ideas 42

Cash and Change

Using Behavioral Insights to Improve Financial Health in Three Cash Transfer Programs

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About ideas42

We're a non-profit looking for deep insights into human behavior—into why people do what they do—and using that knowledge in ways that help improve lives, build better systems, and drive social change. Working globally, we reinvent the practices of institutions, and create better products and policies that can be scaled for maximum impact.

We also teach others, ultimately striving to generate lasting social impact and create a future where the universal application of behavioral science powers a world with optimal health, equitable wealth, and environments and systems that are sustainable and just for all.

For more than a decade, we've been at the forefront of applying behavioral science in the real world. And as we've developed our expertise, we've helped to define an entire field. Our efforts have so far extended to 40 countries as we've partnered with governments, foundations, NGOs, private enterprises, and a wide array of public institutions—in short, anyone who wants to make a positive difference in peoples' lives.

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Summary

Cash transfer programs, widely recognized as one of the most effective tools in social protection, are expanding rapidly into the world's poorest economies. As these programs support more of the world's most vulnerable populations, they face growing demands to increase their effectiveness. Research from behavioral science suggests that light touch interventions that help programs become more adaptive to the psychological phenomena that influence beneficiaries' decisions and actions may improve outcomes at little, if any, additional cost. ideas42 collaborated with the World Bank and the governments of Tanzania, Kenya, and Madagascar to design and test scalable pilot interventions to improve beneficiaries' financial outcomes in three different contexts. Across three countries, results show that behavioral interventions can both support beneficiaries' intentions to save their money and help them use it productively, supporting the ultimate goal of alleviating long-term poverty.

Cash transfers: impact and efficiency

A combination of strong growth in much of the developing and emerging world and targeted anti-poverty programs has led to a dramatic decline in the number of people in extreme poverty—defined as living on less than $1.9[1] per day—from 1.9 billion in 1990 to about 700 million in 2015.[2] This is real progress, but to meet the United Nations' Sustainable Development Goal of eliminating extreme poverty by 2030, we need innovative solutions to bolster worldwide anti-poverty efforts.

Cash transfer programs, which governments, policymakers, and development practitioners in an increasing number of countries are leveraging to tackle poverty, are one class of such solutions. A growing body of evidence indicates that such direct cash transfers, which supplement very low incomes with regular payments, are a powerful policy instrument with a multitude of positive impacts for beneficiaries. Documented impacts include improved access to food and other critical household items, more schooling, higher use of health services, reductions in child labor, increased productive investments, higher propensity to build a savings cushion, and diversification of livelihood strategies.[3]

But could direct cash payments be made even more effective? Cash transfers account for more than half of social protection spending worldwide.[4] Today, virtually every country in Sub-Saharan Africa has some kind of cash transfer program in place.[5] These lower-income countries not only have more people in extreme poverty, but also governments that face more pressing human and financial resource limitations than in the middle-income countries where cash transfers originated. Such constraints make it all the more important to maximize the impact and cost-effectiveness of such programs.

A particular problem arises in supporting beneficiaries in using transfer funds in ways, such as for productive investment or funding human capital accumulation for children, which is necessary for these programs to maximize impact. Tools such as conditionality—the explicit requirement for beneficiaries to use the money in certain ways or follow through on a commitment- that were widely used by earlier generations of cash transfers are not feasible or cost-effective in lower-income, lower-capacity settings, not to mention that there is also evidence that they impose unwarranted burdens onto beneficiaries.[6]

[1] In Purchasing Power Parity (PPP) dollars

[2] Howton, E. (2018, September 19). Decline of Global Extreme Poverty Continues but Has Slowed: World Bank. Retrieved from https://www.worldbank.org/en/news/press-release/2018/09/19/decline-of-global-extreme-poverty-continues-but-has-slowed-world-bank

[3] Bastagli, F., Hagen-Zanker, J., Harman, L., Barca, V., Sturge, G., Schmidt, T., & Pellerano, L. (2016). Cash transfers: what does the evidence say. A rigorous review of programme impact and the role of design and implementation features. London: ODI.

[4] World Bank. (2018). The State of Social Safety Nets 2018. The World Bank.

[5] Beegle, K., Christiaensen, L., Dabalen, A., & Gaddis, I. (2016). Poverty in a rising Africa. The World Bank.

[6] Baird, S., McKenzie, D., & Özler, B. (2018). The effects of cash transfers on adult labor market outcomes. *IZA Journal of Development and Migration,* 8(1), 22.

