

Note: This is an earlier-stage internal document that we are publishing for the sake of transparency about an important part of our research process. Some of the links below may go to internal GiveWell documents.

Bottom line: We did a superficial review of papers on mobile-based incentives for immunization. We view them as supporting the broader literature on the effect of incentives on immunization coverage. We have not reviewed these studies in depth or tried to assess their effect on immunization compared to the IRD and New Incentives trial (taking into account purchasing power-adjusted incentive size, baseline vaccination rates, additional specifics of the intervention and context), which we use as benchmarks to estimate the effect of mCCTs across Sindh in the next couple years.

Details:

We conducted a [literature review](#) to set the [prior](#) for New Incentives. It's challenging to compare the effect of different incentive programs because they vary in incentive size, delivery method, baseline vaccination rates and other characteristics.

We focus our effect size estimates on the RCT of IRD's mCCT program in Korangi, since it is likely to resemble (at least partially) the effect at scale, and the RCT of New Incentives, since we are familiar with this trial and it is also likely to resemble (at least partially) the effect at scale. We put 80% and 20% on these, respectively.

As a sanity check, we also conducted a superficial review of the literature on mobile-based conditional cash transfers. We identified the following studies:¹

- [Gibson et al. 2017](#) ([Permanent Link](#)) is an RCT of SMS reminders and incentives for immunization in Kenya. The primary outcome was full immunization at 12 months. There was a high rate of full immunization in the control group (82%), which limits this study's validity for the Nigerian context. Any effect of the treatment was small: proportion of fully immunized infants in treatment branches: 86% of SMS-only participants, 86% of SMS plus 75 KES participants, 90% of SMS plus 200 KES participants. "Children in the SMS plus 200 KES group were significantly more likely to achieve full immunisation at 12 months of age (relative risk 1.09, 95% CI 1.02–1.16, p=0.014) than children in the control group." The IRD trial finds an effect on full immunization coverage at 12 months of 56% in control and 64% in the high incentive group.²

¹ Excluded studies:

- We ignored this study because it provides incentive to both caregivers and community volunteers: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0247485>
- We ignored this study because it provides unconditional incentives: <https://gh.bmj.com/content/6/1/e003357.abstract>
- We ignored a pilot study of mCCTs in Shikarpur district in Pakistan by IRD because it was a pre-post design: <https://www.iproc.org/2017/1/e47>
- We ignored this study because it's a feasibility study: <https://pubmed.ncbi.nlm.nih.gov/23246258/>

² <https://givewell.app.box.com/file/806841983968>

- [Seth et al. 2018](#) is an RCT in rural India that estimates the effect of mobile phone reminders with or without conditional incentives of \$0.50 of mobile talk time. At endline, immunization coverage was 41.7% in the control group, 40% in the group that received SMS only, and 50% in the SMS plus incentive group.³ Immunization coverage is calculated as “the proportion of the total number of immunizations received divided by the total number of immunizations required at the time of measurement (ie, at enrollment, end of study, etc).”
- [Banerjee et al. 2021](#) is an RCT that includes several arms, including conditional incentives delivered via mobile top-ups.⁴ “The only intervention that appears to have a significant impact is the “high slope” incentives, which increases the number of immunizations relative to control by 1.74 in the full sample, and 1.97 in the ambassador study sample. The low slope has a smaller positive effect, but always insignificant, and the SMS interventions have no impact. ... The conclusion from this first set of analyses is that financial incentives can be effective to boost demand for immunization, but only if they are large enough and increase with each immunization.” The high slope incentive corresponds to roughly \$0.75 for the first three immunizations, \$1.50 for the fourth and \$3.00 for the fifth (2016 USD), or roughly \$6.70 total.⁵ This is slightly higher than low incentive from IRD (\$5 for the whole schedule; compared to ~\$15 for the high incentive group).

We have not reviewed these studies in depth or tried to assess their effect on immunization compared to the IRD and New Incentives trial. Broadly, we view them as supporting the broader literature on the effect of incentives on immunization coverage.

³ Abstract.

⁴ “ The incentives that were chosen were mobile recharges for pre-paid phones, which can be done cheaply and reliably on a very large scale. ... A small value of mobile phone credit was given to the caregivers each time they brought their child to get immunized.”

⁵ p. 8. INR 90 is \$1.34 USD in 2016. Sloped incentive high is INR 50 for first three, 100 for fourth, 200 for fifth. Roughly \$6.75 total.