Using Evidence to Inform Policy

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J-PAL South Asia at IFMR

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Course Overview

1. What is Evaluation?
2. Theory of Change
3. Outcome, Impact, & Indicators
4. Why Randomize?
5. How to Randomize?
6. Sampling and Sample Size
7. Threats and Analysis
8. Research to Policy
9. Project from Start to Finish
Overview

1. From Evidence to Policy
2. Constraints to evidence-informed policymaking
3. How we seek to overcome these constraints?
4. How to use the evidence?
J-PAL’s mission and the challenge...

• ...to reduce poverty by ensuring that policy is based on scientific evidence, and research is translated into action.

• And the Reality: Policy is really hard to change
  – institutions have constraints
  – good evidence is often unavailable or inaccessible
  – people can be driven more by instincts, ideology, or inertia

• So what helps promote the use of evidence?
  – good research?
  – accessible evidence?
  – receptive policymakers?
  – lots of hard work and shoe-leather?
  – a bit of good luck?
J-PAL works with governments, NGOs, development organizations, and donors to scale up programs found to be effective. To date, over 300 million people have been reached by these scale-ups around the world.
The “Politics of Evidence” is about understanding why some and not other evidence gets used to inform policies or scale up programs

1. Who was most interested in generating evidence?
2. Was there something about the research design that helped or hindered the use of evidence?
3. Are there some sectors that are more amenable to generating/using evidence?
4. Is the move from evidence to policy automatic or does something more needs to be done after the evidence is generated?

There are multiple paths through which evidence informs policy – but these are NOT the only ones.

Attempts underway to study more systematically these paths and causal link between evidence and policy
Constraints to evidence-informed policymaking
From evaluation to policy

**VS** Constraints

<table>
<thead>
<tr>
<th>Evidence Generated</th>
<th>Evidence Summarized</th>
<th>Evidence Shared</th>
<th>Evidence informs policy</th>
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<tbody>
<tr>
<td>Varying quality of evidence</td>
<td>Evidence presence not in digestible format</td>
<td>Policymakers are not aware of the available evidence</td>
<td>Policymakers have limited knowledge to use the evidence</td>
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How to generate evidence more likely to overcome these constraints
Constraints from evaluation to policy

Varying quality of evidence

Evidence Generated

Evidence Summarized

Evidence Shared

Evidence informs policy
The growth of randomized evaluations

Total Projects: 40

2003
The growth of randomized evaluations
Incentivizing policy-relevant research

• Long-term collaborations with governments

• Matchmaking by J-PAL staff

• J-PAL raises funds before research ideas are identified to enable:
  1. Exploratory studies that respond to government needs or identify feasibility of rigorous evaluation;
  2. Full-scale studies that need to be launched fast in order to capture a policy window;
  3. Attracting high quality researchers to explore pressing policy questions

• Examples:
  1. Sectoral funds
  2. Collaboration with NITI Aayog and J-PAL SA to test DBT interventions
Constraints from evaluation to policy

- Evidence Generated
- Evidence Summarized
- Evidence Shared
- Evidence informs policy

Evidence presence not in digestible format
1. J-PAL and many others create Policy Publications that summarize evidence. Searchable online databases and regional staff make access easy.
2. J-PAL also synthesizes evidence within sectors

- Agriculture
- Crime
- Education
- Environment and Energy
- Finance and Microfinance
- Health
- Labor Markets
- Political Economy and Governance
3. J-PAL policy lessons: Bulletins

**THE PRICE IS WRONG**

Charging small fees dramatically reduces access to important products for the poor.

Medical research has identified many cheap and simple life-saving and life-improving interventions that combat infectious and communicable disease, but even low-cost interventions are often prohibitively expensive for poor families in the developing world. Where families are unable to afford the full cost, governments and NGOs often provide health products either for free, or at highly subsidized prices under “user fee” or cost-sharing programs. In recent years, there has been substantial debate about whether to charge user fees or to distribute basic products for free.

User fees and cost-sharing have been advocated for many years to promote sustainability of health services, to help ensure that goods and services are not wasted, and to provide a source of flexible revenue to those in frontline services to replenish supplies and pay for clinic repairs. More recently, social entrepreneurs have argued that small fees can help fund marketing networks that bring socially important products to the poor in a sustainable way and that people are more likely to use products they pay for. Those arguing against charging for basic services point to the massive increases in the take-up of public services that have accompanied the abolition of user fees for schooling and healthcare in many countries.

