THE LANCET

Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Supplement to: ACCESS-SMC Partnership. Effectiveness of seasonal malaria chemoprevention at scale in west and central Africa: an observational study. *Lancet* 2020; **396:** 1892–40.

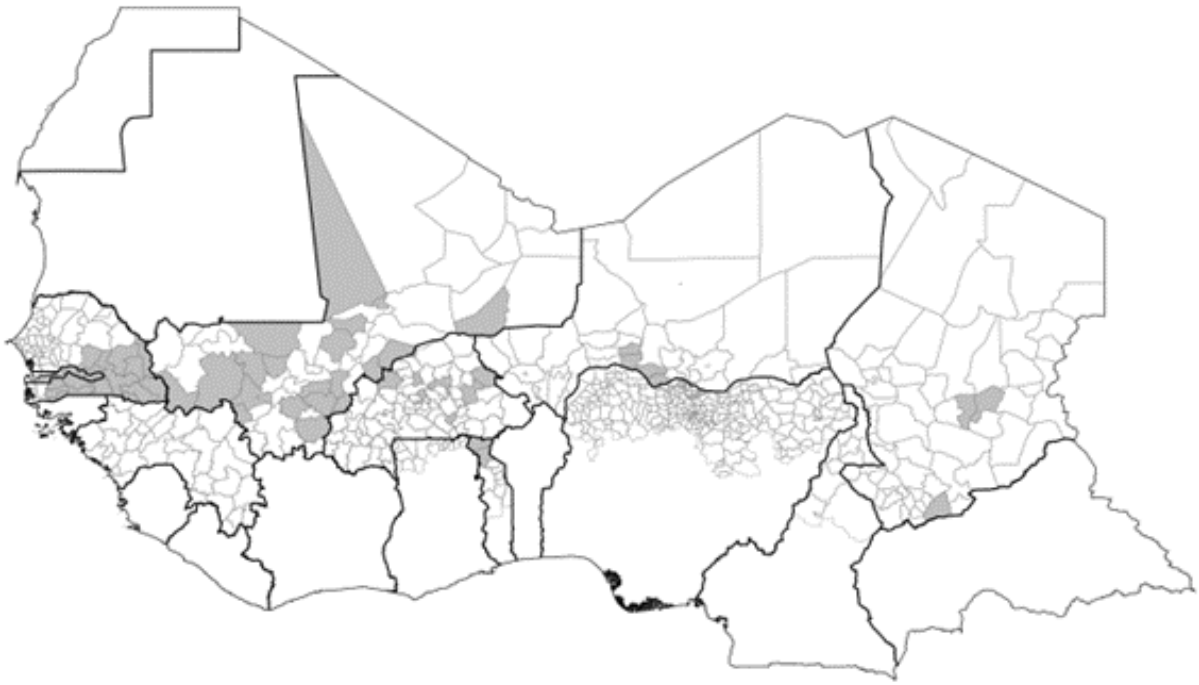
Supplementary information: Effectiveness of Seasonal Malaria Chemoprevention at scale in West and Central Africa. Statistical methods and study design, and additional results. The ACCESS-SMC partnership.

Contents

1. Initial introduction of SMC 2012-2014:

Following the WHO's recommendation in March 2012 that children living in areas of the sub-Sahel with highly seasonal malaria transmission should receive SMC, pilot schemes in children under 5 years of age started the same year, through MSF in Mali and Chad and in Niger in 2013. Senegal introduced SMC for children up to 10 years in a pilot in December 2013 and at scale from 2014, and pilot schemes in children under 5 were started in Togo and Nigeria in 2013. In total about 900,000 children received SMC in 2013, only about 3% of the children living in areas of the Sahel and sub-Sahel considered suitable for SMC, which was estimated to be a population of about 20 to 25million children [1-4]. In 2014, there were SMC programmes in 8 countries reaching about 2.5million children (Figure S1).

Figure S1: Areas where SMC was implemented in 2014



2. Design of the evaluation

In May 2014, UNITAID awarded a grant of up to 67.4million USD to scale-up access to SMC [5]. The project implemented SMC in 2015 in seven countries, in areas with a total target population of about 3.6million children, and expanded in 2016 to 7.6 million children in the same countries (Table S1).

Table S1: The target populations of children eligible for SMC in ACCESS-SMC implementation areas in 2015 and 2015 and the estimated number reached

Country	No. of areas	Target Population 3-59 months	No. reached*	No. of areas	Target Population 3-59 months	No. reached*
Burkina Faso	11 districts	707,317	677,610	31 districts	2,056,169	2,041,776
Chad	6 districts	268,956	258,198	14 districts	514,042	503,247
The Gambia	17 districts (2 regions)	88,748	83,157	17 districts (2 regions)	90,925	75,922
Guinea	6 prefectures	253,252	238,563	8 prefectures	438,123	421,474
Mali	14 districts (5 regions)	875,330	763,288	20 districts (5 regions)	1,492,137	1,344,415
Niger	8 districts (4 regions)	596,355	470,524	11 districts (4 regions)	1,050,932	960,552
Nigeria	17 LGAs (2 states)	860,497	660,862	37 LGAs (2 states)	1,909,163	1,578,878
TOTAL		3,650,455	3,152,201		7,551,491	6,926,265

*the estimate number of children reached is the target population multiplied by the survey estimate of the proportion of eligible children who received at least one SMC treatment

In 2017, the project continued to implement in three countries (Burkina Faso, Chad and Nigeria) and in the other areas implementation was continued with other sources of funding (primarily the Global Fund).

Coverage of SMC was assessed in household surveys in each of the seven countries at the end of each year. Case control studies were undertaken in five countries (The Gambia and Mali in 2015, and The Gambia, Mali, Chad, Nigeria and Burkina Faso in 2016). To monitor the effect of SMC at scale on the frequency of molecular markers of resistance to SP and AQ, large scale surveys were done in all seven countries early in 2016, and repeated early in 2018. Costs of SMC delivery were assessed in 2015 and 2016 in all seven countries. Impact was assessed using confirmed cases of malaria before and during SMC implementation, using national data in Burkina Faso and The Gambia which had established the use of DHIS2 prior to introduction of SMC, and using individual patient data collected from selected health facilities in the other five countries [7]. In all countries, efforts were made to support national pharmacovigilance during 2015 and 2016 to strengthen safety monitoring. Timing of the various aspects of the evaluation is shown in Figure S2 and the schematic which was used to explain the evaluation in Figure S3. From 2017, SMC implementation continued in all ACCESS-SMC areas, partly through the ACCESS-SMC project in Burkina Faso, Chad and Nigeria, and with support from other sources in the other countries (see map in section 9 below).

Figure S2: Timing of intervention and of the various components of the evaluation

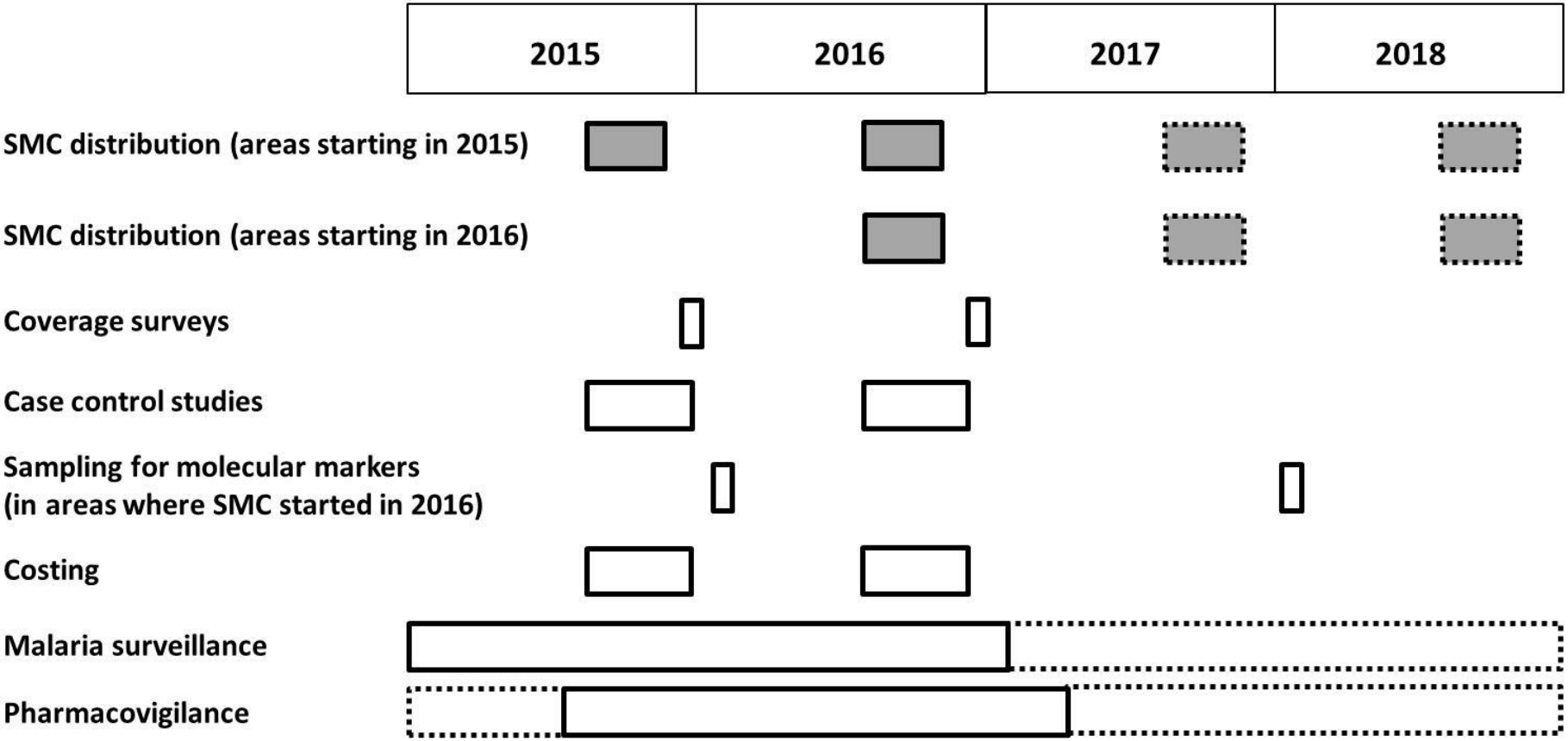
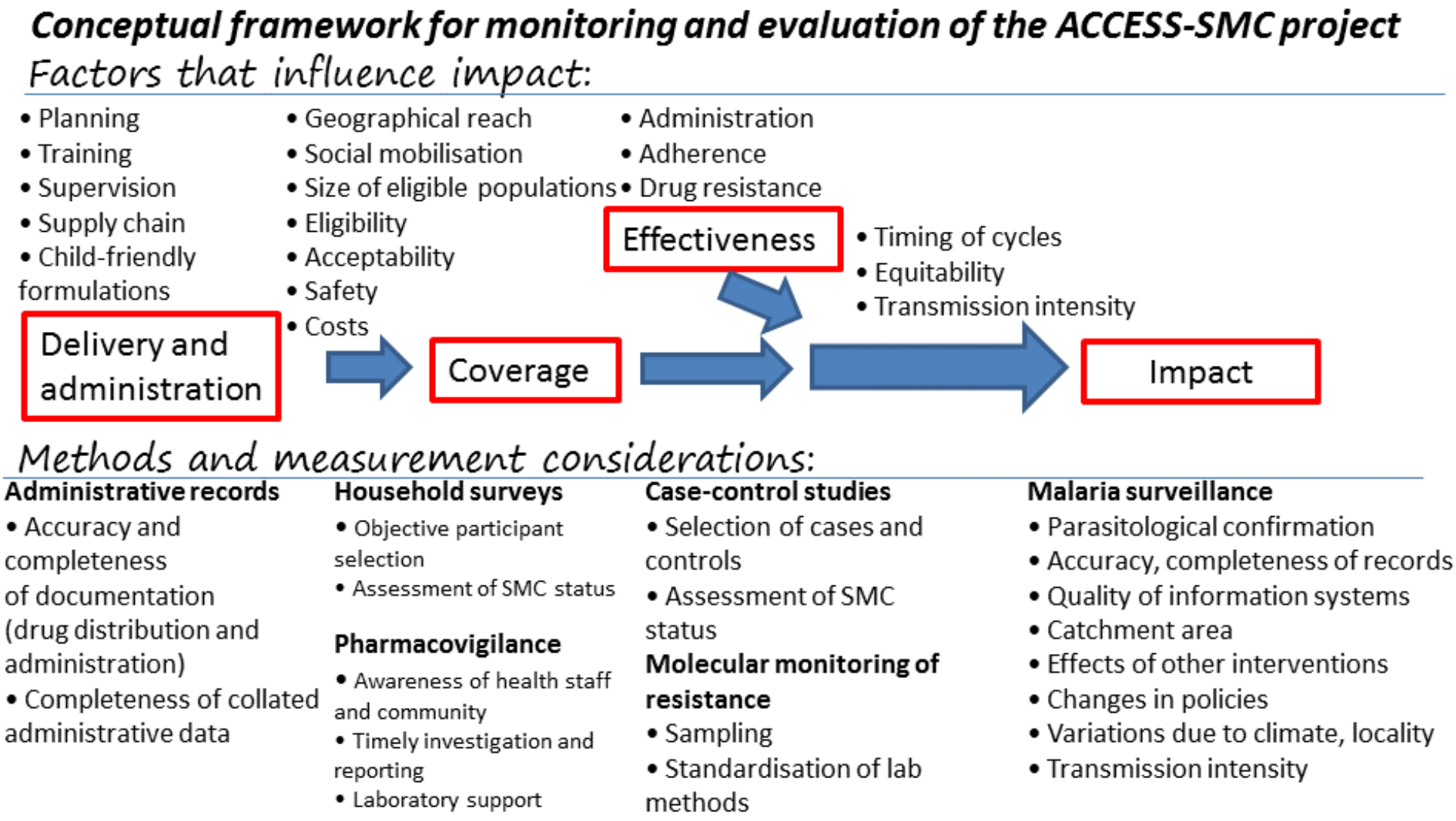


Figure S3: Schematic used to explain the components of the evaluation



The impact evaluation aimed to document the process of drug delivery, the number of treatments and how they were administered; to measure, independently, the coverage of the programmes in each country; to measure the effectiveness of each monthly SMC treatment; to estimate the impact in terms of the reduction in malaria cases and malaria deaths reported at health facilities in children under 5 years of age, when SMC programmes were scaled up; and to monitor safety and the effects of the intervention on drug resistance. Monitoring the process as well as the final impact helps to identify aspects that may need improvement to increase impact, and supports causal interpretation of the observed impact being attributable to the intervention. Delivery, coverage and effectiveness are easier to measure than impact which relies on routine health facility data and requires an understanding of contextual factors influencing changes in access to care, testing policies and testing rates, and of the effects of other interventions. The longer-range impact, in terms of sustained delivery through national malaria control programmes and scale-up to all eligible areas, has continued to be monitored through annual meetings of the SMC Working Group, the network of countries involved in SMC. Qualitative research on community attitudes to SMC were undertaken by project partners but are not included in this report. Phased implementation was considered during planning, but it was felt there was enough experience of delivery not to require more gradual implementation and it was important not to delay impact. When phased implementation was necessitated by the temporary shortage of drugs in 2015, randomization by district was again considered but having non-contiguous implementation areas would have been logistically complex and increased costs.

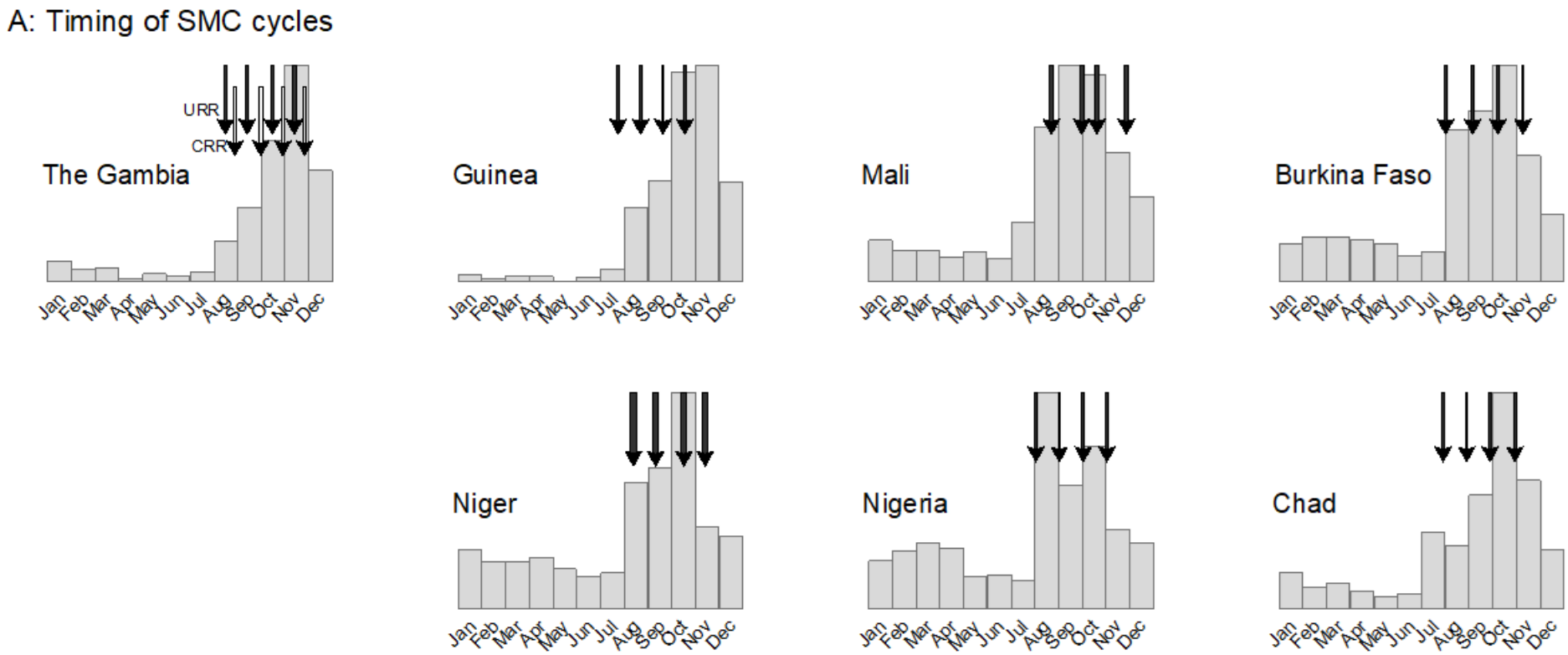
Preliminary results from this evaluation were shared with the malaria community through annual SMC Working Group meetings and in Symposia on SMC at the annual meetings of the American Society for Tropical Medicine & Hygiene in 2015, 2016, 2017 and 2019 and at the Multilateral Initiative for Malaria (MIM) meeting in 2018 [8-13] and a series of technical reports were shared with project partners, UNITAID and WHO [14-20].

3. Monitoring delivery and coverage

Delivery of SMC was monitored through tally sheets and registers, which drug distributors used to record the number of treatments administered each day, except in The Gambia, where drug distributors used a smart phone to scan a QR code on the child's SMC record card. Coverage was independently assessed through household surveys in each country in 2015 and 2016, after the last SMC cycle of the year. Each year, clusters (villages) were selected in each country with probability proportional to estimated population, from a list of all the settlements in the areas where SMC was implemented through ACCESS-SMC. Compact segment sampling [21] was then used to select households. This method was chosen because of its simplicity in the field, reducing errors and promoting objectivity of participant selection, accepting that it increases cluster homogeneity and reduces precise control of sample size. All children aged 3 months at the last cycle, and up to the age of 7 years, were included, in order to estimate SMC coverage in the target age group (aged at least 3 months and under 5 years at the first SMC cycle) and in children above the age limit. A total of 440 clusters were surveyed in each year: in Niger, 30 clusters were chosen in each of four strata; in Chad and in Nigeria, 60 clusters were selected; and in each of the other countries, 50 clusters [14]. The sample size of about 1000 children in each country was chosen to be able to estimate the percentage coverage in each country with a precision of +/-6%, based on an assumed rate of homogeneity of about 0.2. Dates of treatments were noted from the SMC card and caregivers were asked about monthly SMC treatments received, to determine the percentage of children who received SMC each month, the mean number of treatments per child, and percentage who received 0,1,2,3 and 4 treatments (Table S2), estimated using a survey-weighted ratio estimator, using Stata version 15 and version 16 (Statacorp, College Station, Texas). For each indicator, estimates in each country were weighted by the target population to obtain an average estimate for the seven countries. A questionnaire was completed including details about use of bednets, adherence to the daily doses in the most recent month, if they were aware of SMC campaign dates in advance, their knowledge about SMC, and ownership of household assets.

Figure S4: SMC delivery: timing and coverage of SMC cycles.

A: The timing of SMC cycles in relation to the malaria season. The bars show the number of confirmed malaria cases in 2015, in districts adjacent to ACCESS-SMC areas, that did not receive SMC, or in age groups that did not receive SMC.



B: The mean number of SMC monthly treatments received per child in coverage surveys in 2015 and 2016, according to wealth ranking of the household as determined by ownership of household assets.

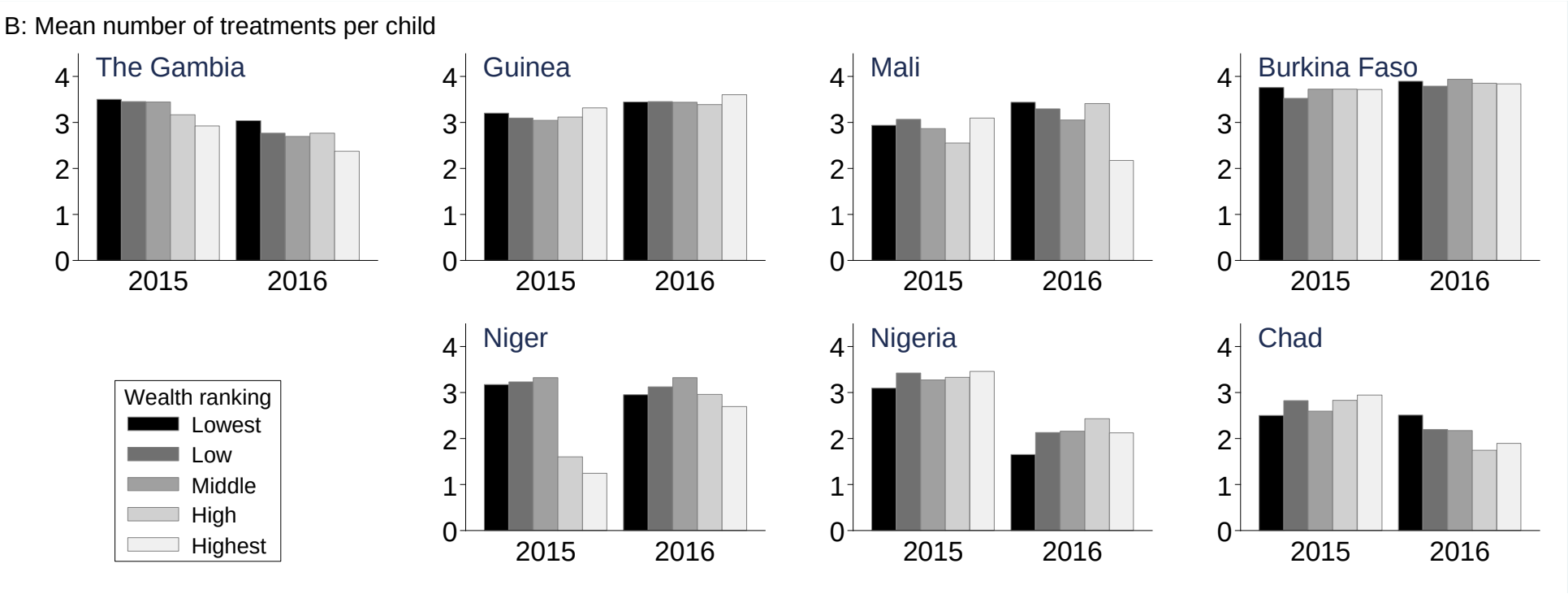


Table S2: Survey estimates of the % children treated 0,1,2,3 & 4 times in 2015 and 2016

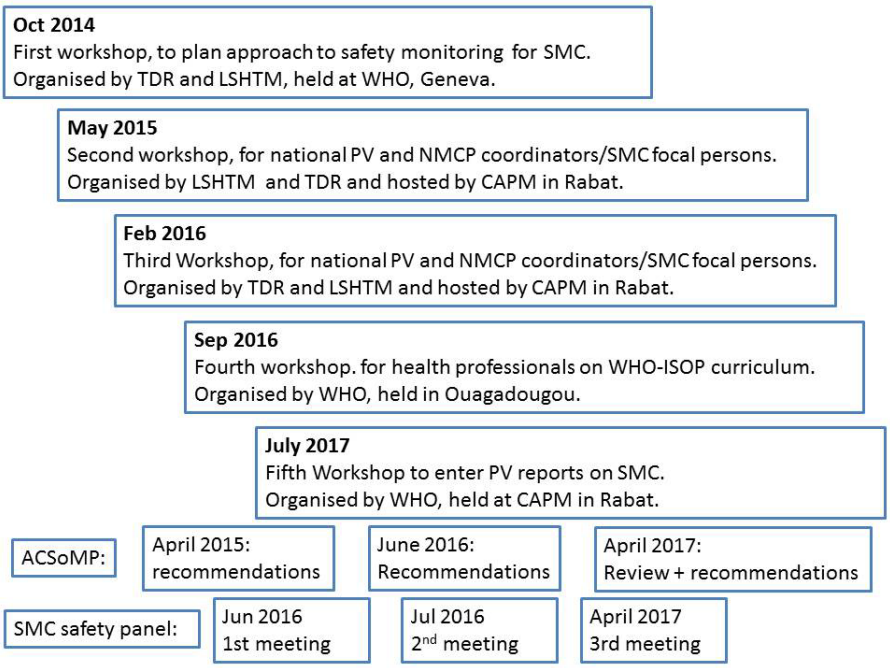
		Number of monthly treatments				
Country	Year	0	1	2	3	4
Nigeria	2015	3.7%	3.4%	5.2%	32.6%	55.1%
	2016	17.3%	19.2%	20.5%	23.4%	19.5%
Niger	2015	20.4%	12.2%	9.6%	14.8%	43.0%
	2016	7.9%	5.2%	14.4%	22.3%	50.2%
Chad	2015	3.8%	6.3%	26.6%	39.3%	24.0%
	2016	8.5%	24.0%	27.0%	28.1%	12.4%
Mali	2015	11.7%	10.7%	15.6%	16.8%	45.2%
	2016	8.6%	5.0%	9.6%	19.9%	56.9%
Guinea	2015	4.9%	7.6%	11.8%	19.0%	56.8%
	2016	3.3%	3.2%	11.0%	9.5%	73.0%
Burkina Faso	2015	3.1%	3.0%	2.6%	4.9%	86.4%
	2016	0.7%	0.7%	2.3%	5.1%	91.2%
The Gambia	2015	5.8%	2.1%	7.2%	28.8%	56.1%
	2016	16.6%	6.4%	11.6%	21.7%	43.7%

4. Safety monitoring

To strengthen monitoring of drug safety for the ACCESS-SMC project, a consultation was held in 2014 between national pharmacovigilance (PV) coordinators and malaria control programme managers of SMC countries, to develop the approaches that could be used for monitoring safety of SMC programmes. Training programmes were then organised for pharmacovigilance staff and staff in the National Malaria Control Programme (NMCP) from each country, in collaboration with the WHO Special Programme for Research and Training (TDR), the WHO Safety and Vigilance Department in Geneva, and the WHO Collaborating Centre for Strengthening Pharmacovigilance practices in Rabat, Morocco, and LSHTM, in 2015, 2016 and 2017 [22-25]. PV training was included in the cascade training sessions organised by Malaria Consortium and CRS to train health facility staff and CHWs to administer SMC. Job-aids (Annex 1) were developed to explain how to recognise the known side-effects of SMC drugs, and were distributed as posters and fliers to health facilities. Copies of the national PV reporting forms were printed and distributed to all public and private health facilities, and a number of strategies were developed to raise awareness about safety monitoring and reporting of adverse events (AEs). These included sending SMS reminders to health staff in Mali, radio programmes to raise community awareness about the importance of reporting drug reactions in The Gambia, and training SMC-administering CHWs in Nigeria to document AEs reported for the previous month, and the use of a mobile App for reporting in Burkina Faso. An international committee was convened to review reports of Serious Adverse Events (SAEs, events which are life-threatening or requiring or extending hospital admission) associated with SMC, to provide advice about safety monitoring for SMC, and to report their findings to the WHO Advisory Committee on the Safety of Medicines and Medicinal Products (ACSoMP), the committee which advises WHO on the safety of medicines [25]. ACSoMP reviewed the plans for safety monitoring of

SMC in 2015 and 2016 and safety Reports for the period 2015 to 2016 extracted from Vigibase in March 2017, and additional reports received by project teams, were analysed [17].

Figure S5: SMC training workshops, and the timing of SMC Safety Committee meetings and meetings of ACSoMP.



5. Measurement of treatment effectiveness

The effectiveness of SMC monthly treatments was measured using case control studies which were conducted in 5 countries (Nigeria, Chad, Burkina Faso, The Gambia and Mali) in 2015 and 2016. Cases were children aged at least 3 months and under 5 years of age presenting at health facilities with fever who were positive for *P.falciparum* by microscopy. Cases were visited at home to check the SMC record card and ask the caregiver about SMC treatments and about potentially confounding factors including use of bednets. Two children, aged at least 3 months and under 5 years, living in the same neighbourhood were recruited as controls, by going compound to compound after moving a distance of at least three compounds away from the home of the case, and the same information collected. Control children were not tested, use of test-negative controls would introduce a bias[1]; any who were unwell were to be referred but not excluded (as the controls represent the population at risk of malaria at the time the case became unwell). In a matched study with 2 controls per case, if SMC coverage is 90%, 134 cases are required for 80% power to detect an efficacy of 70%, and 202 cases for 95% power [26]. In a previous case control study of SMC [27], the monthly coverage of SMC ranged from 62% to 92%, and there were 81 cases and 89 controls. This yielded an estimate of efficacy of 80%, with a 95% confidence interval 42% to 93%. Estimates of efficacy over 28 days from

[1] If chemoprevention coverage is c, and malaria incidence rate ratio in children with chemoprevention relative to those without chemoprevention, is R, the odds of having received chemoprevention in the cases is Rc/(1-c) and in controls drawn from the general population is c/(1-c), giving odds ratio equal to R. If we choose test-negative controls, the odds are c(1-p1)/[(1-c)(1-p0)] where p1 and p0 are the prevalence of parasitaemia in those who received chemoprevention and who did not receive chemoprevention, respectively, giving a biassed odds ratio of R(1-p0)/(1-p1).

randomized controlled trials was 86% [1] (based on re-analysis of data from Konate *et al.*, 2011 [28] and Dicko *et al.,* 2011 [29]). We wished to estimate efficacy of SMC during 28 days post-treatment and efficacy between 29 and 42 days post treatment. Case-control pairs were therefore to be enrolled each week during the 4 months of the intervention period and during the 4 subsequent weeks to ensure there were matched sets in different periods post- treatment. A total sample size of about 240 would be needed in each country to ensure that about 12 cases could be enrolled each week, this would give about 192 cases during the main 4-month intervention period, sufficient to estimate efficacy of SMC over 28 days allowing for losses due to missing information or failure to recruit both controls and adjustment for confounders. Cases and controls were recruited in Mali (health centres of Diema (in Kayes region) and Sanso (in Sikasso region); in The Gambia in Basse, Koina, Fatoto, Sabi, Gambissara and Jahali health centres, and Bansang hospital; in Burkina Faso, in health centres in Zitenga and Koupela. In Chad, in Kouldoul and three health centres in N'Djamena. In Nigeria, cases were recruited in the outpatient department of general hospitals of Gwadabawa and Wurno LGAs in Sokoto State, and Kaura Namoda and Tsafe LGAs in Zamfara State. For cases and their matched controls, SMC status was determined as of the day the case was detected. Three categories of SMC exposure were considered: SMC in the last 28 days, SMC 28-42 days ago, and as the reference category, those who received SMC more than 42 days ago or had not received SMC. Conditional logistic regression was used to estimate the odds ratios for exposure to SMC within 28 days ($OR_{0\text{-}28}$), and for exposure in the period 29-42 days ($OR_{29\text{-}42}$), relative to SMC more than 42 days before, in each year and country, adjusted for age, use of LLIN, socio-economic status of the household, and caregiver education, using Stata versions 15 and 16. Random-effects meta-analysis was then used to obtain pooled estimates of the odds ratios for the countries/years combined. These odds ratios are estimates of incidence rate ratios, and $100x(1\text{-}OR_{0\text{-}28})$ and $100x(1\text{-}OR_{29\text{-}42})$ are estimates of the percentage effectiveness of SMC (the percentage reduction in the incidence rate of clinical malaria) in the corresponding time period, relative to SMC more than 42 days before. Further details are provided in [16].

6. Design and analysis of surveys of molecular markers of resistance

The effect of the SMC programme on the prevalence of molecular markers of resistance to SP and AQ was assessed through large-scale surveys in each country in 2016 and 2018. The methods were reviewed by WHO's Technical Expert Group on Antimalarial efficacy and response in 2015 [30] and preliminary results reviewed in 2017 [31].

