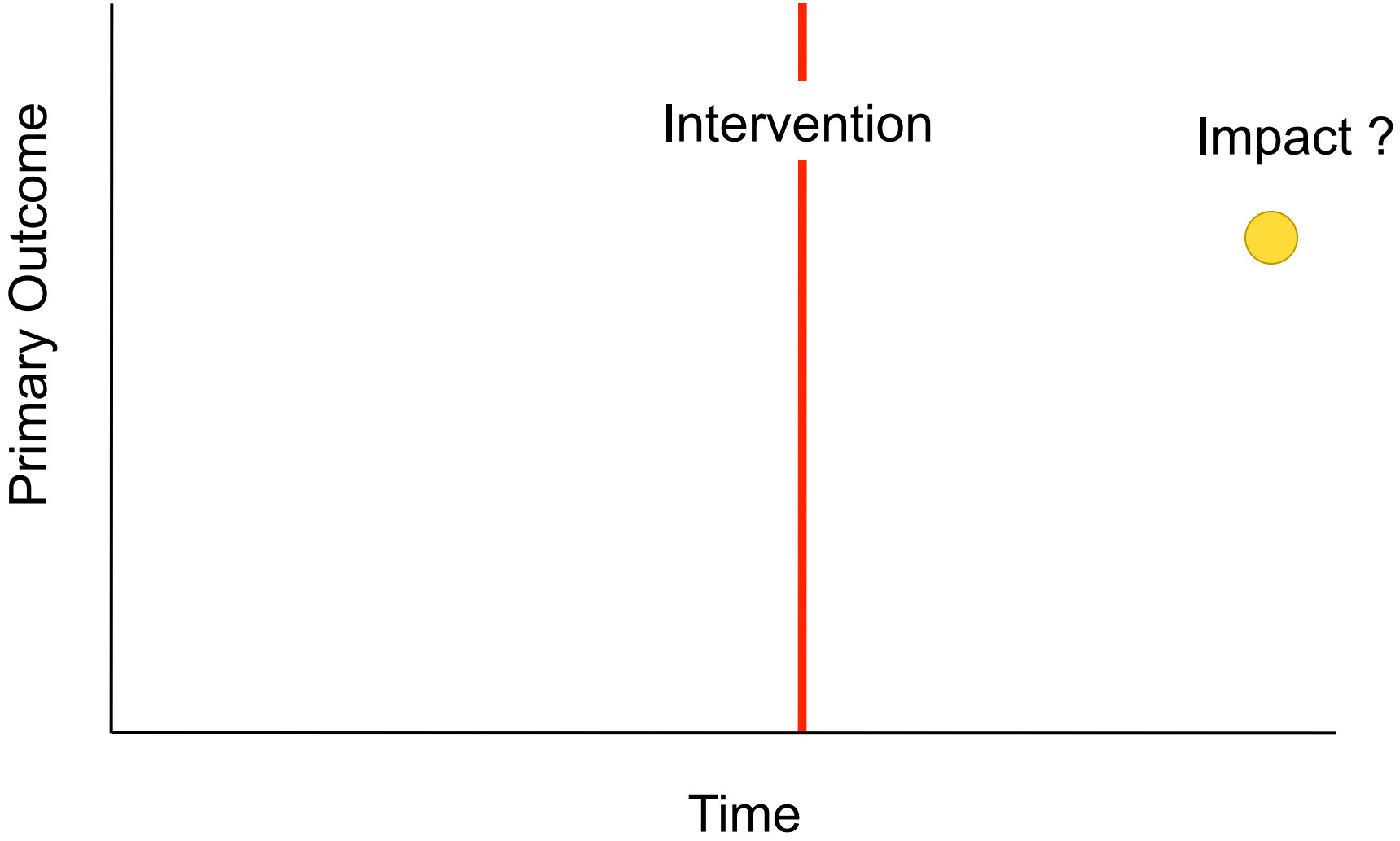
Pre-Post



Inappropriate Comparison Group



Ex Post Studies … we know too little



Enabling Young Readers: A Primary School Reading Program in the Philippines



- **Problem:** Reading ability of many students was well below grade level. Salary structure in Philippines left little money for training, textbooks or buildings
- **Question:** Initial reading program was not enough, can a month-long reading marathon have more substantial effects?
- **Design:** 31-day read-a-thon: daily reading activities (storytelling sessions, reading games, and posters), reading charts, diaries with P4 students
  - Baseline, 2 follow up surveys
  - Reading skills, knowledge of subjects

Researchers:
Ama Baafra Abeberese
Todd Kumler
Leigh Linden

Partners: Sa Aklat Sisikat Foundation

Where: Tarlac, Philippines

When: 2009

Sample: 100 schools
50 T, 50 Control

Enabling Young Readers: A Primary School Reading Program in the Philippines



- Encouraging increased use of age appropriate reading materials by students is a viable strategy for improving student's reading skills.
  - Immediately after program, students report that the number of books they read at school increased from 1.9 to 4.2 in the last week and from 2.3 to 9.5 in the last month.
  - Reading scores increased by 0.13 standard deviations.

