

TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS AND CONTRACTORS

Title:	Funding Code	Type of engagement	Duty Station:
International consultant - Secondary analysis of the Cambodia DHS 2021-2022 on the determinants of maternal and child mortality and malnutrition	Grant: SC2000853 and SC229903 WBS: 0660/A0//06/881/002/022	<input type="checkbox"/> Consultant <input checked="" type="checkbox"/> Individual Contractor Part-Time* <input type="checkbox"/> Individual Contractor Full-Time * *maximum end date 30 June 2023	Mostly work from home with one planned trip to Phnom Penh, Cambodia
<p>Purpose of Activity/Assignment:</p> <p>Over the past decade, overall child mortality and maternal mortality have improved in Cambodia, with substantial reductions in under-5 mortality (35 to 16 deaths per 1,000 live births), infant mortality (28 to 12 deaths per 1,000 live births) and neonatal mortality (18 to 8 deaths per 1,000 live births).¹ However, progress on maternal mortality has been slower from 170 per 100,000 live births in 2014 to 154 per 100,000 live births in 2021-22 (Cambodia Demographic Health Survey/CDHS), and the proportion of newborn deaths among child under 5 deaths remains relatively high. While the level of chronic undernutrition (stunting) has declined from 34% in 2014 to 22% in 2021/22, wasting remains stagnant at around 10% over the past decade, and is still among the highest in the Asian region, with a concerning declining trend of breastfeeding practices.</p> <p>This consultancy assignment is to conduct a deep dive secondary analysis on the main drivers and determinants of maternal and child mortality (including infant and neonatal mortality), as well as determinants analysis of malnutrition, particularly in young children, adolescent girls, and pregnant women. In addition, UNICEF aims to better understand the factors contributing to the successful decline in child, infant and newborn mortality and stunting over the past years, while also understanding why slower progress has been made for maternal mortality and child wasting. The assessment will be implemented in key phases including a) literature review, b) quantitative analysis of the CDHS and complementary surveys, c) qualitative analysis through key informant interviews, d) reporting writing. Findings will be used to inform advocacy priorities and policy development in improving maternal, newborn and child survival and addressing all forms of malnutrition across the life cycle.</p> <p>The analysis will be mainly based on the CDHS 2021-2022 data set and will include cross-sector analysis of relevant variables. Disaggregated analysis will be prioritized as much as possible in relation to gender, child age, geography, wealth quintile/socio-economic level, level of education, and specific vulnerabilities where possible. The quantitative analysis will be conducted through both a descriptive analysis to provide contextual understanding of child and maternal mortality decline and the burden of newborn deaths, and the lack of change in wasting prevalence - across geographic, socioeconomic, gender and age segments. Linear multivariable regression-based difference in difference analysis and regression-based decomposition analysis, and other suitable methods, could be implemented to understand the major predictors of mortality and stunting decline and their relative importance. In addition to CDHS data, a literature review of contextual factors, including national and subnational interventions, policies, strategies, and programs will be conducted to answer critical questions (see below). Other sources of quantitative data (e.g Census, CSES, local/baseline surveys, studies), will be included in the literature review to supplement and triangulate CDHS 2021-2022 secondary analysis findings. A small set of key informant interviews with thematic experts from government, civil society and the UN will be conducted to describe key events in Cambodia as well as comment on key trends and contextual factors that may have impacted maternal and child survival and nutrition status over time.</p> <p>Key questions/areas the analysis should prioritize include:</p> <ul style="list-style-type: none"> • What are the key predictors of maternal, newborn and child survival, and malnutrition among young children, adolescent girls, and pregnant women? (Looking across the sectors of Health, WASH, Education, Child Protection, sociodemographic variables, multi-deprivation analysis, service coverage and key practices and behaviors) 			

¹ Key Indicator Report, Cambodia Demographic and Health Survey (2021-22), MOP/MOH

- Describe the changes or lack of change in maternal and child mortality, child stunting and wasting, across geographic, socioeconomic, gender and age segments from 2000 to 2021-22.
- What factors can explain the reduction in child mortality and stunting over the past years? What factors can explain why maternal mortality reduction and wasting prevalence has made slower progress? What factors can explain recent declines in breastfeeding practices? What factors can explain why the proportion of newborn deaths among child under 5 deaths is still high?
- What are the key predictors to the reduction in maternal and child mortality and child stunting between 2000 and 2021-22 and what is the relative importance of each predictor? What are the key predictors to child wasting and have they changed from 2000 to 2021-22?
- What factors determine low child and maternal diet diversity (MDD) among families with better household food security?
- Based on a literature review and key informant interviews, what programmes, interventions, policies, or other factors may account for the trends in these maternal and child health and nutrition outcomes since 2000?