One district (or Local Government Area (LGA) in Nigeria, and Region in The Gambia), was selected in each country, and the population of this district surveyed in early 2016 and again in early 2018. In six of the countries, districts were chosen in areas which would start SMC in the 2016 transmission season, so the first survey represents the baseline situation before SMC introduction. In The Gambia, the survey was done in Upper River Region, where SMC had started in 2014 (in The Gambia, SMC was introduced in Upper River and Central River Regions in 2014 with funding from UNICEF, the ACCESS-SMC project continued implementation in 2015 and 2016 in these same areas). (It had been planned to do baseline surveys at the end of the 2014 season but project agreements were not in place early enough for this to be possible). Sampling locations are shown in Figure S6 and the timing of the surveys in Table S3. In the selected district in each country, about 50 clusters were selected with probability proportional to population, from a list of all the settlements in the district, and compact segment sampling was used to select households. The same clusters and segments were

surveyed in both years. In each household, all children aged 3-59 months and all persons aged 10-30 years resident at the time of the survey, were invited to participate. The older age group was included to enable the monitoring of trends of molecular markers in samples from individuals who had not received SMC, as these would reflect changes in the circulating parasite population. After explaining the aims and procedure of the survey, signed consent was sought from each participant or their parent or legal guardian, and the assent of older children was also sought. A questionnaire was completed for each consenting participant detailing age, gender, use of bednets, recent intake of antimalarial medication, and for children, receipt of SMC in the previous transmission season, and a finger-prick blood sample taken onto filter paper and labelled with a pre-printed bar code which was scanned into the tablet PC to allow linkage of the sample to the survey data. The same methods were used in the 2016 and 2018 surveys. The sample size of 4000 (2000 in each age group) in each country in each year, was chosen to have adequate power to detect important changes in prevalence of markers, and to have reasonable precision on the fold-rise over 2 years, in each age group. The sample size of 2000 in each country in the 10-30 age group, assuming 10% loss to follow up and 15% prevalence, would yield 270 positives per country (in total 1890) each year, sufficient for 90% power to detect an odds ratio of 1.4 in pooled analysis and of 2.5 in each country assuming a design effect of 2. In practice in the 10-30 age group the design effect for the fold-rise for different molecular markers ranged from 0.8 to 3.7 (median 1.6), and there were a total of 2,286 positives in 2016 and 1,375 in 2018 in this age group (Table S4). DNA extraction was done using a robotic platform, and the extracted DNA stored at -20^{0}C until use. *pfcrt* genotyping was done using real-time PCR using hydrolysis probes, and direct sequencing was used for other markers [32,33]. The prevalence of *pfdhfr* mutations (the mutations 51I, 59R and 108N; and the combined *dhfr* triple mutant haplotype); *pfdhps* mutations (431V, 437G, 540E, 581G and 613S and the combined *dhps* double mutation haplotype 437G with 540E); combined mutations at *dhfr* and *dhps* (quintuple mutant genotype); *pfcrt* mutations (74I, 75E and 76T, the CVIET haplotype); mutations of pfmdr1 (86Y and Y184, and the combined *pfmdr1* YY haplotype) and mutations at *pfcrt* and *pfmdr1* (CVIET and *pfmdr1* YY genotype) were estimated, in each country by age group, and pooled across all countries. We defined a genotype as two or more mutations in one gene associated with resistance and a haplotype as a combination of two or more mutations in two or more genes associated with resistance. For each mutation, and each combination of mutations, prevalence each year was estimated using a ratio estimator, and the fold-rise in prevalence and its 95% confidence interval, were estimated using survey poisson regression, using Stata versions 15 and 16. Samples which were ambiguous with regard to the presence of the haplotype of interest (two or more codons had both mutant and wild type present) were excluded when calculating prevalence. Survey weights for individuals in the i^{th} cluster were defined as $mx(N_i/N_T)x1/S_i$ where N_i was the estimated population size of the village, S_i the number of segments created in that village, N_T the total population in the district, and m the number of clusters. For pooled analysis across all seven countries, weights were normalised so that the countries were weighted equally, and with countries as strata. Results for 2016 and 2018 in each age group are given in Table S5.1 and S5.2. Detailed results are available in the technical reports for the baseline surveys [15] and final surveys [19].

Figure S6: Locations of the surveys for drug resistance monitoring.

The sampling was representative of the populations in the blue-shaded areas.

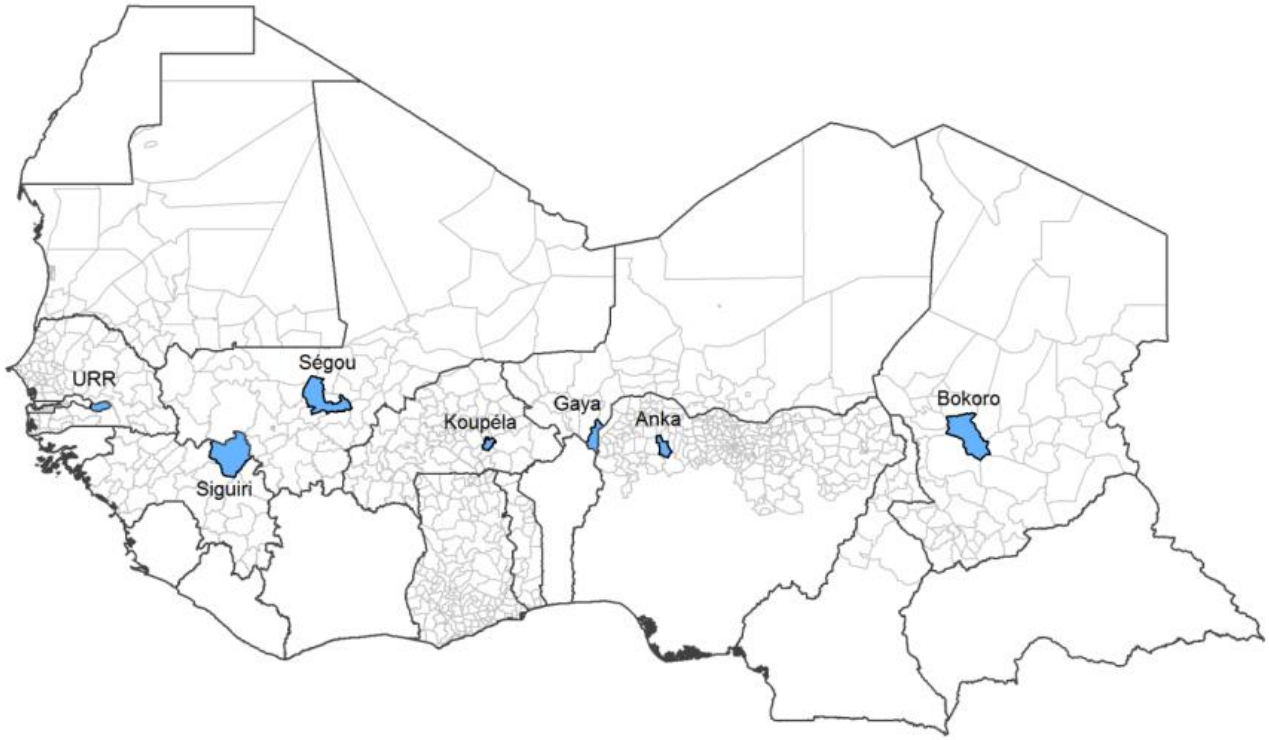


Table S3: Timing of surveys of molecular markers

Country	2016 survey			2018 survey		
Burkina Faso	11 January 2016	to	29 January 2016	01 March 2018	to	30 March 2018
Gambia	24 February 2016	to	16 March 2016	15 February 2018	to	30 March 2018
Guinea	06 January 2016	to	23 January 2016	03 February 2018	to	12 April 2018
Mali	20 January 2016	to	25 February 2016	22 March 2018	to	06 April 2018
Niger	24 December 2015	to	08 January 2016	25 April 2018	to	15 May 2018
Nigeria	01 January 2016	to	17 January 2016	12 March 2018	to	01 April 2018
Tchad	03 February 2016	to	20 February 2016	19 March 2018	to	02 April 2018

Table S4: Number of samples analysed in each year, by age group

	10-30 years			**Under 5 years**			**Number surveyed**
	Presence of *P.falciparum*			Presence of *P.falciparum*			
Survey	Negative	Positive	Total	Negative	Positive	Total	Total
2016	12,643	2,286	14,929	11,501	2,844	14,345	29,274
2018	13,152	1,375	14,527	13,218	801	14,019	28,546
TOTAL			29,456			28,364	57,820

Table S5.1: Prevalence estimates for molecular markers of resistance to SP and AQ

10-30yrs			
	2016 prevalence (95%CI)	**2018 prevalence (95%CI)**	**Prevalence ratio 2018:2016 (95%CI)**
pfcrt-CVIET	0.428 (0.385,0.471)	0.364 (0.326,0.403)	0.85 (0.73,0.99)
pfmdr1-86Y	0.108 (0.093,0.124)	0.088 (0.072,0.108)	0.82 (0.65,1.04)
pfmdr1-184Y	0.348 (0.322,0.374)	0.246 (0.216,0.278)	0.71 (0.61,0.82)
pfdhfr-51I	0.890 (0.870,0.907)	0.922 (0.902,0.939)	1.04 (1.01,1.07)
pfdhfr-59R	0.886 (0.859,0.908)	0.954 (0.941,0.965)	1.08 (1.05,1.11)
pfdhfr-108N	0.920 (0.900,0.937)	0.973 (0.963,0.980)	1.06 (1.03,1.08)
pfdhps-431V	0.022 (0.016,0.030)	0.079 (0.062,0.101)	3.66 (2.44,5.50)
pfdhps_436A	0.531 (0.483,0.579)	0.712 (0.675,0.746)	1.34 (1.21,1.48)
pfdhps-437G	0.747 (0.704,0.785)	0.852 (0.824,0.876)	1.14 (1.07,1.22)
pfdhps-540E	0.002 (0.001,0.006)	0.010 (0.006,0.016)	4.01 (1.63,9.83)
pfdhps-581G	0.023 (0.017,0.031)	0.067 (0.052,0.085)	2.96 (2.03,4.33)
pfdhps_613S/T	0.082 (0.067,0.100)	0.183 (0.158,0.210)	2.23 (1.76,2.83)

<5yrs			
	2016 prevalence (95%CI)	**2018 prevalence (95%CI)**	**Prevalence ratio 2018:2016 (95%CI)**
pfcrt-CVIET	0.422 (0.378,0.467)	0.685 (0.643,0.725)	1.62 (1.43,1.84)
pfmdr1-86Y	0.118 (0.102,0.136)	0.066 (0.050,0.087)	0.56 (0.41,0.76)
pfmdr1-184Y	0.342 (0.317,0.368)	0.263 (0.228,0.302)	0.77 (0.66,0.90)
pfdhfr-51I	0.888 (0.872,0.903)	0.914 (0.891,0.932)	1.03 (1.00,1.06)
pfdhfr-59R	0.891 (0.873,0.907)	0.905 (0.876,0.928)	1.02 (0.98,1.05)
pfdhfr-108N	0.915 (0.888,0.936)	0.991 (0.982,0.995)	1.08 (1.05,1.11)
pfdhps-431V	0.030 (0.023,0.040)	0.064 (0.043,0.093)	2.09 (1.30,3.39)
pfdhps_436A	0.591 (0.551,0.630)	0.581 (0.537,0.623)	0.98 (0.89,1.09)
pfdhps-437G	0.780 (0.741,0.815)	0.928 (0.907,0.945)	1.19 (1.13,1.25)
pfdhps-540E	0.005 (0.003,0.008)	0.007 (0.003,0.015)	1.42 (0.58,3.46)
pfdhps-581G	0.025 (0.019,0.032)	0.056 (0.039,0.079)	2.26 (1.43,3.58)
pfdhps_613S/T	0.091 (0.078,0.106)	0.109 (0.078,0.150)	1.19 (0.82,1.75)

Table S5.2: Prevalence estimates for combinations of molecular markers associated with resistance to SP and AQ

	10-30 years age group			Under-5 years age group		
Combination	2016 Prevalence (95%CI)	2018 Prevalence (95%CI)	Ratio 2018:2016	2016 Prevalence (95%CI)	2018 Prevalence (95%CI)	Ratio 2018:2016
pfmdr1-86Y + pfmdr1-184Y	0.013 (0.009,0.020)	0.015 (0.009,0.023)	1.11 (0.62,1.98)	0.023 (0.016,0.033)	0.007 (0.003,0.016)	0.29 (0.12,0.72)
pfcrt-CVIET + pfmdr1-86Y + pfmdr1-184Y (a)	0.007 (0.004,0.012)	0.003 (0.001,0.008)	0.50 (0.20,1.21)	0.013 (0.009,0.020)	0.005 (0.002,0.014)	0.41 (0.15,1.14)
pfdhfr-51I+59R+108N	0.752 (0.713,0.788)	0.908 (0.885,0.926)	1.21 (1.14,1.27)	0.754 (0.721,0.785)	0.849 (0.818,0.875)	1.12 (1.07,1.18)
pfdhps-437G+pfdhps-540E	0.002 (0.001,0.005)	0.009 (0.005,0.014)	3.73 (1.50,9.24)	0.005 (0.003,0.008)	0.007 (0.003,0.015)	1.47 (0.60,3.58)
pfdhfr-51I+59R+108N + pfdhps-437G + pfdhps-540E (b)	0.002 (0.001,0.005)	0.010 (0.006,0.016)	4.78 (1.67,13.73)	0.004 (0.002,0.008)	0.007 (0.003,0.015)	1.84 (0.68,4.97)
(a)+(b)	0.001 (0.000,0.004)	0.000 (0.000,0.001)		0.000 (0.000,0.003)	0.000 (0.000,0.001)	
pfdhps-VAGKGS haplotype	0.006 (0.003,0.011)	0.027 (0.015,0.047)	4.86 (2.07,11.44)	0.008 (0.005,0.012)	0.003 (0.001,0.012)	0.39 (0.09,1.57)

7. Assessment of costs

Annual (2016, US$) costs of the SMC intervention from the provider perspective, were estimated in each country of implementation using an ingredients-based approach. The costed ingredients comprised non-government financial costs, government financial costs, and volunteer opportunity costs. The total costs were calculated separately for each country and were a mixture of actual and normative costs. Financial costs were obtained from accounting and budget records of implementing NGO partners and through interviews with personnel involved in ACCESS-SMC programme management, supervision, and distribution. Start-up costs (primarily the time and resources for preparation of reporting tools and training materials, stakeholder meetings, as well as the development of behaviour change communication messaging, e.g. radio and print ads) were excluded, the majority of these were incurred in previous years. Normative data on the time spent by Ministry of Health (MOH) supervisors and managers was collected through interviews in each country. The costs of MOH labour was based on the average total time spent supporting the campaign multiplied by the average hourly wage (assuming eight hours of work per day), which was based on the average monthly gross income (from all sources, including salary). The cost of per diem payments were considered financial costs. The opportunity costs of volunteer, non-salaried distributors were also calculated based on interviews and took into account the number of hours spent on distribution, training, and other activities (e.g. data entry and capture) during each monthly cycle. These costs were estimated by multiplying the total number of hours spent during the campaign by the income they would have received per hour had they been involved in other productive activities (based on the national daily average minimum wage in each country) [20, 36]. The weighted average cost per child per 4 treatments was obtained by dividing the total recurrent cost by the total number of doses administered divided by 4.

The calculation of the number of malaria cases, deaths averted by SMC is detailed below in the section on impact. Briefly, this was based on the number of monthly treatments administered to children, estimates of the incidence of malaria, severe malaria and mortality due to malaria in those months in those children if they had not had SMC, and the efficacy of SMC treatments in preventing malaria. Average cost-effectiveness ratios were calculated by dividing the total cost of the SMC intervention in each country by the corresponding number of cases, severe cases or deaths averted.

Cost savings were calculated from a provider perspective corresponding to the diagnostic and treatment costs for non-severe and severe malaria cases averted (assuming 60% of under-five malaria cases were diagnosed and treated at a health facility). Malaria diagnosis and treatment unit costs of US$8.86 and US$28.03 for uncomplicated and severe malaria cases, respectively, with severe malaria treatment costs being incurred at the hospital inpatient level, were based on a review of cost studies conducted in several countries in Asia and Africa [34]. These unit costs were then multiplied by the numbers of uncomplicated and severe malaria cases averted in each country to estimate the total costs saved. For this analysis, only provider costs were used as there was insufficient data on household costs to measure societal costs and cost savings. The figures were inflated to 2016 United States Dollars (USD) using the US inflation rate for the years 2009 to 2016 (i.e. 11.9%). Net economic savings were calculated by subtracting the cost of the intervention by the expected cost savings in each country. The estimated recurrent economic provider costs saved from the reduction in diagnosis and treatment due to SMC were nearly US$66.0 million and ranged from US$291,966 in The Gambia to US$20.1 million in Nigeria, Table S6. After deducting the costs of

administering SMC, the net economic cost savings were US$43.2 million. The net economic costs saved greatly exceeded the economic costs of administering SMC in every country with the exception of The Gambia. In Mali, for example, the economic cost of diagnosis and treatment saved of US $14.5 million was more than three times the economic costs of administering SMC of US $3.8 million. The assumption that 60% of under-five malaria cases would be diagnosed and treated at a health facility was based on the study in Burkina Faso [35]. It was assumed the unit financial and economic costs for treating uncomplicated and severe malaria were the same in each of the seven countries. Depending on the proportion of malaria cases treated at a health facility, these estimates mays represent an over- or under-estimation of actual costs savings [36].

Table S6: Estimated costs and costs savings (2016, US $)

	Total economic costs of administering SMC	Diagnosis and treatment economic costs saved	Net economic costs saved
Burkina Faso	$5,464,604	$12,310,252	$6,845,648
Chad	$2,422,920	$3,288,511	$865,591
Guinea	$1,557,622	$3,755,813	$2,198,191
Mali	$3,827,362	$14,469,046	$10,641,683
Niger	$2,578,453	$11,767,661	$9,189,209
Nigeria	$6,321,460	$20,071,640	$13,750,180
The Gambia	$609,889	$291,966	$317,923
Total	$22,782,310	$65,954,888	$43,172,578

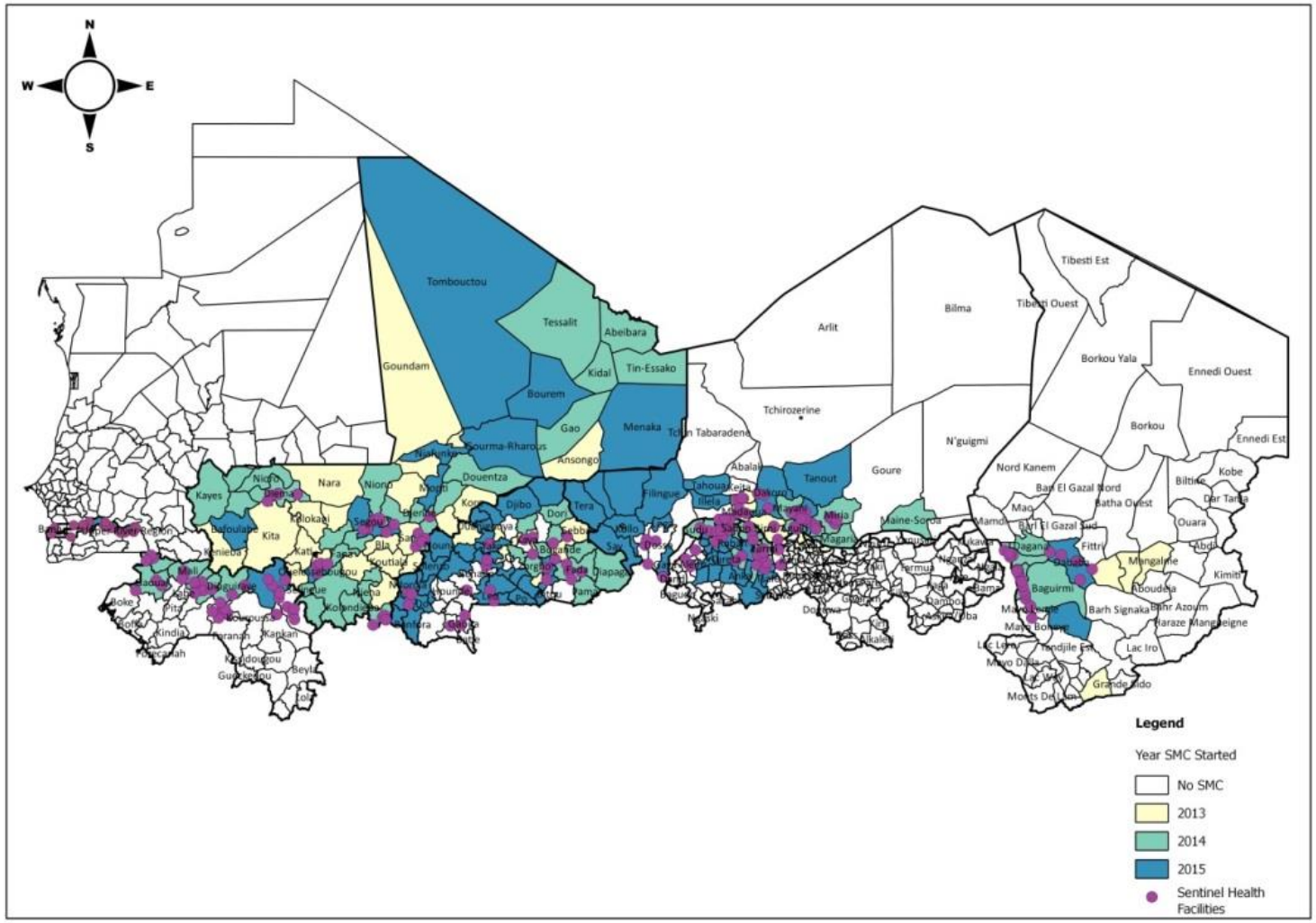
8. Analysis of impact

8.1 Estimates of impact from health facility data:

The impact of SMC introduction on the number of malaria cases at health facilities was estimated using a difference-in-differences approach [37], with the age group 5 years and above acting as the control group, with data in the same two age groups in non-SMC areas acting as additional controls. Two different data sources were used. In two countries where DHIS2 databases had been established before SMC introduction, The Gambia and Burkina Faso, national data were extracted from the DHIS2 database. An assessment of the DHIS2 database in The Gambia reported 92% completeness and accuracy in 2016 [38]. An assessment of the DHIS2 database in Burkina Faso (ENDOS) reported data accuracy of 83%, data timeliness 80%, data completeness 78%, and data reliability 87%, in 2017 [39]. Data on the number of confirmed outpatient cases of malaria, the number of cases of severe malaria (admitted to hospital with a primary diagnosis for malaria) and the number of malaria deaths in district hospitals, were extracted, aggregated by calendar month, district, and by age group (in The Gambia, two age groups: under 5 years, and 5 years and above; in Burkina Faso, three age groups: under 5 years, 5 to 14 years, and 15 years and above). In Burkina Faso, cases in regional hospitals were excluded, because the catchment area of regional hospitals could include both SMC and non-SMC districts. Data were extracted for the period 2011-2016 (in The Gambia) and 2012-2016 (in Burkina Faso). At the time of analysis, data on severe cases were not available for the year 2016 in Burkina Faso. In the five other countries, analysis of impact was limited to outpatient malaria cases. A total of 161 outpatient facilities were selected which had used parasitological confirmation of malaria cases for at least one year prior to SMC, had well-kept clinic registers, and were in areas where SMC was to be delivered through ACCESS-SMC starting in 2015 or 2016 or would not implement SMC by 2016. Location of these facilities is shown in Figure S5. Further details are given in [18]. Individual patient records for all patients tested or treated for malaria from Jan 2012 to Dec 2016 were captured from clinic registers and lab books using tablet PCs. The data included, if available, the consultation date, age, gender, clinical diagnosis, whether tested and the test result, and drugs use for malaria treatment. Completeness of data capture was checked by manually tallying the total number of confirmed cases from clinic registers by age group and month in each facility, and weeks with missing data were noted. The data were then screened for completeness and only 73 facilities which had complete data for at least one year before and one year after SMC introduction, for at least 3 out of the 4 months of the intervention period each year, were retained for analysis.

Poisson regression models were fitted to the data on confirmed cases in health facilities for the months of August to November. For the sentinel surveillance data collected from individual outpatient clinics, we did not define a catchment population and there was no adjustment for population changes. For DHIS2 data, we fitted the model to aggregated data for each district, with the estimated district population as an offset. A robust standard error was used to allow for clustering by facility (sentinel data) or by district (DHIS2). Terms were included for effect of geographical region, age, and calendar time (month and year). The effect of SMC was included using an indicator variables set to 1 for the under 5 age group in intervention areas (districts where SMC was implemented) during intervention periods, and set to zero otherwise.

Figure S5: Locations of sentinel outpatient facilities



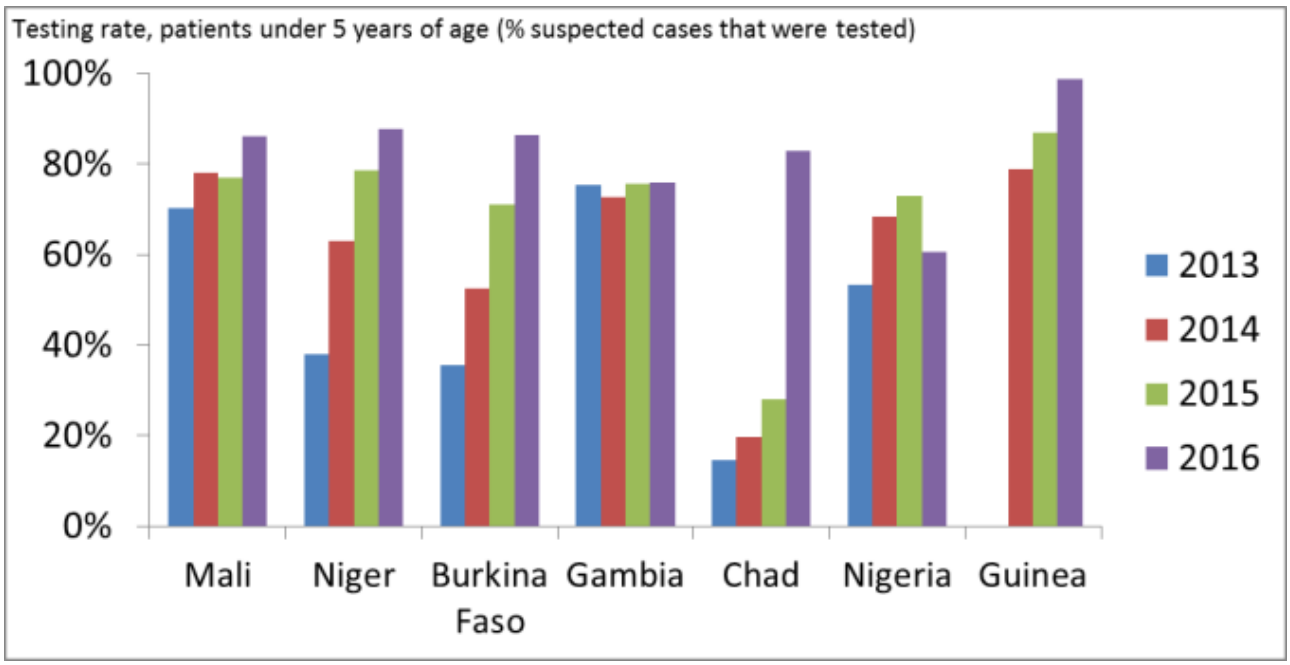
Terms for interaction between age group and region were included if they improved model fit or altered coefficients for the intervention effect. Similarly, if there was evidence of interaction between age and time, the corresponding terms were included, with the assumption that the underlying effect of calendar time was the same in intervention and non-intervention areas. Data and details of the regression analyses are provided in Table S7 and S8.

Important factors to consider that could potentially confound the assessment of SMC impact, include changes in the use of insecticide-treated nets in children, and changes in provision of and access to malaria diagnosis and treatment. Malaria confirmation rates (the percentage of suspected cases that were tested) increased during SMC scale-up, but as this has happened at a similar rate in all age groups, the confounding effect of changes in confirmation rate is likely to be small (Figure S6). Increases in testing rates can give the appearance of increasing incidence but since impact is assessed in terms of the relative change in incidence in under 5s, relative to older age groups, changes in testing rates (provided they applied equally to both age groups) would not confound the assessment of impact. Changes in access to diagnosis and treatment, through changes in policy on patient charges and fluctuations in the availability of treatment drugs or tests at health facilities, may have important confounding effects. In general we have not had detailed information about these and have not been able to allow for them, with the exception of the removal of patient charges for under 5s and women in Burkina Faso, which was a policy introduced throughout the country in 2016 - announced in March, and introduced nationally by June (Ridde and Yemeogo [40]) - and could therefore be included as an effect in the regression model. Removal of patient charges was associated with an increase in the number of outpatient cases of malaria, and a reduction in the number of malaria deaths in hospital (Table S8.2). Use of insecticide treated nets, assessed during SMC coverage surveys in 2015 and 2016, did not increase markedly in under 5s during SMC scale-up. There were slight increases in LLIN coverage in some countries, following distribution campaigns, but these targeted all age groups and there was no evidence that LLIN coverage improved differentially in under-5s during SMC scale up (Figure S6). As bed net information was not available by district we did not adjust for changes in bed net coverage in our analyses. In the sentinel facility data, exact patient age was usually recorded, which would allow children aged 5, 6 and 7 years, who could have received SMC, to be excluded from analysis. This exclusion did not appear to alter results and so these ages have not been excluded in the results presented in the paper. Our impact estimates therefore indicate the relative reduction in the number of confirmed cases in children under 5 years of age, associated with the introduction of SMC for children under 5, during periods of implementation. However, they do not exclude the effects of other factors that may have affected the number of malaria cases occurring in children specifically in the under 5 age group at the same time as SMC implementation.

Figure S6: Testing rates in patients with suspected malaria, by age group

(Testing rates at sentinel sites: number tested divided by number suspected, expressed as %).

