What works in poverty reduction

Evidence from developing countries

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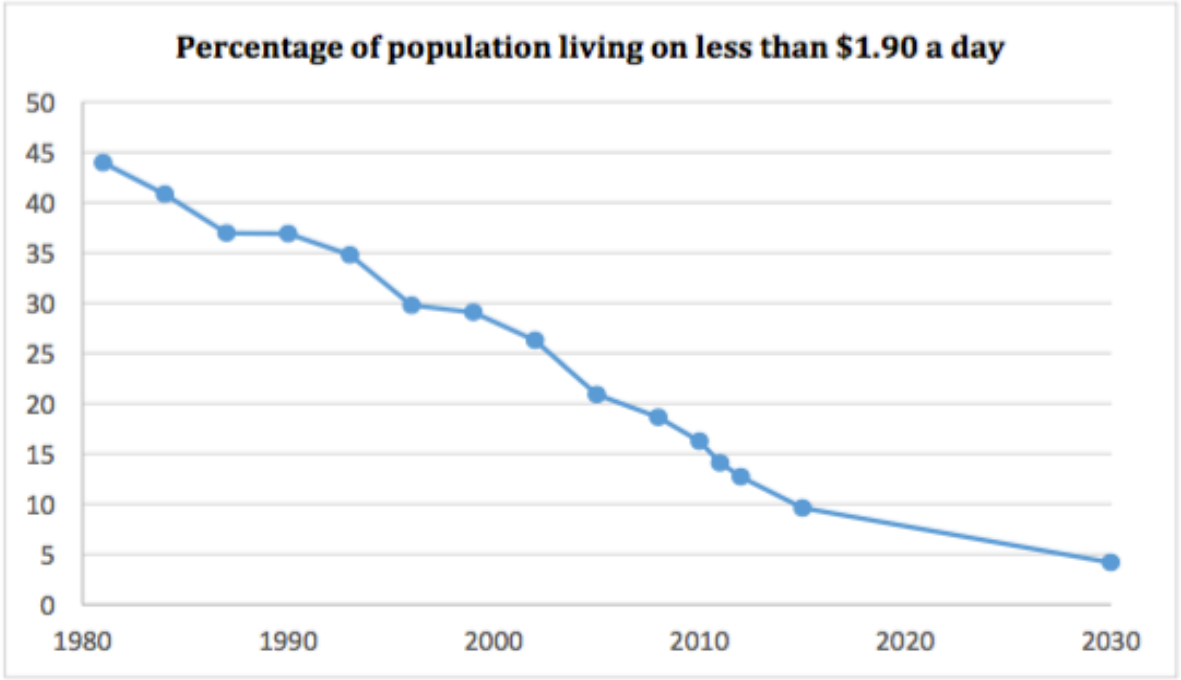
Introduction

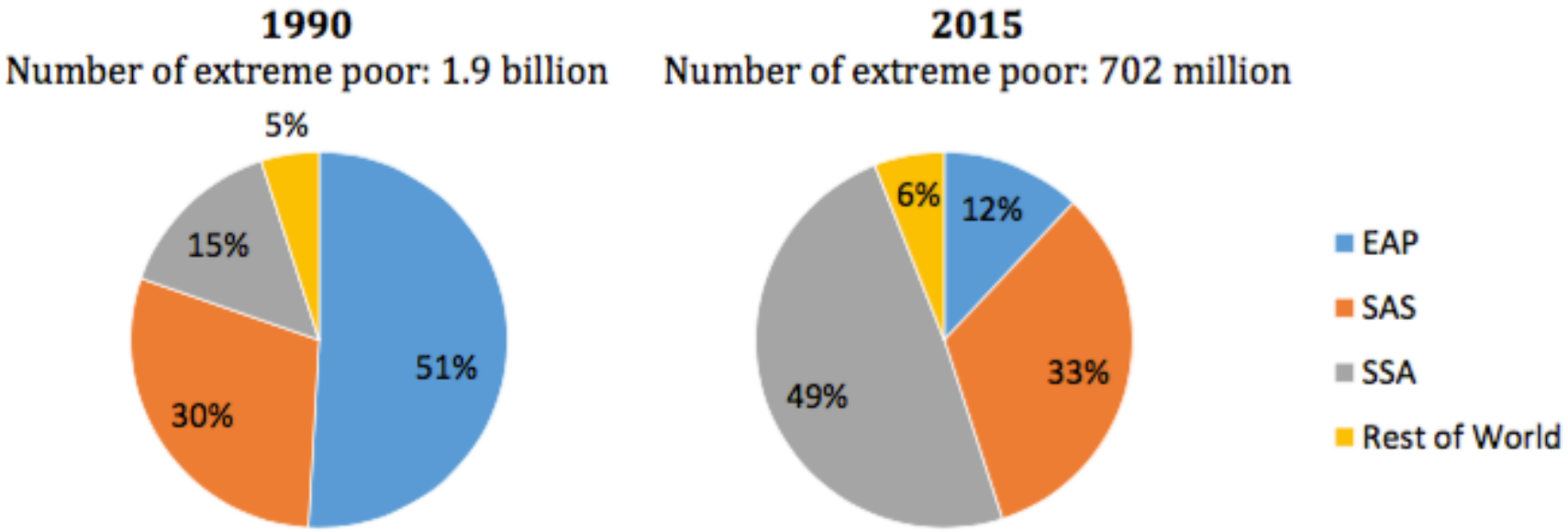
- People living below $1.25 a day more than halved b/w 1990 and 2015: from 1.9bn to 836m
  - Global poverty rate declined from 37% to 9.6% : fastest reduction in human history



Source: Global Monitoring Report 2015/16 (World Bank)
Note: Numbers until 2012 are estimated and numbers for 2015 and 2030 are projections.

