

## **TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS AND CONTRACTORS**

<b>Title:</b> National Individual Contractor - <b>Information Management Officer</b>	<b>Funding Code:</b> WBS: 3900/A0/08/881/00 1/004	<b>Type of engagement</b>  <input type="checkbox"/> Consultant <input type="checkbox"/> Individual Contractor Part-Time <input checked="" type="checkbox"/> Individual Contractor Full-Time	<b>Duty Station:</b>  Freetown (seconded to the Ola During Children's Hospital)
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### **Background:**

In March 2020, UNICEF initiated the Hospital Management Information System (HMIS) strengthening intervention at the Ola During Children's Hospital (ODCH) with a view to improving overall service delivery and quality. As part of the intervention, UNICEF provided human resources and equipment support that strengthened the existing data management system through supporting paper-based hospital data collection and analysis, management review of hospital data and indicators, systematic labelling and filing of medical charts and an electronic medical record (EMR) system scoping analysis and positioning for roll out. Through UNICEF support, ODCH became one of a few hospitals in the country that completed inputting of all required clinical data into the national DHIS2 platform. The existing paper-based system has been transformed to an effective and efficient one and data has been placed at the centre of hospital management decision making. The results have led the Ministry of Health and Sanitation (MoHS) to request a replication of the intervention in other hospitals in the country. UNICEF therefore plans to further strengthen HMIS including piloting of an EMR system and enhanced data use for management decision making at the ODCH and expansion to other hospitals and at primary health care (PHC) level.

The individual contractor will therefore provide technical support to the ODCH and other hospitals and PHC facilities across the country to strengthen their management information system (MIS) leading to evidence-based management decision making and improvements in quality of care. The assignment will include strengthening of existing paper-based patient record and offline electronic filing systems, ensuring complementarity with the web-based Computerized Maintenance Management System (CMMS) for medical equipment and the ERM system for clinical data (at the ODCH); the delivery of improved access to all medical records within and across all departments of the hospital and data use; and human resources capacity building on effective record keeping and maintaining a sustainable complementary digitized and paper-based health information management system and data use through training workshops, on-the-job training, mentoring and coaching of hospital, MoHS and other staffs.

### **Purpose and objectives:**

The overall purpose of the assignment is to strengthen Hospital and PHC health and nutrition Management Information Systems (MIS). It will ensure the ODHC, 10 target district hospitals and selected PHC facilities have improved access to relevant, reliable and timely data for evidence-based and strategic decisions and enhanced health and nutrition programme effectiveness. The specific objectives are to:

- Strengthen Hospital MIS at the ODCH (including the introduction of EMR and CMMS ensuring interoperability within the Hospital MIS and between Hospital MIS and DHIS2).
- Expand Hospital MIS strengthening interventions to 5 selected hospitals.

- Strengthen availability, visualization and use of quality data for reproductive, maternal, neonatal, child and adolescent health and nutrition (RMNCAH+N) programmatic decision making at PHC level.

### **Methodology and Technical Approach**

The consultant will be embedded/based in the Ola During Children's Hospital (ODCH) in the Reproductive and Child Health Directorate of the Ministry of Health and Sanitation (MoHS).

S/he will work closely with the Hospital Medical Superintendent and the Hospital Management and Operations Team, and the UNICEF Digital Health Consultant (who is also embedded in the Hospital) and the Senior M&E Specialist of the MoHS Directorate of Policy, Planning and Information (DPPI).

### **Specific Tasks of the Consultant**

Under the overall guidance of the ODCH Medical Superintendent and the DPPI Senior Monitoring and Evaluation Specialist and direct supervision of the UNICEF Health Specialist (System Strengthening), the contractor will work closely with ODCH Digital Health Consultant, Hospital Management and Operations Team and key UNICEF Health and Nutrition Specialists to strengthen Hospital and PHC MIS. The individual contractor will perform the following tasks:

#### **1. ODCH Hospital Management Information System strengthening**

- Support Electronic Medical Records (EMR) pilot implementation including technical support that ensures implementation of the system results in effective data flow and collection, reporting, dissemination and use by hospital, MoHS and development partners.
- Support the pilot implementation of a CMMS for medical equipment including technical support that ensures implementation of the system results in effective data flow and collection, reporting, dissemination and use by hospital, MoHS and development partners.
- Support the development, improvement, and maintenance of data visualization systems, tools and platforms (infographics, data briefs, dashboards); and the collection, compilation, quality-assurance, analysis, and visualization of generated data and indicators on a monthly, quarterly and ad-hoc basis.
- Support management, departmental and operational staff data use for decision making and improvement of quality of care, including capacity building on EMR and CMMS institutionalization and data product use in management and operational decision making.
- Ensure ODCH hospital information systems performance monitoring and accountability reports are submitted on a monthly and quarterly basis.

