Conditional Cash Transfers: Learning from Impact Evaluations

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Motivation

- Conditional cash transfer (CCT) programs have become very popular: first in Latin America and now across the world
  - In some countries, including Mexico, Brazil, and Ecuador, they cover millions of households, represent a large share of the consumption of the median recipient household (~10 to 20%), and account for ~0.5% of GDP
  - In other countries, including Bangladesh, Cambodia, Turkey and Chile they are smaller niche programs that attempt to deal with the disadvantages faced by a particular group (girls, an ethnic minority, or the "socially excluded")
- Programs vary, but all share some basic characteristics:
  1. They transfer cash
  2. They ask that households comply with a series of conditions—generally, school enrollment and attendance, often also attendance at health centers for young children
  3. They are targeted to the poor
- "Twin objective" promise of programs:
  1. Reduce current consumption poverty
  2. Promote accumulation of human capital

Impact Evaluation and CCT programs: A new paradigm for public policies?

- Starting with PROGRESA, CCT programs have been groundbreaking in terms of the importance they have paid to impact evaluation with credible counterfactuals
- Credible impact evaluations exist for a dozen countries –in some cases for more than one program (e.g. Colombia)
- Impact evaluations have been instrumental in influencing programs at the country level (e.g. CCTs have survived political transitions) and influencing CCTs across countries
- Policy Research Report (PRR) summarizes lessons from impact evaluations of CCT programs

CCT impacts on consumption poverty

- Message 1: CCTs have generally led to substantial reductions in consumption poverty among beneficiaries—in particular when transfers were large

  Examples:

  - PROGRESA in Mexico reduced squared poverty gap by ~3% points
  - RPS in Nicaragua reduced squared poverty gap by ~10% points

CCT impacts on consumption poverty

CCT impacts on consumption				
	Mexico (1999)	Nicaragua (2002)	Colombia (2006)	Cambodia (2007)
Median per capita consumption (US $)	0.66	0.52	1.19	0.75
Average transfer (% of per capita consumption)	20%	30%	13%	3%
Impact on per capita consumption (%)	8%	21%	10%	--
Impact: headcount index (% points)	1.3**	5.3**	2.9**	--
Impact: sqd. poverty gap (% points)	3.4**	8.6**	2.2**	--

CCT impacts on consumption poverty

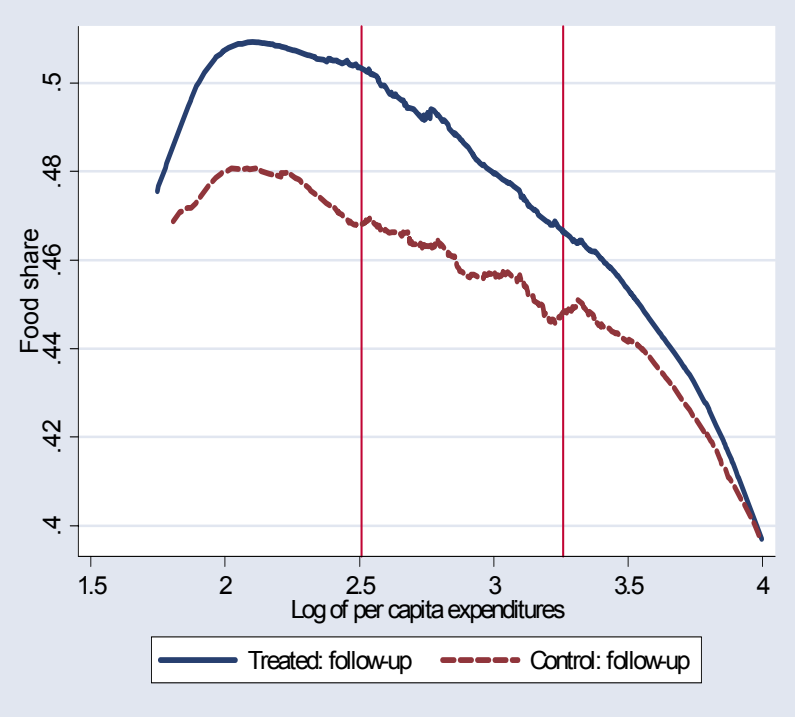
- Message 2: Small offsetting adjustments:
  - Modest, if any, reductions in adult labor market participation (Mexico, Ecuador, Cambodia), which were a major concern of policy-makers when programs were first launched
  - Substantial reductions in child work, as was intended by policy-makers
    - In Mexico, child labor among teenagers fell by 2% points for girls, and 5% points for boys
    - In Cambodia, reduction of 10% points in work for pay, and an average of 14 fewer hours worked for pay by recipients of CESP
    - But contribution of child labor to total household consumption appears to have been modest
  - No major impacts on remittances, fertility, or general equilibrium effects