Three months later:

- Positive effects persisted - treatment students still read 3.1 books more in the previous month than the comparison group.
- Students in the treatment group also had reading scores 0.06 standard deviations higher than the comparison students

Balsakhi Remedial Tutoring in India



- **Problem:** A 2005 survey found that 44% of Indian children age 7 to 12 could not read a basic paragraph and 50% could not do simple subtraction even though most are enrolled in school. Even in urban India, the learning levels are very low.
- **Question:** Can community teachers (balsakhis) improve learning outcomes for low performing students simple by pulling them out of classes and working with them for 2 hours a week?
- **Design:** In the 2001 school year approximately half of the schools were given a tutor for grade 3, and the other half were given a tutor for grade 4 - which school received which was randomized. In 2002, the schools were given a tutor for the previously untreated grade.

Researchers:
Abhijit Banerjee
Esther Duflo
Leigh Linden

Partners:
Pratham
World Bank

Where:
India

When: 2001

Sample:
122 primary schools in Vadodara, 77 primary schools in Mumbai, India

Balsakhi Remedial Tutoring in India



- The number of students in the bottom third of program classes who passed basic competency tests increased by nearly 8%
- Those in the top third who passed increased by 4%
- Only 2-3% of children in the bottom third could do long division at the start of the year, but by the end of the year 40% could in program classes could compared to 28% in non-treatment classes.

The Method Matters!

Estimates for Balsakhi Program

Method	**Impact Estimate**
(1) Pre-post	26.42*
(2) Simple Difference	-5.05*
(3) Difference-in-Difference	6.82*
(4) Regression	1.92
(5)Randomized Experiment	**5.87***

*: Statistically significant at the 5% level

Developing an Evaluation Strategy



- Things to Keep in Mind :
  - Key questions can be answered from impact evaluations, process evaluations tell you what you are measuring
  - A few high quality impact studies are worth more than many poor quality ones
  - If you ask the right question, your organization will be more likely to use the knowledge gained

Where to Start?



- **Policy relevance** – Based off of what is already known, what are the most important policy questions? Which programs would be mostly like to need cost effectiveness information in order acquire funding and approval?
- **Policy Choices** – What variations are you trading off between different programs?
- **Operational Tests** – How will the program be implemented? How will you target the program? How will you monitor it? What will you need to do to ensure usage and take up?

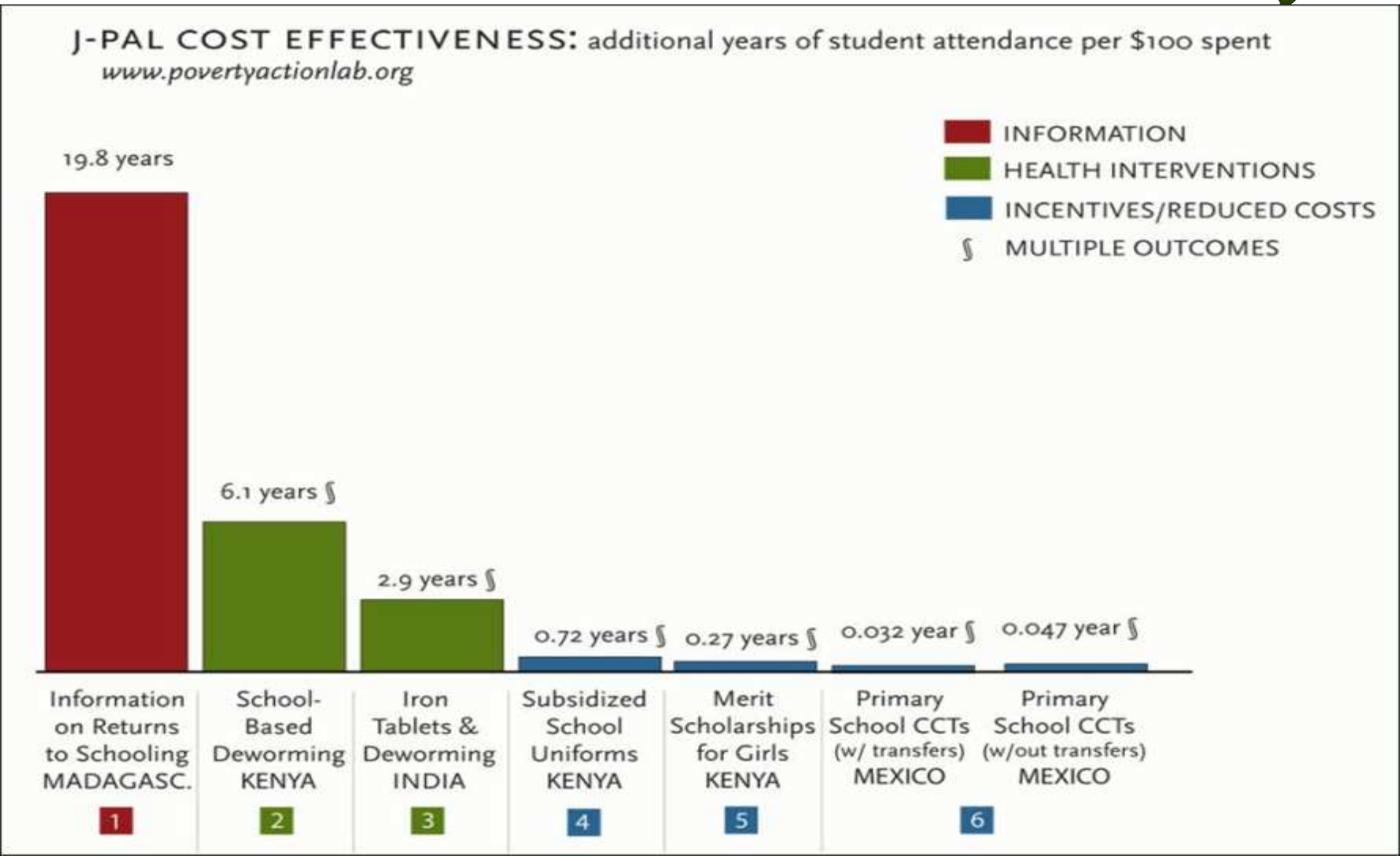
Often the best designs are simple and focused.

