Tested Ideas in Human Development

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Motivation

• To accelerate human capital development, policymakers need insights about effective programs and policies to improve health and education and better deliver social protection programs

• World Bank’s Human Capital Project encourages more and better investments in people for greater equity and economic growth

• Goal today is to share a few tested ideas in human development in health, education, and social protection that I am excited about and that could help accomplish Human Capital Project goals
Motivation

- Huge growth in rigorous impact evaluations over last 20 years
- Includes testing:
  - Multiple iterations of ideas/programs
  - Across different contexts
  - At scale, often in government systems
- Does evidence apply in another setting? Consider:
  - Why does a policy/program work?
  - What context and implementation details matter for its success?
Health
Increasing take-up of health products and services

- Impact of health products and services depends on adoption
- But many barriers limit take-up and use
  - **Demand side:** Patients face liquidity constraints, lack of information, behavioral biases
  - **Supply side:** Health systems may feature high costs, low quality of care, lack of service/product availability, discrimination
- Of course health systems/supply side is important, but today we’ll focus on demand side
- Addressing low demand for care can improve health outcomes
  - Pricing
  - Incentives for immunization
Generating demand through pricing interventions

• Long-standing debate over whether to charge user fees or provide products for free
• Are those who pay for a product more likely to use it?
• Could small prices discourage take-up & screen out poorest?
Charging fees for many key preventive health products dramatically reduces take-up
People are just as likely to use free products as they are products they paid for.

Short run: Usage rates among households that purchased or received the product.
Evidence take-away

- Eliminating user fees can increase take-up, and households are just as likely to use free products as they are products they paid for

Context considerations

- User fee elimination is most effective in the absence of supply-side constraints
- Evidence is less conclusive for curative care; willingness to pay may be higher

World Bank programming opportunity

- Help governments provide free preventive health products (bednets, soap, micronutrients, water treatment technology, etc.)
In Haryana, nearly all kids get their first vaccine, but only 40% complete the schedule (similar pattern in many other contexts)
Can social networks, reminders, and incentives increase rates of full immunization?

Can social networks influence completion of the immunization schedule?
Who are the people in this village, who when they share information, many people in the village get to know about it?”

Can text reminders to the parent increase full immunization rates?
Hello! It is time to get the _____ vaccine administered for your child. Please visit your nearest immunization camp to get this vaccine and protect your child from diseases.”

What incentive characteristics matter most?
• Increasing credit for each vaccine vs. same amount?
• Total credit of Rs. 250 vs. Rs. 450
Large replication study (~300,000 hh) leveraging mHealth platform increased immunization coverage

- Community nominated ambassadors + SMS reminders to caregivers increased full immunization by 21%
- Adding “sloped” mobile credit incentive increased full immunization coverage by 52%

A nurse using a tablet for data collection at a clinic in Haryana.

Photo: Lisa Corsetto | J-PAL
Evidence take-away

- Social networks and incentives can increase take-up of the full immunization schedule & be cost-effective
- Text messages alone were not effective in this context

Context considerations

- As with pricing, most effective with minimal supply-side constraints
- Effective at overcoming failure to persist, but not if there are strong preferences against immunizing in the first place
- mHealth platforms are huge opportunity for delivery

World Bank programming opportunity

- Identify central nodes through the community and activate them as “ambassadors for behavior change”
- Consider incorporating small incentives in cases of strong failure to persist
Education
New World Bank target to cut primary school reading gap in half by 2030

- Important recent World Bank work relevant to global “learning crisis”
  - WDR 2018 on Learning
  - Human Capital Project/Index
  - New target to reduce learning poverty launched by President

- Two tested ideas we are excited about:
  - Deal with structural problem in Grades 3-5: Teaching at the Right Level
  - Help children learn before they fall behind in the first place, starting with math: Every Child Counts
In primary schools across the world, most students have already fallen behind.

