

**TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS**

<b>Title of Assignment</b>	<b>National Consultancy:</b> Laboratory Coordinator for Malawi Demographic and Health Survey (MDHS)	
<b>Requesting Section</b>	Nutrition	
<b>Location</b>	<b>Place of assignment:</b> <ul style="list-style-type: none"> <li>• This assignment will be based in Zomba and Lilongwe with frequent visits to various districts during data collection.</li> <li>• The consultancy is not office-based; however, it will be expected for the consultant to attend related and scheduled meetings and briefing sessions at both National Statistical Office in Zomba and Public Health Institute of Malawi (PHIM) in Lilongwe.</li> <li>• Consultant will also be expected to participate in bi-weekly progress meetings both remotely and in-person as scheduled with NSO, DN, PHIM and UNICEF.</li> </ul>	
<b>Contract Duration</b>	11 months	
<b>Estimated number of working days</b>	Monthly	
<b>Planned Start and End Date</b>	<b>From:</b> 1 <sup>st</sup> March 2024	<b>To:</b> 31 <sup>st</sup> January 2025

**BACKGROUND AND JUSTIFICATION**

Malnutrition refers to an imbalance between a person’s nutritional intakes and his/her nutritional needs. Over nutrition occurs when the nutritional intake of an individual is higher than the nutritional need. Under nutrition occurs when nutritional intake is lower than the nutritional needs. Other forms of malnutrition are Protein Energy Malnutrition and micronutrient malnutrition. Protein energy malnutrition is broadly defined as a multi-deficiency state, which arises from inadequate energy, protein and micronutrient supply to cells in body to satisfy physiological requirements. Micronutrient malnutrition refers to deficiencies in specific micronutrients (vitamins or minerals).

Malnutrition is a major causal factor to human ill-health and a leading cause of infant and child mortality in Malawi. A series of Demographic and Health Surveys (DHS) conducted in the country since 1992 have consistently shown high prevalence of stunting, underweight and wasting in children under the age of five years. Stunting rates of 48.7 per cent, 49 per cent, 53 per cent, 47 per cent and 37 per cent in children under the age of five have been recorded in 1992, 2000, 2004, 2010 and 2015-16 surveys, respectively. The prevalence of underweight has shown a decline from 27 per cent to 25 per cent to 22 per cent to 12.8 per cent and 11.7 per cent for the same period. The proportion of wasted children remains unchanged at 5 per cent i.e. 5.5 per cent, 5.4 per cent, 5.2 per cent for the three consecutive surveys and 3.6 per cent and 2.5 per cent for the 2010 and 2015-16 DHS.

Malnutrition is also common among women of childbearing age, especially among pregnant and lactating women contributing to the child under nutrition. Between 1992 and 2010, the percentage of women who are thin, which is indicative of undernutrition, was steady at 9 per cent and declined slightly (7 per cent) in 2015-16. However, the proportion of women who are overweight or obese (indicative of overnutrition) has increased steadily, from 10 per cent in 1992 to 2021 per cent in 2015-2016.

Meanwhile, micronutrient deficiencies are major contributors to morbidity and mortality among women and children in the developing world including Malawi. Deficiencies occur when people do not have access to micronutrient-rich foods such as fruit, vegetables, animal products and fortified foods, usually because they are too expensive to buy or are locally unavailable. Micronutrient deficiencies increase the general risk of infectious illness and of dying from diarrhoea, measles, malaria and pneumonia. The groups most vulnerable to

m micronutrient deficiencies are pregnant women, lactating women and young children, mainly because they have a relatively greater need for vitamins and minerals and are more susceptible to the harmful consequences of deficiencies. For a pregnant woman these include a greater risk of dying during childbirth, or of giving birth to an underweight or mentally impaired baby. For a lactating mother, her micronutrient status determines the health and development of her breast-fed infant, especially during the first 6 months of life. For a young child, micronutrient deficiencies increase the risk of dying due to infectious disease and contribute to impaired physical and mental development.

