

TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS AND CONTRACTORS

Title: Consultant – Vaccine Management Specialists (#6)	Funding Code: SC220798 + funding on management	Type of engagement <input checked="" type="checkbox"/> Consultant <input type="checkbox"/> Individual Contractor	Duty Station: EPSS Center (3), MoH (2) & ECO (1)
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Purpose of Activity/Assignment:

Over the past two decades, Ethiopia has made significant steps in expanding and improving its immunization program. However, according to the WUENIC 2023 estimates, Ethiopia is amongst the top 10 countries with the highest number of zero-dose children (917,000), ranking third and 4th for countries with the largest number of children unprotected from measles (1.5 million) globally. The backsliding in immunization coverage is attributed to a variety of factors, such as political instability and ongoing conflict/insecurity that have adversely affected last-mile delivery of vaccines and essential primary health care health commodities, including access, availability, and provision of vaccination and essential services in the country. Frequent vaccine stockouts, weak vaccine stock management at the woreda and health facility levels, and limited stock data visibility at subnational levels are among the health system bottlenecks affecting equity and coverage in immunization programs.

Effective stock control is one of the ten global criteria defined by the WHO-UNICEF Effective Vaccine Store Management (EVSM) initiative for countries to maintain the quality of vaccines throughout the cold chain by keeping complete and accurate records of all stock transactions at all levels. Effective vaccine management is crucial to ensure the availability of lifesaving vaccines at the last mile, to reduce zero dose children and achieve Big catch-up coverage targets.

In the past, UNICEF has played a vital role in supporting Ethiopia's Ministry of Health (MoH) and its agencies, including the Ethiopian Pharmaceutical Supply Service (EPSS) and the Ethiopian Public Health Institute (EPHI), in delivering vaccines for routine immunization, supplemental vaccination activities (SIAs) and responding to vaccine preventable diseases (VPDs), during humanitarian settings and global emergencies such as the COVID-19 pandemic.

To address ongoing immunization supply chain and vaccine stock management gaps in delivering routine, catch up and supplementary immunization vaccines at all levels, UNICEF plans to deploy six Vaccine Management Specialists (VMS) consultants to MOH (2) EPSS center (3), and UNICEF ECO (1) . These consultants will provide crucial technical support to strengthen the immunization supply chain, with special focus to vaccine stock management at all levels including the management of cold chain, vaccines, dry supplies, and other logistics. Their role is to ensure the availability and equitable delivery of immunization services across the country.

The Vaccine Management Specialists (VMS) will primarily support the MoH and EPSS in managing the immunization supply chain and cold chain systems, which are critical for the functioning of primary health care (PHC) systems, by assisting with forecasting, supply planning, procurement, distribution/last mile delivery, and monitoring of vaccines and cold chain equipment. VMS will help to maintain the availability and quality of vaccines, thereby enhancing the impact of immunization programs.

The role of VMS aligns directly with the optimization of the PHC concept by ensuring vaccines are accessible at the community level, increasing coverage, and ensuring timely delivery of vaccines and other PHC commodities using the new initiatives such as DRIVE [Direct Delivery of Routine Immunization Vaccines and other PHC commodities for equity]. Their efforts in optimizing the cold chain and vaccine stock management system within PHC settings are crucial for maintaining vaccine potency, reducing wastage, and preserving the efficacy of immunization efforts. VMS will also contribute to achieving broader health goals like universal health coverage (UHC) and the Immunization Agenda 2030 by supporting innovative supply chain technologies and the effective management of health commodities. This, in turn, strengthens PHC systems

and leads to improved health outcomes. In addition to the above, the VMS consultants will play a catalytic role in,

- Enhancing subnational stock data visibility and help decision-making for program and supply chain personnel at different levels.
- Strengthening immunization system in planning, implementing, monitoring, building capacity, and reporting on immunization supply chain and cold chain management.
- sustaining the momentum of MoH immunization initiatives, such as the Big Catch-up (BCU), Zero Dose Reduction Plan, routinization of Covid-19 and HPV vaccines, as well as the introduction of new vaccines (e.g., malaria, yellow fever, HepB), vaccine switch (measles 10- to 5 doses), and planned supplementary immunization activities (e.g., nationwide measles, MenA, nOPV2, etc.).
- Immunization supply chain initiatives such as Effective Vaccine Management (EVM 2.0), Last Mile Delivery of EPSS hubs, Cold Chain Optimization Platform (CCEOP), Electronic LMIS (e-LMIS), Remote Temperature Monitoring (RTMD) of CCE, DRIVE, HFSE [Health Facility Solar Electrification] and Forecasting and Supply Planning Tool (FSP) will all benefited significantly from the expertise of VMS.
- Improvements timely delivery of vaccines and vaccine availability, avoiding vaccine tock outs and reducing vaccine wastage.