A: Under 5 years of age



B: 5 years of age and above

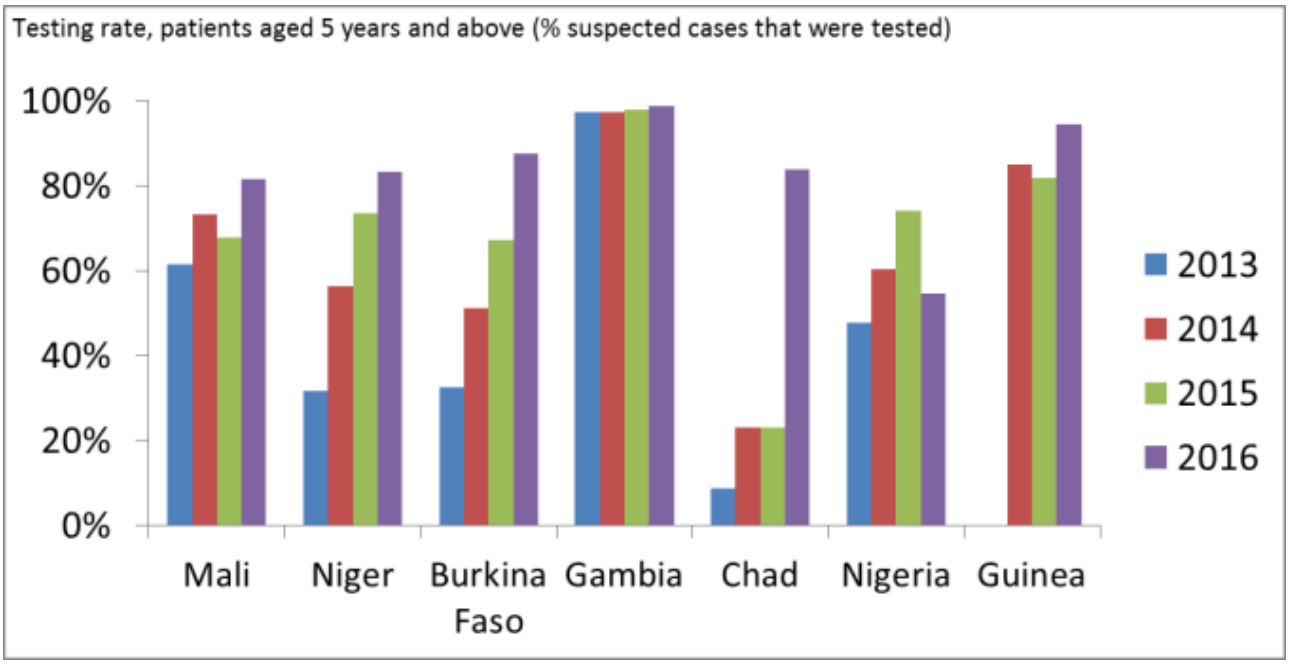
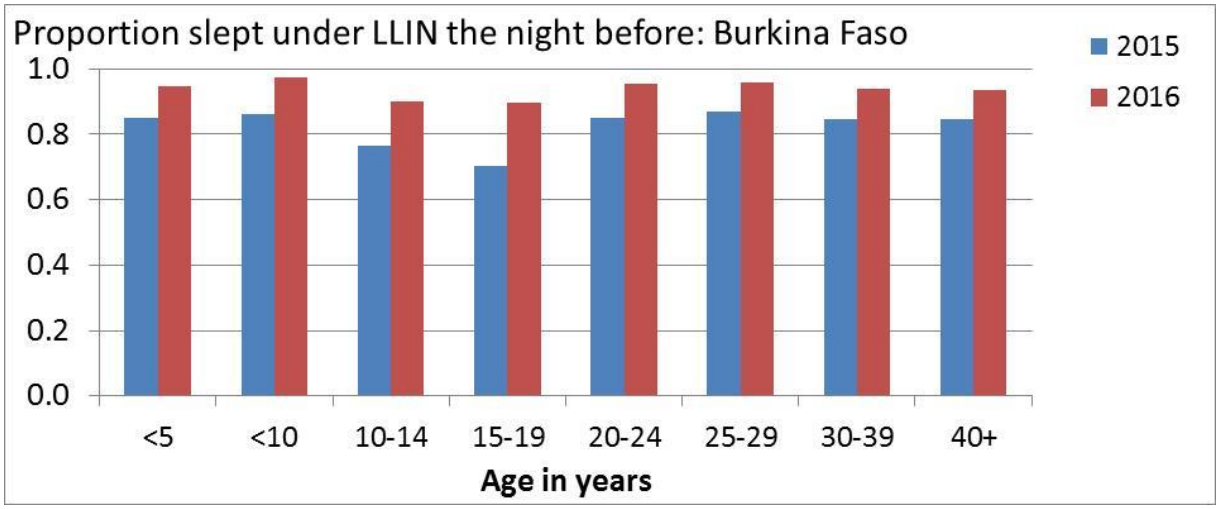
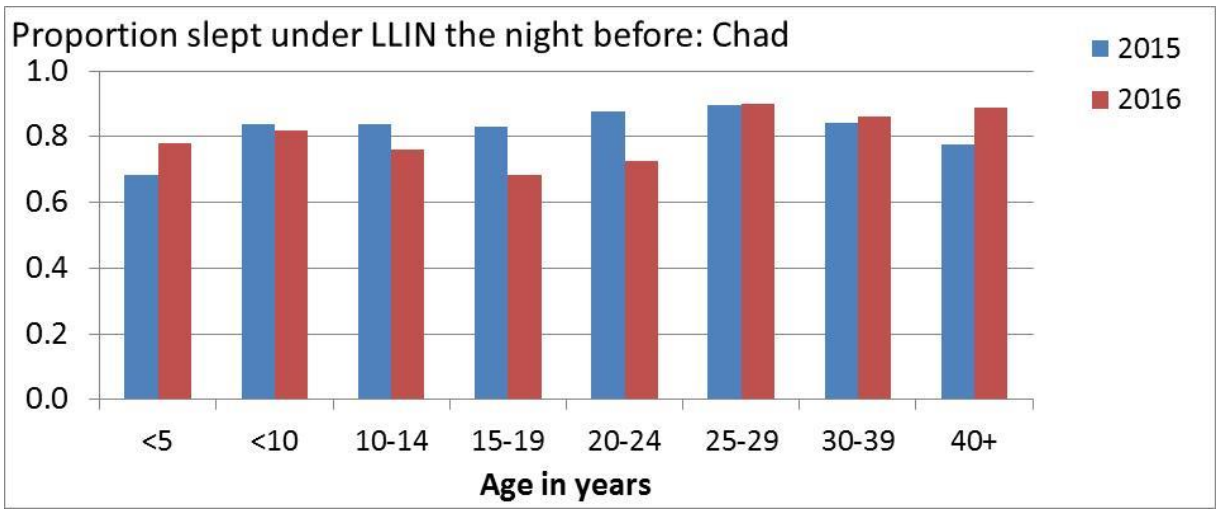
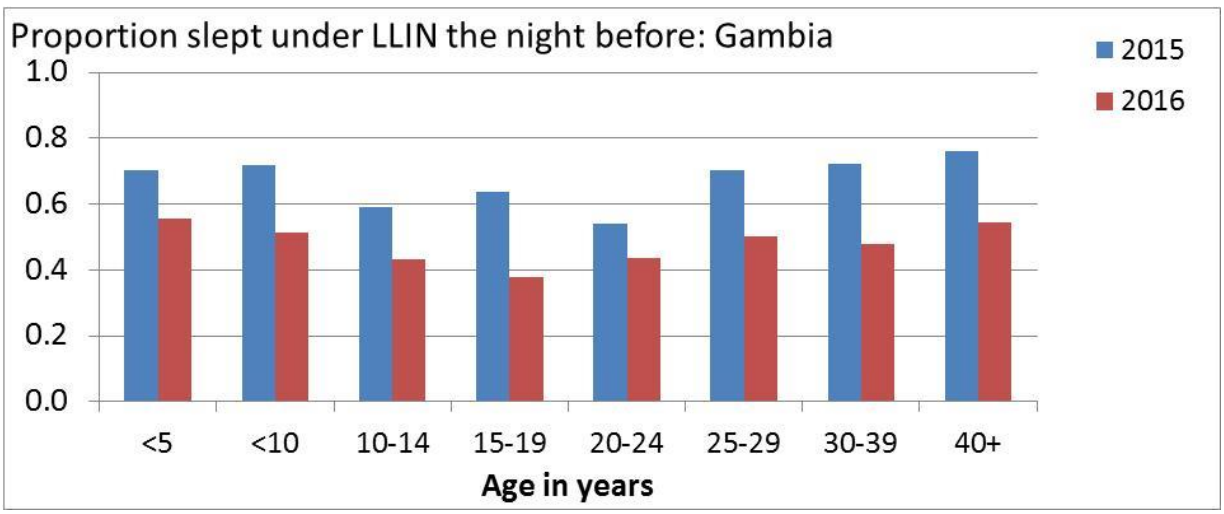


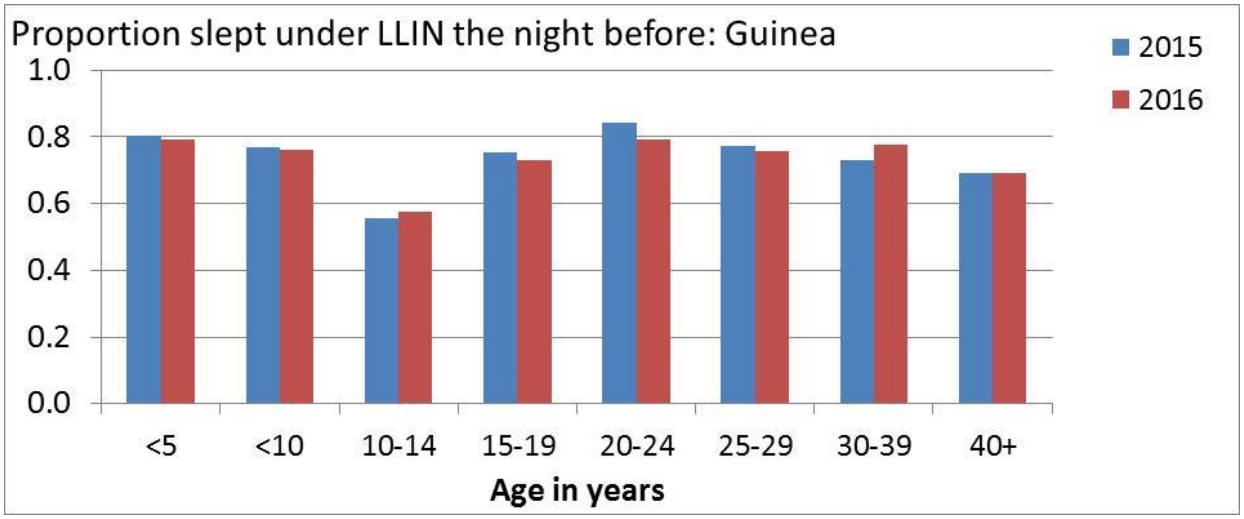
Figure S7: LLIN coverage in areas where SMC was implemented in 2015 and 2016.

The estimates come from household surveys of SMC coverage conducted in The Gambia, Guinea, Burkina Faso, Niger and Chad at the end of the transmission season each year, from areas where SMC was done in 2015 and from the same areas in 2016. Data on LLIN use were not collected in the coverage survey in Nigeria in 2015, and in Mali the same areas were not surveyed in each year. (Bednet use was recorded for children under 5 eligible for SMC, and for all members of the household). Bednet use increased slightly during SMC scale-up in some countries, and decreased in others but in each country the change from 2015 to 2016 was similar in all age groups.








Proportion slept under LLIN the night before: Guinea
2015
2016
1.0
0.8
0.6
0.4
0.2
0.0
<5
<10
10-14
15-19
20-24
25-29
30-39
40+
Age in years

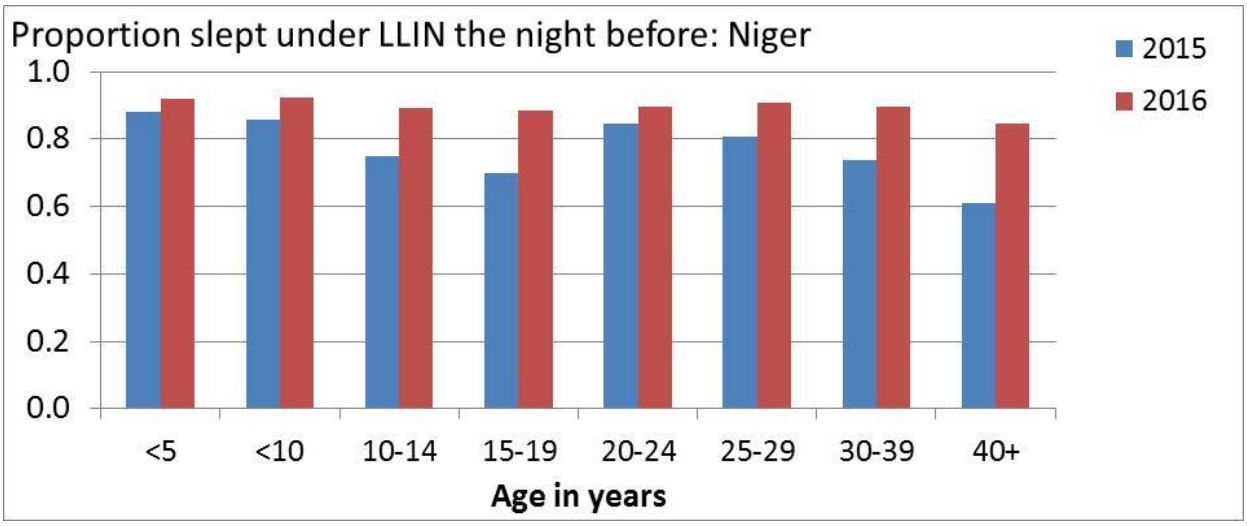

Proportion slept under LLIN the night before: Niger
2015
2016
1.0
0.8
0.6
0.4
0.2
0.0
<5
<10
10-14
15-19
20-24
25-29
30-39
40+
Age in years

Table S7. Number of malaria outpatient cases, severe cases, and malaria deaths in hospital, during the high transmission period before and after SMC introduction

Age groups used in HMIS data in The Gambia (<5yrs,5+yrs), and Burkina Faso (<5yrs,5-14yrs,15+yrs). In Chad, clinic registers used coding <5yrs, 5-14yrs, 15+yrs; the age group 5-14yrs was excluded from analysis as there was evidence of SMC being given to older children in some areas/periods). In other countries patient ages in years and months were recorded, and grouped for analysis.

S7.1 The Gambia: Number of outpatient cases, severe cases, and malaria deaths in hospital, Aug-Nov 2011-2016

The Gambia	**Under 5 years**						**5 years and above**					
	2011	**2012**	**2013**	**2014**	**2015**	**2016**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Outpatient malaria cases August-November												
SMC from 2014	10,294	7,804	11,415	3,047	4,544	2,298	35,683	37,980	47,757	24,647	54,941	34,688
No SMC by 2016	16,303	28,566	21,257	12,684	15,048	8,093	99,913	116,064	114,904	68,612	113,932	66,200
Severe malaria cases August-November												
SMC from 2014	867	619	989	175	233	166	1,528	1,331	1,689	765	1,543	1,154
No SMC by 2016	1,365	1426	993	546	572	273	1,935	2,833	2,484	1,678	1,455	535
Malaria deaths in hospital August-November												
SMC from 2014	51	63	41	7	8	3	46	55	55	27	48	26
No SMC by 2016	103	65	33	25	21	10	74	100	47	43	48	23
(SMC from 2014: Upper River Region and Central River Region; No SMC by 2016: Lower River Region; North Bank East; North Bank West; Western Region 1; Western Region 2)												

S7.2 Burkina Faso: Number of outpatient cases, severe cases, and malaria deaths in hospital, Aug-Nov 2013-2016

Burkina Faso	Under 5 years				5-14 years				15+years			
	2013	2014	2015	2016	2013	2014	2015	2016	2013	2014	2015	2016
Outpatient malaria August-November												
Districts starting SMC in 2015	198,968	313,897	261,408	400,873	57,466	104,519	133,507	148,781	75,471	125,999	172,144	188,404
Districts starting SMC in 2016	233,592	385,189	453,917	571,226	77,472	149,692	233,635	316,001	100,810	185,773	268,709	369,260
Districts without SMC by 2016	177,011	244,558	339,388	665,256	82,417	126,379	180,299	258,407	133,260	197,126	266,770	291,884
Severe malaria August-November												
Districts starting SMC in 2015	18,159	21,158	15,660		3,716	4,292	4,328		8,060	8,906	9,376	
Districts starting SMC in 2016	21,156	21,096	21,339		5,243	5,083	5,629		11,696	11,920	13,304	
Districts without SMC by 2016	20,892	22,272	25,907		12,648	14,271	15,403		31,590	32,342	32,378	
Malaria deaths August-November												
Districts starting SMC in 2015	309	303	214	122	33	21	31	21	17	20	50	13
Districts starting SMC in 2016	266	284	281	76	57	34	39	31	30	31	18	40
Districts without SMC by 2016	278	228	304	132	57	38	38	28	62	44	33	107

S7.3 Mali: Number of outpatient malaria cases Aug-Nov in 26 clinics 2013-2016

	<5yrs				5+yrs			
	2013	**2014**	**2015**	**2016**	**2013**	**2014**	**2015**	**2016**
Areas starting SMC in 2015								
Facility no. 1	285	1,356	289	363	513	444	451	587
2	71	75	57	57	211	234	242	188
3	567	593	384	330	529	861	855	647
4	482	230	137	171	2,504	963	724	1,284
5	62	365	329	401	106	912	875	805
6	122	342	272	138	274	1,241	1,414	480
7	1	77	195	106	5	355	1,529	819
8	139	532	507	649	164	521	647	698
9	582	977	49	386	647	947	129	573
10	55	171	186	71	276	855	1,751	504
11	173	191	117	133	179	259	191	147
12	544	984	531	535	490	1,105	974	849
13	629	488	542	308	831	622	791	522
14	246	720	520	471	193	653	898	507
15	683	285	52	548	1,369	327	90	1,123
16	438	705	36	285	279	429	70	595
17	410	557	363	392	437	586	734	654
18	114	415	625	579	118	951	1,822	1,516
Areas starting SMC in 2016								
19	14	82	125	78	111	441	545	723
20	1,075	1,030	1,353	828	973	1,179	1,356	1,319
21	589	1,172	286	175	505	926	307	369
22	1,517	1,548	789	416	327	552	528	652
23	3	1,346	1,035	852	6	945	697	1,074
24	427	546	615	642	1,572	1,785	806	2,036
25	2	128	95	119	28	95	443	213
26	1,005	788	780	348	689	604	678	469

S7.4 Guinea: Number of outpatient malaria cases Aug-Nov in 15 clinics 2014-2016

Guinea outpatient cases Aug-Nov	<5yrs			5+yrs		
	2014	2015	2016	2014	2015	2016
Areas starting SMC in 2015						
Facility no. 1	152	120	37	144	128	35
2	40	70	42	67	174	163
3	23	28	14	86	138	43
4	179	223	102	202	287	158
5	23	64	124	54	199	42
6	256	112	253	349	296	883
7	206	83	35	418	263	237
8	120	83	76	112	201	178
Areas starting SMC in 2016						
9	229	223	71	277	215	107
10	191	133	94	69	49	68
11	258	322	99	484	619	358
12	180	313	154	134	271	135
13	116	374	129	72	204	116
Areas without SMC by 2016						
14	393	396	375	542	554	627
15	461	384	458	480	367	624

S7.5 Chad: Number of outpatient malaria cases Aug-Nov in 11 clinics 2013-2016

	<5yrs				**15+yrs**			
	2013	2014	2015	2016	2013	2014	2015	2016
Areas starting SMC in 2015								
Facility no. 1	5	8	39	61	17	15	131	246
2	8	13	64	88	4	22	45	58
3			12	70			56	110
4		25		123		91		367
5	8	50		105	4	24		155
Areas starting SMC in 2016								
6	431	323	548	255	225	474	485	640
7	30	230	107	69	63	282	94	191
8	18	41	47	147	22	71	48	169
9		74	112	45		167	214	47
10			10	17			5	81
11			6	60			9	188

S7.6 Nigeria: Number of outpatient malaria cases Aug-Nov in 8 clinics 2013-2016

	<5yrs				5+yrs			
	2013	2014	2015	2016	2013	2014	2015	2016
Areas starting SMC in 2015:								
1	77	292	158	236	109	350	238	339
2	11	309	6	32	13	228	10	110
3		82	66			123	129	
4	487	162	681	703	260	167	604	607
5		223	157	85	10	321	169	125
6	165	399	211	58	155	419	232	37
7	223	10	22	80	270	11	268	171
8		309	173	358		269	369	446

S7.7 Niger: Number of outpatient malaria cases Aug-Nov in 13 clinics 2013-2016

	<5yrs				5+yrs			
	2013	2014	2015	2016	2013	2014	2015	2016
Areas starting SMC in 2015								
1	1,624	1,335	720	874	549	336	586	1046
2		804	836	1,543		152	277	555
3	533	1,389	1,328	1,392	309	553	644	193
4	100	219	88	216	18	54	34	122
5	142	458	284	673	41	274	50	53
6		792	307	1,192		151	200	416
7		572	749	848		18	48	131
8	272	88	185	722	60	78	288	518
9	695	4,783	42	459	486	2,547	64	754
Areas starting SMC in 2016								
10	317	472	73	608	256		54	277
11			707	384	249		973	581
Areas without SMC (by 2016)								
12			146	799	69		128	478
13		403	680	603		278	377	164

Table S8. Estimates of the malaria incidence rate ratios associated with SMC introduction, from Poisson regression.

S8.1 The Gambia: association of SMC with the number of outpatient cases, severe cases, and malaria deaths in hospital, Aug-Nov 2014-2016

Malaria outpatients:		Incidence rate ratio (95%CI)
SMC:	No SMC	1
	SMC in 2014	0.53 (0.49,0.58)
	SMC in 2015	0.47 (0.35,0.63)
	SMC in 2016	0.41 (0.30,0.57)
Year:	2011	1
	2012	1.1 (0.83,1.6)
	2013	1.1 (0.92,1.4)
	2014	0.63 (0.49,0.82)
	2015	1.1 (0.69,1.7)
	2016	0.61 (0.40,0.95)
Age group by regions:		
URR and CRR:	<5yrs	1
	5+yrs	1.1 (0.95,1.2)
LRR, NBE, NBW:	<5yrs	1
	5+yrs	1.2 (0.93,1.5)
WR1,WR2:	<5yrs	1
	5+yrs	0.87 (0.67,1.1)
Region:	URR	1
	CRR	0.40 (0.40,0.40)
	LRR	0.32 (0.23,0.44)
	NBE	0.17 (0.12,0.24)
	NBW	0.12 (0.09,0.17)
	WR1	0.43 (0.34,0.53)
	WR2	0.72 (0.57,0.90)

Severe malaria:		Incidence rate ratio (95%CI)
SMC:	No SMC	1
	SMC in 2014	0.39 (0.28,0.53)
	SMC in 2015	0.44 (0.29,0.67)
	SMC in 2016	0.58 (0.21,1.65)
Year:	2011	1
	2012	1.1 (0.75,1.5)
	2013	1.0 (0.74,1.4)
	2014	0.57 (0.39,0.82)
	2015	0.66 (0.49,0.88)
	2016	0.35 (0.17,0.73)
Age group by regions:		
URR and CRR:	<5yrs	1
	5+yrs	0.39 (0.26,0.60)
LRR, NBE, NBW:	<5yrs	1
	5+yrs	0.42 (0.27,0.67)
WR1,WR2:	<5yrs	1
	5+yrs	0.40 (0.28,0.58)
Region:	URR	1
	CRR	0.66 (0.66,0.66)
	LRR	0.37 (0.24,0.55)
	NBE	0.32 (0.21,0.48)
	NBW	0.18 (0.12,0.27)
	WR1	0.38 (0.26,0.55)
	WR2	0.42 (0.29,0.62)

Malaria deaths in hospital:		Incidence rate ratio (95%CI)
No SMC		1
SMC in 2014		0.37 (0.17,0.83)
SMC in 2015		0.52 (0.31,0.86)
SMC in 2016		0.41 (0.10,1.71)
Region: URR		1
CRR		0.51 (0.51,0.51)
LRR		0.83 (0.75,0.92)
NBE		0.31 (0.28,0.34)
NBW		0.12 (0.11,0.14)
WR1		0.23 (0.21,0.26)
WR2		0.47 (0.42,0.52)
Age group by region:		
URR:	<5yrs	1
	5+yrs	0.17 (0.11,0.25)
CRR:	<5yrs	1
	5+yrs	0.12 (0.08,0.18)
LRR:	<5yrs	1
	5+yrs	0.18 (0.11,0.29)
NBE:	<5yrs	1
	5+yrs	0.22 (0.14,0.35)
NBW:	<5yrs	1
	5+yrs	0.36 (0.22,0.58)
WR1:	<5yrs	1
	5+yrs	0.12 (0.07,0.19)
WR2:	<5yrs	1
	5+yrs	0.15 (0.09,0.24)
Year by age group:		
<5yrs:	2011	1
	2012	0.82 (0.31,2.18)
	2013	0.47 (0.22,1.03)
	2014	0.27 (0.13,0.57)
	2015	0.23 (0.09,0.58)
	2016	0.11 (0.03,0.44)
5+yrs:	2011	1
	2012	1.3 (0.82,1.9)
	2013	0.81 (0.56,1.2)
	2014	0.54 (0.38,0.79)
	2015	0.73 (0.55,0.96)
	2016	0.36 (0.22,0.61)

S8.2 Burkina Faso: Association of SMC with the number of outpatient cases, severe cases, and malaria deaths in hospital, Aug-Nov 2015-2016

Outpatients		Incidence rate ratio (95%CI)
SMC:	No SMC	1
	SMC in 2015	0.59 (0.53,0.66)
	SMC in 2016	0.52 (0.43,0.61)
Policy on patient charges: No policy		1
Policy for <5yrs in 2016		1.6 (1.4,1.8)
Region: Districts with SMC from 2015		1
Districts with SMC from 2016		0.65 (0.48,0.87)
Districts without SMC by 2016		0.56 (0.41,0.77)
Age group by region:		
Districts with SMC from 2015: <5yrs		1
5-14yrs		0.31 (0.27,0.35)
15+yrs		0.39 (0.35,0.43)
Districts with SMC from 2016: <5yrs		1
5-14yrs		0.44 (0.40,0.48)
15+yrs		0.52 (0.49,0.55)
Districts without SMC: <5yrs		1
5-14yrs		0.55 (0.46,0.65)
15+yrs		0.75 (0.69,0.82)
Year by region:		
Districts with SMC from 2015: 2013		1
2014		1.6 (1.4,1.9)
2015		2.2 (1.9,2.6)
2016		2.5 (2.0,3.2)
Districts with SMC from 2016: 2013		1
2014		1.7 (1.5,2.0)
2015		2.3 (2.0,2.7)
2016		3.4 (2.8,4.1)
Districts without SMC: 2013		1
2014		1.4 (1.3,1.6)
2015		2.0 (1.7,2.3)
2016		2.5 (2.1,3.0)
Month:	Aug	1
	Sep	1.1 (0.86,1.3)
	Oct	1.2 (0.96,1.5)
	Nov	0.82 (0.65,1.0)

Severe malaria		Incidence rate ratio (95%CI)
SMC:	No SMC	1
	SMC	0.73 (0.66,0.79)
Region: Districts with SMC from 2015		1
Districts with SMC from 2016		0.68 (0.53,0.88)
Districts without SMC by 2016		0.76 (0.57,1.01)
Year by region:		
Districts with SMC from 2015: 2013		1
2014		1.15 (1.08,1.22)
2015		1.18 (1.08,1.29)
Districts with SMC from 2016: 2013		1
2014		1.00 (0.92,1.08)
2015		1.06 (0.96,1.16)
Districts without SMC: 2013		1
2014		1.06 (0.98,1.14)
2015		1.13 (1.01,1.27)
Age group by region:		
Districts with SMC from 2015: <5yrs		1
5-14yrs		0.20 (0.19,0.22)
15+yrs		0.43 (0.39,0.47)
Districts with SMC from 2016: <5yrs		1
5-14yrs		0.25 (0.23,0.27)
15+yrs		0.58 (0.53,0.64)
Districts without SMC: <5yrs		1
5-14yrs		0.61 (0.50,0.75)
15+yrs		1.39 (1.16,1.67)

Malaria deaths in hospital	Incidence rate ratio (95%CI)
No SMC	1
SMC in 2015	0.53 (0.31,0.91)
SMC in 2016	0.65 (0.37,1.15)
Policy on patient charges: no policy	1
policy: <5yrs in 2016	0.44 (0.26,0.75)
Districts with SMC from 2015	1
Districts with SMC from 2016	0.55 (0.32,0.94)
Districts without SMC by 2016	0.54 (0.25,1.19)
Year	
2013	1
2014	0.90 (0.77,1.06)
2015	1.08 (0.84,1.39)
2016	1.11 (0.71,1.72)
Age group by region	
Districts with SMC from 2015: <5yrs	1
5-14yrs	0.07 (0.05,0.12)
15+yrs	0.07 (0.04,0.13)
Districts with SMC from 2016: <5yrs	1
5-14yrs	0.15 (0.10,0.21)
15+yrs	0.11 (0.09,0.13)
Districts without SMC: <5yrs	1
5-14yrs	0.14 (0.11,0.20)
15+yrs	0.22 (0.11,0.46)
Year by region	
Districts with SMC from 2015	1
2013-2014	1.00 (0.00,0.00)
2015-2016	1.17 (0.69,1.96)
Districts with SMC from 2016	
2013-2014	1
2015-2016	0.85 (0.59,1.21)

S8.3 Chad, Guinea and Mali: Association of SMC with the number of outpatient cases, Aug-Nov 2015-2016

Chad:Outpatients	
	Incidence rate ratio (95%CI)
SMC: No SMC	1
SMC in 2015	0.49 (0.23,1.02)
SMC in 2016	0.58 (0.40,0.84)
Year: 2013	1
2014	1.1 (0.55,2.3)
2015	1.1 (0.81,1.6)
2016	1.6 (0.88,2.8)
Age group: 5+yrs	1
<5yrs	1.1 (0.86,1.4)
Month: Aug	1
Sep	1.0 (0.81,1.3)
Oct	0.85 (0.55,1.3)
Nov	0.50 (0.34,0.73)
District: Bokoro	1
Mandelia	0.74 (0.55,0.98)
Mani	1.1 (0.68,1.7)
N'Djamena Sud	2.3 (1.0,5.3)

Guinea: Outpatients	
	Incidence rate ratio (95%CI)
SMC: No SMC	1
SMC in 2015	0.63 (0.42,0.92)
SMC in 2016	0.51 (0.39,0.65)
Year: 2014	1
2015	1.2 (0.92,1.5)
2016	1.1 (0.83,1.5)
District: Dabola	1
Dinguiraye	0.26 (0.13,0.52)
Gaoual	0.79 (0.39,1.59)
Koubia	0.45 (0.21,0.98)
Koundara	0.87 (0.32,2.4)
Mali	0.23 (0.11,0.46)
Mandiana	0.52 (0.24,1.1)
Siguiri	0.71 (0.19,2.6)
Age group by district:	
Dabola <5yrs	0.68 (0.67,0.70)
5+yrs	1
Dinguiraye <5yrs	1.2 (0.91,1.7)
5+yrs	1
Gaoual <5yrs	0.50 (0.43,0.59)
5+yrs	1
Koubia <5yrs	0.89 (0.59,1.4)
5+yrs	1
Koundara <5yrs	0.64 (0.53,0.77)
5+yrs	1
Mali <5yrs	0.35 (0.30,0.41)
5+yrs	1
Mandiana <5yrs	1.3 (1.0,1.6)
5+yrs	1
Siguiri <5yrs	0.80 (0.37,1.7)
5+yrs	1

Mali: Outpatients	
	Incidence rate ratio (95%CI)
SMC: No SMC	1
SMC in 2015	0.53 (0.38,0.72)
SMC in 2016	0.61 (0.50,0.74)
Year: 2013	1
2014	1.4 (1.1,1.9)
2015	1.4 (0.95,2.2)
2016	1.4 (1.1,1.9)
Age group: <5yrs	1
5-14yrs	0.40 (0.31,0.51)
15+yrs	0.86 (0.63,1.2)
Month: Aug	1
Sep	1.3 (1.1,1.5)
Oct	1.6 (1.3,1.9)
Nov	0.99 (0.85,1.2)
District: Diema	1
Kadiolo	1.2 (0.77,1.9)
Markala	1.4 (0.96,2.1)
Ouelessebougou	2.0 (1.4,2.9)
Segou	1.2 (0.53,2.5)
Tominian	1.5 (1.1,2.2)

S8.4 Niger and Nigeria: Association of SMC with the number of outpatient cases, Aug-Nov 2015-2016

Niger: Outpatients		
		Incidence rate ratio (95%CI)
SMC:	No SMC	1
	SMC in 2015	0.56 (0.37,0.86)
	SMC in 2016	0.71 (0.44,1.1)
Year:	2013	1
	2014	2.2 (1.0,4.9)
	2015	2.2 (1.3,3.6)
	2016	1.9 (1.4,2.6)
District:	Aguie	1
	Boboye	1.6 (0.94,2.8)
	Gaya	2.7 (1.2,5.9)
	Maradi	6.5 (4.0,11)
	Matamaye	1.9 (0.85,4.3)
	Mayahi	1.1 (0.45,2.8)
	Mirryah	2.4 (1.2,4.8)
Age group by district:		
Aguie	<5yrs	4.0 (3.2,5.0)
	5+yrs	1
Boboye	<5yrs	1.9 (1.8,2.1)
	5+yrs	1
Gaya	<5yrs	1.1 (0.64,1.8)
	5+yrs	1
Maradi	<5yrs	1.8 (1.5,2.2)
	5+yrs	1
Matamaye	<5yrs	3.4 (2.7,4.3)
	5+yrs	1
Mayahi	<5yrs	3.7 (1.3,11)
	5+yrs	1
Mirryah	<5yrs	2.8 (2.0,4.1)
	5+yrs	1

Nigeria:outpatients		
		Incidence rate ratio (95%CI)
SMC:	No SMC	1
	SMC in 2015	0.74 (0.54,1.01)
	SMC in 2016	0.75 (0.60,0.95)
Year:	2013	1
	2014	1.5 (0.74,3.2)
	2015	1.7 (1.4,2.1)
	2016	1.6 (1.0,2.6)
Age group:	5+yrs	1
	<5yrs	1.1 (0.88,1.3)
Month:	Aug	1
	Sep	1.6 (1.1,2.3)
	Oct	1.3 (0.96,1.8)
	Nov	0.57 (0.35,0.93)
LGA:	Birnin Magaji	1
	Bungudu	0.99 (0.61,1.6)
	Gada	0.85 (0.75,0.97)
	Kauran Namoda	0.60 (0.56,0.63)
	Sabon Birni	0.40 (0.34,0.47)
	Shinkafi	2.0 (1.9,2.1)

8.2 Modelled predictions of cases averted:

Because many malaria cases occur at home without being treated at a health facility, health records do not give a true indication of the total burden of malaria. We therefore relied on indirect methods to obtain rough estimates of the likely burden, for the analyses of the cost-effectiveness of SMC. Outputs of the Imperial College malaria model [41], were aggregated for each administrative area where SMC was implemented through the ACCESS-SMC project. Model predictions for a site in Mali and a site in Burkina Faso where field data on the incidence of malaria in children in 2015 were available from a clinical trial, were compared with the field data, to obtain a scaling factor to bring model predictions for those locations into agreement with the incidence of malaria in the field trial. This scaling factor was then applied to the model predictions for all ACCESS-SMC areas. In three areas, Chad, Niger and northern Nigeria, the predicted rates appeared low, not consistent with estimates of prevalence from our own surveys (prevalence in children in ACCESSS-SMC areas before SMC of 33% in Nigeria, 36% in Niger, and 8.3% in Chad) and the 2015 DHS in Nigeria [42] (about 20% prevalence of severe anaemia (Hb<8g/dL) in Sokoto and Zamfara, and prevalence of malaria by microscopy of 47% in Sokoto and 63% in Zamfara). This may reflect that the data on the prevalence of *P.falciparum* underlying the model predictions, were limited and out of date for these areas. Therefore, for these areas, we interpolated burden values, using the estimate of the prevalence of infection obtained from the surveys of drug resistance in ACCESS-SMC areas in each country as an auxiliary variable. The resulting estimated incidence rates are shown in Table S9. To estimate the number of cases that could have been averted by SMC, we took the number of monthly treatments administered in each district, deducted an estimate of the fraction of these treatments that were administered to children above the age of 5 from coverage surveys, and then estimated the number of cases averted as $n(1-p).r.e$ where n is the number of treatments administered, p the average fraction of treatments administered above age 5, r the predicted incidence rate of malaria per child per month in that district, and e the average efficacy over 28 days estimated from the case control studies. The resulting number of deaths and cases averted was summed for each country to give a rough idea of the number of cases that could have been averted by the ACCESS-SMC project.

