

Terms of reference

Consultancy:	End of round survey for seasonal malaria chemoprevention
Projects:	Seasonal Malaria Chemoprevention
Location of support:	Aweil West and South, Northern Bahr el Ghazal – South Sudan
Period:	30 days [Between October to November 2024]

1) Background:

WHO estimates, around 40% of the world's population lives in malaria areas. Children under 5 and pregnant women are the most vulnerable populations in areas with stable transmission. In 2021, there will be an estimated 247 million cases of malaria and 619,000 deaths due to the disease. The WHO African Region bears a disproportionate share of the global malaria burden. In the same year, this region accounted for 95% of malaria cases and 96% of malaria deaths. Children under the age of 5 are the group most vulnerable to malaria; in 2021, they accounted for almost 80% of all malaria deaths in the WHO African Region. However, there has been a steady reduction in malaria cases since 2000. The COVID-19 pandemic has negatively impacted this trend due to the disorganization of care, supply, logistics and other services. According to 2018 NMCP data, children under the age of 5 account for: (i) 58.4% of hospitalized severe malaria cases and (ii) 69.7% of malaria-related deaths. Malaria case-fatality in under-5s remains 0.5 points higher (3.5%) than in the general population (3.00%), compared with 2.4% in over-5s and 0.3% in pregnant women, according to 2022 malaria stratification data.

Malaria in South Sudan, malaria is the leading cause of mortality and morbidity in accounting for 47% outpatient visits at the health facilities, 30% of inpatient admissions, and 20% of all-cause mortality. *Plasmodium falciparum* is the most common species accounting for 98%¹ of infections and almost all the reported cases of severe disease and death. In Northern Bahr el Ghazal State, malaria peak season is from May to November, corresponding with the main rainy season. Everybody in South Sudan is at risk of contracting malaria, however pregnant women and children under-five are the most vulnerable.

Seasonal malaria chemoprevention (SMC) is a highly effective, community-based intervention to prevent malaria infections caused by *Plasmodium falciparum* in areas where the burden of malaria is high and malaria transmission is seasonal. It involves the intermittent administration of an antimalarial to children aged 3–59 months² during the peak malaria season. The objective is to maintain therapeutic antimalarial drug concentrations in the blood throughout this period of greatest risk. The WHO recommends annual SMC rounds comprising of monthly cycles beginning at the start of the transmission season. Each cycle involves the administration of full courses of SPAQ to eligible children.

Malaria Consortium is one of the world's leading non-profit organisations dedicated to the comprehensive control of malaria and other communicable diseases in Africa and Southeast Asia. Malaria Consortium works with communities, government and non-government agencies, academic institutions, and local and international organisations, to ensure good evidence supports delivery of effective services, providing technical support for monitoring and evaluation of programmes and activities for evidence-based decision-making and strategic planning.

Conspicuously, Malaria Consortium developed [SMC quality standards](#) that serve as a benchmark for how SMC should be delivered which are based on, and intended to reinforce, international and national SMC policies and guidelines. Quality SMC delivery ensures that the correct quantity of SPAQ is available and administered safely and correctly to eligible children each cycle and is accurately recorded to measure whether malaria cases have been prevented in areas targeted by SMC within the intended period of protection.

Due to the malaria unprecedented risks, Malaria consortium through its “Seasonal Malaria Chemoprevention Project” started its SMC campaign in Aweil West and Aweil South. The campaign

¹ <https://www.severemalaria.org/countries/south-sudan-0>

² Recommended by WHO since 2012

that begun in June 2024 will run 5 cycles [5 months] up to October 2024. In accordance with international guidelines, each campaign must be marked by an end-of-campaign coverage survey.

To guarantee an independent approach to this evaluation, the South Sudan office of the Malaria Consortium is seeking the services of a consulting firm to carry out the 2024 SMC coverage survey in two (02) counties of Northern Bahr el Ghazal regions that have implemented SMC.

2) Objectives for end of round survey

2.1 General objective

The main objective of this survey is to measure essential SMC indicators on a national scale (the 2 counties), to obtain valid, relevant, and comparable information with that from other countries implementing SMC, and to better guide the National Malaria Control Program (NMCP) in ensuring the quality of implementation of this vital intervention over the coming years.