The VMS will be based at MoH, UNICEF Country Offices & EPSS Center, with frequent travel to subnational levels to provide technical support, ensuring comprehensive and effective immunization services across the country.

Scope of Work:

The Vaccine Management Specialists (Consultant) will assist MoH and EPSS in managing the immunization supply chain. This includes planning, forecasting, procurement, storage distribution, monitoring, and reporting. The specialist will also help build capacity at regional and local levels to manage vaccine supply and cold chain systems effectively.

Detailed Activities

Under the guidance of the UNICEF Immunization Officer/EPSS Inventory management Director, the Vaccine Management Specialist (Consultant) will:

- 1. Technical support on demand forecasting and supply planning for immunization supplies.**
 - Support NTWG [National Technical Working Group] with strengthening vaccine forecasting systems, data triangulation of stock, consumption, and coverage at all levels of the supply chain, considering data use barriers and mitigation strategies.
 - Technical support on annual vaccine and related supplies forecasting using different data sources and digital tools.
 - Technically support for the application process of MOH new vaccine introductions and planned supplementary immunization activities (SIAs).
 - Technical assistance on supply planning to plan the shipments arrival with respect to the cold chain capacity to manage the vaccines within the agreed supply period.
 - Technical support on the utilization of vaccine visibility tool (VIVA) to follow the procured shipment from offshore and inform the EPSS/MOH.
- 2. Build the capacity of government counterparts to strengthen immunization supply chain system at subnational level.**
 - Organize training and on the job coaching for healthcare workers on vaccine supply management and cold chain optimization.
 - Support vaccine logistics technical working group (VL-TWG) in managing the overall supply chain including appropriate storage, distribution, and waste management.

- Support development of Supply and Logistics component in new vaccine and new projects applications.
- Participate in the revision of training materials, SOPs, guidelines to strengthen supply chain.
- Provide input on immunization supply chain strategy updates with MoH/EPSS collaboration.
- Collaborate with national teams to incorporate C-19 immunization into existing PHC strategies.

3. Support in optimization and monitoring of Cold Chain Equipment (CCE) platforms!

- Technical support on the planning of procurement, operation deployment plan (ODP) and installation of CCE.
- Developing and supporting the implementation of CCE rehabilitation and expansion plans
- Support the implementation of robust remote temperature monitoring (RTM) of CCE to reduce vaccine wastage.
- Assess overall cold chain performance using the real time CCE inventory.
- Update CCE inventories on a regular basis - document, share and follow-up CCE maintenance.
- Develop improvement plans to maintain and decommission the nonfunctional CCE.
- Follow up with MOH and UNICEF on fund utilization and liquidation.
- Conduct regular temperature monitoring study and cold room mapping exercise for EPSS cold rooms, support to take appropriate actions-based don the findings.
- Update and review the 2026 Cold Chain Equipment Inventory (CCEI) and facilitate decommissioning and disposal of outdated CCE.
- Support MOH on development of CCE rehabilitation and maintenance plan.
- Support the coordination of Health facility Solar electrification (HFSE) implementation via Gavi-CCEOP platform.

4. Manage vaccine stock data quality and inventory visibility at all levels.

- Monitor progress and lessons on stock management reporting accuracy and use of data for action.
- Advocate for supply chain digitalization, support selection and introduction of appropriate electronic Logistics Management Information Systems (eLMIS) while strengthening the ecosystem (people, processes, and policies) within which the eLMIS will exist.
- Monitor availability of last mile stock data visibility, report the data with SD for thrive 360 analyses.
- Technical assistance on accessing real-time data on vaccine stock (including 3rd &4th level) and utilization status.
- Support the use of electronic inventory tools to improve stock visibility at the service delivery points.
- Review and identify gaps in the existing immunization waste management and support wastage monitoring activities.
- Prepare monthly reports on vaccine stock status, situational qualitative report for Thrive360.
- Advocate for the expansion of Thrive360 to district and health facilities level and ensure it provides monthly stock utilization reports to NVL-TWGs, regional and global partners.
- Improve data management for vaccine forecasting, supply planning, stock reporting and resupply decisions.
- Strengthen routine stock management practices, tools, and systems and use of data for action by national and subnational LWGs.
- Monitor timely clearance and submission of e-VAR (vaccine arrival report) to SD after arrival of vaccines [meet the 72 hours deadline at least for 85% of the shipments].
- Support EPSS hubs to analyze the monthly resupply form - Vaccine Request Form (VRF)- from service delivery points and use the data for informed supply chain decisions.

