



Republic of Liberia
Ministry of Health
P.O. Box 10-9009
1000 Monrovia, 10 Liberia

**REQUEST FOR EXPRESSION OF INTEREST
FOR**

**Development and Implementation of an Automated SMS Reminder System for
Immunization Adherence Integrated with DHIS2 EIR**

(IFB No: MOH/EPI/GAVI/LCS/003/2025)

This Special Procurement Notice follows the General Procurement Notice published early January of 2025

Background

The Ministry of Health thought the Government of the Republic of Liberia has received finances from the Global Alliance on Vaccine and Immunization (GAVI) as support to the Liberia health system. The Ministry of Health (MOH) intends to apply portion of this fund for hiring a firm to develop and implement an Automated SMS Reminder System for Immunization Adherence Integrated with DHIS2 EIR.

This project aims to strengthen immunization coverage and timeliness, the Ministry of Health seeks to **develop and implement an automated SMS reminder system**, directly integrated with the **DHIS2-based Electronic Immunization Registry (EIR)**. The system will send timely and personalized reminders to caregivers regarding upcoming, due, or missed immunization visits, helping improve adherence rates and reduce vaccine-preventable diseases.

Objectives

- Develop an automated SMS system that retrieves and processes vaccination schedules from the DHIS2 EIR.
- Send reminders to caregivers ahead of immunization appointments (e.g., 3 days and 1 day before due date).
- Notify caregivers of missed immunization visits and recommend next steps.
- Enable SMS logging, message customization, and multilingual support (English and local dialects where feasible).
- Ensure scalability to nationwide implementation and compliance with privacy standards.

Scope of Work

The **Developer** will be responsible for the following tasks:

A. System Design and Integration

- Design the SMS reminder system architecture.
- Integrate the SMS system with the Ministry's DHIS2 EIR (via API or database triggers).
- Automate schedule-based messaging based on child immunization due dates.

B. Payment Processing and Workflow

- Build or integrate with a bulk SMS platform (via approved local SMS gateway APIs).
- Enable scheduling logic for:
 - Pre-appointment reminders
 - Missed appointment follow-ups
 - Customized public health messages
- Provide functionality for message tracking and delivery status.

C. Dashboard & Reporting

- Develop a simple dashboard for administrators to:
 - Monitor SMS queue and delivery status
 - Manage message templates
 - Generate reports by district, health facility, and date range

D. Testing & Quality Assurance

- Conduct system testing with test DHIS2 data and simulated SMS delivery.
- Perform user acceptance testing with health facility staff and selected caregivers.
- Validate performance, scalability, and multilingual message rendering.

E. Deployment & Training

- Deploy the system on Ministry of Health infrastructure or designated cloud environment.
- Conduct training for central and county-level EPI focal persons.
- Provide technical manuals, SOPs, and end-user guides.

F. Support & Maintenance

- Provide one (1) month of post-deployment support for bug fixes and fine-tuning.
- Propose long-term support and message credit replenishment plan.

Deliverables

- Fully functional SMS reminder system integrated with DHIS2 EIR.
- Message scheduling engine and administrator dashboard.
- Deployed and tested system, with all required documentation.
- Training for relevant personnel and user guides.
- One month of technical support and handover report.

Timeline

The project is expected to be completed within **6 months (180 days)**. The following phases outline the accelerated project timeline:

Phase	Timeline	Deliverables
Phase 1: Requirements Gathering	Days 1–15	Functional and technical requirements finalized
Phase 2: System Design & Setup	Days 16–30	System architecture, SMS gateway selection
Phase 3: Development & Integration	Days 31–90	SMS system and DHIS2 EIR integration
Phase 4: Testing & Validation	Days 91–120	End-to-end system testing and adjustments
Phase 5: Pilot Deployment	Days 121–150	Pilot implementation in selected counties
Phase 6: National Rollout & Training	Days 151–170	Full deployment and staff training sessions
Phase 7: Final Review & Handover	Days 171–180	Documentation handover and initiation of support phase

Roles and Responsibilities

Developer/Consultant

- Responsible for design, integration, testing, and training
- Provide source code, deployment guides, and maintenance plans

Ministry of Health ICT, HIS & EPI Units

- Provide access to DHIS2 system and test data
- Coordinate UAT and staff participation

Health Facility Staff

- Support UAT and provide feedback
- Utilize the system post-deployment

Budget

The budget will include development costs, SMS gateway setup, deployment, testing, training, and one-month post-launch support. It must also factor in initial SMS message credits.

Evaluation and Acceptance Criteria

- **Functionality:** Seamless integration with DHIS2 EIR and automated SMS delivery
- **Usability:** Clear, user-friendly dashboards and template customization

- **Performance:** Timely SMS delivery and accurate schedule processing
- **Scalability:** Support for national rollout with multilingual support
- **Security:** Secure handling of personal caregiver and child data

Confidentiality and Ownership

All software, source code, message templates, and system documentation developed will remain the property of the Ministry of Health. The developer must maintain confidentiality throughout the engagement.

Application procedure Interested Firms to submit expression of interest (EOI) to the Procurement Unit of the Ministry of Health. All applications should include the following:

- Cover letter including a brief overview of the assignment as understood by the consultant
- CV of lead consultant and other team members to be involved in the work order
- Reference letter from two previous assignments
- Current Business registration and Tax Certificate of the consulting firm
- Annexes: Any documents, such as work samples, past relevant projects, or other information

Firms will be selected in accordance with the Least Cost Selection (LCS) method set out in the Public Procurement and Concession Commission of Liberia Consultant Guidelines.

Applications; clearly marked with the reference above, must be delivered in the tender box situated on the Ground floor opposite the elevator at the central office in Congo Town at the address below by 1PM Local Time, on 11th August 2025, only short-listed firms will be contacted.

The address referred to above is:

The Procurement Director
Ministry of Health
P.O Box 10-9009
1000 Monrovia, 10 Liberia
E-Mail: proumoh24@gmail.com
IFB No: MOH/EPI/GAVI/LCS/003/2025

Sign: _____
Director of Procurement