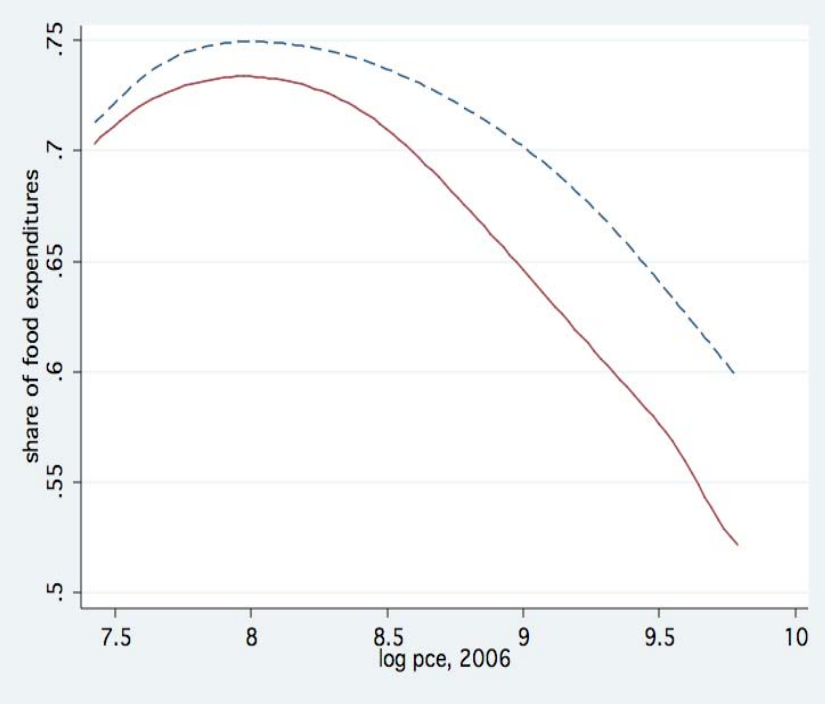
CCT impacts on consumption poverty

Message 3: Other behavioral changes associated with the transfer may also have positive effects on household welfare:

- Households may invest part of the transfer, and these investments, in turn, can result in further reductions in poverty in the future (evidence for Mexico but not in Nicaragua)
- CCTs result in changes in the *composition* of consumption—in particular, increases in the consumption of more nutritious food (Ecuador, Nicaragua, Mexico, Colombia)
  - In Colombia, Mexico, Ecuador, and Nicaragua, evidence of increase in food shares among beneficiaries
  - Increase in expenditures on food is generally directed towards increasing quality, including higher shares of food expenditures on meat, fruits and vegetables

