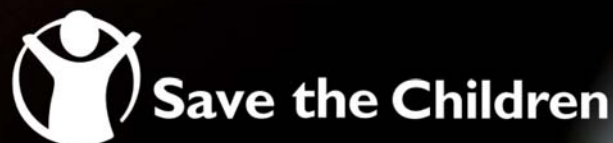




**OUTCOMES FOR CHILDREN FROM  
HOUSEHOLD ECONOMIC  
STRENGTHENING INTERVENTIONS:**

A RESEARCH SYNTHESIS



Produced by the Child Protection in Crisis Learning Network and Women's Refugee Commission for Save the Children UK

*The views expressed and recommendations put forward in this report are those of the independent authors, and do not necessarily reflect the views or policies of Save the Children.*

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## EXECUTIVE SUMMARY

Traditionally, Economic Strengthening (ES) programmes have focused on the head of the household and were designed on the assumption that any benefits would trickle down to other members of the household including children. Despite this assumption, the impacts of ES on children's wellbeing were rarely evaluated. However, more recently, external research has begun to evaluate and measure the impacts for children leading to some interesting and informative results for those designing and managing ES programmes.

This review focuses on the findings from high-quality published evaluation research into economic strengthening (ES) programs, implemented by NGOs, in resource-poor environments in the developing world, where external evaluators measured impacts on any of a wide variety of indicators of children's or youth's protection and wellbeing. A total of 46 published or publicly-available randomized control trial (RCT) research reports were selected for inclusion.<sup>1</sup> 35 evaluations measured the impact of programs in which the caregivers were the direct beneficiaries, and 12 measured the impact of programs in which adolescents or youth were the direct beneficiaries.

The review sets out to identify the ES programmes that impact child wellbeing outcomes positively as well as those that have potentially negative impacts. It also attempts to understand how factors such as gender and age might influence positive or negative impacts on child wellbeing outcomes. Lastly, the review identifies gaps in the evidence and makes recommendations for further research.

### Key Findings

The studies included in this review show that **all types of ES intervention studied have had one or more positive effects on outcomes for children**. This means that all of the classes of interventions considered here are potentially beneficial, and each could be a viable programming option depending on the specific interests and capabilities of the implementing agency. Many findings confirmed existing literature on the positive impacts of ES on children. For example, the positive effects of conditional cash transfers (CCTs) on outcomes such as educational enrolment confirm existing observational data. Interestingly, the review illustrated how CCTs can have secondary positive impacts on children beyond those stipulated in the conditions of the cash transfer such as teen sexual activity, psychological distress and child nutrition demonstrating how positive impacts of ES interventions can be amplified.

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<sup>1</sup> Ideally the criteria for inclusion of studies could have been wider, but narrowing the document set only to RCTs also allowed us to conduct the review in a shorter time frame and at lower cost.

**More than 20% of the studies reported at least one negative impact on child wellbeing outcomes** resulting from the ES intervention. These impacts were caused by different factors, some more apparent than others. For example, a microcredit loans intervention working with parents of adolescents led to improved access to diverse food, but the intervention also caused the adolescents to help with the family business and spend less time in school. While the findings did not identify a clear hierarchy of interventions in terms of their ability to create exclusively positive impact on children this does highlight the importance of both considering and measuring the multiple outcomes for children in the design and delivery of programmes to avoid harm and maximise positive impact.

When looking at mediating factors, such as gender or age of beneficiaries selected it was found that no single factor had a strong detectable effect on child wellbeing outcomes. The following provides initial pointers, but in all cases further research is required:

- a) **Focus of Conditionality:** In terms of design repercussions, **interventions designed to focus on individual children within a family, as opposed to entire households or entire communities can impact negatively on children outside the intervention.** For example, cash transfers that focus on children of a specific age can at times have a harmful impact on children outside the specified age-range both within the household and in the community.
- b) **Gender of Direct Beneficiary:** There may be other good reasons to focus on female rather than male caregivers with economic interventions but interestingly, of the studies focusing on female caregivers in this review, there **were no consistent findings to show targeting female caregivers with ES programming improved the impact of interventions on child wellbeing outcomes.**
- c) **Children/Youth as Direct Beneficiaries:** It was found that **when youth** (rather than adult caregivers) **were the direct beneficiaries of interventions, the statistically significant outcomes were always ‘good’ and never ‘bad’ for child wellbeing outcomes.** This review included studies that evaluated savings, job training and cash transfers for youth as direct beneficiaries.

Finally, it was found that in many outcome categories, researchers could find no short-term impact on children from ES programming at all. This was the result of several factors e.g. the wide variety of delivery approaches, the timing of the evaluation in relation to the implementation of the intervention and the fact that not all child wellbeing outcomes were being measured.

This demonstrates the **urgent need for more research into the impacts of ES interventions on child wellbeing outcomes**. The review identifies gaps in existing literature and evaluations presenting a clear set of recommendations for further research outlined in the section below.

## Recommendations

The review calls on designers and managers of ES interventions to:

- Specifically measure the impact of ES interventions on children, both those within the scope of the intervention but also those outside its scope, as you cannot assume that changes in household income or assets will have the same impacts on all children in a household or community, or on all the dimensions of child wellbeing.
- Carefully analyse the potential negative consequences at the programme design stage and plan how to measure and mitigate against these.
- Increase advocacy work to ensure donors who fund evaluation research or who require adherence to a standard list of programme indicators to include measures related to outcomes for children.

The review calls on donors who fund ES intervention evaluations to invest in:

- Inclusion of child-level indicators in standard programme requirements for assessment and evaluation
- More mixed-method approaches, including explanatory qualitative research and longitudinal studies, to help us understand more about how ES interventions impact child wellbeing and why.
- Setting up an open system to share research on child wellbeing outcomes similar to the U.S. National Institutes of Health Clinical Trials Database. In particular, the data on treatment, control and conditions should be made publically available through such a system.

The review calls on researchers to pursue research in the following specific areas:

- Investigation of the mediating factors for success of economic strengthening interventions i.e. gender of recipient, focus of conditionality, adolescents/youth as direct beneficiaries.
- Comparing costing to establish cost per-person and cost-per-effect-size, in order to understand the economic price of any observed differences between study groups and across intervention types.
- Generation of information on current gap areas including humanitarian contexts, changes in children's exposure to violence including GBV, and to explore which interventions might hold promise in helping to reduce child-family separation.

# I INTRODUCTION

ES approaches are increasingly applied in resource-poor environments, including in humanitarian crisis settings, in order to achieve a wide variety of socio-economic goals. Programs are often implemented by actors in child protection, health, nutrition, and other sectors, on the assumption that greater household wealth can lead to better outcomes in their category of focus.

Starting in the 1980s, ES programs were mostly aimed at the household head and designed on the assumption that the household was a benevolent, co-operative unit, where an increase in income would likely benefit all members. Today most programs, including large-scale cash transfer and microcredit schemes, now focus more on women as primary program beneficiaries on the assumption that female caregivers allocate more resources to household needs than do their male counterparts, though as shown below, that hypothesis is increasingly in question (Haushofer and Shapiro, 2013; Blattman et al., 2014; Fiala, 2014). In contexts with high numbers of child-headed households and other vulnerable children, agencies sometimes engage adolescents directly with ES programming.

Economic strengthening is almost always applied as part of a multi-sectorial integrated community development approach. Most of the programs considered here use ES approaches as part of holistic initiatives that may include multiple economic programs and multiple non-economic programs at the same time, and which may engage more than one cohort of community members. We look at effects on children both from interventions engaging caregivers as direct beneficiaries and those engaging children and youth themselves with ES programs.

Until recently the impacts of ES on children's welfare were rarely evaluated, but external research has now begun to look more closely at impacts for children, and this review is our second attempt at compiling the results so far, an update of the 2011 report by Child Protection in Crisis, *Children and Economic Strengthening: A Review of the Evidence* (Chaffin, 2011).

The review had four interlinked objectives:

- To identify the relative success of different ES approaches in generating positive impacts across a specified range of child well-being outcomes
- To understand the potential negative impacts of ES approaches on different child well-being outcomes and their causes
- To better understand the types of mediating factors that determine positive and negative outcomes for different children (e.g. gender, age, status of mother, combination and/or sequencing of project components)
- To identify gaps in the evidence base to determine key questions for further research

This review is a research synthesis of randomized impact evaluations of interventions in developing countries, programs that work to build income and/or economic assets either

of the caregiver, the household, or the individual child, adolescent, or youth, where the evaluation looked at any child-level outcomes. While common in other fields, statistical meta-analysis (unlike a standard literature review) is relatively rare in the literature on child well-being. Quisumbing and Kovarik (2013) for example, have applied meta-analysis to the limited literature on adolescent girls programming. Barrientos et al. (2014) conducted a systematic literature review of social transfers on child protection outcomes in the developing world; and Arnold et al. (2011) focused specifically on cash transfers, explaining the differential effects of such programs depending on their objective, design and implementation. With the expansion of experimental and quasi-experimental methods, however, we now have the opportunity to better integrate our findings with theory and observational data.



## 2 METHODOLOGY

### 2.1 Why a Research Synthesis?

*Research synthesis* can be used interchangeably with terms such as *meta-analysis* or *systematic review*. Cooper et al. (2009) define research synthesis as an “attempt to integrate empirical research for the purpose of creating generalizations. Implicit in this definition is the notion that seeking generalizations also involves seeking the limits of generalizations.” (Cooper et al., 2009, p. 6) The most important objective of meta-analysis or research synthesis is to systematically synthesize the results of various studies. By stepping back from the individual research questions, and their inherent biases, meta-analysis allows researchers to see the “big picture” of empirical developments in the field. By treating all available studies as itself a distribution of possible outcomes, meta-analysis can also remove the problem of “failing to see the forest for the trees.” Drawing on a large body of literature, meta-analysis can remove some of the inherent problems with methodological diversity. Finally, meta-analysis strengthens the ability to make inferences about causation, by accounting for the inherently probabilistic nature of any single study (Cooper et al., 2009).

### 2.2 Why Focus on Randomized Evaluations?

Field experimentation, such as RCTs, provides the most effective set of tools to understand the causation of mechanisms underlying observed outcomes in real-world settings. While observational studies can make important contributions, statistical adjustments to observational studies are generally insufficient to reduce bias (Cook et al., 2008). Ideally the criteria for inclusion of studies could have been wider, but narrowing the document set only to RCTs also allowed us to conduct the review in a shorter time frame and at lower cost.

### 2.3 Search Strategy

We conducted a search for published or publicly available RCT studies dated from between January 1990 and December 2014, in English only, of the economic components of mostly multi-sectorial social service programs. We limited the search to programs in developing countries, defined by the World Bank as countries with a GNI of less than US\$11,905. Our search included articles in program evaluation, economics, development economics, epidemiology and public health. While the direct beneficiaries of programs are often adult caregivers, the review focused on reports looking at outcomes and impacts for children and youth aged 0-18, both within and outside of household care.

#### 2.3.1 Search Terms

Because we wanted to yield as many studies as possible, we used deliberately

broad search terms. For academic databases, our search contained the words: ((randomi\*) AND ((child\*) OR (youth)) AND ((health) OR (educat\*) OR (develop\*) OR (skill) OR (cash) OR (micro\*) OR (protect\*) OR (nutrit\*))). The first two search terms capture the type of study (randomized) and population of interest (children). The remaining outcome-based search terms were chosen for a high yield and imprecise strategy, based on the rights enshrined in the UN Convention on the Rights of the Child (UNCRC), in particular Articles 6.2<sup>2</sup> and Article 27.1<sup>3</sup> which lay out a set of general constructs which have been measured in known RCT studies:

*The right to be healthy:*

- Improved nutrition status
- Improved health status

*The right to a childhood, including protection from harm:*

- Free from engagement in harmful child labour
- Reduced rates of family separation/children living without appropriate care
- Reduction in rates of early marriage
- Increased self-confidence/self-esteem

*The right to be educated:*

- Increased rates of school enrolment
- Increased school attendance and completion

For the purposes of meta-analysis, the number of outcome search terms must be limited as much as possible, so that the study can be replicated in current and future iterations. Replicability allows for external validation of the study findings and direct comparison between the study findings as the number of RCT evaluations increases in the future.

## **2.4 Methodological Exclusions**

The purpose of this study is to understand the effects of interventions using the highest standards of evidence. We limited this study only to those reports that explicitly and transparently utilized a randomized control trial (RCT, also known as “randomized experiment”) methodology in their evaluation. The highest standard of evidence for effectiveness is the RCT, which is strictly defined as an intervention with at least one treatment group and one control group, where the selection of membership in each group is *completely at random*. Almost all studies reported covariate balancing statistics, which demonstrated that randomization was successful. The specific randomization procedures were usually not reported and varied from study to study, but included, for example, randomization by computer (Crépon et al., 2015), through an on-site lottery

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<sup>2</sup> States Parties shall ensure to the maximum extent possible the survival and development of the child

<sup>3</sup> States Parties recognize the right of every child to a standard of living adequate for the child’s physical, mental, spiritual, moral and social development

with names drawn from a box (Aker, 2013), or an off-site random number generator (Augsburg et al., 2015). We discuss the types of studies excluded by this criteria in Appendix A.

## **2.5 Coding**

Following the direction of Cooper et al. (2009), we developed a coding protocol for the studies that accounts for setting, participants, methodology, treatment, dependent variables, effect direction, and statistical significance of each child-focused outcome of interest. Appendix A and Appendix B contain further detailed information on our coding decisions, and the complete codebook used to classify the selected studies.

### 3 INTERVENTIONS AND OUTCOMES OF INTEREST

Interventions considered in this review fall into the broad category of economic strengthening programming: interventions to help people increase their assets and income. The definition of what constitutes a micro-economic intervention is somewhat subjective. This review considers only “push-side” interventions such as skills training, unconditional cash grants, business development, microcredit and savings programming (among others), and excludes all “pull-side” interventions such as subsidized health insurance, food-for-school, or scholarships, which may work to improve children’s protection or wellbeing, but do not aim to build assets or income *per se*. The review does include conditional cash programming because CCT is something of a hybrid between “push” and “pull,” although because CCT is a relatively well-researched field, we limit inclusion of CCT evaluation reports to small scale community-level interventions. In Appendix C, we report the complete set of 46 studies under review, along with the treatment, study location, and dependent variable(s).

Approaches to ES can be divided into two major categories: those that engage caregivers as the primary beneficiaries, and those that engage children directly. In some cases programmers use both approaches simultaneously. Within these two categories, the discussion below is broken up below by the type of intervention.

#### 3.1 Types of Interventions

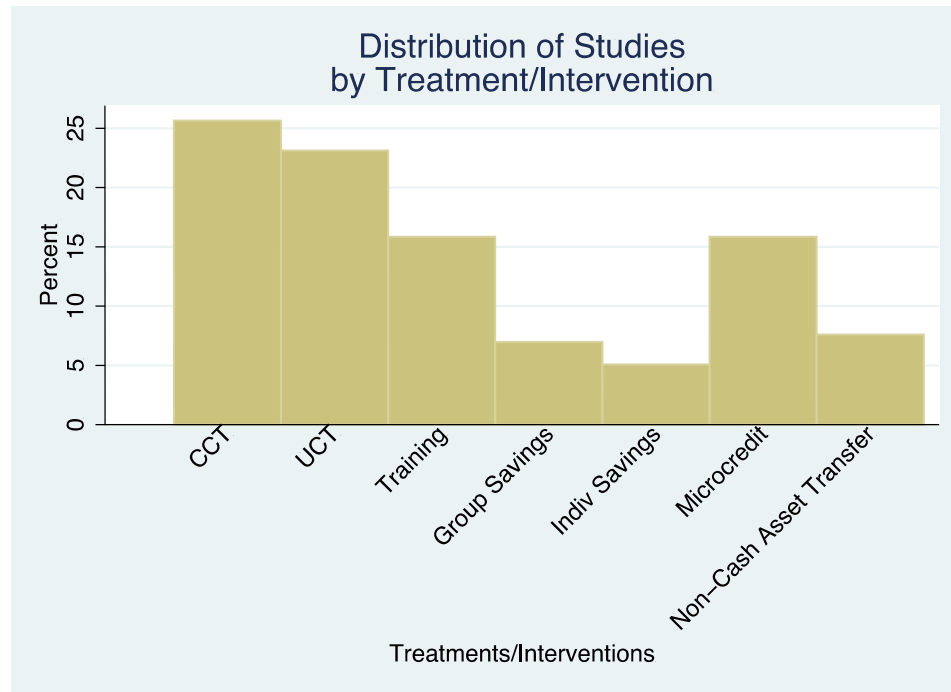


Figure 1: Distribution of Studies by Intervention

Figure I shows the range of interventions covered in the RCT studies. Many utilized multiple interventions across multiple dependent variables, therefore these figures represent the full set of treatments and outcomes from all studies. To facilitate analysis, we grouped the interventions into the following categories:

- Conditional Cash Transfers (CCT)
- Unconditional Cash Transfers (UCT)
- Job Skills Training
  
- Microfinance: Group Savings
- Microfinance: Individual Savings
- Microfinance: Microcredit
- Non-Cash Voucher

### 3.2 Types of Outcome Measures

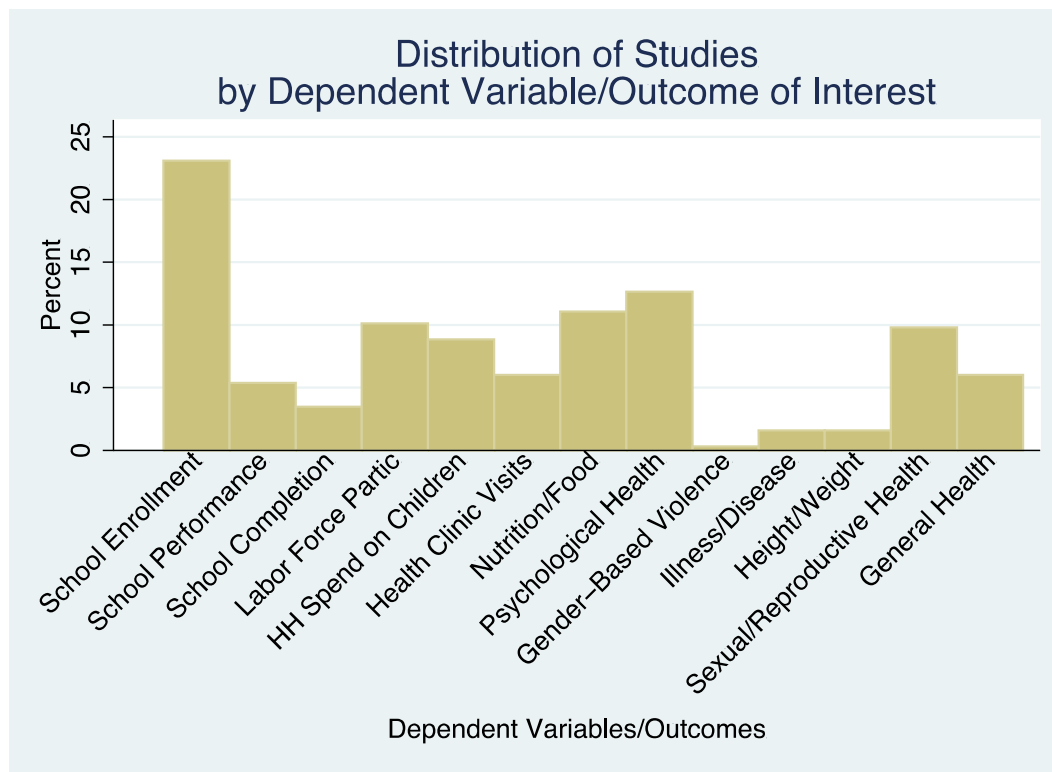


Figure 2: Distribution of Studies by Child-Focused Outcomes of Interest

The review focused on interventions evaluated for their child protection and child well-being outcomes, which were categorized into the following groups:

- School Enrollment
- School Performance

- School Completion/Graduation (Progress)
- Labor Force Participation
- Household Spending on Children
- Health Clinic Visits
- Nutrition/Food
- Psychological Health
- Gender-Based violence
- Illness/Disease
- Height/Weight
- Sexual and Reproductive Health, incl. Marriage/Pregnancy
- General Health

Figure 2 shows the distribution of these outcomes of interest in the studies under review.

