



2018 SMC Program – Summary

Background

Across the Sahel sub-region, most malaria illness and deaths occur during the rainy season. To prevent malaria in those most vulnerable to the disease's effects in areas where malaria transmission is seasonal, the World Health Organization (WHO) recommends seasonal malaria chemoprevention (SMC), which involves administering up to four monthly doses of antimalarial drugs to children aged 3-59 months during peak annual transmission season. The objective is to maintain therapeutic antimalarial drug concentrations in the blood throughout the period of greatest risk. SMC uses a combination of two antimalarial drugs: sulfadoxine-pyrimethamine and amodiaquine (SP+AQ). The intervention has been shown to be highly effective, safe, and feasible.

Malaria Consortium has implemented SMC since 2013, with a major scale-up from 2015 funded by Unitaid and, since 2018, mostly through GiveWell-directed funding. In 2018, Malaria Consortium's SMC program focused on three countries: Burkina Faso, Chad and Nigeria. These are countries where there are still significant gaps in terms of both geographical and population coverage. Together with Mali and Niger, the three countries account for the majority of children eligible for SMC according to WHO guidelines. Nigeria alone accounts for 11-13m children, of which only approximately 4m were covered in 2017. Across the Sahel region, 12-15m children are still not reached by SMC programs.

Programmatic priorities for 2018

Two key dimensions of support were prioritized in 2018 under the GiveWell-directed funding framework for SMC:

1. **Operational support** to SMC implementation in Burkina Faso, Chad and Nigeria, with the expectation to reach approximately 4m children in 2018:

- Burkina Faso

Plans at the beginning of 2018 involved a significant reduction in operational scope for Malaria Consortium, with the geographical scale of our SMC support going from 39 districts in 2017 to 18 in 2018, covering an estimated target population of 892,245 eligible children. This reduction in scope was a consequence of increased funding support from new sources, most notably the Global Fund, President's Malaria Initiative (PMI) and the World Bank.

- Chad

The original scope in 2018 was to continue to support the 14 health districts already covered since 2016 through the ACCESS-SMC project. In the first half of 2018, one of the target health districts (Mani) was split into two separate administrative units (Massakori and Karal), bringing the total

number of districts to 15. However, the target population remained unchanged, estimated at 742,015 children, based on 2017 administrative data and Ministry of Health-validated estimates.

- Nigeria

The original plan was to reach approximately 2.1m children in areas that Malaria Consortium had covered in 2017, mostly through the Unitaid-funded ACCESS-SMC project. With the end of ACCESS-SMC, Malaria Consortium prioritized continued coverage of the full State of Sokoto (23 Local Government Areas [LGAs]) and Zamfara (14 LGAs), as well as a number of LGAs in Katsina (4) and Jigawa (2) that were supported with GiveWell-directed funding (mostly from Good Ventures). In 2018, thanks to complementary funding from the UK Department for International Development (DFID) covering operational costs, Malaria Consortium had the opportunity to support three additional LGAs by slightly increasing the quantities of drugs procured. The number of targeted children was established in collaboration with local authorities at over 2.3m children across the 46 LGAs (compared to 43 LGAs in four states targeted in 2018).

The extent of this operational support was constrained by the timing of the funding confirmation and the limited capacity of the only manufacturer (Guilin Pharmaceuticals), both of which affected the maximum amount of drugs that could be procured, produced, shipped and delivered in time for the 2018 season (approximately 16.2m blisters).

2. **Supervision, monitoring and evaluation support**, specifically through enhanced supervision, conducting a range of surveys to determine intervention coverage and the review of the evaluation framework for SMC with a focus on impact assessment.

Operational support

GiveWell-directed funding supported the procurement, shipment and delivery of SP+AQ in a child-friendly, dispersible formulation. GiveWell-directed funds also supported in-country logistics costs and broader operational and capacity building support, mostly through training of health workers and community health workers (CHWs)/frontline distributors, distribution incentives and support supervision. In addition, GiveWell-directed funding supported the routine monitoring framework, including distribution of monitoring tools, as well as dedicated Malaria Consortium staff to coordinate, supervise and provide technical and operational assistance to all the implementation and monitoring phases.

