

TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS

Title	Funding Code	Type of engagement	Duty Station:
National Consultant for support to revise health information system (HIS) to integrate with electronic maternal and child health system (e-MCH)	GOJ; SM220498	<input checked="" type="checkbox"/> Consultant	Ha Noi; Remote

**Purpose of Activity/Assignment:**

Despite numerous guiding documents issued in recent years to advance digital transformation and the comprehensive application of Information Technology (IT) in the health sector, the adoption of IT in Maternal and Child Health (MCH) and Reproductive Health (RH) has not met expectations. Remote medical consultations and professional support (telehealth) remain limited in scope, and the management of MCH/RH databases is still rudimentary. Currently, there is no utilization of software to manage network information, such as the status of physical infrastructure, equipment, human resources, network organization, and service delivery capacities of MCH/RH units.

Health statistics software has been developed, but it merely computerizes general statistical reports from commune, district, and provincial levels without digitizing the original record books. This oversight requires health staff to continue aggregating data from paper-based reports. Such manual work or repeated entry of the same piece of data is prone to errors and mistakes, and time-consuming when reviewing data. Furthermore, the deployment of essential software such as hospital management, grassroots health care, medical statistical reporting, e-medical records, e-MCH monitoring books, and immunization management, etc., has been fragmented, without the necessary connections or integration. There is also a lack of specialized information management systems, such as a shared database on reproductive support, a unified connection between reproductive support facilities, information management systems for cervical cancer screening in women, and information management systems for maternal and child mortality review.

In response to these challenges, there is a pressing need to develop a digital information management system that will serve maternal and child health care, manage individual information, and ensure seamless data interconnectivity with digital health platforms, e.g. medical examination and treatment management software, grassroots health management system (HIS), medical statistics software, e-medical records, etc. This will significantly reduce the burden of data entry for health staff, enhance the quality of data, and provide robust support for data synthesis and analysis, which is essential for strategic direction, administration, and policy planning. To these ends, UNICEF Viet Nam has collaborated with Viet Nam's Ministry of Health and a technical consulting firm to build a digital information management system, abbreviated as e-MCH. For the system to function effectively, e-MCH requires input data from grassroots health management software systems, hospital management software (HIS), and national immunization information software (NIIS). Once these inputs are secured, the data will be transferred by the e-MCH to medical statistics software and e-medical records, etc.

Currently, in Viet Nam, medical examination and treatment facilities including commune health stations, district health centres/hospitals, and provincial hospitals, are all actively utilizing a health information system (HIS), which is provided by numerous service providers, e.g. Viettel and VNPT, and encompasses two primary types:

1. Hospital-level information management systems (including the Hospital Information System, Testing Information System, Image Storage and Transmission System, Diagnostic Imaging Information System, and Operations Software), which are fully integrated to address all informational needs in a hospital setting. Core functions include managing patient information, medical histories, both inpatient and outpatient medical services, pharmaceutical inventories, finance, hospital fees, medical supplies, equipment, personnel, diagnostic testing, e-medical records, etc. Hospital-level systems are integrated to optimize hospital management and operations, enhancing service delivery, research, training, statistics, forecasts, and preventative measures.

2. Grassroots health information management systems, which are developed in accordance with Decision No. 3532/QĐ-BYT dated 12 August 2020 on building and deploying the information management system of health stations at the commune, ward, and town levels. It facilitates the management and utilization of data for medical examinations and treatment, statistical reporting, health target programs of the communes/wards, MCH care, and primary health care. The system comprises 22 functions, including those dedicated to MCH and RH management.

Further to these implementations, the Ministry of Health issued Decision No. 4655/QD-BYT, which outlines the List of basic information for e-MCH to test its connectivity with inputs from the mentioned hospital information systems (HIS). However, for the automatic data transfer and interconnection to occur, technical support from relevant service providers (e.g., Viettel, VNPT) is essential to review and modify the systems, thus ensuring input fields are adequate and in the right format to integrate the data with e-MCH.

**To complete this task, UNICEF will hire an information technology expert to collaborate with VNPT in improving the HIS software system developed by VNPT, ensuring its compatibility with the e-MCH system.**

**Scope of Work:**

- Conduct review health information software system (HIS) provided by VNPT included HIS for hospital or district health centre; and HIS for commune health station.
- Upgrading VNPT's HIS version ensures seamless data integration with the e-MHC system.
- Test VNPT's HIS version after upgrading and integrating it with the e-MCH system.
- Support for integrating VNPT's HIS software to ensure seamless connection and data transmission with the e-MCH system.

**Child Safeguarding**

Is this project/assignment considered as “[Elevated Risk Role](#)” from a child safeguarding perspective?

YES  NO    If YES, check all that apply:

**Direct contact role**         YES     NO

If yes, please indicate the number of hours/months of direct interpersonal contact with children, or work in their immediately physical proximity, with limited supervision by a more senior member of personnel:

**Child data role**         YES     NO

If yes, please indicate the number of hours/months of manipulating or transmitting personal-identifiable information of children (name, national ID, location data, photos):

More information is available in the [Child Safeguarding SharePoint](#) and [Child Safeguarding FAQs and Updates](#)