In low-income countries considering cash transfer programs to address extreme poverty, finding solutions to cost-effectively facilitate desired behaviors and outcomes among beneficiaries has emerged as a key policy priority. The application of insights from behavioral science—the study of how people make decisions and take actions in the real world—has already revolutionized the design of products, policies and programs addressing an array of development goals around the world. In the realm of cash transfer programs, behavioral science is a promising yet underutilized approach to helping beneficiaries make the most of their money and achieving greater cost-efficiency for governments.

Since 2015, ideas42 has collaborated with the World Bank and the governments of Madagascar, Kenya and Tanzania to apply behavioral science to cash transfer programs. Other countries and development practitioners can use results and lessons from these three ongoing behavioral interventions to develop or strengthen beneficiaries' financial outcomes in their own programs.

Cash transfers and cognition

Improving livelihoods with an understanding of behavior

Human beings have a finite amount of "cognitive bandwidth" or mental energy, and can only perceive, process, and act on a fixed amount of information at any given moment. In response to ***scarcity,*** or a lack of any key resource (e.g., time, food, or money), the human brain tends to ***tunnel*** on whatever is most urgent.[7] Whatever unmet need is most pressing crowds out all other concerns, questions, or tasks that would otherwise compete for attention. Temporarily, this laser-like focus can be useful—it enables focus when time is scarce—but nobody can afford to tunnel all the time. Too many important (though not quite imperative) things will inevitably get neglected. Living in poverty means living in specific form of chronic scarcity—and like all kinds of scarcity, comes with a set of cognitive consequences that may be beneficial or adaptive in the short term but highly deleterious when experienced chronically, leading for instance to a focus on immediate needs at the expense of the longer-term, future-oriented behaviors and outcomes (such as saving, or investing in education).

Cash transfers can temporarily relieve some of the effects of scarcity by supplying a much-needed resource (money) and thus freeing up a person's attention for other tasks. This creates a brief window when it is easier to make and act on long-term decisions and goals. But absent interventions designed to support such behaviors, the effects of cash alone, while positive, remain limited. By designing programs to take advantage of the momentary 'cognitive space' created by the cash, we can strengthen the long-term impact of cash transfer programs that better support beneficiaries.

[7] Mullainathan, S., & Shafir, E. (2013). Scarcity: *Why having too little means so much.* Macmillan.

A growing body of evidence finds that ***behavioral interventions*** can have positive impact on a variety of development-related outcomes. For example, numerous studies demonstrate the impact of interventions rooted in positive psychology (such as self-affirmation), whose essential function is to make people feel more positive about their abilities, on outcomes as diverse as reducing criminal involvement[8] and increasing planning for the future.[9] In the field of cash transfer programs, evidence shows that "labels" (e.g., disbursing cash in a school with education-themed posters on the walls) can increase school attendance among children of beneficiaries.[10] In Uganda, the use of self-affirmation combined with goal-setting and plan-making exercises alongside a cash transfer led to increased investments in livestock, higher levels of income from farming, and a variety of reported gains in subjective well-being and pride among beneficiaries.[11]

The application of behavioral insights to cash transfer programs thus has great promise—but first, researchers and policymakers need to understand beneficiaries' true needs and wants, and what is preventing them from achieving their goals. Behavioral science can show us common tendencies in how humans process information, make decisions, and take action. ***Behavioral barriers*** are formed when programs and contexts are not optimized to take into account these tendencies. The first step in designing a behaviorally-informed package of solutions is to understand the mismatch between human psychology and the context that hinders optimal decision making and action.

Identifying specific roadblocks for beneficiaries

In Tanzania we spoke to Akida, a 22-year old cash transfer beneficiary. Akida wants to start a shoe business that requires a small amount of capital, but has been unable to save enough through her weekly savings group to reach that amount. She receives regular cash payments from the government's Productive Safety Net Programme, but these payments come in small, irregular amounts, making it difficult to predict exactly how much she will receive over multiple cycles. Having never seen other beneficiaries like her save part of these payments for later, she has not considered doing so herself.

Akida's story is hardly unique. Improving long-term financial health is one of the key goals of cash transfer programs. However, this requires beneficiaries to save some of their cash transfer to purchase assets, something many want to do but have difficulty accomplishing. For some beneficiaries, this is financially infeasible as they try to cover unexpected costs like health emergencies or daily expenses. However, interviews with recipients revealed that many have both

[8] Blattman, C., Jamison, J. C., & Sheridan, M. (2017). Reducing crime and violence: Experimental evidence from cognitive behavioral therapy in Liberia. *American Economic Review,* 107(4), 1165-1206.