Burkina Faso

Burkina Faso is the third most populous country in terms of SMC eligibility after Nigeria and Niger. Without Malaria Consortium-led SMC implementation in 18 health districts, there would be significant gaps in geographical coverage. GiveWell-directed funding in 2018 helped Malaria Consortium cover nearly 30% of the SMC national needs, targeting just under 900,000 children, and together with other donors such as PMI, Global Fund and the World Bank, ensured that nearly 90% of the eligible children in Burkina Faso benefitted from SMC.

Cycles:

The 2018 dates for SMC were fixed by decree by the Ministry of Health early in 2018 (**Table 1**):

Table 1. Dates of SMC cycles in 2018, Burkina Faso.

Country	Cycle 1	Cycle 2	Cycle 3	Cycle 4
Burkina Faso	24 - 27 July	21 - 24 August	20 - 23 September	20 - 23 October

Training:

More than 15,000 officials and volunteers were involved in SMC implementation, including roughly 14,000 frontline distributors, mostly CHWs (**Table 2**). Training took place at all levels in June and July 2018, using a cascade approach involving national master trainers and regional and districts trainers, SMC supervisors, CHWs/distributors and town announcers/community mobilisers. Since SMC had already been delivered in all 18 districts previously, and most personnel had therefore been trained in previous years, Malaria Consortium opted for a one-day refresher training. Training materials are standardized across the country and are largely based on materials developed by Malaria Consortium under the ACCESS-SMC project.

Table 2. SMC personnel trained in 2018, Burkina Faso.

2018 Trainings	Details
Training of trainers (central level)	9 national trainers (NMCP, central level trainers, doctors)
Regional level	69 regional trainers
District and health facility level	1,181 district supervisors and health workers
Training of CHWs and town criers	14,161 CHWs and town criers
Total	15,420 people

Based on lessons learned during previous years, Malaria Consortium introduced training of district-level pharmacists in 2018, in an attempt to ensure they apply best practice in supply management (e.g. first expired, first out [FEFO] policy), as well as report correctly on the use of SP+AQ. Pharmacists from the central pharmacy (CAMEG) and 18 pharmacists from the districts (one per district) were trained over two days.

Coverage:

Historically, Burkina Faso has been one of the best-performing countries in terms of SMC coverage. In 2018, high coverage was maintained, with an average of 107% of targeted children reached according to administrative data¹ (**Table 3**).

Table 3. Administrative SMC coverage data 2018, Burkina Faso.

Country	Target	Cycle 1		Cycle 2		Cycle 3		Cycle 4		Average	
		Reached	Coverage	Reached	Coverage	Reached	Coverage	Reached	Coverage	Reached	Coverage
Burkina Faso	892,245	923,603	103.5%	941,018	105.5%	959,272	107.5%	976,648	109.5%	950,135	106.5%

¹ See Annex II for more detailed administrative coverage results from all three countries.

Post-cycle surveys generally confirmed good coverage, but also identified several districts with less positive results (Po with 74% in Cycle 1, and Tenkodogo with 57% in Cycle 3). A post-round coverage survey conducted by an independent research firm found that the overall coverage across four cycles was 92% (i.e. 92% of eligible children were treated at least once). The survey also found that nearly 20% of children over five years of age, who are not eligible to receive SMC, had been treated at least once, though post-cycle surveys showed a decreasing trend over the course of the four cycles.

Challenges and planned solutions:

The following areas requiring improvement were identified:

- Increase use of role play and practical exercises in the training of frontline distributors, to improve interpersonal and communication skills. This is expected to contribute to ensuring caregivers comply with the three-day SP+AQ regimen and know how to respond in case of serious adverse events.
- Increased focus on how to pragmatically assess age eligibility, in order to limit the proportion of children over five receiving SMC.
- Enhanced practice filling out tally sheets to ensure this is done consistently and correctly.
- While training pharmacists contributed to an overall improvement in reporting, there remain issues in terms of completeness and timelines. In 2019, emphasis will be placed on ensuring FEFO is practiced at the CAMEG/central level, district level and health facility level.

Chad

Chad, together with Nigeria, is one of the most underserved countries in terms of SMC support relative to the size of its population. In 2018, thanks to GiveWell-directed funding, 14 health districts were supported by Malaria Consortium, with an estimated population of over 740,000 children.

Cycles:

Despite some delays in the receipt of drugs, due to time-consuming clearance and quality assurance procedures in-country, SMC started close to the planned dates, in the last week of July 2018 (**Table 4**).

