Using cash transfers to improve child health in low- and middle-income countries

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Evidence from 13 low- and middle-income countries shows that cash transfer programs conditional on the use of health products and services generally increase uptake and improve child health outcomes in the short term and can improve cognition and educational outcomes in the longer term. Cash transfers without these conditions are spent according to household priorities, which may not necessarily include health. While such transfers can have important non-health benefits, their effect on child health depends on the context and is typically smaller than that of conditional transfers.



Cash transfer in Kenya

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Summary

Global deaths among children under the age of five more than halved between 1990 and 2017, but children in low-income countries are 12 times more likely to die before their fifth birthday than those in high-income countries.[26], Limited use of preventive care may be one factor contributing to this gap,[27], driven at least in part by poorer households that lack the monetary resources to regularly seek out healthcare. Cash transfers are sums of cash that are distributed to individuals or households, which can increase how much money households have to spend on household priorities, such as health. This in turn can increase uptake of health products and services. One way to ensure households spend this additional income to improve health is to impose conditions on receiving a transfer. For example, parents or guardians may be required to take their child for a

check-up to receive the transfer. In the longer term, the goal is for these health investments to contribute to improved health and education that reduce poverty through increased productivity and well-being.[4], [17]

A review of 21 studies from 13 countries measuring the impact of cash transfers on child health outcomes shows that in the short term, offering cash with the requirement that households meet certain conditions on health behavior, or conditional cash transfers (CCTs), generally increases adoption of targeted behaviors and improves child health. Providing cash with no conditions––or unconditional cash transfers (UCTs)––increases spending on household priorities and often improves overall household well-being, but improvements in child health are more difficult to detect unless the cash transfer is very large.[16] Because early childhood health is a critical input into future human capital accumulation, programs that increase household uptake of health services and adoption of healthy behaviors in the short term can translate into increased education and human capital in the long term.

When policymakers set up a cash transfer scheme, they face a number of important design questions, such as transfer size, frequency, and who should be eligible. The most studied design question to date is whether to make the transfers conditional on specific behaviors. While both types of transfers provide households with supplemental income, CCTs also provide information and incentives for taking up certain healthy behaviors.

In determining whether to implement a CCT or UCT, policymakers should consider the outcome(s) they hope to achieve as well as the relative costs and benefits of each type of transfer across all target outcomes. While the evidence to date suggests that offering a cash transfer conditioned on specific health behaviors generally increases targeted health outcomes more than a UCT of similar monetary value, UCTs aim to improve overall household well-being by allowing households to spend according to their needs and priorities. Meanwhile, both types of cash transfer programs have costs associated with determining eligibility, targeting the transfer to intended households, and delivering the cash. CCTs have additional costs associated with monitoring which households are adhering to the conditions. These monitoring costs can vary greatly based on the design and strictness of the system used.[22] A CCT can be difficult to implement if there is little local capacity for conditions to be monitored or enforced.

Supporting evidence

In many contexts, UCTs are less likely to increase the use of health services, but they improve household well-being. Providing supplemental income with no conditions leads households to invest in their priorities, which can include increasing their savings,[8], [9], investing in livestock or durable assets,[8], [9], increasing food consumption,[8], [16], and paying down debt. [8], [16] The effect of a UCT on uptake of health products and services depends in large part on whether a household prioritizes these behaviors in the absence of conditions and whether they are readily available.

In Burkina Faso,[11], Kenya,[9], Rwanda,[16], and Zambia,[8], households receiving a UCT prioritized expenditures on food and often consumed nutritious meals more regularly than households not receiving a cash transfer. The programs in Burkina Faso and Zambia did not report on take-up of health services, while neither the Rwandan nor the Kenyan program increased health-seeking behavior such as preventive care visits or vaccination rates. Child health outcomes such as anthropometric outcomes and mortality rates only improved in Rwanda and only among children in households receiving the largest possible transfer.[16] This may be because the larger UCT provided more unrestricted cash, enabling households to allocate cash to a wider range of priorities, including health.

However, providing a larger transfer did not amplify health impacts in the other UCTs. In Kenya, for instance, all households receiving cash also consumed meals more regularly. Neither small nor large transfers (which amounted to roughly two and eight times the average monthly household consumption, respectively) improved children's anthropometric outcomes.[9], [10] It is unclear whether an even larger transfer could have yielded a different result.