#### **2. Hospital Management Information System Strengthening in 5 selected hospitals**

- Assess, identify, document and develop an improvement plan to address gaps in the current paper-based hospital information management systems and follow up and support implementation of the plan
- Support capacity building of the hospital M&E teams on proper data recording and reporting and providing feedback to the technical team on the quality of reported data.
- Support the development and sustained use of a hospital information management dashboards and lead in nurturing a culture of data use for decision making among the hospital management team.

#### **3. Relevant, reliable and timely data available and used at PHC planning and decision making**

- Support Integrated Management of Newborn and Childhood Illness (IMNCI) and Maternal and Newborn Health (MNH) surveys and assessments design (including ToRs and implementation plans), data collection and supportive supervision using digitalized tools (e.g., ODK, Kobo Collect)
- Support Stronger With Breastmilk Only (SWBO) Campaign data collection, analysis and reporting
- Support the creation and continued functioning of EPI dashboard on Community Health Worker (CHW) contribution to EPI outcomes.
- Enhance timeliness (availability real time data) and scope (practice data) of data availability for decision making through implementation/use of Lot Quality Assurance Sampling (LQAS) Surveys, ODK/Kobo Collect; RapidPro, etc.
- Contribute to the development of case studies, human interest stories, lessons learned, success stories, interactive presentations, infographics, and programme briefs related to MIS and data use
- **Expected Deliverables**

Deliverables	Timeframe (working days)
1. Support management, departmental and operational staff data use for decision making and improvement of quality of care, including capacity building on EMR and equipment CMMS institutionalization and data product use in management and operational decision making at ODCH.	Throughout the contract period
2. ODCH and other target hospitals and PHC Units have relevant, reliable, and timely data available for evidence-based planning and decision-making	Throughout the contract period
3. Health and nutrition information systems, tools, and databases are developed, integrated, administered, enhanced and maintained for ODCH and other target hospitals and PHC Units	Throughout the contract period
4. Effective planning, monitoring, performance management, and survey design and implementation of hospital and PHC interventions	Throughout the contract period
5. Development and sustained use of a hospital information management dashboards	Throughout the contract period
6. Support IMNCI and MNH surveys and assessments design (including ToRs and implementation plans), data collection and supportive supervision using digitalized tools (e.g., ODK, Kobo Collect)	Throughout the contract period
7. Monthly technical report and supporting documentation	At the end of every month
8. Final technical report with supporting documentation	End of assignment
<b>Total number of working days</b>	<b>11.5 Months</b>

- **Management, Organization and Timeframe**

The position will be managed and supervised by UNICEF Health Specialist (HSS) and ODCH Medical Superintendent. The consultant will provide monthly updates on the activities implemented and deliverables achieved. The monthly fees of the consultant will be processed by UNICEF with submission of his/her monthly progress report along with deliverables certified by the supervisors.

The duration of the consultancy is 11.5 months.

Start date: 15 March 2022

End date: 28 February 2023

### **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:

NA

**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):

11.5 Months

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

<b>Work Assignment Overview</b>			
Tasks/Milestone:	Deliverables/Outputs:	Timeline	Estimate Budget
Support Electronic Medical Records (EMR) pilot implementation including technical support that ensures implementation of the system results in effective data flow and collection, reporting, dissemination and use by hospital, MoHS and development partners.	Submission of monthly progress report and supporting documentation	Ongoing until the end of contract	
Support the pilot implementation of an equipment Computerised Maintenance Management System (CMMS) including technical support that ensures implementation of the system results in effective data flow and collection, reporting, dissemination and use by hospital, MoHS and development partners.		Ongoing until the end of contract	
Quality assurance and visualization of paper-based, EMR and equipment CMMS data products including the development, improvement, and maintenance of data visualization systems, tools and platforms (infographics, data briefs, dashboards); and the collection, compilation, quality- assurance, analysis, and visualization of generated data and indicators on a monthly, quarterly and ad-hoc basis.		Ongoing until the end of contract	
Support management, departmental and operational staff data use for decision making and improvement of quality of care, including capacity building on EMR and equipment CMMS institutionalization and data product use in management and operational decision making.		Monthly	
Ensure ODHC hospital information systems performance monitoring and accountability reports are submitted on a monthly and quarterly basis.	ODCH hospital information systems performance monitoring and accountability reports	Monthly and quarterly	
Assess, identify, document and develop an improvement plan to address gaps in the current paper-based hospital information management systems and follow up and support implementation of the plan	Submission of monthly progress report and supporting documentation	Ongoing until the end of contract	
Support capacity building of the hospital M&E teams on proper data recording and reporting and		Ongoing until the	