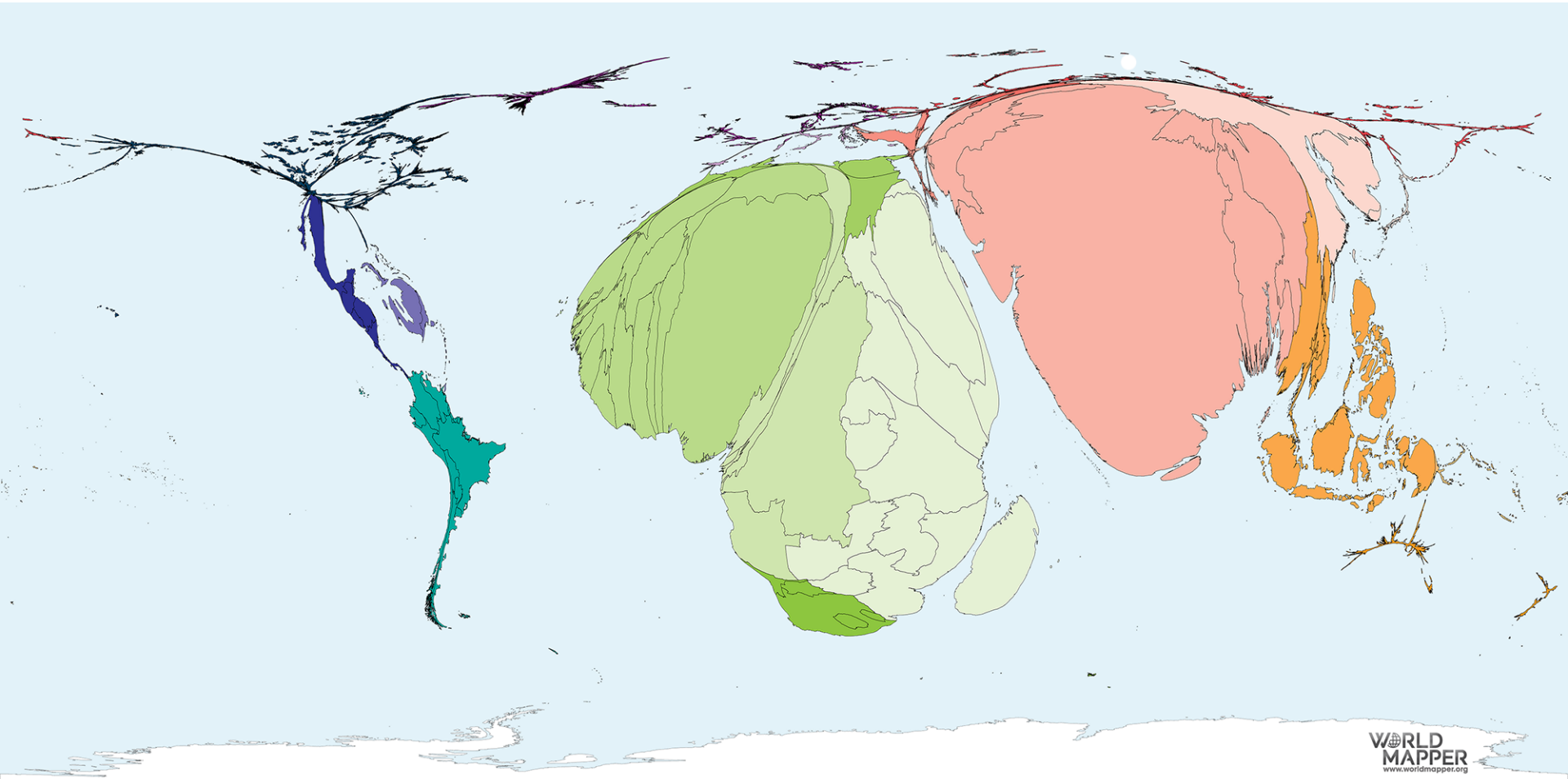
- 1st of the SDGs: eradicate extreme poverty by 2030

Where are the poor?



Source: Gill et al. (2016)

Where are the poor?



Source: www.worldmapper.org

This talk: low-income countries!

Poverty reduction strategies

Broad consensus on 3 pillars:

1. Market interventions
   a) Agricultural reforms
   b) Credit markets
   c) Savings
2. Investments in human capital
   a) Education
   b) Health
3. Reduce vulnerability to risk
   a) Social assistance
   b) Social insurance

Recently, emphasis especially on last point since:

- Today, those left in poverty are hardest to reach
- High risk to slip down into poverty again

  5-year study in Chile, Mexico and Peru:

  Prob of backsliding into poverty is 10% even at incomes 7 times larger than the poverty line (Lopez-Calva and Ortiz-Juarez 2014)

- Increasing impact of large-scale natural disasters, climate change, conflicts and pandemics

How do we know what works?

- Cannot simply compare places or periods with and without the program because we do not know what would have happened to the same units *in the absence* of the program (counterfactual)
- Rigorous impact evaluation methods allow to recreate a counterfactual scenario
- Key advances in development in recent years come from appying rigorous impact evaluation methods (e.g., RCTs - randomized controlled trials)
- Partnerships b/w researchers & policymakers, e.g., J-PAL, Laboratory for Effective Anti-poverty Policies (LEAP) @Bocconi

Outline

Evidence from development literature on the effectiveness of:

1. Market interventions
2. Investments in human capital
3. Reduce vulnerability to risk
4. Multifaceted interventions

1. Market interventions

1a) Land and property titling

- Land is one asset the poor tend to own, but land records often incomplete and many people do not have titles → Property titling effective:
  - Increased investments (Peru - Field, 2005; Ghana – Besley, 1995) and access to credit (Honduras - Lopez and Romano, 1997; Brazil - Alston et al., 1999; Peru – Field and Torero, 2006)
  - Increased physical and human capital investment through smaller hh size and investments in children's education (Argentina – Galiani and Schargrodsky, 2010)
  - Increased productivity (ex: India's Operation Barga - Banerjee et al., 2002; India - Shaban, 1987; Ghana - Goldstein and Udry, 2005)
  - Increased labor supply (Field, 2007)

1b) Labor

Training programs overall successful (World Bank, 2009):

- Long lasting improvements in labor market outcomes, skills and productivity (e.g., Colombia - Attanasio et al., 2015; India – Adhvaryu et al., 2018; Uganda – Bandiera et al., 2017)
- However, biggest effects found in programs in which trainees are self selected. When training programs are non-targeted evidence is more mixed.