CCT programs generally increase the share of households practicing the required health-promoting behaviors. The conditions of a CCT are set according to policy priorities and can range from vaccinating children to promoting WASH (water, sanitation, and hygiene) interventions to visiting primary care facilities for growth monitoring and check-ups. [1], [2], [3], [5], [6], [7], [12], [13], [14], [18], [20] Adding these conditions can influence household behaviors in two ways. First, for CCTs with strictly enforced conditions, households receive a direct benefit for taking up targeted activities and are therefore incentivized to do so. Second, since CCTs target certain healthy behaviors, they provide information to households on what behaviors to prioritize. Transfers conditional on certain health behaviors generally increase health service utilization more than do programs imposing no health requirements, suggesting that conditioning on health behaviors is an important driver of take-up of health behaviors.

Of the studies considered in this review, [1], [2], [3], [4], [5], [6], [7], [12], [13], [14], [15], [17], [18], [19], [20], are conditioned on uptake of healthy behaviors. Twelve[1], [3], [5], [6], [7], [12], [13], [14], [15], [18], [19], [20], of these studies measure short-term behavior change between five months[1], and three years[12], [14], after the program started. Of the eight[1], [3], [5], [12], [13], [14], [18], [19], studies that report impacts on health service utilization, all show an improvement in at least one such measure, such as child vaccination or growth monitoring for children.[1], This increase in uptake can be expected in programs with strongly enforced conditions; if households are required to take up certain activities in exchange for the cash transfer, then they are directly incentivized to do so.[6], However, in some cases uptake of health behaviors resulted despite weak enforcement of conditions,[14], which may suggest that making households aware of the importance of such behaviors and implying that the transfer should be used for them can contribute to the increase in health service utilization.[14], To further reinforce this point, neither of the two short-term UCTs reporting impact on health service utilization reported an average increase in uptake of health services.[9], [16]

An example of the importance of conditions comes from the Honduran Bono 10,000 program. This CCT required households with children who were all under the age of 6 to take up health-promoting activities, such as check-ups, but only if no children of school-going age (6–18 years) lived in the household.[3], Among households with school-aged children, the program required at least one child be enrolled in school in order for the household to receive the transfer, and these households were not subject to any health conditions. More than a year after the program started, only households subject to the health-promoting requirements had increased their participation in healthy behaviors. For children under one year old at baseline, health service use increased by 16.4 percentage points (from 54.2 percent in the comparison group to 70.6 percent in the group receiving the transfer). For children aged 0–3 at baseline, the increase was 4.1 percentage points (from 9.4 percent for children in the comparison group to 13.5 percent of those in the group receiving the transfer). There was no effect on take-up of healthcare in households that were subject to education, but not health, conditions.[3]

Improvements in health outcomes may depend on the availability, quality, and appropriateness of the health services and may only materialize over time.

Even when households take up healthy behaviors, impacts on health outcomes are mixed. In the studies considered here, most CCTs successfully improve height-for-age, but improvements in weight-for-age, stunting, and anemia vary greatly, even among programs with similar conditions. [1], [7], [12], This could be due at least in part to inadequate health service provision.[1], For instance, public health research suggests that improving nutritional outcomes requires addressing the main drivers of undernutrition in the given context, which may primarily be due to low levels of dietary diversity in some areas but a result of high rates of open defecation in others.[25], Some programs, such as a CCT program in Nicaragua,[1] strengthen the supply of care in the local environment alongside implementing conditions, but most programs focus only on implementing a cash transfer.

Moreover, as the medical and nutrition literature suggest children are often most responsive to interventions between conception and age two, children who are exposed to programs only after age two may not reap all the health and nutrition

benefits.[25] Most of the conditional cash programs considered here target all children below school age, including those older than two, with health conditions.

Some improvements in health may only materialize over time. A study of a national level program in Indonesia shows children who had been exposed to the cash transfer for six years were 23 percent less likely to be stunted than their peers, but such effects were not yet apparent after two years.[4], This finding is consistent with reductions in stunting resulting from cumulative investments through incentivized health behaviors over time.[4], Similarly, a study in Tanzania increased the number of clinic visits and take-up of health related products in the first 1.5 years but only found improvements in reported child health after 2.5 years.[5] These studies highlight the importance of long-term studies since impacts on some health outcomes may only become apparent over time.

Cash transfers that increase uptake of healthy behaviors in the short term can improve cognition and educational outcomes in the longer term. Regular investments in children's development should in theory accumulate over time; improved health in early childhood should lead to better school performance and ultimately to better labor market outcomes.[4], In practice, improvements in education depend on the extent to which households are able to invest in their children's health in the short term and whether the investments continue. Transfers may not improve long-term outcomes if they do not sustainably change households' health-promoting behavior,[15], if the program is poorly implemented,[4], [17], if the household does not invest in healthy behaviors (as in the case of many unconditional transfers), or if there are other constraints to receiving a quality education or participating in the labor force.[17]