providing feedback to the technical team on the quality of reported data.		end of contract	
Support the development and sustained use of a hospital information management dashboards and lead in nurturing a culture of data use for decision making among the hospital management team.		Ongoing until the end of contract	
Support IMNCI and MNH surveys and assessments design (including ToRs and implementation plans), data collection and supportive supervision using digitalized tools (e.g., ODK, Kobo Collect)	Digitalized tools for survey data collection and supportive supervision	December 2021	
Support SWBO Campaign data collection, analysis and reporting	SWBO campaign database with analysis	Ongoing until the end of contract	
Support the creation and continued functioning of EPI dashboard on CHW contribution to EPI outcomes.	EPI dashboard on CHW contribution with regularly updated data	Dashboard creation - 30 June 2021, and ongoing afterwards	
Enhance timeliness (availability real time data) and scope (practice data) of data availability for decision making through implementation/use of Lot Quality Assurance Sampling (LQAS) Surveys, ODK/Kobo Collect; RapidPro, etc.	Submission of monthly progress report and supporting documentation	Ongoing	
Contribute to the development of case studies, human interest stories, lessons learned, success stories, interactive presentations, infographics, and programme briefs related to MIS and data use		Ongoing	

<b>Budget Year:</b>  2022	<b>Requesting Section/Issuing Office:</b> <i>Health and Nutrition Section</i>	<b>Reasons why consultancy cannot be done by staff:</b>  The intervention requires high technical expertise and time investment in hospital management information systems and capacity building. Hospital management information system strengthening is an emerging field in Sierra Leone. With the start of the piloting in ODCH, more and more work has been generated with significant interest and demand from the MoHS/Hospital management – culminating in a request to UNICEF for full-time personnel support. UNICEF staff will provide guidance.		
<b>Included in Annual/Rolling Workplan:</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, please justify:				
<b>Consultant sourcing:</b>  <input checked="" type="checkbox"/> National <input type="checkbox"/> International <input type="checkbox"/> Both  <b>Consultant selection method:</b>  <input type="checkbox"/> Competitive Selection (Roster) <input checked="" type="checkbox"/> Competitive Selection (Advertisement/Desk Review/Interview)		<b>Request for:</b>  <input checked="" type="checkbox"/> New SSA – Individual Contract  <input type="checkbox"/> Extension/ Amendment		
<b>If Extension, Justification for extension:</b>				
<b>Supervisor:</b>	<b>Start Date:</b> 15 March 2022	<b>End Date:</b> 28 February 2023	<b>Number of Days (working):</b> 11.5 months	

<p><b>Minimum Qualifications required:</b></p> <p><input checked="" type="checkbox"/> Bachelors <input type="checkbox"/> Masters <input type="checkbox"/> PhD  <input type="checkbox"/> Other</p> <p>Enter Disciplines:</p> <ul style="list-style-type: none"> <li>A university degree is required in Public Health, Social Science, Demography, Computer sciences, Geographic Information Systems, Statistics, Epidemiology, Health Education, or a relevant field.</li> </ul>	<p><b>Knowledge/Expertise/Skills required:</b></p> <ul style="list-style-type: none"> <li>A minimum of two years of professional work experience is required.</li> <li>Professional work experience in a range of international public health programme areas, including health facility and hospital information systems strengthening.</li> <li>Strong computer skills and strong expertise in statistical analyses (familiarity with data processing and data analysis software, particularly SPSS and STATA).</li> <li>Advanced knowledge and experience in using MS Excel, MS Access, SQL, Python, and data visualization tools such ArcMap, Tableau/Power BI, ArcGIS/QGIS, ODK, Kobo Collect.</li> <li>Proven technical expertise of managing large and diverse datasets and integrating data from diverse sources that combine innovative and practical dimensions.</li> <li>Excellent presentation skills.</li> <li>Strong understanding of result-based monitoring approach, understanding of the project cycle management.</li> <li>Experience in humanitarian and development work is an asset.</li> </ul>
<p><b>Administrative details:</b></p> <p>Visa assistance required: <input type="checkbox"/></p> <p>Transportation arranged by the office: <input type="checkbox"/></p>	<p><input type="checkbox"/> Home Based <input checked="" type="checkbox"/> Office Based:</p> <p>If office based, seating arrangement identified: <input checked="" type="checkbox"/></p> <p>IT and Communication equipment required: <input checked="" type="checkbox"/></p> <p>Internet access required: <input checked="" type="checkbox"/></p>