1c) Credit

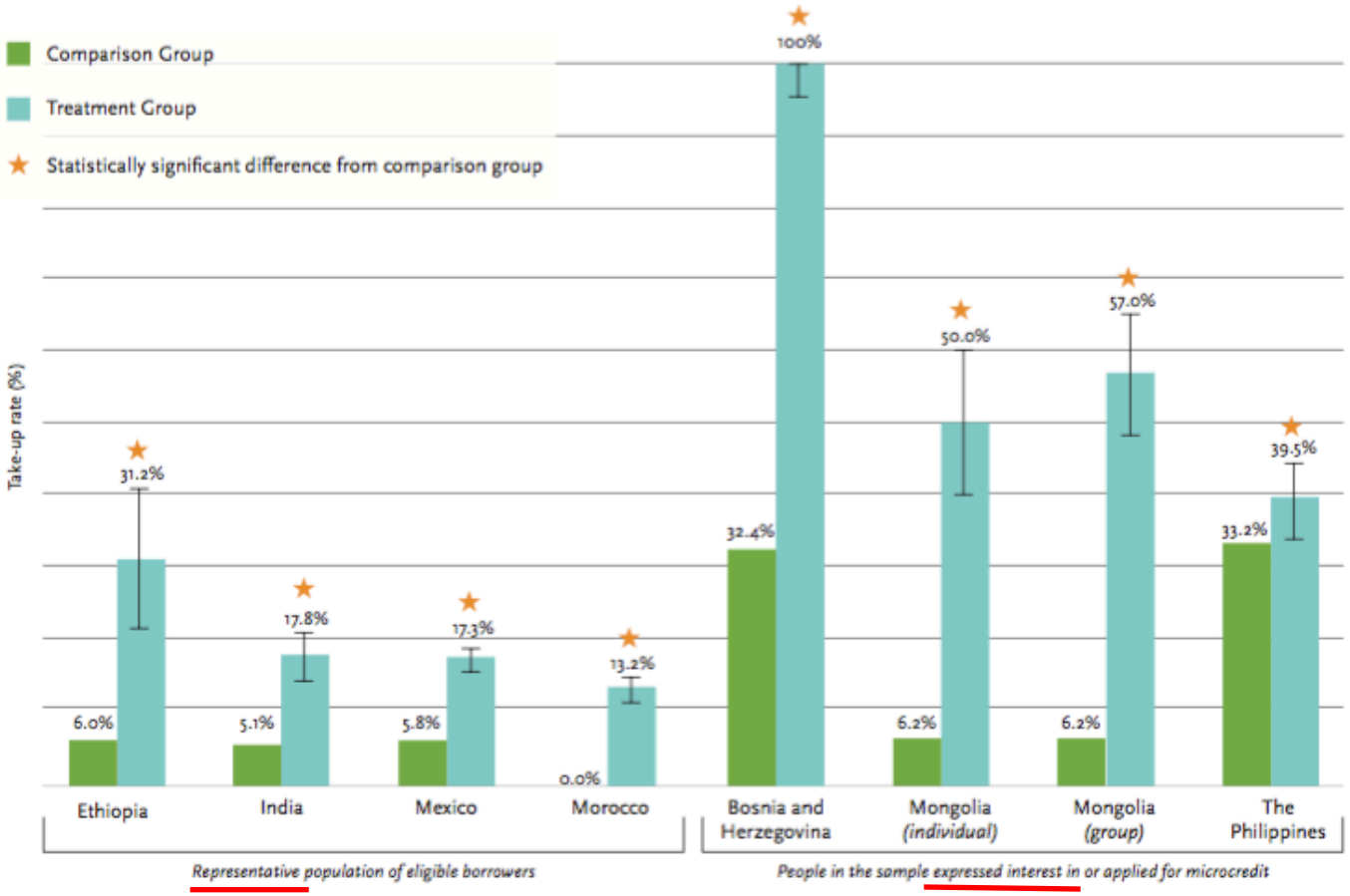
Mixed evidence on impact of microcredit

Positive results

- Expand business ownership, business activities and assets
- Households have more freedom in optimizing how they earned, consumed, invested, and managed risk
- Positively affected aggregate demand & wages, especially in the non-tradable sector (Breza and Kinnan, 2018)

Disappointing results:

- Modest take-up when offered to general population (13% to 31%)



Source: www.povertyactionlab.org

Disappointing results:

- Rarely resulted in profit increases
- Rarely resulted in women's empowerment or investment in children's schooling
- Works for a selected group of people/firms:
  - those that are already doing better
  - those that self-select into the programs

Product design: which micro loans work best?

- Repayment periods: adding grace periods before or during repayment improves business outcomes (Field et al., 2013; Battaglia et al., 2019)
- Switching from weekly to monthly meetings resulted in the same high repayment, but reduced collection costs for MFI & client stress (Field and Pande, 2008)

1d) Access to savings

77 percent of adults living on less than $2 a day report not having an account at a formal financial institution
(Demirguc-Kunt and Klapper, 2012)

- Take-up rate and usage usually low in studies involving formal accounts
- Randomly expanding access to bank accounts results in more deposits but has no universal impact on savings or incomes (Dupas et al., 2016 ; Schaner, 2016)

Understanding low take-up rates

5 main explanations:

- Transaction costs (fees, distance)
  - Yet usage is low even when costs are reduced (Dupas *et al*. , 2012; Schaner, 2013)
- Lack of trust
- Low financial literacy
- Social constraints
  - Intra-hh: commitment savings products that restrict access improve women's ability to save (Robinson, 2012; Ashraf *et al*., 2010)
  - Inter-hh: social claimants induce strategic behavior, i.e., concealment & saving less (ex: Jakiela and Ozier, 2012; Giné *et al*., 2013)

Understanding low take-up (cont'd)

