

#### **Motivation**

Poverty is undeniably complex, to the extent that even a concrete definition of poverty is elusive; working definitions span from the type holistic view of poverty used by Amartya Sen to narrowly defining poverty as the lack of money.

There is a straightforward solution to the latter form of poverty however: just give the poor cash to address the causes or symptoms of their poverty that they most wish to ameliorate. Despite how seemingly simple this solution is, it has historically been taboo in the development community. In *Making Aid Work* Abhijit Banerjee and Ruimin He note "it is an item of faith in the development community that no one should be giving away money."

GiveDirectly does not take that as an item of faith, and aims to facilitate direct cash transfers to impoverished households around the globe. Motivated by values of efficiency and respect, GiveDirectly has faith in the ability of the poor themselves to responsibly use cash transfers to better their lives in the best way they know how.

Another core tenet of GiveDirectly is impact; to demonstrate that cash transfers have impact, GiveDirectly must maintain maximal transparency and be willing to subject its assumptions and practices to rigorous evaluation. Indeed, Banerjee and He go on to note "It is not clear what, if any, credence lies behind this shared conviction [that cash should not be given away]."

To address this concern, GiveDirectly will conduct a randomized impact evaluation, sponsored by the National Institutes of Health and lead by academic experts, to evaluate the effects and effectiveness of cash transfers to the poor.

# **Research Question**

In its most ambitious form, the question addressed by this study is whether unconditional cash transfers, leveraging cost-reducing mobile money technology, are an efficient tool for poverty alleviation. In particular, this study will address:

- What are the welfare effects of unconditional cash transfers on impoverished Kenyan households?
- ❖ What are the uses of unconditional cash transfers by these households and what is the mechanism by which transfers have impact (if any)?
- ❖ How does the cost/benefit ratio of this intervention compare to other common anti-poverty interventions (notably aid in kind and conditional cash transfers)?

- ❖ How does the structure of cash aid (lump sum vs. flow income) affect costs and benefits of cash transfers?
- How does the targeting of cash transfers within the household (to men or women) affect the uses and impacts of cash transfers?

## **Study Design**

To credibly establish a causal relationship between unconditional cash transfers and any changes in welfare, this study will randomly assign households to receive transfers. This methodology eliminates selection bias and ensures that the study obtains internally consistent, causal impact estimates. To establish a credible control group, the research team will identify a larger sample than the number of households to which GiveDirectly currently plans to extend unconditional cash transfers. From this sample, actual recipients will be randomly selected to ensure comparability between the recipients and the control group.

The study will take place in rural Kenya; in the Rarieda District of western Kenya, which is one of the most impoverished regions of the country (Kenya National Bureau of Statistics, Kenya Poverty Atlas). Approximately 1,000 impoverished households (the exact figure will depend on the number of transfers GiveDirectly is able to make) will be identified as eligible for transfers, with eligibility determined by the household residing in a home made of mud, grass and other non-solid materials.

Half of these households, determined randomly, will receive a cash grant of approximately \$200, a meaningful sum in this context, delivered electronically through Kenya's M-Pesa system. The choice of how to spend these transfers will be left to recipient households, allowing them to use it to meet their most pressing needs.

The distribution of cash raises a number of practical and theoretical questions that may interact significantly with the effects of unconditional cash assistance to the poor. For example, should transfers be made to the primary male or female in the household? Or should the money be given all at once or in regular installments?

Existing evidence suggests that the gender of the recipient does determine how money is spent; women tend to spend more money on children, but men may be better able to invest cash.¹ There is also evidence that poor households outside the formal financial system have difficulty managing irregular cash flows, or exercising self-control in saving and spending.² On the other hand, lump sum

<sup>1</sup> Esther Duflo (2003) "Grandmothers and Granddaughters: Old-Age Pensions and Intrahousehold Allocation in South Africa", World Bank Economic Review}, 17(1); De Mel, Suresh, David McKenzie and Christopher Woodruff (2008) "Returns to capital: Results from a randomized experiment", Quarterly Journal of Economics, 123(4).

<sup>&</sup>lt;sup>2</sup> Ashraf, N., D. Karlan, and W. Yin (2006). Tying Odysseus to the mast: Evidence from a commitment savings product in the Philippines. The Quarterly Journal of Economics 121(2).

transfers may enable large single investments that raise future income (such as livestock or sewing machines).