Table S9: Predicted incidence rates of malaria, severe malaria and malaria mortality

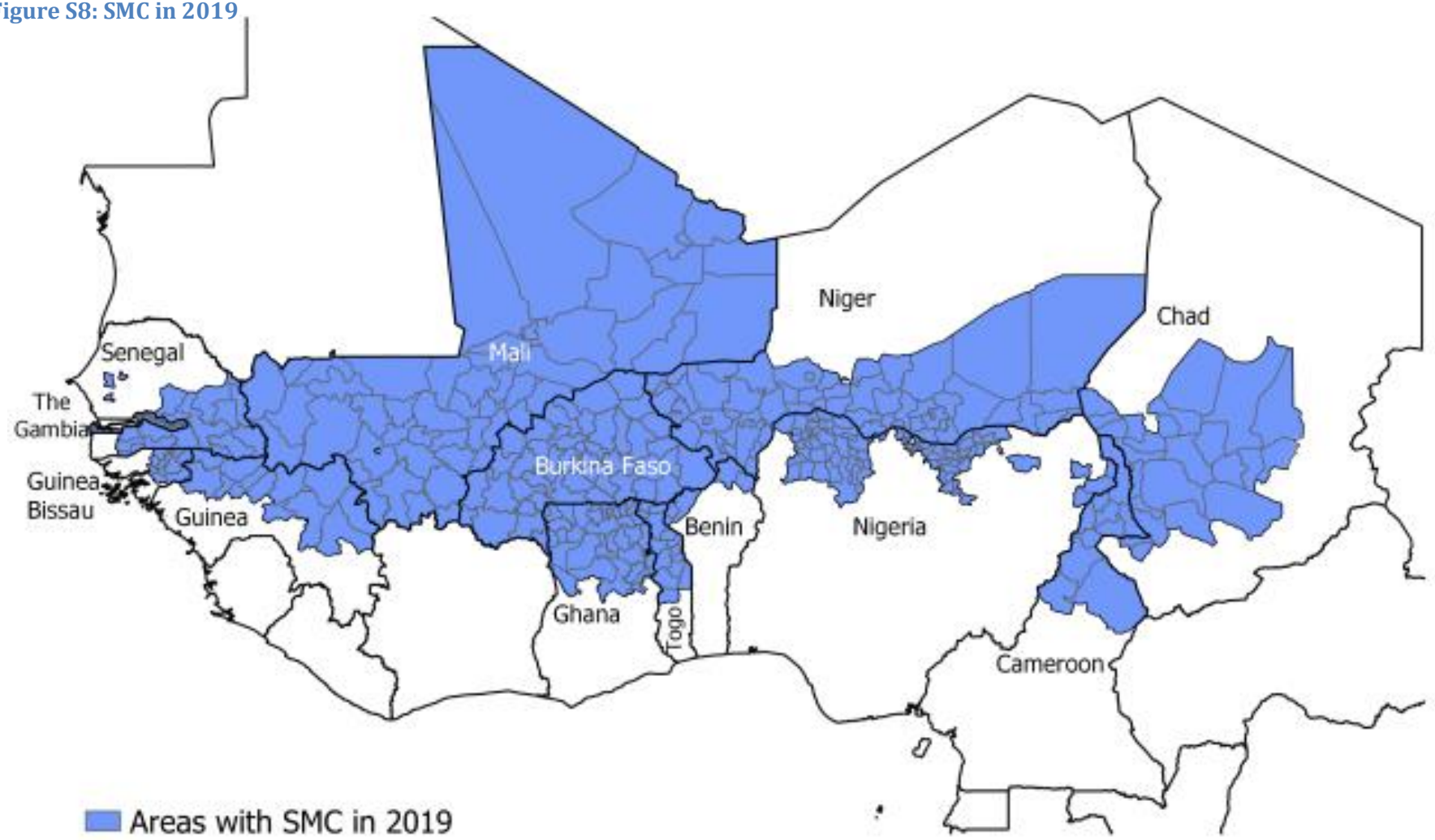
(predicted rates/1000/month, in the absence of SMC, for ACCESS-SMC areas in 2015 and 2016)

		Incidence/1000/month		
Year	**Country**	**Cases**	**Severe cases**	**Deaths**
2015	Burkina Faso	272.9	8.24	1.85
	Chad	125.8	5.85	1.31
	Gambia	79.5	5.39	1.21
	Guinea	245.6	7.02	1.57
	Mali	334.1	7.78	1.74
	Niger	325.3	7.72	1.73
	Nigeria	335.8	7.82	1.75
2016	Burkina Faso	254.8	7.56	1.70
	Chad	128.5	5.24	1.18
	Gambia	85.4	5.19	1.16
	Guinea	240.6	5.67	1.27
	Mali	329.0	8.43	1.89
	Niger	319.3	7.76	1.74
	Nigeria	329.3	7.89	1.77

9. Scale-up of SMC after the project

By 2016, about 15million children were included in SMC programmes in 12 countries and about 60 million treatments were administered [43] and in 2017, about 15.7million children were treated [44]. Areas covered by the ACCESS-SMC project were able to transition to other sources of funding (the Global Fund, national governments, the World Bank, PMI, UNICEF, and philanthropic funding which supported Malaria Consortium's programmes in Burkina Faso, Chad and Nigeria). In 2019, a total of about 85million SMC treatments were administered to about 22million children in thirteen countries (Figure S8).

Figure S8: SMC in 2019



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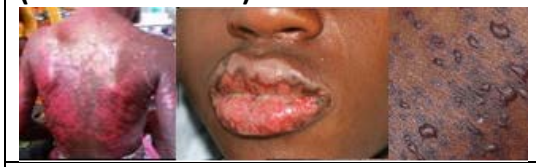
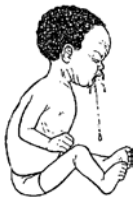
Annex 1: Job aid for health facility workers: safety monitoring for SMC (English and French)

Safety monitoring for SMC: Guide to the rare severe side-effects of SMC drugs

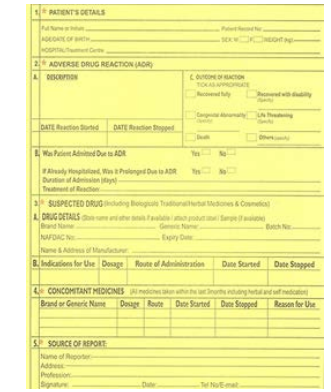
Possible SAEs from SP+AQ	Description of Signs and Symptoms	Actions for Health Facility Worker
Stevens-Johnson syndrome **(severe skin rash)** 	▪ Painful red or purplish rash that spreads and blisters. ▪ Top layer of the affected skin dies and sheds. ▪ May begin with flu-like symptoms.	▪ **Notify and hospitalize immediately (medical emergency)** ▪ Write **"Allergy Not Eligible for SMC"** on SMC Register and Child Record Card. ▪ **Avoid SP and all sulfa-containing drugs in future.**
Hepatotoxicity **(jaundice)**	▪ Yellowing of the sclera (white of the eyes). ▪ Dark coloured urine. ▪ Loss of appetite, nausea, vomiting or abdominal pain. ▪ Extreme fatigue or weakness.	▪ **Notify and refer to hospital.** ▪ Confirm with lab tests for liver function if possible. ▪ Write **"Allergy Not Eligible for SMC"** on SMC Register and Child Record Card. ▪ **Avoid AQ in future.**
Extra-pyramidal syndrome **(neurological disorder)**	▪ Involuntary muscle movements in the face and neck. i.e. lip smacking, tongue movements, blinking, and head or finger spasms. ▪ Restlessness and difficulty moving the arms and legs.	▪ **Notify and refer to hospital.** ▪ Write **"Allergy Not Eligible for SMC"** on SMC Register and Child Record Card. ▪ **Avoid AQ in future.**
Repeated vomiting 	▪ Repeated vomiting which begins hours after taking drug. ▪ In severe cases can persist for several days with vomiting several times per day.	▪ Eligible for SMC in the next cycle. ▪ Advise caregiver to bring the child to the health facility if symptoms recur.
Agranulocytosis **(Low white cell count (neutrophils) <750/mm^3)**	▪ Severe sore throat with fever. ▪ Prone to infections.	▪ **Notify and refer to hospital.** ▪ Diagnosis requires complete blood count. ▪ Treat infections ▪ Write **"Allergy Not Eligible for SMC"** on SMC Register and Child Record Card. ▪ **Avoid AQ in future.**

Notify and complete National Pharmacovigilance Form:

- Cases of conditions marked “Notify” should be reported immediately to:

  Dr._____Mobile: _____Email: _____

- For all suspected side effects, mild or severe, a **Pharmacovigilance Form** must be completed:
  - Record when the symptoms started.
  - Ask about ALL medications including traditional medicines the child has received in the last 2 weeks.



- National Pharmacovigilance SMS number: You can report by sending an SMS to **20543**.

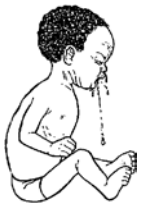
  This is free on MTN, Glo and Etisalat. Send the name of the medicine, and the suspected adverse reaction, to this number, for example "Child took SMC drugs and has a skin rash". You will then receive an auto response acknowledging receipt of the alert. The information is forwarded to NAFDAC at the National Pharmacovigilance Centre; NAFDAC will contact you for more information that will be used to fill an ADR reporting form if necessary.

Severe Adverse Reactions (SAEs) to SMC drugs are very rare:

- Most side effects will appear within the first week after taking the drugs, but if a child is unwell at any time they should go to the health facility.
- Very rarely, any medicine can cause **anaphylactic shock,** a severe allergic reaction that occurs quickly. This is a **medical emergency** and requires immediate hospitalisation. If this occurs, SP+AQ should be never be given in the future.
- Some rare side effects affecting the blood (i.e. agranulocytosis) can be **detected only** with laboratory tests.
- **Most side effects due to SP+AQ are mild and not cause for concern.** Commonly reported mild side effects include **abdominal pain and vomitting, mild rash, itching, diarrhoea, weakness, and loss of appetite**. Caregivers should take the child to the health facility if mild side effects become worse or do not go away after several hours.
- **In case of fever, always test to confirm if the child has malaria,** with an RDT or microscopy.

Picture credits: Prof JLNDiaye, Universite Cheikh Ant Diop, Dakar
https://www.flickr.com/photos/27849635@N05/2735492595 CDC/Dr. Thomas F. Sellers/Emory University
Basic Science and Health Education for Primary Schools, Uganda (UNICEF, 1992)

Surveillance de l'inocuité des médicaments de la CPS : Guide pour les effets secondaires graves et rares

Effets indésirables graves possibles avec SP+AQ	Description des signes et symptômes	Actions pour le personnel de santé
Syndrome de Stevens-Johnson (eruption cutanée grave) 	▪ Éruption cutanée rouge ou violacée douloureuse qui se répand et fait des cloques. ▪ Ensuite, la couche supérieure de la peau affectée meurt et tombe ▪ Peut commencer avec des symptômes pseudo-grippaux.	▪ **Contacter la personne indiquée ci-dessous et hospitaliser immédiatement (Urgence médicale)** ▪ Mentionner "**Allergie, Non éligible pour la CPS**" sur le registre de la CPS et la carte de l'enfant. ▪ **Éviter la Sulfadoxine-Pyriméthamine (SP) et tous les médicaments contenant des Sulfamides à l'avenir.**
Hépatotoxicité (La jaunisse)	▪ Des yeux jaunes (Aspect jauni du blanc de l'œil). Urines foncées. ▪ Perte d'appétit, nausées, vomissements ou douleurs abdominales. ▪ Faiblesse ou fatique extrême.	▪ **Contacter la personne indiquée ci-dessous et référer à l'hôpital.** Confirmer les troubles de la fonction hépatique avec des tests de laboratoire spécifiques ▪ Mentionner "**Allergie, Non éligible pour la CPS**" sur le registre de la CPS et la carte de l'enfant. ▪ **Éviter l'Amodiaquine (AQ) à l'avenir.**
Syndrome Extra-pyramidal (Une maladie neurologique)	▪ Mouvements musculaires involontaires du visage et du cou. Peut inclure un tremblement des lèvres, mouvements de la langue, clignement des yeux, des spasmes de la tête ou des doigts. ▪ Agitation et difficulté à bouger les bras et les jambes.	▪ **Contacter la personne indiquée ci-dessous et référer à l'hôpital.** ▪ Mentionner "**Allergie, Non éligible pour la CPS**" sur le registre de la CPS et la carte de l'enfant. ▪ **Éviter l'Amodiaquine (AQ) à l'avenir.**
Les vomissements répétés 	▪ Les vomissements **répétés** peuvent débuter quelques heures après la prise du médicament. ▪ Dans les cas graves, peuvent persister pendant plusieurs jours avec des vomissements plusieurs fois par jour.	▪ Éligible pour la CPS au prochain cycle. ▪ Conseiller la famille d'amener l'enfant au centre de santé si les symptômes réapparaissent.
Agranulocytose (Chute des globules blancs (Polynucléaires neutrophiles) <750/mm^3)	▪ **Mal de gorge** sévére avec fièvre. ▪ Susceptibilité aux infections.	▪ **Contacter la personne indiquée ci-dessous et référer à l'hôpital.** Le diagnostic nécessite une Numération de la Formule Sanguine (NFS). Traiter les infections ▪ Mentionner "**Allergie, Non éligible pour la CPS**" sur le registre de la CPS et la carte de l'enfant. ▪ **Éviter l'Amodiaquine (AQ) à l'avenir.**

Surveillance de l'inocuité des médicaments de la CPS : Guide pour les effets secondaires graves et rares

Informer et remplir le formulaire (fiche) national de pharmacovigilance:

- Tous les évènemenements ci-dessus ou il est marqué « informer » ou « contacter » doivent être immédiatement signalés au **Dr.**_____

  Mobile: _____**Email:** _____

- Numéro pour envoyer un **SMS** au centre National de Pharmacovigilance **:** _____
- Pour tous les effets indésirables présumés, bénins ou graves, une **fiche de pharmacovigilance** doit être remplie:
  - Mentionner la date de début des symptômes.
  - Demander des informations sur TOUS les médicaments, y compris traditionnels, que l'enfant a reçu dans les 2 dernières semaines.


1. PATIENT'S DETAILS
2. ADVERSE DRUG REACTION (ADR)
3. SUSPECTED DRUG
4. CONCOMITANT MEDICINES
5. SOURCE OF REPORT

Les effets indésirables graves dus aux médicaments de la CPS sont très rares:

- La plupart des effets secondaires apparaissent dans la première semaine après la prise des médicaments, mais si un enfant est malade à tout moment ils devraient venir à l'établissement de santé.
- Très rarement, les médicaments peuvent provoquer **un choc anaphylactique**, une réaction allergique grave qui se produit rapidement. Ceci est une **urgence médicale** et nécessite une **hospitalisation immédiate**. Si cela se produit, SP + AQ devrait être jamais être donné à l'avenir.
- Certains effets secondaires rares affectant le sang (Agranulocytose, thrombocytopénie et anémie aplasique) peuvent être détectés que par des **tests de laboratoire**.
- **La plupart des effets indésirables dus à SP + AQ sont bénins et ne provoquent pas d'inquiétude.** Les symptômes bénins fréquemment rapportés sont**, douleurs abdominales, vomissements, éruption cutanée, prurit, diarrhée, fatigue, et perte de l'appétit**. Les parents ou tuteurs doivent amener l'enfant au centre de santé si des effets secondaires bénins s'aggravent ou ne disparaissent pas après plusieurs heures.
- **En cas de fièvre, toujours tester pour confirmer** un paludisme avec un TDR ou la microscopie (Goutte épaisse). .

Picture credits: Prof JLNDiaye, Universite Cheikh Ant Diop, Dakar
https://www.flickr.com/photos/27849635@N05/2735492595 CDC/Dr. Thomas F. Sellers/Emory University
Basic Science and Health Education for Primary Schools, Uganda (UNICEF, 1992)

Annex 2: SMC training manual (English)

Field Guide

For

Training & Service Delivery of

Seasonal Malaria Chemoprevention in Nigeria

UNITAID

ACCESS SMC

Achieving catalytic expansion of seasonal malaria chemoprevention in the Sahel

malaria consortium

disease control, better health

CRS

CATHOLIC RELIEF SERVICES

This template was prepared by Malaria Consortium thanks to funding from UNITAID under the ACCESS-SMC project. The views expressed do not necessarily reflect those of UNITAID.

ACCESS-SMC is a UNITAID-funded project, led by Malaria Consortium in partnership with Catholic Relief Services, which is supporting National Malaria Control Programmes to scale up access to seasonal malaria chemoprevention (SMC) to save children's lives across seven countries in the Sahel. By demonstrating the feasibility and impact of SMC at scale, ACCESS-SMC will promote the intervention's wider adoption.

For further information visit www.access-smc.org and www.unitaid.org

Table of Contents

About this Field Guide

The purpose of this Field Guide is to provide National Malaria Programmes, trainers, supervisors, health facility workers (HFWs), implementing partners, and stakeholders with a practical guide to planning, implementing and evaluating training and delivery of seasonal malaria chemoprevention (SMC).

This guide contains the processes, procedures, activities and forms needed for:

- Recruitment of trainers, health facility workers, supervisors and community health workers and defining their responsibilities.
- Planning, delivering and evaluating training for SMC delivery.
- Delivery of SMC to children, including recording, referral and case management of referred cases and pharmacovigilance.
- Communicating with caregivers and other members of the SMC team.
- Supervision and monitoring of SMC during each SMC cycle.

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Abbreviations and Acronyms

ACT	Artemisinin-based Combination Therapy
ADR	Adverse Drug Reaction
AE	Adverse Event
AL	artemether / lumefantrine
AQ	amodiaquine
CDD	Community Drug Distributor
CHW	Community Health Worker
DHA-PPQ	dihydroartemisinin-piperaquine
DOT	Directly observed therapy
HF	Health Facility
HFW	Health Facility Worker
LGA	Local Government Area
LLIN	Long Lasting Insecticide Treated Net
MDA	Mass drug administration
M&E	Monitoring and Evaluation
MFP	Malaria Focal Person
MOH	Ministry of Health
MS	Medical Store
NAFDAC	National Agency for Food and Drug Administration and Control
NGO	Non-Government Organization
NMCP	National Malaria Control Programme
NMEP	National Malaria Elimination Programme
PV	Pharmacovigilance
RDT	Rapid Diagnostic Test for malaria
SAE	Serious Adverse Event
SBCC	Social and Behaviour Change Communication
SCM	Supply Chain Management
SMC	Seasonal Malaria Chemoprevention
SP	sulfadoxine / pyrimethamine
SP+AQ	sulfadoxine / pyrimethamine and amodiaquine
ToT	Training of Trainers
WHO	World Health Organization

1. OVERVIEW of SMC

In many countries in the Sahel sub-region of Africa, malaria transmission is seasonal, with most of the disease burden occurring during a distinct rainy season. In recent years, seasonal malaria chemoprevention (SMC) has emerged as an approach to prevent malaria among children aged 3 to 59 months in areas where malaria transmission is highly seasonal.

SMC involves the administration of monthly treatment courses of a combination of antimalarial drugs with the objective of maintaining therapeutic antimalarial drug concentrations in the blood throughout the period of greatest risk.[1]

1.1 SMC Glossary

- **Seasonal Malaria Chemoprevention (SMC):** is the intermittent administration of 4 preventive treatment courses of antimalarial medicines given during the rainy season to prevent malaria. The objective of SMC is to maintain therapeutic antimalarial medicine concentrations in the blood throughout the period of greatest malarial risk.
- **SMC Drug Administration**: 1 dose of sulfadoxine / pyrimethamine (SP) and 3 doses of amodiaquine (AQ) given each month for 4 months to children between the ages of 3 to 59 months.
- **SMC Course:** a period of 3 days in which a full course of SP+AQ is given. Each child is given 1 course of SMC drugs each cycle.
- **SMC Cycle:** a 1 month interval between each course of SMC drugs. There are 4 cycles in each round.
- **SMC Delivery Period:** the number of days within each cycle when SP+AQ are distributed to eligible children
- **SMC Round:** one transmission season consisting of 4 monthly SMC cycles.
- **Community Health Worker (CHW)**: are community-based volunteers recruited and trained to deliver SMC drugs to eligible children in exchange for a small monetary incentive. Sometimes referred to as *community distributors.*
- **Health Facility Worker (HFW)**: are health workers working in a primary health facility responsible for disbursement of drugs, administering SP+AQ, case management of referred children and pharmacovigilance.
- **Door-to-Door Delivery**: a method of delivering SMC by CHWs in the child's household.
- **Fixed-Point Delivery**: a method of delivering SMC at a central location by CHWs or health facility workers (HFWs), such as a health facility, school or community centre.
- **SMC Job Aid**: an illustrated work aid used by CHWs, HFWs, and those responsible for administering SP+AQ. It contains the steps and procedures to safely deliver SMC.

[1] WHO Policy Recommendation: Seasonal Malaria Chemoprevention (SMC) for Plasmodium falciparum malaria control in highly seasonal transmission areas of the Sahel sub-region in Africa. World Health Organization, 2012.

- **SMC Child Record Card:** a card given to the child's caregiver which tracks the total number of tablets of SP+AQ given each cycle. Sometimes called the *beneficiary, patient or client card.*
- **SMC Register:** a log book used to record all SMC contacts for each child seen during one round of SMC. It provides a permanent record of each course of SP+AQ given, reasons children did not meet eligibility criteria, and whether of any serious adverse reactions were detected during SMC delivery.
- **SMC Tally Sheet**: a log sheet used to track the number of children seen each day of the cycle and the number of doses given of SP+AQ for each age group.
- **SMC Referral Form:** a form given to the caregiver when the child is referred to the health facility during SMC.
- **SMC Training Report:** a report completed by trainers about how the training was delivered, received, and whether the objectives were met.

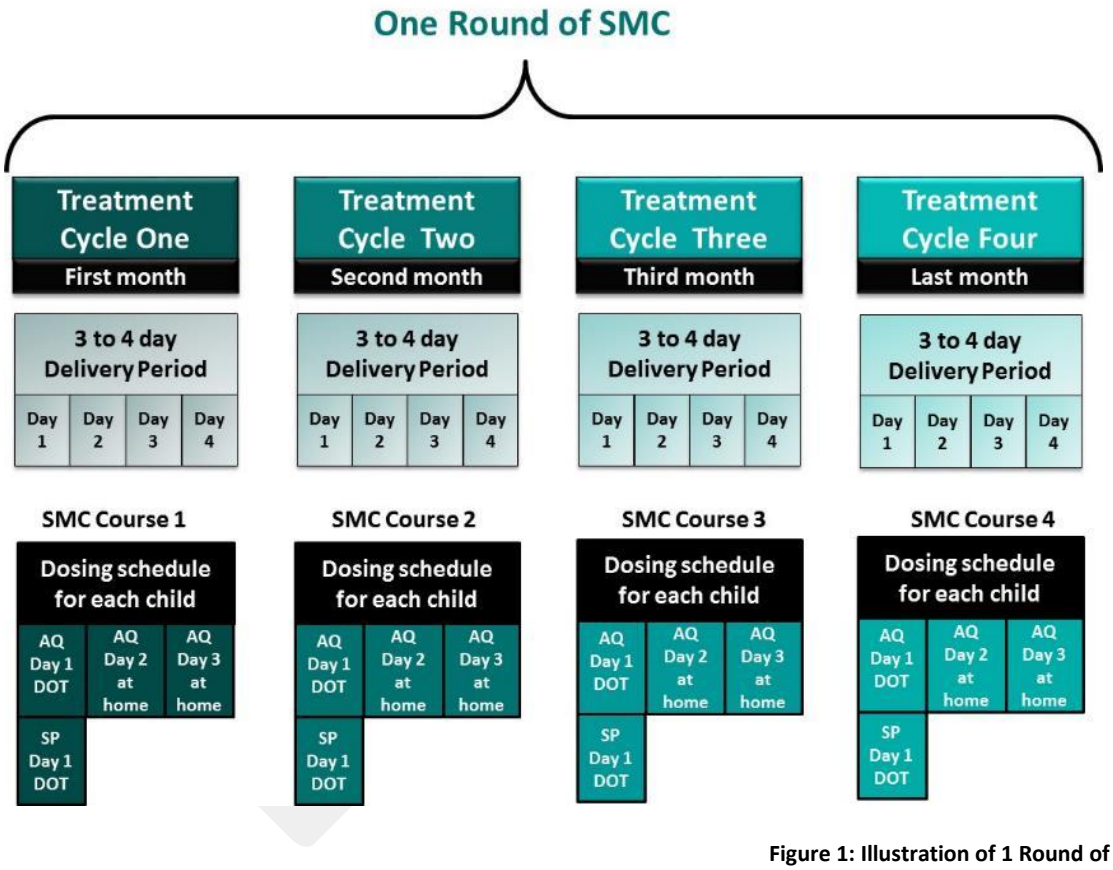


Figure 1: Illustration of 1 Round of SMC

1.2 Frequently Asked Questions about SMC

1.2.1 What is Seasonal Malaria Chemoprevention?

Seasonal malaria chemoprevention(SMC) is the administration of monthly treatment courses of **sulfadoxine-pyrimethamine plus amodiaquine (SP+AQ)** given **at monthly intervals for four months to children aged 3 to 59 months** living in areas of high seasonal malaria transmission across the Sahel sub-Sahel region of Africa.

The objective of SMC is to maintain an adequate level of anti-malarial medicine concentrations in the blood in order to kill the malaria parasite during the period of high malaria transmission. SMC is done in combination with other malaria prevention measures, especially sleeping inside an LLIN every night.

1.2.2 Where is SMC effective?

SMC is most effective where malaria transmission is highly seasonal and the majority of cases occur during 4 months of the year. SMC is recommended in areas of seasonal malaria transmission throughout the Sahel and sub-Sahel region where approximately 25 million children under-five are at risk.[2] When selecting areas in the country for SMC implementation, the following need to be considered:

- Malaria transmission and the majority (at least 60%) of clinical malaria cases occur during a short period of about 4 months.
- The clinical attack rate of malaria in children is greater than about 10% (an average of 10 attacks per 100 children in the transmission season); and SP and AQ remains effective.[3]

1.2.3 What are the expected benefits of SMC?[4]

- Prevents 75% of all malaria episodes.
- Prevents 75% of severe malaria episodes.
- May decrease child mortality.
- Probably reduces the incidence of moderately severe anaemia.

1.2.4 Who is eligible for SMC?

SMC is indicated for **healthy children** between the ages of **3 to 59 months**. This is because children under five are the most vulnerable to malaria illness and likely to die from severe infection. Their growth and development are most affected by repeated attacks of malaria and the development of anaemia.

[2] Cairns M, et al. Estimating the potential public health impact of seasonal malaria chemoprevention in African children. Nat Commun. 2012. 3:881

[3] WHO Seasonal malaria chemoprevention with sulfadoxine–pyrimethamine plus amodiaquine in children: A Field Guide, July 2013.

[4] Ibid

SMC drugs are NOT to be given to children:

- Allergic to sulfa medication such as cotrimoxazole (Septrin, or Bactrim).
- Allergic to either SP or AQ.
- Who are very sick.
- With a fever.
- Who have received a dose of either SP or AQ during the past 28 days.
- Who are currently taking a sulfa medication such as cotrimoxazole (Septrin, or Bactrim).
- Who are unable to take oral medication.
- Who are HIV-positive child receiving cotrimoxazole prophylaxis.

1.2.5 What is dispersible SP+AQ?

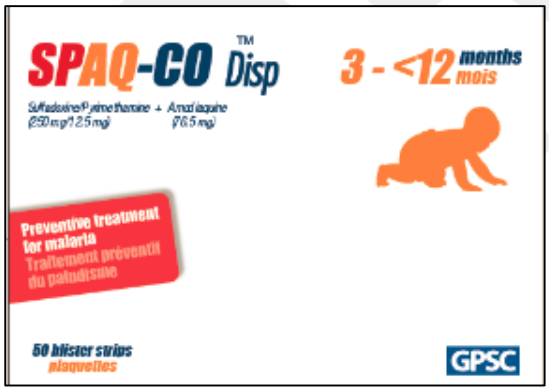
UNICEF defines a dispersible tablet (DT) as a tablet of medicine that quickly dissolves when covered with a small amount of water.

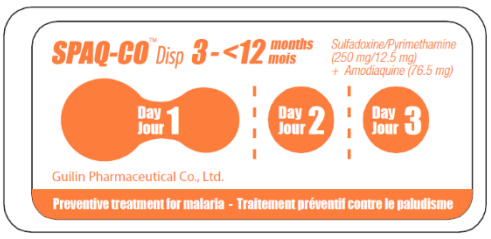
DTs allow for a more accurate dosage of drugs to young children and are easy to dispense. They also require very little water for administration.[5]

Dispersible SP+AQ is a co-formulated blister pack containing 1 dispersible tablet of SP and 3 dispersible tablets of AQ. The tablets have a sweet orange taste, thus masking the bad taste of AQ, making it easier for children to swallow without spitting out the medicine.

Like other medicines, it is important to store dispersible SP+AQ in a safe dry place, away from children and animals.

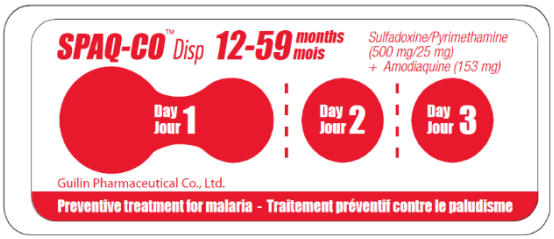
Packet of dispersible SP+AQ for ages 3 to <12 months:





[5] http://www.unicef.org/supply/index_53571.html

Packet of dispersible SP+AQ for ages 12 to 59 months:



1.2.6 What is the dose of SP+AQ for each age group?

One course of sulfadoxine-pyrimethamine plus amodiaquine (SP+AQ) consists of:

- 1 tablet of sulfadoxine / pyrimethamine (SP) **given once**, and
- 1 tablet of amodiaquine (AQ) **given once a day for 3 consecutive days**

DAY 1	DAY 2	DAY 3
1 SP tablet + 1 AQ tablet	1 AQ tablet	1 AQ tablet
		

Dose of SP+AQ for an infant 3 to <12 months (3 months to less than 12 months):

- sulfadoxine-pyrimethamine **250 mg/12.5 mg** on the first day
- amodiaquine **75 mg** (76.5 mg for dispersible) each day for 3 days

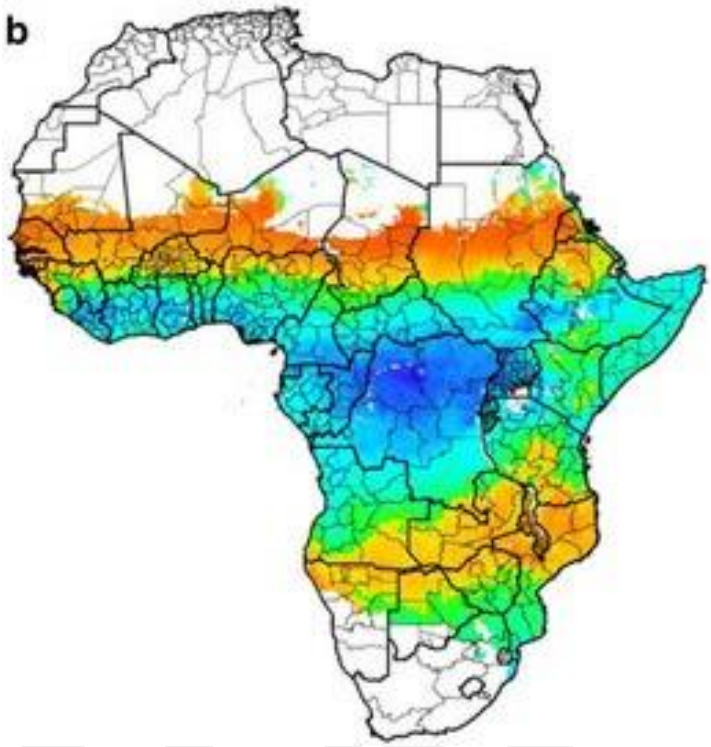
Dose of SP+AQ for a child 12 to 59 months (1 to 5 years):

- sulfadoxine-pyrimethamine **500 mg/25 mg** on the first day
- amodiaquine **150 mg** (153 mg for dispersible) each day for 3 days

1.2.7 When is SP+AQ given?

One course of SP+AQ is given **each month for 4 months,** beginning at the start of the rainy season.

Figure 2: Areas suitable for SMC implementation based on seasonality in rainfall and on malaria endemicity[6].



Orange-red areas are those identified as suitable for SMC based on >60% of annual rainfall in 3 months.

6 Cairns M, et al. Estimating the potential public health impact of seasonal malaria chemoprevention in African children. Nature Communications. 2012. 3:881

2. HUMAN RESOURCES for SERVICE DELIVERY of SMC

There are **4 basic roles for SMC service delivery** for which staff need to be recruited, trained, and supervised. Keeping the number of roles for SMC service delivery at a minimum is cost-effective and avoids confusion.

Trainer

National Trainers and State based Trainers responsible for training CHWs, HFWs and Supervisors.

~~HF Supervisor/~~CHW Team Supervisor/ HF Supervisor/Ward Focal Person/LGA Supervisor/State Supervisor

District health officials and senior supervisors responsible for supervising HFWs and other supervisors; CHW team supervisors responsible for supervising CHWs.

Health Facility Worker (HFWs)

Clinical doctors, nurses, CHEWs, and clinical officers responsible for safe distribution of SP+AQ, case management of referrals and pharmacovigilance.

Community Health Worker (CHWs)

Community-based volunteers responsible for safe distribution of SP+AQ and health promotion in the community.