- Behavioral biases
  - Present bias/self-control: take up & savings are higher w/ commitment savings accounts (Dupas and Robinson, 2013; Brune et al., 2013)
  - Attention biases: people tend to forget nfrequent & large expenditure needs → reminders increase saving (Dupas and Robinson, 2013; Karlan *et al*., 2012)

2. Investment in Human Capital

2a. Education

- High individual rates of return to education, especially in LIC and for women

- Two separate issues that often require separate solutions: **quantity** (e.g., enrollment) & **quality** of education

Increasing school attendance

Two effective (but expensive) strategies (Damon et al. 2016; Kremer et al. 2013):

1. Conditional Cash Transfers (CCTs) - Examples: Progresa, Mexico (Schultz, 2004); Bolsa Familia, Brazil (Brollo et al, 2016)
   - Even small incentives work, e.g., $5 monthly transfers in Malawi (Baird et al., 2010)

2. Supply of schools, especially where local access is difficult (Indonesia: Duflo, 2001; Afghanistan: Burde and Linden, 2012)

Other (cheaper) ways:

- Information on returns to schooling (Dominican Republic: Jensen, 2010; Madagascar: Nguyen, 2008)
- Improving children's health (deworming or nutritional supplements) (Kenya: Miguel and Kremer, 2004; India: Bobonis et al., 2004)
- Free uniforms and books (Kenya: Kremer et al., 2003; Duflo et al. 2012)
- Free meals (Kenya: Vermeersch and Kremer, 2005)
- Scholarships (Kenya: Kremer et al. 2004; Kremer et al. 2009)

What does not seem to work:

- Introduction of latrines in school/provision of sanitary products: no evidence they increase girls' school attendance (Nepal: Oster and Thorton, 2011)

Cost effectiveness of different types of interventions

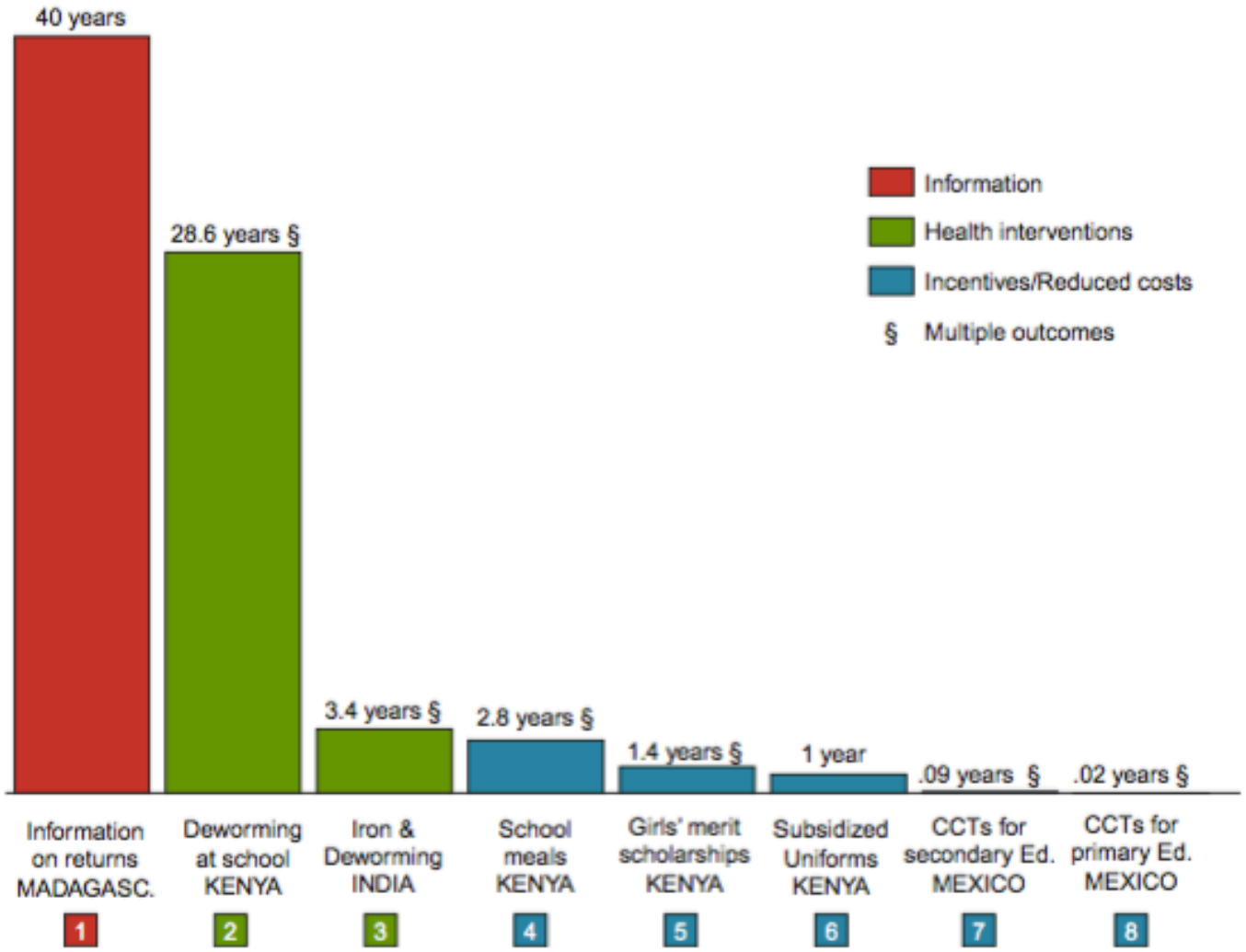


Figure 4.1 Additional years of schooling per $100 spent. *Source: www.povertyactionlab.org*