2.2 Specific Objectives

- a) Determine SMC programme coverage and quality in eligible children aged 3 – 59 months (measured at the child/concession, cluster/state, boma, and country levels).**
 - SMC dose-specific coverage, in terms of receipt of first dose of SPAQ (proportion of children aged 3 – 59 months who received the first does of SPAQ from community distributors), as well as second and third doses administered by caregivers.
 - SMC coverage in each cycle (proportion of eligible children who received SMC in each monthly cycle)
 - SMC coverage in all cycles (proportion of eligible children who received SMC in all four monthly cycle).
 - Level of adherence to directly observed therapy (DOT) or supervision by community distributors when caregivers administer the first of SPAQ to the child.
- b) Find out sources of SMC medicines.**
 - Level of receipt of SMC medicines from legitimate sources (*that is through door-to-door distribution by designated community distributors*)
 - Level of receipt of SMC medicines from other sources (*e.g., family members, medicine vendors, fixed point distribution etc*).
- c) Establish SMC programme coverage in ineligible children.**
 - Level of receipt of SMC medicines by ineligible older children aged 60–119 months.
- d) Establish SMC card retention and completion.**
 - Level of retention of SMC cards by parents and caregivers of eligible children.
 - Completeness of recording of doses administered to the child on SMC cards by parents and caregivers of eligible children.
- e) Find out SMC awareness, knowledge, and perceptions among caregivers.**
 - Level of awareness of the SMC among parents and caregivers of eligible children.
 - Level of SMC knowledge among parents and caregivers of children (including knowledge of age-eligibility, importance of age-eligibility, importance of administering second and third doses of SMC and knowledge of possible adverse events).
 - Level of SMC programme acceptability, confidence and trust among parents and caregivers.
 - Level of refusal of SMC by caregivers of eligible children.
- f) Ascertain SMC safety and pharmacovigilance³**

³ Practice of monitoring the effects of medical drugs after they have been licensed for use.

- Prevalence of adverse events following administration of SMC medicines.
 - Level of reporting of adverse events following administration of SMC medicines.
- g) **Determine coverage and use of other malaria interventions.**
- Level of ownership of mosquito nets in the household and use of nets by the child.
 - Level of use of indoor-residual spraying in the household.
- h) **Examine caregiver-reported fever and malaria episodes and health seeking behaviour.**
- Prevalence of caregiver-reported fever and malaria episodes in the one-month period preceding the survey.
 - Level of health-seeking (*proportion of children with fever who received malaria diagnostic testing*)
 - Proportion of caregiver-reported fever and malaria episodes with positive RDT results.
 - Proportion of children with caregiver-reported fever and malaria episodes who received anti-malarial treatment.
- i) **Identify implementation bottlenecks and propose recommendations that inform the next SMC round.**

3) Expected Deliverables

This study will provide valid and relevant information for future decision-making.

- a) Inception report detailing the methodology, persons to be involved and timelines for accomplishing the tasks and a financial proposal.
- b) Document review to ascertain information regarding the SMC Round 1 implementation.
- c) Tools and instruments for the EOR survey
- d) Final assessment report not exceeding 50 pages excluding the preliminary pages and annexes. [*Propose content/outline for report*]
- e) Compilation of human stories (Beneficiaries voices) from both Aweil South and Aweil West Counties. Share all data sets with Malaria Consortium, including transcripts of the qualitative data from all the Key Informants (KIIs)

4) Survey methodology

The **EOR** survey design and methodology is described with greater detail in **Annex 1**. In brief, the survey will employ multi-stage random sampling of households in areas covered by Malaria Consortium's SMC program, intended to achieve a representative sample of the target population at the sub-national or country level. A sample of 1,500 households with at least one eligible child will be required for the survey to be powered to provide an estimate of SMC coverage and other key indicators for eligible children (3–59 months) with a 95% confidence level and a margin of error of 5%. This sample size takes into account a survey design effect of 4.8 (based on intraclass correlation coefficient of 0.2 and cluster size of 20 households)."

Also, the survey should provide information on each monthly cycle (mass distribution), for a total of four cycles (*while giving results for the four independent cycles as well as consistency between cycles*). During the collection of data in the field, Malaria Consortium South Sudan represented by its monitoring evaluation lead will participate in the supervision to ensure that data collection is conducted in accordance with what is described in the technical offer.

- 5) The data collection team will as well conduct key informant interviews with key stakeholders and at village, Boma, Payam and County levels, considering gender representation. This will help the evaluation team to explore in-depth understanding of SMC issues and enable the beneficiaries to share their voices on SMC approach.

6) Scope of assignment

The assignment will be held in Northern Bahr el Ghazal State (South Sudan) – in two (02) counties (1) Aweil South and (02) Aweil West.