The Government of Malawi and its development partners will undertake a Malawi Demographic and Health Survey (2024 MDHS). The objective of the 2024 MDHS is to provide reliable and detailed information on socio-demographic characteristics of the population of Malawi, and its nutritional and health status. The survey is designed as a follow-up to the 1992, 2000, 2004, 2010, and 2015-16 MDHS surveys. It will provide updated estimates of basic demographic, health and nutrition/ micronutrient indicators covered in these earlier surveys. As was the case for the 2015-2016 MDHS, the 2024 MDHS has integrated micronutrient component as a single integrated survey. The 2024 MDHS will be implemented by the Malawi National Statistical Office (NSO), in collaboration with the Ministry of Health and technical assistance from ICF International (ICF) through the USAID-funded DHS Program, the Centers for Disease Control and Prevention (CDC) and UNICEF.

Micronutrient analysis is more complex compared to a regular survey as it requires collection of blood for measuring levels of serum ferritin and soluble transferrin receptor, inflammation biomarkers, retinol, vitamin B12, serum and red blood cell folate, malaria parasites and haemoglobin levels and collection of urine samples for urine iodine levels. This survey will also collect food samples (oil, salt, sugar, wheat flour, and maize flour) for testing to evaluate food fortification programs and will collect and test water samples. The collection of these samples requires proper handling in the form of processing the blood specimens to prepare them for cold storage and transport to the proper laboratories, confirming documentation to track custody of the specimens, and ensuring availability of the appropriate equipment. This critical aspect requires a dedicated person to oversee the entire processes from pre-training, training, data/sample collection and transportation (to district and national laboratories) and shipment to external laboratories.

It is against this background that UNICEF Malawi in collaboration with National Statistical Office (NSO) and Ministry of Health – Department of Nutrition (DN) and Public Health Institute of Malawi (PHIM) would like to engage a national consultant to coordinate laboratory component of the 2024 Malawi DHS to ensure successfully execution of micronutrient data collection activities.

## **PURPOSE OF THE ASSIGNMENT**

The overall objective of the consultancy is to coordinate the laboratory component of the 2024 Malawi Demographic Health Survey from training, samples collection, logistics and shipment for micronutrient analysis in collaboration with DHS Coordinator.

## **SCOPE OF WORK/OBJECTIVES**

### **The Consultant will undertake the following activities:**

1. Coordinate with the laboratories that will conduct analyses for nutritional biomarkers. Oversee inventory and shipment of survey samples, on dry ice and via selected Courier (e.g., World Courier), to selected international laboratories. Ensure each shipment includes an accurate electronic copy of the inventory of samples.
2. Confirm that laboratories under consideration for sample analysis (in-country or externally) are enrolled in and have a successful participation in any internal and external quality control programs (for example the Centers for Disease Control and Prevention (CDC) Vitamin A Laboratory – External Quality Assessment (VITAL-EQA) and Ensuring the Quality of Urinary Iodine Procedures (EQUIP) program)

3. Communicate with the laboratories conducting the analysis of survey specimens regarding specifications for, quantities needed, and acquisition of supplies.
4. Provide support to the implementing partners so ensure supplies can be safely kept in a secure and cool room both before and during data collection of the survey.
5. As shipments of supplies from ICF, UNICEF and CDC arrive in-country, ensure shipment(s) are cleared from customs in a timely manner and transported to an identified locked room for storage. Inspect shipments to confirm expected quantities are received and that equipment arrives in good condition. Be responsible for and take ownership of the supplies – confirm access to the room is controlled as much as possible and make sure that any items needing to be refrigerated are put into the refrigerator upon receipt. Track each item received with corresponding information (including description of item, specifications, quantity and storage condition). Provide regular updates on status of supplies arriving in-country prior to the start of the survey.
6. Conduct assessments of potential field and PHIM laboratories that may be used for temporary storage of survey specimens during the survey, request documentation of freezer monitoring, and ensure that there is enough freezer space in the selected laboratories in order to properly and safely store survey specimens at the correct temperature.
7. Determine where venous blood samples can be processed daily in each cluster; a lab facility or make-shift lab (e.g. health center) must be identified, prior to the start of data collection, so that blood processing can take place throughout the survey.
8. Work with NSO to define proper qualifications of the field staff hired for the survey. Support training of the biomarker technicians who will be drawing venous blood, collecting food samples, testing water quality, and processing, storing and transporting survey specimens, of supervisors to facilitate hands-on experience with cold-chain, of drivers transporting survey specimens from the field to PHIM, and of staff at PHIM to receive and inventory survey specimens arriving from the field for storage.
9. Work with the trainer(s) to get all of the survey supplies inventoried, organized, accounted for and tracked. Ensure adequate supplies are available (including extras) for training, pretest and main survey.
10. Obtain the waste disposal protocol from the safety official associated with the host institution (i.e. PHIM) to ensure that biohazard waste is properly disposed of during the survey.