*School Enrollment* included dependent variables described as enrollment, re-enrollment, attendance, spending on child education, missing school, school days missed, proportion of children in school, share of children in school, and school participation.

*School Performance* included measures described as test scores, literacy, math skills, academic indices, and time studying.

*School Completion* included measures described as grade repetition, graduation, school retention, and tertiary enrollment.

*Labor Force Participation* included a wide variety of measures including those described as hours worked on head of household business, entrepreneurial ability, wage employment/income, and child working time.

*Household Spending on Children* covered payment of school fees, and spending on clothing for children including shoes.

*Health Clinic Visits* included all descriptions of visits including preventive and palliative.

*Nutrition/Food* included a range of variables, including skipped meals, individual dietary diversity score (IDDS), decision making around giving milk to children, food security, food consumption, caloric intake per capita, mothers' breastfeeding behavior, and children's portion sizes.

*Psychological Health* was represented by a range of outcomes, including child's leisure time, physical and psychological punishment/discipline, child well-being, child mental health (distress), hopelessness, depression, self-efficacy, life satisfaction, social support, delinquent behaviors, and self-esteem.

*Gender-Based Violence* was only measured by one study (Bandiera et al., 2012), with the

outcome “Had sex unwillingly” for teens.

*Illness/Disease* includes a broad range of measured outcomes for children, including being sick or injured, and parental behavior around antenatal and neonatal care, acute respiratory illness, and diarrhea, sanitation and safe water.

*Height/Weight* included anthropomorphic measurements of child height for weight scores.

*Sexual and Reproductive Health, incl. Marriage/Pregnancy* applies to condom use, sexual activity, older sex partners, marriage, adolescent pregnancy, HIV prevalence, and attitudes to sexual risk-taking behaviors.

*General Health* covers the remainder of health-related outcome measures, such as newborns vaccinated, children’s checkups, health indices, maternal health care, birth registration, and vaccination uptake.

## 4 STATE OF THE EVIDENCE BASE

### 4.1 Limited Longitudinal Evidence

As many effects of programming on children would not accrue for perhaps many years after the end of a program, properly measuring impact would entail conducting very long-term longitudinal studies, following individuals throughout their lives. Although some studies measured impacts for one to several years beyond the intervention, the review did not unearth any longitudinal studies that met the inclusion criteria.

### 4.2 Geographical Coverage

Figure 3 shows the geographic distribution of RCT study sites focusing on child well-being outcomes from ES initiatives.<sup>4</sup> The largest number of studies by far (13) took place in Uganda, followed by Malawi (4) and Bangladesh (3). The remainder of country study locations is listed below. Some studies reported the results from multiple locations in one report.

- 4.2.1 Bolivia – 1
- 4.2.2 Colombia – 1
- 4.2.3 Nicaragua – 1
- 4.2.4 Ecuador – 1
- 4.2.5 Bosnia and Herzegovina – 1
- 4.2.6 Ghana – 1
- 4.2.7 Kenya – 1
- 4.2.8 Burundi – 1
- 4.2.9 Burkina Faso – 2
- 4.2.10 Mozambique – 1
- 4.2.11 Tanzania – 1
- 4.2.12 DR Congo – 2
- 4.2.13 Niger – 2
- 4.2.14 Zimbabwe – 1
- 4.2.15 Mali – 1
- 4.2.16 Morocco – 2
- 4.2.17 Ethiopia – 1
- 4.2.18 Sri Lanka – 1
- 4.2.19 Jordan – 1
- 4.2.20 India – 2

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<sup>4</sup> All figures show the individual child-level outcomes from the 46 included studies. While some studies had just one or a few child outcomes as part of a larger study, others focused all of their outcome measures on children.



#### 4.2.21 China – I

#### 4.2.22 Mongolia – I

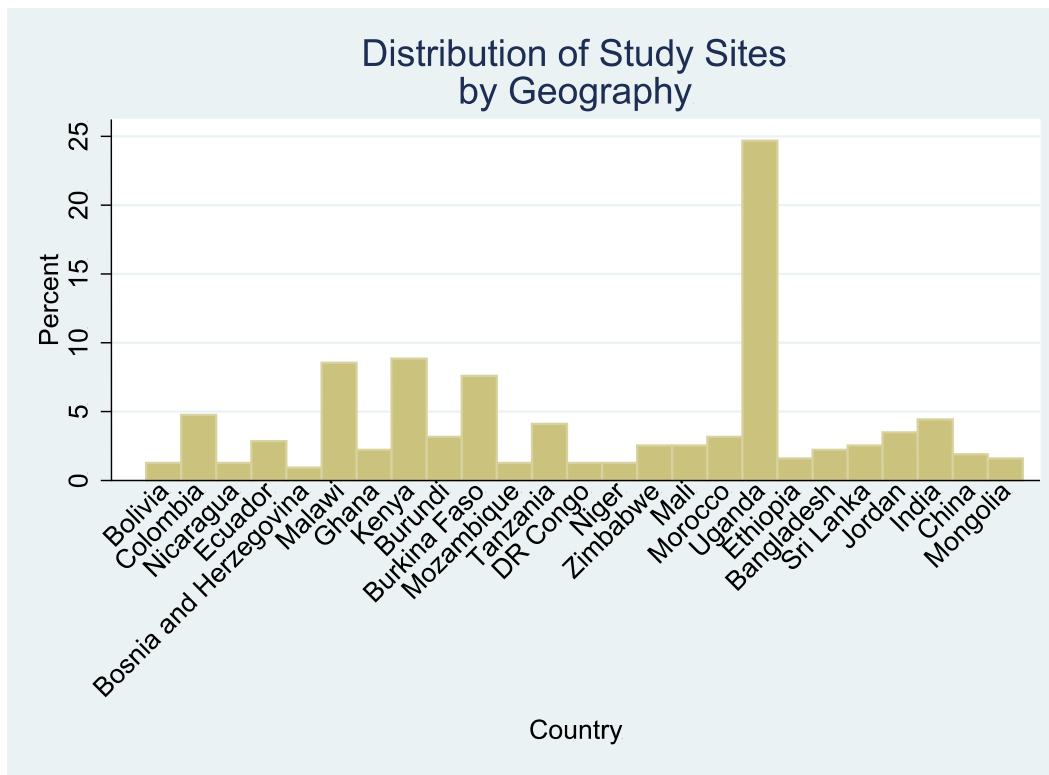


Figure 3: Geographical Distribution of Study Sites

### 4.3 Age Ranges of Intervention Recipients and Beneficiaries

The final document set of 46 research reports can be divided in two major categories: 33 measure the impact of programs in which caregivers were the direct ES beneficiaries, and 13 measure the impact of programs in which adolescents or youth were the direct ES beneficiaries. There is some overlap between the studies as some measured multiple interventions.

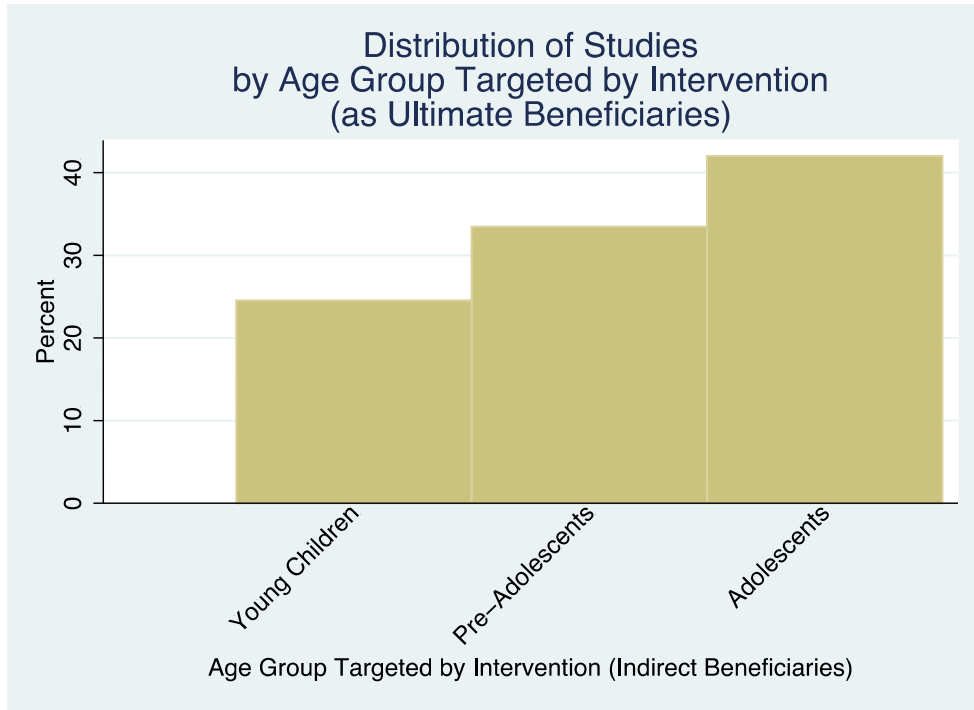


Figure 4: Age Group Targeted by Intervention (Ultimate Beneficiaries)

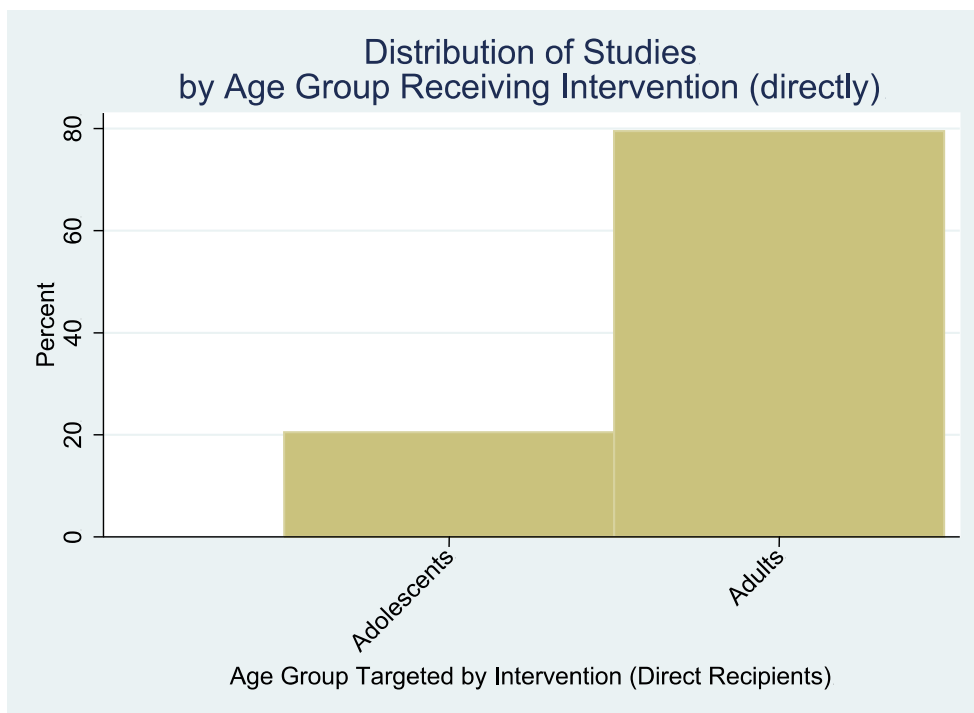


Figure 5: Age Group Targeted by Intervention (Direct Recipients)

Studies were coded according to the following general definition of age:

1. Young Children (approximately 0–6)
2. Pre-Adolescents (approximately school age, before secondary school)
3. Adolescents (approximately 13–18)
4. Adults (over 18)
5. Parents
6. Unknown/“All Children”/Children under 18 undifferentiated

Figure 5 indicates which age groups received the actual intervention, while Figure 4 shows the distribution of age groups targeted by the interventions, the ultimate beneficiaries, as understood via the dependent variable or outcome being reported. Macours et al. (2008), for example, describes a CCT program where the beneficiaries are parents, but their specific outcomes of interest in this study are the effects of the program on very young children, and they do not describe any effects of the program on the parents themselves.

For example, in studies where the nutritional status of very young children was an outcome of interest, the direct recipient age group of the economic strengthening intervention is adults or parents. In studies where adolescents were being provided with job skills training, adolescents themselves are both the recipient and target of the intervention. In the RCT studies we collected, the largest proportion of outcomes measured was on adolescents, defined loosely as ages 13–18. Because most studies defined their population of interest in unique ways, there may be some overlap between pre-adolescent and adolescent age groups, making this an approximate distribution.

Figure 6 and Table I show the distribution of dependent variables (outcomes) by targeted age. Table I shows the actual numbers of reported outcomes for each age group. Figure 6 is the visual equivalent – a numerical crosstab or frequency table, and shows the frequency with which each age group of children is targeted in the outcomes reported in the studies. It is easiest to understand the table by looking at Sexual and Reproductive health along the X axis. For obvious reasons, this is usually a topic that is considered important for adolescents, as indicated by the height of the bar corresponding with Adolescents on the left-hand side. There are no studies that reported on sexual and reproductive health for young children or pre-adolescents, which is why these rows are blank for this column.

Not surprisingly, none of the studies looking at labor force participation outcomes were focused on young children. Instead, pre-adolescents and adolescents were the target of interventions focused on school enrollment, sexual/reproductive health, and psychological health. The youngest children were the main targets of interventions interested in nutrition and food, including food insecurity and dietary diversity.

