

# **Evaluation of Conditional Cash Transfers (CCTs) for Immunizations**

## **Design Brief**

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## 1. Introduction

Like many developing countries, Pakistan faces a public health challenge in low and incomplete immunizations of children. Sources put the age-appropriate immunization coverage for children between the ages of 12 to 23 months at between 43% and 62% (Masud and Navaratne (2012)). The Pakistan Health and Demographic Survey puts the completion of the entire WHO recommended course of vaccinations at 53.8%. The exact percentage of Karachi (the study site) is not known, but urban Sindh has a completion rate of 51.5% (slightly lower than the national average). Additionally, vaccines earlier in the sequence get higher coverage than vaccines later in the sequence (typically, the measles vaccine sees low completion). Thus, coverage is weak and there is drop off in coverage for vaccines later in the sequence.

Incentives to vaccinate have shown evidence of increased immunization among children in the developing world (Banerjee et al (2010)). Banerjee et al (2010) found that offering mothers of infants a small incentive for each timely vaccination visit (a one kilogram bag of lentils) and a small “prize” (a set of plates for meals) for a completed course showed significant gains in immunization rates. The full intervention increased the percent of children age 1-3 fully immunized from 6% to 39%, at a cost of about \$12 per targeted child. See Coalition for Evidence Based Policy (2014) for a succinct summary of the project.

Interactive Research and Development (IRD) in Pakistan has piloted an innovative variant to this project, delivering the incentive via a mobile lottery. Each time an infant makes a successful (timely) vaccination visit, the mother is presented with a lottery that entitles her to a shopping coupon at a local grocery store if she wins. IRD’s study was not designed to deliver a statement on efficacy of the incentive to produce higher immunization. Instead, the focus was on testing the system as an immunization and incentive delivery vehicle.

Evidence Action and the Abdul Latif Jameel Poverty Action Lab are working closely with IRD in Pakistan to help them design and test a scaleable version of their innovative incentive delivery mechanism (mobile grocery store vouchers). Given IRD’s record of working with the Government of Pakistan to scale up other health interventions (including treatment for multidrug resistant tuberculosis) if the findings of the evaluation prove positive it has a good chance of scaling across Pakistan.

## 2. Goals

Questions still remain about the best way to scale up this intervention. Specifically:

1. *Basic Efficacy*: Does providing incentives for immunization using the basic approach that IRD has developed increase immunization rates? IRD’s incentive system offers parents who bring their child for timely immunizations the chance to be entered into a lottery for a mobile money payout.

2. *Incentive Schedule*: What is the optimal incentive schedule? We will produce evidence on the best profile of incentives throughout the immunization schedule. We want to design the incentive so that it is cheap and scalable yet still effective. Key questions here are the total amount of the incentive and how much it should rise over the course of the schedule.
3. *Logistics of Scale-up*: A fully automated system that captures parent fingerprints at the time of immunization will be used to track vaccination and incentive payouts. Will this system be robust to multiple guardians bringing in a child for vaccination across the vaccine stages? Will this system be robust to any potential gaming?
4. *Optimal Incentive Type*: Is a lottery the best type of incentive or is a guaranteed payment more effective? Additionally, does the total amount of the transfer need to be varied i.e. is the immunization rate with a relatively low vs a relatively high total transfer significantly higher? Finally, does a final incentive payment that is a distinct prize induce better completion rates?