

TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS AND CONTRACTORS

Title: Consultancy on countrywide cold chain assessment in Sierra Leone	Funding Code: SC210296 WBS: 3900/A0/08/881/002/005	Type of engagement <input checked="" type="checkbox"/> Consultant (international) <input type="checkbox"/> Individual Contractor Part-Time <input type="checkbox"/> Individual Contractor Full-Time	Duty Station: Freetown, Sierra Leone (including travel to districts)
Background: <p>Limitations in the distribution and functionality of cold chain equipment (CCE) have negatively affected the immunisation coverage and equity in Sierra Leone, and the last national cold chain assessment conducted in 2017 underpinned the urgent need for upgrading the cold chain system. Since then, significant investment was made in cold chain system, including installation of 220 solar refrigerators in various health facilities in 2019 under Gavi-supported Cold Chain Equipment Optimization Platform (CCEOP) and installation of over 450 cold chain equipment at all levels in 2021 as part of COVID-19 vaccination efforts.</p> <p>As the country aims to continue improving the equitable coverage of routine EPI services while introducing new vaccines such as HPV and scaling up COVID-19 vaccination, there is a need to continue to strengthen the cold chain systems at all levels of service delivery. For this, it is important to know the exact number, types and functioning status of the cold chain system at all levels, determine the adequacy of its current capacity, and develop an evidence-based investment plan for the coming years.</p> <p>However, currently, information and evidence on the number and types of CCEs available to help MoHS and other stakeholders make decisions, plan, implement and monitor cold chain activities is very limited, because quarterly inventory updates rely only on the cold chain technicians' field trip reports, which may not necessarily show the national picture. The countrywide cold chain assessment is therefore necessary to generate more accurate information to enable Ministry of Health and Sanitation (MoHS) to make an informed decision for a future cold chain expansion and replacement plan. The assessment will also present an opportunity to determine passive storage, waste management capacity, and electricity availability, which are equally important in cold chain system planning. Furthermore, as the MoHS is presently in the process of institutionalising the integrated inspection, preventive maintenance and corrective maintenance (IPM/CM) programme for medical equipment and devices including CCEs, and given the minimum number of medical equipment and devices available at primary health care (PHC) level facilities, it is expected that an inventory taking of essential medical equipment and devices at periphery health units (PHUs) can be integrated in the cold chain assessment exercise for efficiency.</p> <p>In this context, the MoHS, in collaboration with UNICEF, WHO, and other partners, and with financial support from Gavi, plans to undertake a countrywide cold chain assessment at national, district and health facility levels across all the sixteen districts in Sierra Leone. The data collection exercise is expected to start in early May 2022. In this regard, UNICEF is seeking for an international expert with cumulative experience on cold chain management systems to support the country team to conduct a countrywide cold chain assessment, followed by the development of a 5-year costed rehabilitation/improvement plan.</p>			

Purpose and objectives:

The purpose of the consultancy is to provide an in-depth analysis of the status of the existing cold chain systems and come up with a 5 year costed rehabilitation/improvement plan for improved cold chain management system in Sierra Leone.

Specific objective is to support EPI programme of the MoHS:

- To conduct a detailed inventory assessment of the cold chain system at all levels in the country
- To perform a gap analysis with reference to capacity requirements for planned immunization activities
- To develop a 5-year costed plan to bridge the identified gaps and ensure readiness for the new vaccine introduction
- To validate the Inventory replacement plan (IRP) tools being used in the country for management of cold chain equipment and to advise on how best to optimize use of the tool for effective inventory management.

