Scope of Work (SoW) for data analysis of national household survey in Zanzibar

Study Title: Impact of community health program to improve early childhood development and child health in Zanzibar: Endline survey

Parties involved:

- D-tree: Program implementer and principal investigator
- Zanzibar Ministry of Health: Program implementer and co-investigator
- ENTAF: Data collection organization (contracted through consultancy)

Introduction:

This study focuses on the evaluation of a program implemented by D-tree International in collaboration with the Zanzibar Ministry of Health (MOH) to improve access to quality, promotive and preventive primary healthcare services at the community level in all eleven districts of Zanzibar, Tanzania, called Jamii ni Afya ("Community is Health").

Jamii ni Afya formalizes the role of community health workers—called community health volunteers (CHVs) in Zanzibar—and equips them with digital tools to provide step-by-step guidance to deliver high quality, standardized care based on government protocols, automate data collection and link referrals made in the community to primary health facilities.

The aim of the study is to determine the impact of the community health program (Jamii ni Afya) on the health and development status of children in Zanzibar. After a baseline was established in 2019, this study will serve as an endline survey.

Findings will be used to inform program planning and global learning around effective programmatic approaches for child health, and in particular early childhood development at the community level.

Objectives:

1. To assess the impact of an expanded digital health platform for CHVs on
   a. household and caregivers' knowledge and behaviors related to child health, nutritional and ECD; and
   b. health, nutritional, and ECD outcomes among children ages 1-3 years in Zanzibar.
2. To identify factors associated with adverse health and development outcomes among children aged 1-3 in Zanzibar.
3. To describe the quality of services delivered by CHVs using a digital platform
4. To compare the findings of the baseline survey with the endline survey results and evaluate trends of the developmental status of children in Zanzibar.
5. To estimate the impact of the Jamii ni Afya program on child development outcomes

We are seeking a consultant to support the data analysis for surveys.

Scope of work:

- Upon receipt of finalized and clean dataset from our data collection firm, the consultant will be expected to familiarize themselves with the dataset (including the variables, review the

data dictionary, and confirm variable names are easy to use and analyze). Analyst will make any necessary changes to ensure the dataset is ready for analysis.
- Describe socio-demographic characteristics of interest in the endline population, and provide a summary table of all variables included in the dataset.
- Conduct analysis according to analysis plan to answer key questions from baseline and endline survey for key indicators; including comparisons between individuals enrolled in JnA and those who were not.

Deliverables:

1. Formatted and datasets ready for analysis.
2. Megatable describing the endline dataset to inform some initial analyses.
   a. Will include unadjusted comparison between those enrolled in JnA and those not.
3. Select and conduct the appropriate statistical analysis (e.g. regression modelling, matching, inverse probability weighting etc.) to compare individuals who were enrolled in Jamii ni Afya to those who were not at endline across key outcome indicators.
4. Calculate sampling weights to compare baseline and endline surveys across outcome indicators.
5. Create figures and tables summarising findings from tasks 2-4 and support manuscript or abstract drafting for dissemination in peer-reviewed publications or academic conferences.

6. Package and share all formatted data and code used for the cleaning and analysis. Note that we require the use of R or Stata statistical software for the above tasks.

Anticipated level of effort, and deliverable schedule:

A total of 25 days of work over the course of three months, following the breakdown below.

Task	Anticipated LOE	Deliverable	Due date
Formatting dataset	2-3 days	Final dataset for analysis	mid-January
Describe key variables	3-5 days	Megatable summarizing all variables	early February
Final analysis plan (done in coordination with D-tree team)	1 day	Analysis plan, including sampling weights and statistical analyses	mid-February
Completed analysis, including figures and tables	15 days	Report write up	mid-March

Study management:

D-tree is holding the main responsibility in terms of managing the study as principal investigator.

- Julius Rosenhan, Junior Program Officer, is coordinating the study in terms of data collection and analysis.
- Kate Wright, Senior Technical Advisor, is providing oversight and quality assurance on the analysis.
- Giulia Besana, Deputy Country Director, is backstopping on technical and budget related topics.
- Kim Wilson, ECD consultant, is providing technical support on Early Childhood Development measurements.

- Tracey Li, Senior Data Lead, is advising on data related topics.

Consultancy

Skillset

- Masters or PhD in statistics, biostatistics, health data science, epidemiology, health economics, or other quantitative health field (current students also encouraged to apply)
- Experience developing data cleaning and analysis pipelines
- Experience working with health survey data and use of survey sample weighting methods
  - Experience working with Early Childhood Development measurement tools (CREDI, ECDI, GSED) is favoured
- Experience employing causal inference methods to analyze observational (non-randomized) data
- Proficient in the use of R, Stata, or Python for statistical analyses

Estimated workload: 25 days, work to be completed in January - March, 2024

Submission:

- Current Curriculum Vitae (CV)
- Cover letter (1-pager, stating motivation, experience, and approach relevant for conducting assignment)
- Quote of offer