2.1 Roles and Responsibilities of Service Delivery Staff Needed for SMC

2.1.1 Responsibilities of National Trainers and State Based Trainers

- Attend and participate fully in ToT and all SMC training.
- Deliver SMC training to trainers, CHWs, Supervisors and HFWs using adult learning and interactive participatory facilitation skills.
- Ensure correct quantities of all of the training materials are available throughout each SMC training.
- Give all training participants the correct information about SMC.
- Instruct how to complete all SMC forms correctly.
- Verify all training participants understand their role and responsibilities for delivery of SMC services.
- Use the *SMC Job Aid* as a teaching tool so that CHWs and HFWs know how to use it with caregivers.
- Use and follow the steps in the *SMC Trainer Guide* in conjunction with the *SMC Field Guide*.
- Keep training participants attentive, involved, and engaged during training.
- Give clear instructions for training activities.

- Manage time during training by starting and ending on time and completing all the training activities outlined in the *SMC Trainer Guide*.
- Give training participants feedback on their performance.
- Submit a Training Report after every SMC Training.

2.1.2 Responsibilities of Community Health Workers (CHWs)

CHWs responsible for determining eligible children and administering SP+AQ:

- Attend and participate in SMC training.
- **At fixed points**: help control crowds and manage the queue of caregivers, and ensure that all eligible children are treated.
- **At door-to-door:** ensure that all households are visited each cycle, and all eligible children resident in the household are seen and treated.
- Use the *SMC Job Aid* to determine whether the child is well and eligible for SP+AQ.
- **Give correct information about SMC** in a timely and polite manner.
- **Select the correct dose of SP+AQ** for the eligible child based on the child's age:
  - → *Crush hard tablets and mix with little water and sugar.*
  - → *Cover dispersible tablets with small amount of water.*
- **Give the correct dose of SP+AQ** to eligible children based on the child's age:
  - → *Observe the child for 30 minutes after giving SP+AQ.*
  - → *Give a second dose of SP+AQ if the child vomits within 30 minutes on Day 1 of the cycle.*
- **Refer children not eligible for SMC** to the nearest health facility:
  - → *Refer children with fever to be tested for malaria and appropriate treatment for fever.*
  - → *Refer all sick children including those who become very sick after taking SMC medicines.*
- **Give the caregiver 2 tablets of AQ** to take home and explain how to give 1 tablet each day:
  - → *Explain how to avoid vomiting or spitting the medicine.*
  - → *Explain what to do if the child vomits after taking AQ at home.*
  - → *Explain to go to the health facility if the child becomes very sick after taking SP and/or AQ*
- **Give information about prevention of malaria** and seeking care early when symptoms of malaria appear.
- **Give the caregiver the *SMC Child Record Card*** and explain how to record the 2 AQ doses and when to return for the next SMC cycle.

CHWs responsible for recording on the SMC Tally Sheet, Register, Child Record Cards and Referral Forms:

- Attend and participate in **SMC training.**
- **Pick up drug blister packets** of SP+ AQ at the health facility:
  - → *Count the number of drug packets received.*
  - → *Record the number of packets for each age on the SMC Tally Sheet.*
  - → *Count the number of remaining blister packets and loose tablets of SP+AQ at the end of each day and record them on the SMC Tally Sheet*
  - → *Submit SMC Tally Sheets to the supervisor or health facility at the end of each day.*
- **Record children in *SMC Register:***
  - → *Child's number, name, age, and date*
  - → *House number, name of head of household and name of caregiver*
  - → *If SP+AQ was administered or reason for excluding the child*
- **Record and tally numbers in the *SMC Tally Sheet*:**
  - → *Each dose of SP+AQ given by age*
  - → *Children referred to the health facility*
  - → *SP+AQ repeat doses after vomiting*
- **Complete the *SMC Referral Form*** for children referred to the health facility.
- **Complete in the *SMC Child Record Card*** for each child.

2.1.3 Responsibilities of HF Supervisors/Ward Focal Person

- Attend and participate in SMC training.
- Conduct CHW supervision visits during each day of the cycle for 4 SMC cycles.
- Ensure the community is made aware of SMC before each cycle, including the days when SMC will be delivered.
- Provide training and re-training of CHWs as needed through refresher trainings or corrective supervision.
- Ensure door-to-door delivery reaches every household and every eligible child, each cycle.
- Review all *SMC Registers* and *SMC Tally Sheets* each cycle to ensure all data is entered correctly.
- Check and verify the accountability of SMC medicines and supplies.
- Conduct spot checks with a select number of caregivers to see:
  - → *If the correct dose and quantity of SMC medicines was given.*
  - → *If the caregiver understands the messages given by the CHW.*

- → *If the SMC Child Record Card was completed correctly.*
- → *If any household or child was missed during the distribution period and ensure CHWs return to administer SP and AQ to eligible children.*

- Complete the *Supervisor End-of-Cycle Report* within 5 days after the last day of each cycle.

2.1.4 Responsibility of CHW Team Supervisors

- Attend and participate in SMC training.
- Observe a team of 8 to 12 CHWs as they deliver SMC in community to ensure they are following the standard procedures outlined in the *SMC Competency Checklist.*
- Take steps each cycle to ensure that every household is reached, and every eligible child is treated
- Support CHWs to be well prepared before each SMC cycle with all the needed materials.
- Ensure the safety of children who receive SP+AQ by checking that:
  - → *All children meet eligibility criteria for SMC.*
  - → *The correct dose of SP+AQ is given based on the child's age.*
  - → *Children are observed for side effects for 30 minutes after administration.*
- Support and mentor CHWs to follow the steps in the *SMC Job Aid* and ensure they conduct themselves respectfully.
- Ensure SMC medicines are delivered safely and correctly.
- Ensure all children with fever are referred to the health facility to be tested for malaria.
- Provide on-site mentoring, coaching and feedback to CHWs as needed.
- Daily review of the *SMC Register* and *SMC Tally Sheet* with the CHWs to ensure all data is entered correctly and ensure any discrepancies in data are corrected.
- Collect *SMC Tally Sheets* from assigned CHWs at the end of each day of the cycle:
  - → *Summarize all the Tally Sheets including number of children reached, number of tablets administered and number of tablets wasted.*
  - → *Give the summarised data to the HFW in the assigned catchment area.*
- Report observations and issues which need urgent attention before the end of the cycle.

2.1.5 *Responsibilities of SMC Health Facility Workers (HFWs)*

Responsibilities of HFWs at a Fixed-Point SMC delivery facility:

- Attend and participate in SMC training.
- Use the SMC Job Aid to determine whether the child is well and eligible for SP+AQ.
- Give correct information about SMC in a timely and polite manner.
- Ask caregivers about other children that should get SMC, but have not been brought to the delivery point, and encourage them to come.
- Select the correct dose of SP+AQ for the eligible child:
  - → *Cover dispersible tablets with small amount of water.*
  - → *Crush hard tablets and mix with little water and sugar.*
- Give the correct dose of SP+AQ to eligible children based on the child's age.
  - → *Observe the child for 30 minutes after giving SP+AQ.*
  - → *Give a second dose of SP+AQ if the child vomits within 30 minutes on Day 1 of the cycle.*
- Give the caregiver 2 tablets of AQ to take home and explain how to give 1 tablet each day and explain:
  - → *How to avoid vomiting or spitting the medicine.*
  - → *What to do if the child vomits after taking AQ at home.*
  - → *To return to the health facility if the child becomes very sick after taking SP and/or AQ.*
  - → *Give information about prevention of malaria and seeking care early when symptoms of malaria appear.*
- Give the caregiver the *SMC Child Record Card* and explain how to record AQ doses and when to return for the next SMC cycle.
- Record children on the *SMC Tally Sheet* and *SMC Register.*
- Summarize the *SMC Tally Sheet* each day including numbers of children reached, numbers of tablets administered and number of tablets wasted.

Responsibilities of HFWs with oversight of CHWs and management of SMC in the community catchment area:

- Attend and participate in SMC training.
- Distribute SP+AQ to CHWs assigned to the HF and record amount distributed each day of the cycle.
- Provide case management of fever to children who are referred to the health facility by CHWs:
  - → *Perform RDTs accurately and read results to determine if children with fever have malaria.*
  - → *Treat children who test positive for malaria with an ACT which does NOT contain amodiaquine.*
- Give SP+AQ to children who test negative for malaria and assess for other causes of fever:
  - → *Give the correct dose of SP+AQ to eligible children based on the child's age.*
  - → *Observe the child for 30 minutes after giving SP+AQ.*
  - → *Give a second dose of SP+AQ if the child vomits within 30 minutes on Day 1 of the cycle.*
- Give the caregiver 2 tablets of AQ to take home and explain how to give 1 tablet each day and explain:
  - → *How to avoid vomiting or spitting the medicine.*
  - → *What to do if the child vomits after taking AQ at home.*
  - → *To return to the health facility if the child becomes very sick after taking SP and/or AQ*
  - → *Prevention of malaria with LLINs and when to seek early treatment.*
- Complete the *SMC Referral Form* and file for future reference by District/LGA health or research teams.
- Track SMC drug accountability and reconciliation.
- Manage children with AEs and SAEs and complete the National Pharmacovigilance Form.
- Refer children with SAEs to a regional or state hospital if they cannot be managed at the health facility.
- Detect, investigate, manage and report adverse drug reactions to SP+AQ.
- Follow-up adverse reactions reported from all health facilitates within their district.
- Decide which PV reports need further investigation based on seriousness, severity, signals of new reactions, patterns of suspected reactions which although not serious, may affect adherence and success of programme.
- Complete the *SMC Health Facility End-of-Cycle Report* each cycle.
- Update the District/LGA officials on any emergency or shortage of supplies in the SMC catchment area.

2.2 Recruitment for SMC Training and Service Delivery of SMC

The success of SMC is 100% dependent on the quality of the people recruited and selected to deliver SMC. It is important to adhere to the agreed selection criteria for each role.

In accordance with the African Union's **Gender Policy**, an equitable number of men and women needs to be recruited for SMC delivery. The SMC program is an opportunity to promote gender equity and provides health education and economic incentives to women. Female CHWs and Supervisors will be primarily recruited for communities where cultural norms only allow women to enter households to deliver SMC treatments.

The following selection criteria are used when recruiting staff for SMC service delivery. Potential candidates who do not meet a criterion which begins with "**Must**" will not be selected in order to avoid compromising the quality and outcome of SMC.

2.2.1 Selection Criteria for National Trainers responsible for training State Based Trainers

Selection of Master Trainers is completed through a review of a written resume and by evaluating training skills through a short training demonstration from the SMC Trainer Guide.

- **Must** be a senior clinical doctor or senior nurse with knowledge and minimum of **5 years' experience** working with communities affected by malaria.
- **Must** have previous experience working in areas with public health initiatives.
- **Must** have previous experience as a trainer and facilitation of ToTs.
- **Must** have knowledge and training experience using participatory adult learning methods.
- **Must** be able to read and have experience following a Trainer Guide. **Must** be available attend the National Trainer ToT and deliver several consecutive ToTs to SMC Trainers before the first cycle of SMC.
- **Must** be fluent in the local language of the participants they will be training.
- **Must** be available to attend the National Trainer ToT and deliver several ToTs to SMC Trainers.
- Strong technical background and basic knowledge of SMC and SMC medicines.
- Familiar with national treatment guidelines for SMC delivery, case management of malaria and pharmacovigilance.

- Previous experience training, supervising and mentoring other trainers.
- **Must** have previous experience training support supervision and interpersonal communication skills.
- Previous experience training health facility workers on pharmacovigilance.
- Able to explain technical content in a simple and interactive manner.
- Able to facilitate various groups of people with different learning styles, levels of education and motivation.
- Able to give other trainers feedback on their training skills.
- Able to problem solve independently and implement corrective action as needed.
- **Must** be able to give a 30 minute training facilitation using the *SMC Trainer Guide* and demonstrate understanding of SMC and adult facilitation skills to be able to train others.
- **Must** score 85% or higher on the SMC post-test to be eligible to train trainers.

2.2.2 *Selection Criteria for State Based Trainers responsible for training CHWs, Supervisors and HFWs*

- **Must** be a clinical doctor or senior nurse with a minimum of **2 years' experience** working with communities affected by malaria.
- **Must** have previous experience working in areas with public health initiatives.
- **Must** be available to attend the ToT and deliver several consecutive trainings to CHWs, HFWs, and Supervisors for a period of 3 to 4 weeks before the first cycle of SMC.
- **Must** be fluent in the local language of the participants they will be training.
- **Must** be able to read and follow the *SMC Trainer Guide*.
- **Must** be able to read the *SMC Trainer Guide* in the language it is written in.
- Familiar with national treatment guidelines for SMC delivery, case management of malaria and pharmacovigilance.
- Knowledge and training experience using participatory adult learning methods preferred.
- Previous experience training support supervision and interpersonal communication skills preferred.

- Able to explain technical content in as simple and interactive manner.
- Able to facilitate various groups of people with different learning styles, levels of education and motivation.
- Able to give participants feedback on their skills and performance.
- **Must** be able to give a 30 minute training facilitation at the end of the ToT using the *SMC Trainer Guide* and demonstrate understanding of SMC and adult facilitation skills to be able to train others.
- **Must** score 85% or higher on the training post-test to be eligible to train.

2.2.3 Selection Criteria for Community Health Workers

CHWs will be selected for different tasks based on their literacy levels and ability to read and completed CHW forms.

CHWs responsible for giving SP+AQ	CHWs responsible for recording in SMC Recording Tools
▪ Basic literacy skills preferred.	▪ **Must** be able to read and write legibly.
▪ **Must** be 18 years or older.	▪ **Must** be 18 years or older.
▪ **Must** be available to attend every day of CHW training.	▪ **Must** be available to attend every day of CHW training.
▪ **Must** be available to distribute SMC every day of each cycle.	▪ **Must** be available to record on SMC forms every day of each cycle.
▪ **Must** be able to communicate in the same language as the community where SMC will be deployed.	▪ **Must** be able to communicate in the same language as the community where SMC will be deployed.
▪ **Must** be able to correctly distinguish between drug packets by colour or picture of child.	▪ **Must** be able to accurately read and complete simple forms.
▪ **Must** be in good health to be able to walk long distances to and from communities and health facilities.	▪ **Must** be in good health to be able to walk long distances to and from communities and health facilities.
▪ Preferably a member of and reside in the community where SMC will be deployed.	▪ Preferably a member of and reside in the community where SMC will be deployed.
▪ Respected member of the community with a strong desire to help others.	▪ Respected member of the community with a strong desire to help others.
▪ Female or male to meet the community needs.	▪ Female or male.
▪ Previous experience with mass drug administration, vaccination campaigns, or health promotion preferred.	▪ Previous experience with mass drug administration, vaccination campaigns, or health promotion preferred.

2.2.4 Selection Criteria for SMC Supervisors

- **Must** have previous experience as a supervisor.
- **Must** be able to attend every day of SMC Supervisor training.
- **Must** be able to read and write and collect information to complete a report every cycle.
- **Must** be fluent in the local language of community leaders in the area they will supervise.
- **Must** be able to problem solve independently and implement corrective action as needed.
- **Must** be able to manage drug accountability of SP+AQ.
- Able to supervise and monitor an average of 6-12 CHW Team Supervisors or HFWs each cycle.
- **Must** score 80% or higher on the training post-test to be eligible to train.

2.2.5 Selection Criteria for CHW Team Supervisors

- Previous experience as a supervisor preferred.
- **Must** be able to attend every day of Supervisor training.
- **Must** be able to read and write and collect information and complete the *SMC Drug Reconciliation Form*.
- **Must** be fluent in the local language
- CHWs and caregivers speak in the area they will supervise.
- **Must** be able to give CHWs/HFWs feedback on their skills and performance and keep them motivated.
- Able to supervise and monitor 6-12 CHWs/HFWs each day.
- **Must** score 80% or higher on the training post-test to be eligible to train.

2.2.6 Selection Criteria for HFWs responsible for administering SP+AQ and for case management of children referred to the HF

- **Must** be a clinical doctors, nurse, clinical officer, CHEWs, or any other health facility worker responsible for the case management of children with malaria.
- **Must** know the national treatment guidelines for case management of malaria and aware of the national guidelines for SMC delivery and pharmacovigilance.
- **Must** be able to read and write on forms.
- **Must** be able to communicate in the same language as the caregivers.
- **Must** be able to attend every day of SMC HFW training.

- Available to distribute SMC and record SMC forms every day of each cycle.
- **Must** score 80% or higher on the SMC post-test.

2.3 Quantification of SMC Service Delivery Staff

The number of trainers, CHWs, health facility workers, supervisors, and trainings needs to be quantified during the SMC micro-planning process. This is done to guide the quantity of training materials and service delivery tools, and the selection of training venues. Quantification depends on the SMC delivery method/s which will be used. (Door-to-Door or Fixed-Point, or both). It is important that adequate numbers of staff are employed in order to ensure that good coverage of SMC can be achieved.

2.3.1 Guidelines for quantification of service delivery staff and trainings

Calculation	Number
A. Average number of children expected to be seen each day of SMC:	
B. Number of days of each SMC cycle:	
C. Approximate number of children seen each cycle:	**(A multiplied by B) =**
D. Number of CHWs per team who will be recruited based on delivery method: *Recommend 2 for door-to-door and 3 for fixed point*	
E. Total number of CHWs to be recruited:	**(C divided by D)=**
F. Maximum number of CHWs supervisors can reasonably supervise during each SMC cycle:	
G. Total number of supervisors to be recruited:	**(E divided by F)=**
H. Maximum number of HFWs to be recruited to administer SMC and manage referrals:	
I. Maximum number of participants who can be trained per training: *Recommend not more than 20 participants*	
J. Total number of CHW trainings:	**(E divided by I) =**
K. Total number of supervisor trainings:	**(G divided by I) =**
L. Total number of HFW trainings:	**(H divided by I) =**
M. Total number of trainings which need to be delivered in 4 weeks:	**(J + K + L) =**
N. Number of trainings which can be delivered in 4 weeks	**(M divided by N) =**
O. Number of trainers to be recruited for each training in 4 weeks: ***Recommend 2 trainers per training***	**(N multiplied 2) =**
P. Number of ToTs needed to train all trainers:	**(O divided by I) =**

3. TRAINING for DELIVERY of SMC

The goal of trainings for SMC service delivery staff is to prepare trainers, CHWs, HFWs and supervisors to safely deliver SMC to eligible children and to correctly complete all the data recording tools and forms.

SMC training requires careful planning, preparation and exceptional coordination. **All SMC trainings need to be completed prior to the first cycle of SMC.** Planning for SMC training needs to begin **6 months** before the first cycle to ensure the quality of SMC delivery.

In order to ensure participants of SMC training do not forget what they learn during training, training will **NOT take place earlier than 4 weeks before the first cycle,**

Individuals trained the previous year need to participate in an a 1-day **SMC refresher training** given by the SMC Trainers which will cover a review of the content in the SMC Curriculum (see Section 3.3).

The following individuals should be invited to participate in SMC trainings:

- Individuals responsible for determining whether the child is eligible for SMC.
- Individuals responsible for giving SP+AQ to children.
- Individuals responsible for referring children to health facilities.
- Individuals responsible for completing the *SMC Tally Sheet, Register, Referral Form* and *Child Record Card*.
- HFWs responsible for assessing and managing adverse drug reactions.
- HFWs responsible for pharmacovigilance and completing the PV form.
- HFWs responsible for completing the *SMC Health Facility End-of-Cycle Report.*
- Individuals responsible for requisition, accountability and reconciliation of SP+AQ drug packets.
- Supervisors responsible for completing the *SMC Supervisor End-of-Cycle Report* and supervising others.

3.1 SMC Training Cascade

3.1.1 Types of SMC training events

SMC requires training large numbers of CHWs and supervisors concurrently, over a short period of 2 to 3 weeks.

In order to train everyone recruited for SMC service delivery before the first cycle of SMC each season, a variety of training events need to be carefully planned and executed in a logical cascade. The duration of the training will depend on the level of participation and time dedicated to allow participants to practice and apply new skills. The following 5 training events are consolidated for cost-effectiveness and delivery of content.

Training of National Trainers (ToT for NTs) at the National level

- National Trainers are trained by **1 to 2 Master Trainers** with an expertise in SMC service delivery and pharmacovigilance, and with a minimum of 10 years' experience and knowledge in adult learning facilitation.
- The ToT for National Trainers will be for **4 days** and cover **all aspects of SMC, management of referrals, safety monitoring, pharmacovigilance, supervision, interpersonal communication skills, and adult learning.**

Training of State Based Trainers (ToT) at the State level

- State Based Trainers are trained by **2 National Trainers** who have successfully completed the ToT for National Trainers.
- Each ToT will be for **3 days** and cover **all aspects of SMC, management of referrals, safety monitoring, pharmacovigilance, supervision, interpersonal communication skills, and adult learning.**

Training of HFWs who do NOT have training responsibilities

- HFWs are trained by **1-2 SMC Trainers** who have successfully completed the SMC ToT.
- Each training of HFWs will be for **2 days** and **cover all aspects of SMC, interpersonal communication skills, and what HFWs need to know and do to deliver SMC including management of referrals, safety monitoring and pharmacovigilance.**

Training of CHWs

- CHWs are trained by **1-2 SMC Trainers** who have successfully completed the SMC ToT.
- Each training of CHWs will be for **2 days** and cover **all aspects of SMC and what CHWs need to know and do to deliver SMC safely and correctly.**

Training of Supervisors

- Supervisors and LGA/district health officers are trained by **1-2 SMC Trainers** who have successfully completed the SMC ToT.
- Each training of Supervisors will be for **2.5 days** and cover **all aspects of SMC, interpersonal communication skills and what Supervisors need to know and do to supervise CHWs and HFWs.**

3.1.2 SMC training plan and budget

An SMC training plan and budget is completed each year during SMC micro-planning process. It includes the results from the quantification exercise (**section 2.3.1**) and outlines who, when, where, how many, and how much it will cost to deliver each level of SMC training.

The SMC training plan includes, but is not limited to:

- Total number of trainers, CHWs, HFWs, and supervisors to be recruited by SMC distribution area.
- Number of CHWs per team based on delivery method including roles and responsibilities of each team member.
- Total number of trainings events which will be conducted in order to train everyone at each level of the cascade,
- Number of participants per training event, and the ratio of trainer to participant.
- Total number of participants trained for each type of training.
- Duration of each training event (number of days).
- Start and end dates for each training event.
- Location of each training event including a description of type of venue.
- Description of development, procurement and production of all training materials.
- Description of how and when refresher training will be conducted including the number of days.

The SMC training budget includes, but is not limited to:

- Itemized list of training tools, equipment, and supplies, including unit cost, quantity to be procured, and total cost per item.
- Cost of storage and transportation of training supplies.
- Cost and number of training venues, meals and refreshments required for each training event.
- Costs for lodging and transportation.
- Cost of per diems by cadre.

3.2 Preparing for SMC Training

Preparation for SMC training includes procurement of supplies, production of printed materials, selection of venues, transportation logistics and communication to trainers and participants. Preparation arrangements need to begin **at least 4 weeks in advance** of the first training to allow enough time to secure purchase requisitions and complete all activities.

3.2.1 Procurement and production of training materials

Training materials, tools and supplies need to be procured and produced **at least 2 weeks prior to the first ToT** to allow time for quality control and re-ordering if needed. **The following materials are needed for SMC trainings:**

SMC Trainer and participant tools:

Name of Tool	Type of Training	Quantity Required for Training
1. Trainer Guide	▪ ToT	1 for each person responsible for delivering training to Trainers, HFWs, CHWs, or Supervisors
2. SMC Field Guide	▪ ToT ▪ Training of HFWs ▪ Training of Supervisors	1 for each Trainer 1 for each Health Facility 1 for each District Health Office 1 for each Supervisor
3. TOT Agenda	▪ TOT	1 for each Trainer
4. SMC Agenda for CHWs	▪ Training of CHWs	1 for each Trainer
5. SMC Agenda for HFWs	▪ Training of HFWs	1 for each Trainer 1 for each HFW
6. SMC Agenda for Supervisors	▪ Training of Supervisors	1 for each Trainer 1 for each Supervisor
7. SMC Job Aid	▪ ToT ▪ Training of HFWs ▪ Training of Supervisors ▪ Training of CHWs	1 for each Trainer 1 for each CHW 1 for each Health Facility 1 for each District Health Office 1 for each Supervisor
8. Pharmacovigilance/ SAE Job Aid	▪ ToT ▪ Training of HFWs	1 for each Trainer 1 for each Health Facility 1 for each District Health Office
9. Certificate of Completion	▪ ToT ▪ Training of HFWs ▪ Training of Supervisors ▪ Training of CHWs	1 for each training participant

SMC training evaluation tools:

Name of Tool	Type of Training	Quantity Required for Training
10. SMC Pre-Test and Post-Test	▪ ToT ▪ Training of HFWs ▪ Training of Supervisors	1 for each Trainer 1 for each HFW 1 for each Supervisor
11. Answer Keys for SMC Pre-Test and Post-Test	▪ ToT ▪ Training of HFWs ▪ Training of Supervisors	1 for each Trainer
12. Test Score Tracking Sheet	▪ ToT ▪ Training of HFWs	1 for each Training

Name of Tool	Type of Training	Quantity Required for Training
	▪ Training of Supervisors	
13. SMC Competency Checklist	▪ ToT ▪ Training of HFWs ▪ Training of Supervisors	1 for each Trainer 1 for each Supervisor
14. SMC Training Evaluation Form	▪ ToT ▪ Training of HFWs ▪ Training of Supervisors	1 for each Trainer 1 for each HFW 1 for each Supervisor
15. SMC Training Report	▪ ToT ▪ Training of HFWs ▪ Training of Supervisors ▪ Training of CHWs	1 for each Training
16. Training Attendance Register	▪ ToT ▪ Training of HFWs ▪ Training of Supervisors ▪ Training of CHWs	1 for each Training

SMC recording tools:

Name of Tool	Type of Training	Quantity Required for Training
17. SMC Register	▪ ToT ▪ Training of HFWs ▪ Training of Supervisors ▪ Training of CHWs	2 copied pages per participant
18. SMC Tally Sheet	▪ ToT ▪ Training of HFWs ▪ Training of Supervisors ▪ Training of CHWs	2 for each participant
19. SMC Child Record Card	▪ ToT ▪ Training of HFWs ▪ Training of Supervisors ▪ Training of CHWs	1 for each participant
20. SMC Referral Form	▪ ToT ▪ Training of HFWs ▪ Training of Supervisors ▪ Training of CHWs	2 for each participant
21. Health Facility End-of-Cycle Report	▪ ToT ▪ Training of HFWs	1 for each trainer 1 for each HFW
22. Supervisor End-of-Cycle Report	▪ ToT ▪ Training of Supervisors	1 for each trainer 1 for each Supervisor
23. National PV Form	▪ ToT ▪ Training of HFWs	1 for each trainer 1 for each HFW
24. Drug Requisition and Reconciliation Form	▪ ToT ▪ Training of HFWs ▪ Training of Supervisors	2 for each trainer 2 each HFW team 2 for each Supervisor

Training supplies and stationary:

Item	Type of Training	Quantity Required for Training
▪ **SP+AQ blister packets for each age dose**	▪ All trainings	50 packets of each age for every training
▪ **Spoons, cups and water to administering drugs**	▪ All trainings	10 of each for every training

▪ **Pens**	▪ All trainings	1 per participant
▪ **Spiral notebooks to take notes**	▪ All trainings except CHW training	1 for each Trainer 1 for each HFW 1 for each Supervisor
▪ **Post-it Notes**	▪ ToTs only	1 pack of assorted colours
▪ **Flipchart paper**	▪ All trainings	2 reams per training
▪ **Flipchart markers**	▪ All trainings	1 box per training
▪ **Masking tape**	▪ All trainings	1 roll
▪ **Stapler and staples**	▪ All trainings	1 of each
▪ **Scissors**	▪ All trainings	1 of each

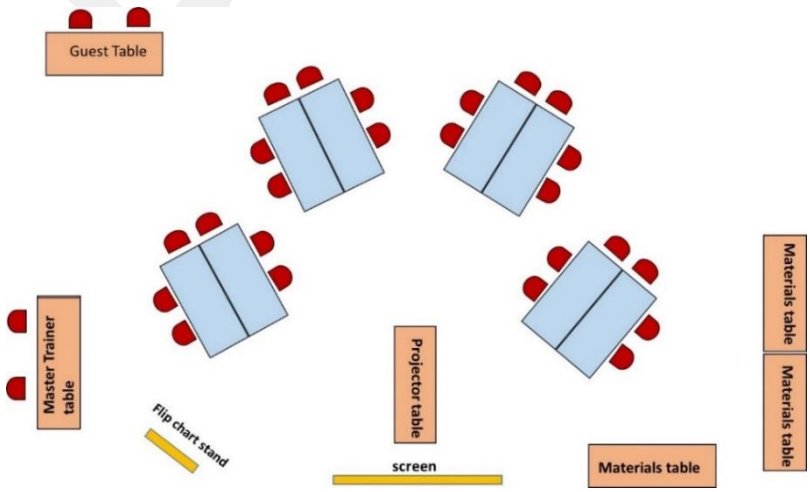
3.2.2 Selection of training venues

The following suggested guidelines are intended especially for ToTs, but may also help select the best possible options for interactive and participant-based training venues. It may not always be possible to meet these criteria for some levels of training in resource-constrained settings.

Suggested guidelines for selecting training venues:

- Venues with several training rooms to allow multiple SMC trainings to be given at the same time.
- Large enough to comfortably accommodate at least 25 people.
- Avoid pillars blocking the front of the room.
- Avoid risers or a podium as it creates a barrier to interactive training.
- Natural light and ventilation.
- Flipchart stand or walls to tape flipchart paper
- Participant tables arranged in groups with 6 to 8 chairs each, to allow for small group discussion and participative activities
- Equipment tables for training materials.
- Table and chairs for guests.
- Separate break / lunch area.

The following room set-up encourages group participation and adult learning:



3.2.3 Training preparation checklist for trainers

1 week before training:

- Review the **roles and responsibilities** for each group of participants (see section 2.1).
- Verify the **language and literacy level** of the participants.
- Prepare a **list of participants** expected to attend each training.
- **Invite** participants to the training. Include information regarding the name of the venue and the time the training will start.
- **Read** the *SMC Field Guide* and *SMC Trainer Guide* several times and learn the content.

2 days before training:

- **Review the timetable** for each training activity.
- **Rehearse** how to facilitate the training activities and practice demonstrations.
- **Prepare all the needed materials and equipment** to conduct all the activities in each module.

3.3 SMC Curriculum

All SMC participants need to be trained on the following topics:

- **Overview of SMC**
- **Roles and responsibilities** during SMC
- **Eligibility criteria for children:**
  - *Children excluded from SMC*
  - *Determining a child's age*
  - *Eligibility process*
- **Administering SP+AQ safely and correctly:**
  - *Guidelines for giving crushed SP+AQ*
  - *Guidelines for giving dispersible SP+AQ*
  - *Drug safety*
- **Using the SMC Job Aid:**
  - *Interpersonal communication skills with caregivers*
  - *Communication to caregivers about SMC and giving AQ at home*
- **Completing SMC Delivery Data Recording Tools**
  - *SMC Tally Sheet*

- *SMC Register*
- *SMC Child Record Card*
- *SMC Requisition and Reconciliation Form*

- **Referral process during SMC**
  - *Criteria for referrals*
  - *Completing the SMC Referral Form*
- **Strategies for delivery, coverage and management of supplies.**

Additional training topics for all Trainers:

- **Adult learning principles** and **interactive facilitation techniques.**
- Completing the **SMC Training Evaluation Tools.**

Additional training topics for all HFWs:

- **Stock management:**
  - *Requisition, accountability and reconciliation*
  - *Managing drug stock outs*
  - *Storage of SP+AQ*
- **Health Facility responsibilities for SMC Referrals:**
  - *Case management of children with severe illness or referral to a regional hospital if they can't be managed at the health facility*
  - *Case management of children with fever*
  - *Case management of children who test positive for malaria*
  - *Case management of children who test negative for malaria*
- **Pharmacovigilance (PV) of SP+AQ:**
  - *Difference between AEs and SAEs*
  - *AEs and SAEs related to SP+AQ*
  - *Management of children with AEs and SAEs*
  - *PV reporting process and completing the National PV Form*
- **Completing the Health Facility End-of-Cycle Report.**

Additional training topics for all Supervisors:

- **Stock management.**
- **SMC supervision process.**
- **Evaluating SMC Service Delivery:**
  - *SMC Competency Checklist*
  - *Supervisor End-of-Cycle Report*

3.4 Conducting SMC Training

Each module in the *SMC Trainer Guide* contains steps to competency-based and participant-centered training activities. Trainers are encouraged to deliver SMC training by applying adult learning principles and interactive facilitation skills by allowing participants time to discuss and practice skills.

3.4.1 Adult learning principles

Adult learning is based on the principle that adult participants in a training want to actively participate in learning, rather than sit passively and listen to the trainer lecture. Adult learners need to be given opportunities to experience and practice new skills and to solve problems, rather than memorize content.

Adults learn best when they:

- Can contribute what they know and **share their experiences with others** in the training room.
- Know **how the training will help them** be better at a skill or their job.
- **Feel valued** and recognized for their contributions.
- Can **apply what they learn** as soon as possible.
- Can **link new information** to something they already know.
- Can be **active** rather than passively sitting and listening to the trainer.

Adult training participants remember content best when:

- Key concepts are **repeated at least six times** in six different ways.
- They can **see content visually**. Use the flipchart and job aid materials or show participants how to do a skill through demonstration.
- They **can talk and summarize** new content they have learned. Ask participants to summarize new information at the end of the session or beginning of the next session.
- They can **take notes or write**. Encourage participants who are able to write to practice completing forms and training exercises.

3.4.2 Interactive facilitation techniques

Trainers are encouraged to apply interactive adult learning facilitation skills when training other Trainers, CHWs, HFWs and Supervisors.