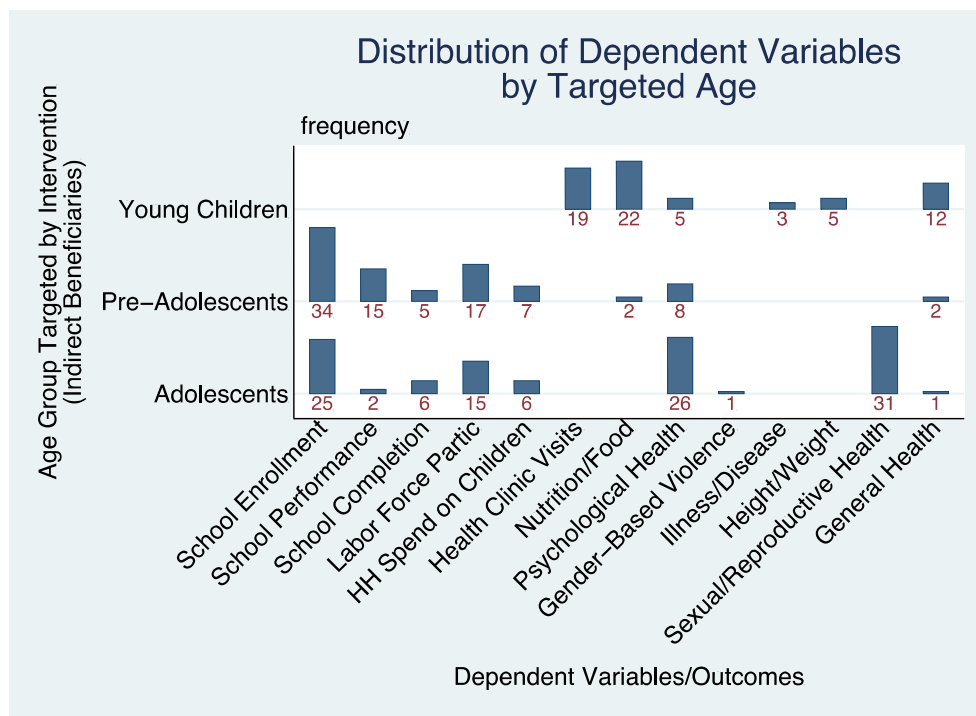


Figure 6: Outcome Frequencies by Age Group

Dependent Variables/Outcomes	Age Group Targeted by Intervention (Indirect Beneficiaries)				Total
	Young Children	Pre-Adolescents	Adolescents	Unknown/All	
School Enrollment	0	34	25	14	73
School Performance	0	15	2	0	17
School Completion	0	5	6	0	11
Labor Force Participation	0	17	15	0	32
HH Spend on Children	0	7	6	15	28
Health Clinic Visits	19	0	0	0	19
Nutrition/Food	22	2	0	11	35
Psychological Health	5	8	26	0	39
Gender-Based Violence	0	0	1	0	1
Illness/Disease	3	0	0	2	5
Height/Weight	5	0	0	0	5
Sexual/Reproductive Health	0	0	31	0	31
General Health	12	2	1	4	19
Total	66	90	113	46	315

Table I: Outcome Frequencies by Age Group

## 5 RESULTS

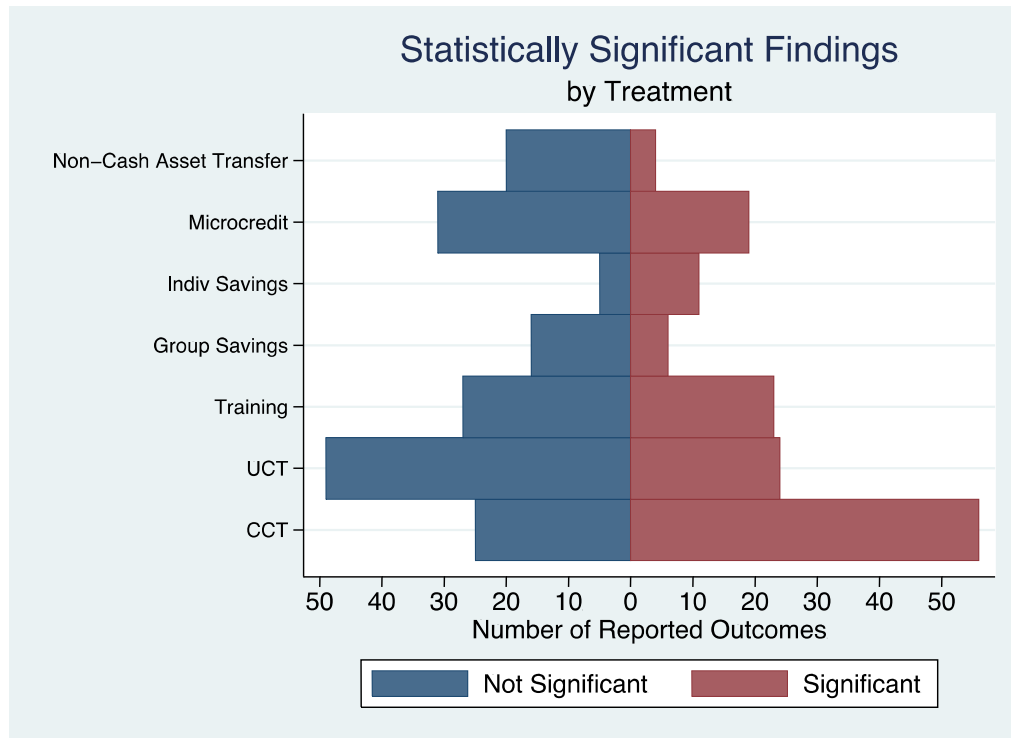


Figure 7: Statistically Significant Interventions

Figure 7 shows the distribution of statistically significant findings by treatment. All tables and figures in this section are referring to outcome measures, not individual studies, as almost none of the studies reported on only one outcome of interest. What this shows is, for example, that Non-Cash Asset Transfer interventions had more findings with regards to child well-being outcomes that were not statistically significant than those that were. This does not mean that the outcomes were negative, rather that there was “zero effect” of the intervention, across a range of outcomes. The figure also indicates that this is true for UCTs as well. On the other hand, there is more certainty about the findings from CCT interventions, a finding that dovetails with the large observational literature.

Only three of the studies found no statistically significant impacts on children at all:

- Aker et al. (2011). Treatment: Mobile phone cash transfer system, Child-focused outcome(s): Payment of school fees
- Crépon et al. (2015). Treatment: Microfinance, Child-focused outcome(s): Youth labor force participation, School enrollment
- Tarozzi et al. (2015). Treatment: Microfinance, Child-focused outcome(s): Youth labor force participation, School enrollment

Again, this does not mean that the interventions were not effective in some way, but only that the findings were not statistically significant for the children whose outcomes were measured.

Table 2 shows that, when including all *adolescent*-beneficiary interventions, the distribution of significant results is somewhat even with slightly more statistically significant findings (62) across all reported outcome measures than not significant findings (51). To clarify, this table represents adolescents as intended beneficiaries, but not necessarily direct recipients.

<b>Statistical Significance</b>	<b>CCT</b>	<b>UCT</b>	<b>Training</b>	<b>Group Sav</b>	<b>Indiv Sav</b>	<b>Microcredit</b>	<b>Non-Cash</b>	<b>Total</b>
<b>Not Significant</b>	12	4	15	8	1	8	3	51
<b>Significant</b>	26	5	15	5	7	4	0	62

Table 2: Statistical Significance by Treatment: Teens as Intended Beneficiaries in All Study Sites

<b>Statistical Significance</b>	<b>CCT</b>	<b>UCT</b>	<b>Group Sav</b>	<b>Microcredit</b>	<b>Non-Cash</b>	<b>Total</b>
<b>Not Significant</b>	7	14	6	2	5	34
<b>Significant</b>	15	4	1	12	0	32

Table 3: Young Children’s (0–6 years) Outcomes from ES Targeting Caregivers

If the question is what programs benefit young children (approximately age 0–6), the picture changes, as indicated by Table 3. Since small children are almost never the direct recipients of an economic intervention, they rely on interventions that help their parents. Among these studies, microcredit interventions had the largest proportion of statistically significant effects for small children.

## 5.1 Results: Studies of ES Programs Engaging Caregivers

Figure 8 shows side-by-side the types of interventions that go to adults versus adolescents as direct recipients. Adults are significantly more likely than adolescents to be recipients of both conditional and unconditional cash transfers, while adolescents are more likely than adults to receive training, and, in the studies reviewed here, were never the direct recipients of group savings interventions, microcredit, or non-cash vouchers. We focus first on the types of interventions that target adults as an indirect path to children.

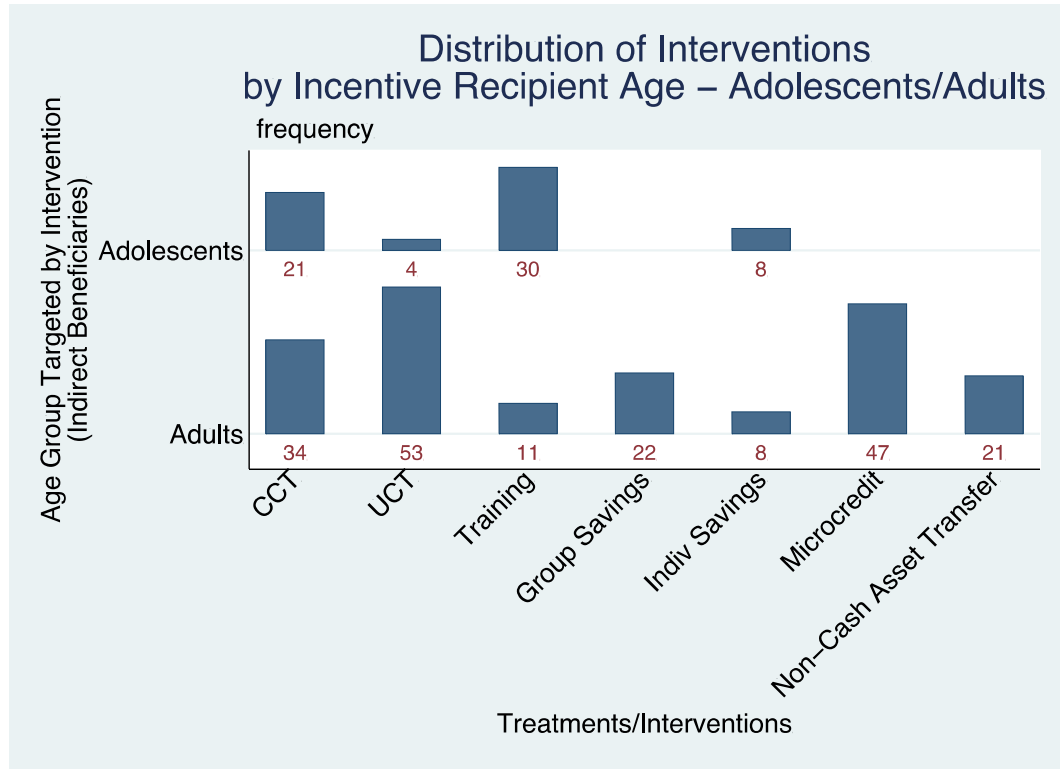


Figure 8: Distribution of Interventions by Incentive Age

### 5.1.1 Microcredit

Leaving aside the question of impact on children, the question of microcredit impact in general is one of intense controversy and little firm evidence. Microcredit is one of the most common ES approaches globally. Sometimes credit is the principal intervention of a program, and in other cases it is but one strategy among others including savings and non-economic interventions.

Microcredit played a role in 15 evaluations in the adults-as-beneficiaries category of our document set. In this section we report on a variety of microcredit loan schemes but do not include savings-led group microfinance as this category of intervention is considered separately in Savings, below.

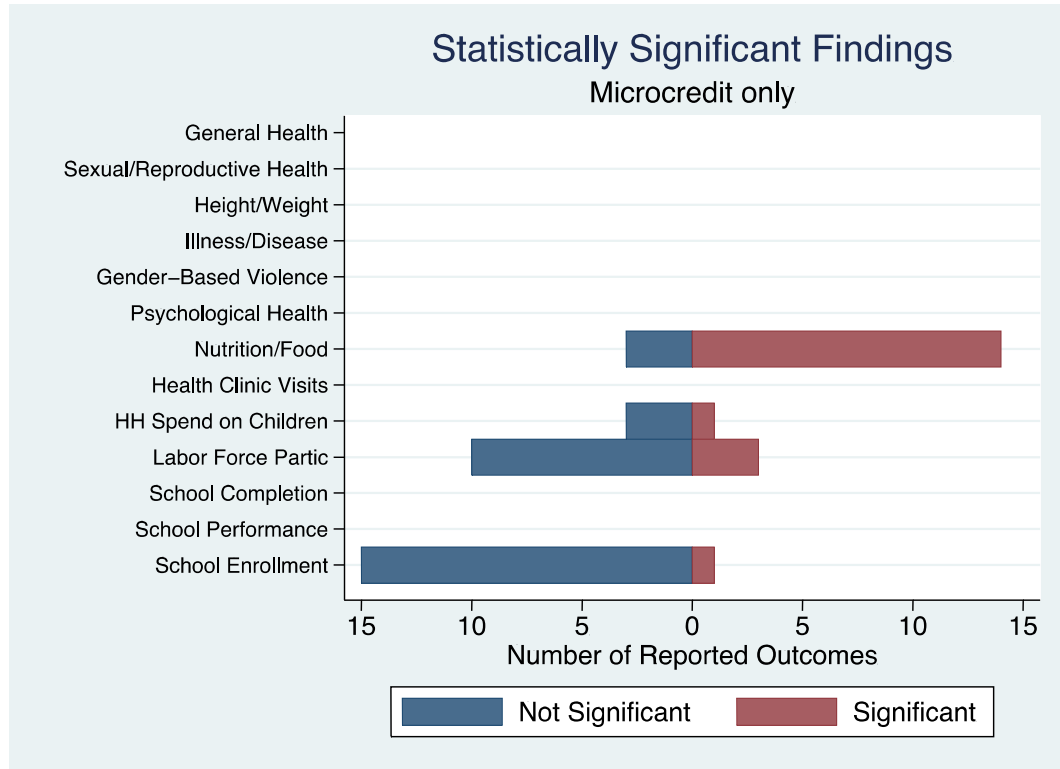


Figure 9: Statistically Significant Microcredit Interventions by Outcome of Interest

Figure 9 indicates that there are a larger number of statistically significant findings of the effects of microcredit on nutrition and food outcomes of children, and all were good for children. All of the findings for nutrition and food and household spending on children were good. For all of the other outcomes which were measured with this intervention, the majority of the findings showed no effect, as indicated by outcomes which are not statistically significant. Figure 10 shows the two unintended negative outcomes for adolescents, both driven by the study of Augsburg et al. (2015), detailed below.



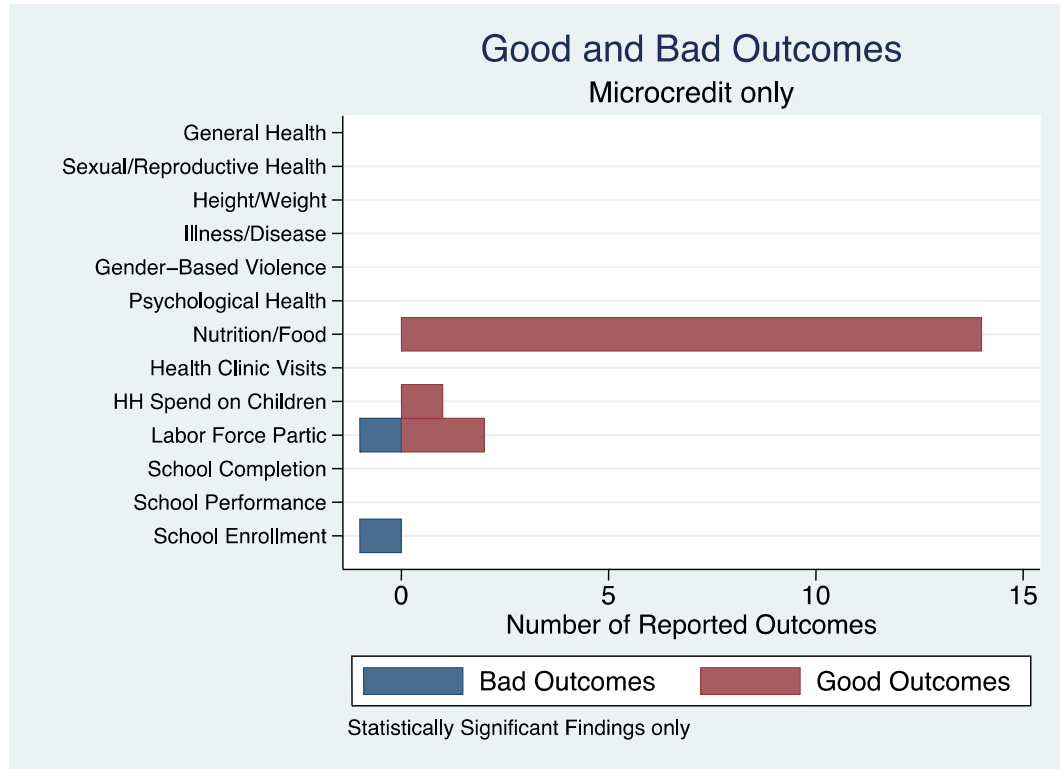


Figure 10: Good and Bad Outcomes for Children from Microcredit

Augsburg et al. (2015) analyzed the impact of microcredit on poverty reduction, child and teenage labor supply, and education among borrowers in Bosnia and Herzegovina who were too poor to qualify for most microcredit programs. The authors found the intervention had the unintended negative consequence of a substantial increase in the labor supply of children aged 16–19, together with a reduction in their school attendance. However, the labor supply and schooling of children below 16 was not affected.

Food and nutrition outcomes for children were part of the studies of MKNelly and Watson (2003), Das et al. (2013) and Bandiera et al. (2013), each evaluating microcredit as part of a larger package of interventions including training. MKNelly and Watson found a statistically significant positive effect on nutrition outcomes for children under 3 in Ghana, but not in Bolivia. Bandiera et al. found a statistically significant positive effect on food security measured for children in Bangladesh. This is strong evidence that microcredit programs with training can be helpful to young children on the dimension of food security. In Bangladesh, Das et al.’s evaluation BRACs Challenging the Frontiers of Poverty Reduction – Targeting the Ultra Poor (CFPR-TUP) program. While most of the outcomes of interest in this evaluation were not related to children, the study team did measure women’s input into decision-making around giving milk to children. They found a statistically significant positive effect of the program on this specific outcome measure, specifically women having any input and women having joint decision-making input, with

their husbands, but more complex effects on intra-household dynamics generally.

Banerjee et al. (2014) looked at group lending for caregivers through a microfinance institution in India and found no change in the probability that children or teenagers were enrolled in school, although they did see a statistically significant reduction in teenage girls' labor supply. There was no significant difference in spending on private school, or in private versus public school enrollment. There was also no difference in the number of hours worked by children 5 to 15 years old.

In Mongolia, Attanasio et al. (2015) reported on the effects of a group loan intervention to poor women. Again, the researchers were not primarily interested in the effects of the treatment on children, but they do report on labor force participation by adolescents. The result for the microcredit intervention was statistically significant and showed a "good" result indicating a reduction in the amount of time spent on work by adolescents. They found no statistically significant effect of the intervention on labor force participation for other age groups or school enrollment for any age group.

There were no statistically significant findings for reductions in child labor supply from microloans in Tarozzi et al. (2015) in Ethiopia or Crépon et al. (2015) in Morocco, and there were no statistically significant findings for school enrollment in the microcredit-only interventions evaluated by Tarozzi et al. (2015), Crépon et al. (2015), Attanasio et al. (2015), or Banerjee et al. (2014).

### 5.1.2 Savings

Savings programs are delivered by many different types of providers including informal financial service providers (ROSCAs, ASCAs, etc.), and in many different iterations including through member-owned organizations (self-help groups, credit unions, etc.), NGOs, and formal banks. Both group and individual savings interventions appear in our document set.

