May 2017 — Investing in Early Childhood Development

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Well-designed early childhood development programs can pay major dividends

Investments in very young children to limit their exposure to disease, ensure adequate nutrition, and stimulate their early learning, yield returns across the lifecycle. Stunting — excessively low height-for-age, caused by extreme nutrient inadequacy and repeated bouts of disease — results in impaired brain development, lower cognitive and socioemotional skills, lower levels of educational attainment, and shortness and illness in adulthood if this window is missed. In this talk, Emanuela Galasso focused on nutrition and early childhood development interventions. She discussed evidence from developmental science and economics that can buttress policy design of interventions. Finally, she talked about the behavioral change dimension of nutrition and childhood development interventions, including the role of information, beliefs, and agency that the poor have in adopting optimal behaviors.

Policies targeted to poor households miss many other hungry women and children

Household data are almost invariably used to measure individual poverty. In other words, a poor household is assumed to contain poor individuals. Also, antipoverty policies in developing countries often assume that targeting poor households
will reach poor individuals. This assumption is tested using nutritional status as a proxy for individual poverty for Sub-Saharan Africa. According to this assessment undernourished women and children are spread widely across levels of household wealth and consumption. Roughly three-quarters of underweight women and undernourished children are not found in the poorest 20 percent of households, and around half are not found in the poorest 40 percent. Countries with higher overall rates of undernutrition tend to have a lower share of undernourished individuals in non-poor households. The results are consistent with evidence of substantial intra-household inequality. To successfully reach undernourished women and children, policy interventions will either require much more individualized information or broader coverage.


Development gaps emerge early for poor children and become larger in school

Low socioeconomic status (SES) puts poor children at risk for lower health and development outcomes (e.g., language, cognition, and behavior). This study examines the magnitude and age profile of SES gradient changes over time by modeling skill formation as a cumulative and dynamic process. A cohort of children in Madagascar surveyed between 3–6 and 7–10 years old captures longitudinal patterns that show substantial wealth gradients in receptive vocabulary, cognition, sustained attention, and working memory, even after factoring in lagged outcomes, maternal endowments, measures of child health, and home stimulation. Wealth gradients significant at ages 3–4 widen with age and flatten by ages 9–10. For vocabulary and sustained attention, the gradient grows steadily between ages 3 and 6; for cognitive composite and memory of phrases, the gradient widens between ages 7 and 8 before flattening. These gaps in cognitive outcomes translate into equally sizeable gaps in learning outcomes. Between 12 and 18 percent of the predicted gap in early outcomes is accounted for by differences in home stimulation, even after controlling for maternal education and endowments.


Mass deworming remains a sound development investment

The World Health Organization is reviewing its long-standing recommendation of mass drug administration (MDA) for helminths in areas with more than 20 percent prevalence of hookworm, whipworm, and roundworm. With deworming drugs widely considered safe and effective, the key question is whether their long-term educational and economic benefits exceed their per-treatment cost ($0.30) A recent meta-analysis from the Cochrane Collaboration claims that while treatment of children known to be infected experience a weight gain of 0.75 kg (1.65 lbs.), there is conflicting evidence about MDA impacts on weight and other child outcomes. This study updates the meta-analysis by including previously omitted studies and adding additional data from included studies, and finds that the average effect of MDA on weight gain in infected children is 0.134 kg. Since only about half of children in the study settings were infected with worms, the implied average effect of MDA on weight gain in infected children is 0.301 kg (0.66 lbs.). This estimated average weight gain per dollar is 35 times more than that from school feeding programs.


A conditional cash transfer program led to fewer sick days for young children
A cash transfer program in Tanzania — tested with a randomized controlled trial — led to nuanced impacts on health investments and outcomes. To receive transfers, children aged 0–5 and those over 60 had to make regular visits to health clinics. Clinic visits surged after 1.5 years, both due to increased visits from people not meeting the conditions at the start of the program, but also from people who were already meeting the conditions. That increase disappeared after 2.5 years, largely due to a drop in above-minimal visits by those who were already complying with conditions when the program began. Health improvements materialized, but this took time: They appeared only after 2.5 years and were concentrated among children aged 0-5 years. Health insurance uptake increased, as did spending on protective footwear for children, which reduces exposure to health risks. The largest reductions in sick days occurred in villages with more baseline health workers per capita, suggesting that cash transfers to increase demand for health services will likely work best where there is a supply of health services to meet the demand.