What does the evidence say? How big a barrier to access are user fees in education and health? Does charging for health and education products encourage people to use them? Do fees screen out those who do not intend to use the product and target it to those who need it the most? Or does charging simply screen out the poor? Ten randomized evaluations tested how take-up and use of education and health products for non-acute care respond to price. Evidence from these studies suggests the following:
Expanding Access and Increasing Student Learning in Post-Primary Education in Developing Countries: A Review of the Evidence

Abhijit Banerjee, Paul Glewwe, Shawn Powers, and Melanie Wasserman

Abdul Latif Jameel Poverty Action Lab (J-PAL)
Post-Primary Education Initiative Review Paper

Version of 2013-04-09 – Comments Welcome

I. Introduction

Effective, evidence-based policies on post-primary education are of vital importance as many developing countries start to see a bulge in secondary and post-secondary enrollment, the product of the achievement of near-universal access to primary school. Finding ways to deliver and promote access to high-quality post-primary education, and to ensure that education is relevant to labor market needs, is one of the great challenges of our times. This must be accomplished in countries where governments face severe budget constraints and many, of not most, parents are too poor to cover the costs out of pocket. International reports such as A Global Compact on Learning, by the Center for Universal Education at the Brookings Institution, emphasize providing opportunities for post-primary education as a first-tier policy challenge (Center for Universal Education, 2011). In addition, there has been considerably less progress in gender parity at the secondary level. Meeting these challenges will require a combination of using existing resources more effectively — which requires both understanding which inputs are key and which are not—and a range of innovations that may fundamentally alter the current methods of instruction.

To that end, the Abdul Latif Jameel Poverty Action Lab (J-PAL) has launched a Post-Primary Education Initiative intended to promote policy-relevant research on
Constraints from evaluation to policy

Policymakers are not aware of the available evidence
J-PAL works with policymakers

Trainings on evidence

Sharing evidence-based programs
Constraints from evaluation to policy

Evidence Generated  Evidence Summarized  Evidence Shared  Evidence informs policy

Policymakers have limited capacity to use the evidence
How to Use Evidence Effectively?
How to Use Evidence Effectively?

1. How to identify the quality of your evidence?

2. How to draw policy lessons from one context to another?
How to Identify the Quality of your Evidence?

Good Evidence vs Bad Evidence
Evidence can tell us many stories...

Editorials / Opinion

New Film: “Caught in Micro debt”

India’s micro-finance

By Souvik Biswas
BBC News, Medak, Andhra Pradesh

Microfinance doesn’t exactly help cut poverty

Microcredit was initially celebrated as a poverty-busting innovation — till, about a decade ago, randomised evaluations began taking some of the gloss off.

The documentary is the Norwegian version of an international edition that will be available in the beginning of March 2010.
Best practices to check for in any impact evaluation research

• Watch for red flags!
• Read the original research or a summary of it from the same organization (not just news sources)
• Peer-reviewed material is usually more reliable (published papers)
When reading a claim always ask...

1. What type of claim is this:
   - Descriptive
   - Process
   - Causal impact

2. Does the evidence match the claim? Is the claim causal but the evidence only a correlation?
Descriptive

Is the sample representative?
Process

- Process indicators can be very useful
  - Example: MFI in West Bengal
  - 500,000 clients
  - 35% are in rural areas
  - 45% are low-income clients
  - Repayment rate of 95%
  - 40% increase in income of clients

- How are they collected?

- Can it be claimed as impact?
Causal: What is the method?

- If the claim is causal, are you convinced about the method and the way it is implemented?
- Is there a good comparison group (counterfactual)?
- Clear on the assumptions of the method
- Is the sample size large enough?
- Interpretation of the results
How to draw policy lessons from one context to another?

Generalization
The challenge of using evidence

• Rigorous impact evaluations are hard to do well and we underutilize their potential if we only learn about the precise program and context they evaluate

• But understanding local needs, and informal and formal institutions is critical to good policy
The challenge of using evidence

We should do more replications of RCTs of similar programs in different contexts...
The challenge of using evidence

.... but there are limits!
The challenge of using evidence

Policy makers never have 100% certainty

– Basu (2014): tomorrow is a new context.

– Is imperfect evidence likely to be worse than no global evidence?
Overview of theory approach to evidence

• Evidence from a single RCT is only one part of the puzzle

• We use it to adjust our “priors” which are based on theory, descriptive work, other empirical evidence

• Putting evidence into a theoretical overview allows more efficient use of different forms of evidence than “black box” and allows us to be more precise about what a “similar context” is

• **Draw on a theory based overview of 70+ RCTs on health econ in dev countries** (Kremer and Glennerster, 2012)
Overview of theory approach to evidence

Improving immunization in a West African country
The “black box” approach to evidence

• If govt. in West African country wanted to improve immunization rate, should they consider non-cash incentives?

• What is our evidence of the following relationship?

• Only one RCT in South Asia (none in Africa)

• Program conducted by NGO not government
Impact of the Camp and Incentive in Udaipur, India: Number of immunizations received by children aged 1-3 years

- Comparison
- Immunization Camps
- Camps + Incentives

<table>
<thead>
<tr>
<th>Number of Immunizations</th>
<th>Comparison</th>
<th>Immunization Camps</th>
<th>Camps + Incentives</th>
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<tbody>
<tr>
<td>≥1</td>
<td>50%</td>
<td>78%</td>
<td>74%</td>
</tr>
<tr>
<td>≥2</td>
<td>39%</td>
<td>70%</td>
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<tr>
<td>≥3</td>
<td>20%</td>
<td>42%</td>
<td>55%</td>
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<tr>
<td>≥4</td>
<td>10%</td>
<td>23%</td>
<td>46%</td>
</tr>
<tr>
<td>≥5</td>
<td>6%</td>
<td>18%</td>
<td>39%</td>
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Theory of change: Incentives for Immunization