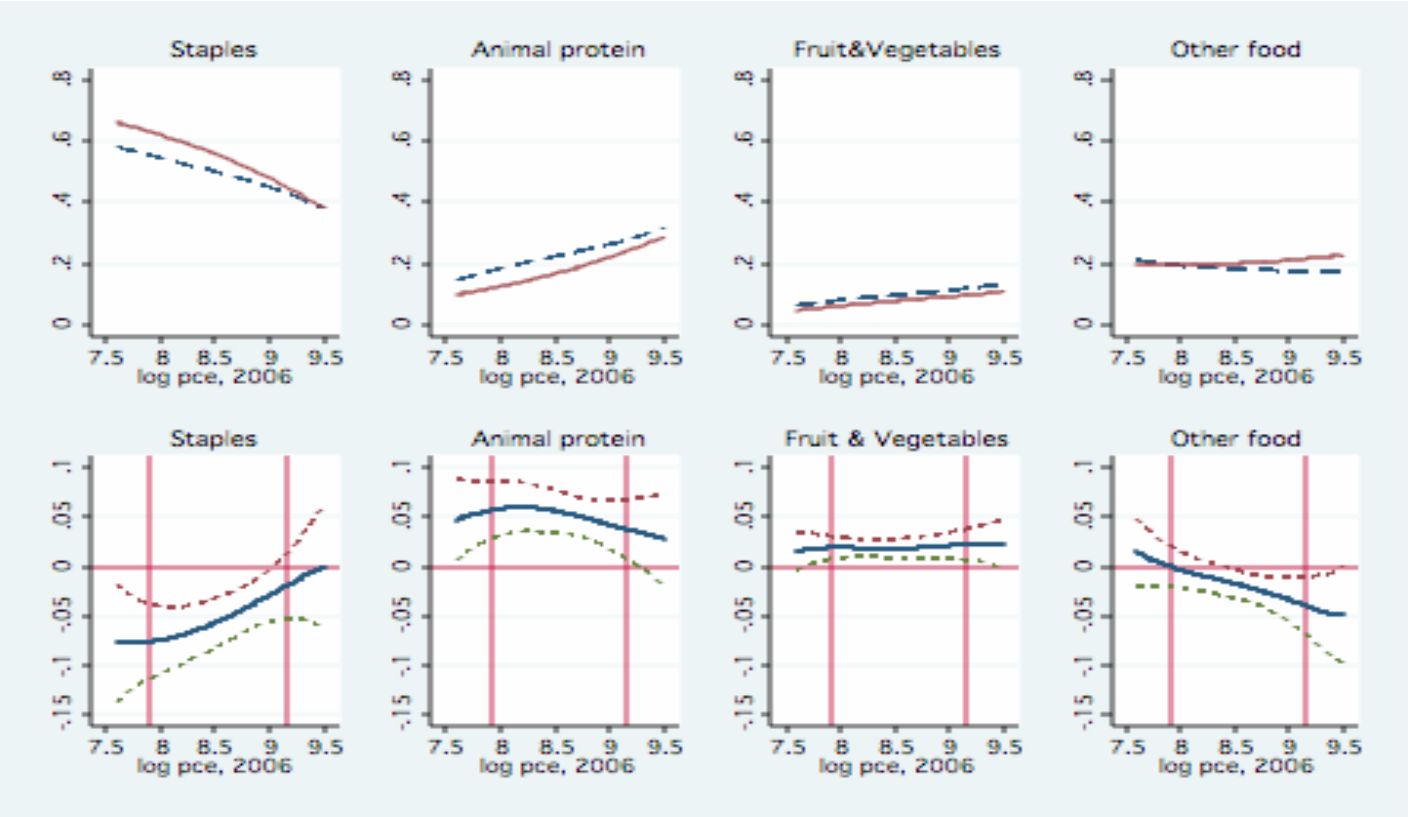
CCT impacts on consumption





Food Engel curves at follow-up for Ecuador (left) and Nicaragua (right)

CCT impacts on consumption



CCT effects on the composition of food expenditures in Nicaragua

CCT impacts on education and health outcomes

- Message 1: CCTs have generally led to substantial increases in the utilization of education and health services—in particular among the poor:
- Examples—schooling:
  - In Mexico, PROGRESA decreased dropout between 6th and 7th grade by 9% points
  - In Cambodia, two pilot programs reduced the dropout between 6th and 7th grade by 20-30% points
- Examples—health:
  - In Colombia, increases in the proportion of children who have received growth monitoring of 20-30% points
  - In Honduras, increases in the proportion of children who had received at least one health center visit of 20% points

CCT impacts on education outcomes

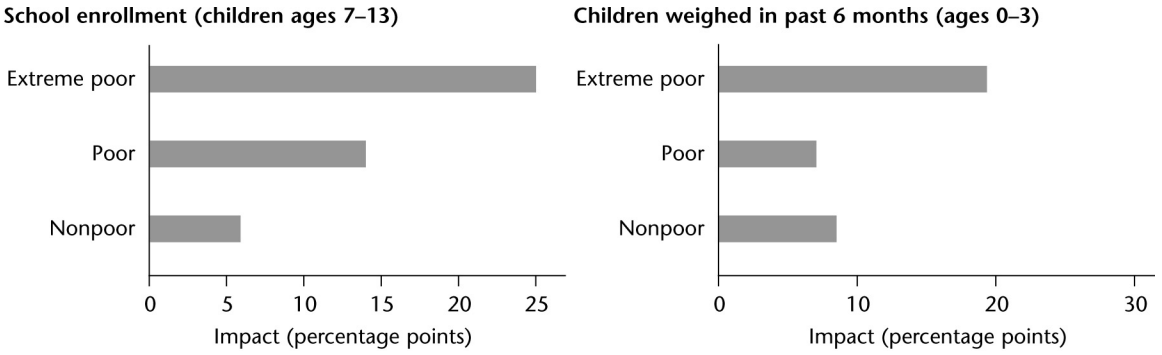
CCT impacts on enrollment				
	Age range	**Baseline enrollment**	**Impact (% points)**	**Size of transfer**
Colombia	8-13 14-17	91.7% 63.2%	2.1** 5.6***	17%
Chile	6-15	60.7%	7.5***	3-7%
Ecuador	6-17	75.2%	10.3***	10%
Mexico	Grade 0-5 Grade 6 Grade 7-9	94.0% 45.0% 42.5%	1.9 8.7*** 0.6	20%
Nicaragua	7-13	72.0%	12.8***	30%
Cambodia	Grade 7-9	65.0%	31.3***	2%
Pakistan	10-14	29.0%	11.1***	3%

CCT impacts on health outcomes

CCT impacts on health center visits				
	Age range	**Baseline level**	**Impact (% points)**	**Size of transfer**
Colombia	<24 months 24-48 months	n.a. n.a.	22.8** 33.2***	17%
Chile	0-6 years	17.6%	2.4	7%
Ecuador	3-7 years	n.a.	2.7	10%
Honduras	0-3 years	44.0%	20.2***	9%
Mexico	0-3 years	69.8%	8.4	20%
Nicaragua	0-3	55.4%	13.1*	27%

CCT impacts on education and health outcomes

- Message 2: Because program effects are concentrated among the poor, they have reduced the disparities in access between better-off and poorer households: A reduction in one dimension of "inequality of opportunities"
  - Example: Nicaragua



Source: Maluccio and Flores 2005.