Great trainers and facilitators use the following skills:

- Determine what participants' **already know** about SMC and ask what their expectations are for training. Explain how the training content will be of benefit to them.
- Learn and address **participants by their name.**
- **Use eye contact** (if appropriate) to establish a connection with the participants and read the audience to see if they understand or are confused.
- **Walk around the room** towards the participants as they respond to questions or make comments. Show interest in their comments will encourage participants to continue to be involved.
- **Show enthusiasm and be passionate about the topic.** The trainer's energy and excitement will help keep participants to be excited about the content.
- **Establish ground rules** at the beginning of a training session. Record the agreed ground rules on flipchart paper and revisit them on occasion if needed.
- **Pose questions to the group** and wait for participants to respond.
- Link new content to existing content with **analogies or stories.**
- Give participants opportunities to participate in a **variety of activities** such as discussions, games, demonstrations, practice skills problem-solving case studies and role-plays.
- Reward participants with **positive feedback** and express appreciation when they contribute.
- **Use energizers** when participants show signs of fatigue or poor attention. Keep energizers short (not more than 2 min) and include physical activity and laughter.

3.4.3 Managing time during training

In order to complete all the content in a training course, trainers need to apply good time management techniques during training.

Strategies for good time management:

- **Arrive 1 hour early** to set-up the training room and organize materials.
- Liaise with caterers to ensure timely delivery of tea and lunch at scheduled break times.
- **Start and end on time.**

- Establish **ground rules** the participants will agree to.

- Follow the steps in the *SMC Trainer Guide* and adjust activities to fit the needs of the participants.
- Assign a **time keeper** to notify participants when to return to the classroom after breaks.
- Limit the number of participant questions.
- State how much time will be allowed for each activity.
- Be **brief and concise** when talking.

3.4.4 Training participants with limited literacy

Participants with limited literacy or no primary education may have difficulty recognizing letters and words in the training materials.

Strategies for training participants with low literacy:

- Determine who the **stronger readers are and pair them** with participants with limited literacy.
- **Use visual aids** such as pictures, drawings or diagrams, job aids, posters, flip charts with coloured markers.
- Question and answer style can be challenging to participants with low literacy if they are afraid of being shamed or humiliated by giving a wrong answer. **Encourage all participants to contribute** and give positive reinforcement for correct answers.
- Respond to incorrect answers by asking, "What else?"

3.4.5 End-of-training checklist

At the end of every training, the trainer needs to:

- **Evaluate** the participants' level of understanding of the training content.
  - Collect and document participants' evaluation of the training.
  - Adjust future trainings based on the evaluations.
- Celebrate and provide **certificates of completion.**
  - Provide positive feedback on participants' achievements.
  - Praise participants and the group on improving their performance and developing new skills.
- **Summarize** training experience in the *SMC Training Report*

3.5 SMC Training Evaluation Tools

Measuring the skills and performance of CHWs and other training participants is an important component to ensuring quality of SMC service delivery. Several evaluation tools are required in order to measure financial costs and impact of training.

3.5.1 Training Attendance Register

The *Attendance Register* is used for budget accountability to track the number of participants at each training event and the cost of training per participant/per day. The *Attendance Register* is also used to provide demographic information for the training report.

- It includes the dates and location of training, the names of the trainers and the participants, and the gender and contact information of the participates.
- Each participant needs to **sign the register daily** to verify attendance.
- Submit completed registers to the SMC in-charge.

3.5.2 Administering the SMC pre- and post-test assessment

The pre- and post-tests are written assessments used to evaluate the level of **knowledge gained** from the training, **not skills.** Comparing the post-test scores to pre-test scores helps to determine whether the trainer was successful at increasing participants' knowledge about SMC.

- **Only trainers, HFWs and supervisors** will be asked to complete the SMC pre- and post-tests.
- The test questions ask about information covered in the *SMC Trainer Guide,* therefore it is important for trainers to follow the *SMC Trainer Guide*.
- The pre-test is a set of 20 multiple choice questions. There is only one correct answer to every question.
- The pre-test is given to the participants **before the training starts**. It evaluates participants' existing level of knowledge about SMC at the beginning of training and helps trainers know where learning gaps exist.
- Trainers can take advantage of participants with high pre-test scores by seating them near those with low scores to encourage peer-to-peer learning.
- The post-test contains the **same set of questions** as the pre-test, but in a different order.
- Administer the post-test at the end of training, before the training evaluation and awarding certificates of completion.

3.5.3 Scoring and reporting pre- and post-test results

Trainers are provided an answer-key to both tests and an electronic *Test Score Tracking Sheet* (Excel), or a printed score sheet if a computer is not available.

The electronic score sheet will automatically provide a % score, the % point difference between scores (improvement), and average the class scores once the number of correct answers is entered for each participant. Trainers using the paper version will need to calculate the % score and % point difference.

Each question is worth 5 points.

- All **trainers must get a score of 85%** on the post-test to be qualified to train for SMC.
- **HFWs and supervisors must get an 80%** on the post-test to be qualified for SMC.
- CHWs are **not expected** to take the pre- and post-test.

Steps to scoring and reporting test results:

- Use the pre-test answer key to score each pre-test immediately after collecting all the tests.
- Record the pre-test scores on the *Test Score Tracking Sheet.* Enter the participant's name, location and cadre (Trainer, HFW or Supervisor).
- Use the post-test answer key to score each post-test immediately after training.
- Record the post-test scores on the *Test Score Tracking Sheet.*
- Compare the individual pre- and post-test scores and the percent improvement.
- Submit all the completed tests and the Test Score Tracking Sheet with the SMC Training Report to the SMC in-charge

Sample Test Score Tracking Sheet:

					PRE-TEST		POST-TEST		
No.	Participant Name	State, Region or District	LGA, Village, Catchment Area	Trainer, Supervisor, or HFW	Number correct	Pre-Test % score	Number correct	Post-Test % score	% Improvement
1	Bashir			Health Facility Worker	17	85%	19	95%	10%
2	Muhammad			Supervisor	15	75%	18	90%	15%
3	Yakubu			Health Facility Worker	11	55%	15	75%	20%
4	Fatima			Supervisor	9	45%	18	90%	45%
5	Mariam			Supervisor	13	65%	16	80%	15%
				AVERAGE	13	65%	17	86%	21%

3.5.4 SMC Training Evaluation Form

The written *Training Evaluation Form* for SMC needs to be completed anonymously at the end of training. It allows participants a chance to comment on the training and the trainer's performance. Trainers will use participants' feedback to improve subsequent trainings.

The *Training Evaluation Form* includes the date and location of training and asks participants to answer a series of questions about the SMC training.

CHWs who cannot read or write are not expected to complete the written evaluation form. The trainer needs to ask the evaluation questions verbally in order to get feedback.

The Training Evaluation needs to evaluate:

- The trainer's skills and attitude
- The quality of the training materials
- The type of training methods used
- The training environment
- The value of the training
- The relevance of the content to their work
- Suggestions for how training can be improved

Trainers will summarize participants' responses and include them in the *Training Report.*

A sample of the *SMC Evaluation Form* is located on page 95 of the Annex.

3.5.5 Certificates of Completion

Certificates of completion will be awarded on the last day of SMC training to training participants who **attended all of the training** and are **deemed to be competent** by the trainer to safely administer SMC drugs to children.

Participants who miss more than 1 hour of SMC training will not receive a certificate. This needs to be communicated to all training participants when they are invited to attend SMC training and again on the first day of training. It is important to communicate that full participation in SMC training is required in order to ensure SMC is administered safely.

3.5.6 SMC Training Report

The *SMC Training Report* is used to communicate information to stakeholders about how the various SMC trainings were delivered, how they were received, their impact, whether the objectives for the various SMC trainings were met, and any additional observations and recommendations.

Trainers will be given either an electronic or a paper template of the *SMC Training Report* which must to be **completed within five (5) days after every training** and submitted to the SMC in-charge.

The SMC Training Report includes the following information:

- Name of the SMC training; such as Training of CHWs, Training of SMC Supervisors.
- Name(s) of trainers delivering the sessions.
- Location of training (country, village and venue).
- Dates of training.
- Number of participants.
- Number of males and females.
- Cadre of participants.
- Summary of objectives met, engagement of the participants, and time management following the training outline.
- A summary of observed participant's strengths and weaknesses.
- Average pre- and post-test scores and average percent improvement.
- A summary of the participants' responses on the *SMC Evaluation Form.*
- Average responses to questions about the quality of training.
- A brief summary of accomplishments and challenges encountered during training.
- Recommendations for future trainings and a plan of action.
- A copy of the *Test Scoring Sheet, Summary of the Evaluation Forms and the Attendance Register*.

A sample of the *SMC Training Report* is located on page 96 of the Annex.

4. DELIVERY of SMC

4.1 Delivery Methods for SMC

One or both of the following SMC delivery methods will be selected to deliver SP+AQ to children in the community.

Fixed-Point Delivery	Door-to-Door Delivery
SMC drugs given to children each cycle at an agreed location in the community such as a health facility.	SMC drugs are given to children each cycle in their house or compound.
	

The selection of delivery method will depend on the size of the community, budget, and distance between households.

The decision of which method/s to use is determined during the SMC micro-planning process, and re-assessed after each cycle to determine which methods worked best.

CHWs will work in teams of 2 to 4, depending on the delivery method, and conduct delivery activities based on their skills and literacy.

For Fixed-Point delivery:

- Identify a place to administer SP+AQ in with shade and shelter from rain.
- Arrange for tables, chairs or mats.
- Determine how and where to obtain clean water.
- Develop a system for all SMC delivery activities of CHWs or HFWs based on team roles and responsibilities.
- Plan community visits before each cycle to remind caregivers to bring their children.
- Create a plan for crowd control.

For Door-to-Door delivery:

- Identify households in each catchment area to be visited by each CHW team.
- Map the course of visits for each day of the cycle.
- Arrange for transportation of equipment and supplies.
- Establish a strategy to attain good coverage and how to follow-up with caregivers absent at time of the visit.

4.1.1 Difference between delivery methods

ESTIMATED	Mobile-Fixed Point	Door-to-Door
Size of community	Scattered settlements, hard to reach, nomadic and riverine settlements or settlements with difficult terrains	Organized settlements, urban or rural
Number of children seen per day	7 settlements must be visited per day	75
Maximum number of CHWs needed	2	2
Distance for child's caregiver to travel	None	None
Where CHWs are expected to travel	yes	Walking distance

4.2 Eligibility Criteria for SMC

Healthy children between the ages of **3 to 59 months** are eligible to get SP+AQ.

4.2.1 Children NOT eligible

Do NOT give SP+AQ to infants and children:

- **Younger than 3 months.** They may return when they are 3 months old.
- **60 months or older at cycle 1**. Children who are five years old (have had their 5th birthday) before cycle 1, are **NOT eligible** for SMC.
- If a child reaches 5 years of age after cycle 1, they should receive all 4 cycles of SMC, but they will not be eligible for SMC the following year.
- **Allergic to sulfa medication** such as cotrimoxazole (Septrin, or Bactrim).
- **Allergic to either SP or AQ,** including children who had a severe rash after previous SMC treatment
- Who are very sick.
- With fever and confirmed positive RDT for malaria.
- Who have received a dose of either **SP or AQ during the past 28 days**.
- Who are **currently taking a sulfa medication** such as cotrimoxazole (Septrin, or Bactrim).
- Who are unable to take oral medications.
- Who are receiving cotrimoxazole prophylaxis.

4.2.2 Determining a child's age

1. Ask the caregiver how old the child is.
2. Ask to see the child's vaccination card.
3. If the caregiver does not know the child's age or does not have a vaccination card; ask the caregiver to describe the events when the child was born. (Dry or rainy season, religious celebrations such as Eid or Ramadan, political, or social events).
4. Look for **1 or more** of the following milestones for appropriate age category:

- Most infants **younger than 3 months** will not be able to:
  - Hold their head and neck steady when being held upright
  - Push down with their legs when their feet are on a hard surface
  - Grab an object in their hand and bring it to their mouth
- Most children **1 year or older** should be able to:

- Sit without help
- Pull themselves up to standing using a chair or caregiver's hand
- Stand on their own or take a few steps

- Most children who are **older than 5 years** should be able to:
  - Raise their arm over their head to touch their opposite ear
  - Stand on one foot for 10 seconds or longer
  - Hop on one foot

4.2.3 Steps for determining SMC eligibility

1. ASK the child's age and name:

- Assemble children and their caregivers.
- Ask each **child's age.**
- Ask each **child's name.**
- Record the child's name, age and sex in the *SMC Register.*
- Record the household number, name of head of household and caregiver's name in the *SMC Register*.
- If the child is **younger than 3 months or older than 59 months** tick "**E**" for **excluded** in the corresponding cycle in the *SMC Register*.

2. ASK about allergies:

- *Does the child have any allergies?*
- *Has the child ever taken SMC drugs, or AQ or SP, before?*
- *If so, did the child ever become very sick after taking SMC drugs such as a severe rash over the whole body, or swelling, or difficulty breathing?*
- *Does the child have any allergies to drugs such as sulfa or cotrimoxazole, (Bactrim or Septrin)?*

3. ASK about fever or sickness:

- *Is the child sick?*
- *Does the child have a fever?*

4. ASK about other medicines the child is taking:

- *Has the child taken any medicines in the last 28 days?*
- *What medicines has the child taken in the past month?*

If possible, ask to see the packets of medicine to confirm what the child has taken.

5. EXCLUDE children who are not eligible:

a.) All children who have an **allergy to AQ, SP, or sulfa medicines such as cotrimoxazole, (Bactrim or Septrin):**

- Tell the caregiver the child is not eligible to get SMC because of allergies.
- Never give SP+AQ.
- Do NOT give the caregiver the *SMC Child Record Card.*
- Record the child in *SMC Register* and write "**Allergies Do Not Give SMC."**

b.) All children who become **very sick after the previous course of SP+AQ**:

- Refer the child to the health facility to be evaluated.
- Do NOT give SP+AQ.
- Complete the *SMC Referral Form* and give it to the caregiver to take to the health facility.
- Record the child in *SMC Register* and tick "**SAE**" for **drug allergies.**

c.) Children who are **sick or have fever this cycle:**

- Advise the caregiver to go to the health facility for a blood test for malaria.
- Do NOT give the caregiver a *SMC Child Record Card.*
- Complete the *SMC Referral Form* and give it to the caregiver to take to the health facility.
- Tell the caregiver if the child does NOT have malaria, the child will get SP+AQ at the health facility and will be given a *SMC Child Record Card* at the health facility.
- Record the child in *SMC Register* and tick **"S"** for **sick and referred**.

d.) Children who have **taken AQ, SP or cotrimoxazole in the past month**:

- Do NOT give SP+AQ this cycle.
- Tell the caregiver the child can get SMC medicines next cycle, if eligible.
- Do NOT give the caregiver a *SMC Child Record Card.*
- Tell the caregiver that the child should return the next cycle.
- Record the child in *SMC Register* and tick "**E**" for **excluded**.

4.3 Administering SP+AQ

The administration of SMC drugs to children should not be done in a hurry.

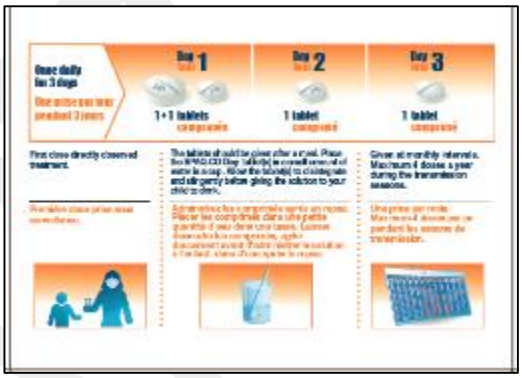
An assessment of each child to determine eligibility needs to be done and recorded. SP and the first dose of AQ need to be given under direct observed therapy (DOT).

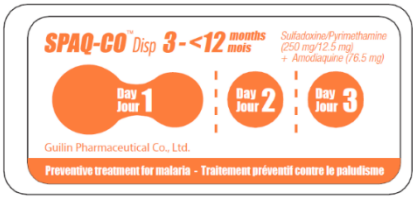
If SP+AQ tablets are not dispersible, they need to be **finely crushed into a powder** with a spoon in a cup before mixing with clean water.

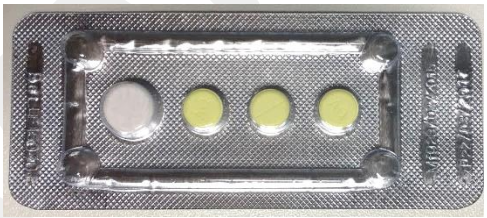
4.3.1 Guidelines for giving dispersible SP+AQ via DOT

1. **If the child is eligible, select the correct dose of dispersible SP+AQ based on the child's age:**

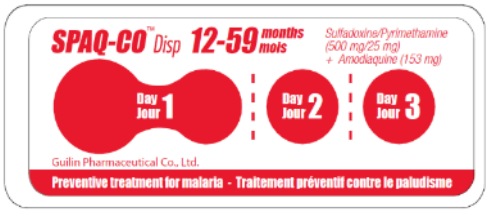
   - **3 to <12 months (**3 months to less than 12 months**) ORANGE PACKET:**

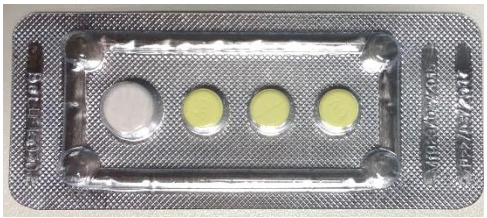






   - **12 to 59 months (**12 months up to 59 months**) RED PACKET:**





2. **Wash hands and gather materials:**

   - Clean cup
   - Clean spoon
   - Clean drinking water

3. **Remove 1 tablet of dispersible SP and 1 tablet of dispersible AQ from the blister pack.**

4. **Place 1 dispersible tablet of SP and 1 dispersible tablet of AQ inside a clean cup or on a clean spoon and cover with water:**

   - Slowly add a small amount (5-10 ml) of clean water to fully cover both tablets.
   - Wait for both tablets to completely disperse—about 30 seconds.
   - If needed, softly stir to aid dispersion.

5. **Explain to the caregiver that the tablets are already sweetened and have an orange flavour so the child is less likely to vomit.**

6. **Give the medicine to the child:**

   - Sit the child upright to avoid spitting and vomiting.
   - Give medicine slowly small spoon or cup.
   - Do not force the child to swallow the medicine by holding the child's head and neck back and pinching their nose.
   - Ensure the child drinks ALL the medicine by rinsing the cup or spoon with a small amount of water and give to swallow again.

7. **Never cut or crush dispersible tablets.**

8. **Never give dispersible tablets to swallow.**

9. **Ask the caregiver to wait 30 minutes to ensure the child does not vomit or spit up all of the medicine.**

   - If the child **vomits all of the medicine** during the 30 minutes, repeat dose of both SP+AQ.

10. **Give the caregiver instructions to give AQ tablets at home:**

    - Give 1 tablet tomorrow morning and 1 tablet the day after tomorrow.
    - Put 1 tablet in a spoon or cup and cover tablet with small amount of clean water.
    - Dispersible AQ can be dispersed in a small amount of breast milk.

- Wait for it to dissolve.
- Give medicine slowly with spoon or cup.
- If child vomits all of the Day 2 medicine within 30 minutes, give Day 3 medicine and go to the Health Facility or CHWs home to get another dose of AQ for Day 3.
- If child vomits all of the Day 3 medicine go to the Health Facility or CHWs home to get another dose of AQ for Day 3.
- Do not share medicines with other children.

11. Record SP+AQ administration on:

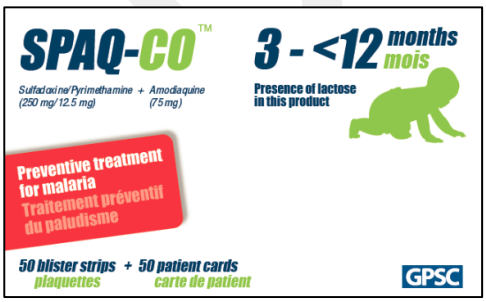
- The *SMC Register.*
- The *SMC Tally Sheet*.
- The *SMC Child Record Card* and give to the caregiver.

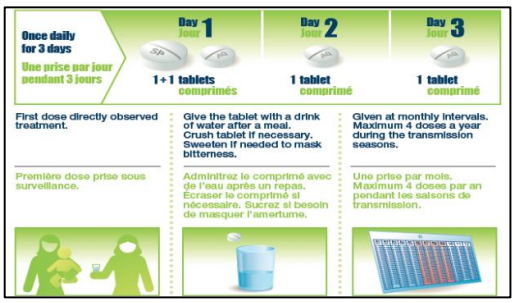
12. Wash the cup and spoon before using them again on another child.

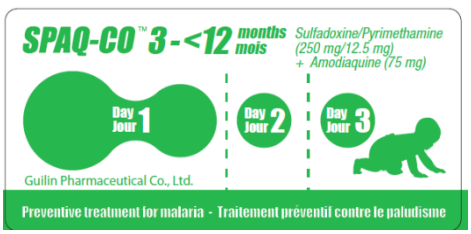
4.3.2 Guidelines for crushing and giving SP+AQ hard tablets via DOT

1. If the child is eligible, and dispersible tablets are not available, select the correct dose of SP+AQ tablets based on the child's age:

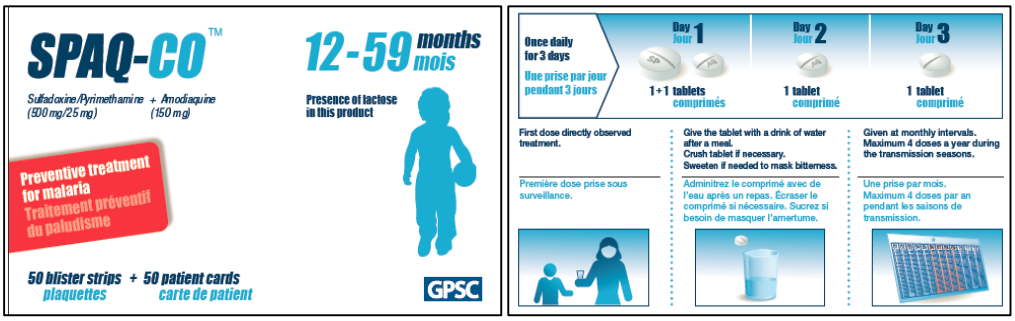
- **3 to <12 months** (3 months to less than 12 months**) GREEN PACKET:**

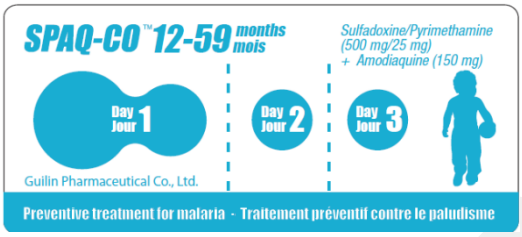






- **12 to 59 months** (12 months up to 59 months) **BLUE PACKET:**





2. **Wash hands and gather materials:**

▪ Clean cup
▪ Clean spoon
▪ Clean drinking water
▪ Sugar

3. **Remove 1 tablet of SP and 1 tablet of AQ from the blister pack.**

4. **If the child can swallow tablets, give clean water to swallow and observe the child swallow both tablets.**

5. **Otherwise, place 1 tablet of SP and 1 tablet of AQ inside a clean cup and crush both tablets to a very fine powder using the back of a spoon.**

▪ It is recommended NOT to use pill crushers, a mortar and pestle or crushing on hard surface as these methods do not crush the tablets to a fine powder and the full amount of the drug is not always transferred to the cup.
▪ Giving children large and undissolved pieces of tablets can cause choking and induce vomiting.

6. **Slowly add a small amount (10 ml) of clean water to fully cover the crushed powder:**

▪ Use the spoon to mix the powder with clean water.
▪ Mix completely before adding sugar.

7. **Give the medicine to the child:**

- Sit the child upright to avoid spitting and vomiting.
- Give medicine slowly small spoon or cup.
- Do not force the child to swallow the medicine by holding the child's head and neck back and pinching their nose.
- Ensure the child drinks ALL the medicine by rinsing the cup or spoon with a small amount of water and give to swallow again.

8. **Ask the caregiver to wait 30 minutes to ensure the child does not vomit or spit up all of the medicine.**

- If the child vomits **all of the medicine** during the 30 minutes, repeat dose of both SP+AQ.

9. **Give the caregiver instructions to give AQ tablets at home (use the time during the 30 minute observation period):**

- Give 1 tablet tomorrow morning and 1 tablet after tomorrow.
- Crush, mix and give medicine slowly.
- If child vomits all of Day 2 medicine within 30 minutes, give Day 3 medicine and go to the Health Facility or CHWs home to get another dose of AQ for Day 3.
- If child vomits all of Day 3 medicine go to the Health Facility or CHWs home to get another dose of AQ for Day 3.
- Do not share medicines with other children.

10. **Record SP+AQ administration on:**

- The *SMC Register.*
- The *SMC Tally Sheet.*
- The *SMC Child Record Card* and give to the caregiver.

11. **Wash the cup and spoon before using it again on another child.**

4.4 SMC Service Delivery Data Recording Tools for SMC

During SMC it is very important to carefully track:

- The number of children who are given SMC drugs so that an accurate quantification of drug packets can be distributed and budgeted for each cycle.
- The reason why children were not eligible for SMC and whether they were referred to the health facility.
- The number of children with possible serious side effects to SP+AQ so that the safety of these drugs can be monitored.

The *SMC Tally Sheet, Register* and *Child Record Card* are the recording tools used for this purpose. Completion of these forms can be done during the 30 minute observation period.

4.4.1 SMC Tally Sheet

The purpose of the *SMC Tally Sheet* is to track the daily progress of SMC each cycle. The *Tally Sheet* helps to predict the number of children seen each day of the cycle and to ensure CHWs have enough packets for the following day.

The *SMC Tally Sheet* records the number of:

- Children seen each day who received SP+AQ.
- Doses of SP+AQ administered by age.
- Children given a second dose of SP+AQ because of vomiting or spitting out all of the medicine.
- Tablets which were damaged or dropped and contaminated.

Instructions for completing the *SMC Tally Sheet*:

1. The *SMC Tally Sheet* needs to be completed daily by
2. Use a new *SMC Tally Sheet* each day of the cycle.
3. Enter the tally sheet **number, region, district/LGA, health facility and village** at the top of the sheet.

4. Enter the **name of the person completing** the *SMC Tally Sheet*.
5. Tick the **cycle number** (Cycle 1, 2, 3 or 4).
6. Tick the **day of distribution** (D 1, 2, 3 or 4).
7. In the first set columns: fill 1 circle for **each child given SP+AQ by age** (3 to <12 months or 12 to 59 months).
8. In the second set of columns: fill 1 circle for each child by age if **given a second dose of SP+AQ after vomiting all of the medicine within 30 minutes.**
9. In the top third column: fill in 1 circle for each child that is referred by age **if the child is referred for being sick, having a fever or an serious side effect**.
10. In the bottom third column: fill in 1 **circle for each tablet of SP+AQ that was dropped, spit out, wasted or otherwise contaminated**.

Daily Summary of the *SMC Tally Sheet:*

The information on the *SMC Tally Sheet* needs to be summarized daily by the team supervisor who then submit his/her health facility in-charge. The summarized daily *SMC Tally Sheets* will be used for reconciliation of drug packets by the team supervisors and the health facility in-charges.

At the end of each day of the cycle, CHWs and HFWs responsible for recording on the *SMC Tally Sheet* will:

- Count the number of filled circles for **children who received SP+AQ** for both age groups.
- Count the number of filled circles for **children who were given a 2nd dose SP+AQ** for both age groups.
- Enter each number in the correct box on the *SMC Tally Sheet* under ***Drug Packets Administered.***

Process for summarizing all of the *SMC Tally Sheets* at the end of each cycle:

At the end of each cycle, the summarized tally sheets will be:

- Collated by the health facility in-charge and summarized for the teams in the health facility.
- Sent to the ward supervisor who will collate and summarize for the ward.
- Ward summaries will be sent to the LGA, where the LGA M&E officer will collate and summarize for the LGA.
- LGA summaries will sent to the state M&E officer, who will enter the data into the central database and also collate and summarize for the state.
- The state summaries will be sent to the National level.

A sample of the *SMC Tally Sheet* is located on page 84 of the Annex.

4.4.2 SMC Register

The *SMC Register* is a log book used to record and track **children** evaluated for SMC each cycle. It provides a permanent record of each child who received SP+AQ each cycle, and if not, the reason why not. It is also used to record children who experience a **severe** side effect as a result of SMC. The SMC Register is used in addition to the *SMC Tally Sheet*. Re-dosing of SP+AQ is **not** recorded on the register.

After each cycle and at the end of the SMC round, the *SMC Register* will remain at the health facility.

Information recorded in the *SMC Register*:

- Each entry is numbered. This number is assigned to the child and used to identify the child and find their name in the register each subsequent cycle.
- Household number and name of the head of household
- Name of the caregiver and contact information
- Name of the child
- Age of the child in months
- Gender of the child
- Date of cycle
- Whether the child was treated or not
- If any severe side effects were reported or observed

Register coding system:

- **T = Treated.** Child was given SP+AQ.
- **S = Sick and Referred.** Child is sick, has a danger sign, or has a fever and is referred to the health facility for evaluation.
- **R = Refused**. The child was not given SP+AQ because the family refused.
- **E = Excluded for another reason.** The child was not given SP+AQ because:
  - → the child has a **known allergy to SP or AQ**;
  - → the child is **taking cotrimoxazole**, Bactrim, Septrin or other sulfa medicine;
  - → the child has **taken SP or AQ in the past month;**
  - → the child had a **severe** side effect from previous doses of SP and AQ;
  - → the child is **not between 3 to 59 months**;
  - → the child was **absent at subsequent cycle.**

Recording children with allergies to SP or AQ:

- Children who have allergies to SP or AQ or to sulfa drugs such as cotrimoxazole or Bactrim or Septrin, **should NEVER be given SMC**.
- Entered the child's information in the register and circle the letter "**E**".
- Write "**Allergies Do Not Give SMC**" (in red if possible) in the section for SAEs.

Instructions for completing the *SMC Register*:

1. At the top of the register enter the **date, region, district/LGA, health facility and village.**
2. Enter the **name of the person completing the register** and the names of the CHWs or HFWs administering SP+AQ.
3. Enter the name and contact information of the **CHW/HFW Supervisor.**
4. On the top row enter the **dates of the cycle.**
5. Record the **number of the household** where the child resides. This is used to find the child for follow-up purposes, if needed.
6. Record the name of the **head of household** where the child resides.
7. Record the name of the child's principal **caregiver** and mobile number if available
8. Record the child's **FULL name.**
9. Record the child's **age** in months*:*
   - → At Cycle 1, **enter all children younger than 5 years** (0-59 months); **include children younger than 3 months** as they will be eligible for SMC later in the year.
   - → Children who have had their 5th birthday at Cycle 1 are not eligible for SMC and are not entered in the Register.
   - → Children who start SMC and then complete their 5th birthday during the SMC round need to complete the entire 4 cycles of SMC for the year.
   - → Any eligible children missed at Cycle 1, are added to the register when they are first seen.
10. Record the **child's gender**: M = male; F = female
11. For each cycle, **circle the code letter** that applies (T=treated, S=Sick and referred, R=refused, E=excluded for another reasons).
12. Enter **any severe side effects** reported from the previous SMC cycle, or observed after this treatment. If none were reported, write "NONE".

A sample of the *SMC Register* is located on page 83 of the Annex.

4.4.3 SMC Child Record Card

The *SMC Child Record Card* is a record the caregiver keeps which shows when each course of SP+AQ is given to the child. It contains the child's name, age, sex and register number.

The *SMC Child Record Card* needs to be completed by a CHW or HFW who is able to write and **one card is given to each child who is eligible for SMC each year**. Caregivers who have multiple children who are eligible for SMC will get a card for each child.

The *SMC Child Record Card* helps the:

- Caregiver to have a record of which child received SMC.
- Health facility know when SP+AQ was given.
- CHW or HFW to find the child in the SMC Register each visit.

Instructions for completing the *SMC Child Record Card:*

1. Only children who are **eligible for SMC or received SP+AQ** should get a record card.
2. Children with known **allergies** to SP, sulfa drugs or AQ will **never get a record card.**
3. Enter the **child's name.**
4. Enter the **child's number** from the SMC Register.
5. Enter the child's **age and gender**.
6. Enter the **State/Region, LGA/district and village** where the child lives.
7. **Circle or cross out the tablets** of SP+AQ on the card for the appropriate cycle.
8. Enter the **date** SP+AQ was given. **Day/ Month/ Year** (dd/mm/yyyy).
9. **Instruct the caregiver** how to circle or cross out one tablet of AQ on the card each time AQ is given on Day 2 and Day 3.
10. If the child was not given SP+AQ on the 2nd, 3rd or 4th cycle; put an **'X'** in the **column marked "E" for not eligible.**
11. Instruct the caregiver to keep the card in a safe place and have it available the next cycle.

Children who should NOT get an *SMC Child Record Card* the first time they are seen for SMC:

- Children **younger than 3 months.** They will get a card at 3 months, if eligible.
- Children **older than 59 months**. They will **never get a record card.** Not eligible for SMC.
- Children with known **allergy to SP or AQ or sulfa drugs**. **They will never get a record card**. Not eligible for SMC.
- Children who are **sick or have a fever**. These children need to be **evaluated at the health facility.** If eligible and **SP+AQ is given, they will get record card** from the HFW.
- Children **treated for malaria** at the health facility, will **not get a record card this cycle.** They will get a card the following cycle, if eligible.
- Children who have **taken SP or AQ in the past 28 days**. They will **not get a record card this cycle.** They will get a record the following cycle, if eligible.
- Children who are **currently taking cotrimoxazole or sulfa containing drug.** They will **not get a record card this cycle**. They will get a card the following cycle, if eligible.