## REPORTING REQUIREMENTS

### **To whom will the consultant report (supervisory and any other reporting/communication lines):**

- The consultant will report to UNICEF Nutrition Specialist operationally, with technical oversight from the Deputy Director of Demographic and Social Statistics (NSO), the Director of Nutrition and the Deputy Director of National Public Health Reference Laboratory in the Ministry of Health.

### **What type of reporting will be expected from the consultant and in what format/style will the submissions of reports/outputs be done:**

- The consultant will be expected to submit reports/outputs through email communications.

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- The consultant will be expected to submit monthly progress reports through email communications.
- Regular discussions will be held face-to-face and virtually, and the consultant is expected to stay in touch via telephone, emails, and other online platforms.

### **How will consultant consult and deliver work and when will reporting be done:**

- The consultant will be field-based in Zomba and Lilongwe depending on the nature of assignment to be undertaken for the survey.

- The consultant will frequently visit to other districts during data collection..
- The consultant will provide monthly deliverables based on an agreed work plan and delivery schedule.
- In the first week of the month, the consultant will produce a work plan outlining the key deliverables in consultation with the contract supervisor. Where amendments arise during the month, a formal email will be shared and attached to the monthly report.
- The consultant will present the draft documents and the final report to UNICEF as agreed during the time of engagement and as per the work plan.

## EXPECTED DELIVERABLES

In alignment with the scope of work described above, the consultant will be expected to perform the following activities and deliverables per the schedule and estimated dates below as well as any other activities as deemed necessary and related to the successful delivery of the assignment. Due to the nature of this assignment, the consultant will carry out activities which are mostly similar in output across the months, for which there will be monthly payments based on satisfactory performance-service delivery.

Table 1: Expected Deliverables against Task and Milestones`

Task/Milestone Deliverables	Deliverable/Outcome (e.g. Inception, progress, final reports, training material, workshop, etc.)	Estimated # of days	Planned Completion date	Estimated cost-percentage payable
<b>a) During training/ Pilot:</b> <ol style="list-style-type: none"> <li>1. Coordinate the training of the biomarker technicians, drivers and supervisors, and any other survey staff supporting micronutrient data collection activities.</li> <li>2. Work with the DHS coordinator and the trainer(s) to move the supplies to and from the training site.</li> <li>3. Follow-up on selected laboratories EQA participation, SOPs and documentation.</li> </ol>	<ol style="list-style-type: none"> <li>1. Report summarising the coordination activities on the field data collection progress.</li> <li>2. Progress report on laboratory supplies movements to the training venue.</li> <li>3. Training Report</li> </ol>	Monthly	Monthly	Payment is monthly upon satisfactory delivery of tasks as verified by supervisors. The deliverables
<b>b) During the survey:</b> <ol style="list-style-type: none"> <li>1. Continue to be responsible for the supplies and make sure nothing gets used for purposes other than the survey.</li> <li>2. Disseminate supplies to the teams as they run out and need more.</li> <li>3. Oversight of processing, transport and receipt of survey specimens, completion of transmittal sheets and forms, and ensuring that survey specimens are properly stored throughout data collection and shipping. Oversight of cold chain logistics and assist with any issues that may arise.</li> </ol>	<ol style="list-style-type: none"> <li>1. Progress survey report (and actions outlined above) with the DHS coordinator on a weekly basis consolidated monthly.</li> <li>2. Biomarker stock supplies report.</li> <li>3. Progress report on biomarker supplies distribution.</li> <li>4. Progress report on specimens processing,</li> </ol>	Monthly		