Where to Start?



- What are the key questions for your organization?
  - How many of these can you already answer from existing rigorous impact evaluations? Improved process evaluations?
- Select top priority questions for impact evaluation
- Establish a plan for answering them
  - Take advantage of roll out of new programs or set up experimental sites
  - Take time to carefully map out the logic of your program and think about how outputs and outcomes can be measured

Answer to the Question



More Information?

IPA's research findings:

http://www.poverty-action.org/project-evaluations/search

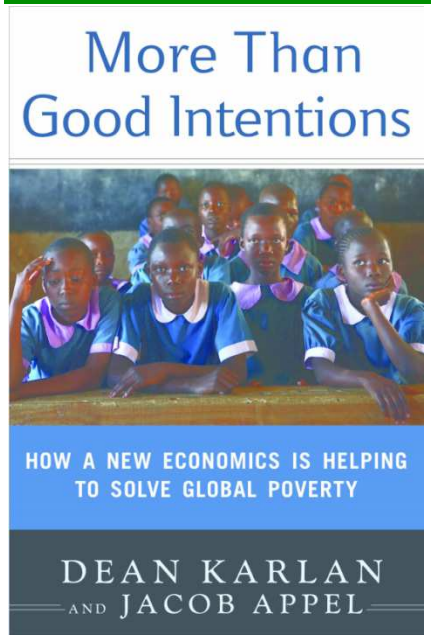
J-PAL's research findings

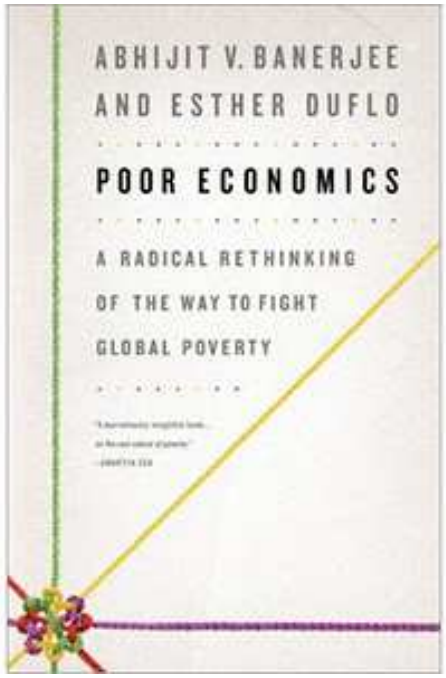
http://www.povertyactionlab.org/search/apachesolr_search?filters=type:evaluation

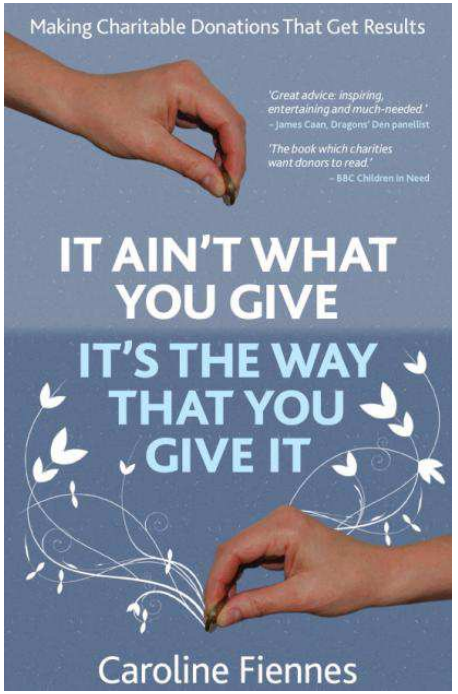
The 'ladybird book about RCTs':

'Test, Learn, Adapt', Cabinet Office, Ben Goldacre et al.

A Few Good Books









THANK YOU!

www.poverty-action.org

rsawyer@poverty-action.org