Methodology and Technical Approach:

The overall management of the assessment will be led by the MoHS with technical guidance, advice and support from the consultant and UNICEF to ensure effective management of information and resources according to international and national standards. As such, to perform the above-mentioned tasks, the International Consultant will work closely with the MoHS, UNICEF, WHO and other partners. The consultancy will include a desk review of available documents as well as several visits to selected in-country vaccine stores and health facilities. The assessment protocol should consider adherence to the national COVID-19 safety measures amongst others. Overall technical approach to be applied in the entire exercise is health system strengthening lens through integration, rather than vertical programming. For example, while estimating the cold chain capacity requirements, potential integration of other temperature sensitive medical supplies into immunization supply chain may be considered in consultation with the MoHS and partners. Similarly, the improvement plan should consider how to leverage investment in cold chain system strengthening to also address overall electrification needs of PHUs. As the data collection at PHUs will integrate inventory taking of other essential medical equipment and devices, close coordination with the UNICEF biomedical engineer consultant who leads this inventory exercise is required while finalizing cold chain assessment tools and leading field data collection, monitoring and supervision. The assessment team selection will be led by MoHS with guidance, advice and support from the consultant while the assessment team training will be a collaborative effort of the MoHS, UNICEF, and the consultant. Technical validation of preliminary results will be organized by the MoHS with support from the consultant and UNICEF.

Specific Tasks of the Consultant:

Under the supervision of the Immunization Specialist of UNICEF Sierra Leone, the consultant will perform the following tasks:

- ✚ Conduct desk review of the available cold chain documents and reports prepared by the country team.
- ✚ Review the cold chain and logistics systems for vaccines in terms of functions, organization, levels and role of individuals responsible for the systems.
- ✚ Develop an assessment protocol and a tool to collect cold chain assessment data at national (central cold rooms), district (district cold stores) and health facility levels (both public and private facilities offering immunization services), including:
 - Cold chain equipment including solar refrigerators, deep freezers, ultra-cold chain freezers, ice pack freezers, ice lined refrigerators
 - Passive containers including cold boxes, vaccine carriers and icepacks
 - Waste management equipment including availability of incinerator and the status of functionality

o Electricity availability from national grid at health facilities

- + Finalize the assessment protocol and data collection tool, in consultation with the in-country team, including the biomedical engineer consultant who develops the data collection tool for medical equipment inventory taking at PHUs, to allow integrated data collection.
- + Facilitate training for assessment teams, in coordination with biomedical engineer consultant.
- + Lead and provide quality assurance for the on-site assessment / field data collection, using mobile devices. Ensure daily data submission and checks. Closely coordinate with biomedical engineer consultant to ensure smooth integration of data collection for cold chain and other medical equipment inventory.
- + Lead cold chain data compilation, consolidation and analysis, including calculation of the cold chain storage and distribution volumes currently in place at different levels (national, district and health facility)
- + Estimate the required cold chain volumes, as well as future needs in the next 5 years based on new vaccines to be introduced, other local plans/policies for immunization, and other cold chain medical supplies in case of health system integration needs
- + Develop a 5-year strategic plan to strengthen cold chain systems to enable quality-assured and appropriate amounts of commodities for immunization services, taking into account the current cold chain equipment.
- + Cost the 5-year plan once finalized in consultation with the in-country team.
- + Validate the Inventory replacement plan (IRP) tools being used in the country for management of cold chain equipment and to advise on how best to optimize use of the tool for effective inventory management.
- + Estimate training needs for the country to ensure a functional cold chain system.

Management, Organization and Timeframe:

The position will be managed and supervised by the UNICEF Sierra Leone Immunization Specialist, with regular interaction and support from the National EPI manager and team. The incumbent will provide weekly updates on the activities implemented and deliverables achieved.

The consultant will be paid based on the completion of each deliverable mentioned above, after which a detailed assessment report including a costed improvement plan would be expected from the consultant.

The duration of the consultancy is 42 days over the period of 4 months.