[9] Ghosal, S., Jana, S., Mani, A., Mitra, S., Roy, S. (2013) Sex Workers, Stigma and Self-Belief: Evidence from a Psychological Training Program in India. https://www.isid.ac.in/~epu/acegd2014/papers/SanchariRoy.pdf

[10] Benhassine, N., Devoto, F., Duflo, E., Dupas, P., & Pouliquen, V. (2015). Turning a Shove into a Nudge? A "Labeled Cash Transfer" for Education. *American Economic Journal: Economic Policy, 7*(3), 86-125. doi:10.3386/w19227.

[11] Sedlmayr, R., Shah, A., & Sulaiman, M. (2017). Cash-Plus: Variants and Components of Transfer-Based Anti-Poverty Programming (No. 2017-15). Centre for the Study of African Economies, University of Oxford.

the intention and the means to save, but their environments are not optimally designed to help them do so. The way cash transfer programs are commonly designed may unintentionally create behavioral barriers that stand in their way:

Social norms: The visible behavior of peers is a potent influence on people's decisions and actions. In rural villages, spending is a highly visible, public act, while saving typically takes place at home. This may lead to the belief that saving is not "the norm".

Identity: Being a cash transfer program beneficiary can evoke negative self-perception and feelings of loss of control. Coupled with a belief that "saving is for the rich", this can prevent beneficiaries from identifying as people who save money. As a result, people who might have put away even a small amount over time may not consider saving at all.

Lack of salience regarding total earnings: Most cash transfer programs pay in installments. Without a comprehensive overview of total earnings over the course of months or a year, beneficiaries tend to consider only the purchases and investments made possible by each individual payment, overlooking the options available if money from several payments were accumulated.

No decision support: Cash transfer programs do not usually offer any decision-making tools or orientation towards financial goals, leaving beneficiaries to pursue a difficult and high-stakes financial planning exercise on their own.

No way to separate cash for different purposes: Payments are often received as a single stack of paper bills. This format fosters a perception that the payment is meant for a single, immediate purpose rather than encouraging people to allocate the money to multiple purposes, including savings.

Salience and ease of making consumption purchases: Even when beneficiaries have savings goals, they face many immediate needs (debt repayment, medical expenses, food and transportation expenditures) that may be more salient than future productive goals. Furthermore, at the time that beneficiaries receive their cash, the presence of a plethora of market vendors makes it easy and tempting to spend on instant purchases. Meanwhile, the program provides no such easily available way to immediately allocate money towards savings.

A package of solutions

Behavioral science provides solutions for addressing each behavioral bottleneck that can be adapted for different local contexts. ideas42 and the World Bank collaborated with governments of Kenya, Tanzania, and Madagascar to design a "package" for three similar cash transfer programs, comprised of the following components:

Visual descriptive norms: In order to make social norms around savings more visible, we created visual aids that expand beneficiaries' perceptions of how they can spend their payments. These posters reinforce social norms that beneficiaries of cash transfers and others in their community use the money to save and make productive investments.

Image 1 - Descriptive norm poster

Self-affirmation activities: To combat the disempowerment often attached to living in poverty, we designed an activity in which beneficiaries reflect on their skills and positive attributes close to the moment when they receive their transfer payment. This takes advantage of the increase in available cognitive bandwidth that occurs when immediate needs are met, allowing for longer-term planning and realistic goal-setting.

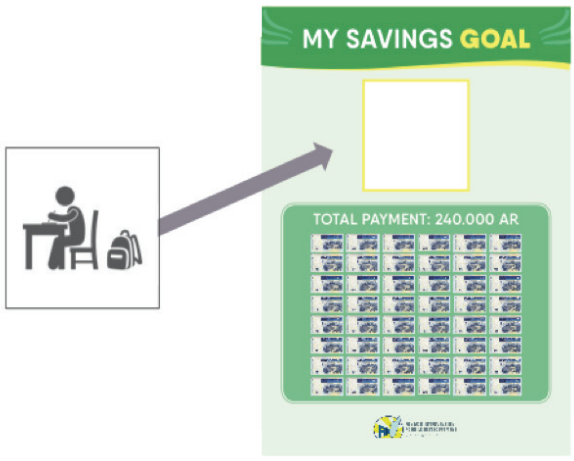


Image 2 - Goal setting and planning activity

Goal setting & planning: Many beneficiaries don't plan ahead how they will spend their cash once they receive it. We designed activities that first help people set a realistic goal, then identify how much they will save from each transfer and finally calculate how many cash payments it will take to reach their goal. These activities also provide a chance to mentally allocate money into saving and spending "accounts" which makes it more likely that they will stick to their plan.