**Two big challenges in classrooms:**

- Huge variation of learning levels in each grade
- Teachers incentivized to complete curriculum, teach to the top of the class
Addressing the structural problem: Pratham’s Teaching at the Right Level

Simple assessment

Group children by level, not by grade

Teaching by group:
Appropriate activities and materials for each group

Track progress

Photos: J-PAL, Pratham
20-year partnership: Iterative design, test, redesign led to two scalable models

2001-2003
“Balsakhi” program; Pratham community volunteer “pull out” remedial program in urban schools

2005-2006
Village volunteers conducted community classes for rural primary school children

2008
In-school one month govt teacher-led summer camp with support by rural village volunteers

2008-2010
In-school govt teacher-led learning improvement program + support by Pratham volunteers (rural)

2012-2013
Teacher-led model; onsite mentoring by govt academic officials

2013-2014
“Learning Camps” in govt primary schools; led by Pratham teams supported by village volunteers
TaRL Africa: A joint initiative of Pratham & J-PAL

- Three types of country-level support
  1. TaRL Africa country teams in select countries directly supporting governments (Zambia, Cote d’Ivoire, Nigeria)
  3. Growing network of NGOs working on TaRL

- Building learning agenda to support efforts and improve effectiveness
Evidence take-away

• Teaching at the Right Level can address the structural problem by helping students master foundational skills
• One of most cost-effective and scalable approaches for closing the learning gap

Context considerations

• Effective when students are struggling to master foundational skills in literacy and numeracy
• Effective when there is a large within-grade heterogeneity in learning levels
• Gov’t model needs cadre of coaches to provide instructors with in-classroom professional development

World Bank programming opportunity

• Option 1: Integrate 1-hour/day throughout school year
• Option 2: Provide high-intensity half-day camps 30-50 days per year
Helping children before they fall behind: Developing foundations for learning

- **From cognitive development literature:** Children have a basic set of linguistic, numerical, and geometrical capacities at birth.

- **Partnership with cognitive psychologist** Elizabeth Spelke leveraging research from cognitive development to create curriculum for pre-school and kindergarten.

**Hypothesis:**

- Disadvantaged young children can benefit from games that exercise the core systems of number and geometry.

- Games can enhance children's number concepts and increase readiness for school math.
Phase 1: Games on comparison, addition, form, location, angle

Find Deviant Shape:

Number Comparison:
Phase 2: Bridge non-symbolic to symbolic (transfer from logic to "school math")

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Phase 3: Integrate into gov’t schools led by teachers
Evidence take-away
• Drawing from decades of developmental psychology, math games can leverage children's innate numerical and spatial abilities to improve their readiness for learning school math

Context considerations
• Potential to be easier to integrate into classrooms without disrupting regular school day

World Bank programming opportunity
• Consider integrating into countries expanding kindergarten and preschool who will need curriculum
• In the pipeline: Test same exercise for pre-reading skills and social cognition (learning to learn skills)
Social Protection
Social protection programs require many decisions

1. What type of social protection program to deliver?
2. Should it be targeted or universal?
3. If targeted, how to identify eligible households?
1. What type of social protection program to deliver?

- Many program options:
  - Cash transfers: Conditional, labeled, unconditional
  - Lumpy cash or asset transfers
  - In-kind transfers
  - Price subsidies
  - Social insurance programs
  - Pensions

- Other design decisions:
  - Duration of transfer
  - Timing
  - Recipient
  - Bundled or individual interventions

Different forms of transfers may be appropriate in different settings
Cash transfers are a promising strategy for improving wellbeing

- Cash transfers have been found to reduce poverty and increase consumption, school attendance, health behaviors
- Cash transfers do not discourage recipients from working or increase spending on “temptation goods”
- CCTs:
  - Generally lead to improvements on conditioned behaviors in short term
  - Some evidence of lasting effects on children (e.g. stunting, secondary and tertiary enrollment, FLFP, earnings), though not consistently (e.g. increased school attendance does not always lead to increased learning; diet diversity does not always lead to improved anthropometrics)
- Labeling or encouraging behaviors may have similar effects as conditioning
- UCTs in Kenya
  - 9 months: Increased consumption, psych. wellbeing
  - 3 years: Increased assets, some negative spillovers w/in villages

Evidence take-away

• Cash does not lead to increased spending on temptation goods or reduced work hours
• LCTs and CCTs can increase HH consumption, take-up of specific education and health services, and improve some measures of human capital; labeling may be sufficient to shift behavior
• UCTs can increase consumption and offer HHs choice

Context considerations

• UCTs or LCTs require less complex implementation capacity, less monitoring
• CCTs require credible monitoring/enforcement

World Bank programming opportunity

• Consider shift to UCTs if primary objective is to increase consumption and offer flexibility
• Consider LCTs or CCTs if primary objective is specific human capital investments
Instead of a stream of smaller cash transfers, can lumpy cash or asset transfers help households escape poverty traps?