School readiness programs are more effective when teachers and parents are trained together

The Sustainable Development Goals call for all children to “have access to quality early childhood development, care, and pre-primary education so that they are ready for primary education.” A government program in Malawi aimed to improve quality at community-based childcare centers and complemented these efforts with a group-based parenting support program. Children in the integrated intervention arm (teacher training and parenting support) had higher scores in assessments of language and socio-emotional development than children in centers receiving teacher training alone at the 18-month follow-up. A rich battery of child assessments, conducted 36 months after baseline, showed no treatment effects among the 6-8 year-old children in any treatment arm, indicating a substantial fade-out of program impacts in the integrated intervention arm. Significant improvements at the centers relating to classroom organization and teacher behavior in the teacher-training only arm did not translate into improvements in child outcomes at either follow-up. The findings suggest that, in resource-poor settings with informal preschools, programs that integrate parenting support within preschools may be more effective than programs that simply improve classroom quality.


Giving cash to mothers does not always lead to significantly better child health or education outcomes

The Nahouri Cash Transfer Pilot Project in rural Burkina Faso incorporated a random experimental design to evaluate the role of conditionality in cash transfer and the gender of the transfer recipient. The programs targeted boys and girls up to age 15 to study the impact of the cash transfer modalities on a broad range of education, health, and household welfare outcomes. Conditionality was linked to older children enrolling in school and attending regularly and younger children receiving preventive health check-ups. Compared with the control group, cash transfers improve children’s education and health and household socioeconomic conditions. For school enrollment and most child health outcomes, conditional cash transfers outperform unconditional cash transfers. Giving cash to mothers does not lead to significantly better child health or education outcomes, and there is evidence that money given to fathers improves young children’s health, particularly during years of poor rainfall. Cash transfers to fathers also yield relatively more household investment in livestock, cash crops, and improved housing.
Evidence on small-scale health interventions are poor predictors of service delivery at scale

Unsafe water and inadequate sanitation and hygiene kill over one million people a year. In Sub-Saharan Africa, most of these deaths are children under five. The current evidence on handwashing and sanitation programs finds improved health effects in small-scale researcher- or NGO-led interventions, but limited health effects for at-scale interventions tested in isolation. This work explores potential complementarities from combining sanitation and hygiene interventions. In Tanzania, one year after the three treatments and control — sanitation promotion, handwashing promotion, both interventions together, or neither — ownership of improved latrines increased from 50 to 65 percent and open defecation decreased from 23 to 11 percent in sanitation promotion-only wards. Households in handwashing promotion-only wards showed marginal improvements in hygiene awareness and handwashing related to food preparation. The combined intervention did not improve diarrhea, anemia, stunting and wasting in children. The contrast in results between small-scale, tightly controlled experiments and large-scale effectiveness studies suggest the importance of unpacking the determinants of effective delivery before going to scale. The biological reasoning behind promoting sanitation and hygiene interventions is theoretically sound, but closing the gap between objectives, intervention design and delivery, particularly when working at scale, should be taken into account by researchers, policymakers, and implementers.

Deworming in early childhood can benefit younger siblings and the community

Health shocks can have lasting repercussions during early childhood. For example, intestinal worms, while rarely fatal, infect more than one billion people, predominantly young children in Asia and Sub-Saharan Africa. Although community-based deworming programs are usually aimed at school-age children, they can have large beneficial spillovers on others in the community. How big are the spillovers? A large-scale randomized deworming intervention aimed at primary school pupils in western Kenya had long-term effects on younger children who were not directly treated. Even ten years after the intervention, large cognitive effects — comparable to between 0.5 and 0.8 years of schooling — are evident in children who were less than one-year-old when their communities received school-based mass deworming treatment. Cognitive effects are nearly twice as large for children with an older sibling who received treatment directly.