Few studies track outcomes over the long term, but four[2], [4], [14], [17], evaluations suggest that short-term impacts can persist and improve longer-term outcomes. However, there are not yet studies tracking the impact on labor market outcomes for children who were exposed to cash transfers in childhood. In Honduras, researchers tracked outcomes for children 13 years after the end of a five-year CCT program that required households with only young children to take up healthy behaviors and households with older children to take up education-related behaviors. Non-indigenous children who were exposed only to the health component enrolled in school earlier than those who did not participate in the program. This did not hold true for indigenous boys and girls, perhaps reflecting that the program was ill-adapted for children in those communities.[17], For example, targeting the nuclear family may not necessarily have reached those making decisions on child investments.[17]

The specific mechanisms through which healthy behaviors impact education are difficult to identify. Improvements in health and nutrition, and especially in early cognitive development, could enable children to enroll in school earlier.[17], But in CCT programs that include an educational component, it is also possible that the educational conditions for other children may have made clearer the value of education and motivated parents to enroll their children in school. Finally, for populations where primary school enrollment is high, educational impacts may be limited at young ages, calling for longer-term follow-ups.[24]

While evidence to date points to the potential for health improvements in early childhood to lead to better educational outcomes later in life, more follow-up studies are necessary to clearly identify under which conditions and through which mechanisms health improvements translate into better education and whether those ultimately improve labor market outcomes. Nevertheless, cash transfers conditioned on uptake of healthy behaviors can improve uptake of child health interventions in the short term and improve educational outcomes in the longer term.

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1. Barham and Maluccio 2009, Benedetti et al. 2016, Evans et al. 2019, Okeke and Abubakar 2020, Kandpal et al. 2016, Levere et al. 2016, Macours et al. 2012, and Morris et al. 2004 report the impact on metrics of health service utilization. Fernald et al. 2008, Gertler et al. 2004, and Rivera et al. 2004, all on the Mexican CCT program, PROGRESA, do not report on these indicators.

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1. Barham, Tania and John A. Maluccio. 2009. “Eradicating Diseases: The Effect of Conditional Cash Transfers on Vaccination Coverage in Rural Nicaragua.” *Journal of Health Economics* 28, no. 3: 611–621.
Research Paper

2. Barham, Tania, Karen Macours, , and John A. Maluccio. 2013. “Boys’ Cognitive Skill Formation and Physical Growth: Long-Term Experimental Evidence on Critical Ages for Early Childhood Interventions.” *American Economic Review: Papers & Proceedings* 103, no. 3: 467–471.
Research Paper, | J-PAL Evaluation Summary

3. Benedetti, Fiorella, Pablo Ibarrarán, and Patrick J. McEwan. 2016. “Do Education and Health Conditions Matter in a Large Cash Transfer? Evidence from a Honduran Experiment.” *Economic Development and Cultural Change* 64, no. 4 (July): 759–793.
Research Paper

4. Cahyadhi, Nur, Rema Hanna, , Benjamin A. Olken, , Rizal Adi Prima, Elan Satriawan, and Ekki Syamsulhakim. “Cumulative Impacts of Conditional Cash Transfer Programs: Experimental Evidence from Indonesia.” *American Economic Journal: Economic Policy* (forthcoming).
Research Paper, | J-PAL Evaluation Summary

5. Evans, David K., Brian Holtemeyer, Katrina Kosec. 2019. “Cash Transfers and Health: Evidence from Tanzania.” *The World Bank Economic Review* 33, no. 2 (June): 394–412.
Research Paper

6. Fernald, Lia C. H., Paul J. Gertler, , and Lynnette M. Neufeld. 2008. “The Importance of Cash in Conditional Cash Transfer Programs for Child Health. Growth and Development: An Analysis of Mexico’s Oportunidades. *The Lancet* 371, no. 9615: 828–837.
Research Paper, | J-PAL Evaluation Summary

7. Gertler, Paul, . 2004. “Do Conditional Cash Transfers Improve Child Health? Evidence from PROGRESA's Control Randomized Experiment.” *American Economic Review* 94, no. 2: 336–341.
Research Paper

8. Handa, Sudanshu, Luisa Natali, David Seidenfeld, Gelson Tembo, and Benjamin Davis. 2018. “Can Unconditional Cash Transfers Raise Long-Term Living Standards? Evidence from Zambia.” *Journal of Development Economics* 133: 42–65.
Research Paper

9. Haushofer, Johannes and Jeremy Shapiro. 2016. “The Short-Term Impact of Unconditional Cash Transfers to the Poor: Experimental Evidence from Kenya.” *The Quarterly Journal of Economics* 131, no. 4 (November): 1973–2042.
Research Paper, | J-PAL Evaluation Summary

10. Haushofer, Johannes and Jeremy Shapiro. 2018. “The Long-Term Impact of Unconditional Cash Transfers: Experimental Evidence from Kenya.” Working Paper.
Research Paper, | J-PAL Evaluation Summary

11. Houngbe, Freddy, Audrey Tonguet-Papucci, Chiara Altare, Myriam Ait-Aissa, Jean-François Huneau, Lieven Huybregts, and Patrick Kolsteren. 2017. "Unconditional Cash Transfers Do Not Prevent Children's Undernutrition in the Moderate Acute Malnutrition Out (MAM'Out) Cluster-Randomized Controlled Trial in Rural Burkina Faso." *The Journal of Nutrition* 147, no. 7 (July): 1410–1417.

