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INNOVATIONS FOR
POVERTY ACTION

RANDOMIZED CONTROLLED TRIALS: *WHAT ARE THEY? AND ARE THEY WORTH THE EFFORT?*

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- Overview
- Our Approach
- Monitoring vs. Evaluation
- Why Evaluate?
- What is Impact?
- Randomized Controlled Trials (RCTs)

Overview



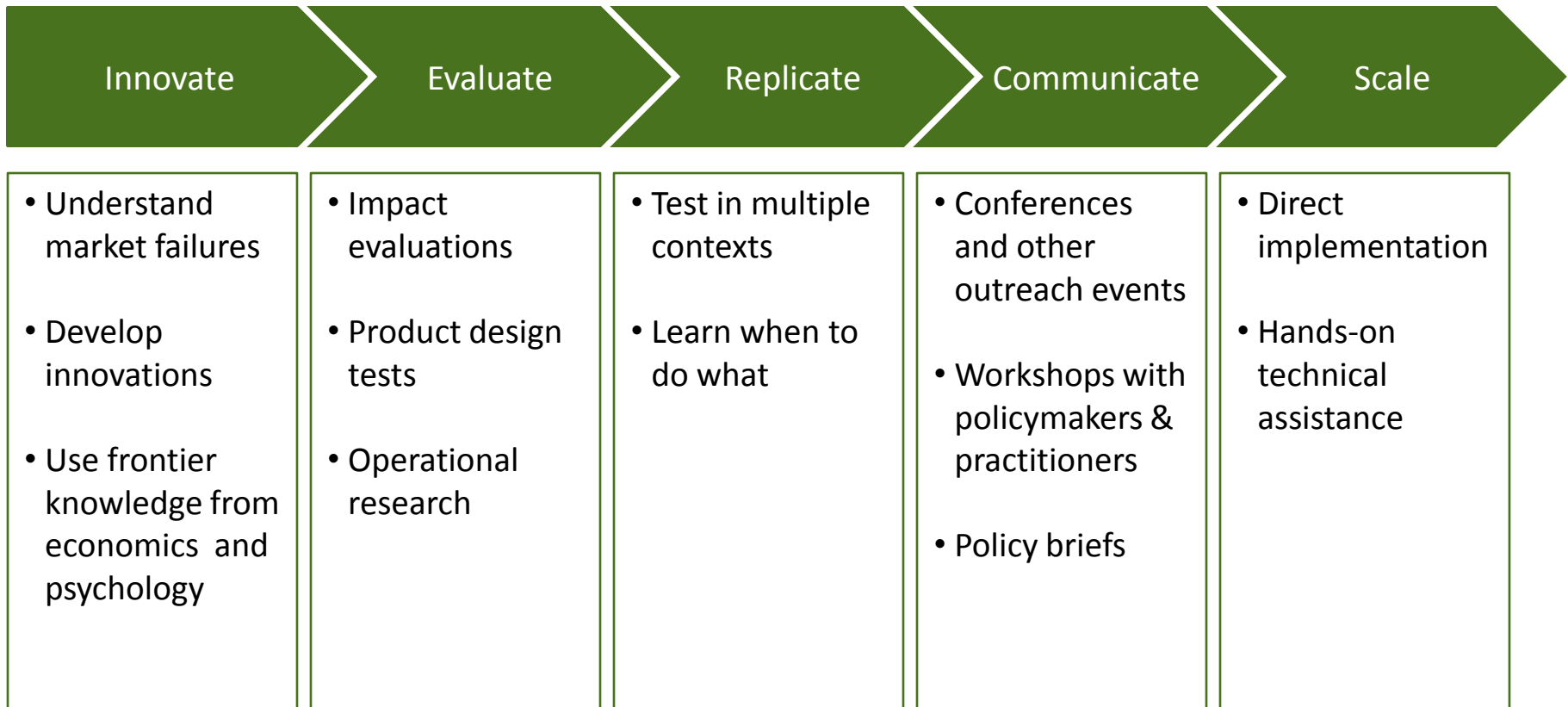
- **Innovations for Poverty Action (IPA)** is a nonprofit organization that creates and evaluates solutions to social and development problems, and works to scale up successful ideas through implementation and dissemination to policymakers, practitioners, investors, and donors.
 - As of 4/2011, IPA had 365 projects in 47 countries