Outside the scope of this assignment, UNICEF is supporting multi-dimensional overlapping deprivation analysis (MODA) for children and a trends/equity gap analysis across time (from 2000 – 2021/22) of key nutrition and MNCH outcomes (including maternal and child mortality) and indicators with partners. These other analyses will be relevant to this assignment in providing complementary and supplementary information, triangulation and validation of assumptions and findings. Therefore, the consultant for this assignment is expected to use and reference other analysis and data sources where appropriate, as well as share and coordinate information with other UNICEF teams and partners.

As part of the application and selection process for this assignment, the consultant is expected to submit a maximum 4-page short technical proposal/plan on how they will approach and conduct the analysis to answer the key questions mentioned above. An inception report with a detailed analysis plan agreed with UNICEF will be part of the assignment. The consultant will also support capacity building of Government stakeholders (e.g NIS, MOH) through a 3-day technical training which will entail 1) process of data cleaning and quality assurance for DHS, 2) using standard syntax to develop composite indicators in the DHS survey and 3) using the cleaned developed DHS database to conduct descriptive analysis and run a linear regression model. All steps in the capacity building workshop will be run with government stakeholders.

The assignment will be carried out for a total of 100 working days (85 working days of remote work, and 15 working days in Cambodia).

Scope of Work:

The work will be conducted in 4 steps within a 5-month period after signing of the contract, the steps are:

1. Review and Inception:
 - a. Literature review,
 - b. Development of a detailed secondary DHS analysis plan
 - c. Development of inception report
2. Database development:
 - a. Implementation of database preparation, quality assurance and control
3. Analysis:
 - a. Secondary data analysis on the CDHS 2021-2022 data set and supporting materials (CSES, census, sub-national or any local, baseline surveys, previous CHDS, food balance sheets, etc.)
 - b. Implementation of a 3-day capacity building workshop led by NIS, with stakeholders on data cleaning, development of key indicators and analysis.
 - c. Implement and analyze key informant interviews
4. Reporting:
 - a. Develop full analytical report
 - b. Develop summary policy briefs of key findings according to thematic areas (to be defined with UNICEF and collaborating partners)
 - c. Lead drafting of peer reviewed manuscripts on key predictors of maternal and child survival, and child malnutrition in Cambodia

Step 1: Literature Review and Inception phase

The consultant can carry out step one from remote working modality. Consultation with UNICEF and relevant stakeholders and partners will take place online as required. The detailed work during this phase includes:

- Develop an inception report for carrying out the assignment which primarily consists of a detail CDHS secondary analysis plan, with list of the key types of analysis/methods, variables, that will be used and examined to answer key questions, the tables and graphs that will be generated, etc. This also includes the data quality and assurance plan.
- As part of the inception, the consultant in collaboration with UNICEF staff, will identify other relevant supplementary data sources and other sector analysis available, which would be needed to complement the CDHS data set in answering the key questions of the assignment.
- Design with UNICEF, Ministry of Health (MOH), National Institute of Statistics (NIS) the capacity building plan of key stakeholders on CDHS analysis on determinants of maternal and child survival and malnutrition (3-day workshop), including which key data management and cleaning processes and analysis would be conducted jointly in the workshop. The workshop will be organized and led by NIS, with technical support and facilitation of the international consultant, who is also expected to develop the training agenda and support materials with NIS.

