EXPRESSION OF INTEREST

CONSULTANCY SERVICES FOR UPGRADING AND MANTAINANCE OF MALARIA SURVEILLANCE SYSTEMS

1.0 Introduction and Background

Population Services International is a non-profit social marketing organization with programs in over 60 countries making it easier for all people to lead healthier lives and plan the families they desire. Funded by USAID-PMI, and implemented by Population Services International, the DHIBITI MALARIA project supports the Government of Tanzania (GOT) to reduce the burden of malaria and move towards malaria elimination. DHIBITI MALARIA provides technical and implementation support for malaria case management through quality improvement initiatives and malaria surveillance. DHIBITI MALARIA interventions aim at contributing to four result areas: (1) Improved case management and malaria in pregnancy (MIP) services; (2) Improved ability of individuals to practice positive healthy behaviors'; (3) Enhanced enabling environment; and (4) Improved entomological monitoring.

Improved malaria surveillance in Zanzibar is one of the sub-result areas of result Area 3 that involves strengthening the surveillance system through the maintenance of the current surveillance and response system (Coconut), under the Zanzibar Malaria Elimination Program (ZAMEP), and integrating it with the Zanzibar Ministry of Health (ZMOH) national HMIS via the Zanzibar Health Interoperability Layer System (ZHIL).

Moreover, entomological surveillance data is an integral part of malaria surveillance. Currently entomological and epidemiological surveillance operates via several platforms (i.e., paper based and electronic).

In strengthening the malaria surveillance, entomological surveillance and epidemiological surveillance must be combined in an integral manner to enhance evidence-based decision making in an effective manner. Such enhancements should include capability for using data from case-based surveillance and entomological surveillance to identify populations and locations (mapping) for targeted interventions such as reactive drug administration, entomological foci investigation and intervention, while being compatible with the national HMIS and eIDSR systems based on the DHIS2 platform.

The Coconut system is able to capture and report on notification and investigation of malaria cases, entomological monitoring data, foci investigation and response, reactive IRS, larviciding, etc. The ZMOH-eIDSR also reports weekly on 16 diseases, including malaria, an immediately notifiable disease. These two systems run parallel hence the need to move to one system capable of capturing and managing the necessary malaria related data (epidemiological and entomological) and meeting reporting needs.

PSI is therefore inviting qualified consultants/firms to evaluate the existing malaria surveillance information systems and propose a system that improves the current surveillance process that includes but is not limited to the ability to conduct investigation of malaria cases at household level, foci investigation (including mapping) and response, controlled access to information based on user groups, reporting features, and case notification. Capacity for deploying, using and maintaining the system will be developed within ZAMEP and ZMOH.

Objectives

The objectives of this consultancy are to:

1. Maintain existing malaria information systems (surveillance/reporting process) during the enhancement project so as not to interrupt critical operations.
2. Conduct business process analysis to ascertain system requirements incorporating end user input. This includes indicator, dashboard and reporting needs, while improving data quality through automated data validation.
3. Examine, assess and compare functions and feasibility of established and new systems for consideration.
4. Work with ZAMEP and ZMOH ICT to determine the most appropriate and sustainable solution, considering initial and ongoing requirements.
5. Develop implementation plan including timelines, data management process, capacity building to ZAMEP and ZMOH-HMIS staffs and system standard operating procedures in line with the eGA guidance.

Scope of Work

Whereas PSI has provided the general scope of work for this assignment below, the consultant is expected to propose a plausible approach for undertaking this assignment, covering the maintenance of all current malaria information systems (Coconut system, EDS application and Malaria dashboard) that are maintained by ZAMEP/ZMOH during implementation of the enhanced system. More so, determine the gaps of the existing systems functionalities then recommend, design/customize an improved surveillance system with all required functionalities, subsequently linking and integrating with a proposed system notification modules, secured migration of existing data and link to the existing malaria dashboard portal, modifying the existing and proposed systems metadata (e.g., data elements, indicators, validation rules) to align with the malaria cases notification requirements, support and maintenance after the development of the system, document system architecture, user manual, training guides and capacitate system users and administrators.

PHASE 1: MAINTAINANCE OF MALARIA INFORMATION SYSTEMS

Currently, ZAMEP has a number of malaria information systems including EDS, malaria dashboard (MSDQI) and Coconut which are running and integrated with HMIS-DHIS2. The consultant should review the architecture of the information system, develop a service and maintenance plan, and implement the plan for a duration of 12 months as it fits the systems.