Table 4. Dates of SMC cycles in 2018, Chad.

Country	Cycle 1	Cycle 2	Cycle 3	Cycle 4
Chad	25 - 27 July	28 - 31 August	27 - 29 September	25 - 27 October

Training:

Over 11,000 volunteers and health officials participated in the 2018 season, of which nearly 9,000 were CHWs/distributors (**Table 5**). As all districts involved had already implemented SMC in the past, a refresher training was offered to all campaign participants.

Table 5. SMC personnel trained in 2018, Chad.

Trainings in 2018	Quantity
Masters trainers	6

District, NMCP and regional trainers	75
Health facility workers	233
Health facility supervisors	1,144
Community mobilisers/Town announcers	685
CHWs/distributors	8,926
Total	11,069

Coverage:

Chad has improved substantially in terms of coverage over the last few years. According to administrative data, 108% of targeted children were reached in 2018 (**Table 6**).

Table 6. SMC personnel trained in 2018, Chad.

Country	Target	Cycle 1		Cycle 2		Cycle 3		Cycle 4		Average	
		Reached	Coverage	Reached	Coverage	Reached	Coverage	Reached	Coverage	Reached	Coverage
Chad	742,0125	790,698	106.6%	802,177	108.1%	816,830	110.1%	809,050	109%	804,689	108.4%

For the first time, tracking of individual children across cycles with the help of tally sheets and SMC cards was successfully implemented in Chad, illustrating the successful communication about the importance of retaining the SMC cards that document treatments received and are kept by caregivers. According to these data, 91% of children were treated in at least three cycles, and 83% were treated in all four cycles.

Post-cycle surveys, while showing marked improvements overall, paint a more accurate picture, with average coverage ranging from 89% in Cycles 2 and 3 to 93% in Cycle 1. The post-round survey conducted by an independent research firm found a coverage of 96% across all four cycles. As in other countries, a large proportion of children over five years of age received SMC. According to the post-round survey, coverage of children over five was up to 60%, though this should be interpreted with caution, as it is based on a comparatively small sample. Nevertheless, these findings will require further investigation, in particular regarding the reliability of population estimates and Ministry of Health validated administrative coverage results.

Challenges and planned solutions:

The following operational challenges were identified:

- Supervision frequently identified low levels of knowledge among health workers and frontline implementers. More emphasis will be put on determining eligibility during the 2019 training.
- A key challenge was that and complying with directly-observed treatment (DOT) was often not followed, with frontline implementers leaving blisters with the caregiver to administer to their children. It is possible that this may contribute to the high number of ineligible children over five receiving SMC. Malaria Consortium is in discussions with health authorities on increasing compliance with DOT in 2019.

Nigeria

Since 2013, Nigeria was supported first by the Bill & Melinda Gates Foundation and then through other one-off funding to implement SMC in six LGAs in the States of Katsina and Jigawa; subsequently, thanks to funding from

Unitaid, the program extended to the whole States of Sokoto and Zamfara (37 LGAs). In 2018, thanks to GiveWell-directed funding, Malaria Consortium continued support to these 43 LGAs in the four states and supported the procurement of SP+AQ in three additional LGAs in Jigawa that had secured funding for distribution from DFID, bringing the total of supported LGAs to 46. The combined effort aimed to provide SMC to approximately 2.3m children.

2018 cycles:

The dates of the cycles were varied slightly between states, due to specific political decisions or linked to security issues, but generally started at the end of July (**Table 7**):

Table 7. Dates of SMC cycles in 2018, Nigeria.

Country	Cycle	2018 Dates
Zamfara	1	27 – 30 July
	2	29 August – 1 September
	3	28 September – 2 October
	4	29 October -2 November
Sokoto	1	27 – 30 July
	2	27 – 30 August
	3	29 September – 1 October
	4	27 October – 1 November
Katsina	1	27 – 30 July
	2	27 – 30 August
	3	24 -27 September
	4	22 -25 October
Jigawa	1	27 – 30 July
	2	27- 30 August
	3	24 -27 September
	4	22 -25 October

Training:

Malaria Consortium supported the training of nearly 28,000 people, of which approximately 22,000 were frontline volunteer distributors/CHWs (**Table 8**).

