Pre-Analysis Plan:
Long(er)-term Effects of the Targeting the Ultra Poor Program

February 2025

Contents

Text in red is part of revised pre-analysis plan as of April 20, 2025.

1 Sample and Program Background

This study is a follow-up on the long-term impacts of the Targeting the Ultra Poor (TUP) program. The original randomized controlled trial (RCT) was conducted in West Bengal, India, in 2007, to evaluate the effects of a "big-push" program that provided asset transfers, consumption support, savings, and training to the poorest households. This pre-analysis plan outlines the empirical strategy for examining the longer-term effects, five years after the previous survey wave at year ten studied in Banerjee, Duflo, and Sharma (2021)

- The original sample consisted of 978 eligible households, with 514 assigned to treatment and 464 to control.
- Follow-up surveys were conducted at 18 months, 3 years, 7 years, and 10 years.
- The current study will attempt to track and survey as many of the original households as possible, ensuring balance between treatment and control groups.

Program Details

- Beneficiaries received an asset (e.g., livestock, non-farm microenterprise inventory), weekly consumption support for 30-40 weeks, savings access, and 18 months of weekly training visits.
- No further program contact occurred post-intervention.

2 Data

The three surveys, Household, Adult and Children, were administered following the instruments used in previous data collections. This round have the particularity of new COVID-19 modules in the Adult and Household surveys. See Table 1 below for details on the surveys' topics and data collection start dates.

Survey	Main Topics	Data Collection Timeline
Household	Household Demographic information, Household Characteristics, Assets, Incomes, Expenditures, Consumption and Expenditure, Financial Information, Health, Shocks, and Vulnerability, Social Protection and Covid Shocks	September 5, 2024 - January 17, 2025
Adult	Basic respondent information, Use of time, Women's mobility and access to resources, Politics and community inclusion, Physical and Mental Health, Preferences, Aspirations, Culture Microcredit groups, Job loss and adversity during COVID-19	September 19, 2024 - January 25, 2025
Child	Child Characteristics, Use of time, Child's birth and immunization, Beliefs Child Development, Child Health, Child Education, and parents' involvement, Aspirations for Child, Anthropometric measurements	September 19, 2024 - January 24, 2025

Table 1: Survey Data Collection Details

3 Outcomes

We track economic outcomes for all household members and not just the TUP recipient. These indices are constructed using the same methodology as in the previous follow-up (Banerjee et al. 2021), which studied the TUP's impact 10 years post the delivery of assets. All indices are created by first constructing z-scores (i.e. subtracting the baseline mean and dividing by the baseline standard deviation) for each variable, averaging over all variables that comprise the index, and standardizing to the baseline value of the index. Results are reported in units of baseline standard deviations of the index. One exception is the income and revenue index, for which we do not have baseline information about some sub-components; it is therefore standardized to the control mean and results are reported in units of control group standard deviation.

3.1 Primary Outcomes

The primary outcomes to be analyzed are regarding households' economic well-being:

  - Per capita consumption (total, food, non-food, durable goods)
  - Income and revenue (wages, self-employment earnings, remittances)
  - Asset ownership (livestock, non-farm assets, durable goods)
  - Financial inclusion (savings, loans, credit access)
  - Food security (household meals per day, instances of food shortage)

We track TUP program's effects on adult household members' physical health, mental health, productive work, and political involvement.

- Physical and Mental Health:
  - Physical health index (self-reported health, workdays missed due to illness, activities of daily living score)
  - Mental health index (life satisfaction, stress levels, sadness)
- Social Outcomes:
  - Time spent in productive activities
  - Political engagement (voting behavior, community involvement)
  - Economic satisfaction (1-10)

3.2 Secondary outcomes

Further, we identify channels of persistence with the following outcomes:

- Labour Markets and Migration
  - Occupational shifts (livestock to microbusiness, wage employment, migration)
  - Wage earnings (local vs. migrant earnings, remittance levels)
  - Migration patterns (duration, destinations)

3.3 New outcomes in Endline 5: COVID shocks and intergenerational effects

We will introduce two categories of outcomes in Endline 5: experience during the COVID-19 pandemic, and health and education outcomes for children and grandchildren of the original beneficiaries.

3.3.1 COVID-19 pandemic outcomes

There are few studies quantifying the long-run impacts of the COVID-19 pandemic on the rural poor in a developing country. Therefore we are not only interested in estimating the treatment effect, but also in describing the overall experiences of the sample during and in between the 2020 and 2021 COVID-19 lockdowns. In order to publish the descriptives, we will present tables with 4 columns: control group mean, treatment group mean, combined mean, and p-value for difference between control and treatment group.