PHASE 2: SCOPING AND FEASIBILITY

1. Perform a detailed review of the Coconut malaria surveillance system, (epidemiological and entomological), ZMOH-eIDSR, HMIS-DHIS2 and other data collection systems such as the electronic medical records (eMR) current business models fitting the proposed task. Review should include system documents i.e. SoPs, data flows, user manuals, reporting tools, evaluation reports etc.
2. Identify features and functionalities that are currently present in Coconut, HMIS-DHIS2, ZMOH-eIDSR and other data collection systems and recommend on what needs to be improved or developed and integrated
3. Develop and share a written plan (Recommendations) for the development/upgrade/improvement and integration of a Coconut malaria surveillance system or a new system into a proposed system which is specific to the needs of ZMOH and ZAMEP.

The consultant will work with the ZAMEP, ZMOH-HMIS, ZMOH-ICT Unit and DHIBITI MALARIA as focal points. Issues to determine include:

a) What functional and non-functional requirements are necessary?
b) What electronic tools are required? Any configuration of the existing tools required?
c) What are the critical processes which can produce the required information products from surveillance systems (epidemiological and entomological)?
d) What data and metadata standards will be employed, (epidemiological and entomological)?
e) What procedures will be used to ensure data quality (accuracy, integrity, timeliness and completeness)?
f) How will data storage and preservation be handled with adherence to ZMOH guidelines?
g) How will data security management (access, erasure, security, privacy) be ensured?
h) What procedures will be used to process, upload, transfer, and share data?
i) How will the system be rolled out (users' training)?

4. A major portion of the data is currently in the Coconut system that is still in use. The consultant will develop and share data migration plan from Coconut to upgraded system and integrate with the proposed system and existing HMIS-DHIS2 through an interoperability layer.
5. The consultant will provide support and maintenance of the Coconut system to ZAMEP while upgrading/developing components in the enhanced system and a written plan for migration and securing of the existing data.
6. Develop sustainability plan including initial and ongoing costs components of the system, maintenance aspect and responsibility of ZMOH ICT and ZAMEP in running the upgraded system.

PHASE 3: UPGRADING/DEVELOP COCONUT FUNCTIONALITIES IN RECOMMENDED PLATFORM

1. Upgrade/develop the proposed version in phase 2 into recommended platform, incorporating all recommendations and system requirements.
2. Customize/develop features in the proposed surveillance system to accommodate information from the new interventions i.e. Reactive Drug Administration
3. Implement unit testing, acceptance and performance testing so as to ensure that the software developed delivers the proposed value.
4. Configure all settings in upgraded/proposed surveillance system
5. Produce complete technical documentation, user manuals and training guide
6. Perform system deployment on the server
7. Migrate all the existing data in the Coconut system into the developed recommended platform.
8. Produce training material
9. Train, mentor and supervise system administrators and users on the Integrated System operations. As needed, the consultant will train ZAMEP, ZMOH-HMIS Unit, ZMOH-ICT, DHIBITI MALARIA staffs on the various procedures for the surveillance system functionality. Including data extraction, analysis, visualization, reporting/transfer and management.
10. Provide technical and user support of the system services for 12 months.
11. Modify, create and group data elements and malaria indicators currently in ZMOH-eIDSR and HMIS-DHIS2 for both the integrated surveillance system and other health management information system including reporting requirements.

Tasks and Deliverables

Phases 1 and 2 will be implemented simultaneously, but the consultant will be given distinct contracts for each phase's services. Following a thorough review and comprehension of the phase 2 suggestions, phase 3 will be put into practice in accordance with PMI, ZAMEP, and DHIBITI MALARIA. The Consultant is expected to develop a proposal for the recommended systems, work plan and schedule of tasks, with corresponding deliverables for each phase.

Duration

The Consultant is expected to propose a plausible duration for phase two on scoping and feasibility and phase 3 on upgrading/development of the recommended system in phase 2, aligned to the scope and methodology for undertaking this assignment.

Skills and Experience Required

The consultant (individuals/firms/institutions) should have the following:

1. Staff with advanced degree (Masters Level) in a relevant field (Computer Science, Data/Information Management, Advanced Statistical Analysis, Information Technology, and Software Engineering).
2. Demonstrated and proven technical lead with at least 7 years' experience related to software development, software design, DHIS2 platform, data management/database development and archiving, including use of web-enabled platforms and common statistical analysis tools.
3. At least 5 years' experience in surveillance monitoring and evaluation systems design
4. Prior experience with ministry of health data sets, data management procedures, systems development, support and maintenance are highly desirable.
5. Competent knowledge/practice of Health Information System in health service delivery at community and facility levels.
6. Allocation of competent and dedicated staff for this scope
7. Staff with excellent communication, presentation and writing skills in both Swahili and English
8. Prior experience working with ZAMEP or ZMOH-HMIS-ICT Unit is an added advantage
9. The consultant should be based in United Republic of Tanzania.
10. The consultant should be capable of accomplishing the phased tasks in time.