Improving learning outcomes

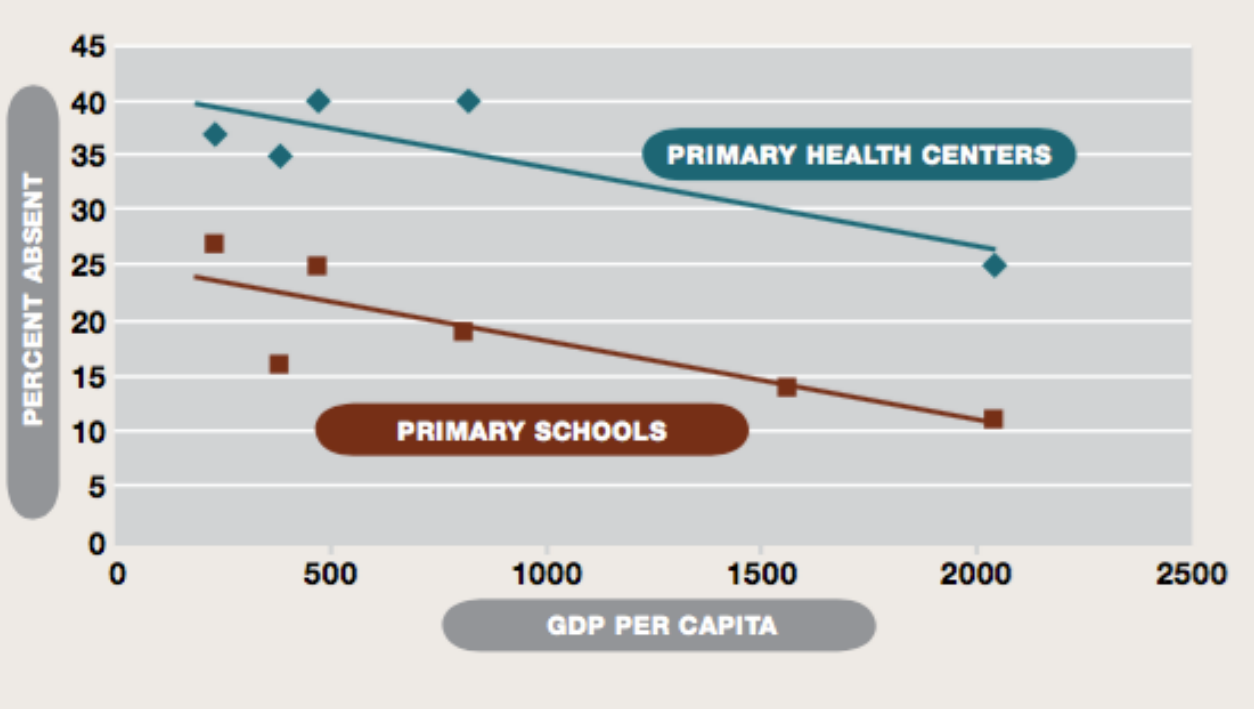
Teachers' quality

- Higher teachers' quality associated with higher probabilty of graduating college, lower probability of teen pregnancies (Chetty et al. 2014)
- The difference b/w a weak teacher and a great teacher has been measured in the US at up to a full year of student learning (Hanushek and Rivkin 2010)

Improving learning outcomes

1. Improve teachers' effectiveness
   - Pedagogical interventions tailoring teaching to students' skills (India – Balsakhi program : Banerjee et al. 2007; Kenya – organize classrooms by students' initial learning level: Kremer et al., 2011)

2. Improve accountability and teachers' attendance



19% teachers were found absent in un-announced visits in 6 countries *(Chaudhury et al. 2006)*

Source: Chaudhury et al. 2006

Teachers' attendance: what works

- Objective personal criteria to measure attendance (e.g, taking photos in India: Duflo et al. 2008)
- Locally accountable teachers on short contracts (Duflo et al. 2012; Banerjee et al. 2007)

What does not work

- Reduce class size and/or increase n. teachers w/o changing accountability
- Pay based on test scores (Kenya: Glewwe et al. 2003; India: Muralidharan and Sundararaman, 2006)
- Attendance monitoring by supervisors (Kenya: Kremer and Chen 2001)

Public vs. Private

- Some studies shows little evidence that private schools improve students' performance (Hsieh and Urquiola, 2006; Newhouse and Beegle, 2011)
- Others find that primary private schools work better
  - Higher test scores (Angrist et al., 2002; Bold et al., 2012; Tabarrok, 2011; Kremer and Muralidharan, 2006)