To answer these questions, and maximize GiveDirectly's impact, the study will randomize who in the household receives the transfer and the frequency of the transfer (holding total transfer size constant). Again, randomization ensures that any difference in impacts found along these dimensions is directly attributable to the differential effect of cash given to the man or woman in the household or the frequency of transfers.

The table below summarizes the study design.

Control, no transfers (n=500).	
Single <b>lump sum</b> transfer to primary <b>female</b> in household (n=125).	<b>Monthly</b> transfers to primary <b>female</b> in household (n=125).
Single <b>lump sum</b> transfer to primary <b>male</b> in household (n=125).	Monthly transfers to primary male in household (n=125).

By comparing how measures of poverty, and other metrics, differ between each of the cells above after transfers have been made, the study will offer robust estimates on the impact of unconditional cash transfers, and the interaction of such effects with gender and frequency of transfer.

### **Data Collection and Metrics**

In order to understand the impact of unconditional cash transfers on welfare, it is crucial to have robust and relevant outcome measures to analyze. To that end, the research team will conduct a detailed household survey among all households identified as eligible to receive a transfer (whether or not the actually do). This survey will capture standard metrics used to evaluate anti-poverty programs and household welfare, including: income sources, investment, consumption, food security, school enrollment status of children, mental and physical health and outlook for the future. It will also capture demographic information and include various specialized modules (see Appendix).

This information will be collected firstly at baseline, before transfers have been made. This information improves statistical power for the research design as well as allowing us to scientifically evaluate how the impact of transfers varies with demographic characteristics; for example, whether transfers have different effects for households with young children, elderly individuals, those with experience managing small enterprises, etc. Evaluating heterogeneous effects may allow GiveDirectly to maximize impact further through careful targeting.

Since we expect transfers to have relatively rapid effects on household activity and welfare, we will survey households again 6 months after transfers have been made. Comparing households that received transfers to the others in this survey will provide short-term impact estimates of unconditional cash transfers.

A second round of surveying will take place one year after transfers have been made in order to assess the longer-term impacts and evaluate whether investment facilitated by the transfers elevates future income.

In the interim period, we will conduct short regular surveys. The purpose of these surveys is to compliment the "snapshot" provided by endline surveys conducted at fixed future points, providing a picture of the evolution of the impact of unconditional cash transfers.

While the metrics captured in this survey are commonly used to evaluate welfare, they are imperfect in that they capture only a single dimension of poverty (such as income, health or education). In order to understand the impact of transfers on a welfare metric that might be affected by changes in any of the individual welfare measures analyzed in the baseline, we will consider the overall psychological health, stress levels and happiness of respondents.

The survey includes a variety of standard psychological questionnaires designed to measure stress and happiness. We will also employ novel neurobiological measures of stress – in particular, salivary cortisol levels – to assess the aggregate welfare impact of transfers. At the baseline and each follow up survey we will measure cortisol levels in saliva (a harmless and easy procedure), allowing us to measure the effect of providing direct assistance to impoverished households on the stress levels experienced by recipients.

Finally, to inform and add to the findings from the quantitative measures we will also collect a variety of qualitative data, through focus groups and informal interviews with recipients. Also, since there may be spillover effects to the village (for example as recipients spend transfers at local shops) we will conduct surveys to understand how transfers affect the community at large.

## **Appendix: Summary of Survey Instrument**

- 1. Demographics
  - a. Basic demographics, educational and employment status of household members.
- 2. Agriculture and Livestock
  - a. Measures assets, income and investment in agricultural or livestock activities
- 3. Enterprises
  - a. Measures assets, income and investment in non-agricultural small enterprises
- 4. Assets
  - a. Measures quality of housing and ownership of assets, primarily household durable goods
- 5. Consumption
  - a. Measures household expenditure on non-food items
- 6. Food Consumption
  - a. Carefully documents food expenditure by households (food usually represents 50-70% of the expenditure of impoverished households)
- 7. Food Security
  - a. Qualitatively measures households food security (e.g. frequency of skipped meals, vulnerability to hunger)
- 8. Loans and Savings
  - a. Measures household's borrowing and saving activities and access to formal financial institutions
- 9. Physical Health
  - a. Inquires about severe medical incidents experienced by household and general health practices (e.g. vaccination)
- 10. Psychological Health
  - a. Survey includes a variety of standard psychological measures of stress and emotional well-being
- 11. Transfers
  - a. Measures transfers (cash, food or other goods) made to and from the household
- 12. Targeting
  - a. Seeks respondent's opinions about proper targeting of direct assistance to the poor