Figure II indicates that there were no statistically significant findings of the effect of group savings on height/weight or school enrollment in the two included Village Savings and Loans Association (VSLA) studies (Annan et al. 2013 and Brunie et al. 2014). Nor were there any statistically significant findings for general health among savings interventions. At the same time, all of the effects of group savings on household spending for children were statistically significant, and all were positive, except for one finding from Annan et al. (2013) on spending on child health. Overall, there were mixed findings of statistical significance for children's psychological health and labor force participation.

The lack of statistically significant findings for psychological health, child labor force participation, and school enrollment indicates that adult group savings may not be the best vehicle for programmers seeking to influence these outcomes. However, the statistically significant findings for household spending on children are encouraging. As

Figure 12 indicates, all of the statistically significant findings in this domain were good for children, with the exception of Annan et al. (2013), who found reduced spending on child health in a pooled VSLA and VSLA plus family-based discussion group intervention.

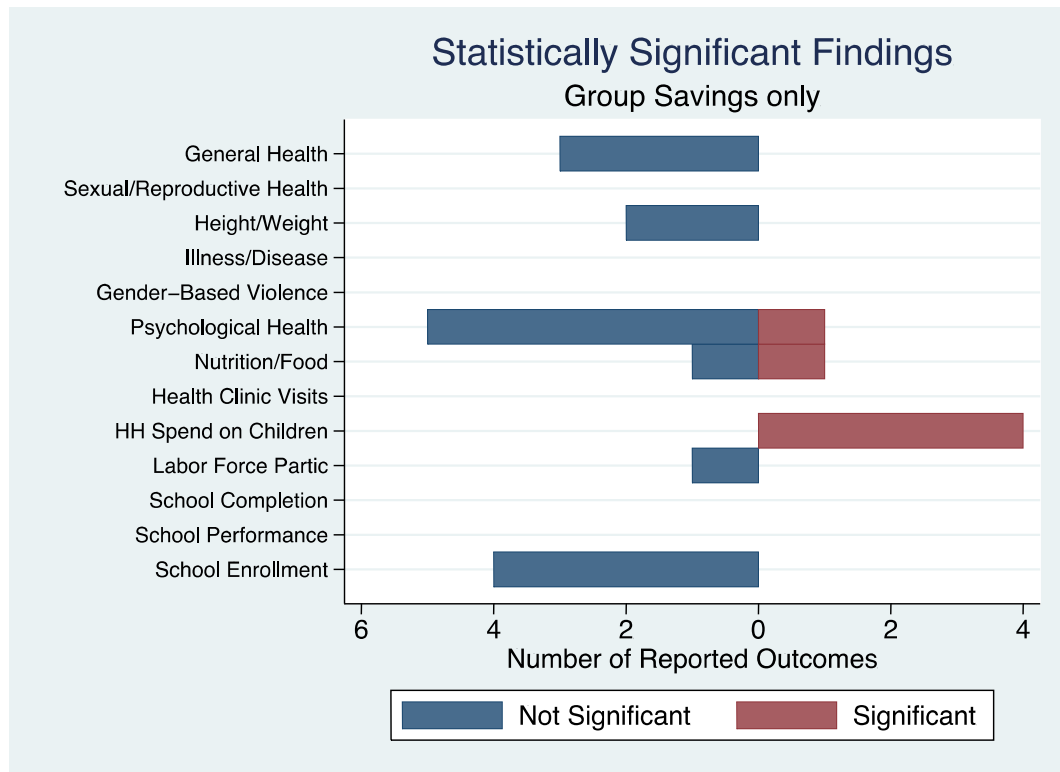


Figure 11: Statistically Significant Group Savings Interventions by Outcome of Interest

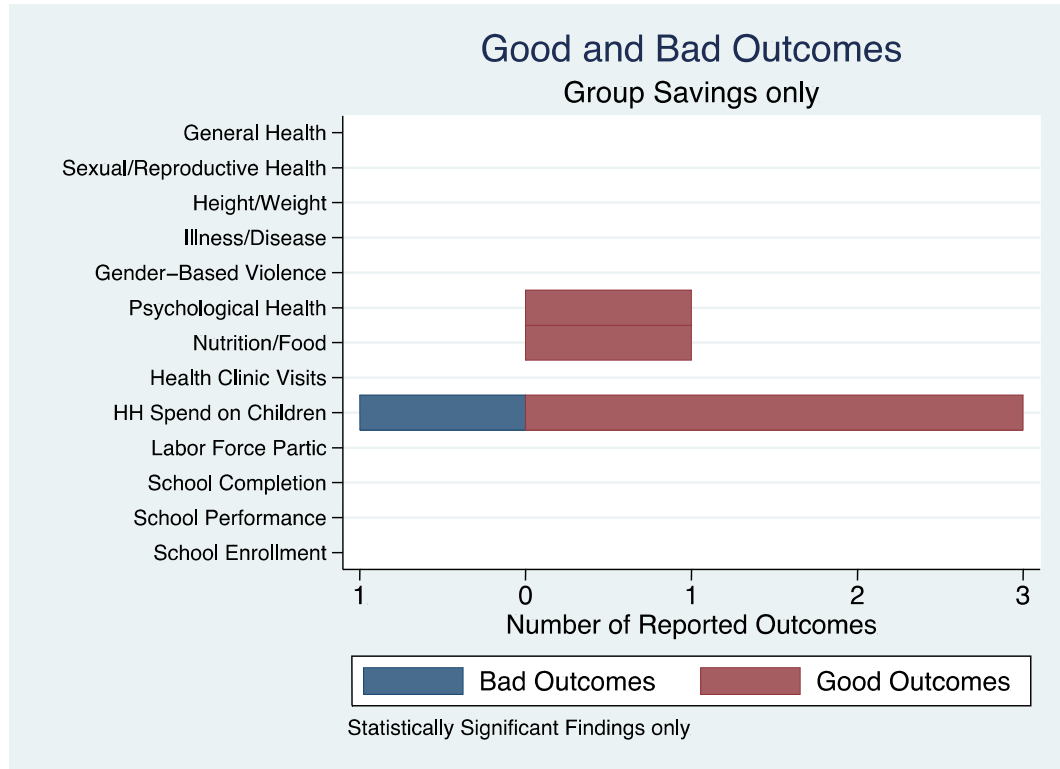


Figure 12: Good and Bad Outcomes for Children from Group Savings

Annan et al. (2013) evaluated an intervention in Burundi involving the establishment of Village Savings and Loans Associations (VSLAs) and provision of entrepreneurship and financial literacy education (VSLA arm), and a family-based discussion intervention (VSLA “+” arm), versus a control group. The authors found that savings alone is enough to improve child wellbeing in poor families, but that the discussion sessions offer additional benefits for child wellbeing beyond those that can be explained by increased economic outcomes. The greatest increases in spending on clothing for children was found in the VSLA+ group (42%), compared to a 27% increase among those who participated in only the VSLA intervention and a 16% increase among those in the control group. The VSLA+ group with family discussions also had a statistically significant effect on certain types of harsh discipline by parents. However, the researchers found no effect of either intervention on child labor, or child mental health.

Brunie et al. (2014) examined the impact of participation in village savings and loan (VSL) groups, alone and in combination with a rotating labor scheme, on household and child nutrition in Mozambique. In the rotating labor scheme, groups of households came together to work on each family’s land, or conduct another activity of their choice, on a rotating basis. The study looked at the impacts on months of food sufficiency and household dietary diversity scores (HDDS) at the household level, and on individual dietary diversity scores (IDDS) and weight-for-age at the child level. Both interventions

had a statistically significant, positive effect on months of food sufficiency. The HDDS increased for VSL + rotating labor scheme households and their matched controls; however, the increase was smaller for the VSL+ labor scheme group. The differential in increase between the two groups was statistically significant. At the child level, participation in VSL only was found to increase the HDDS, and found no significant effect of program participation for VSL + rotating labor scheme. There was no significant effect for weight-for-age. Though parents tended to be aware of the nutritional needs of children, they faced financial constraints in meeting them. There were also indications of a sex gap between control over resources by men and the role played by women in child nutrition. Findings underscore the potential of VSLs for improving food security, but highlight the need for supporting interventions including increasing women's bargaining power in order to overcome chronic nutritional challenges.

In Innovations for Poverty Action's 2013 evaluation (Bureau of Applied Research in Anthropology 2013) of a savings group program for women who were out of reach of formal institutional lenders in Mali, the outcomes of interest for children included food security, incidence of malaria, and education. Food insecurity was significantly lower in treatment villages, but no significant positive effects were observed on incidence of fever and school enrollment. A significant observed increase in educational expenditure was considered to be due only to chance as there were no changes observed in any other education outcomes. The qualitative component of the study found the program useful in creating resiliency for families with daily crises such as a sick child, and malaria education led to more women saying they consistently used bed nets for their children. But the authors found that basic structural deficits like market access and poor education and health systems were constraining improvements in outcomes for children using this type of intervention.

### 5.1.3 Cash and Vouchers

In development contexts, cash transfer programs have been implemented at great scale. They are often made conditional upon investments in children such as regular doctor visits and school attendance. In acute crisis settings, cash transfers have more often been delivered without such conditions, in what is known as an unconditional cash transfer (UCT). Imposing conditions on cash and vouchers allows programmers to directly address non-economic barriers to child welfare. For example, conditional cash transfer (CCT) programs in some countries address low school enrollment by requiring children to attend school. By comparison UCT is thought to give more choice to vulnerable households in recognition that household needs are not homogenous. This approach takes the view that households themselves should be trusted to correctly prioritize what would be of most benefit to their household. The CCT programs evaluated here generally evaluated indirect effects of the programs, as opposed to direct effects on school participation.

As noted above, this review focused solely on NGO led interventions, which meant

excluding studies of large-scale government-implemented conditional cash programs. However this topic has been well researched by others. In a recent meta-analysis, Saavedra and Garcia (2012) looked at 42 CCT programs conducted in 15 developing countries. The impacts were more evident in secondary school enrollment when compared to primary school enrollment. Programs that provided larger transfer amounts resulted in larger enrollment effects for both primary and secondary school. Similarly, transfer payments that were done more frequently (weekly or every two weeks) found larger effects on enrollment than payments given monthly. Similar to other evaluations, the greatest effects were seen in contexts that had low enrollment and attendance at baseline. Considering the lower observed effects in primary school enrollment, the authors suggest combining CCT in a package of additional resources like improved infrastructure or increased number of trained teachers.

### CCT Studies

Figure 13 shows the distribution of significant and not significant findings of CCTs by outcome of interest. Because CCTs are often, but not exclusively, conditional on school enrollment, it is not surprising that so many significant effects are found along this measure. As discussed above, this finding also matches with previous studies of large-scale CCT interventions. In the studies considered here, there is also an interesting pattern of effects for non-educational outcomes. Note that height/weight (for small children) shows a roughly equal distribution between significant and not significant findings.

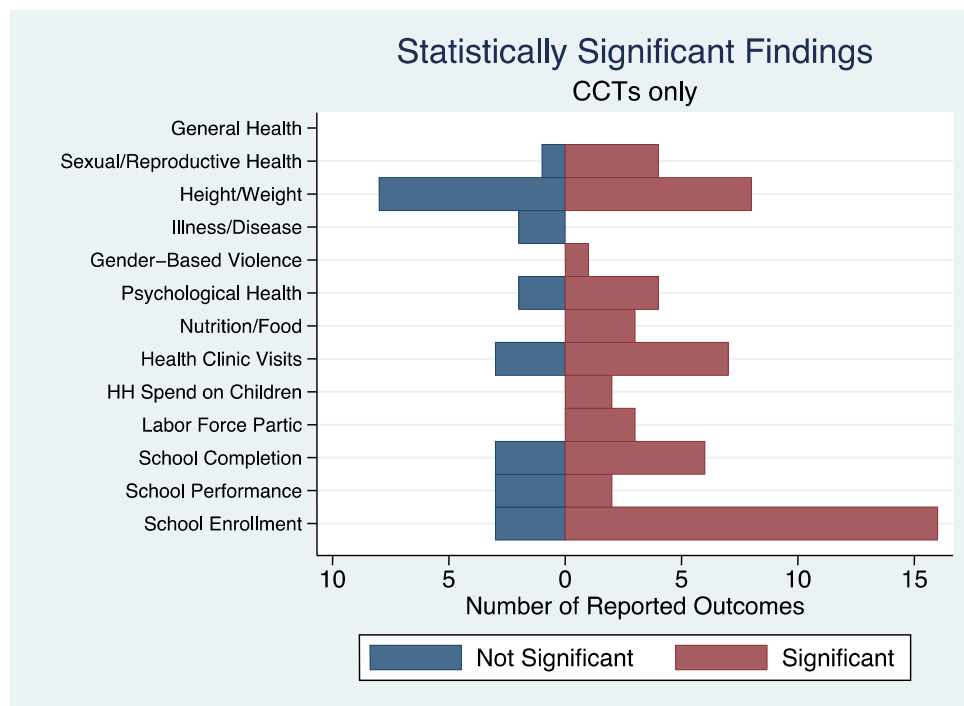


Figure 13: Statistically Significant CCT Interventions by Outcome of Interest

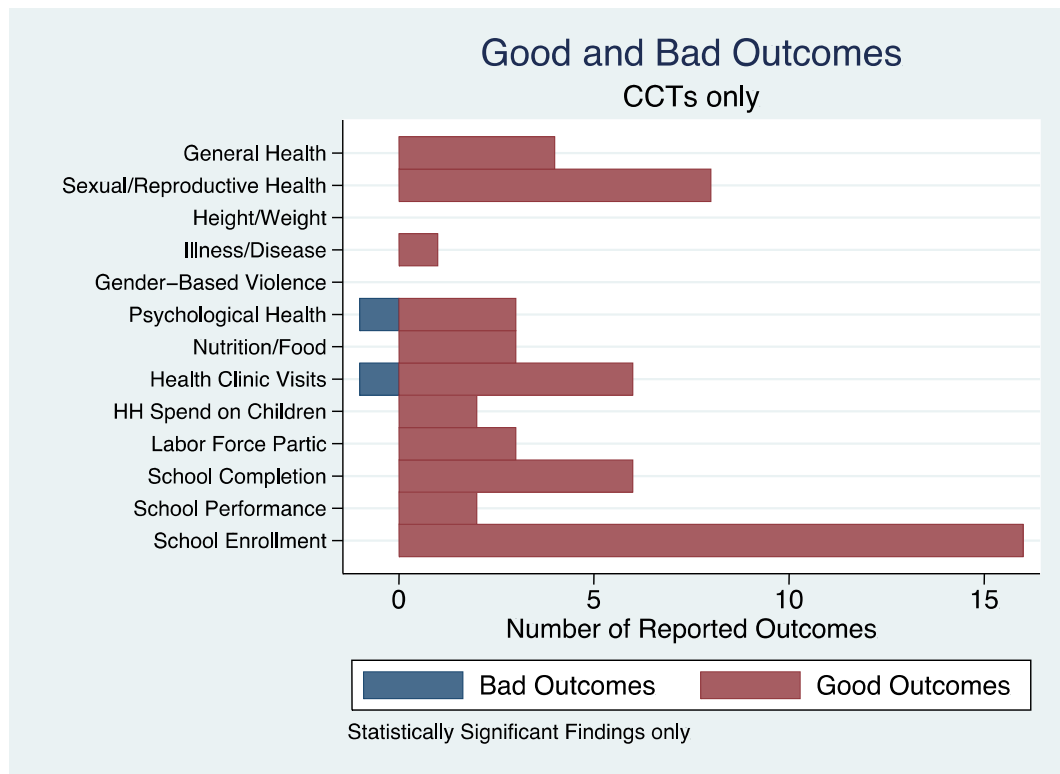


Figure 14: Good and Bad Outcomes for Children from CCTs

Figure 14 shows the approximate distribution of “good” and “bad” statistically significant outcomes for CCT interventions, by outcome of interest. There were a large number of measured statistically significant good outcomes in education, which was often the condition for receiving funds, but there were other positive impacts as well. Most CCT interventions were good, with the only bad outcomes discussed in specific detail in Section 6.2.

#### Alternative CCT designs: School- and Community-based CCTs and Educational Outcomes

Eight of the studies measured the effect of CCTs on educational outcomes. The studies of Benhassine et al. (2013) and Mo et al. (2013) utilized CCTs administered through the schools to encourage enrollment and retention. Evans et al. (2014) reported on the evaluation of a pilot CCT program in Tanzania that devolved responsibility for beneficiary targeting and payment administration to the community level (CCD), in contrast to most national-level CCT programs where such functions are nationally centralized. Barrera-Osorio et al. (2011) evaluated the relative efficacy of different CCT program designs.

Benhassine et al. (2013) evaluated a pilot cash transfer program in Morocco, *Tayssir*,

administered through schools and primarily to fathers, and focusing on primary school enrollment and completion. The intervention was called a “Labeled Cash Transfer” (LCT), which was unconditional, but expressly linked (“strongly encouraged”) to education outcomes. The authors evaluated *Tayssir* in comparison to a control, a traditional CCT, and under conditions where either the mother or father is the recipient. We report here the results of each version of the LCT in comparison to the control group, not in comparison to each other. The authors suggest that a cash transfer scheme in the absence of strict oversight may have positive effects on enrollment by changing parents’ perceptions of the value of education for their children.

Mo et al. (2013) evaluates the effectiveness of CCTs among grade 7 students in rural China, where cash was given directly to parents conditional on school attendance. This study found significant effects of the CCT on the dropout rate, regardless of student age or gender, which were more pronounced for students who were relatively better off, as defined by living in a brick/concrete home. They also found significant secondary effects of the CCT on plans to continue education, the purchase of learning materials, commuting time, and quality of diet. They found no statistically significant effects on math scores, but do not speculate as to the cause of this observation.