7) Duration of the assignment

The assignment will take 30 days - between October and November 2024 [OOB]

8) Proposed work plan

Task
Conduct literature review that comprehensively summarizes the available body of the literature and draws conclusions pertinent to SMC evaluation areas of coverage.
Develop the SMC evaluation methodology and protocol and present them along with an inception report that outlines the survey tools, methodology, scope, timelines, the team, and deliverables. this includes giving feedback and integrating the comments
Recruit and train enumerators on SMC evaluation approaches, research protocols and ethical considerations. The consultancy firm will use the training as an opportunity to pre-test the tool with enumerators. This pre-testing will be followed by the necessary reviews of the tools.
Deploy data collection teams to the field locations (Aweil South and Aweil West). The consultancy firm will ensure that; 1) all field data collection teams are versed with the local languages; and 2) Enumerators are supervised daily and ensure that they reach every enumerator before returning from their sample villages.
Data transcription, coding, cleaning, and analysis to answer the survey objectives.
Draft report that comprehensively present the SMC Evaluation findings and recommendations. The report will be reviewed by MC teams at country, Regional and Global levels to ensure quality.
Finalize the report based on the findings of stakeholders and conduct a validation workshop.
Submit the final report to MC.
Total Number of Days

9) Budget and Payment plan

The survey team should propose the cost of implementation of this consultancy in USD, stating the number of person-days' work to be undertaken according to the level of effort – Itemized costing may carry weight.

- 1st Instalment 50% - Upon approval of the Inception report with clear details of the methodology and tools
- 2nd Instalment of 20% - Upon approval of the first (*Com draft report*)
- 3rd Instalment of 30% - Upon approval of the final survey report

10) Education and Qualifications

- a) Master of Public health [*or any related qualifications*]
- b) Additional training in Research, Monitoring and Learning is significant.
- c) Assessment, program design, and process analysis desirable but not mandatory
- d) At least 10 years progressive experience in conducting participatory and complex process assessments in health/social services in resource constrained settings.
- e) Previous involvement in similar scope of assignment in MALARIA REPOSE projects is VITAL.
- f) Knowledge of the South Sudan health context is important.

11) Details for submission

Submit your **technical** and **financial** expression of interest to tenders@malariaconsortium.org by 15th August 2024.

Annex 1: Expanded Survey Methodology

Sample size

To ensure representative results, the survey will require a sample of 1,500 households in 75 clusters of 20 households each. The sample size was determined based on the following parameters and assumptions:

- Estimated coverage rate: 75-80%.
- Confidence level: 95%
- Margin of error: 5%
- Number of households in each cluster: 20
- Inter-cluster correlation: 0.2
- Design effect: 4.8
- Non-response rate: 5%.
- Without finite population correction

Sampling method: The survey will employ multi-stage random sampling of households in areas covered by Malaria Consortium's SMC program, intended to achieve a representative sample of the target population at the sub-national or country level, as appropriate to the country setting. The sampling method is random and aims at a selection of households (and eligible children) representative of the population targeted by the SMC program in Northern Bahr el Ghazal [Aweil South and West]. The selection of clusters [each in a site comprising a populated area (village, commune)] is carried out with a probability proportional to its population. The selection is done in a single phase without stratification. In each cluster, 20 households are randomly selected adapted to local conditions

Cluster selection: Using the attached spreadsheet, a number is randomly generated. The formulas in the file select at least 175 clusters, based on this number. Malaria Consortium will provide a list of sites, into which data collectors will be directed to sample 20 households. In each household, the interviewers will create a list of all eligible children (between 3 and 59 months); the software provided by Malaria Consortium will randomly section a child to whom all the questions on the form will be administered. Where an older child aged 5 – 9 years (60-119 months) is present in selected households, such children are selected for a few questions pertaining to the level of receipt of SMC medicines among ineligible children.

On average, each cluster is located 7.9 km from its health center.

Survey data collection and data management process: Malaria Consortium will provide an adequate sampling methodology to arrive at a representative sample (including the selection of localities/sites, as well as the selection of individual households in these areas/sites). As for the main outcome of the study (coverage of eligible children with MS), we expect an accuracy of at least 3% for the county. This clarification concerns children eligible on Day one. Nevertheless, the minimum sample size of structures/households required and desired will be around 3500; this size is already specified by malaria Consortium. The survey should provide information on each monthly cycle (mass distribution), for a total of four cycles (while giving results for the four independent cycles as well as consistency between cycles). During the collection of data in the field, Malaria Consortium represented by its Monitoring evaluation team will participate in the supervision to ensure that the collection is carried out in accordance with what is described in the technical offer. This also has the advantage of improving the quality of the data through working sessions with the team in the field.

Malaria Consortium will be responsible for the design of the survey including the questionnaire. Where necessary, the bidder, supervisors and data collection officers will be trained in the use of the SurveyCTO data collection mobile app and specific questionnaires by dedicated Malaria Consortium staff.

The data will be collected on mobile devices and transferred to the platform commissioned for this purpose by malaria Consortium (**SurveyCTO**). The SurveyCTO software used includes a questionnaire provided by malaria Consortium at least two weeks before the start of the survey to facilitate the collection of data on smartphones (*provided by malaria Consortium or also by the firm according to its preference*). Malaria Consortium will support the training of investigators. It will also provide relevant passwords and permissions to facilitate the use of SurveyCTO by survey investigators and supervisors. Real-time data quality checks will be performed as data is collected.