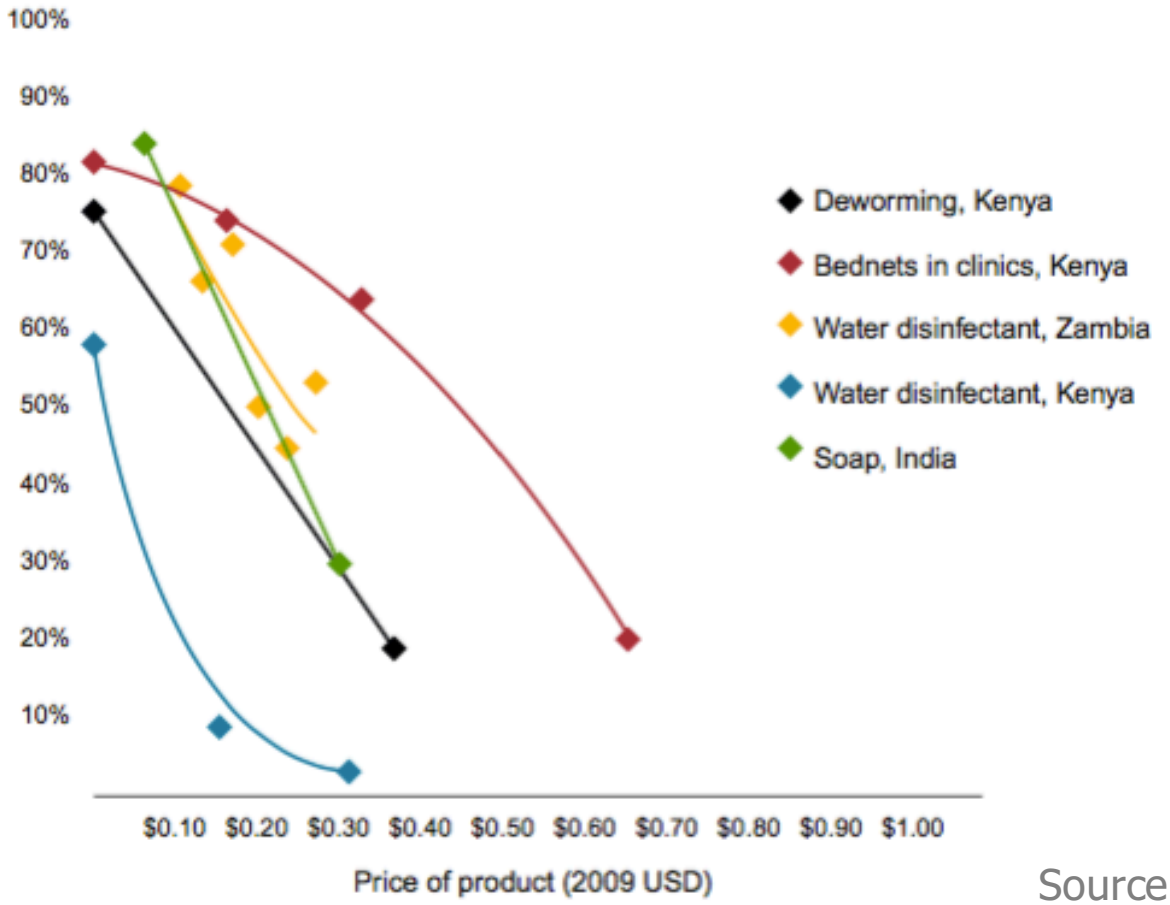
Not necessarily more expensive

- In Kenya 2/3 of private schools cost less to operate than median public school (Bold et al., 2012)
- In Pakistan (Andrabi et al., 2018) children in private schools are from rural areas & poorer families
  - Hiring local teacher → low cost → low fees
  - Limits: constrained to *villages w/ secondary-educated women* + unlikely to reach the secondary level

2b. Health

(a) Demand side

- Increase take-up by reducing user fees



Even small fees severely limit take up w/o helping targeting

Source: www.povertyactionlab.org

- Sunk cost fallacy hypothesis: paying for something makes people more willing to use it? No evidence this happens – examples: Insecticide-treated nets in Kenya and Uganda (Dupas, 2009; Hoffman et al. 2009); Water chlorination in Zambia (Ashraf et al 2010)

- Long term implications of free delivery
  - more willing to buy the health product at a cost in the future - no evidence of a price anchoring effect – examples: Insecticide-treated nets and water chlorination in Kenya (Dupas, 2009; Kremer et al 2011)

(b) Supply side

- Incentives to increase attendance of health care practitioners; community monitoring (Bjorkman-Svensson, 2009)

3. Reduce vulnerability to risk

3a) Social assistance

- Conditional Cash Transfer (CCT): proven record to reduce poverty. Evidence of long term effects
- Unconditional Cash Transfer (UCT): useful in countries with lower administrative capacity. Evidence of short term effects (Malawi - Baird et. al., 2010)

Cash vs. Food transfers

- Food stamps increase food consumption more (Ahmed, 2005; Del Ninno and Dorosh, 2002; PinstrupAndersen, 1988)
  Self –targeting advantage: only those in need will take them up (Blackorby and Donaldson, 1988; Currie and Gahvari, 2008; Drèze, 1990)
- Cash: higher freedom of choice, less stigma b/c less visible (Grosh et al., 2008), less costly to administer (Jacoby, 1997)

3b) Social insurance

- Social pensions and unemployment compensation
- Workfare or labor intensive public work schemes
  - India NREG program (Azam, 2012)

- Weather index-based insurance: lower transaction costs, reduced moral hazard, no adverse selection
  - Problem: low take up (6-18% across studies)
  - Ways to increase take up (based on 10 RCTs): Subsidies, financial literacy, money-back guarantee, link insurance w/ crop sales (lack of cash &)
  - No effect of providing weather forecasts, bundling w/ loan