In Evans et al. (2014), long-term (31-34 month) effects were generally positive on schooling, spending on children, child illness and development, including separately for girl children if identified, with the exception of literacy and height for weight. Even when statistically significant for all subpopulations, many of these effects were more pronounced for the poorest households, and educational outcomes for children who were not enrolled in school at baseline. The researchers found that participation in a CCT program was associated with fewer health center visits for very young children and with children being less likely to receive needed medication. The authors find this conclusion “difficult to interpret” (Evans et al., 2014, p. 98).

The evaluation of Barrera-Osorio et al. (2011) of different CCT program designs is especially helpful to program designers. While the standard CCT design, where cash is provided bi-monthly as long as a student is enrolled in school, alternative designs, where cash transfers are postponed until re-enrollment or graduation, were found to have statistically significant positive effects on secondary and tertiary enrollment. The alternative designs utilized a savings mechanism, providing families with funds for school. This had further impacts on child labor force participation. While all forms of the CCT reduced the amount of time devoted to work, only the tertiary study design had a strong and statistically significant effect on student’s time spent studying, instead of on home or work tasks. This study also documented negative spillover effects on the siblings of treated students, however, noting that, “All in all, untreated children appear, if anything, to see their educational outcomes deteriorate if one of their siblings becomes a CCT recipient. This is inconsistent with the view that the additional household resources generated by the CCT program are used to invest in the education of the untreated children. In fact, families with a treated child appear to take some educational inputs



(resources, monitoring, etc.) away from the untreated children.” (Barrera-Osorio et al., 2011, p. 193–4) Barrera-Osorio et al. (2011) found that restricting CCT program eligibility to certain ages (instead of randomizing by entire households) caused a reallocation of resources within families such that eligible children who were not randomly selected attended school less if one of their siblings received the intervention.

### School Enrollment and Health Care Blended Designs

A number of studies that targeted families made cash transfers conditional on school enrollment for school-age children and health care provision (for example, clinic visits) for younger children. Macours et al. (2008) detail the results of a CCT intervention in Nicaragua, *Atencion a Crisis*, where women heads of household were given a sizable cash grant (alone, or coupled with either training or an entrepreneurial grant) with a focus on the effects for young children. To receive the funds, the women were required to keep school-age children enrolled, and take younger children in for health clinic visits. This study uniquely included a number of fine-grained indicators<sup>5</sup> for early childhood development, which are not included in this analysis, but may be of interest. Macours et al. (2008) found significant support across the board for their primary variables of interest: Child food intake, family stimulus for the child (for example, providing toys), preventive health care and health status, and maternal psychological health.

Robertson et al. (2013), published in *The Lancet*, looked at the effect of CCTs and UCTs on birth registration and vaccination uptake for children ages 0–4), and school attendance for children ages 6–12 and 13–17 in Zimbabwe. Both types of programs were statistically significant for school attendance for both age cohorts, but only the CCT program was significant for birth registration, and neither was significant for vaccination uptake.

Gilligan et al. (2013) examined the effect of conditional cash transfers, compared to food transfers or a control group, on very young children (age 3-5) in Uganda. They found no significant effects for food transfers, but did find statistically significant positive results cash transfers on child food frequency, anemia, and engagement with the Early Childhood Development (ECD) centers from which they drew their samples. They found no statistically significant effects of cash transfers on low BMI or cognitive and non-cognitive development.

Akresh et al. (2012) compared the effects of a CCT with quarterly child growth monitoring to a UCT in Burkina Faso for very young children (less than 60 months old.) Their study focused on routine visits to the health clinic for preventive care. They found the combined CCT and monitoring performed better than the UCT when targeting either

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<sup>5</sup> Social-personal, language, fine and gross motor skills, short-term memory, leg motor test, and perceived behavioral problems, all assessed with validated testing instruments. See p. 7 of the study for more information.

parent, and found statistically significant positive results for both boy and girl children when targeting mothers, and girls but not boys when targeting fathers.

### Other Outcomes of Interest: Educating “Marginal” Children and Mental Health Effects

Akresh et al. (2013) carried out a randomized evaluation in Burkina Faso comparing the effects of CCTs and UCTs on school enrollment, focusing on “marginal,” lower ability, or disfavored children (girls and younger children). They found statistically significant evidence that CCTs increased school enrollment for all of these groups, while UCTs had no such effect, although both programs increased enrollment for traditionally favored children. This occurred despite the fact that in this design, the CCTs were provided to either the mother or father, while the UCTs were only provided to mothers. The authors speculate that CCTs allow households to re-prioritize their budgets to include education for children who would normally have been excluded from such opportunities.

Baird et al. (2011b) were interested in the effect of CCTs or UCT on psychological distress for adolescent schoolgirls—both those who were already enrolled and those who had previously dropped out. Uniquely, this study tested the difference between giving the cash directly to the girls or to the adult parents. The authors found statistically significant negative psychological effects on teenage girls from the *conditional* cash transfer setup when the funds were provided to the parents, at least during the period of the intervention. The authors note that there was no similar effect for UCTs, and that the effect disappeared after the period of the intervention. They note, “Cash transfers tied to an adolescent girl make her a breadwinner for her household regardless of the conditionality. Our results suggest that when the transfers become an important source of income for the entire family *and* depend on her actions each month, they might turn into too heavy a burden for her to shoulder and become detrimental to her mental health.” Baird et al. (2011b, p. 19) Importantly, the authors found that all transfers given *directly* to the schoolgirls themselves had a beneficial effect on their psychological health.

### UCT Studies

Many of the studies compared CCTs to UCTs and/or non-cash asset transfer options. Figure 15 shows a different pattern of statistically significant findings for UCTs when compared to CCTs, and shows what drives the larger set of not statistically significant findings for this intervention. Nutrition and food is the only outcome measure where there are more statistically significant findings than not. On most other measures, there were more findings that were not statistically significant, and there were no significant findings at all for health clinic visits or school performance. This may be because there was such a variety of intervention types among the UCT studies.

As with CCTs, Figure 16 shows that most of the statistically significant findings from UCTs were positive for children. This may reflect, in part, the benefits that accrue to children from a general increase in individual or household access to resources.

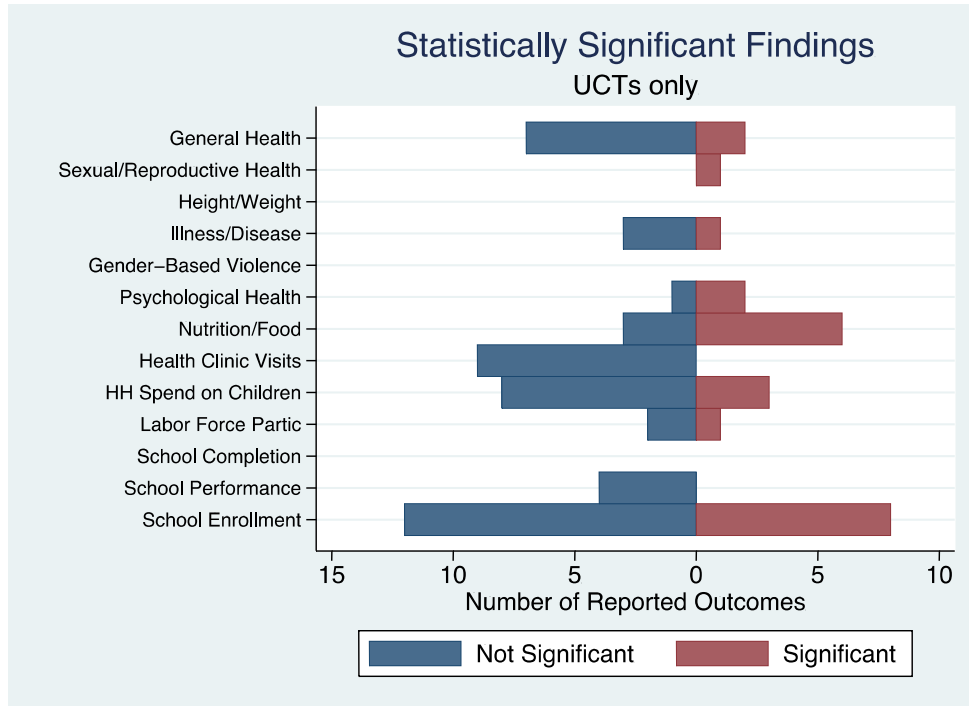


Figure 15: Statistically Significant UCT Interventions by Outcome of Interest

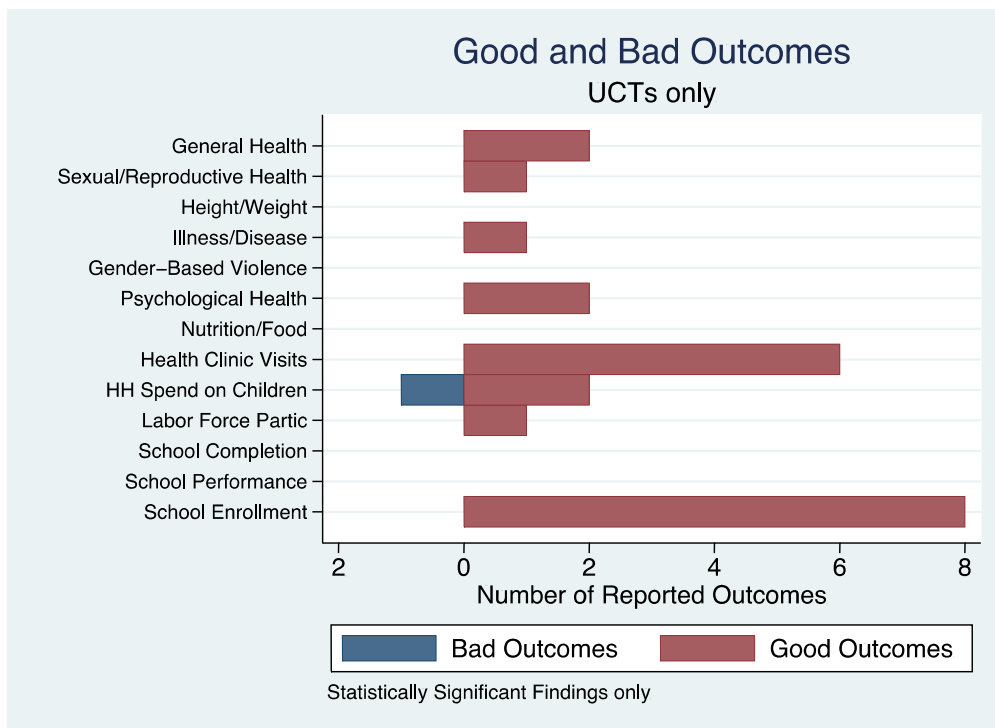


Figure 16: Good and Bad Outcomes for Children from UCTs

In an evaluation of male and female microenterprise owners in Sri Lanka, de Mel et al. (2009) studied the effect of randomly allocated cash grants. While they found no statistically significant effects of the intervention on school attendance, they did find a statistically significant negative effect of reduced household expenditure on education, when male business owners were targeted for the grant. There were no statistically significant effects on this measure, in either direction, when female heads of household were targeted, possibly implying an unequal distribution of bargaining power within a household.

Aker (2013), in an emergency setting in DRC (Bushani Camp) found that the provision of cash via UCT instead of vouchers for a “voucher fair” organized by an NGO allowed households to purchase a wider variety of foods, and non-food items, including school fees and clothing for children. Households with vouchers tended to purchase more food, which may have an indirect effect on children, something not measured in this study. The authors were surprised to find that a full three-quarters of the cash recipient families spent some of their funds on school fees. Overall, the authors found the cash transfers both more efficient and more effective at helping households meet their needs in emergency settings.

In Ecuador, Hidrobo et al. (2012) evaluated the effects of UCTs versus food vouchers and direct food transfers on household food consumption, caloric intake per capita, and household dietary diversity with indirect measures of these effects on child nutrition. The program was targeted at women, but male heads of households were also eligible to participate. They found that food transfers had a statistically significant positive effect on calorie consumption, and vouchers caused an increase in dietary diversity. UCTs, meanwhile, had a statistically significant effect on per capita food consumption and calories, but no per capita caloric intake.

Aker et al. (2011) examined the difference in outcomes using different delivery mechanisms: wiring money to mobile phones vs. conventional cash distribution. While a mobile payment program is cheaper for funding agencies, and has other positive benefits when measured at the household level, there was no difference in the payment of school fees, the only child-level outcome in this study.

Haushofer and Shapiro (2013) evaluated the effects of the GiveDirectly UCT, which implements funding through the mobile money system M-Pesa. The evaluation covered a very large number of outcome variables with effects on children’s well-being, including medical expenditures, food security, vaccinations, school-related measures, and labor force participation. In their design, the cash was allocated at random, with no conditions, to either the male or female household head. In general, they found positive and statistically significant effects for this program on most measures, especially nutrition-related measures, with generally no difference between the funds being allocated to a male or female household head. Medical and educational expenditures on children were

not statistically significant for either allocation, nor were educational participation measures. There were significant effects on medical outcomes for very young children, with a non-gender-specific treatment effect seen on checkups and weight to age z-score. The authors also compared the effects of monthly versus lump-sum transfers and found that monthly had a greater effect on nutrition outcomes.

In an evaluation of microenterprise growth in Uganda, Fiala (2014) compared the effects of grants versus loans, with or without entrepreneurship training, to male and female microenterprise owners. The child-related outcomes include missing school and spending on child health. While the study found positive effects on male-owned businesses in the program combining loans with training, this did not translate into benefits for children or households, and instead it seems the benefits were concentrated in the business itself. In the grant-only condition they did find children were more likely to stay in school. The authors found no effect on either the businesses or household expenditures of female microenterprise owners in this study, except for the loan-only condition, with a positive effect on child health.

Blattman et al. (2014) evaluated a program for impoverished war-displaced Ugandan households, focusing on women starting small nonfarm businesses. The intervention provided training to develop a business plan, a cash grant, and follow-up mentorship. The child-focused outcomes of interest included the number of children in school, and spending on girls' education. The authors found no effect of this program on these specific outcomes when women were the beneficiaries, but did find a statistically significant and *negative* effect on spending on girls' education when the recipient was male.

Hoddinott et al. (2014), in a randomized evaluation in Niger, compared the effects of cash transfers versus food transfers on food security and related outcomes. Of specific interest are their measures of food security for children, including reduced children's food consumption, parents requesting help from other households to feed children, and household dietary diversity. Instead of using a control group who received neither food nor cash, the authors only reported on the effect of food transfers versus cash transfers for their population of interest. They found statistically significant effects of food transfers for portion size (negative, i.e. children's portion sizes are not reduced) and household dietary diversity, but no effect on requesting help to feed children.

### Non-Cash Asset Transfer Studies

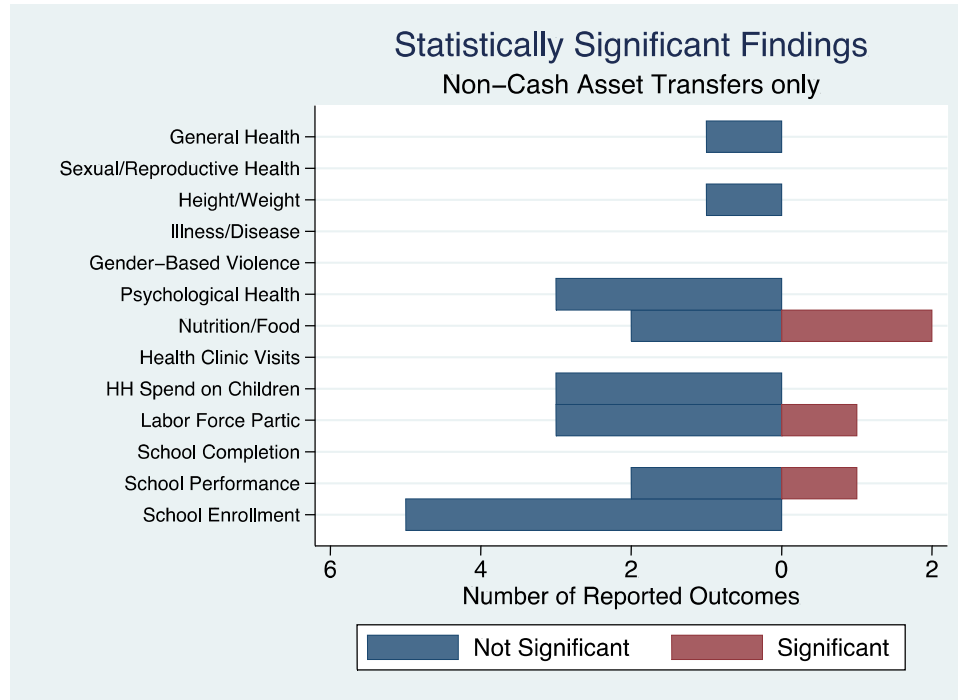


Figure 17: Statistically Significant Non-Cash Asset Transfer by Outcome of Interest

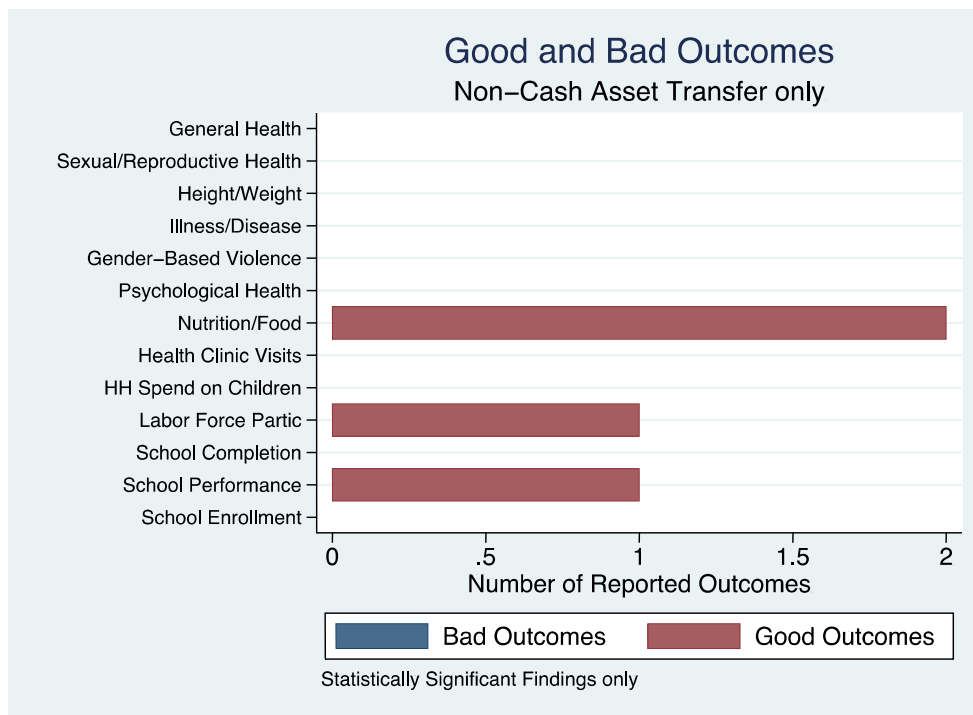


Figure 18: Good and Bad Outcomes for Children from Non-Cash Asset Transfer Interventions

Figure 17 indicates that many of the non-cash asset transfer interventions showed no effect on child well-being outcomes, except for nutrition, labor force participation and school performance. Figure 18 shows that there were no bad outcomes for children, however. There were no statistically significant findings for general health, height/weight, household spending on children, and school enrollment

Banerjee et al. (2011) evaluated a program of direct transfer of productive assets (e.g. livestock) and additional training, and did not find substantial difference in how children residing in treatment and control households spend their time, including any significant program impacts on child labor. Despite finding a 15% increase in household consumption and positive impacts on other measures of household wealth and welfare, such as assets and emotional well-being, the observed change in children's skipping meals was statistically insignificant.