**Lumpy cash transfers can spur household, school, or business investment, but effects may fade in long run**

- Lump-sum cash vs. 9 monthly installments in Kenya:
  - After 9 months: Lump-sum increased investment/assets; monthly installments increased food security
  - After 3 years: No difference

- Modifying a CCT to pay 1/3 of annual benefit in lump-sum at start of school year vs. stream of monthly transfers in Colombia:
  - Increased secondary and long-run tertiary school enrollment

- Lump-sum business grants in Uganda:
  - After 4 yrs: Assets, hours worked, earnings increased
  - After 9 years: Conversion b/w grant recipients and comparison on consumption, earnings

**Lumpy asset transfers with complementary services led to sustained positive impacts**

- “Graduation” approach, a lumpy productive asset plus several complementary components:
  - 3-4 years after transfer: Increased economic and non-economic wellbeing
  - 7 years after transfer: Effects persist in long-run
  - Despite program cost, cost-benefit ratio is 133-433%

Haushofer and Shapiro 2016, 2018 (Kenya); Barrera-Osorio et al. 2011, 2019 (Colombia); Blattman, Fiala, and Martinez 2014, 2019; Bandiera et al. 2017 (Bangladesh); Banerjee et al. 2015 (multiple countries)
Evidence take-away

- Graduation programs that deliver lumpy asset transfers plus complementary services led to large and lasting improvements in consumption, food security, asset holdings, and savings
- Lumpy cash transfers can encourage investment, particularly if well-timed

Context considerations

- Graduation program components must be adapted to context
- Graduation requires competent training and monitoring infrastructure
- Ongoing research to reduce program cost (several countries) and to test government implementation (Bihar)

World Bank programming opportunity

- Consider Graduation-style asset transfer programs where marginalized HHs face multiple constraints, and where implementation capacity exists
- Consider lumpy cash transfers to spur business or human capital investment
2. Should transfers be targeted or universal?

- Targeting is imperfect: Inclusion and exclusion error, cost of targeting
- Would universal transfers better improve welfare?
- Tradeoff:
  - Universal benefits would eliminate exclusion error
  - But with fixed budget, as number of beneficiaries increases, per capita benefit decreases substantially
- Simulations based on data from Indonesia and Peru find existing imperfect targeting methods lead to greater welfare improvements than universal programs
  - But many poor will be excluded under existing targeting methods

Hanna and Olken 2018
3. If we target, how do we identify who is eligible?

- In low information environments, it can be difficult to identify who is poor
- Challenge compounded by large informal economy

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<th>Proxy means test (PMT)</th>
<th>Community-based</th>
<th>Self-selection</th>
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<td>Government collects data on hard-to-hide-assets (land, house, motorcycle, etc.), uses that to predict income</td>
<td>Local communities have discretion to decide who is poor</td>
<td>Creates some barrier that is more costly for those who are not the desired beneficiaries (e.g. waiting in line to apply, transportation, etc.)</td>
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<tr>
<td>Avoids targeting on income directly</td>
<td>Based on assumption that communities have more information than the government</td>
<td>But risk of imposing higher barriers for the poor and marginalized</td>
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<td>Risk of imperfect prediction, HHs may conceal assets</td>
<td>But risk of elite capture</td>
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Targeting error under PMT and community methods: Proxy means testing was slightly more accurate in identifying the poor

Yet community based targeting significantly improved community satisfaction with targeting process and included more households who self-identified as poor

Self targeting led more poor and fewer non-poor households to receive benefits as compared to automatic screening

Across all methods, exclusion error is very high

- All targeting methods continue to exclude the poorest → those most in need are not receiving social protection programs
  - 52-54% of the poor were excluded from receiving an unconditional cash transfer under PMT and community targeting in Indonesia
  - While self targeting (vs automatic screening) doubled the rate of very poor HHs receiving a CCT in Indonesia, exclusion error still very high: 16% of very poor HHs received transfer, 84% excluded
- There is a lot of room for improvement on how we identify the most vulnerable

Evidence take-away

- PMT more accurate at identifying the poor
- Community targeting increased satisfaction
- Self-targeting reduced inclusion and exclusion errors
- Exclusion errors remain very high regardless of targeting method

Context considerations

- Consider what you are trying to optimize for as well as implementation capacity when choosing a targeting method

World Bank programming opportunity

- Incorporate evidence-based targeting methods into social programs
- Continue testing approaches to reduce exclusion error: How do we identify the poorest?
Discussion and Next Steps

• What types of human development programs are you designing now?
• Can we share evidence or help you think about how to apply evidence in program design?
• Next steps: J-PAL sector co-chairs and staff ready to share evidence in more detail, help think about application in other settings