Step 2: Database development, quality assurance and control

The consultant can carry out this step from remote working modality. The detailed work during this phase includes:

- Review the CDHS data set for relevant variables for analysis.
- Conduct quality check and plausibility, identify any gaps in the data set, limitations, and assumptions
- Review supplementary data sources and analysis of other datasets for feasibility of triangulation (CSES, census, Cambodian Nutrition Project (CNP) baseline data, surveys)
- While the CDHS data set has been cleaned and finalized by Government, work in this step would also identify areas for improvement and recommendations on data collection and management for the next CDHS on nutrition and relevant variables.

Step 3: In-depth analysis on CDHS data and other supplementary data, including stakeholder capacity building

Part of this step can be done remotely, however the consultant is expected to travel to Cambodia for a period of 15 days inside the country to complete this step, which requires face to face interaction. The detailed work during this phase includes:

- Conduct analysis of CDHS and supplementary data sources/sectoral analyses as part of the detailed analysis plan
- Conduct a 3-day capacity building workshop led by NIS with key stakeholders (~15-20 participants) on CDHS data management and cleaning processes and joint analysis on a few key variables and indicators (to be determined with Government)
- Conduct broader desk review of other existing data sources and conduct a few key informant interviews (KIIs) that will complement the analysis of CDHS to answer key questions and objectives of the assignment.
- The KIIs will include 4-6 Government officials, 4-6 development partners or experts in maternal and child health and nutrition. All the KIIs will be conducted in Phnom Penh or virtually if needed. UNICEF, NIS and MOH will support the identification of the KII participants and arranging the KII sessions for the consultant.

Step 4: Reporting and writing of the full analytical report, with summary policy briefs and a manuscript

The consultant can complete this phase remotely. The detailed work during this phase includes:

- Write and produce one full analytical report on the determinants of malnutrition in Cambodia (max 60 pages of narrative excluding Annexes, Graphs, Tables)
- Develop a summary PowerPoint presentation of the main analysis and findings
- Develop two thematic policy briefs based on the full analytical report – topics to be determined with stakeholders, based on findings
- Support the writing/drafting and submission of two manuscripts (approximately 25-30 pages max. each manuscript) based on the analysis for peer review journal publication, in collaboration with UNICEF, NIS, and MOH. One manuscript will examine determinants of maternal and child mortality and the other on determinants of malnutrition.

The consultant will collaborate closely with UNICEF and NIS, MOH stakeholders on the report, taking a leading in writing. UNICEF and stakeholders will take a lead on formulating policy recommendations based on analytical findings along with key development partners.

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:

[There would be no direct contact with children](#)

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):

[The data to be used is not personal-identifiable](#)

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

Budget Year: 2023	Requesting Section/Issuing Office: Health and Nutrition	Reasons why consultancy cannot be done by staff: The consultancy requires an advanced level and specialized skills, and dedicated time for analysis to meet the programme objective for this assignment. The skills and the time required cannot be met within current CO resources.
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 Competitive Selection: <input checked="" type="checkbox"/> Advertisement <input type="checkbox"/> <input type="checkbox"/> Roster Single Source Selection <input type="checkbox"/> (Emergency - Director's approval)		Request for: <input checked="" type="checkbox"/> New SSA – Individual Contract <input type="checkbox"/> Extension/ Amendment
If Extension, Justification for extension:		
Supervisor: Hedy Ip, Chief of Health and Nutrition	Start Date: 30 th June 2023	End Date: 30 th November 2023

Work Assignments Overview	Deliverables/Outputs	Delivery deadline
Step 1. Inception Phase (literature review, analysis plan, workshop agenda)	<ul style="list-style-type: none"> - Inception report/detailed CDHS data analysis plan and protocol (15-20 pages) (including capacity building workshop agenda/plan) 	July 31, 2023 (15 workdays)
Step 2. Conduct data quality check, plausibility, and preparation/cleaning of the data base as needed (CDHS and other key datasets/sources)	<ul style="list-style-type: none"> • Written report on data quality and plausibility for analysis including recommendations for data improvement for the next CDHS; (max 60 pages of narrative excluding Annexes, Graphs, Tables) - Prepared datasets for analysis 	July 31, 2023 (5 workdays)