MORE RESEARCH

Research Digest Spring Issue: Labor Markets
The Research Digest is a quarterly publication disseminating findings of World Bank research. This issue includes the following articles: Are Active Labor Market Programs Effective in Developing Countries? | Are Automation and Trade Polarizing Developing Country Labor Markets, Too? | How Does Innovation Affect Employment in Developing Countries? | How Is the Internet Reshaping Work? | Big Data from Online Job Portals | The Motherhood Penalty and Female Employment in Urban India | How Some Female Entrepreneurs in Africa Enter Male-Dominated Sectors | Can Wage Subsidies Boost Employment in the Wake of an Economic Crisis? | Understanding the Effects of the World's Largest Workfare Program | How Do Cities in Ethiopia Create Jobs? | What Is Behind the Decline in Wage Inequality in Latin
Open data: differences and implications across countries

The pros and cons of making data more accessible to the public have been widely debated. Proponents of open data argue that it is good practice for governments because it fosters transparency, promotes greater participation, and encourages sharing of ideas, which is important in building a research-oriented culture. Others, however, are less convinced of the merits of open data. This research policy brief finds that there is a relationship between accessibility of data and income levels of a country, and between data availability and the productivity and quality of economic research.

EVENTS

- June 5–9, 2017: Manage Successful Impact Evaluations

MEDIA AND BLOGS

Should a country limit unskilled immigrant workers to safeguard national productivity growth?

There are about 245 million migrants worldwide — around 3% of the world population. Roughly one-fifth are tertiary educated. Middle-income countries have a smaller proportion of immigrants than high-income countries (about 1% versus 12%). But for a number of middle-income countries with more immigrants than others, there is uneasiness about relying on unskilled foreigners as they strive to leap from low-wage labor and imitation to high-skilled labor and innovation. There are palpable concerns in Malaysia, for example, with some 2.1 million registered immigrants — about 7% of its population - and likely over 1 million undocumented immigrants. Things reached a crescendo early last year when all new hiring of unskilled foreign workers was suspended as the Malaysian government re-evaluated the management and need for foreign workers. The freeze was subsequently lifted for select sectors amid complaints of labor shortages.

Read the blog by Sharmila Devadas.

A framework for taking evidence from one location to another

“Just because it worked in Brazil doesn’t mean it will work in Burundi.” That’s true. And hopefully obvious. But some version of this critique continues to be leveled at researchers who carry out impact evaluations around the world. Institutions vary. Levels of education vary. Cultures vary. So no, an effective program to empower girls in Uganda might not be effective in Tanzania.
Of course, policymakers get this. As Markus Goldstein put it, “Policy makers are generally not morons. They are acutely aware of the contexts in which they operate and they generally don’t copy a program verbatim. Instead, they usually take lessons about what worked and how it worked and adapt them to their situation.

In the latest Stanford Social Innovation Review, Mary Ann Bates and Rachel Glennerster from J-PAL propose a four-step strategy to help policy makers through that process of appropriate adaptation of results from one context to another.

Read the blog by David Evans.

What type of bureaucrat are you?
Governance for Development blog, 22 May 2017

In the world of public sector bureaucracy, what type of bureaucrat are you?

In the board game 'Bureaucracy', you must assume the role of the ‘Lifer’, the ‘Over Achiever’, the ‘Empire Builder’, or the ‘Hustler’. Each character must use different tactics associated with their personality to rise up the ranks of the bureaucracy to achieve the position of director. For example, by amassing contacts, the Hustler can attempt a 'power play' on players above her in the hierarchy.

Read the blog by Daniel Rogger.

Seven ways to think like a 21st-century economist
Let's Talk Development blog, 16 May 2017

Having just published her new book called Doughnut Economics, Kate Raworth — a senior visiting research associate with Oxford University's Environmental Change Institute — is touring the world, appealing to people to break their global worship of growth; redesign money and finance; and to create economies that are regenerative and redistributive, and serve the interests of people worldwide, not just Audi drivers.