Other Skills:

1. Communication skills: The Consultant is required to have desirable communication skills to facilitate feedback interchange with the PSI and ZAMEP correspondent and business process owners. Fluency in written and spoken with a working ability in English.
2. Complex Problem-Solving Skills: The Consultant should exercise problem solving skills whenever confounded by an intellectual puzzle during the system development process.
3. Creativity and ability to apply innovative thinking and problem solving.
4. Critical Thinking Skills: The Consultant should possess critical thinking skills when troubleshooting issues with the software, hardware, networks and databases.
5. Ability to develop and evaluate alternatives without bias.
6. Willingness and ability to be flexible and to respond to changing priorities and deadlines.

Evaluation

The purpose of evaluation is to determine the technically compliant and competent bid amongst the substantially responsive bids received. PSI in collaboration with ZAMEP shall adopt a systematic evaluation process comprising of the following 3 logical steps:

1. Bidders will be short listed first on the basis of qualifying eligibility criteria and then responsiveness of the Bid in meeting scope, understanding of the concept, competence to meet the phased approach, as detailed in this invitation document. The evaluation of the Bids shall be done by PSI and ZAMEP.
2. Successful consultants/firms will then be invited to make a presentation of the development/upgraded integration of malaria surveillance system (Coconut) and other data collection systems such as eMR with ZMOH-eIDSR and or national HMIS and maintenance of all the malaria information systems (Coconut, EDS and malaria dashboard) demonstrating the functionality (Walk through).
3. Based on the received proposals and presentations, PSI in collaboration with ZAMEP shall evaluate the bidders on their readiness of the solutions and capabilities to meet the functional, operational and other requirements, and accordingly take a decision for selecting the successful consultant/firm.

Evaluations shall be performed as per the criterion determined by PSI in collaboration with ZAMEP.

Proposal Submission Requirements

Interested consultant (individuals/firms/institutions) is required to submit:

A) Technical Proposal
B) Financial Proposal

A) Technical Proposal Evaluation

I. Present the technical component of how the database will be based on the requirements scope. The requirements described in this document are required to be provided in the Proposal. It is highly desirable that Proposals should respond to requirements. The Proposal response to all mandatory and desirable requirements will be utilized in evaluating each Proposal.
II. A clear demonstration of capabilities and expertise in carrying out the consultancy as detailed in this scope.
III. Consultants proposing an alternative to any RFP requirement must clearly substantiate the merit of the alternative. Proposed alternatives must substantially meet the fundamental intent of the requirement. The acceptability of the alternative will be determined by the Evaluation Team.

Proposal Format

To facilitate ease of evaluation by the Evaluation Team, and to ensure each Proposal receives full consideration, Proposals should be organized in the following format using the section titles and sequence listed below:

1. Proposal Submission Letter
2. Table of Contents
3. Consultant Profile to include
    a. Resume,
    b. Copies of certificate of registration
    c. Curriculum Vitae of proposed project team members

d. Tax registration certificates (Income Tax and VAT in case of firms is VAT registered)
e. Full contact details (physical address, telephone and fax numbers and e-mail addresses)
f. Contact person and contact details of Project Lead/Manager
g. Profile of previous work done which is related to this assignment
h. Three references and contacts of three referees
i. Payment and Billing Terms, including the cancellation clauses

4. Project objective
5. Scope
6. Implementation approach (Tools, testing, etc.)
7. Deployment (Security, acceptance testing, back-ups, trainings etc.)
8. Timelines of deliverables in Gantt chart
9. Contract Provisions
10. Appendices

B) A financial proposal Evaluation

This should provide details in costing which include initial (development, setup etc.) and ongoing costs required to perform this assignment with Itemized budgets and explanatory notes.

Submission of Proposals

Email your proposal in separate Word or PDF file (Technical and Financial) in English language to procurement@psi.or.tz with subject line: "**Consultancy Proposal for Upgrading and Maintenance of Malaria Surveillance Systems**" The proposals should arrive by 28th March, 2023 at 00.00 hours.