A sample of the *SMC Child Record Card* is located on page 85 of the Annex.

4.5 Drug Accountability and Stock Management of SP+AQ

Drug accountability includes keeping records about the requisition, receipt, administration, reconciliation and storage of SP+AQ.

4.5.1 SMC drug requisition process

Health facilities and local health offices will work with community leaders to estimate the number of children under-5 living in the catchment area:

- Estimate the total number of children ages **3 to <12 months.** Approximately **18% of children** under 5 will be between the ages of 3 to <12 months.
- Estimate the total number of children ages **12 to 59 months.** Approximately **77% of children** under 5 will be between the ages of 12 to 59 months.
- Add a **10% buffer** for each age group.

1 WEEK before each cycle health facilities will complete the *SMC Drug Requisition Form.*

- Tick the cycle number for the request.
- Write the number of drug packets for each age group based on the number of children calculated above.
- Write the date of requisition.
- Submit the SMC Drug Requisition Form to the local medical store.

2 DAYS before each cycle health facilities, HFWs and supervisors will:

- **Count the number of drug packets received** from the medical store for each age group.
- Record the **number of packets and date of receipt** on the SMC Drug Requisition Form.
- **Inspect each packet** for tears or damage and set them aside to return.
- **Check the expiry dates** on each packet and set aside any expired packets.
- Count the number of packets which are damaged or expired for each age group.
- Record the **number of damaged or expired drugs** on the SMC Drug Requisition Form.
- Return any unusable packets.
- Calculate the total number of packets available to administer.
- **Sign and date** the SMC Drug Requisition Form.
- Ask the Store Officer to sign and date the form.
- Save the SMC Drug Requisition Form until the end of the cycle.

At the beginning of each day of the cycle, the CHW Supervisors will:

- **Collect drug packets** for each CHW team at the health facility.
- **Count** the total number of packets for each age group.
- **Allocate** drugs packets to each CHW Team.
- **Record** the number of drug packets received for each age group
- **Record the balance** of drug packets remaining the previous day

4.5.2 Managing drug stock outs during an SMC cycle

Children who spit up or vomit SP+AQ after administration need to be re-dosed once. Therefore, a buffer stock needs to be included for re-dosing. However, sometimes the buffer stock may not be enough and stock outs may occur.

If during the course of a cycle it appears as though there will not be enough drug packets for the children who are waiting to be seen, the CHW Team Lead or Supervisor will go to the health facility to obtain more drug packets.

The number of additional drug packets needs be added to the *SMC Tally Sheet* under number of packets obtained.

4.5.3 Drug reconciliation

CHWs and HFWs responsible for recording on the *SMC Tally Sheet* will complete the following at the end of each day:

- Count the number of filled circles for children who received SP+AQ for both age groups = **A**
- Count the number of filled circles for children who were given a 2nd dose SP+AQ for both age groups = **B**
- Count the number of filled circles for children who were referred to the health facility.
- Total the number of packets of children who received SP+AQ with the number of packets of children who were given a 2nd dose = **C**

DRUG PACKETS ADMINISTERED				
A.) Number of children who received SP+AQ:	3 to <12 months:		12 to 59 months:	
B.) Number of children given a second dose of SP+AQ:	3 to <12 months:		12 to 59 months:	
C.) Total number of drug packets administered (A+B):				
D.) Number of tablets wasted:	3 to <12 months:		12 to 59 months:	

Supervisors will collect the SMC Tally sheets and complete the *SMC Drug Reconciliation Form* at the end of each day:

- Ensure the calculations on the *SMC Tally Sheet* are correct:
- Record the number of **packets used** for each age group under Quantity Used on the drug reconciliation form= **C**
- Record the number of **tablets wasted** for each age group under Quantity Wasted on the drug reconciliation form= **D**
- Total the quantity used with quantity wasted and record on the form = **X**
- Total the number of **packets received from the health facility with the balance from the previous day** to get number of packets available at the beginning of the day and record on the form = **Y**

- Count the number of **unopened packets remaining** for both age groups.
- Record the number of each under Quantity of Unopened Packets Returned on the drug reconciliation form = **H**
- Count the number of **opened packets** used for re-dosing for both groups
- Record the number of each under Quantity of Opened Packets Returned on the drug reconciliation form = **I**
- Total the number of unopened and opened packets to be returned to the health facility = **Z**
- Subtract **Y - X** and compare to **Z**. They should be the same.
- Return all opened and unopened packets to the health facility.

Sample *SMC Drug Reconciliation Form* found at the bottom of the *SMC Tally Sheet*:

DRUG RECONCILIATION						
SP+AQ packets	**Quantity USED C**	**Quantity WASTED D**	**BALANCE** previous day **E**	**RECEIVED** from HF **G**	Unopened packets **RETURNED H**	Opened packets **RETURNED I**
3 to <12 mo:						
12 to 59 mo:						
TOTAL	**C+D = X**		**E+G = Y**		**H+I = Z**	

4.5.4 Drug storage at health facilities

Dispersible and non-dispersible SP+AQ tablets need to be stored in a room that is:

- Dry.
- Away from sunlight.
- Not more than 30^{o} C.
- Free from insects and rodents.
- Locked.

5. REFERRAL & SAFETY MONITORING for SMC

5.1 Referral During SMC

5.1.1 Reasons for referral

Children who require referral, need to be referred to the nearest health facility to determine the cause of their illness and be treated by a health facility worker.

There are **3 reasons children need to be referred** to the health facility during SM:.

- The child is **sick.**
- The child has a **fever**.
- The child has a suspected **severe adverse reaction** to SP or AQ.

5.1.2 Referral Process

The SMC referral process needs to be integrated into the usual referral process used in the country.

Ask and look for danger signs:

If the child is sick, CHWs and HFWs need to ask the caregiver about, and look for, **general danger signs** indicating a severe illness. Children with the following danger signs must be referred immediately to the nearest health facility or regional hospital.

- Convulsions
- Difficulty breathing
- Difficulty staying awake
- Vomiting everything
- Not able to drink or feed
- Severe pain or bleeding
- Neck pain or severe headache

All children with fever must be referred to the health facility to determine the cause of the fever:

- Children with fever need to be tested for malaria with an RDT or with microscopy.
- A child who has a fever must NOT get SP+AQ until it is determined that they do not have malaria.
- If the child has malaria he/she will need to be treated with an ACT.

When referring a child with fever CHWs need to communicate to caregivers:

- Not all fevers are malaria.
- Children with fever must be tested for malaria.
- Only a malaria test can confirm if malaria parasites are in the blood.
- Do NOT give malaria drugs obtained from shops or pharmacies or traditional healers.

Steps for referring children to the health facility during SMC:

- Know where the nearest referral health facility is located.
- Explain to the caregiver the reason for referral and the importance of going right away.
- Tell the caregiver where the nearest health facility is and how long it will take to get there.
- Complete the top portion of the *SMC Referral Form*.
- Give the *SMC Referral Form* to the caregiver to take to the health facility.
- Confirm the caregiver understands by asking her to repeat back the instructions.
- The HFW will complete the remainder of the *SMC Referral Form*.
- Supervisors will collect the completed forms at the end of each cycle to complete the *Supervisor End-of-Cycle Report*.

5.1.3 The SMC Referral Form

The *SMC Referral Form* is used to track the number of children referred and the reason for referral. When the CHW refers a child to the health facility, they will complete the **top portion** of the *SMC Referral Form* and give it to caregiver to take to the health facility. The HFW will review the form for the reason for referral, examine the child and provide the needed care and treatment.

A copy of the *SMC Referral Form* needs to be kept at the HF and made available to District/LGA officers and research teams.

HFWs will complete the remainder of the *SMC Referral Form* with the actions taken at the health facility when the child is ready to be sent home:

- Diagnosis and any treatments given.
- If the child was admitted to the health facility or hospital for severe illness or severe drug reaction.
- If tested for malaria and results.
- If the RDT was positive, the name and dose of ACT given.
- If the RDT was negative, whether SP+AQ was given.
- If evaluated for possible SAEs to SP+AQ.

- If National PV Form was completed for SAEs.
- Outcome of health facility intervention.

A sample of the *SMC Referral Form* is located on page 88 of the Annex.

5.2 Health Facility Responsibilities for SMC Referrals

It is likely that the number of visits to the health facility will increase during the SMC distribution period due to referrals from CHWs and because of potential side effects of SP and AQ. However, the overall number of children attending clinic during the month is likely to be reduced substantially due to the protective effect of SMC against malaria.

Any child who is referred by the CHW to the health facility needs to arrive with the *SMC Referral Form.*

5.2.1 HFW management of children with severe illness

Children who are referred for danger signs or severe illness must be attended to immediately to determine the cause of the illness and treated accordingly. Children who are too sick to be managed at the health facility need be referred to the nearest hospital as soon as it is feasible.

5.2.2 HFW management of children with fever

Fever is defined as a body temperature ≥ 37.5° C. **All children with a history of fever in the past 24 hours must be tested for malaria** with a rapid diagnostic test (RDT) or microscopy.

Common causes of fever in children under-five:

- Pneumonia (fast breathing, chest in-drawing)
- Gastroenteritis (watery or bloody diarrhoea, vomiting and abdominal pain)
- Meningitis (severe headache, convulsions, and rash)
- Typhoid
- Otitis media (ear infection, ear pain or discharge from ears)
- Measles (rash, redness and discharge from eyes)
- Pharyngitis (sore throat)
- Urinary tract infection (UTI or painful urination)

If the RDT is positive and the malaria is NOT severe:

- Children who test positive for malaria need to be treated with a full 3-day course of ACTs which do not contain amodiaquine.
- The child can return the next cycle for SMC drugs.
- Treat with a 3-day course of **arthemeter-lumefantrine (AL)** 20/120 mg:

Weight (Kg)	Age	Day 1	Day 2	Day 3
5-14	4 mo. to 3 yrs.	1 tab twice a day	1 tab twice a day	1 tab twice a day
15-24	3 to 7 yrs.	2 tabs twice a day	2 tabs twice a day	2 tabs twice a day

- If AL is not available, treat with a 3-day course of **dihydroartemisinin-piperaquine (DHA-PPQ)** 40 mg/320 mg as alternative first-line treatment for uncomplicated malaria:

Weight (Kg)	Age	Day 1	Day 2	Day 3
5.9 to 9	6 mo. to 1 yr.	½ tab per day	½ tab per day	½ tab per day
10 - 20	2 to 7 yrs.	1 tab per day	1 tab per day	1 tab per day

If the RDT is negative:

- Further evaluate the child for the cause of fever.
- Do not treat the child for malaria.
- If the child is not severely sick, they are eligible for SP+AQ.
- Give 1 dose of SP+AQ at the health facility based on the child's age.
- Observe child for 30 minutes. Re-dose once if the child vomits all of the medicine.
- Record child and dose of SP+AQ on the *SMC Register*, *SMC Tally Sheet*, and *SMC Child Record Card.*
- If the child has an infection which requires an antibiotic, **do NOT prescribe Cotrimoxazole** (Bactrim or Septrin) because it is contraindicated with SP.
- Give the caregiver 2 daily doses of AQ to take at home.
- Give the caregiver the *SMC Child Record Card* and explain how to complete.
- Advise not to share or interchange medicines with other children.
- Explain to the caregiver to bring the child to the health facility if the child gets sick.
- The child can return the next cycle for SMC drugs.
- Explain to caregiver not to give AQ to other children.

5.3 Pharmacovigilance of SP+AQ

5.3.1 What is pharmacovigilance?

Pharmacovigilance is defined as a method of collecting, detecting, assessing, monitoring, reporting and preventing adverse effects of pharmaceutical medicines or any medicine-related problem. The ultimate goal of pharmacovigilance is the rational and safe use of medicines, the assessment and communication of the risks and benefits of medicines, and the education of, and provision of information to, consumers about medicines, thereby improving patient care and public health.[7]

5.3.2 Why pharmacovigilance during SMC important?

Once medicines are marketed and used by a large number of patients with different conditions, diets, and ages they may affect patients differently. Sometimes patient take medicines with traditional and herbal remedies which can interfere with medicines. Continual safety monitoring of medicines and reporting of adverse events is the responsibility of the MoH, and is often delegated to NAFDAC. It is important that a monitoring system for the safety of medicines is supported by doctors, pharmacists, nurses and other health professionals.

Drugs can have both desirable and undesirable effects. No drug is absolutely safe for everyone at all times.[8] In order to ensure continued safety of SP and AQ, and all medicines, it is important to be aware of their potential side effects, monitor children, and immediately report any side effects to the health facility worker so that they can be evaluated and managed appropriately.

5.3.3 What is an Adverse Event (AE)?

An adverse event (AE) can be defined as a reaction caused by a drug given at normal doses which was not intended. An AE is sometimes called a side effect.

The WHO defines an adverse event as any harmful and unintended medical occurrence (symptom or laboratory finding) in a person who is given a pharmaceutical product and which may or may not be considered to be related to the medicinal product.

Adverse events:

- Can occur as a reaction to two or more drugs taken together or to a drug and certain foods.
- Can occur as a reaction to suddenly stopping the drug.
- Can be mild and go away.
- Can be serious or life threatening and are then called SAEs or Serious Adverse Events.
- Do not always occur immediately after taking the drug.

[7] Safety Monitoring of Medicinal Products. WHO. 2012

[8] WHO Seasonal malaria chemoprevention with sulfadoxine–pyrimethamine plus amodiaquine in children: A Field Guide, July 2013

5.3.4 AEs seen with SP+AQ

SP+AQ are safe when given correctly. Severe side effects due to SP+AQ are rare.

Children can sometimes vomit after swallowing AQ. Vomiting once or twice is not a cause for concern, but if the vomiting continues **for more than two hours,** the child must go to the health facility immediately. Other symptoms that may occur include abdominal pain, rash, itching, diarrhoea, weakness, and loss of appetite. These are **generally mild** and **not a cause for concern.**

When caregivers return for the next cycle, it is important for CHWs and HFWs to **always ask** whether the child became very sick after the last cycle.

5.3.5 What is a Serious Adverse Event (SAE)?

A serious adverse event (SAE) is any serious untoward medical occurrence in response to a drug that at any dose that:

- Is life-threatening;
- Requires or prolongs hospitalization;
- Results in disability or incapacity;
- Results in congenital abnormality or birth defect;
- Results in death; or
- May require intervention to prevent one of the outcomes listed above.

5.3.6 SAEs seen with SP+ AQ

SAEs associated with SMC are rare. Children with any of the symptoms listed below need to be referred to the health facility immediately, to be evaluated.

SAEs likely to be associated with SP include:

- Severe allergic reaction (anaphylactic shock).
- Severe generalized rash or blistering of the skin (Stevens–Johnson syndrome).

SAEs likely to be associated with AQ include:

- Severe low white blood cells (agranulocytosis).
- Movement disorders (extrapyramidal syndrome).
- Yellowing of the eyes (hepatotoxicity, jaundice, liver failure).

The caregiver or CHW should be concerned if the child has:

- Severe vomiting (3 or more times per day) for more than 2 hours.
- Diarrhoea (3 or more watery stools per day) for more than 2 days.
- Weakness for more than 2 days.
- No appetite for more than 2 days.

- Any difficulties running or playing.
- Skin rash or itching for more than 2 days.
- Skin rash over the whole body.
- Swelling of the face or parts of the body.
- Yellowing of the eyes.
- Movement disorder (child moves strangely).

If a child attends a health facility with **any of these symptoms within 10 days of getting SP+AQ**, and there is no other obvious illness that could cause the symptoms**, a PV form should be completed by the health facility w**orker. It is important these symptoms be reported, so that the Malaria Control Programme are aware and any link to SMC drugs can be investigated.

5.4 Management and Reporting of AEs and SAEs in SMC

5.4.1 SP+AQ safety guidelines for CHWs

- Always ask caregivers about allergies, especially to sulfa drugs.
- **Never give SP+AQ** to children with a history of allergy to sulfa-based drugs (such as cotrimoxazole, Bactrim, Septrin), or to amodiaquine.
- Write in the SMC Register in red "**Allergy NEVER give SMC drugs**."
- **Do NOT give SP+AQ** if the child became very sick after taking SP or AQ the last cycle (severely unwell with a skin rash over the whole body, or swelling, or difficulty breathing). Refer them to the clinic for assessment.
- Refer any child who becomes very sick after giving SP+AQ during SMC delivery (this may occur only very rarely).
- **Do NOT give SP+AQ** to children who have fever and test positive for malaria.
- Refer all sick children to the health facility.
- Always ask caregivers if the child has taken any drugs containing SP, sulfa or amodiaquine in the last month.
- **Do NOT give SP+AQ** to children who have taken SP or AQ in the past 28 days.
- **Do NOT give SP+AQ** to children taking cotrimoxazole for HIV prophylaxis or treatment of infection.

Teach caregivers:

- Not to give more SP, sulfa, cotrimoxazole or amodiaquine during the SMC season.
- To take their child to the health facility if the child becomes very sick after taking SP+AQ.
- How to give all the medicine slowly.

5.4.2 SP+AQ safety guidelines for Health Facility Workers

NEVER give SP+AQ to children who:

- Are allergic to sulfa medication such as cotrimoxazole (Septrin, or Bactrim).
- Are allergic to either SP or AQ.
- Have ever had severe skin rash or swelling or difficulty breathing after taking SMC drugs.

Always ask the caregiver these questions at the beginning of the 1st cycle:

- *Does your child have any allergies?*
- *Has your child ever taken SMC medicines before?*
- *Has your child ever become very sick after taking amodiaquine (AQ) or SP?*
- *Does your child have any allergies to drugs such as sulfa or cotrimoxazole, (Bactrim or Septrin*)?

Do NOT give SP+AQ if:

- The child has an allergy to SP, AQ, or sulfa drugs such as cotrimoxazole.
- The child became very sick after taking SP or AQ.

Write in the SMC Register in red "Allergy NEVER give SMC drugs."

Always ask the caregiver these questions at the beginning of the 2nd, 3rd, and 4th cycles:

- *Did your child become very sick after taking SP+AQ last cycle?*

Determine whether to give SP+AQ:

- If the child was sick with a **severe rash (all over the body), or rash with swelling, or breathlessness**, after taking SP+AQ last cycle, **do not give SP+AQ.**
- If the child had v**omiting, diarrhoea, abdominal pain, weakness or mild rash,** they **can get SP+AQ.**
- Advise the caregiver if the child has these symptoms again (vomiting for more than 2 hours, other symptoms for more than 2 days), or if they are worried, to bring the child back to the health facility.

Examine all children with the following AEs or SAEs and manage:

If a child comes to the health facility with any of the following symptoms, without any other obvious cause of the symptoms, a PV form should be completed.

If the AE is severe and cannot be managed at the HF, the child should be referred to the hospital.

- Skin rash or itching
- Severe vomiting (3 or more times per day)
- Diarrhoea (3 or more watery stools per day)
- Weakness
- No appetite
- Any difficulty running or playing
- Yellowing of the eyes

5.4.3 Management of the child with an SAE

Any child who experiences an SAE after receiving SP or AQ must be referred to a National or State hospital.

Assess the child:

- Obtain a complete medical history of the child's signs and symptoms from the caregiver, including onset of symptoms, duration and severity.
- Ask about any other medicines the child has taken in the past 2 weeks, including traditional or herbal medicines.
- Perform a complete physical exam.

Establish a time relationship:

- Ask the caregiver how soon the child's symptoms appeared after taking SP or AQ.

Obtain necessary laboratory exams:

Depending on the symptoms, the following laboratory test may need to be obtained:

- Full blood count (haemoglobin, haematocrit, and platelets)
- BUN (blood urea nitrogen) and creatinine
- Electrolytes
- Liver function tests
- Lumbar puncture

Treat the symptoms accordingly and provide case management until the child recovers:

- Provide supportive therapy as needed to alleviate symptoms.
- In some cases systemic corticosteroids may speed recovery in severe drug reactions.
- SAEs such as Stevens-Johnson syndrome need intensive therapy and management.

Grade the severity of the adverse event:

- **Mild** = not requiring treatment.
- **Moderate** = resolved with treatment.
- **Severe** = child requires professional medical attention.

Determine the cause of the SAE:

- **Definite** = AE is clearly related to either SP or AQ.
- **Probable** = AE is likely related either SP or AQ.
- **Possible** = AE is possibly related to SP or AQ.
- **Unlikely** = AE is doubtfully related to either SP or AQ
- **Unrelated** = AE is clearly not related either SP or AQ.

Complete the National Pharmacovigilance Reporting Form for reporting adverse events, sometimes called the yellow form.

Report the outcome of the SAE once the child is discharged from the hospital.

- **Completely recovered:** The child has fully recovered with no observable residual effects.
- **Not yet completely recovered**: The child's condition has improved, but still has some residual effects.
- **Deterioration:** The child's overall condition has worsened.
- **Permanent damage:** The AE has resulted in a permanent impairment.
- **Death:** The child died due to the AE.
- **Ongoing:** The AE remains the same as at onset.
- **Unknown:** The outcome of the AE is not known because of lost to follow-up.

Prevent future SAEs from re-occurring:

- If it is determined that the cause of the serious adverse event was either **definitely, probably, or possibly** to either SP or AQ, advise the caregiver to **never give the child AQ, or SP, sulfa drugs and cotrimoxazole in the future.**
- Write "**Do NOT give SMC medicines**" on the *SMC Child Record Card* and *SMC Register.*

5.4.4 Who should report SAEs during SMC?

All health care workers, (including doctors, medical officers, nurses, nursing assistants, community health workers, health extension workers, pharmacists, dentists) should report all suspected serious adverse reactions in children participating in SMC.

- SMC CHWs will refer all suspected SAEs to the health facility and complete the *SMC Referral Form*.
- All other health workers re responsible for completing the national pharmacovigilance form if a an SAE is suspected

5.4.5 What to report

The following information needs to reported whenever a suspected SAE to SP or AQ is identified:

Essential patient information:

- Childs' **full name.**
- Child's **date of birth** and present **age.**
- Child's place of **residence**.
- Name and **contact information of caregiver.**
- Child's **health number**, such hospital number of health facility number.
- Child's **weight and height.**
- Child's **past medical history.**

Essential drug information:

- Name of the suspected drug (SP or AQ).
- Formulation of the drug (tablet or dispersible tablet).
- Mode of administration (oral).
- Dose of the drug and number of doses given.
- Indication for use (seasonal malaria chemoprevention).
- Date SP and or AQ was first given.
- Date SP and or AQ was last given.
- All other medicines the child has taken in the past 2 weeks, including herbal and traditional medicines.

Essential SAE information:

- History of the signs and symptoms.
- Date reaction started and stopped.
- Description of observations from physical exam.
- Laboratory test results, if available
- Treatment the child received related to the adverse event.
- Whether the child was admitted to the health facility or referred to a hospital for inpatient care due to adverse drug reaction.

Outcome of the SAE:

- Full Recovery
- Recovering
- No change
- Permanent damage
- Worsening
- Death

Source of report

- Name and title of health worker completing the report including contact information (mobile number and email).
- Name and location of health facility the child was seen.
- Date report was completed.

5.4.6 National Pharmacovigilance Authority

The name of the national pharmacovigilance centre in Nigeria is the National Agency for Food Drug Administration and Control (NAFDAC).

Responsibilities of NAFDAC:

- To set-up an efficient surveillance mechanism for the early detection of adverse reactions to medicines administered to humans and other medicine-related problems
- To receive and process pharmacovigilance reports from a safety-conscious population of healthcare providers and consumers
- To take appropriate measures to prevent or limit medicine-induced harm.

NAFDAC contact information:

- Phone: **07098211221** or **092905110**
- Email : **nafdac_npc@yahoo.com** or **npcadr@nafdac.gov.ng**
- Website: **www.nafdac.gov.ng**

5.4.7 National Pharmacovigilance Reporting Process

Nigeria uses spontaneous reporting, targeted, intensified ADR and Cohort Event Monitoring.

The form used to report any type of adverse reaction to medicines or other substances is called the **Adverse Drug Reaction Reporting form or ADR yellow form.** This form is completed by consumers, health care providers and marketing authorisation holders.

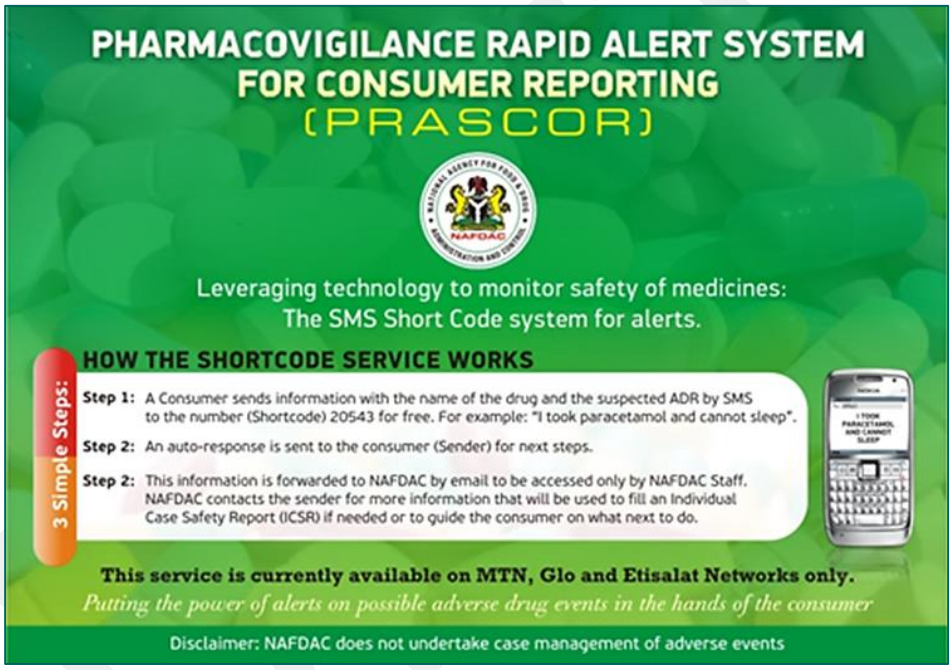
Completed ADR yellow form can be sent to the following address or to any of the 36 NAFDAC state offices and the 6 zonal pharmacovigilance centres:

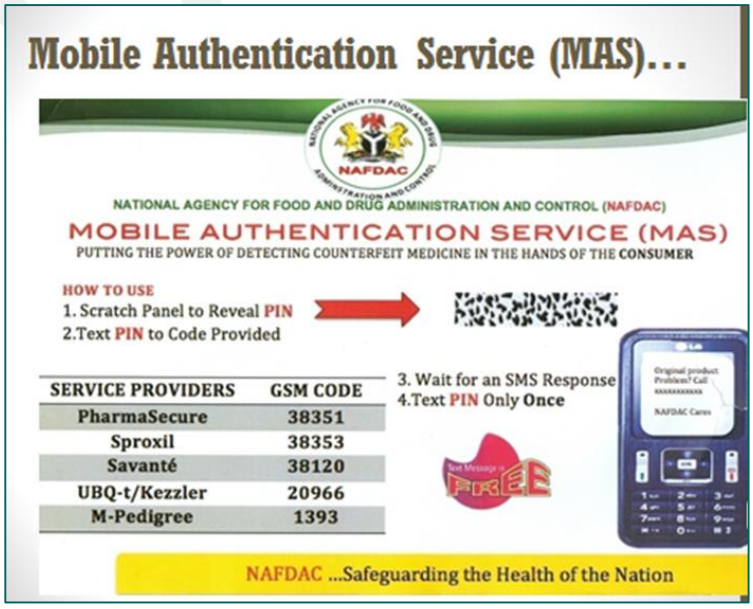
National Pharmacovigilance Centre (NPC)

National Agency for Food and Drug Administration and Control (NAFDAC)

Plot 2032 Olusegun Obasanjo Way

Wuse Zone 7, Abuja





5.5 Health Facility End-of-Cycle Report

At the end of each cycle, the health facility in-charge will be responsible for submitting a *Health Facility End-of-Cycle Report* which includes:

- A **summary of drug accountability** from ALL of the daily *SMC Tally Sheets.*
- A **summary of the children referred to the health facility** during the cycle. This information will be obtained from the completed *SMC Referral Forms.*
- A **summary of all AEs and SAEs** managed at the health facility during each cycle. This information will be obtained from the completed PV Forms.

The *HF End-of Cycle Report* needs to be **completed within 2 days** after the last day of each cycle. Once completed, the health facility in-charge will sign and date it and give a copy to the SMC district/LGA in-charge.

A sample of the *SMC Health Facility End-of-Cycle Report* is located on page 90 of the Annex.

6. SBCC TOOLS & INTERPERSONAL COMMUNICATION

6.1 What is SBCC?

Social and behaviour change communication (SBCC) is defined as an interactive process of working with stakeholders, individuals and communities to support behaviour and social change for optimal and effective uptake of the SMC intervention. SBCC uses 3 main components:

- **Advocacy** (national, sub-national or community level)
- **Social mobilisation**
- **Behavioural change communication**

SBCC requires an appraisal of the existing national malaria communication strategy and the range of communication opportunities to maximize local ways of communicating and strengthening existing channels and capacities. All communication activities for malaria prevention should be combined and interlinked within one unifying communication strategy that addresses individual knowledge and behaviour, collective attitudes or norms, societal level policies and regulations.

6.1.1 Role of SBCC in SMC

Social and behaviour change communication is essential before, during, and after each SMC cycles. The role pf SBCC during SMC is to:

- Foster country and community ownership and **build trust.**
- **Mobilize leadership and communities** to support and participate in SMC, i.e. come to distribution points or allow CHWs in their homes and accept the medicines.
- Reduce risks of misunderstanding and negative perceptions and **manage expectations**, i.e. handle rumours or negative press which could make community members reluctant to participate in an SMC campaign.
- Ensure stakeholders, communities and caregivers understand **what SMC medicine can do (and not do)** and value it.
- Ensure **adherence** to SMC rounds/cycles and dose completion.
- Ensure that **caregiver**s receiving the medicines **understand how and when to administer the medicine to eligible children**, including adherence and how to manage fever or side-effects after taking the medicine, and to come back to each round/cycle with eligible children.

6.2 SBCC Tools

6.2.1 The SMC Job Aid

The purpose of a job aid is to give simple information and illustrated instructions of steps and procedures needed to perform specific tasks. Job aids help to reinforce adherence to a correct sequence of standard care practices based on recommended guidelines.

The *SMC Job Aid* is a pictorial tool to help CHWs:

- Determine a child's eligibility for SMC.
- Knowing which children to exclude from SMC and refer to the health facility.
- Administer SP+AQ to children eligible for SMC.
- Give information to caregivers about giving AQ at home.
- Give caregivers health messages on prevention of malaria.
- Explain to caregivers to keep AQ in a dry place and out of reach of children and animals.
- Explain to caregivers not to give AQ to other children.

A sample of the *SMC Job Aid* is located on page 87 of the Annex.

6.2.2 SBCC tools used for social mobilization and mass media communication

Tool	Purpose	When to implement
Radio Announcement	Educate, inform and build adherence among the population around the SMC campaign through 30-45 second community radio announcements given in the local language. The number of announcements to be aired will depend on exposure rate in the target population for each country.	During each cycle
Radio Trailer	Provide practical information on SMC such as distribution dates and location, and who is eligible for SMC.	1 week before each cycle
Interactive Radio Show	Allow partners to collect feedback and provide answers to key questions, retrieve suggestions and address potential rumors around SMC. Key stakeholders (supervisors, opinion leaders, beneficiaries, doctors district medical officers, NMCP representatives) discuss various aspects of SMC, followed by an open phone line for the audience to call in and ask questions or give feedback.	During each cycle
Flyers for the community	Summarize the campaign's key messages and practical information on SMC.	During social mobilization events

Tool	Purpose	When to implement
Press Release	Informs national and international public about the malaria situation of the country, malaria control initiatives, especially around SMC, field performances, results, projections, challenges and strategic priorities of the campaign.	On the eve of the 2nd, 3rd, & 4th cycles
Press kit for Media Outlets	Provides essential information for media outlets to relay key aspects of the SMC campaign in order to build the capacity of press outlets to ensure proper communication around SMC.	Campaign launch and before each SMC round.
SMC video	A video for TV broadcast about the key stages of the SMC campaign. To be will be finalized at the end of the 2016 campaign.	At the end of the campaign

A sample of the SBCC Tools for Nigeria can be found beginning on page Error! Bookmark not defined. **of the Annex.**

6.2.3 SMC SBCC tools targeted to caregivers of children 3 to 59 months

Tool	Purpose	When to implement
Posters	Display key campaign messages and practical information about SMC. To reach a large audience, these posters are placed in public places, axes with high traffic and health facilities, if possible.	1 week before the first cycle and during the entire course
Banners	Announce the fixed-point distribution locations and dates. They are placed at the distribution points.	Before and during each cycle
Flipchart	A flipbook of illustrations and key messages about SMC, prevention of malaria and early recognition of illness and care seeking behaviours. It is used by CHWs, HFWs and other community agents with caregivers and mothers in the community. The flipbook is designed in such a way that it encourages a dynamic dialogue.	During each cycle

6.2.4 SMC SBCC tools targeted for community agents and opinion leaders

Tool	Purpose	When to implement
IPC TG for Community Agents and Opinion Leaders	Capacity building on interpersonal communications skills designed to enhance communication during the SBCC campaign component and properly supervise activities.	Before the campaign
Job aid for Opinion Leaders	Provides information and practical knowledge and key messages about malaria and SMC. It is designed with illustrations to facilitate the understanding.	During BCC training sessions
Certificates for Opinion Leaders	To recognize opinion leaders who have positively influenced their communities during the previous campaign and thus create incentive for increased support in forthcoming cycles.	During launch ceremonies

6.3 Interpersonal Communication

Interpersonal communication (IPC) is an essential skill for health workers to be able to interact with patients and caregivers. IPC includes asking patients and caregivers the right questions and listening carefully to their answers.