## **5.2 Results: Studies of ES Programs Engaging Children Directly**

Many older children have the ability, the desire, and the need to engage in economic activities. In the country contexts considered in the research, the majority of older adolescents may already be economically active. After conflict and especially in high HIV prevalence contexts, there may be a large number of adolescent household heads, orphans, and other vulnerable children who will need to learn skills to make a living and to manage their money. Thus, older children are sometimes engaged directly in training and other ES activities. In the category of programs engaging children directly, our document set includes only individual savings, job training and cash transfers.

### **5.2.1 Savings and Financial Education**

Exclusion from access to financial products is widespread in developing countries, especially among the poor, and programmers sometimes intervene to help children access savings accounts to lay the foundation for future financial behavior. In some cases this involves advocacy with banks or policymakers to change the minimum age for opening an account.

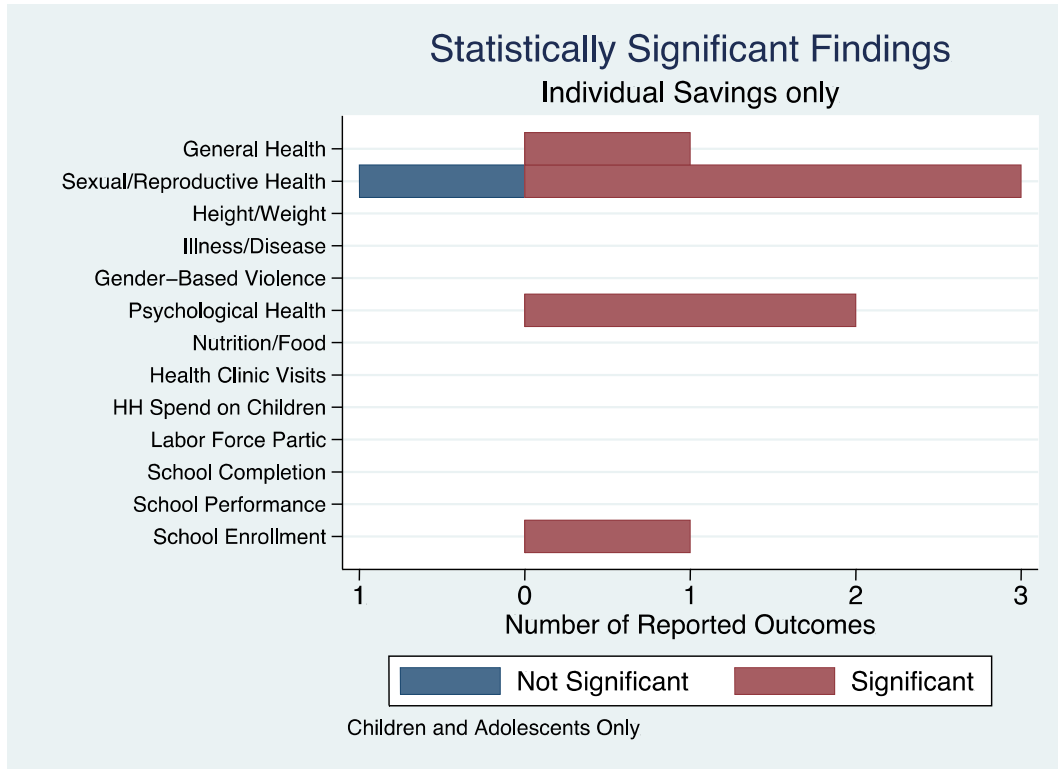


Figure 19: Statistically Significant Individual Savings Interventions by Outcome of Interest, Children and Adolescents Only

Sometimes savings is a group activity, often centered in a school, and in other cases children have access to individual accounts. As with most of the approaches considered in this paper, savings schemes are often delivered in a package of non-economic services, such as career planning and financial training.

Savings features in five of the child-focused programs considered in our document set. Figure 19 shows multiple statistically significant interventions of savings programs engaging with youth directly, all of which were positive for children. The significant effects of child individual savings on general health, psychological health, and school enrollment should provide confidence to programmers seeking to implement these types of programs that they will have the intended effects along these dimensions. Even in sexual and reproductive health, much more is known than not known, and again, all of the significant results are positive.



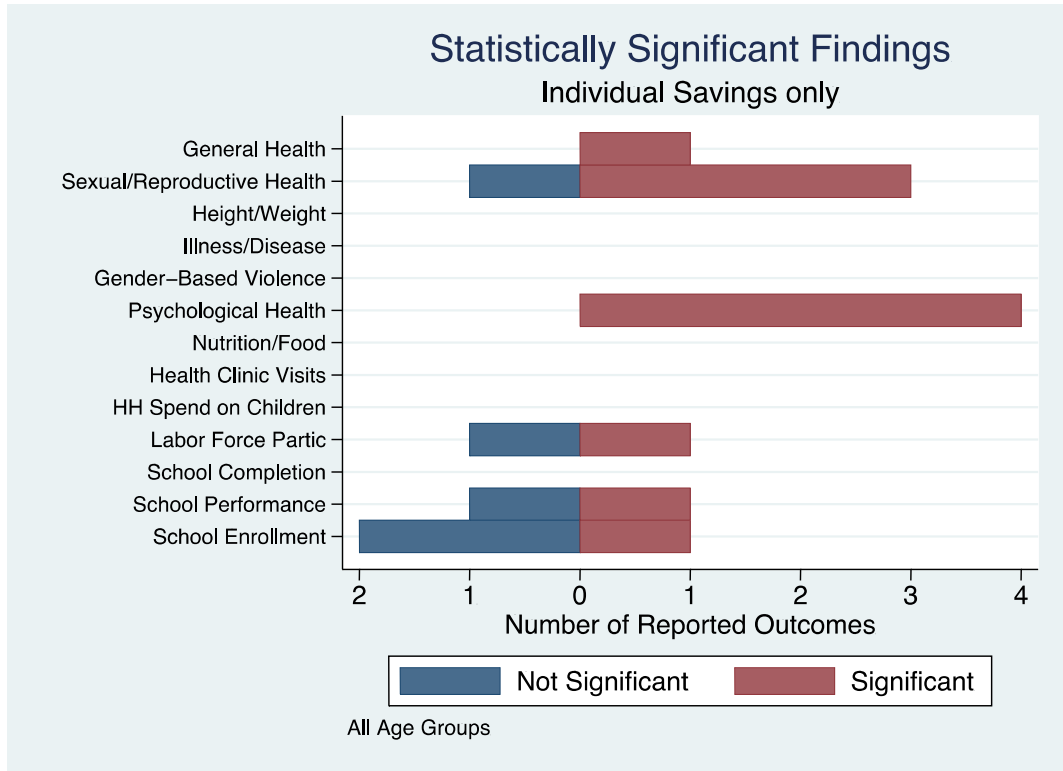


Figure 20: Statistically Significant Individual Savings Interventions by Outcome of Interest, All Age Groups

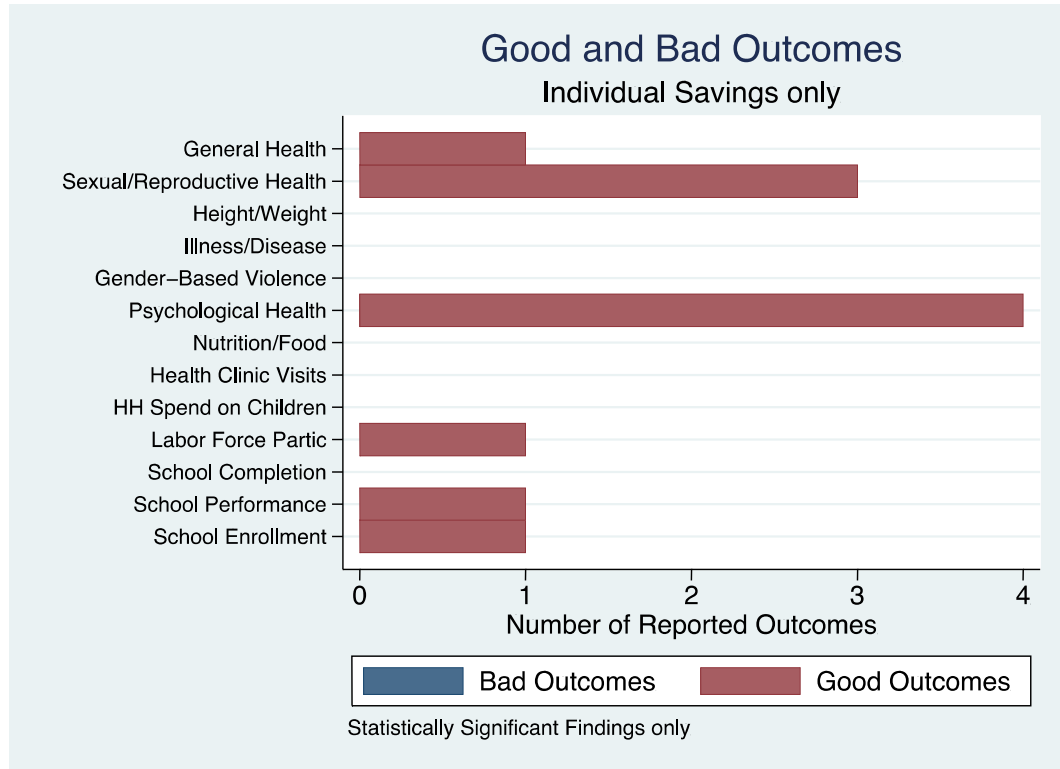


Figure 21: Good and Bad Outcomes for Children from Individual Savings, All Age Groups

Figure 20 and Figure 21 show the effects of only the individual savings interventions, pooled among all age groups receiving the intervention directly. The studies included are Han et al. (2013), Karlan and Linden (2014), and Fred Ssewamala’s studies. Here, the effects on psychological health outcomes and general health outcomes were only statistically significant, and only positive. There was more certainty than zero effects for positive outcomes on sexual and reproductive health, as well, as Figure 20 illustrates. But results for labor force participation, school performance, and school enrollment were mixed, primarily driven by Karlan and Linden’s insignificant results for an intervention of child savings accounts without a parent outreach component.

Karlan and Linden (2014), which focused on how child savings accounts affect saving behaviors and time preferences, also measured the program’s effects on test scores, school attendance, and child labor indicators. Evaluating a school-based savings program for children in Uganda, “Supersavers,” they found that students are statistically significantly more likely to deposit funds into the “soft commitment” savings account (which encouraged educational spending of the funds but allowed cash withdrawals) than the “hard commitment” savings account (which required deposited funds to be used as a voucher for educational expenditures) both with and without a parental education component. While the research team found a strong and statistically significant effect for

savings across all conditions, the results were mixed for the other outcomes more clearly related to child well-being. Karlan and Linden found statistically significant positive effects on grammar and reading test scores from the “soft commitment” savings condition with parent outreach. They also found a statistically significant negative effect on the primary source of savings coming from child work for the “soft commitment” savings condition with parent outreach, as well as the “hard commitment” savings condition *without* parent outreach, although no treatment was correlated with a change in child work hours. No effects were found on attendance or enrollment across any condition – child savings accounts did not make any difference versus the control group with no accounts. They argue that having parents involved in the savings process when cash can be withdrawn helps ensure that money is spent on needed school supplies, and more money is saved when cash withdrawal is an option.

The research of Fred M. Ssewamala and his colleagues with AIDS-orphaned adolescents in Uganda (Ssewamala et al., 2008, 2009, 2010b,a, 2012) utilizes “Child Development Accounts (CDA)”, where the children were responsible for depositing money into a matched savings account, for later use to pay for educational expenses or microenterprise development. Like the Baird studies, these studies take advantage of the opportunity of implementing an expensive large-scale RCT to publish their findings in multiple outlets. Here, we evaluate all of these studies as a group, since they utilize the same intervention with the same population across range of related outcomes of interest.

The goal of the evaluated intervention is to help adolescents who have become orphans through the death of one or both of their parents due to AIDS. Such children face acute financial and mental health challenges which make them particularly vulnerable to poverty. The SUUBI project evaluated in all of these reports goes beyond traditional therapeutic care to include economic empowerment provided directly to AIDS-orphaned adolescents. Youth are given the opportunity to own a savings account for their own futures, supplemented by career planning and financial training.

Fred Ssewamala’s research team found statistically significant impacts for most of their outcomes of interest, including educational planning, mental health, physical health, and safe sex attitudes and practices. They generally found no difference in program effects between girls and boys, with the exception of attitudes to sexual risk-taking behaviors among girls, which was not statistically significantly affected by the intervention (Ssewamala et al., 2010b).

Working with the same intervention data, Han et al. (2013) looks specifically at the effect of the Suubi-Maka family empowerment program package on the psychological outcomes of hopelessness and depression, finding statistically significant negative effects (i.e. the scores for hopelessness and depression were lowered, which is a “good” outcome).

Finally, Nabunya et al. (2014) are part of the same research team, this time focusing on the stress of *parents* of AIDS-orphaned adolescents, including their perception of child

“difficulty” and the dysfunction of the parent-child relationship. They found statistically significant effects (“good” in terms of reducing stress) of the SUUBI intervention, which they attribute to the accumulation of economic resources through the CDA accounts. Their commentary on these findings is vague and highlights the importance of complementary qualitative research in RCT studies. They state, “This is probably because participating in the intervention helps the caregiver to release some of the distress and worry about his or her parenting skills, and begin to perceive the child as not complicated, which may improve the overall family functioning.” (Nabunya et al., 2014, p. 185)

### 5.2.2 Job Training

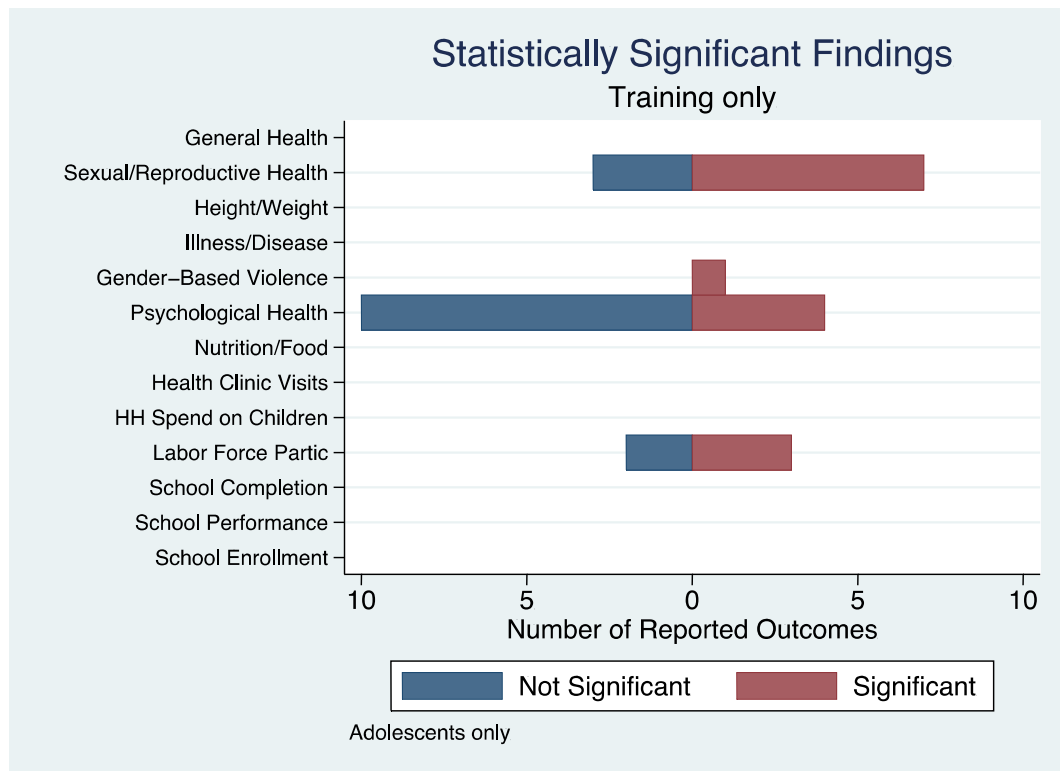


Figure 22: Statistically Significant Training Interventions by Outcome of Interest