Read the blog by Phil Hay.

Building grit in the classroom and measuring changes in it
Development Impact blog, 15 May 2017

About a year ago I reviewed Angela Duckworth’s book on grit. At the time I noted that there were compelling ideas, but that two big issues were that her self-assessed 10-item Grit scale could be very gameable, and that there was really limited rigorous evidence as to whether efforts to improve grit have lasting impacts.

A cool new paper by Sule Alan, Teodora Boneva, and Seda Ertac makes excellent progress on both fronts. They conduct a large-scale experiment in Turkey with almost 3000 fourth-graders (8-10 year olds) in over 100 classrooms in 52 schools (randomization was at the school level, with 23 schools assigned to treatment).

Read the blog by David McKenzie.
Is there enough redistribution?
*Future Development blog, 9 May 2017*

With limited government budgets, developing countries need to decide how to allocate funds between, among other things, government investment projects and social safety net programs. While government investment may contribute to growth, the primary purpose of social safety net programs is to improve the conditions of the poor. How should governments trade off these two objectives?

In a recent paper, I illustrate how social welfare analysis can guide policy. Social welfare analysis is an accounting framework that incorporates both a desire for growth and a desire for equality. Intuitively, inequality is undesirable because basic consumption such as food or shelter is more important than luxury goods. Even at the cost of lower average income, it sometimes makes sense to take steps to guarantee that basic needs are satisfied for a larger majority of the population.

Read the blog by Maya Eden.

List experiments for sensitive questions – a methods blog
*Development Impact blog, 15 May 2017*

About a year ago, I wrote a blog post on issues surrounding data collection and measurement. In it, I talked about “list experiments” for sensitive questions, about which I was not sold at the time. However, now that I have a bunch of studies going to the field at different stages of data collection, many of which are about sensitive topics in adolescent female target populations, I am paying closer attention to them. In my reading and thinking about the topic and how to implement it in our surveys, I came up with a bunch of questions surrounding the optimal implementation of these methods. In addition, there is probably more to be learned on these methods to improve them further, opening up the possibility of experimenting with them when we can. Below are a bunch of things that I am thinking about and, as we still have some time before our data collection tools are finalized, you, our readers, have a chance to help shape them with your comments and feedback.

Read the blog by Berk Özler.

Development in the long-run: Historical context is messy and making sense of it can be messier
*People, Spaces, Deliberation blog, 3 May 2017*

Sometimes, things get worse before they get better. Students often struggle to learn new concepts but once they do, their ability to integrate those concepts and build on them accelerates. Likewise, adults may experience the struggle of adopting new technology before realizing its benefits. Organizations going through “change management” may similarly experience concern and confusion as departments realign before finding ways to adapt and re-build. The idea that change experiences a dip at first — or at least that it *feels* that way — is known by social scientists and economists alike as the J-curve.

For Michael Woolcock, the J-curve is useful as it helps explain why historical progress doesn't always feel like progress. As he says, “what is going on now is always a product of the whole stream of things that have gone on in the past.”
Asia’s financial connections with the rest of the world: changing patterns

*All About Finance* blog, 4 April 2017

As economies in the East Asia and Pacific (EAP) region have developed, they have also become important in international financial transactions, both as a source and destination of cross-border bank lending, foreign direct investments (FDI), and portfolio investments. But, as we document in a new paper (Didier et al., 2017), the composition of those financial connections has been changing in recent years in at least two fronts: (i) the partners with which EAP countries interact and (ii) the type of financial transactions conducted.

Read the blog by Ruth Llovet Montanes, Tatiana Didier, and Sergio Schmukler.

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eMBeDding behavioral insights in development projects — an update

*Let’s Talk Development* blog, 25 April 2017

People think fast and often automatically, respond strongly to social incentives, and use mental models or specific worldviews to interpret information and perceptions. So, shouldn’t we be taking into account their thinking and behaviors while designing policies?