SMS text message reminders: Beneficiaries of most cash transfers receive cash and interact with government workers at most once every two months. The goals they set for their savings may become less salient for them as times goes on. In order to maintain the salience of the goals and the plans they set, we developed an SMS-based tool to remind beneficiaries via text message of the actions they intended to take and reinforce the norms and habits they had been exposed to.

Image 3 - Money Pouch

Money pouch: Many beneficiaries have immediate needs for their transfer funds. Even with certain spending and saving goals in mind, such needs are likely more salient than long-term goals. A money pouch allows beneficiaries to translate the mental accounts they created as part of goal-setting into a physical separation between "savings" and "spending" buckets.

Immediate impact

From 2015-2019, the governments of Kenya, Tanzania, and Madagascar were supported by ideas42 and the World Bank to test the impact of the package of solutions that were developed to help beneficiaries achieve their goals.

Kenya

In Kenya, the government tested a package of behavioral designs—goal-setting, plan-making, money pouch and SMS reminders—layered onto the regular payments made by the Government of Kenya as part of its flagship social protection program, the National Safety Net Program (NSNP). This program offers bi-monthly cash infusions to support basic livelihood and productive inclusion outcomes, such as increased investment in small businesses.

To estimate impact, a randomized controlled trial (RCT) with 900 NSNP beneficiaries was deployed, approximately half of whom received the package of behavioral designs, while the other half received a control intervention where beneficiaries discussed the pros and cons of different saving methods. The interventions were administered at a community meeting one to eight days before cash was disbursed.

KENYA

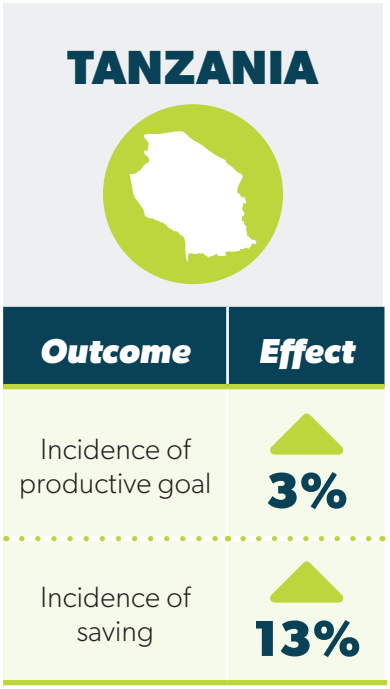
Outcome	Effect
Incidence of productive goal	▲ 9%
Amount saved	▲ 41%

One month after the intervention, there were significant impacts on short-term plans and actions. Beneficiaries who received the behavioral interventions were ***9% more likely to report having a productive goal and saved 41% more*** than those who did not receive the intervention. They were also ***45% more likely to report completely repaying their debt.***

This early on, there is no conclusive evidence of an increase in productive investments, such as increased investment in income generating activities. However, positive impacts on savings and debt repayment suggest that beneficiaries may be taking steps toward such investments, although they do likely not yet have sufficient money saved up to do so.

Tanzania

In Tanzania, the government tested a package of behavioral designs consisting of self-affirmation, goal-setting, plan-making, and providing a money pouch with beneficiaries of the Productive Social Safety Nets (PSSN) program, set up by the Government of Tanzania through the Tanzania Social Action Fund (TASAF). The PSSN program provides bi-monthly cash transfers to poor households. Beneficiary households receive an unconditional transfer guaranteeing a basic level of support, and households with vulnerable members, such as households with children or pregnant women, receive additional payments. Many household members that are able to work earn additional wages through a public works project.



As in Kenya, the package of behavioral designs was tested through an RCT with 900 beneficiaries separated into a treatment group and a control group (again, in the control group beneficiaries discussed the pros and cons of different saving methods).

Six to seven weeks after it was administered, the package of behavioral designs was found to have increased the likelihood of recipients having a productive goal and of saving money—promising evidence that the intervention is indeed helping beneficiaries plan how to spend their transfer and follow through. Compared to the control group, beneficiaries in the treatment group were ***3% and 13% more likely to report having a productive goal and having saved in the past month,*** respectively. Interestingly, the intervention had a stronger effect on the people with the least money, among whom the increase in incidence of saving was 17%. Moreover, there was already a ***9% increase in incidence of making a productive investment*** less than two months from when the package of designs was implemented.