Multifaceted Interventions

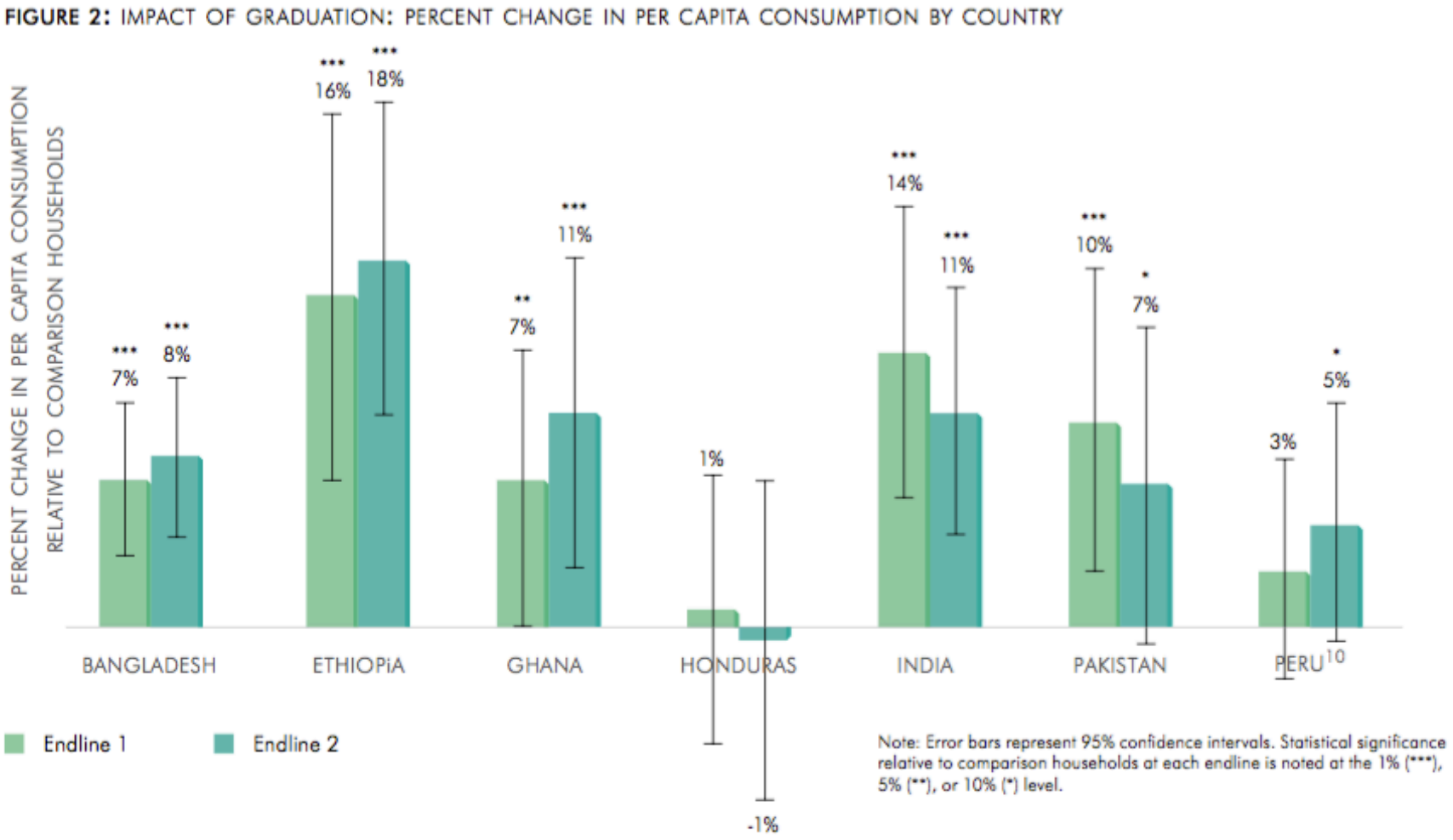
BRAC Graduation Approach

Implemented in 8 countries on ultra-poor households.

Combines 6 complementary components:

1. Productive asset transfer: One-time transfer of productive assets, such as cows, goats, or supplies for petty trade.
2. Technical skills training: Training to manage the productive asset.
3. Consumption support: Regular cash or food support for a few months to a year.
4. Savings: Access to a savings account, or encouragement to save.
5. Home visits: Frequent home visits by implementing partner staff to provide accountability, coaching, and encouragement.
6. Health: Health education, health care access, and/or life skills training.

