



## **THE ASSOCIATION OF PRIVATE HEALTH FACILITIES IN TANZANIA – APHFTA**

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### **USAID TOHARA SALAMA PROJECT**

#### **TERMS OF REFERENCE FOR THE DEVELOPMENT OF A DATABASE FOR STORAGE & MANAGEMENT OF VMMC PROJECT DATA**

### **INTRODUCTION**

USAID Tohara Salama project intends to enhance project management and decision making through an improved data collection, reporting and analysis mechanism (software / database system) that will allow a real-time data collection, monitoring and reporting. This will be open-source, customized cloud-based system (preferably DHIS2-based) to facilitate efficient and effective management of program and operations data. The intended DHIS2 database is expected to integrate all the current fragmented systems to a common and unified system that link and support donor and national data systems such as DATIM and national DHIS2 systems and will solve current challenges related to quality of data, accessibility, security, and completeness of collected data. This database system will be housed at USAID Tohara Salama project / APHFTA HQ servers and a system developer will provide initial capacity building to project staff and initial backstop support to ensure continuous system availability.

### **PURPOSE OF THE ASSIGNMENT**

The database will help USAID Tohara Salama to have improved data availability; accessibility; security; and completeness. It will also allow easy reference and enable efficient integrating of program data with other sources, particularly the OpenMRS and MOH DHIS-2 platform.

### **SCOPE OF WORK**

The software for this database must fulfill the following requirements:

- Open-source DHIS-2 based system  
The software application (database) should technically have open-source features to provide flexibility for users to make changes based on their needs. This feature is intended to provide cost effective option to USAID Tohara Salama project, and encourage and build unlimited user experience of the software among project staff. The application should allow addition of new modules based on the needs, localization capabilities in different regions/districts and the integration with other tools such as GIS, Access and Excel.

- In-built capability for visualization / data analysis and dashboards  
The application should provide ability to collate the information, create pivot tables and allow data analysis including visualization of different indicators and trends data. To the extent possible, the software must also allow simple-to-use dashboard, charts, reports, aggregated by age bands; according to organization units; as well as other demographic and clinical indicators of choice to fulfill the reporting and monitoring of project mandatory results, including weekly High Frequency Reporting (HFR), monthly, quarterly reports, etc (*see annex A - list of project performance indicators*).
- In-built data quality checks and controls  
The system should have in-built prompts to ensure complete and accurate data entry. For instance, quality checks should aim at looking at all disaggregates, specific reminders on linked indicators/information, flags around specific policy violation etc.
- One-stop shop for tracking project mandatory results  
The database must be designed to comprehensively address the currently existing gaps in collecting/reporting mandatory results reportable to USAID Tanzania, including all information required to monitor and report the acceptable program quality level (AQL) results (*see annex B - list of mandatory results*).
- Data safety and security, including access control features  
To preserve the integrity and data safety, the platform should have improved data security protocols, with access-and user-level controls as defined by USAID Tohara Salama management.
- Interoperability and ability to integrate health information across e-health systems  
The developed software must allow seamless connection and integration with other e-health systems but also integrate different data sets and data elements.  
The software must allow data entry using both personal computers (PCs) and mobile phones. It should be possible to enter data using both systems (PC/Mobile) and this data will then be required to synchronize with the database using the online/offline features. Also, the software must have features that allow mobile texting for interaction between service providers and VMMC beneficiaries
- Stable system with online and offline accessibility functions  
The database should be stable during power/electricity fluctuations. It should also allow unlimited access to data based on pre-arranged user-level and roles. The system should also be available online and offline.

## PROPOSED WORK-PLAN AND DURATION

This work must be accomplished **within 21 working days**. This duration includes the time needed for setting up and testing the hosting environment (server); configuring the (DHIS2 Instance) and setting up metadata; developing and incorporate data entry tools (client level and aggregate data tools); integration of indicators, quality control checks, and dashboard and data visualization environment. This time also includes testing and syncing the mobile phone interface, as well as training/capacity building of project staff at APHFTA HQ and presentation of the prototype database for feedback

## EXPECTED DELIVERABLES

- Set up a hosting environment for DHIS2 server at USAID Tohara Salama / APHFTA headquarters.
- Set user access level, privileges and permissions for database segments.
- Ensure standard data recovery processes to improve recoverability time.
- Implement security features to protect and secure database system.
- Design and automate database backup processes to ensure efficient and safe data storage.
- Provide user guide and FAQs to assist in troubleshooting the system.
- Test databases and perform bug fixes.
- Conduct trainings to project staff, including IT; MEL staff; etc. on database design, functionality and simple troubleshooting.
- Provide ongoing support for initial two months from the start of the project to ensure continuous system availability, perform database upgrades and optimized performance including automatic data back-up and archiving

### **QUALIFICATIONS OF LEAD CONSULTANT / SYSTEM DEVELOPER**

- Programming Skills: familiarity with programming software and systems and experience with writing the programming code using Microsoft SQL Server skills or SQL Server Integration Services
- Familiarity with DHIS-2 system is a must.

### **PROPOSAL/BID SUBMISSION REQUIREMENTS**

Proposals/Bids must be submitted in sealed envelopes, mailed or hand delivered to the Association of Private Health Facilities in Tanzania; 1 Lumumba Street/Makamba Street; P.O. Box 13234 Dar es Salaam Attn: Chief of Party, USAID Tohara Salama.

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Company Name and address

- Date and Time of Submission

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Annex A - list of project performance indicators

Annex B - list of mandatory results