Madagascar

As part of a suite of cash transfer programs, Madagascar's Argent Contre Travail Productif (ACT-P) provides vulnerable but able-bodied individuals with cash support, through a public works program. Participants receive regular cash payments for performing community labor during the agricultural lean season. ACT-P participants live on less than $1.25/day.

In Madagascar, the government tested a package of behavioral designs consisting of goal-setting, plan-making, a money pouch, and posters and pamphlets to clarify social norms around saving. Four villages were selected for the pilot, and two were chosen at random for behavioral design implementation. The other two villages did not receive any intervention.

After one month, there was a clear improvement in ability to save—those who received the behavioral designs were ***46% more likely to report saving some of the transfer.*** They also reported higher rates of saving their other funds not linked to the cash transfer money.

MADAGASCAR

Outcome	Effect
Incidence of saving	▲ 46%

A rigorous RCT for the intervention was recently completed. Although still under analysis, the initial results (such as decreases in food insecurity), are promising. The complete results will be available when the full analysis concludes.

Lessons learned to date

The experience of designing behavioral innovations in three different contexts generated several key insights for the future application of behavioral science to cash transfer programs.

1 ***Behavioral science insights increase the impact of cash transfers at little additional cost:*** Cumulative evidence from testing similar interventions demonstrates that behavioral science insights can significantly and positively impact cash transfer beneficiaries' lives and livelihoods. In all contexts, there were positive impact on a variety of indicators, such as setting productive goals, propensity to save, and amount of savings. At a cost of less than $5 per beneficiary per year in each case, these results make a strong policy argument for scaling behavioral science in cash transfer programs focused on poverty alleviation.

2 ***Iterative testing is an effective way to cost-effectively build evidence for scaling:*** In all three countries, pilot testing started with short-term, low-cost tests. These initial shorter tests provided the opportunity to make necessary modifications to the behavioral designs and to smooth out any implementation obstacles prior to launching a full-scale RCT. The tests also provided critical early indication of the potential for success of our interventions.

3 ***Interventions should account for limited time and resources:*** A key challenge for incorporating innovations into any government program is the government's time and human capacity limitations, given the multitude of priorities that need to be juggled. The development of various tools and resources that facilitate easy application of behavioral science to cash transfer programs will play an important role in enabling behavioral science to be applied broadly on a large scale across the sector. ideas42 is in the process of developing one such toolkit.

Looking forward

The pilot studies presented provide important evidence for the potential of behavioral innovations in cash transfer programs. More evidence is needed to understand the full impacts that behavioral innovations can have over the long term. Next steps include:

1 ***Expand to a broader range of programs and contexts:*** All three of the interventions were focused on supporting the long-term financial health of beneficiary households. However, behavioral designs can potentially be focused on many other aspects of cash transfer programs, such as the way that they support human capital development and investments in child health and school readiness in particular. With support from ideas42, the World Bank, and UNICEF, the government of Madagascar is currently running one such pilot study, with encouraging results from a midline test.

2 ***Measuring longer-term impact:*** For all the behavioral interventions presented in this paper impact was only measured shortly after the intervention (approximately one to two months after). Thus, additional testing is necessary to draw conclusions regarding the longer-term impact of our designs. For the Madagascar pilot, one such evaluation has already been conducted by the World Bank at one year after the intervention roll-out, with encouraging preliminary results. In Kenya and Tanzania, the governments are in process of launching the second phase of our testing process, where impact will be measured six months after the intervention.

3 ***Continual testing and scope for improvement:*** While qualitatively similar, there were differences in the extent and nature of measured effects. Whereas in Kenya the package of behavioral interventions increased the amount that each beneficiary saved, in Tanzania, the number of people who saved increased, but the amount saved on average did not. Such differences suggest that the efficacy of behavioral interventions vary by context, pointing to the need to continue accumulating rigorous evidence and thoroughly test all behavioral components in each environment.

Cash transfer programs are a key tool available to the international community as it seeks to make progress toward the United Nations' Sustainable Development Goal to eliminate extreme poverty by 2030. The pilot studies reported here demonstrate that behavioral science can help address challenges that all people face when it comes to managing money and planning for the future, particularly the unique obstacles created by chronic scarcity. We intend to continue testing the long-term effects of behavioral design in cash transfer programs. Having proven this approach to be cost-effective, we encourage governments to incorporate behavioral principles into the design of cash assistance programs to begin building better environments that create clearer paths out of poverty.

» ***For more information,*** please contact livelihoods@ideas42.org