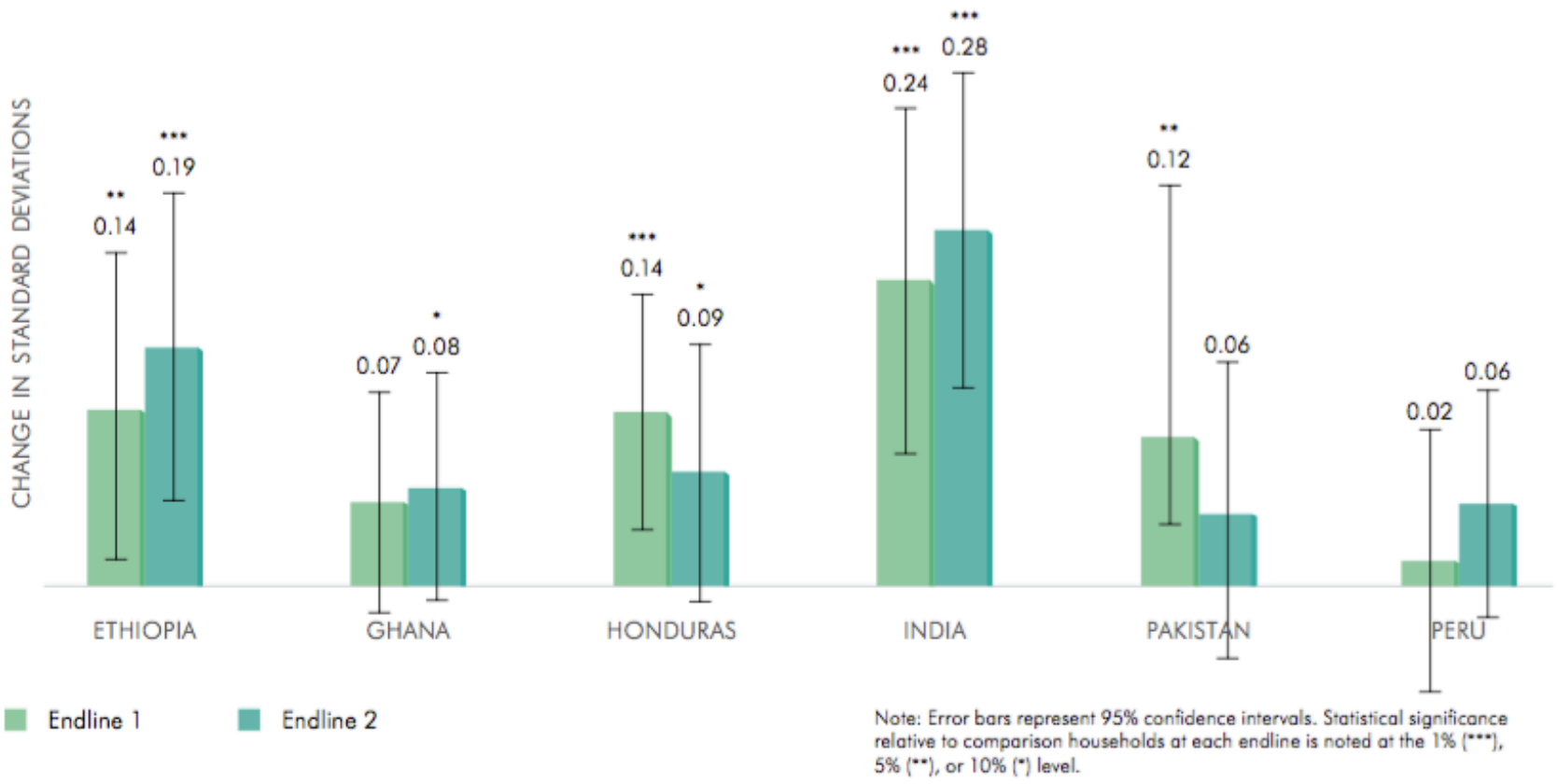
Impact on consumption



Source: www.povertyactionlab.org

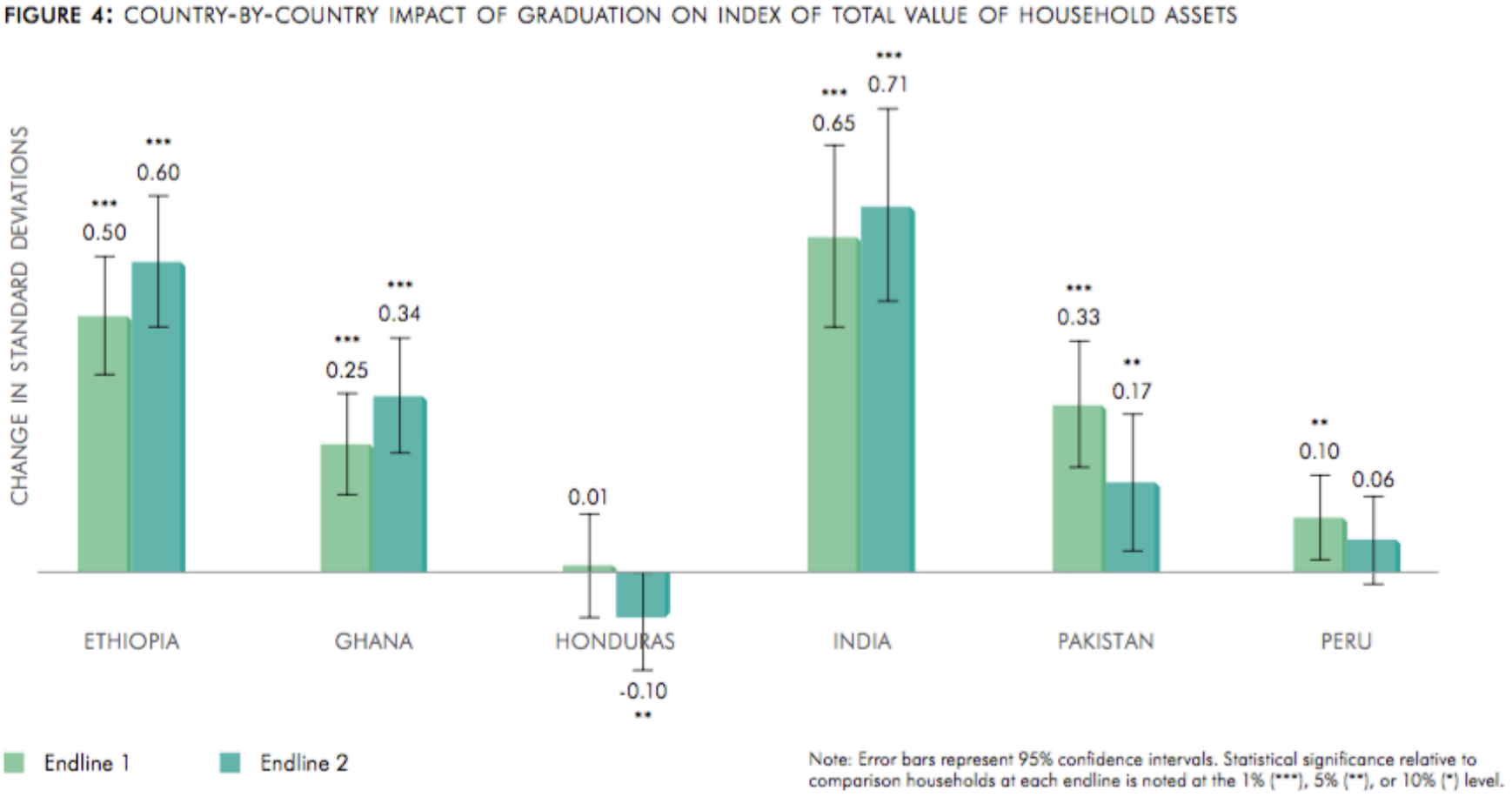
Impact on food security

FIGURE 3: COUNTRY-BY-COUNTRY IMPACT OF GRADUATION ON INDEX OF FOOD SECURITY[11 12]



Source: www.povertyactionlab.org

Impact on household assets



Source: www.povertyactionlab.org

Impact on noneconomic outcomes

TABLE 2: IMPACT OF GRADUATION ON NONECONOMIC OUTCOMES

	Pooled		Ethiopia		Ghana		Honduras		India		Pakistan		Peru	
	ENDLINE 1	ENDLINE 2	ENDLINE 1	ENDLINE 2	ENDLINE 1	ENDLINE 2	ENDLINE 1	ENDLINE 2	ENDLINE 1	ENDLINE 2	ENDLINE 1	ENDLINE 2	ENDLINE 1	ENDLINE 2
Physical Health	↑	–	–	–	↑	–	↑	–	↑	–	↓	–	↑	↑
Mental Health	↑	↑	–	–	↑	–	↑	↑	–	–	*No data*	–	–	↑
Political Involvement	↑	↑	–	↑	↑	↑	–	–	–	↑	↑	↑	–	–
Women's Empowerment	↑	–	–	–	–	–	–	–	–	*No data*	↑	–	–	–

↑ Statistically significant positive difference in outcomes between the treatment and comparison groups at the 90% confidence level or higher

↓ Statistically significant negative difference in outcomes between the treatment and comparison groups at the 90% confidence level or higher

– No statistically significant difference

Source: www.povertyactionlab.org

Conclusions

- Approaches that combine interventions on multiple fronts more effective
  - Often market failures in developing countries have repercussions beyond a specific sector
- Ongoing work: can these programs break "poverty traps"?
- Challenge: produce evidence that is rigorous and at the same time generalizable & valid over the long run