- Develop contingency plan in case of emergency to ensure availability of vaccine and supplies in conflict affected areas.
- 5. Regular monitoring and evaluation of immunization supply chain performance**
- Support the MoH’s effort in establishing systems to monitor iSC key performance indicators.
 - Conduct regular subnational/district level field visits to monitor vaccine supply and cold chain management practices for improvement.
 - Support MOH on the Big catch-up vaccination, SIAs introduction of new vaccines (Malaria, YF, and MenA) related issues with the supply chain and vaccine delivery.
 - Support MOH on integration immunization service with other essential PHC services.
 - Strengthen monitoring of vaccines (including VVM and expiry date) at national and subnational levels and ensure timely data sharing with relevant national stakeholders.
 - Prepare regular reports on supply chain performance using global standards of EVM2.0.
 - Support MoH to undertake national full scale EVM 2.0 assessment & prepare continuous improvement plan (cIP).
 - Use data generated from different M&E activities to inform supply decision-making and improve operations ensuring availability and safety while reducing avoidable waste.
- 6. Support the Last Mile delivery expansion plan of Subnational EPSS to the Service delivery points.**
- Technically support the expansion plan of EPSS hubs to directly deliver immunization supplies to Health centers.
 - Support “**DRIVE**” (Direct Delivery of Routine Immunization Vaccines and other PHC Commodities for Equity) initiative pilot and scale up implementation to ensure health posts were supplied by PHC supplies.
- 7. Manage Immunization wastes and decommissioning of CCE.**
- Support NVL-TWG with monitoring the drivers of wastage, developing strategies for mitigating them and incorporating these into their improvement plans.
 - Technically support the MoH plan to undertake Vaccine Wastage monitoring Study.
 - Technically coordinate and manage the maintenance and eco-friendly disposal of CCE at different levels.

Budget Year:	Requesting Section/Issuing Office:	Reasons why consultancy cannot be done by staff:
2025	Health	<p><i>These activities require highly specialized technical expertise on immunization supply management to achieve the milestones and deliverables and maintain UNICEF's core function on immunization supply management. MoH/NVL-TWG's reliance on UNICEF—due to its unique comparative advantage in immunization supply chain and cold chain management—further indicates the need for dedicated efforts. Additionally, upcoming initiatives and projects, such as new vaccine introductions, zero-dose catch-up campaigns, planned SIAs, EVM 2.0 assessments, and wastage monitoring studies, etc., potentially stretching staff capacity and affecting the routine management of immunization supply and cold chain systems. Given the scale and complexity of the initiatives, there is no capacity in the team to conduct these activities.</i></p>

Included in Annual/Rolling Workplan: Yes No, please justify:

The Gavi Stock Management funding stream, initially launched during the COVID-19 era, was discontinued due to a lack of available funds. However, it was reinitiated by UNICEF HQ in late December 2024 as a continuation of support on stock management of vaccines for routine and SIA activities. This funding aims to strengthen national and subnational capacities for the effective planning, receipt, storage, distribution, and monitoring of vaccine stocks, ensuring timely and equitable access.

Consultant sourcing:

National International Both

Consultant selection method:

Competitive Selection (Roster)

Competitive Selection (Advertisement/Desk Review/Interview)

Request for:

New SSA

Extension/ Amendment

If Extension, Justification for extension:

Supervisor:

Gulilat Eshetie – Immunization Officer

Start Date:

24th January 2025

End Date:

28th January 2027

Number of Days (working)

508 working days

Work Assignment Overview		
Deliverables/Outputs:	Timeline	Estimate Budget
	(Working days)	
Vaccine and related supplies forecasts and supply plans uploaded in UNICEF CPP portal	24-Jan-2025 to 28-Feb-2025 (26 days)	
FSP4All tools piloted and reviewed using data sources/tools with UNICEF SD		
Reports on Q1 supply planning review meeting and shipment schedules updated accordingly	01-Mar-2025 to 30-Apr-2025 (41 days)	
VIVA tool shipment monitoring updates were shared with MoH/EPSS		
Training sessions and on-the-job coaching for healthcare workers planned identifying needs	01-May-2025 to 30-Jun-2025 (43 days)	
Updated training materials, SOPs, and guidelines of iSCM (as needed) with NVL-TWG		
Inputs were summarized for revision of immunization supply chain strategy in line with multiyear Immunization program plan of the MOH		
Reports from VL-TWG activities were synthesized and capacity building areas identified for advocacy on the system strengthening	01-Jul-2025 to 30-Sep-2025 (65 days)	
CCE deployment (ODP plans) from different projects were communicated with SD and Local Suppliers	01-Oct-2025 to 30-Nov-2025 (43 days)	
CCE inventory updates were captured by MEMIS system and maintenance requirements were planned for improvement of CCE.		
National RTMD guideline reviewed and finalized, capacity building trainings were given to subnational TWG, and implementation reports were shared with relevant stakeholders.	01-Dec-2025 to 06-Jan-2026 (27 days)	
The implementation of Gavi-HFSE in selected 300 sites were supported.		
EPSS Cold room mapping done (at least in two EPSS hubs) and feedback report shared with NVL-TWG		
Monthly vaccine stock status from national and subnational warehouses were reported timely for Thrive360 reports	08-Jan-2026 to 27-Feb-2026 (36 days)	