Table 8. SMC personnel trained in 2018, Nigeria.

Personnel	Role	Jigawa	Katsina	Sokoto	Zamfara	Total
Master trainer	Review of 2017 SMC tools and training of national trainers	1				1
National trainers	Training of state trainers (state/LGA teams)	10				10
State team	State health officials and administrators responsible for training and supervision of HFWS	10	8	23	14	55

Personnel	Role	Jigawa	Katsina	Sokoto	Zamfara	Total
LGA team: Primary Healthcare Manager; Malaria Focal Person, M&E, Logistics Officer	LGA health officials and administrators responsible for training and supervision of HFWs	24	20	92	56	192
Health Educators	LGA officials responsible for creation of awareness for SMC	5	4	23	14	46
Health Facility Workers (HFWs):	Nurses, CHOs, CHEWs, and clinical officers responsible for safety, treatment of referrals, commodity management, data management, training and supervision of CHWs	208	405	1,831	1,193	3,637
Community Health Workers (CHWs):	Responsible for safe distribution of SPAQ and health promotion in the community	1,996	1,654	9,258	9,162	22,070
Community Mobilisers (Town Announcers)	Responsible for awareness creation on benefit and timing of SMC	162	129	976	588	1,855
Total		2,405	2,220	12,203	11,027	27,855

Four shipments of SP+AQ blister packs were received at State Medical Stores in Zamfara, Sokoto, Katsina and Jigawa. The distribution strategy was designed to fit into the Malaria Commodity Logistics Management System (MCLMS) for each of these states. State Governments had the responsibility of last-mile distribution to all the supervising health facilities.

While there were challenges caused by a protracted strike at the port of Lagos during the clearance procedure of the shipment for Cycle 3, as well as slow approval processes for last-mile distribution on the part of Governments, these were mitigated and adequate SP+AQ quantities were available for each of the cycles.

Coverage:

At the end of the 2018 season, the overall administrative coverage in Malaria Consortium's area of operation reached an average of 102.7% over four cycles (**Table 9**).

Table 9. Administrative SMC coverage per state and cycle in 2018, Nigeria.

State	Target	Cycle 1		Cycle 2		Cycle 3		Cycle 4		Average	
		Reached	Coverage	Reached	Coverage	Reached	Coverage	Reached	Coverage	Reached	Coverage
Sokoto	1,001,507	990,356	98.9%	976,662	97.5%	1,001,850	100%	1,100,221	109.9%	1,017,262	101.6%
Zamfara	903,872	828,063	91.6%	905,787	100.2%	909,360	100.6%	1,019,283	112.8%	915,623	101.3%
Katsina	187,212	197,838	105.7%	208,951	111.6%	221,942	118.6%	242,651	129.6%	217,846	116.4%
Jigawa	209,872	199,195	94.9%	206,929	98.6%	212,815	101.4%	236,600	112.7%	213,885	101.9%
Total	2,302,463	2,215,452	96.2%	2,298,329	99.8%	2,345,967	101.9%	2,598,755	112.9%	2,364,616	102.7%

Post-cycle surveys showed improvements in terms of coverage compared to 2017, where coverage varied between 26% in Sokoto (the lowest in the country) and 75% in Zamfara (the highest). In 2018, post-cycle coverage was found to be consistently above 90%, often hovering very close to 100% in all states. However, post-cycle survey results should be interpreted with caution, as several methodological issues were documented and there

were concerns over researchers being recruited from among state-level health authority staff. The post-round coverage survey found generally lower coverage figures, ranging from 92% in Katsina to 95% in Jigawa, which is likely a better reflection of actual coverage. The surveys also highlighted some persistent issues with SMC, especially with the administration of SMC to ineligible children over five years of age, with up to 25% of children between the age of five and ten treated at least once during the 2018 season in some states.