- **The Small & Medium Enterprise (SME) Initiative** focuses on building the evidence that we need to innovate, implement and scale programs that promote entrepreneurial growth, with a particular focus on:
 - Access to Finance
 - Access to Human Capital
 - Access to Markets

Our Approach



We generate insights on what works and what does not through rigorous evaluations, and ensure that those findings will be useful to, and used by, practitioners and policymakers





Monitoring vs. Evaluation

It is critical to understand the difference between monitoring and evaluation, and the value of each. Unfortunately, many programs are monitored and never evaluated.

Monitoring

Question Answered:

- Was the program implemented as planned?

Activity:

- Tracking key indicators

Message Delivered:

- Implementation efficiency

Evaluation

- Did the program have the intended effect on beneficiaries?

- Analysis of key indicators for causal relationship

- Intervention effectiveness



Why Evaluate?

- Surprisingly little “hard” evidence on what programs truly work
 - Given scarce resources prioritization is key
 - Reliable evidence is critical for pragmatic prioritization

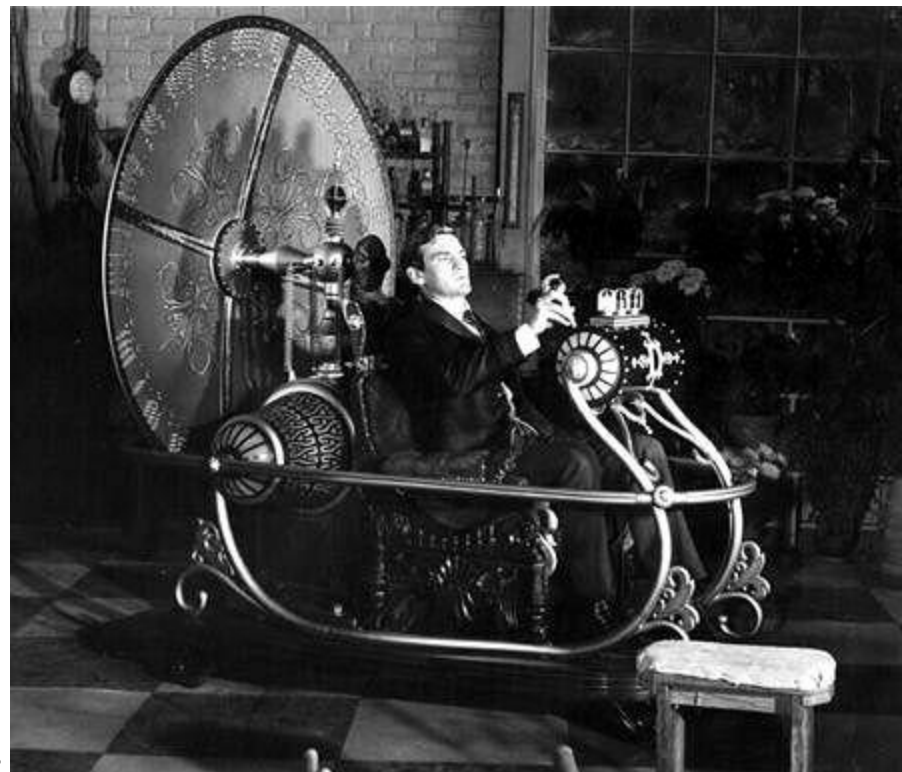
- Stronger evidence facilitates increases in financial and political support for effective programs

- Instead of asking “do our programs work?” we should be asking:
 - “Which work best?”
 - “Why do they work? When? And for Whom?”