Read the blog by Renos Vakis and Varun Gauri.

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List of New Policy Research Working Papers

- **8046.** [What to Do When Foreign Direct Investment Is Not Direct or Foreign: FDI Round Tripping](https://www.worldbank.org/en/research/publication/what-to-do-when-foreign-direct-investment-is-not-direct-or-foreign-fdi-round-tripping) by Dilek Aykut, Apurva Sanghi, and Gina Kosmidou
• 8056. *Industrial Policy, Information, and Government Capacity* by William F. Maloney, and Gaurav Nayyar
• 8057. *Collecting the Dirt on Soils: Advancements in Plot-Level Soil Testing and Implications for Agricultural Statistics* by Calogero Carletto, Ermiyas Aynekulu, Sydney Gourlay, and Keith Shepherd
• 8058. *Compensation, Diversity and Inclusion at the World Bank Group* by Jishnu Das, Clement Joubert, and Sander Florian Tordoir
• 8059. *Effects of Performance Incentives for Community Health Worker Cooperatives in Rwanda* by Gil Shapira, Ina Kalisa, Jeanine Condo, James Humuza, Cathy Mugeni, Denis Nkunda, and Jeanette Walldorf
• 8060. *The Effects of In-Kind Demand-Side Conditional Transfers for Improving Uptake of Maternal and Child Health Services in Rwanda* by Gil Shapira, Ina Kalisa, Jeanine Condo, James Humuza, Cathy Mugeni, and Jeanette Walldorf
• 8061. *To Sew or Not to Sew? Assessing the Welfare Effects of the Garment Industry in Cambodia* by Carolina Mejía-Mantilla and Martha Tesfaye Woldemichael
• 8062. *The Entry of Randomized Assignment into the Social Sciences* by Julian C. Jamison
• 8064. *Status Goods: Experimental Evidence from Platinum Credit Cards* by Leonardo Bursztyn, Bruno Ferman, Stefano Fiorin, Martin Kanz, and Gautam Rao
• 8066. *Why Do Some Oil-Rich Countries Perform Better Than Others?* by Farrukh Iqbal, and Youssouf Kiendrebeogo
• 8067. *Elections and Embezzlement: Experimental Evidence from Burkina Faso* by Malte Lierl
• 8068. *The Rise of the Middle Class and Economic Growth in ASEAN* by Markus Brueckner, Era Dabla-Norris, Mark Gradstein, and Daniel Lederman
• 8069. *Where to Create Jobs to Reduce Poverty: Cities or Towns* by Luc Christiaensen, Joachim De Weerdt, and Ravi Kanbur
• 8071. *Do Different Types of Assets Have Differential Effects on Child Education? Evidence from Tanzania* by Kashi Kafle, Dean Jolliffe, and Alex Winter-Nelson
• 8072. *Perceptions of Distributive Justice in Latin America during a Period of Falling Inequality* by Germán Reyes and Leonardo Gasparini
• 8073. *Societal Poverty: A Relative and Relevant Measure* by Dean Jolliffe and Espen Beer Prydz
• 8074. *Is Consanguinity an Impediment to Improving Human Development Outcomes?* by Cem Mete, Laurent Bossavie, John Giles, and Harold Alderman
• 8075. *Predicting Conflict* by Bledi Celiku and Aart Kraay
• 8076. *Energy Prices and International Trade: Incorporating Input-Output Linkages* by H. Ron Chan, Edward Manderson, and Fan Zhang
• 8078. *Deterring Kickbacks and Encouraging Entry in Public Procurement Markets: Evidence from Firm Surveys in 88 Developing Countries* by Stephen Knack, Nataliya Biletska, and Kanishka Kacker
• 8079. *In the Mind, the Household, or the Market? Concepts and Measurement of Women’s Economic Empowerment* by Louise Fox and Carolina Romero
• 8080. *How do Women Fare in Rural Non-Farm Economy?* by Habtamu Fuje
• 8081. A Review of the Anthropological Literature on the Civil Service by Colin Hoag and Matthew Hull