

## **Request for Quotations for eHealth and mHealth Software Development**

IRD is seeking proposals for software vendors to develop eHealth and mHealth applications for its role in the USAID funded Challenge TB project.

**Period of Engagement:** February 2017- to Sept 30 2017 with annual extensions possible through 2019 contingent on funder approval; performance and availability of funds.

### **Vendors will be assessed on the following criteria:**

- 1) At least 4 years of experience within the eHealth and mHealth space which is specific to software development for Tuberculosis and associated disease programs (e.g. HIV, Diabetes, and Lung Disease)
- 2) Experience must include developing, customizing, configuring, deploying, maintaining, and supporting open source software applications (mobile- and web- based) for tuberculosis
- 3) Must have international experience working on Tuberculosis and associated disease programs using eHealth and mHealth technologies
- 4) Must have experience with developing and implementing software for Drug-Resistant Tuberculosis
- 5) Must have experience with designing and developing systems that interoperate with existing in-country infrastructure including electronic TB databases, GX alert and laboratory information systems
- 6) Must have prior experience developing software for NGO's on large donor funded projects. Prior experience on USAID funded projects is an advantage
- 7) At least 3 years of audit reports

### **Scope of Engagement**

#### 1) Development of a Laboratory Information Management System (LIMS) for Bangladesh

A strong laboratory system where diagnostic results are communicated quickly and effectively is a vital component of an effective TB program. Such a system has the following broad components:

- 1) Handling of lab orders
- 2) Sample collection and management
- 3) Entry of results
- 4) Communication of results to caregivers
- 5) Communication of results to patients
- 6) Reporting

An efficient electronic LIMS system is required to improve the efficiency of the lab infrastructure in Bangladesh. The proposed system would incorporate all of the above six components using biometric identification and mobile data entry where needed. If possible, the system should be built on (or adapted from) from existing open source LIMS platforms as opposed to building from scratch.

The system would need to integrate with existing TB information system infrastructures including GxAlert with connectivity to eTB Manager and other systems already in place for TB data collection and collation.

### 2) Development of a Childhood TB screening app for Bangladesh

IRD will recruit health workers at six hospitals in Dhaka and Sylhet who will use smart phones to verbally screen children presenting at the outpatient clinics for signs and symptoms of TB. Children with symptoms of TB such as anyone with a cough  $\geq 2$  week, contact history of TB, or a combination of two of following -- fever  $\geq 2$  weeks, night sweats or weight loss -- will be identified as having presumptive TB. Health workers will refer the people with presumptive TB to a trained hospital medical officer for further evaluation and diagnostic tests. If the cases are found to be bacteriologically positive or clinically confirmed for TB, they will be started on treatment at a DOTS corner.

The app in question (an open-source Android app backed by the OpenMRS medical record system – version 1.9.x) has already been developed for Pakistan and this scope of work will involve modifying that app for the Bangladesh context and building a reporting dashboard for easier data collation and analysis. The source code will be shared with the selected vendor.

### 3) Addition of a Pharmacovigilance module to the OpenMRS system implemented in Tajikistan

Tajikistan has recently finalized an OpenMRS system for managing both TB and MDR-TB data. This system is now being implemented and minor changes based on field experience are underway. A pharmacovigilance module needs to be added to this system to log adverse events from the use of TB drugs. In particular this includes:

- PV/aDSM annex of TB01R
- Adverse events (AEs) register
- Quarterly report for PV
- Data Export (existing functionality for cohort analysis) to be tested and made functional for PV information

The current system is based on OpenMRS v1.6.x and uses a customized version of the OpenMRS MDR-TB module. The source code will be shared with the selected vendor.

**Proposal Submission Details:**

Proposals must reach [ctb\\_proposals@irdresearch.org](mailto:ctb_proposals@irdresearch.org) latest by 5:00 PM (UAE time) on Thursday Feb 9<sup>th</sup> 2017.

Technical Proposal Requirements: Page limit: 5 pages

- 1) Organizational profile describing prior experience and ability of the organization to meet the demands of the scope of work including the structure of the team and proposed roles
- 2) Outline of development methodology, timelines, milestones, and process with details of technologies to be used and how the project will be managed

Appendices (no page limit)

- Contact information (name/phone/email of contact persons) for at least two organizations who IRD may contact for references
- CV's of proposed team members

Financial Proposal Requirements:

Itemized budget for each of the above engagements detailing costs of personnel, travel, equipment, and incidentals along with budget narrative.

Scoring Criteria on Technical Proposal

The table below outlines the scoring criteria that the IRD team will use to assess technical applications. Only organizations scoring at least 22 points will be selected for financial proposal review.

<b>Metric</b>	<b>Scoring</b>
Number of years of relevant experience (mobile health for TB)	1 point for each year > 4 up to a Maximum score of 5 points
International experience	Points for each country up to 5 countries Max Score: 5 points
Experience with software development for MDR-TB	Max Score: 3 points
Reference checks	1 point for each reference up to 2 Max Score: 2 points
Team Strength	Max Score: 5 points
Demonstrated experience with interoperability	Max Score: 5 points
Prior Experience with large donor funded projects	Max Score: 5 points
<b>Total:</b>	<b>Max 30 points</b>



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A handwritten signature in blue ink, appearing to read "Lubna", with a horizontal line underneath.

Dr. Lubna Samad Aamir

Director