What is Impact?

- Effect of program on the recipients independent of who selects into program
- To know the impact, we must be able to answer the counterfactual:
 - How would an individual, or firm, have fared without the treatment?
 - Unfortunately, we can't observe the same individual *with* and *without* the program...



unless...



What is Impact?

- We need to identify an adequate comparison group
 - Individuals, or firms, who are very similar to those who received the program (except for the fact that they were not beneficiaries of the program)
- What are challenges of establishing such a control group?
 - Program beneficiaries often are more motivated, richer, or more educated than those in the control group
 - Program can (either knowingly or unwillingly) target specific subgroups of the population, e.g. more or less needy people
- As a results this creates selection bias in assignment



Why Randomized Controlled Trials?

- Randomized Controlled Trials (or RCTs) are an Impact Evaluation Technique that allows us to establish a valid counterfactual (control group)
- We randomize assignment to the treatment and control group, to ensure that the two groups do not differ systematically
- RCTs minimize concerns of selection bias





RCTs: A Primer (through Example)



- ❖ Review literature on topic / program
- ❖ Consider monitoring data collected on pilots to inform the research design
- ❖ Confirm the question(s) the team is trying to answer. It should be:
 - Specific – targeted, focused: test a certain hypothesis
 - Testable - has outcomes that can be measured
 - Important - will lead to lessons that will affect the way we plan or implement programs

*****It's difficult to make changes mid-course, so invest the time up front!*****



RCTs: A Primer



- ❖ Determine sample frame and selection
- ❖ Develop survey instrument (and test it!)
- ❖ Confirm treatment groups based on questions
- ❖ Determine randomization method



RCTs: A Primer



❖ Implement randomization method of choice:

- Lottery,
- Randomized phase-in,
- Rotation.

RCTs: A Primer



❖ Implement baseline survey

- Hire and train enumerators
- Data Entry
- Analyze Baseline Results



RCTs: A Primer



❖ Conduct intervention(s) on treatment group(s)

RCTs: A Primer



- ❖ Track attrition
- ❖ Track spillovers between control & treatment

RCTs: A Primer



❖ Implement endline survey

- Hire and train enumerators
- Data Entry

**Please note:*

Depending on the design, the evaluation may incorporate one or several midline survey, such that the team can develop a greater understanding of the process for change.

RCTs: A Primer



- ❖ Analysis of key questions comparing treatment to control
- ❖ Disseminate results to key stakeholders to ensure the investment benefits a broad group
- ❖ Leverage results to increase the effectiveness of the program



RCTs: Common Questions

■ How big of a sample do I need?

It Depends

- # of Questions
- Size of Relevant Impact
- Variance in subject types

■ How much will it Cost?

It Depends

- Treatment Cost (of course)
- Experiment management
- Survey Implementation
 - Availability of Administrative Data
 - Dispersion of Sample
 - # of Survey Rounds
 - # of Questions
 - Sample Size



RCTs: Criticism and Response

External Validity

- RCTs test a specific question in a specific context, so if the question is slightly different or the context is changed, we can not presume the results hold

Replication

- Replication of a given study in different contexts allow us to build confidence in the generalizability of a given result



When to do an Impact Evaluation?

- When you have a good understanding of the program through a pilot, the context of the intervention, and the channels through which the beneficiaries are affected
- When there is an important, specific and testable question
- When you are committed to learning to improve your program
- When you can design the evaluation prior to the intervention (it is never too early to start planning, but it is often too late)
- When you have the time, expertise, and budget to do it right



When NOT to do an Impact Evaluation

- Unethical or politically infeasible to deny a program while conducting evaluation (i.e. positive impact already proven)
- Program is premature and still requires considerable “tinkering” to work well; process not well-established
- Scope of program is too small
- Programs not intended to scale
- Evaluation cannot be done without materially changing the program or its implementation



THANK YOU!

Questions / Comments?