CCT impacts on education and health outcomes

- Message 3: Increases in service utilization, do not always lead to improvememnts in final outcomes in education and health:
  - Some programs, but my no means all, have improved child nutrition
  - Higher enrollment levels among CCT beneficiaries may not result in improved learning
  - Encouraging evidence on improvements in cognitive development for children of pre-school ages, especially for children in the poorest households

CCT impacts on child nutrition

CCT impacts on child nutrition (height-for-age z-scores)				
	Age range	**Baseline level**	**Impact (% points)**	**Size of transfer**
Colombia	<24 months 24-48 months	n.a.	0.16** 0.01	17%
Ecuador	<24 months 24-48 months	-1.07 -1.12	-0.03 -0.06	10%
Mexico	12-36 months	n.a.	0.96 cm**	20%
Nicaragua	<60 months	-1.79	0.17**	27%
Honduras	<72 months	-2.05	-0.02	9%

CCT impacts on learning outcomes

- In Mexico, adults with two more years of PROGRESA exposure when they were children have completed more years of schooling; but they do no better on language and mathematics tests
- In Cambodia, the CESP program increased school enrollment by 20 % points. Two years after the program was launched, program beneficiaries had more schooling than children in the control group; but didn't perform better on a curriculum-based mathematics test or on an adapted version of the PPVT vocabulary test

CCT impacts on development in early childhood

CCT impacts on child development (children age 3-6)			
	Nicaragua	Ecuador (poorest 40%)	Ecuador (poorest 10%)
Receptive language	0.223*** (0.078)	0.011 (0.108)	0.177 (0.148)
Memory	0.092 (0.072)	0.192* (0.105)	0.228** (0.109)
Socio-emotional	0.067 (0.065)	0.150 (0.103)	0.389** (0.159)
Fine motor	0.150 (0.110)	0.160** (0.076)	0.288** (0.117)
Note: all program impacts are in standard deviations.			

Program design issues: What we know or will know from impact evaluations…

- Are conditions redundant?
- Does it matter who receives the payment?
- How much to pay?
- How to determine the ‘right’ conditions?

Are conditions redundant?

- CCTs have both an income (cash) and a substitution effect (conditions). How important are they?

- The evidence we have is 'indirect':
  - In Mexico, some households eligible for PROGRESA did not receive the forms necessary for the monitoring of conditions in the 1st year. Children in households w/o forms were 5.4% points less likely to enroll in school
  - In Ecuador, ¼ of households believe BDH transfers are "conditional" on school enrollment, other ¾ believe they are unconditional. Program effects are only significant for "conditioned" households
  - In Cambodia, transfers are conditional on school enrollment for children in lower middle school, but not for their siblings: So, the "income" effect affects all children, but the "price" effect of the transfer affects only children in middle school. Program increases enrollment in middle school by 20% points, but has no effect on enrollment at other levels.
- Ongoing impact evaluations in Burkina Faso, Malawi, Morrocco and Yemen are testing impact of both conditional and unconditional transfers.

Does it matter who receives the payment?

- Typically payments are made to the mother
- Changes in consumption patterns (more and better food in Ecuador, Nicaragua, Mexico) are hard to explain….
- Other evidence on mothers' preferences….
- Ongoing impact evaluations in Burkina Faso, Morrocco and Yemen test payments to mothers vs. fathers
- Ongoing impact evaluation in Malawi tests payments to girls vs. parents

How much should a CCT program pay?

- Potential trade-offs between redistributive and human capital goals of the program
  - Larger transfers lead to bigger impacts on consumption poverty
  - But there may be diminishing marginal returns to transfer size in terms of achieving human capital goals
  - Typically calculated using simulation models (e.g. Brazil, Mexico)
- Impact evaluations have been used to estimate effects of varying transfer size
  - In Cambodia each dollar of the initial $45 "purchased" ~0.38% points of increased attendance. Each dollar of the additional $15 "purchased" only ~0.12% points more attendance
  - In Bogota, experiment allowed to estimate effects of variation in timing of payment

Selecting the appropriate conditions

- Considerable room for experimentation and evaluation—in particular, because best option is likely to be highly context-specific
- Experiment with conditioning on final outcomes in addition to service use (added payment as performance bonus)
  - Bogota: Extra payment for high-school graduation and university admission
  - New York/Washington DC: Extra payment for good grades
  - Kenya: Merit scholarship to girls