- Adult job loss and job transitions. This will be separated by migrants and non-migrants.
  - Experienced earnings loss after the job loss
  - Switched occupation (from blue-collar to white-collar or vice versa)
  - Switched job industry
  - Took up government work programs
  - Passed away
- Migrants' job loss and travel back to villages. We will report the share of migrants who respond "yes" to the following binary indicators:
  - Lost job in migration destination
  - Traveled back to home village
- Share of households that report any business loss, non-farm business closure during COVID lockdowns.
- Share of households that report any sale of land or other assets during lockdown.
- Social protection services during COVID lockdowns. This will be reported as an index, constructed as the normalized number of transfers that a household received from:
  - extra food ration
  - bank deposits as part of existing social welfare schemes
  - asset or cash transfers from the local government
  - asset or cash transfers from local non-government bodies
- Social protection services in the last 12 months. Takeup will equal 1 if the HH applied for OR received the scheme in the last 12 months. The index is a normalized count summing the following indicators:
  - work in an employment generating scheme

  - old age or widow pension
  - Indira Aawas housing plan
  - other assets gifted by the Panchayat (village government)
  - vocational training through the Panchayat
  - Lakshmir Bhandar monthly bank transfer for women
  - AAY card
  - any ration card (BPL or Annapura rationing)
  - Krishak Bandhu scheme

- Healthcare seeking behavior in last month.
- Index for extent that household delayed major events due to COVID. This index is a normalized count summing the indicators:
  - delayed wedding or engagement
  - delayed funeral
  - delayed opening new business
  - delayed taking a large loan
  - delayed a child starting or progressing in school
  - delayed migration
- Index for household consumption smoothing during lockdown. The index is a normalized count summing the following indicators:
  - consumed goods that you were planning to sell or consume later
  - take a loan to buy food or goods that are regularly consumed
  - increase time spent foraging
  - increase time spent begging
  - delayed purchasing essential household items other than food
  - sought a loan from anyone
  - conditional on having savings, drew down savings to cover expenses

3.3.2 Intergenerational outcomes

Secondary outcomes regarding intergenerational effects on beneficiary's children and grandchildren will be tested.

We are interested in outcomes for beneficiaries' children, who are now adults. However, we only observe beneficiaries' adult children if the children still live in the same household

as the beneficiary, or replaced a deceased beneficiary as household head. Estimates based on coresident adult children may be biased if treatment changes coresidence patterns. Therefore we will first test for a treatment effect on household division using the share of beneficiaries' daughters (and separately sons) who live with the beneficiary, conditional on child age. We will estimate treatment effects separately for sons and daughters, and only if we find no evidence of a treatment effect on probability of coresidence for that group. Outcomes in this analysis include:

- educational attainment
- occupation and income
- access to credit and financial inclusion
- type of job (public sector, private white collar, private blue collar, farm wage employment, business)

We will also investigate outcomes for children aged 3 to 16, disaggregated by whether they are children or grandchildren of the beneficiary, where it is possible to distinguish. Child's outcomes are:

- height and weight
- age-adjusted middle-upper arm circumference percentile
- share that attend school or anganwadi
- child age distribution

Finally, if sufficient tracking information is available, we will investigate beneficiary mortality. Specifically we will report the share of original beneficiaries who have died since the original intervention in 2007, conditional on age at baseline.

4 Econometric specifications

The empirical analysis will be based on the following regression model:

$$Y_{iht} = \alpha_{1t} + \beta_{1t}\text{Treat}_i + \kappa_{1t}Yih, baseline + \gamma_{1ht} + \epsilon_{iht} \quad (1)$$

where:

- Y_{iht} is the outcome of interest for household i in hamlet h at survey wave t.
- β_{1t} estimates the intent-to-treat (ITT) estimates.
- κ_{1t} controls for the baseline value of the outcome $Yih, baseline$.
- γ_{1ht} are hamlet fixed effects.

Primary outcomes, households' economic well-being, report heteroskedasticity-robust standard errors. Individual outcomes, following the adults, present standard errors clustered by household.
For secondary outcomes where a baseline value was not collected, we will run the same regression without baseline controls.

4.1 Multiple Hypothesis Testing

To account for multiple hypothesis testing, we will:

- Aggregate outcomes into indices where appropriate.
- Use the Benjamini-Hochberg step-up procedure, we calculate q-values for each outcome, or the minimum false discovery rate (FDR) at which the null hypothesis of zero effect on that outcome would be rejected

5 Exploratory Tables and Bar Graphs

For visualization of trends, exploratory analysis will include:

- Bar graphs of households' economic well-being indexes comparing TUP and Control over time, each period being each follow-up survey.
- Bar graphs of adult-level indexed variables comparing TUP and Control over time.
- Bar graphs of components evolution over time comparing TUP and Control, for each of the adult and household indexes.
- Baseline balance table showing mean differences by treatment status for all household and adult components.

- Differential attrition table for each follow-up survey
- Treatment effects per quantile, BL consumption levels for consumption, assets, food security, financial inclusion, and income and revenues

For the COVID-related outcomes, we are not just interested in the treatment effect, but also the baseline descriptive results for the control group. Thus for COVID-related outcomes, we will report a descriptive table of group means for the control and treatment groups separately, and the pooled sample of both groups.

6 Complementary Analyses

6.1 Cost-Benefit Analysis

Include updated Cost-Benefit Analysis:

- The original cost of the intervention was 2,163 USD per household (2018 PPP).
- We will extend the benefit-cost analysis by incorporating earnings gains, migration benefits, and changes in financial inclusion.

6.2 Integenerational and Covid-19 Effects

Observe changes in control over last 5 years, and with respect to baseline, to understand the treatment effects against the backdrop of macroeconomic changes. Particularly, given the time window we will examine:

- The impact of the COVID-19 pandemic on economic and health outcomes.
- Intergenerational effects, tracking labor market outcomes for children of TUP recipients.