<p>Step 3. Conduct analysis of CDHS, including KIIs, training workshop</p>	<ul style="list-style-type: none"> - Draft analysis report with tables, graphs and Annexes (approximately 25-30 pages) - 3-day workshop with stakeholders conducted 	<p>October 15, 2023 (50 workdays, including 15 days in country)</p>
<p>Step 4. Write and develop papers for publication and advocacy based on the secondary 'deep dive' analysis</p>	<ul style="list-style-type: none"> - Final report of the CDHS secondary analysis on the determinants of malnutrition (approximately 25-30 pages) - One PPT presentation on summary of key analytical findings (approximately 30 slides) - Two thematic policy briefs (1. Determinants of maternal and child mortality, 2. Determinants of malnutrition) (approximately 25-30 pages) - Two manuscripts developed for submission to a peer-reviewed journal, about 25-30 pages each briefs (1. Determinants of maternal and child mortality, 2. Determinants of malnutrition) 	<p>November 30, 2023 (30 workdays)</p>
<p>Total</p>		<p>100 workdays</p>

<p>Minimum Qualifications required*:</p> <p><input type="checkbox"/> Bachelors <input checked="" type="checkbox"/> Masters <input checked="" type="checkbox"/> PhD <input type="checkbox"/> Other</p> <p>Enter Disciplines: PHD or Master’s degree in Statistics, Public Health, Nutrition, Epidemiology, Research and/or other related disciplines</p> <p>*Minimum requirements to consider candidates for competitive process</p>	<p>Knowledge/Expertise/Skills required *:</p> <p>Minimum of 5 years work experience in relevant areas with and proof of previous experience conducting similar DHS, MICS and other secondary data analysis in health and nutrition from surveys and large data sets. Past reports, manuscripts and other publications of similar scope and nature to the assignment is an asset. High competency in statistical analysis (such as linear multivariable regression analysis, difference in difference analysis, and regression-based decomposition analysis, time-series analysis) and relevant software. Software skills required in STATA, R, Python, or other statistical computing software.</p> <p>*Listed requirements will be used for technical evaluation in the competitive process</p>
<p>Evaluation Criteria (This will be used for the Selection Report (for clarification see Guidance))</p> <ul style="list-style-type: none"> ○ A) Technical Evaluation (75 Points) <ul style="list-style-type: none"> ○ Quality and feasibility of technical proposal – 28 points of the technical score. Applicants are required to submit their cover letter, CV as well as a max. 4-page technical proposal describing the approach, methods, and specific examples of analysis (including statistical analysis, qualitative analysis) they propose to use to answer the key questions on determinants of maternal and child mortality and malnutrition in Cambodia and financial proposal (All-inclusive lump-sum cost including): Consultancy daily/monthly fee; International travel to/from Cambodia (the travel cost shall be based on the most direct and economy fare); Per-diem for 15 days working in Cambodia to cover lodging, meals and any other cost associated to take over the full assignment; Medical insurance (health and medical evacuation) for the entire duration of the contract. ● Previous work as a lead analyser of DHS, MICS or other relevant data for health and nutrition with proven quality of work, (this includes past publications – reports, policy papers/briefs, manuscripts) - 25 points of the technical score ● Other research, meta-analysis, desk review, qualitative research, conducted in the field of health and nutrition - 10 points of the technical score ● Experience conducting research/data analysis for a similar region/country context (e.g LMIC, Southeast Asia) – 7 points of the technical score B) Financial Proposal (25 Points) 	
<p>Administrative details:</p> <p>Visa assistance required: <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> Home Based <input type="checkbox"/> Office Based:</p> <p>During the working days planned in Cambodia, Phnom Penh – the consultant will work from his/her accommodation. He/she is expected in the UNICEF office for meetings only, no sitting desk required.</p>	<p>If office based, seating arrangement identified: <input type="checkbox"/></p> <p>IT and Communication equipment required: <input type="checkbox"/></p> <p>Internet access required: <input type="checkbox"/></p>

¹ 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

Text to be added to all TORs:

Individuals engaged under a consultancy or individual contract 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 and Individual Contractors. Consultants and individual contractors 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.

The selected candidate is solely responsible to ensure that the visa (applicable) and health insurance required to perform the duties of the contract are valid for the entire period of the contract. Selected candidates are 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. It 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 you to disclose your disability during your application in case you need reasonable accommodation during the selection process and afterwards in your assignment.