Support the MoH initiative in digitalizing e-LMIS revitalization and reports were shared with stakeholders.		
Improved stock visibility from 3rd and 4th level data using existing ODK tools and reporting practices	02-Mar-2026 to 30-Apr-2026 (41 days)	
e-VAR reports were timely submitted to SD following arrival		
VRF analysis tools were made functional and EPSS hubs use the analysis tool for supply decision.		
Vaccine wastage monitoring study report		
Contingency plan in case of emergency developed and endorsed		
Subnational (EPSS Hubs & RHBS) field visit monitoring immunization supply and cold chain monitoring reports	01-May-2026 to 01-Jul-2026 (42 days)	
Enhancing the performance reports from national and subnational level using EVM 2.0 tool		
Technical contribution for national full-scale EVM assessment and progress report	02-Jul-2026 to 30-Sep-2026 (63 days)	
Revising Continuous improvement plan (CIP) using the EVM results		
Monitor DRIVE initiative pilot implementation report	01-Oct-2026 to 02-Dec-2026 (43)	
Last mile delivery expansion plan and achievement for EPSS hubs	03-Dec-2026 to 28-Jan-2027 (38 days)	
Total consultancy fee	508 working days	
air ticket as applicable	as required	
DSA 10 days per month	240 days	
Grand Total		
Total estimated consultancy costs¹		

<p>Minimum Qualifications required: *</p>	<p>Knowledge/Expertise/Skills required: *</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"> • Master’s degree in pharmacy, public health, Logistic and Supply chain management, or related fields from a recognized University/institution • Have at least seven years of experience in the supply chain, storage, logistics, and inventory control of supplies, preferably in the health sector. <p>*Minimum requirements to consider candidates for competitive process</p>	<ul style="list-style-type: none"> • Expertise in health logistics, supply planning, forecasting and customs clearance. • Strong knowledge of the Ethiopian health sector and supply chains. • Experience in developing national CCE inventories and rehabilitation plans. • Skilled in WHO PQS-listed equipment and Gavi CCEOP processes. • Proficient in temperature monitoring, cold room mapping and RTM installation. • Familiar with strategies to reach zero-dose children. • Proven track record in engaging with Ministry of Health and its agencies like EPSS. • Experienced in training, technical assistance and SOP/guideline/training guide development. • Strong skills in data quality, reporting and analytics. • Excellent analytical, communication and presentation abilities. • Collaborative in diverse team and partner environments. • Proficient in MS Excel, PowerPoint, and Word. • Fluent in English; willing to travel frequently. <p>Core Values:</p> <ul style="list-style-type: none"> • Care • Respect • Integrity • Trust • Accountability • Sustainability <p>Core Competencies:</p> <ul style="list-style-type: none"> • Demonstrates Self Awareness and Ethical Awareness (1) • Works Collaboratively with others (1) • Builds and Maintains Partnerships (1) • Thinks and Acts Strategically (1) • Drives to achieve impactful results (1) • Manages ambiguity and complexity (1) • Innovates and Embraces Change (1) <p>*Listed requirements will be used for technical evaluation in the competitive process</p>
<p>Administrative details:</p> <p> Visa assistance required: <input type="checkbox"/> Transportation arranged by the office: <input type="checkbox"/> </p>	<p> <input type="checkbox"/> Home Based <input checked="" type="checkbox"/> Office Based: If office based, seating arrangement identified: <input checked="" type="checkbox"/> IT and Communication equipment required: <input checked="" type="checkbox"/> Internet access required: <input checked="" type="checkbox"/> </p>
<p>Request Authorised by Section Head</p>	<p>Request Verified by HR:</p>

*Approval of Chief of Operations (if Operations:
Programme)*

Approval of Deputy Representative (if

*Representative (in case of single sourcing/or if not listed in Annual
Workplan)* _____

ⁱ Costs indicated are estimated. Final rate shall follow the “best value for money” principle, i.e., achieving the desired outcome at the lowest possible fee. Consultants will be asked to stipulate all-inclusive fees, including lump sum travel and subsistence costs, as applicable.

Payment of professional fees will be based on submission of agreed deliverables. UNICEF reserves the right to withhold payment in case the deliverables submitted are not up to the required standard or in case of delays in submitting the deliverables on the part of the consultant.