Start date: 05 May 2022

End date: 31 August 2022

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):

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

Work Assignment Overview			
Tasks/Milestone:	Deliverables/Outputs:	Timeline	Estimate Budget
Finalize assessment tools <ul style="list-style-type: none"> - Train data collector - Pre-test the assessment tools. 	<ul style="list-style-type: none"> - Assessment tools finalized - Data collectors trained on the assessment tool and the tool pre-tested. 	First week of consultancy	5 days
<ul style="list-style-type: none"> - Collect and analyze cold chain inventory data. 	<ul style="list-style-type: none"> - Cold chain inventory data collected and analyzed 	Within 1.5 months of the consultancy	15 days
<ul style="list-style-type: none"> - Conduct desk review and related documents - Conduct gap analysis. 	<ul style="list-style-type: none"> - Desk review of available cold chain related documents prepared by the in-country team conducted. - Gap analysis with reference to capacity requirements for planned immunization activities done. 	Within 2 months of the consultancy	5 days
Produce assessment report to highlight the following areas: <ul style="list-style-type: none"> - Current cold storage and distribution volumes in Sierra Leone - Required cold storage and distribution volumes in Sierra Leone - Future needs in cold chain volumes in the country (next 5 years). - Training needs on cold chain management for the country identified Produce a 5-year costed improvement plan.	Cold chain assessment report, including the following: <ul style="list-style-type: none"> - Current cold storage and distribution volumes in Sierra Leone - Required cold storage and distribution volumes in Sierra Leone - Future needs in cold chain volumes in the country (next 5 years). - Training needs on cold chain management for the country identified A 5-year costed improvement plan for enhanced cold chain management systems in the country.	At the end of the assessment.	15 days
Present assessment findings to MOHS leadership and in-country stakeholders	Presentation on the assessment findings and recommendations at ICC meeting	At the end of the assessment	2 days

Budget Year: 2021-2022	Requesting Section/Issuing Office: <i>Health and Nutrition Section</i>	Reasons why consultancy cannot be done by staff: This is an external independent assessment on the cold chain systems at all levels of service delivery. The exercise will also serve as an opportunity to validate the routine data that have been collected by the country. In this regard, an independent expert would be needed to help conduct this important exercise.	
Included in Annual/Rolling Workplan: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, please justify:			
Consultant sourcing: <input type="checkbox"/> National <input checked="" type="checkbox"/> International <input type="checkbox"/> Both Consultant selection method: <input checked="" type="checkbox"/> Competitive Selection (Roster) <input checked="" type="checkbox"/> Competitive Selection (Advertisement/Desk Review/Interview)		Request for: <input checked="" type="checkbox"/> New SSA – Individual Contract <input type="checkbox"/> Extension/ Amendment	
If Extension, Justification for extension: N/A			
Supervisor: Baboucarr Boye, Immunisation Specialist	Start Date: 05 May 2022	End Date: 31 August 2022	Number of Days (working): 42 days

<p>Minimum Qualifications required:</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"> • University degree in epidemiology, medicine, public health or supply chain management, with further training on vaccine management, cold chain and supply management. Familiarity with relevant WHO and UNICEF guidelines and tools. 	<p>Knowledge/Expertise/Skills required:</p> <p>Experience</p> <ul style="list-style-type: none"> • At least (5) years of experience in international public health programme management including at least three (3) years in immunization, with experience in low- and middle-income countries, preferably in the areas of: <ul style="list-style-type: none"> ○ Cold chain and Logistics management systems ○ Supply chain management, bottleneck and root cause analysis ○ Familiarity with inventory policies, allocation, ordering and distribution strategies and other supply chain operations ○ Health systems strengthening ○ Assessing and measuring supply chain performance • Experience interfacing with national ministries of health an advantage. • Experience in developing multi-year operational plans • Experience in training, planning and delivery of technical assistance <p>Skills required</p> <ul style="list-style-type: none"> • Good data management and analysis skills • Strong facilitation skills • Effective communication skills, including ability to adapt the message and visual aids for multiple audiences to deliver concise, impactful presentations • Excellent analytical and conceptual skills • Demonstrated ability to work in a multi-cultural environment
<p>Administrative details:</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"/> TBD</p> <p>IT and Communication equipment required: <input checked="" type="checkbox"/></p> <p>Internet access required: <input checked="" type="checkbox"/></p>