<p><b>Included in Annual/Rolling Workplan:</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No, please justify: this job is one time intervention which is not included in the UNICEF's annual workplan signed with MOH.</p>		
<p><b>Consultant sourcing:</b></p> <p><input checked="" type="checkbox"/> National <input type="checkbox"/> International <input type="checkbox"/> Both</p> <p><b>Competitive Selection:</b></p> <p><input checked="" type="checkbox"/> Advertisement <input type="checkbox"/> Roster</p> <p><b>Single Source Selection</b> <input type="checkbox"/> (Emergency - Director's approval)</p>		<p><b>Request for:</b></p> <p><input checked="" type="checkbox"/> New SSA – Individual Contract</p> <p><input type="checkbox"/> Extension/ Amendment</p>
<p><b>If Extension, Justification for extension:</b> N/A</p>		
<p><b>Supervisor:</b> Nguyen Huy Du; Maternal and Child Health Specialist</p>	<p><b>Start Date:</b></p> <p>1 July 2024</p>	<p><b>End Date:</b></p> <p>30 Dec 2024</p>

Work Assignments Overview	Deliverables/Outputs	Delivery deadline	Estimated level of effort (days)
<p><b>Task 1:</b> Conduct review health information software system (HIS) provided by VNPT included HIS for hospital or district health centre; and HIS for commune health station.</p>	<p><b>Report on the Current Status of HIS Software: A Comparative Analysis Against MOH Requirements for Reproductive Health Information Management and Data Interoperability Standards</b></p> <p>This report evaluates the current status of Health Information Systems (HIS) software in relation to the requirements necessary for effective information management in the fields of Ministry of Health (MOH) and reproductive health, referred to degree <b>4655/QĐ-BYT</b>. It specifically focuses on data interoperability according to the regulations set forth by the Minister of Health, covering standards and input data formats.</p> <p>The analysis aims to identify gaps between the existing HIS software capabilities and the mandated standards, providing insights and recommendations for aligning the software with the regulatory requirements.</p>	15 July 2024	9
<p><b>Task 2:</b> Upgrading VNPT's HIS version ensures seamless data integration with the e-MHC system.</p> <p>Develop management functions</p> <p>Add functions for data export</p> <p>API integrated</p> <p>Check out the process</p>	The results report for upgrading.	15 Oct 2024	76
<p><b>Task 3:</b> Test VNPT's HIS version after upgrading and integrating it with the e-MCH system.</p>	Integration Testing Report and Pilot Implementation Report for HIS and e-MCH System Conducted in Lao Cai Province	25 Oct 2024	5
<p><b>Task 4:</b> Support for integrating VNPT's HIS software to ensure seamless connection and data transmission with the e-MCH system. Provide support regularly for 46 hospital/district health centres and 593 commune health stations. The project will provide support for 5 months from August to December 2024.</p>	Monthly report.	30 Dec 2024	25
<b>Total</b>			<b>115 days</b>

<p><b>Payment schedule:</b></p> <ul style="list-style-type: none"> <li>- First payment of 78% of the total contract cost: complete task 1, task 2, and task 3.</li> <li>- Final payment of 22% of the total contract cost: complete task 4</li> </ul>	
<p><b>Minimum Qualifications required*:</b></p> <p><input type="checkbox"/> Bachelors <input checked="" type="checkbox"/> Masters <input type="checkbox"/> PhD <input type="checkbox"/> Other</p> <p>Enter Disciplines</p> <ul style="list-style-type: none"> <li>• Advanced degree in IT or related field is required.</li> <li>• At least 10 years of experience in leading the design and conduct of complex development relevant IT projects including overseeing software developers; responsibility for business analysis, budgets, contracts, procurement, and project management.</li> </ul> <p><i>*Minimum requirements to consider candidates for competitive process</i></p>	<p><b>Knowledge/Expertise/Skills required*:</b></p> <ul style="list-style-type: none"> <li>• Experience in IT and digital health system/software development, deployment and scaling up in the East Asian continent, preferably in Viet Nam.</li> <li>• Experience in working with IT development partners in Viet Nam in development and implementation of healthcare system information and software.</li> <li>• Experience in working with Vietnam Posts and Telecommunications Group (VNPT) on develop and revise system and software is an asset.</li> <li>• Familiarity with the work of UNICEF and/or other similar organizations working on digital health including for maternal and child health.</li> <li>• Good understanding of human rights, equity and gender-based approaches to programming.</li> <li>• Good written and communication skills in both Vietnamese and English.</li> </ul> <p><i>*Listed requirements will be used for technical evaluation in the competitive process</i></p>
<p><b>Evaluation Criteria (This will be used for the <a href="#">Selection Report</a> (for clarification see <a href="#">Guidance</a>))</b></p> <p>A) Technical Evaluation (e.g., maximum 75 Points)</p> <ul style="list-style-type: none"> <li>• Educational background: 20 points</li> <li>• Relevant work experience (45 points)</li> <li>• Required language(s) (10 points): Good written and communication skills in both Vietnamese and English.</li> </ul> <p>B) Financial Proposal (e.g., maximum of 25 Points)</p> <ul style="list-style-type: none"> <li>• The maximum number of points shall be allotted to the lowest Financial Proposal that is opened /evaluated and compared among those technical qualified candidates who have attained a minimum 50 points score in the technical evaluation. Other Financial Proposals will receive points in inverse proportion to the lowest price.</li> <li>• The Contract shall be awarded to candidate obtaining the highest combined technical and financial scores, subject to the satisfactory result of the verification interview if needed.</li> </ul>	
<p><b>Administrative details:</b></p> <p>Visa assistance required: <input type="checkbox"/></p> <p><input checked="" type="checkbox"/> Home Based <input type="checkbox"/> Office Based:</p>	<p><b>If office based, seating arrangement identified:</b> <input type="checkbox"/></p> <p>IT and Communication equipment required: <input type="checkbox"/></p> <p>Internet access required: <input type="checkbox"/></p>