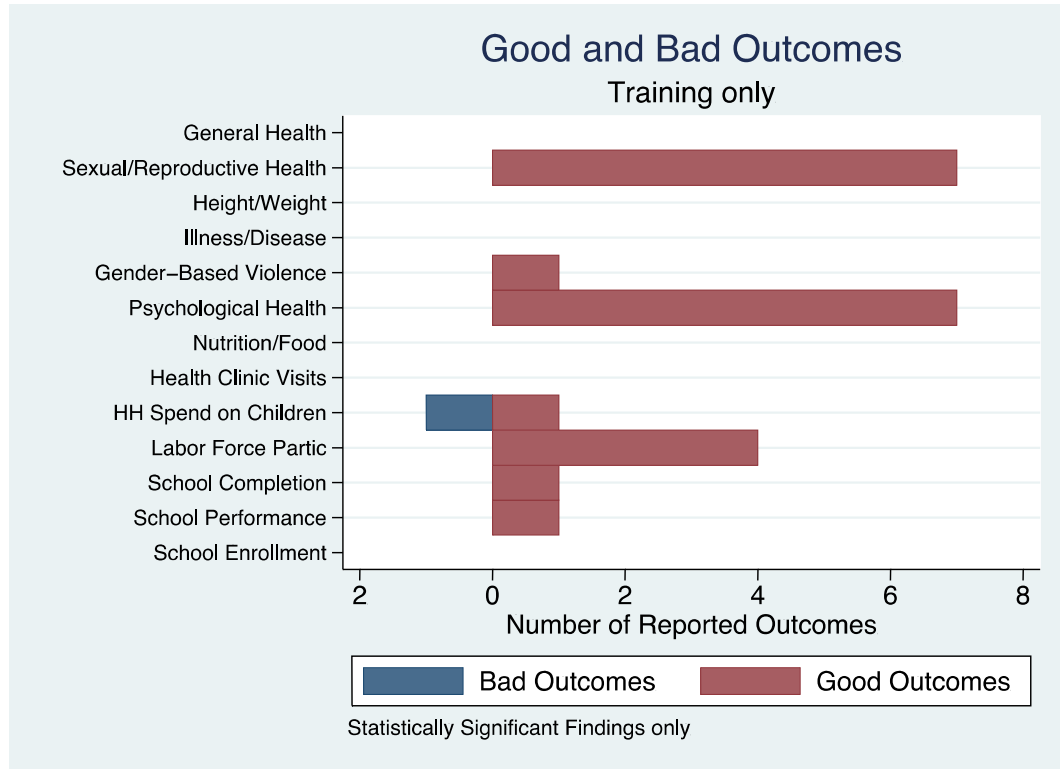


Figure 23: Good and Bad Outcomes for Children from Training Interventions

Many ES interventions, especially for youth, revolve around job skills or self-employment training, including training associated with often home-based artisan or handicraft production known as income-generating activities (IGA); or the more trade-skills focused category (plumbing, carpentry, etc.) that is most often referred to as technical and vocational education and training (TVET). This review found three RCTs that met the inclusion criteria evaluating a job training scheme targeting youth.

Figure 22 and Figure 23 show the effects of training programs for adolescents only. This figure indicates that more is known than not known (more significant findings than not significant findings about the effects of such programs on sexual and reproductive health and in the studies reviewed here, all of the statistically significant reported effects of training are positive. That means that the statistically significant positive effects of adolescent job training on gender-based violence, and the predominance of significant effects of such training on labor force participation are supported by the results of these studies. However, less is known overall about the effects of job skills training on psychological health, as indicated by the larger number of not significant findings in proportion to significant findings.

Rotheram-Borus et al. (2012) evaluated a Ugandan pilot program entitled “Street Smart” which consisted of HIV prevention training plus immediate vocational training for

adolescent youth living in slum conditions. They found significant effects of the program for youth employment, as well as most of their outcomes of interest, ranging from sexual risk behaviors to delinquency. In this study, the authors were not able to maintain a control group beyond four months (those that started in the control group were eventually given the same treatment due to ethical concerns) and, although they measured long-term outcomes at two years, it was impossible to differentiate the effects of the intervention by this time.

In Ghana, Berry et al. (2014) evaluated the financial literacy training program developed by the NGO Aflatoun. This training is complemented by school savings clubs and child empowerment training. Instead of being compared to a control, this program is compared to another intervention (Honest Money Box (HMB)), which only deals with financial education, limiting the evaluation to the social empowerment training only, not the savings component. While both programs positively influence child savings behavior, the authors were surprised to find that pre-adolescent students in the group receiving the child empowerment training were *more* likely to be working while in school than those in the savings-only group. There was no statistically significant effect of either intervention on academic performance, or measures of self-confidence. The authors were not sure why the social training resulted in increased work for children, only guessing that it may have made work more attractive.

Bandiera et al. (2012) evaluated BRAC's *Empowerment and Livelihood for Adolescents (ELA)* program, which provides life skills training to adolescent girls from community-based 'adolescent development clubs' instead of schools, and encourages establishment of small-scale entrepreneurial endeavors. Evaluated 2–3 years after implementation, this study looked at a range of outcomes, from entrepreneurial ability and income, to reproductive health practices. The authors took a generally positive view of the program, and found statistically significant results for the program's effect on HIV and pregnancy awareness, and the development of entrepreneurial skills. They did not find any significant effects of the program on wage employment income and hours, or the likelihood of suffering from an STD.

### 5.2.3 Cash Transfers to Adolescents

We found four studies where cash transfers were given directly to orphaned adolescents, some of whom were household heads. Sarah Baird and her colleagues at the Development Research Group of The World Bank have carried out a number of high-quality RCT evaluations of cash transfers to adolescents in Malawi. Baird et al. (2010) evaluated the Zomba Cash Transfer Program involved a CCT (conditional on school attendance) of approximately \$10 per month, paid directly to school girls (in some cases as heads of households) and recent dropouts. They found statistically significant effects for school attendance, marriage, and measures of sexual activity, but no significant results for ever having been pregnant, condom use, or older sex partners. Similarly, Baird et al. (2012), published in *The Lancet*, found that the intervention had a statistically significant

effect on sexual activity and HIV/HSV2 prevalence, but found no significant effects for the variables “ever married”, “currently pregnant”, “sexual debut”, or “unprotected sex”.

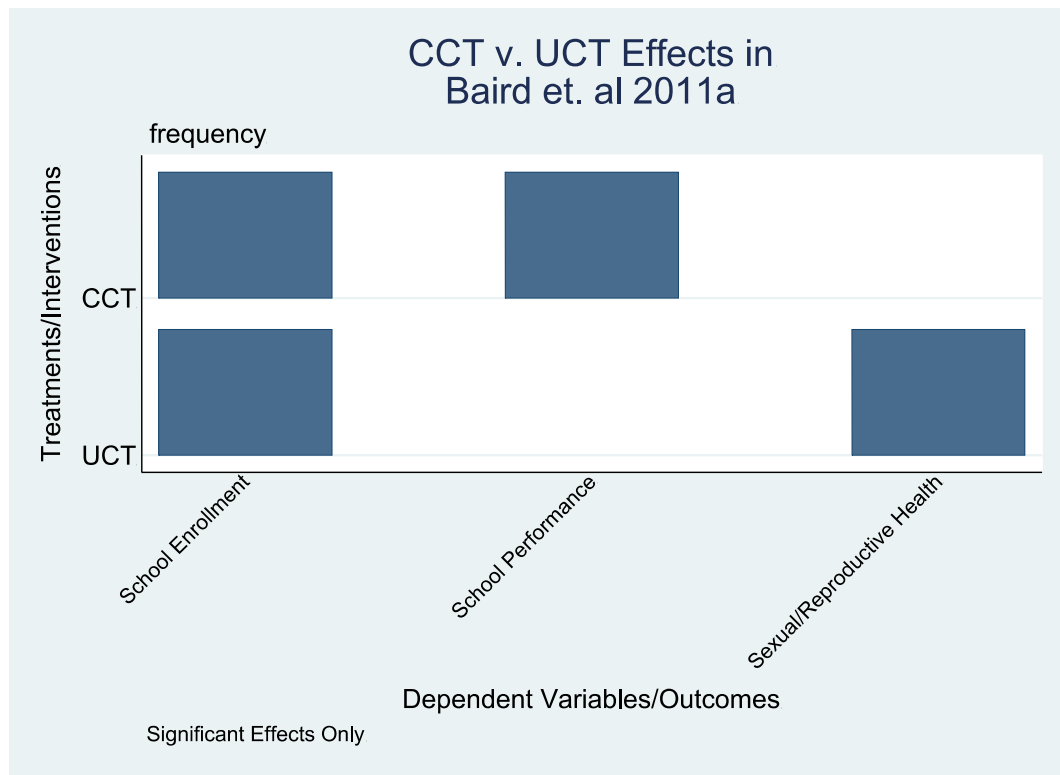


Figure 24: Statistically Significant Microcredit Interventions by Outcome of Interest

Baird et al. (2011a, b) directly compared CCTs and UCTs to a control group, in part testing the effect of a program where the adolescents themselves receive the payments directly. The authors were focused on the difference between the effects of UCTs and CCTs for school enrollment, test scores (English, math, cognitive), and marriage/pregnancy only. Figure 24 captures only significant effects, comparing where CCTs and UCTs differ in outcome of interest in one of these studies. It shows the unsurprisingly significant effect of the CCT (and the surprisingly significant effect of the UCT) on school enrollment. More importantly, this comparison illustrates the differences between CCT and UCT on secondary outcomes: UCT has no effect on performance, and CCT has no effect on sexual and reproductive health. Note that none of the statistically significant outcomes in the Baird et al. (2011a) study were “bad” for the adolescents involved.

Barid et al. also found surprising negative effects. Baird et al. (2011b) found negative spillover effects of their cash transfer intervention on measures of psychological distress for eligible girls who were randomized into the control group. This illustrates one of the ethical challenges of RCT evaluations – subjects are usually considered eligible if they are

needy in some way, but to correctly evaluate the effects of the intervention, there must be a control group who does not receive the treatment. Baird et al. were able to explicitly measure the effect of the program on these eligible-but-not-selected girls. They found statistically significant negative mental health effects on control group girls who were *not* in the same household as the treated group girls, but no effect on control group girls, who were part of the same household. This effect was only observed during the evaluation, and not after it had finished, indicating a temporary negative effect of the program.



## 6 SEX OF THE DIRECT BENEFICIARY AS A MEDIATING FACTOR IN CHILDREN'S OUTCOMES FROM ES

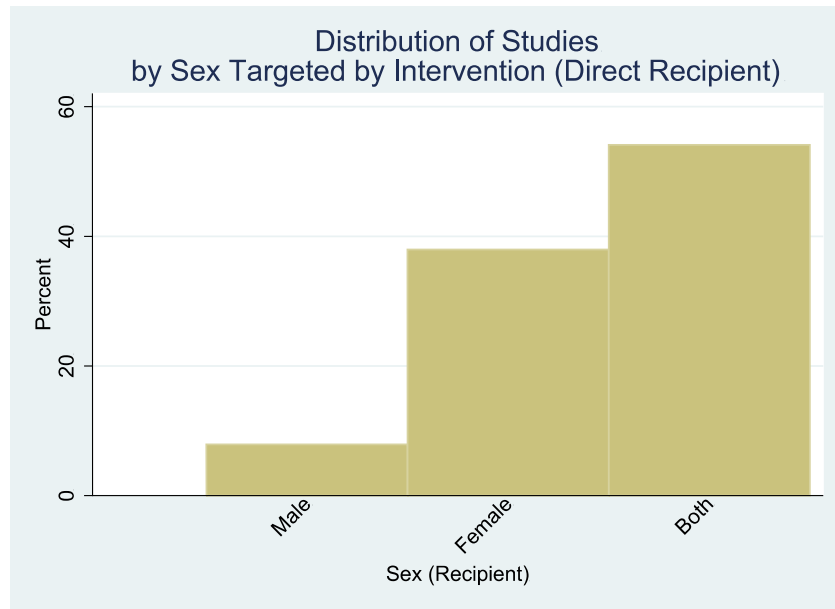


Figure 25: Distribution of Studies by Sex Targeted by Intervention (Direct Recipient)

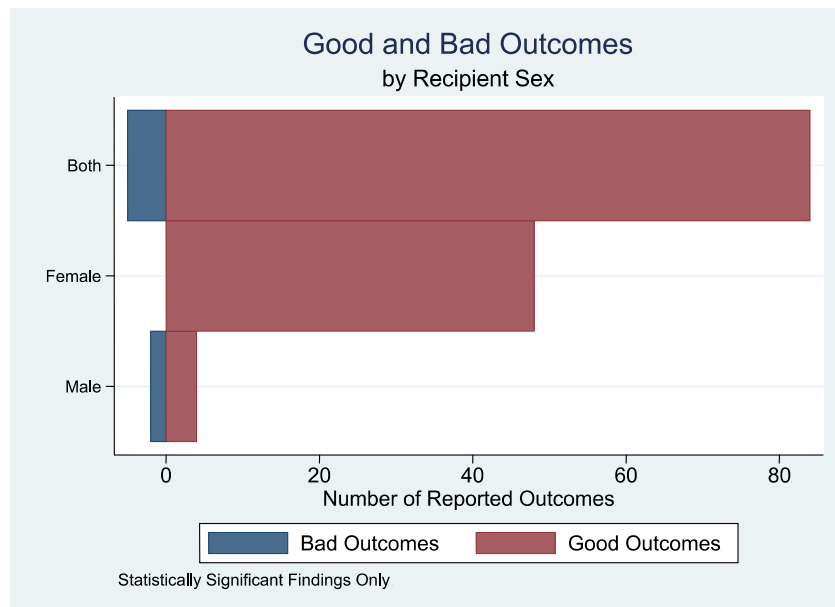


Figure 27: Statistically Significant Interventions: Good and Bad Outcomes by Direct Recipient Sex

Figure 27 shows the distribution of good and bad outcomes for statistically significant effects by the sex of the direct ES recipient. Most interventions did not specifically target direct recipients by sex, but those that did tended to target women. These figures show that in the RCTs reviewed here, there is no a strong detectable positive effect on children’s outcomes from specifically targeting women with ES programs. Fortunately there is also no pattern of negative child-level outcomes when women were targeted.

Blattman et al. (2014) was the only paper to find a statistically significant negative effect when men were the recipients of the intervention instead of women. The authors found that the proportion of spending on female children’s education was lower when the male caregiver was targeted.. However as overall men spent a higher amount of money, they relate that, “treated men spend more than treated women *in absolute terms* (emphasis added) on children’s education and health, or even women’s clothing, girls’ education, and women’s durable assets such as sewing machines or cookery.” (Blattman et al., 2014, p. Due to the differential sample sizes between men and women in their study, these findings require more sophisticated statistical analysis and should be interpreted with caution. 31)

The negative outcomes when either women or men were targeted is reported by Augsburg et al. (2015), Baird et al. (2011a), Annan et al. (2013), Evans et al. (2014), and de Mel et al. (2009), and is reviewed separately on the section on negative effects.

## 6.1 What RCT Evaluations Tell Us About Successful Programs

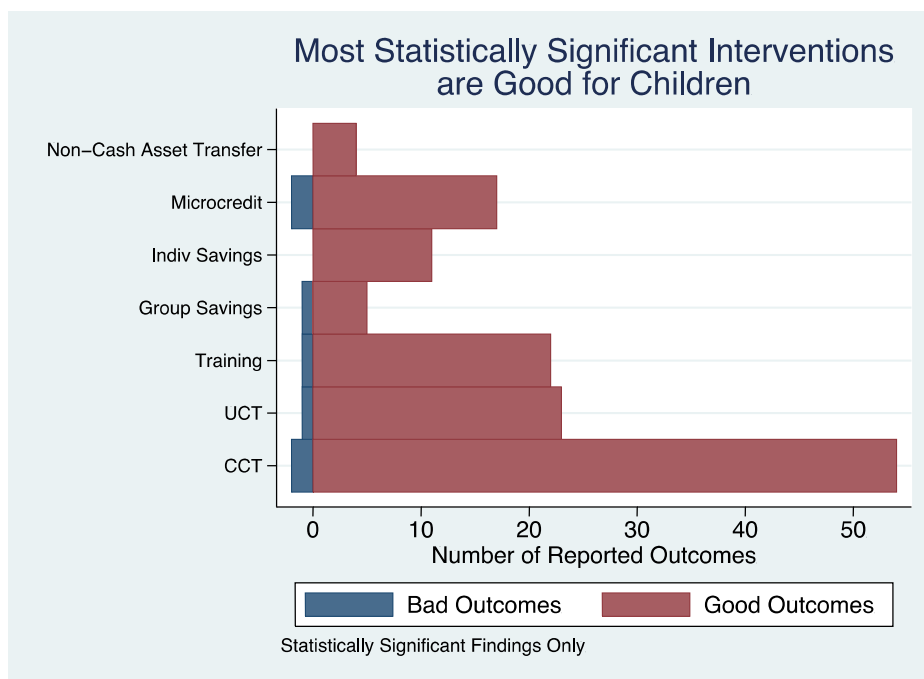


Figure 29: Most Statistically Significant Interventions are Good for Children

The large majority of statistically significant findings in the studies reviewed had positive effects on outcomes for children. As Figure 29 shows, all of these interventions are potentially beneficial, and each could be a viable programming option depending on the specific interests and capabilities of the funding agency.