Research Paper

12. Kandpal, Eeshani, et al. 2016. "A Conditional Cash Transfer Program in the Philippines Reduces Severe Stunting." *The Journal of Nutrition* 146, no. 9: 1793–800.

Research Paper

13. Levere, Michael, Gayatri Acharya, and Prashant Bharadwaj. 2016. "The Role of Information and Cash Transfers on Early Childhood Development: Evidence from Nepal." Working Paper, September.

Research Paper

14. Macours, Karen, , Norbert Schady, and Renos Vakis. 2012. "Cash Transfers, Behavioral Changes, and Cognitive Development in Early Childhood: Evidence from a Randomized Experiment." *American Economic Journal: Applied Economics* 4, no. 2: 247–273.

Research Paper, | J-PAL Evaluation Summary

15. Macours, Karen, and Renos Vakis. "Sustaining Impacts When Transfers End: Women Leaders, Aspirations, and Investments in Children." In: Barrett, Christopher B., Michael R. Carter, and Jean-Paul Chavas (Eds.), *The Economics of Poverty Traps*. NBER, Cambridge.

Book Chapter

16. McIntosh, Craig, and Andrew Zeitlin. 2018. "Benchmarking a Child Nutrition Program against Cash: Experimental Evidence from Rwanda." Working Paper, June.

Research Paper

17. Molina Millán, Teresa, Karen Macours, , John A. Maluccio, and Luis Tejerina. 2020. "Experimental Long-Term Effects of Early-Childhood and School-Age Exposure to a Conditional Cash Transfer Program." *Journal of Development Economics*, 143.

Research Paper

18. Morris, Saul S., Rafael Flores, Pedro Olinto, and Juan Manuel Medina. 2004. "Monetary Incentives in Primary Health Care and Effects on Use and Coverage of Preventive Health Care Interventions in Rural Honduras: Cluster Randomised Trial." *The Lancet* 364, no. 9450: 2030–2037.

Research Paper

19. Okeke, Edward N. and Isa S. Abubakar. 2020. "Healthcare at the Beginning of Life and Child Survival: Evidence from a Cash Transfer Experiment in Nigeria." *Journal of Development Economics* 143.

Research Paper

20. Rivera, J. A., Sotres-Alvarez D, Habicht J, Shamah T, Villalpando S. 2004. "Impact of the Mexican Program for Education, Health, and Nutrition (Progresa) on Rates of Growth and Anemia in Infants and Young Children: A Randomized Effectiveness Study." *JAMA* 291, no. 21:2563–2570.

Research Paper

21. Schady, Norbert and Christina H. Paxson. 2010. "Does Money Matter? The Effects of Cash Transfers on Child Health and Development in Rural Ecuador." *Economic Development and Cultural Change* 59, no. 1: 187-229.

Research Paper

22. Abdul Latif Jameel Poverty Action Lab (J-PAL). 2017. "Roll Call: Getting Children into School."

J-PAL Bulletin

23. Araujo, M. C., Mariano Bosch, and Norbert Schady. 2019. "Can Cash Transfers Help Households Escape an Intergenerational Poverty Trap?" In: Barrett, Christopher B., Michael R. Carter, and Jean-Paul Chavas (Eds.), *The Economics of Poverty Traps*. NBER, Cambridge.

Book Chapter

24. Behrman, Jere R., Susan W. Parker, and Petra E. Todd. 2009. "Schooling Impacts of Conditional Cash Transfers on Young Children: Evidence from Mexico." *Economic Development and Cultural Change* 57 (3): 439–77.

Research Paper

25. Ruel, Marie and Harold Alderman. 2013. “Nutrition-Sensitive Interventions and Programmes: How Can They Help to Accelerate Progress in Improving Maternal and Child Nutrition?” *The Lancet* 382, no. 9891: 536–551.

Research Paper

26. UN Inter-Agency Group for Child Mortality Estimation. 2018. “Levels and Trends in Child Mortality.”

27. WHO. 2011. “Child Mortality: Millennium Development Goal (MDG) 4.” Retrieved October 2019.