Challenges and planned solutions:

Operational challenges identified in 2018 included the following:

- Security challenges were experienced in parts of Zamfara and Sokoto States. These were not expected during the planning period. Security advisory committees were set up in each of the states to coordinate field movements, but it proved to be extremely difficult to ensure adequate supervision in those areas. This is likely to be a protracted issue in Zamfara State, where currently 30% of the health facilities' catchment areas are inaccessible due to safety and security concerns caused by communal violence and widespread banditry.
- The accurate estimation of target populations remains a problem. In response, community leaders will be assigned an increased role through enhanced community engagement in 2019, including involvement at the planning stage via community led enumeration exercises.
- Contrary to the SMC protocol, in some areas frontline SMC implementers were not selected by communities but by higher-level political authorities, which may affect trust at community level, increase safeguarding risks and pose challenges in terms of training and supervision. In 2019, the role of community leaders in selecting local SMC distributors and in monitoring SMC implementation will be emphasized and funding will be withdrawn in case of non-compliance.
- There was a lack of female volunteers to participate as frontline SMC distributors, which limited distributors' ability to enter households and comply with DOT. Many of the supervisors were also male, which meant the process of administering the SMC drugs within the household could not be observed. In 2019, Malaria Consortium plans to engage more proactively with communities in order to help them identify viable options for improving recruitment and retention of female volunteers.

Supervision, monitoring and evaluation support

Assessment of coverage

GiveWell-directed funding supported post-cycle and post-round performance evaluation through post-cycle and post-season surveys. This has resulted in better assessment of intervention coverage and quality of intervention delivery.

Post-cycle surveys using lot quality assurance sampling (LQAS) methods were conducted following Cycles 1, 2 and 3, with a more comprehensive post-round coverage survey carried out after the end of Cycle 4. LQAS surveys are a comparatively simple and operationally feasible way of collecting data from randomly selected supervision areas and are designed to assess whether or not the minimum expected coverage of 80% was achieved. Aggregating data at the national or state level results in a reasonably precise measure of coverage. The post-round surveys, on the other hand, involved larger samples and a substantially more comprehensive questionnaire. They were designed to provide a representative measure of coverage and quality of implementation across the four SMC cycles. Top-level summaries of survey results are presented above and full

reports, including a detailed description of methods used, will be submitted in July 2019. This section discusses some of the strengths and weaknesses of this approach.

Experience with this methodology was mixed in the different countries, reflecting the novelty of the approach and the fact that many members of Malaria Consortium's SMC M&E team joined only in mid-2018 due to recruitment challenges. However, it also reflects different implementation strategies in different countries. For example, in Chad the survey activities were mostly outsourced to independent firms, not all of which delivered outputs to a high standard. In Nigeria, the work was carried out by researchers recruited by state authorities, which raised concerns about impartiality of the researchers. In Burkina Faso, the surveys were conducted under the supervision of Malaria Consortium using temporary field researchers, which may introduce a bias because of the closeness of implementers and evaluators.

Key challenges and lessons learned

The overall approach of LQAS surveys following Cycles 1 to 3 and more comprehensive post-round coverage surveys will be maintained in 2019. However, we will continue to strengthen the methods and tools. We will also increase our efforts to develop a harmonized M&E framework for all three countries.

Burkina Faso:

Data analysis was more time-consuming than anticipated, which led to delays in providing comprehensive reports. However, key results such as reach and treatment of children over-five were provided in time to inform improvements in subsequent cycles.

Chad:

The quality of outputs from some of the selected research firms was unsatisfactory and required Malaria Consortium to carry out additional, time-consuming analyses. Despite outsourcing post-cycle surveys to different firms each cycle, deliverables did not meet our expectations, leading us to conclude that local research firms do not have the required capacity and expertise to conduct complex evaluations of coverage and quality. Repeated outsourcing processes also led to delays, with a longer than planned gap between Cycle 4 and the post-round survey, which may have introduced a recall bias. It is likely that 2019 surveys will be conducted under the direct supervision of Malaria Consortium M&E staff.

Nigeria:

The main challenge related to researchers being selected by political LGA authorities. This increases safeguarding risk and may introduce bias because state authorities have a vested interest in reporting positive implementation results. Another limitation arises from researchers' familiarity with implementation plans. If frontline implementers focus on "easy-to-reach" areas within a supervision area (the unit of randomization) and researchers, aware of implementers' activities, simply follow in their footsteps, this may lead to an overestimation of coverage.

Field monitoring activities and tools

2018 saw continued attempts to improve supervision and monitoring based on lessons learned from previous years. For example, using unique identifiers for children on SMC cards in 2017 was found to be impractical. New two-sided tally sheets were introduced in 2018, which were considered to be more user-friendly and appropriate for frontline implementers with often low literacy levels. The new tools require implementers to fill-in a circle for

each cycle a child has received SMC. For example, if a child in Cycle 4 has been treated only once before during the 2018 SMC round, the frontline implementer would fill in two circles to indicate “two cycles of SMC received”.

