Background

The National Center for Parasitology, Entomology and Malaria Control (CNM) has been implementing a strengthened and comprehensive malaria program since 2004 through a series of grants received from the Global Fund for HIV/AIDS, TB, and Malaria (GFATM). In addition, the UNOPS as the Principal Recipient for the Regional Artemisinin Initiative 3 Elimination (RAI3E) Grant, received funding from the Global Fund to collaborate closely with CNM in the malaria fight. As a result, CNM is designated as the Principal Implementing Partner (PIP) for Regional Artemisinin Initiative 3 Elimination in Cambodia. CNM, in collaboration with UNOPS and other partners, endeavors to ensure more effective decentralized malaria control operations at provincial and operational district levels and bring down malaria-related morbidity and mortality in the country.

Goal

Based the needs of malaria national program to respond the current situation and the feedback of users, the consultancy aims to develop and update malaria surveillance tools in Malaria Information System (MIS) and mobile applications of village malaria worker (VMW), health center (HC), operational district (OD), provincial health department (PHD) and national program.

Scope of Work

The selected consultant will be responsible for six main tasks as below,
1. Develop the features in Malaria Information System
2. Update the VMW mobile application
3. Update the HC mobile application
4. Update the Cambodia Malaria Info (Android and iOS)
5. Develop the Smart Supervision Checklist mobile application for OD and PHD
6. Prepare a short user guide for using the updated App and MIS and update the Video on how to use the apps.

Specific Tasks

1. **Develop the features in Malaria Information System**
   - Restructure the Dashboard following guidance of CNM
   - Verified the health facility code between malaria information system and health management system (HMIS) of MoH
   - Develop the tool to check the data consistency between MIS and HIS by HC level
   - Update the radical cure feature
   - Update the foci feature
   - Report of the consumption of malaria stock commodity between HC and VMW
   - Update the Dashboard for stock management based on user's feedback
   - Update the malaria stock commodity forecasting tool and supply planning

2. **Update the VMW mobile application**

- Allow VMW to update and delete the data that are already sent in their app
- Allow VMW to be able to enter PQ follow-up data in offline mode
- Update the Radical cure feature

3. **Update the HC mobile application**
   - Feature for HC to monitor the foci status in their catchment area
   - Feature for HC to be able to check the data consistency between MIS and HMIS
   - Feature for HC to enter the pop by sex and age group
   - Feature to notify HC for reminder the stock out
   - Feature to separate the consumption of malaria stock commodity between HC and VMW
   - Update the stock management tool based on the user's request
   - Feature for HC to add village coordinates under the HC's catchment area by themselves
   - Update the Radical cure feature

4. **Update the Cambodia Malaria Info (Android and iOS)**
   - Update all features in the app following CNM's guidance and the new guideline of national program

5. **Develop the Smart Supervision Checklist mobile application**
   - Develop features for OD and PHD users
   - Develop feature for allowing the user to know the prioritized place for visit

6. Prepare a short user guide for using the updated App and MIS and update the Video on how to use the apps. Training CNM data manager to manage and maintain the new App.

Expected outputs

The consultant shall deliver the updated malaria information system and mobile applications following the above tasks. In addition, user guides on using the techniques are developed, and the CNM staff are trained to manage the systems.

Timetable and Schedule of deliveries

Tasks	Deliverables	Number of Days	Estimated timing
1. **Develop the features in Malaria Information System** - Restructure the Dashboard following guidance of CNM - Verified the health facility code between malaria information system and health management system (HMIS) of MoH	The App updated and well- functioning	30	15th May 2023 – 22nd Jun 2023

- Develop the tool to check the data consistency between MIS and HIS by HC level - Update the radical cure feature - Update the foci feature - Report of the consumption of malaria stock commodity between HC and VMW - Update the stock management tool based on the user's request			
2. **Update the VMW mobile application** - Allow VMW to update and delete the data that are already sent in their app - Allow VMW to be able to enter PQ follow-up data in offline mode - Update the Radical cure feature -	Notification feature will be available in MIS and mobile apps	10	23rd Jun 2023-6th Jul 2023
3. **Update the HC mobile application** - Feature for HC to monitor the foci status in their catchment area - Feature for HC to be able to check the data consistency between MIS and HMIS - Feature for HC to enter the pop by sex and age group - Feature to notify HC for reminder the stock out - Feature to separate the consumption of malaria stock commodity between HC and VMW - Update the Dashboard for stock management based on user's feedback - Update the malaria stock commodity forecasting tool and supply planning - Feature for HC to add village coordinates under the HC's catchment area by themselves - Update the Radical cure feature	The Smart Checklist Supervision mobile app and the features in MIS are updated	35	7th Jul 2023 – 24th Aug 2023

4. Update the Cambodia Malaria Info (Android and iOS) Update all features in the app following CNM's guidance and the new guideline of national program	Reports and features in MIS are created and updated	30	25th Aug 2023- 5th Oct 2023
5. Develop the Smart Supervision Checklist mobile application - Develop features for OD and PHD users - Develop feature for allowing the user to know the prioritized place for visit	VMW QA mobile app and MIS are updated	15	6th Oct 2023- 26th Oct 2023
6. Prepare a short user guide for using the updated App and MIS and update the Video on how to use the apps. Training CNM data manager to manage and maintain the new App.	one user guide is for MIS and one video on how to use the HC/VMW Apps. CNM data manager is trained.	5	27th Oct 2023- 02th Nov 2023

Qualification

- Bachelor or Master Degree in information technology, computer science, or other relevant fields
- Strong Android mobile application development skills
- Strong database development skills using MySQL and Ms SQL server
- A minimum of 5-10 years' experience in computer programming like PHP, Java, Ruby or similar
- Ability to think analytically, synthesize and clearly present complex processes and issues related to the development of malaria surveillance
- Experience in Malaria or public health is desired
- Experience in Malaria Information System (MIS) is desired
- Experience of using SMS technology for data collection is desired
- Familiarity with the health system in Cambodia is desired
- Proven experience in leading consultative processes; ability to conduct/facilitate sessions related to the development of the consultation meetings.

Reporting:

The Consultant shall be expected to submit activity reports in line with the set deliverables and these reports shall be submitted for review and acceptance by the National Malaria Program before any payment is made.

LANGUAGES
English: Fluent (Speaking & Writing); **Khmer:** Working (optional)
Period: The work is to be concluded within 25 weeks from the signing of 12th May, 2023 with a total of 125 working days between 15th May 2023 to 02nd Nov 2023.

Submission guidelines: Please submit your CV with the word "Malaria Mobile Application Consultant" in the subject and a cover letter to cnm.recruitment@gmail.com

CONTACT INFORMATION

Email: cnm.recruitment@gmail.com #