

Title: GPS Sample- a new rapid offline Android sampling tool

Background: GPS Sample is an Android-based (8+) mobile application to facilitate rapid statistical sampling and navigation back to selected locations in the field when conducting household surveys and rapid assessments. The app is designed to streamline the enumeration and statistical sampling process and can be used in areas with limited internet and cell phone connectivity. The 2018 World Health Organization guidance recommends that routine immunization coverage surveys use probability sampling methods and generally use census data derived from enumeration areas as the sampling frame.

- **Existing process:** As many countries lack up-to-date population sampling frames, teams are often sent to map and list households (HHs) in enumeration areas using a set of devices. Upon returning to an area with wifi, data from each device must be uploaded to a server, collated, and reviewed to ensure that no sections of the enumeration areas were missed during mapping. Once the sampling frame is verified, a sample of HHs can be drawn and another team is deployed to navigate to selected HHs to conduct the coverage survey.
- **Improved process:** By streamlining this enumeration, statistical sampling, and survey process into a single field visit, GPSSample can substantially reduce time and costs associated with conducting coverage surveys, which has broad benefits to ministries of health and public health partners.

Workshop goal: Participants will gain a deep applied knowledge of the GPS Sample application and experience setting up the application for a household cluster field study.

Workshop objectives:

By the end of the workshop, participants will gain applied experience to:

- Explain the tiered role of GPSSample application
- Set up a new configuration and study within GPSSample with a mapping and listing questionnaire, sampling configuration, and link to an ODK household survey
- Use Android tablets or phones (OS 8+) to navigate to a cluster, use GPSSample to map and list households and points of interest, and to sync data to and from devices
- Experience the ease of sampling in an offline field environment and navigating back to selected households

Target Participants: Ministry of Health staff responsible for conducting field surveys (survey design, implementation, monitoring and evaluation)

Facilitators & Sponsor: Monica Shah, Amber Dismar, Joel Adegoke from US CDC

GTRI: Megan Denham, Brian Parise

Duration of workshop: half day

Number of participants: 50 participants