Overall, this tool worked better than the 2017 version, but experiences were mixed in different countries. As mentioned above, this approach worked well in Chad, but implementers in some states in Nigeria struggled to use the tool. In general, improvements were seen over the four cycles as implementers got increasingly used to the tool.

A key challenge identified related to the training of implementers, which indicated a lack of practical exercises on how to complete the monitoring tool. This will be addressed in the training for the 2019 campaign. Another challenge was the high proportion of SMC cards lost, as implementers had been instructed to use those to validate the number of treatments previously received. For 2019, a more flexible approach will be used, which will also take into account caregivers’ recall of previous treatments.

It should be noted that this tracking of previous cycles on the tally sheet tool was not used in Burkina Faso, as it was felt that overall good coverage results in previous years did not demand it. However, following discussions with stakeholders and given the expansion to new districts, it is likely that this will be introduced in 2019.

Impact analysis

To-date, efforts to evaluate impact have been limited. However, Malaria Consortium’s M&E team plans to step up those efforts and has outlined the approach that will be taken. This will involve an interrupted time-series analysis (ITSA) model, which will allow the analysis of Health Management Information System (HMIS) data in order to:

- Compare confirmed malaria cases in SMC target districts, pre- and post-SMC (as well as year-on-year trends);
- Compare confirmed cases in SMC-treated districts vs. untreated districts (and year-on-year trends)
- Compare confirmed cases across age groups (under-5; over-5), across the dimensions mentioned above (pre-/post-SMC; with/without SMC).

A key challenge will be to obtain good-quality data from national HMIS systems, which, in many countries, are known to be weak and unreliable. In some countries, gaining timely access to data will be challenging. In 2019, we will increase our efforts to support strengthening of HMIS by dedicating resources to work with governments and malaria programs on improving data recording and reporting.

Malaria Consortium’s M&E team is currently performing a retrospective analysis for all three countries where we are implementing SMC to test the feasibility of this approach. Preliminary results will be shared in July 2019.

Going forward, it is likely that impact evaluation will require establishing “model” districts/LGAs with a good track record in terms of quality and completeness of the HMIS data. Within those districts, we plan to select a number of health facilities from different levels of the health system, where Malaria Consortium would directly supervise data recording and reporting to ensure timeliness and quality. This could also involve data verification exercises, e.g. comparing reported figures with registers or pharmacy stock records. Information from HMIS and the monitoring sites would then feed into the ITSA model. We aim to carry out an impact analysis for the 2019 campaign, with a more comprehensive framework in place for the 2020 season.

Financial overview

As shown in the financial summary in Annex I, out of a projected budget of USD 15.5m in 2018, Malaria Consortium spent roughly USD 15.1m, corresponding to a burn rate of 97%. Budgets for direct activities were somewhat overestimated in Chad and Nigeria, and slightly underestimated in Burkina Faso. Variance across activities are large, but often reflect miscoding. For instance, some countries coded training of supervisors under training, rather than supervision as intended. In 2019, we will emphasize the importance of correct coding to country teams and will attempt to identify and correct mistakes when expenditure is posted in Malaria Consortium's finance system.

Plans and opportunities for 2019-2021

All three countries are planning to expand geographical coverage in 2019 and there are opportunities to expand further in subsequent years.

Burkina Faso

- Expansion to five new urban districts, within and around the capital Ouagadougou, moving from 18 to 23 districts, and from roughly 900,000 to 1.3m children. This would be the first time SMC is implemented in a large urban setting in Burkina Faso. The country team will apply lessons learned from experience implementing in N'djamena, Chad. This expansion means that, between the various partners implementing SMC, all districts in Burkina Faso will be covered in 2019.
- The implementation will require the identification and training of approximately 15,000 personnel, mostly CHWs and volunteer distributors, many of them new.
- It is likely that the World Bank will cease to support SMC beyond 2020. This would leave a gap of 1.2m children in 22 districts from 2021, which could be filled by Malaria Consortium.