<p>4. Communicate the progress of the survey (and actions outlined above) with the DHS coordinator and overseeing organizations on a weekly basis.</p>	<p>transportation, and cold chain logistics.</p>			<p>are accompanied by concise deliverables report and acceptable documentation presented as proof for the said deliverables</p>
<p><b>c) During laboratory analyses:</b></p> <ol style="list-style-type: none"> <li>1. If analysis is to take place outside the country, package and properly ship the specimens, on dry ice, to all the selected laboratories. Include electronic copy of samples inventory.</li> <li>2. Communicate with the selected laboratories undertaking the analysis and check that they are storing specimens correctly.</li> <li>3. Work with the selected laboratories to document all standard operating procedures for laboratory testing and both internal and external quality assurance protocols.</li> </ol>	<ol style="list-style-type: none"> <li>1. Report summarising the specimens' inventory and packaging for shipment.</li> <li>2. Progress report on laboratories undertaking analysis.</li> <li>3. Final consultancy report.</li> </ol>	<p>Monthly</p>		

However, as the actual starting date may impact the dates estimated in the TOR, a detailed workplan with exact timeframes and actual delivery dates will be jointly agreed upon between the consultant and the supervisor upon contract signature and which will be updated on a regular basis as needed.

### PERFORMANCE INDICATORS FOR EVALUATION OF RESULTS

The performance of work will be evaluated based on the following indicators:

- Completion of tasks specified in Terms of Reference
- Compliance with the established deadlines for submission of deliverables
- Quality of work
- Demonstrating high standards in cooperation and communication with UNICEF and counterparts
- Adherence to UNICEF's child safeguarding policy

### PAYMENT SCHEDULE

All payments, without exception, will be made upon certification from the supervisor of the contract of the satisfactory and quality completion and submission of deliverables and upon receipt of the respective and approved invoice. 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.

The consultancy cost will be based on an all-inclusive fee basis which will include all costs related to this assignment including, professional fee, travel and living cost, transportation cost (fuel, car hire, etc), stationary, communications etc. No other costs are payable under this consultancy.

## DESIRED COMPETENCIES, TECHNICAL BACKGROUND AND EXPERIENCE

### Academic qualification:

- Minimum of Bachelors Degree in laboratory science or relevant field

### Work experience:

- Minimum of 7 years of field experience, specifically in field logistics/cold chain for biological specimens.
- Blood specimen handling and processing experience with previous population-based household survey experience.
- Experience coordinating teams, supplies and trainings.
- Demonstrated experience supervising teams and personnel.

### Technical skills, knowledge and strength areas:

- Knowledge of field logistics/cold chain for biological specimens and one or more other relevant areas (micronutrients, health, laboratory).
- Knowledge of supplies, equipment, and services ordering and inventory control.
- Ability to supervise and train biomarkerlaboratory technicians including organizing, prioritizing, and scheduling work assignments.
- Must adhere to the UNICEF core values and able to work under tight conditions and deadlines.
- Comfortable traveling to field.

### Languages:

- Fluency in spoken and written English.
- Fluency in any of the local languages spoken across the work districts will be an added advantage.

## ADMINISTRATIVE ISSUES

UNICEF will regularly communicate with the consultant and provide feedback and guidance and necessary support so to achieve objectives of the work, as well as remain aware of any upcoming issues related to the performance and quality of work.

As per policy on consultants, the individual will be expected to complete a list of mandatory training, including policies on Prohibiting and Combatting Fraud and Corruption, Prohibition of discrimination, harassment, sexual harassment and abuse of authority and other relevant policies for their information and acknowledgement upon acceptance of the offer.