Some of these results, such as the generally positive effects of CCTs, complement existing research from observational data. But the findings from RCTs should give these findings even more weight for programmers and policymakers. Furthermore, the evaluations reported here allow for a more comprehensive and fine-grained understanding of the *secondary* impacts of CCTs. The studies illustrate how individuals and families respond to CCTs beyond the direct carrot-and-stick approach of the program conditions, finding positive and statistically significant indirect<sup>6</sup> effects on teen sexual activity (Baird et al., 2010, 2012), psychological distress (Baird et al., 2011b), and child nutrition (Macours et al., 2008; Mo et al., 2013). Such findings show that programmers can amplify the effects of single interventions, potentially benefiting children in multiple ways.

In addition, it was interesting to note that when youth (as opposed to adult caregivers) were the direct beneficiaries of interventions, the statistically significant outcomes in these studies were always “good” and never “bad”. This may point to an opportunity to consider inclusion of older children as direct beneficiaries in more economic strengthening programmes where appropriate.

## **6.2 The Implications of Negative Effects on Children**

In the RCT context, negative findings can be considered particularly significant, as the strict standards of an RCT reduce uncertainty about causality, particularly when complemented with qualitative research.

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<sup>6</sup> Effects not tied to the conditions of the transfer, i.e. child health clinic visits or school attendance.

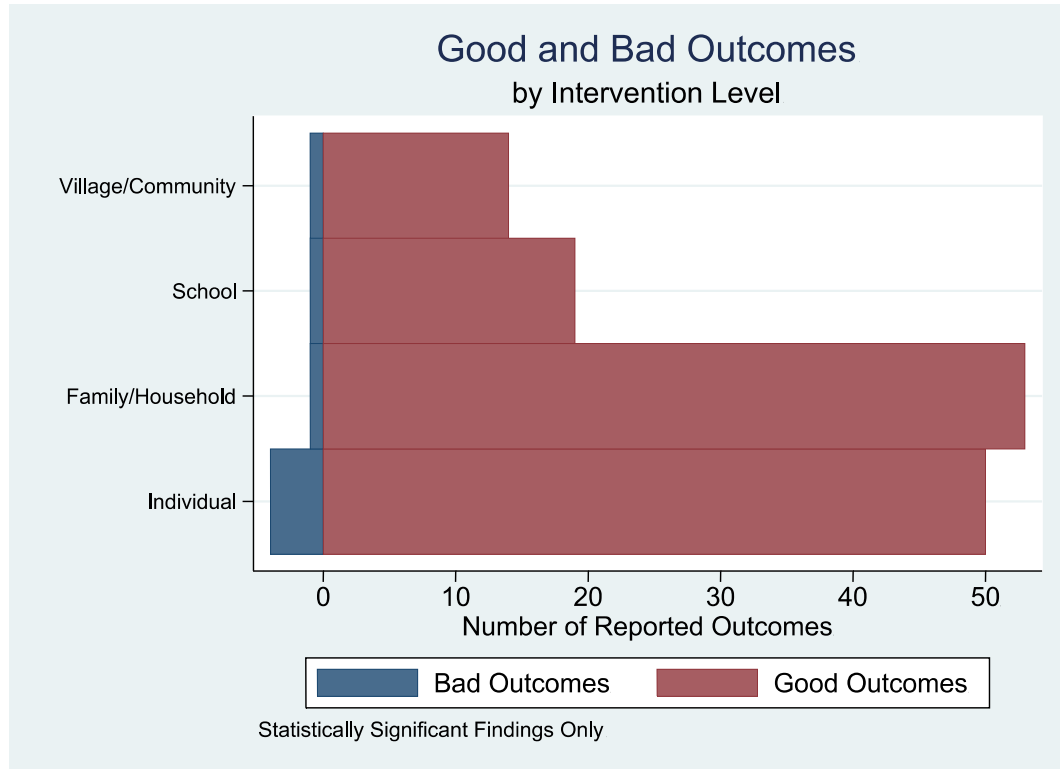


Figure 30: Good and Bad Outcomes by Intervention Level

There are different causes of negative outcomes, some of which are more apparent than others. In the study of Augsburg et al. (2015), for example, microcredit loans to the parents of adolescents had the unsurprising effect of causing the adolescents to help with the family business, and spend less time in school. Such a negative outcome is a predictable effect of the intervention, and policies carrying out such interventions need to consider how to counteract this specific effect. However, other negative outcomes were unrelated to the nature of the intervention, but rather how it was delivered. Recalling the review of negative effects, some researchers found an observable pattern of harms that occurred when individual children within a family are targeted, as opposed to entire households or entire communities. While most studies did not address this issue, two addressed spillover effects directly, and may be of special interest to programmers.

This was most apparent in the research of Barrera-Osorio et al. (2011), where targeting certain ages of children and not others resulted in more household resources being allocated to the children who received the intervention to the detriment of their siblings. On the other hand, Baird et al. (2011a) found that providing the intervention to certain individual girls within a family had a *beneficial* effect on their untreated siblings, but a *harmful* effect on other girls in the community who were not selected. Clearly, this is a topic that requires more research.

## 7 CONCLUSIONS

### 7.1 Relative Success of Different ES Approaches in Generating Positive Impacts

These trials encompass a wide range of interventions and outcomes of interest. The number of possible permutations of program components and outcomes is enormous, and rating the relative efficacy of different ES approaches in generating positive impacts for children was beyond the scope of what we could accomplish in the present study. Instead, we have collected the most reliable information on the effect of individual program components on specific outcomes of interest.

Among the studies included here, there is no discernable pattern of any particular intervention category (skills training, savings, etc.) being more effective than any other at achieving better outcomes for children. The large majority of statistically significant findings in the studies reviewed did have positive effects on some outcomes for children; in fact, all but three found at least one significant positive impact on children. In other words, all of the classes of interventions considered here are potentially beneficial, and each could be a viable programming option depending on the specific interests and capabilities of the implementing agency.

However, in many outcome categories, researchers could find no short-term impact on children from ES programming at all. This confirms the need for programmers to specifically measure ES impacts on children and not assume that changes in household income or assets will have positive impacts on all children in a household, or on all the dimensions of child well-being that implementers want to influence.

### 7.2 Potential Negative Impacts of ES Approaches on Child Well-Being Outcomes

More than 20% of the evaluations reported at least one statistically significant negative impact on children resulting from the ES interventions. Among these, there is no discernable pattern of harms being associated with any particular type of intervention (skills training, savings, etc.), meaning we cannot say that any individual type of ES program is more or less likely to do harm to children than any other type.

Further, the review points to the need to think through potential negative consequences at the program design stage and plan how to measure and mitigate against these. This will likely require adding complementary non-economic interventions to an ES program, or even adding other economic interventions to ensure households' consumption needs are met while they work to grow their assets.

### **7.3 Mediating Factors that Determine Positive and Negative Outcomes for Different Children**

Of particular interest is the finding that there is no strong detectable effect across these studies on child well-being outcomes from specifically targeting female caregivers with ES programming. Of course, there may be other good reasons to target more female than male caregivers with economic interventions, but the classic hypothesis that this strategy will necessarily yield better child-level outcomes may not be correct, at least not in the short term. Again ours is a small sample of studies, but this topic clearly warrants further study, especially because many, if not most ES programs currently target in this way.

Turning to the age of the beneficiary as a mediating factor, few of the included studies reported on their results disaggregated by age. However one finding emerges that may be of interest to programmers; when youth (as opposed to adult caregivers) were the direct beneficiaries of interventions, the statistically significant outcomes in these studies were always “good” and never “bad”.

Finally, in the two studies that happened to look at spillover effects of ES interventions on children in non-beneficiary households, there is an observable pattern of harms occurring when the targeted ES beneficiary is the individual, as opposed to the household or the community. This points to a need for programmers to be monitoring outcomes for the various children in a household beyond those being targeted by the intervention, and even other community children, to ensure the program is doing no harm.

In all three cases, further research is required, meaning that these findings should be considered as a starting point for further study.

### **7.4 Gaps in the Evidence Base and Questions for Further Research**

With the relative newness of RCTs in the literature on child well-being, much more needs to be done to synthesize the results and connect findings to empirical research based on observational data and systematically make these public for comprehensive reviews. Specifically, the data on treatment, control and conditions should be made public through a system such as the U.S. National Institutes of Health Clinical Trials Database.

But for all their strengths, and given the lack of a clear “winner” among ES program approaches in improving children’s outcomes, this review shows that we cannot rely on RCTs alone to understand what kinds of ES programs work for children. Investments are needed in more mixed-method approaches that can help us understand the “whys” and “hows”, including explanatory qualitative research after endline to get in-depth perceptions of observed effects.

Further, since the effects on children might not be expected to accrue for perhaps years

after the end of an ES intervention, there is an obvious need for longitudinal studies in this area. Research should also prioritize comparative costing, to establish program cost-per-person and cost-per-effect-size, in order to understand the economic price of any observed differences between study groups.

Perhaps not surprisingly, given the high cost of implementing RCTs, and the high risk of losing contact with study groups due to population movement, this review found very few ES interventions that were rigorously evaluated for their effects on children in humanitarian crisis contexts (conflict, natural disaster). Given that humanitarian crises are the contexts where the need is greatest, and in spite of the challenges, researchers must find ways to build the evidence base around children's outcomes from ES in crisis settings.

Turning to individual outcomes of interest, this review finds that very few studies looked at changes in children's exposure to violence, in its many forms, and only one study happened to include an indicator on children's exposure to gender-based violence. The global community of Child Protection agencies and donors would be particularly interested to know which ES interventions might hold promise in helping to reduce child-family separation,<sup>7</sup> which was not an outcome of interest included in any of the studies we found.

Finally, this review exposes an urgent need for agencies and evaluators to more systematically include children's outcomes in their standard indicators for ES program evaluation. Some of these studies included dozens of outcome measures, but may have included only one or two child-level indicators. In addition some of the major donors who fund evaluation research have standard indicators that they require partners to collect, but this rarely includes child level indicators. This marks an area for advocacy to ensure such donors and UN bodies do include such indicators in future.

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<sup>7</sup> USAID, [U.S. Government Action Plan on Children in Adversity: A Framework for International Assistance, 2012-2017](#)

## APPENDICES

### A. METHODOLOGY

#### i. Search Strategy

The first step of any meta-analysis is the systematic collection of the literature from the relevant databases of peer-reviewed and non-peer-reviewed published studies, as well as unpublished reports. There are several options for literature collection, including browsing, expert consultation, and subject searching, but in this project we only focus on two: citation searching and footnote chasing (Cooper et al., 2009), conducted in that order. Due to the limited number of RCT studies in this field, these two activities were redundant.

#### ii. Publication Years

*A priori*, we had decided to search for studies only in peer-reviewed journals published between January 1990 and December 2014, to limit time spent searching in older parts of databases which may not be fully indexed, and because the RCT evaluation in this context was largely not performed in earlier years. Limiting our search to peer-reviewed journals proved infeasible, as many of the relevant studies are new or currently underway, and to set these reports aside in the absence of peer review seemed a waste of valuable data. Nonetheless, our data includes coding of peer-reviewed articles to account for the higher credible value attributable to peer-reviewed research.

#### iii. Data Sources

Our search was conducted online from August 2014 through December 2014 using the following academic databases, which represent almost all of the available peer-reviewed published work across a wide range of fields:

- JSTOR, 10,718 preliminary results, 2 final results
- EconLit, 137 preliminary results, 6 final results
- PubMed, 31,093 preliminary results, 8 final results
- ScienceDirect, 5 preliminary results, 2 final results
- Web of Science, 115 preliminary results, 3 final results
- EBSCO, 178 preliminary results, 0 final results

All of the final results are mutually exclusive, in that we did not include studies from a database if it had already been included in an earlier database search. We also searched systematically for non-peer-reviewed research on the websites of large NGOs, funders of development research, and academic organizations which focus on development issues, including:



- World Bank, 40 preliminary results, 5 final results
- OECD, 9 preliminary results, 0 final results
- UKAID, 24 preliminary results, 0 final results
- UNICEF, 20 preliminary results, 1 final result
- IADB, 6 preliminary results, 0 final results
- Eldis, 13 preliminary results, 1 final result
- Rural Education Action Program (REAP, Stanford), 10 preliminary results, 0 final results
- The Abdul Latif Jameel Poverty Action Lab (J-PAL), 14 preliminary results, 3 final results
- Reliefweb, 13 preliminary results, 6 final results
- 3ie, 1,685 preliminary results, 2 final results

Due to the limited database capabilities of these organizations, our search term was limited to ((randomi\*) AND ((child\*) OR (youth))), which still yielded a relatively small number of results.

We also included three studies from CPC's 2011 report (Baird et al., 2011a; MckNelly and Watson, 2003; Ssewamala et al., 2010a) which utilized RCTs, and nine studies from the Child Protection in Crisis evaluation repository (Attanasio et al., 2015; Crépon et al., 2015; Tarozzi et al., 2015; Bandiera et al., 2012; Blattman et al., 2014; Annan et al., 2013; Das et al., 2013; Fiala, 2014; Haushofer and Shapiro, 2013).

#### iv. Results Screening

Reducing the very large number of preliminary search results to the specific studies of interest was a multi-step process. First, titles were manually scanned before downloading to determine if they met the general topical criteria of study inclusion. For example, in PubMed, medical trials of HIV vaccines were excluded at this stage. In the social sciences, articles which were expressly qualitative in nature or explicitly about developed countries were also excluded here. The next step involved reading the abstract of each study and concurrently keyword searching for “randomi” to determine if it met the exclusion criteria (below) of geography and the presence of some form of randomization in the study design. This was not always clear only from the abstract, furthermore, the use of the terms “randomization” or “random” also occurs frequently in large-scale social science surveys that did not meet the inclusion criteria. The next step was to read the remaining studies carefully to determine that:

- They measured outcomes related to children's protection or wellbeing
- The intervention was specifically related to ES
- The program was a true RCT (described further below) and not a quasi-experimental or non-experimental design

#### v. Methodological Exclusions

In the development context, an idealized RCT would have the following structure for both a treatment and control group:

*Population Randomization – Pre-Test – Intervention – Post-Test*

This strict criteria excludes a number of quasi-experimental designs often reported in the literature, including:

- Ex ante matching (where participants are assigned to treatment or control groups based on their similarity of observable characteristics)
- Ex post matching (where survey or study data is analyzed by developing two groups with very similar characteristics, but different exposure to some intervention)
- Natural experiments, where an external condition (for example, a lottery draft) randomizes individuals into statistically comparable groups, where the longitudinal differences between individuals are analyzed later
- One group pretest-posttest designs without a control group
- Posttest-only designs with a control group

As Sekhon and Titiunik (2012) point out, such techniques do not fully approximate the benefits of true randomization. Despite the efforts of pioneers in this field (Duflo et al., 2006), there is a potential for systematic problems, such as selection bias (Berger and Weinstein, 2004), that can undermine confidence of the statistical results of any single study, much less a comprehensive meta-analysis.

We also excluded studies where the primary mode of data collection was observational, such as, but not limited to: focus groups, surveys, multivariate analyses including cross-sectional statistical comparisons, interviews, and qualitative studies. However some RCT studies in our document set did include one or more of these methods as complements to the RCT, and where the complementary information is instructive to understanding the quantitative findings, we included it as part of the study summary.

## **vi.** Coding

The goal of our meta-analysis strategy was to gather data on statistical significance and sign of intent to treat (ITT) effects for randomized studies in resource-poor settings. ITT analysis avoids overoptimistic estimates of the efficacy of an intervention resulting from the removal of non-compliers by accepting that noncompliance and protocol deviations are likely to occur in actual practice (Hollis and Campbell, 1999). Not all studies made it explicit in their data that they were reporting ITT effects, but this could be inferred from the discussion in the text of the intended use of the reported data. For those studies that did break out their data into ITT and other measures (such as average treatment effect or ATE), we utilized ITT data only.

The first step in this process was to generate a list of outcome measures and their reliability. We cannot rely solely on the studies themselves for definitions of the outcome measures, rather we incorporate definitions from the relevant literatures to determine when a similar construct is being measured across disciplines.

Relevant studies looked at both the individual and group (community or village) levels, and our coding scheme allows for consideration of both. Studies were coded for a limited set of treatments/interventions, and dependent variables, which were in turn coded to match with relevant UNCRC articles of interest. Each study had a slightly different classification of age – for example, while some studies classified young children as 36 months and under, others described this group as under age 6. Other studies never mentioned the specific age of the children relevant to our measures. To account for this our age categorizations codings are necessarily vague. The studies were also coded for gender targeting (if any), statistical significance of each finding and sign of each finding.

## **B. STUDY CODEBOOK**

### **Dependent Variable Codes**

1. School Enrollment
2. School Performance
3. School Completion/Graduation (Progress)
4. Labor Force Participation
5. Household Spending on Children
6. Health Clinic Visits
7. Nutrition/Food
8. Psychological Health
9. Gender-Based violence
10. Illness/Disease
11. Height/Weight
12. Sexual and Reproductive Health, incl. Marriage/Pregnancy
13. General Health

### **Treatment/Intervention Codes**

1. Conditional Cash Transfers (CCT)
2. Unconditional Cash Transfers (UCT)
3. Training
4. Wage Subsidy
5. Microfinance: Group Savings
6. Microfinance: Individual Savings
7. Microfinance: Microcredit
8. Non-Cash Voucher

### **UNCRC Codes (included Dependent Variable Codes)**

- Article 24 (6,8,10,11,12,13)
- Article 27 (5)
- Article 28 (1,2,3)
- Article 31 (7)
- Article 32 (4)
- Article 34 (9)

### **Age Codes**

1. Young Children (approximately 0–6)
2. Pre-Adolescents (approximately school age, before secondary school)
3. Adolescents (approximately 13-18)
4. Adults (over 18)
5. Parents
6. Unknown/“All Children”/Children under 18 undifferentiated

**Gender Codes**

1. Male
2. Female
3. Both

**Statistical Significance**

- 1 – Significant
- 0 – Not Significant

**Sign**

- 1 – Positive
- 2 – Negative
- 0 – Zero

**Peer Review**

- 1 – Published in a Peer-Reviewed Publication
- 0 – Not Published in a Peer-Reviewed Publication

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