Chad

- Expansion to five new districts, bringing the total to 20 districts and increasing the target population from 800,000 to just over 1m children.
- In 2020, we are planning to expand to 17 new health districts (approx. 700,000 children) where SMC is not currently implemented. Under SMC implementing partners' current plans, this means a gap of eight districts will remain. There are security concerns in the remaining districts which would require additional investment in SMC infrastructure, but we will continue to explore the feasibility of expanding to those areas.

Nigeria

- Following confirmation of increased capacity on the part of the manufacturer of SP+AQ, Guilin, Malaria Consortium decided to expand SMC implementation to cover all LGAs in Jigawa State, reaching an additional 770,000 children in areas not previously covered by SMC. The total of children targeted in 2019 stands at 3.3m.

New country

- Malaria Consortium is considering expanding to a new country in 2021. Options include Ghana, Niger and Guinea Bissau, where significant SMC coverage gaps remain and Malaria Consortium has existing relationships with Ministries of Health.

Research

One implementation research project is planned in each of the three countries where we currently implement SMC. They are seen as first-step pilot studies exploring the feasibility, acceptability and potential impact of adaptations to the standard SMC protocol:

- Burkina Faso: adding a fifth SMC cycle to accommodate a longer transmission season;
- Chad: expanding SMC to children aged 5-10;
- Nigeria: integration of vitamin A supplementation with SMC in areas of low Vitamin A Supplementation (VAS) coverage to maximize the opportunity to reach those children already covered through SMC.

If successful, the studies could be expanded to assess impact of the adaptations at larger scale in 2020. Alternatively, studies exploring quality improvements could be conducted.

For 2020, a molecular marker study is planned to monitor trends in terms of potential resistance to SP and AQ.

Table 10 shows the 2019 and 2020 SMC program budgets (GiveWell-directed funding only), taking into account the expansion plans outlined above.

Table 10. 2019 and 2020 SMC budgets (GiveWell-directed funding).

Country	2019 budget			2020 budget	
	No of children	Budget (USD)	Cost/child (USD)	No of children****	Budget (USD)
Burkina Faso	1,323,847	5,104,056	3.87	1,363,562	5,257,178
Chad	1,005,190	4,176,173	4.15	1,735,346	7,548,754
Nigeria*	3,339,544	10,348,838	3.10	2,786,729	10,394,501
Above-country**		976,385			1,476,385
Research		442,377			1,292,377
Subtotal		21,047,829			25,969,195
Overheads (10%)		2,104,783			2,596,920
Grand Total	5,668,591	23,152,612	4.08	6,538,649	28,566,115

*In 2019, a USD 522,000 in-kind contribution was received from PMI. This contribution is not expected to continue in subsequent years. For 2019, we also expect DFID to cover operational costs of implementing SMC in 10 LGAs in Jigawa State (30% of the target population in this state), estimated at USD 150,000. If PMI and DFID contributions are taken into account, cost per child in 2019 is \$3.30. In 2020, DFID is expected to cover both operational and commodities costs to reach 50% of the target population.

**Increased 2020 budget to prepare for expansion to a new country in 2021.

***Annual estimated population growth of 3%.

Malaria Consortium will continue to discuss with GiveWell where there may be room for more funding due to coverage gaps and opportunities for expansion.

Conclusion

Overall, SMC implementation in 2018 showed good performance in Burkina Faso, steady improvements in Chad and moderate improvements in Nigeria. We continue to learn from implementing, monitoring and evaluating our performance, applying lessons learned from previous years to improve quality of program implementation going forward. There are opportunities to expand the reach of the program in the future, but we will also emphasize continuous learning and quality improvement through strengthening research, monitoring and evaluation.

ANNEX I – Financial summary 2018

Malaria Consortium
The Green House,
234-236 Cambridge Heath Road,
London
E2 8DA
United Kingdom