Incentive program
Parents want to immunize
Can access clinic
Provider presence sufficient

Basic conditions
Parents procrastinate
Small incentives offset bias
Completed schedule salient

Behavioral
Incentives given to parents
Min. risk from over vaccination
Completed imm. rises
Improved health

Process
Impact

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Evidence on the basic conditions

- **What evidence do we have on basic conditions?**
  - Do parents want to immunize?
  - Is access to clinics adequate?
  - How big a barrier is health worker absenteeism?
Evidence on the basic conditions

- **Descriptive evidence** (from said West African country):
  - 84% of children receive DPT1
  - 54% of households within 1 hour walk of clinic
  - Health worker absenteeism 44%

- **Institutional knowledge:**
  - Unlike in India, clinics often have multiple workers, only closed 12%. Immunizations on specific days when absenteeism is lower

Parents want to immunize

Can access clinic

Provider presence sufficient

Basic conditions
Evidence on behavioral linkages in TOC

- People procrastinate and find it hard to stick with behavior they believe is good for them and their children
  - Small changes in price of preventative products sharply reduces take up (9+ RCTs)
  - People are willing to pay to tie their own hands with commitment savings products: difficult to explain unless people know they are present biased (e.g. Gine et al. 2010)
Evidence on behavioral linkages in TOC II

- **Small incentives can have big impacts on behavior**
  - 30+ RCTs of CCTs but usually much bigger incentives (Fiszbein and Schady, 2009)
  - Malawi: smaller CCT same impact as bigger CCT (Baird et al 2010)
  - Small incentives for HIV testing (Thornton 2008 Malawi), age of marriage (Field et al, 2014 Bangladesh)
Take up rates particularly informative

<table>
<thead>
<tr>
<th>Immunization rates by antigen</th>
<th>Country 1</th>
<th>Country 2</th>
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</thead>
<tbody>
<tr>
<td>DPT1</td>
<td>84</td>
<td>47</td>
</tr>
<tr>
<td>DPT3</td>
<td>74</td>
<td>41</td>
</tr>
<tr>
<td>Measles</td>
<td>67</td>
<td>41</td>
</tr>
<tr>
<td>Fully immunized</td>
<td>49</td>
<td>38</td>
</tr>
</tbody>
</table>
Evidence on behavioral linkages in TOC III

• Knowledge, or salience, of how many visits are needed for completed immunization
  – Weaker evidence on the importance of salience
  – India study had different incentive at final vaccination: how important?
Evidence on process links in the ToC

• Process questions include:
  – Will the incentives be delivered regularly to the clinic?
  – Will the incentives be given to parents appropriately?
Can RCTs tell us about details of delivery?

• Yes, but harder than in other areas
  – Very similar results across contexts for consumer behavior (68 RCTs)
  – More varied results on provider behavior (6 RCTs)

• Providers are humans too, why harder to predict?
  – Work in bureaucratic settings with complex incentives
  – Theory of change longer, with many more steps
  – Increasingly RCTs are breaking down these steps and testing them
  – Many fewer RCTs on provider behavior than consumer behavior

• Some delivery harder than others
  – Incentives through MPESA, or cell phone vouchers
  – Less concern about bureaucratic incentives
Theory of change: Incentives for Immunization

- **Incentive program**
- **Parents want to immunize**
- **Can access clinic**
- **Provider presence sufficient**

Local descriptive evidence suggests basic conditions hold

- **Parents procrastinate**
- **Small incentives offset bias**
- **Completed schedule salient**
- **Incentives delivered to clinic**

**Strong RCT evidence of behavioral conditions**

**Incentives given to parents**

- **Min. risk from over vaccination**
- **Completed imm. rises**
- **Improved health**

...monitor process

**Strong RCT evidence of impact**
So, when do we stop evaluating?

If we have enough evidence to act, do we stop evaluating impact? (always monitor of course)

NO!
Why should we keep evaluating?

• We often need to act even when evidence is thin.

• Often big overlap between when we have enough evidence to launch big new initiative and when still worth evaluating.

• Questions may remain about best way to implement.

• Billions spent on CCTs. Very strong evidence they work, but important evaluations on how to make more effective.

• HOWEVER, there is a trade-off of evidence in new areas vs. more on existing.
Generalizability Framework: Immunizations incentives

**Step 1:** What is the disaggregated theory behind the program?

**Step 2:** Do the local conditions hold for that theory to apply?

**Step 3:** How strong is the evidence for the required general behavioral change?

**Step 4:** What is the evidence that the implementation process can be carried out well?
Concluding thoughts: Connecting it All

- Multiple reasons why governments, NGOs, funders and researchers choose to evaluate
- Multiple factors affect how and why evidence informs policy
- Design research for generalizability
- Policy making requires drawing on different kinds of evidence, but that does not mean all evidence is equal
- Implementation is hard: knowing a program will have impact if implemented is a good place to start
Thank you

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