Before the issuance of the official contract, the individual consultant is requested to:

- complete the applicable mandatory trainings.
- ensure that the visa (where applicable) and health insurance required to perform the duties of the contract are valid for the entire period of the contract. The consultant is solely responsible for both the visa and own health insurance.
- the selected consultant is subject to confirmation of fully vaccinated status against SARS-CoV-2 (Covid-19) with a World Health Organization (WHO)-endorsed vaccine, which must be met prior to taking up the assignment. The vaccine mandate, does not apply to consultants who will work remotely and are not expected to work on or visit UNICEF premises, programme delivery locations, or directly interact with communities UNICEF works with, nor to travel to perform functions for UNICEF for the duration of their consultancy contracts.

UNICEF offers reasonable accommodation for consultants with disabilities. This may include, for example, accessible software, travel assistance for missions or personal attendants. We encourage candidates to disclose their disability during their application in case they need reasonable accommodation during the selection process and afterwards in their assignment.

Consultants must have their own equipment, tools and materials needed to perform their services. They will use their own laptops/computers, any application or system needed to complete the assignment.

The access to UNICEF email and system is restricted to UNICEF staff therefore consultants should not be granted access unless it is imperative to complete assignment. The need for email access will be determined in consultation with the contract supervisor and will require approval from management.

The assignment will be carried out from Zomba and Lilongwe with possible travel to other districts during data collection as agreed with the supervisor. UNICEF will not provide office space for the consultant; however, the consultant will be required to provide briefing to National Statistical Office, Ministry of Health – Department of Nutrition and Public Health Institute of Malawi (PHIM), and UNICEF as per agreed milestones.

## CONDITIONS

- The consultancy will be for a period of 11 months.
- The candidate selected will be governed by and subject to UNICEF’s General Terms and Conditions for individual contracts.
- No assignment may commence unless the contract is signed by both UNICEF and the consultant.
- The consultant will be based in Zomba and Lilongwe and with frequent travels to other districts during data collection across the country. On a need basis, the consultant will visit Lilongwe at Ministry of Health – Department of Nutrition and Public Health Institute of Malawi (PHIM).
- Travel is only when travelling to other districts during data collection. The main implementer of the survey is NSO based in Zomba however central laboratory in Lilongwe managed by Public Health Institute of Malawi (PHIM) where all sample specimens will be stored during the entire survey meaning the consultant is also expected to be in Lilongwe during the data collection to make sure all the specimens and cold chain is maintained.
- The consultant will be paid an all-inclusive fee (stationary, communication, and other miscellaneous expenses) as per the stipulated deliverable and payment schedule.
- Under the consultancy agreements, a month is defined as 21.75 working days, and fees are prorated accordingly for actual days worked.
- The consultant is not entitled to payment for overtime, weekends or public holidays.
- UNICEF will provide transport for any approved in-country travel.
- No travel should take place without an email travel authorization from section prior to the commencement of the journey from the duty station.
- Standard UNICEF procedures will apply for invoicing and all other financial management requirements set out in the contract.
- Standard penalty clauses will also apply for late and poor-quality deliverables. The supervisor of the contract will provide the consultant with the criteria for the evaluation of the quality of each deliverable.
- Additional details of UNICEF rules, regulations and conditions will be attached to the contract.
- The consultant will not have supervisory responsibilities or authority on UNICEF budget.
- Individuals engaged under a consultancy will not be considered “staff members” under the Staff Regulations and Rules of the United Nations and UNICEF’s policies and procedures and will not be entitled to benefits

provided therein (such as leave entitlements and medical insurance coverage). Their conditions of service will be governed by their contract and the General Conditions of Contracts for the Services of Consultants.

- Consultants are responsible for determining their tax liabilities and for the payment of any taxes and/or duties, in accordance with local or other applicable laws.

## HOW TO APPLY

Interested consultants should provide the following:

1. Curriculum Vitae
2. Brief technical proposal (no longer than five pages) demonstrating the consultant's understanding of the assignment and approach/methodology to the assignment.
3. Financial proposal including a breakdown of their all-inclusive fees (including professional fees, travel, living cost, visa and other costs). Complete the attached form.



Financial  
Proposal.xlsx

4. References details from at least 3 supervisors, including the current supervisor.