SMC Global Financial Report
For the period of January to December 2018

LINE ITEM DESCRIPTION	Budget (USD)	Expenditure (USD)	Burn rate (%)	Budget Remaining (USD)
	100%	100%	100%	0%
I. TOTAL STAFF COSTS	1 331 639	1 543 772	116%	- 212 133
II. ACTIVITY COSTS				
Commodities (product value)	4 470 581	4 803 688	107%	- 333 107
Planning & procurement (including international procurement & shipping)	1 347 776	160 527	73%	157 249
SMC implementation (including training, sensitization and operational support to distribution)	4 507 253	3 981 559	88%	525 693
Supervision, monitoring, evaluation & learning	2 154 334	2 001 010	93%	153 324
Research	-	-	0%	-
II. TOTAL ACTIVITY COSTS	12 479 944	11 776 785	94%	703 159
IV. TOTAL EQUIPMENT AND IN-COUNTRY OFFICE COSTS	288 455	404 824	140%	- 116 369
TOTAL DIRECT COSTS	14 100 038	13 725 381	97%	374 657
VII. OVERHEADS	1 410 004	1 372 538	97%	37 466
GRAND TOTAL	15 510 041	15 097 919	97%	412 123

I certify that to the best of my knowledge this Financial Report is a correct, complete and accurate statement, and that all amounts are for appropriate purposes in strict accordance with the terms and conditions of the contract.

Prepared by:
Jenni Oakley, Finance Support Manager W&C Africa
Typical name, Title
14/5/17

Signature Date

Authorised by:
Charlie Nelson, CE
Typical name, Title
15/5/19

Signature Date

Malaria Consortium
The Green Miles,
224, 226 Coleridge Road East,
London
E2 8DA
United Kingdom



SMC Global Financial Report
For the period of January to December 2018

LINE ITEM DESCRIPTION	Budget (2018)					Expenditure (2018)					Spend rate (%)					Budget Remaining (2018)
	Home Country	Uganda	Kenya	India	TOTAL	Home Country	Uganda	Kenya	India	TOTAL	Home Country	Uganda	Kenya	India	TOTAL	
I. TOTAL STAFF COSTS	389,194	711,902	384,822	288,042	1,373,960	383,041	709,720	382,214	285,741	1,360,716	100%	100%	100%	100%	100%	213,244
II. ACTIVITY COSTS																
Commodities (product value)	4,472,582	-	-	-	4,472,582	4,201,600	-	-	-	4,201,600	100%	0%	0%	0%	100%	270,982
Planning & procurement (including international procurement & shipping)	826,718	204,610	143,044	84,221	1,258,593	609,581	130,422	174,434	77,133	991,569	75%	47%	127%	62%	75%	267,024
SMC implementation (including training, sensitization and operational support to distributed)	-	1,391,302	1,108,905	1,343,716	3,843,923	-	2,141,011	888,060	807,508	3,836,579	0%	107%	76%	71%	85%	25,344
Supervision, monitoring, evaluation & learning	74,467	1,083,218	971,408	628,452	2,757,545	85,526	784,828	930,300	251,200	2,831,854	130%	81%	178%	28%	100%	(73,309)
Research	-	-	-	-	-	-	-	-	-	-	0%	0%	0%	0%	0%	-
III. TOTAL ACTIVITY COSTS	5,303,767	5,679,130	2,213,356	1,715,389	14,911,856	5,497,106	3,056,260	1,942,804	1,135,833	10,632,003	103%	85%	108%	75%	84%	4,279,853
IV. TOTAL EQUIPMENT AND IN-COUNTRY OFFICE COSTS	40,991	76,388	61,994	122,080	301,453	22,188	117,868	81,540	142,813	264,409	55%	133%	133%	103%	140%	136,944
TOTAL DIRECT COSTS	10,827,407	12,172,808	6,763,470	4,146,512	28,938,826	28,026,314	6,234,808	2,004,548	1,278,646	37,544,316	100%	100%	100%	100%	100%	8,114,420
V. OVERHEADS	180,141	617,819	338,980	216,883	1,353,803	182,943	338,886	134,261	173,448	830,538	100%	93%	107%	93%	97%	513,265
GRAND TOTAL	11,007,548	12,790,627	7,102,450	4,363,395	30,292,629	28,208,857	6,573,694	2,138,809	1,452,094	38,374,454	100%	93%	107%	93%	97%	8,627,685

I certify that to the best of my knowledge this Financial Report is a correct, complete and accurate statement, and that all amounts are for appropriate purposes in strict accordance with the terms and conditions of the contract.

Prepared by:
Janis Collins, Finance Support Manager, M&A Africa
Typed name, Title

14/5/19 

15/5/19 

Authorised by:
Charles Brown, CEO
Typed name, Title

ANNEX II: Administrative coverage data 2018



Annex II -
Administrative Cover