Using good IPC skills during SMC delivery helps CHWs and HFWs to get important information from caregivers about the child to determine eligibility for SMC, and to give clear information to the caregiver about SMC.

Building and maintaining trusting relationships with patients and caregivers is vital to promoting health behaviour change such as adherence to SMC guidelines. If the caregiver trusts and believes in the CHW or HFWs advice, they are more likely to follow-through with treatment recommendations.

6.3.1 Guidelines for using good IPC Skills

Good IPC skills CHWs or HFWs need to use with caregivers:

- **Greet** each caregiver.
- Put the caregiver **at ease** so that he or she **feels comfortable** giving you honest and complete information about the child and trusting you to give correct advice and appropriate treatment.
- Show interest and respect in the caregiver and her child.
- Use **open-ended questions** to get more information.
- Use pictures and job aids, if available.
- When talking about a part of the body, **point to it.**
- **Allow time** for the caregiver to answer the question.
- **Listen carefully** to what the caregiver tells you.
- **Show the caregiver you are listening** by nodding your head or saying you understand.
- **Observe the caregiver's body language** to see whether he or she understands what you are saying or is uncomfortable.
- **Give information** in a manner that is respectful.
- Use **short words** and short sentences.
- Use words the caregiver will understand.
- **Explain** about SMC treatment, procedures and referrals.
- **Advise** caregivers to **adhere to SMC treatment** recommendations.
- Stop from time to time and ask the caregiver if she understands.
- Ask the caregiver if she has any questions.

- Ask the caregiver to repeat back information about SMC treatment.to confirm it was understood. Ask the caregiver to explain what, how, how much, how many, when, how often and why SMC is needed.
- Repeat instructions about taking AQ at home, completing the Child Record Card and reasons to go to the health facility.
- Praise the caregiver for adhering to the full SMC course and participating in each cycle of SMC.

6.3.2 Asking open ended-questions

An open-ended question is one that allows the caregiver to share more information about the child's medical history and ultimately helps the health worker to make better decisions.

Open-ended questions often begin with the words "How," or "What," or "Why."

In contrast, a close-ended question only results in a "yes," or "no," answer.

6.3.3 Active Listening

The purpose of listening is to obtain information. Active listening is a skill that requires repeated practice. Active listening means that you fully hear what others are saying to you, without being distracted. Active listening helps to ensure that you really hear what the other person is saying, and that the other person knows you are listening.

5 elements of active listening:

- Pay attention.
- Show you are listening.
- Verify you understood the message.
- Avoid interrupting.
- Respond with respect.

Active listening skills:

- Look at the person who is talking.
- Be quiet and do not interrupt while the other person is talking.
- Show interest in what the other person is saying by:
  - Leaning forward
  - Nodding
  - Smiling
- Use encouraging words, such as "I understand," or "I hear you," in order to encourage the person to continue.
- Summarize what the other person said by restating what you heard in your own words, and ask the other person to confirm that you understood correctly.
- Ask questions for clarification.
- Concentrate on what is being said, by not appearing distracted.

7. SMC SUPERVISION

7.1 Purpose of SMC Supervision

Supervision is the process of guiding, helping and encouraging staff to improve their performance so that they meet the defined standards.[9]

The aim of SMC supervision is to:

- Assess performance of CHWs, HFWs and other supervisors during SMC.
- Provide feedback on their performance.
- Identify opportunities for improvement within a supportive environment.
- Encourage and motivate them to do a good job.

Qualities of good Supervisors:

- Being a good listener and clear communicator.
- Explaining why quality work is important and motivate others to do a good job.
- Giving praise when skills are performed correctly.
- Giving additional training and mentoring when skills need improvement.
- Providing new or updated information.
- Reinforce linkages between the community and health facilities.

7.2 SMC Supervision Process

SMC Supervision involves communication and support **before, during, and after every SMC cycle.**

7.2.1 CHW Team Supervisor responsibilities before the first SMC cycle

- Support CHWs during SMC distribution planning meetings.
- Confirm dates and location for fixed-point delivery and households for door-to-door delivery.
- Inform community members of the day, time and place of SMC delivery before each cycle.
- Share contact numbers with CHWs and health facility.
- Ensure fixed-point sites will have shelter, tables, chairs or mats.

[9]Guidelines for Supportive Supervision in the Health Sector Volume 1. USAID 2008.

7.2.2 CHW Team Supervisor responsibilities during each SMC cycle

- Support CHWs to prepare for SMC delivery and have the needed materials each day of the cycle.
- Ensure that drug packets are counted correctly and expiry dates are checked.
- Verify the number of drug packets obtained for each age group is recorded correctly on the *SMC Tally Sheet.*
- Use the *SMC Competency Checklist* to observe CHWs teams to ensure all SMC activities are being performed correctly.
- Provide performance mentoring to CHWs as needed.
- Spot check the *Registers, Tally Sheets, and Referral Forms* to ensure information is recorded correctly.
- Correct any discrepancies in completion of forms by explaining and demonstrating how to do it correctly.
- Provide praise and recognition for what CHWs did well.
- Resolve any challenges that may arise during SMC delivery.
- Provide support to obtain additional drug packets if stock outs occur.
- Ensure the *SMC Tally Sheet* is correctly tallied at the end of each day.
- Ensure all drug packets and lose tablets of AQ are reconciliation at the end of each day and 2 days after the last day of the cycle.
- Meet with CHWs to discuss any challenges with SMC administration.

7.2.3 CHW Team Supervisor responsibilities after each SMC cycle

- Ensure all remaining drug packets and lose tablets of AQ are returned to the health facility 3 days after the last day of the cycle.
- Give CHW teams feedback about the behaviours you observed based on the *SMC Competency Checklist.*
- Explain which competencies were done well and which ones need improvement next cycle.
- Provide additional training for skills which need to be improved the following cycle.
- Thank the CHWs for their participation in SMC.
- Complete the *SMC Supervisor End-of-Cycle Report (*See section 7.3.3) and submit to the SMC in-charge within 5 days of the last day of each cycle.

7.3 Evaluating SMC Service Delivery

7.3.1 SMC Competency Checklist

During the course of each cycle, CHW Team Supervisors and SMC Supervisors need to observe CHWs and HFWs performing SMC activities during each SMC cycle.

SMC Competencies:

A competency is a skill, ability, knowledge or attitude which can be observed and scored. Competencies which are performed well contribute to the success of the SMC programme.

The *SMC Competency Checklist* is contains a list of expected standard competencies CHWs and HFW are expected to know how to do. Some CHWs may not be able to perform some of the competencies due to low literacy.

CHW Team Supervisors and SMC Supervisors will use the *SMC Competency Checklist* to give CHWs and HFWs feedback on their performance.

Steps for completing the SMC Competency Checklist:

- Record the **CHW names or the HFW name** on the top of the checklist.
- Record the **location** where the CHW or HFW is being observed.
- Record the **supervisor's name and date** of the competency assessment.
- **Observe** the CHW or HFWs while delivering SMC.
- Tick the **level of performance for each competency** (very good, good, or not good) on the checklist based on the level of responsibilities.
- Any skills which put a child's safety at risk need to be corrected immediately and addressed with minimal disruption to SMC delivery.
- At the end of the day **meet with CHWs or HFWs to provide feedback** about their performance
- **Sign and date** the form.
- Use the information from each checklist to complete the *Supervisor-End-of Cycle Report.*

A sample of the *SMC Competency Checklist* is located on page 88 of the Annex.

7.3.2 Giving CHWs feedback

Giving feedback is the opportunity to tell another person what he or she has done well and what needs to do to improve. Feedback means communicating to CHWs about both the positive and negative behaviours observed each SMC cycle.

The aim of giving feedback is to improve the performance of CHWs, not to punish or demotivate others.

Strategies for giving feedback to CHWs:

- Give feedback to the entire CHW team.
- Avoid giving individual CHWs negative feedback in front of others.
- Begin by asking the CHWs what they think they did well.
- Ask the CHW team what areas they are having difficulty with or ask if they have any questions.
- Share observations about what CHWs did well.
- Use the SMC Competency Checklist to discuss areas that need improvement and why.
- Comment only on behaviours which can be changed.
- Be specific and use examples. i.e. "I observed that you did not always remember to ask the child's age. "Why is it important to always ask the child's age?"
- Discuss possible solutions for improvement. i.e., "How will you remember to always ask the child's age?" and provide additional training if needed.
- Agree to the importance of improving the skill.
- State expectations for improvement during the next SMC cycle.
- Thank the CHWs for their hard work and summarize what was done well.

7.3.3 Supervisor End-of-Cycle Report

The *Supervisor End-of-Cycle Report* provides the Malaria Programme and other stakeholders Information about what worked well during the SMC cycle, any challenges encountered, and what needs improvement in subsequent cycles.

The Supervisor End-of-Cycle Report captures the following information:

- How long it took each day to administer SP+AQ
- Any challenges with drug accountability, stock outs or SMC tools.
- How CHWs performed.
- How health facilities managed drug accountability and referrals.
- How communities responded to SMC.

Instructions for completing the SMC Supervisor End-of-Cycle Report:

The *SMC Supervisor End-of-Cycle Report* at the health facility providing the supervision to the communities and will be completed by:

- **The State Supervisors,**
- **The LGA team and,**
- **The Ward Supervisors.**

The SMC Supervisor End-of-Cycle Report needs to be completed:

- On a **daily basis** for each area of the supervisor's assignment
- At the **end of the cycle** the report will be summarized.

A sample of the *SMC Supervisor End-of-Cycle Report* is located on page 93 of the Annex.

8. ANNEX: SAMPLE of SMC TOOLS

8.1 SMC Register

Date: _ _ / _ _ / _ _ _ _			Register N°:									
Region:			LGA/District:			Health Facility:				Village:		
Supervisor name:			Name of person completing the Register:			Names of CHWs/HFWs:						
Child No.	House No.	Name of head of household	Name of child's caregiver and contact information	Name of child (0 to 63 months)	Age in months/ gender	SMC Cycle				Severe side effect	Date of severe side effect	
						Cycle 1 date:	Cycle 2 date:	Cycle 3 date:	Cycle 4 date:			
						Circle the letter that applies T = treated S = sick or referred R = refused E = excluded for another reason						
						T S R E	T S R E	T S R E	T S R E			
						T S R E	T S R E	T S R E	T S R E			
						T S R E	T S R E	T S R E	T S R E			
						T S R E	T S R E	T S R E	T S R E			

8.2 SMC Tally Sheet

SEASONAL MALARIA CHEMOPREVENTION CAMPAIGN TALLY SHEET

Tally Sheet N°: Region/State: District/LGA:

Health Facility: Village:

Name of person completing the form:

SMC CYCLE: ☐ Cycle 1 ☐ Cycle 2 ☐ Cycle 3 ☐ Cycle 4 ☐ D1 ☐ D2 ☐ D3 ☐ D4

	Number of children who received SP+AQ: *Fill 1 circle per child*		Number of children given a second dose of SP+AQ: *Fill 1 circle for each child given another dose of SP+AQ after vomiting*		Number of children referred *Fill 1 circle for every child referred to the health facility*	
	3 to <12 months	12 to 59 months	3 to <12 months	12 to <59 months	3 to <12 months	12 to 59 months
5	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
10	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
15	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
20	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
25	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
30	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
35	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
40	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
45	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
50	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	Number of packets wasted *Fill 1 circle for every tablet of SP+AQ dropped or spit out*	
55	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○		
60	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
65	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
70	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
75	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
80	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
85	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
90	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
100	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
	Total =	Total =	Total =	Total =	Total =	Total =

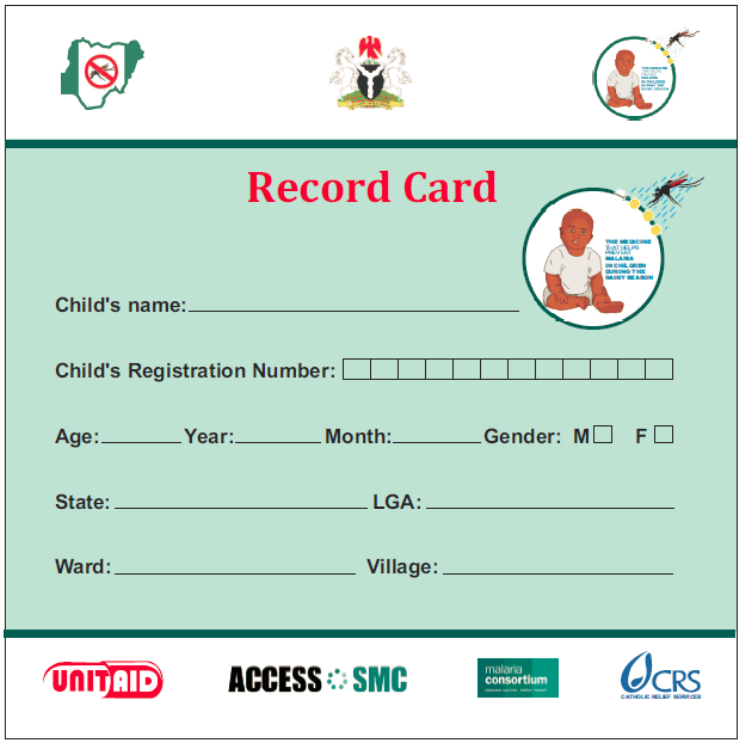
DRUG PACKETS ADMINISTERED

A.) Number of children who received SP+AQ:	3 to <12 months:		12 to 59 months:	
B.) Number of children given a second dose of SP+AQ:	3 to <12 months:		12 to 59 months:	
C.) Total number of drug packets administered (A+B):	3 to <12 months		12 to 59 months:	

DRUG RECONCILIATION

SP+AQ packets	Quantity GIVEN C	Quantity WASTED D	BALANCE previous day E	RECEIVED from HF G	RETURNED Unopened packets H	RETURNED Opened packets I
3 to <12 mo:						
12 to 59 mo:						
	Total Packets Used: C+D = X		Total Packets Received E+G = Y		Total Packets Returned H+I=Z	
3 to <12 mo:						
12 to 59 mo:						

8.3 SMC Child Record Card



Year	Cycle	E	Day 1 SP+AQ	Date Treated	Day 2 AQ	Day 3 AQ
20__	1	☐	⊘ ⊘	__/__/____	⊘	⊘
	2	☐	⊘ ⊘	__/__/____	⊘	⊘
	3	☐	⊘ ⊘	__/__/____	⊘	⊘
	4	☐	⊘ ⊘	__/__/____	⊘	⊘

Back of card:

- SMC is safe.
- All medicines can cause side effects in some children.
- If your child becomes very sick after SMC take the child immediately to the health facility.
- If your child has fever at any time, take the child immediately to the health facility to be tested for malaria.
- Your child, and all members of your household, should sleep inside a bed net every night.

Instructions for completing the *SMC Child Record Card:*

1	Only children who are **eligible for SMC or received SP+AQ** should get a record card.
2	Children with known **allergies** to SP, sulfa drugs or AQ will **never get a record card.**
3	Enter the **child's name.**
4	Enter the **child's number** from the SMC Register.
5	Enter the child's **age and gender**.
6	Enter the **State/Region, LGA/district and village** where the child lives.
7	**Circle or cross out the tablets** of SP+AQ on the card for the appropriate cycle.
8	Enter the **date** SP+AQ was given. **day/ month/ year** (dd/mm/yyyy).
9	**Instruct the caregiver** how to circle or cross out one tablet of AQ on the card each time AQ is given on Day 2 and Day 3.
10	If the child was not given SP+AQ this cycle, but may be eligible the next cycle put an **'X'** in the **column marked "E" for not eligible.**
11	Instruct the caregiver to keep the card in a safe place and have it available the next cycle.

CHW or HFW will record the child's information.

Year	Cycle	E	Day 1 SP+AQ	Date Treated	Day 2 AQ	Day 3 AQ
20__	1	☐	⊘ ⊘	22//09/ 2016	⊘	⊘
	2	☐	⊘ ⊘	23//10/ 2016	⊘	⊘
	3	☒	⊘ ⊘	__/__/____	⊘	⊘
	4	☐	⊘ ⊘	__/__/____	⊘	⊘

The CHW or HFW will circle the tablets or place a mark on the tablets after SP+AQ is given and enter the date (dd/mm/yyyy) they were given.

The caregiver will circle the tablet or place a mark on the tablet after AQ is given on day 2 and day 3.

Enter the year.

If SP+AQ is not given, put an **'X'** in the box under column 'E' for excluded.
Do not write the date.
Inform the caregiver not to mark the AQ tablets.

8.4 SMC Job Aid

8.5 SMC Referral Form

SMC Referral Form

To be completed by CHWs:

Name of Child:	Age:	Gender: M F
State & LGA:	Village:	
Date of referral: / /	Name of HF referred to:	
Reason for referral: ☐ Sick ☐ Fever ☐ Side effect previous cycle ☐ Side effect after SMC drugs today		

Name of CHW:_____ Signature:_____

To be completed by Health Facility Worker:

Date child was evaluated: / /	Name of health facility:

Sick child:

1. Child was evaluated to determine cause of illness: ☐ YES ☐ NO
2. Diagnosis: _____
3. Child was treated: ☐ YES ☐ NO
4. Name and dose of treatment: _____
5. Child admitted to health facility or referred to hospital for severe illness: ☐ YES ☐ NO

Child with fever:

6. Child was tested for malaria: ☐ YES ☐ NO
7. RDT result: ☐ Positive ☐ Negative
8. Child admitted to health facility or referred to hospital for severe malaria: ☐ YES ☐ NO
9. Child with confirmed positive malaria test was treated with ACT: ☐ YES ☐ NO
10. Name and dose of ACT: _____
11. Child with negative RDT was given SP and AQ this cycle: ☐ YES ☐ NO

Child with side effect:

12. Child was evaluated for possible adverse drug reaction to SP and AQ: ☐ YES ☐ NO
13. National PV Form was completed: ☐ YES ☐ NO
14. Child admitted to health facility or referred to hospital for SAE: ☐ YES ☐ NO

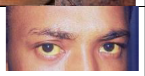
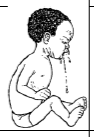
Outcome:

Name of in-charge: _____

Signature: _____ Date: _____

8.6 SAE Job Aid for SMC

Safety monitoring for SMC: Guide to the rare severe side-effects of SMC drugs

Possible SAEs from SP+AQ	Description of Signs and Symptoms	Actions for Health Facility Worker
Stevens-Johnson syndrome (severe skin rash) 	▪ Painful red or purplish rash that spreads and blisters. ▪ Top layer of the affected skin dies and sheds. ▪ May begin with flu-like symptoms.	▪ **Notify and hospitalize immediately (medical emergency)** ▪ Write **"Allergy Not Eligible for SMC"** on SMC Register and Child Record Card. ▪ **Avoid SP and all sulfa-containing drugs in future.**
Hepatotoxicity (jaundice) 	▪ Yellowing of the sclera (white of the eyes). ▪ Dark coloured urine. ▪ Loss of appetite, nausea, vomiting or abdominal pain. ▪ Extreme fatigue or weakness.	▪ **Notify and refer to hospital.** ▪ Confirm with lab tests for liver function if possible. ▪ Write **"Allergy Not Eligible for SMC"** on SMC Register and Child Record Card. ▪ **Avoid AQ in future.**
Extra-pyramidal syndrome (neurological disorder)	▪ Involuntary muscle movements in the face and neck. i.e. lip smacking, tongue movements, blinking, and head or finger spasms. ▪ Restlessness and difficulty moving the arms and legs.	▪ **Notify and refer to hospital.** ▪ Write **"Allergy Not Eligible for SMC"** on SMC Register and Child Record Card. ▪ **Avoid AQ in future.**
Repeated vomiting 	▪ Repeated vomiting which begins hours after taking drug. ▪ In severe cases can persist for several days with vomiting several times per day.	▪ Eligible for SMC in the next cycle. ▪ Advise caregiver to bring the child to the health facility if symptoms recur.
Agranulocytosis (Low white cell count (neutrophils) <750/mm^3)	▪ Sudden fever and chills. ▪ Prone to infections. ▪ Severe sore throat (pharyngitis) within a week of getting SP+AQ	▪ **Notify and refer to hospital.** ▪ Diagnosis requires complete blood count. ▪ Treat infections. ▪ Write **"Allergy Not Eligible for SMC"** on SMC Register and Child Record Card. ▪ **Avoid AQ in future.**

Notify and complete National Pharmacovigilance Form:

- Cases of conditions marked "Notify" should be reported immediately to **Dr.**_____
  Mobile: _____ **Email:** _____
- National Pharmacovigilance **SMS number:** _____
- For all suspected side effects, mild or severe, a **Pharmacovigilance Form** must be completed:
  - Record when the symptoms started.
  - Ask about ALL medications including traditional medicines the child has received in the last 2 weeks.

Severe Adverse Reactions (SAEs) to SMC drugs are very rare:

- Side effects do not always occur immediately after taking the drug.
- Most side effects will appear within the first week after taking the drugs, but if a child is unwell at any time they should go to the health facility.
- Very rarely, any medicine can cause **anaphylactic shock,** a severe allergic reaction that occurs quickly. This is a **medical emergency** and requires immediate hospitalisation. If this occurs, SP+AQ should be never be given in the future.
- Some rare side effects affecting the blood (i.e. agranulocytosis) can be **detected only** with laboratory tests.
- **Most side effects due to SP+AQ are mild and not cause for concern.** Commonly reported mild side effects include**, abdominal pain, mild rash, itching, diarrhoea, weakness, and loss of appetite**. Caregivers should take the child to the health facility if mild side effects become worse or do not go away after several hours.
- **In case of fever, always test to confirm malaria** with RDT or microscopy.

Picture credits: Prof JLNDiaye, Universite Cheikh Ant Diop, Daka
https://www.flickr.com/photos/27849635@N05/2735492595 CDC/Dr. Thomas F. Sellers/Emory Universit
Basic Science and Health Education for Primary Schools, Uganda (UNICEF, 1992

8.7 SMC Health Facility End-of-Cycle Report

Name of Health Facility in-charge: _____

State:		**LGA:**	
Health Facility Type:		**HF Name:**	
HFW in-charge:		**Medical Store:**	
Dates of Cycle:		**Cycle:** 1 ☐ 2 ☐ 3 ☐ 4 ☐	
No. of SMC distribution teams reporting by delivery method:		**Door-to-Door**	**Fixed**
Make-up of distribution teams by gender:		**Female**	**Male**

SMC treatments:	**3-<12 mos.**	**12-59 mos.**
1. Number of children **treated** with SP+AQ (tally sheets).		
2. Number of children **given a 2nd dose** of SP+AQ (tally sheets).		
3. Number of children who were **referred** (tally sheets).		
4. Number of children given **SP+AQ after referral** (referral forms).		
Drug packet reconciliation:	**3-<12 mos.**	**12-59 mos.**
5. Opening balance: number of packets **before the cycle.**		
6. Number of packets **received this cycle**.		
7. Number of **complete** packets **returned**.		
8. Number of **incomplete/damaged** packets **returned.**		
9. Were there any **drug stock outs** this cycle? ☐ YES ☐ NO		
Pharmacovigilance:		
10. Number of children seen at the health facility with **SAEs to SMC drugs**. |__|__|__|		
11. Number of **pharmacovigilance forms completed**. |__|__|__|		

12. Have health facility workers been **trained in PV**?	13. Has the health facility had any **stock-outs of PV forms** in this cycle?	14. Does your health facility have the **guidelines on safety monitoring** for SMC?	15. Have heath facility workers received **SMS message about SMC** this cycle?
☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO

Name of Health Facility in-charge: _____

Signature of Health Facility in-charge: _____

Date: _____

8.8 SMC Competency Checklist

CHW names or HFW name			
Location			
Supervisor name		**Date:**	

COMPETENCY	Very Good	Good	NOT Good	Comments
1. CHW is prepared and has all the required materials to deliver SMC: ▪ Sufficient drug packets of SP+AQ for both age groups ▪ SMC Register and SMC Tally Sheet ▪ SMC Referral Forms ▪ SMC Child Record Cards ▪ SMC Job Aid ▪ Cups, spoons, water, and pen				
2. CHW gives the caregiver information about SMC.				
3. CHW uses the *SMC Job Aid* to explain to the caregiver that SMC is administered on 4 monthly occasions during the rainy season.				
4. CHW obtains the child's name and age.				
5. CHW asks the caregiver if the child has ever taken SP or AQ before.				
6. CHW asks the caregiver if the child has any allergies to drugs such as sulfa or cotrimoxazole (Bactrim or Septrin).				
7. On the 2nd 3rd and 4th cycles, the CHW asks the caregiver if the child became very sick after the last course of SP+AQ.				
8. CHW does NOT give SP+AQ to children who: ▪ Are younger than 3 months ▪ Are older than 5 years on the first cycle ▪ Have a history of allergies to sulfa medicines, or SP, or AQ ▪ Became very sick after the last course of SP+AQ ▪ Have fever and test positive for malaria ▪ Are sick ▪ Have taken a dose of SP or AQ in the past 28 days ▪ Are currently taking cotrimoxazole or Septrin or Bactrim				
9. CHW refers all sick children and children with fever to the nearest health facility and completes the *SMC Referral Form* correctly.				
10. CHW records information correctly in the *SMC Register* and *SMC Tally Sheet*.				
11. CHW gives the right dose of SP+AQ based on the child's age.				
12. CHW asks the caregiver stay for 30 minutes after giving SP+AQ for observation.				
13. CHW gives the child 1 more dose of SP+AQ if the child vomits all of the medicine within 30 minutes.				
14. CHW gives the caregiver 2 tablets of AQ shows the caregiver how to give at home.				
15. CHW explains to the caregiver to go to the health facility if the child becomes very sick after taking SMC medicines.				
16. CHW fills in the *SMC Child Record Card* correctly, gives it to the caregiver and explains:				

COMPETENCY	Very Good	Good	NOT Good	Comments
• How to tick 2 doses of AQ given at home. • To keep the card in a safe place. • When the next cycle will be. • To have the card available next cycle.				
17. CHW uses the SMC Job Aid to give the caregiver messages for prevention of malaria.				
18. CHW tells the caregiver to go to the health facility if the child is sick or has a fever.				
19. CHW rinses spoons and cups before using on next child.				

CHW Supervisor Signature: _____Date:_____

8.9 SMC Supervisor Facility End-of-Cycle Report

Supervisor End-of-Cycle Report

Name of Supervisor:			
Name(s) of CHW supervised:			
Dates of distribution period:		☐ Cycle 1 ☐ Cycle 2 ☐ Cycle 3 ☐ Cycle 4	
State:	LGA:		Village:
Communities Visited:			
Distribution Site Numbers:			

A. SMC Delivery:

	Fixed-point	Door-to-door
1. Time required for CHWs to set-up each day:		
2. Time required for CHWs to complete the *SMC Tally Sheet* at the end of each day:		
3. Time required for CHWs to give caregivers information and advice about SMC and taking AQ at home:		
4. Average number of households visited per day:		

B. SMC Drug Accountability and CHW Supplies:

Describe any issues or challenges encountered (if any) collecting or returning SMC drug packets, with drug accountability, and/or with CHW supplies.

C. CHW Performance:

Describe strengths and weaknesses captured from the CHW Competency Checklist for SMC, such as challenges encountered crushing tablets, administration of SP and AQ, referrals, completing the various SMC forms, or giving advice to caregivers.

1. **Areas observed where the CHW teams are performing well:**

2. **Areas observed where CHW teams need improvement:**

3. **Action items agreed to with CHW teams to improve upon next cycle:**

D. Health Facility:

Describe strengths, issues or challenges (if any) encountered collecting or returning drug packets, with referral of children to the health facility, case management of children referred to the health facility, stock management, completing the various SMC forms, advise given to caregivers.

1. **Areas where health facilities are performing well:**

2. **Areas where health facilities need assistance:**

3. **Areas where health facility workers need to improve their performance:**

E. Community:

Describe strengths, issues or challenges (if any) encountered in the community with caregivers or with community leaders, such as crowd control, caregivers or heads of household refusing SMC, compliance with taking second and third doses of AQ at home, completion of the SMC Record Card, or side-effects.

1. **Areas where community members are positively engaged and compliant with SMC guidelines:**

2. **Areas were community members are negatively engaged and not adhering to SMC guidelines:**

8.10 SMC Training Evaluation Form

Training location:
Date:
Trainer Name(s):

Circle the number which corresponds with your level of agreement to each statement.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A
1. I know what my responsibilities are for SMC.	5	4	3	2	1	
2. I know what SMC is and why it is important.	5	4	3	2	1	
3. I know which children are eligible for SMC.	5	4	3	2	1	
4. I know which children are NOT eligible for SMC and why.	5	4	3	2	1	
5. I know which questions to ask the caregiver at the beginning of each cycle.	5	4	3	2	1	
6. I know how to give SP+AQ safely to children 3 to 59 months.	5	4	3	2	1	
7. I know which children should be referred to the health facility.	5	4	3	2	1	
8. I know how to complete the *SMC Register* correctly.	5	4	3	2	1	
9. I know how to complete the *SMC Tally Sheet* correctly.	5	4	3	2	1	
10. I know how to complete the *SMC Child Record Card* correctly.	5	4	3	2	1	
11. I know how to use the *SMC Job Aid* with caregivers.	5	4	3	2	1	
12. I know how complete *the Health Facility End-of-Cycle Report.*	5	4	3	2	1	N/A
13. I know how to complete the *Supervisor End-of-Cycle Report*.	5	4	3	2	1	N/A
14. I know how to assess serious adverse drug reactions of SP+AQ and complete the National Pharmacovigilance Form.	5	4	3	2	1	N/A
15. The *SMC Job Aid* was easy to understand.	5	4	3	2	1	
16. The Trainer(s) was knowledgeable about the training content.	5	4	3	2	1	
17. There was enough time for all of the training activities.	5	4	3	2	1	
18. The Trainer(s) was prepared.	5	4	3	2	1	

19. **What was <u>easy</u> for you to learn in this training?**

20. **What did you find <u>difficult to learn</u> in this training?**

21. **Do you have any other comments about this training?**

8.11 SMC Training Report

Demographics:				
Title of training:				
Trainer (s) name:				
Dates of Training:				
Location of Training: (venue, city, country):				
Total number of participants attended: **Female:** **Male:** **CHW:** **HFW:** **Supervisor:** **Other:** Number of *Certificates of Completion* awarded:				
Evaluation of Training :				
Training objectives were met: ☐ All ☐ Most ☐ Half ☐ Few ☐ None Training was conducted according to the SMC Trainer Guide: ☐ All ☐ Most ☐ Half ☐ Few ☐ None There was active participation and involvement by how many of the participants: ☐ All ☐ Most ☐ Half ☐ Few ☐ None There was sufficient time to complete the training activities each day: ☐ All ☐ Most ☐ Half ☐ Few ☐ None				
Observed participants strengths:		Observed participants weaknesses:		
Average Pre-Test Scores: ☐ NA Average Post-Test Score: ☐ NA Average percent improvement between test Pre- and Post-Test scores:				
Summary of participants' responses on the end of training evaluation form:				
Challenges encountered during the Training: *(training materials, finances, transport, etc.)*				
Recommendations for future Trainings:				
Action Plan:				
What will be done?	Who will do it?	By when?		
Documentation:				
Copy of *Evaluation Summary* attached: ☐ YES ☐ NO Copy of *Test Scoring Sheet* attached: ☐ YES ☐ NO Report completed by: Date of report:				

8.12 SMC FAQs in English

Seasonal malaria chemoprevention (SMC) is an effective method to prevent malaria in children in the Sahel region where the peak of malaria transmission season is about four months. The Sahel region includes Sokoto, Zamfara and some other states in northern Nigeria. SMC consists of administering a 3-day anti-malaria medication to children aged 3-59 months, for 4 times, at one month interval, during the rainy season.

1. When and where the SMC project will be implemented.

In Sokoto State , the SMC intervention will cover 10 local government areas (LGAs) in 2015 The LGAs are as follows 1) Gada, 2) Goronyo, 3) Gudu, 4) Gwadabawa, 5) Ilela, 6) Isa, 7) Sabon Birnin, 8) Tangaza, 9) Wamakko, 10) Wurno

In Zamfara State the SMC intervention will cover 10 local government areas (LGAs) in 2015. The LGAs are as follows 1) Bakura, 2) Brinin Magaji, 3) Bungudu, 4) Kauran Namoda, 5) Shinkafi, 6) Talata Mafara,7) Zurmi

2. What anti-malarial medicines will be used?

WHO has recommended the use of a combination of amodiaquine (AQ) and sulphadoxine/ pyrimethamine (SP), which research has shown to be both safe and effective in some West African countries such as Nigeria, Senegal, Mali, the Gambia and Burkina Faso.

3. Are these anti-malarial medicines the same are for malaria treatment?

No. SMC medicine are used for prevention of malaria and NOT for children sick with malaria. Children who are having fever should be tested for malaria.If the test is positive malaria, the chid should be given ACT with Artemisinin – lumefantrine. These SMC medicines should not be used for children sick with malaria.

4. How often will the children have to take the medicines?

The drug will be given monthly, over 4 months during the peak of rainy season. One full treatment of the SMC medicine is for 3 days: on the first day, the child will be given the "the medicine on the spot by the role model care giver, and observed; then the mother will receive the 2 other doses and give to the child each dose daily at home for the 2 following days

The medicines will be given only to children who are not sick with malaria or another condition.
It is important for parents to ensure that the medicines is taken properly by the child at home to ensure good protection.

5. What are the benefits of SMC?

The SMC medicines are given to children to maintain an adequate level of anti-malarial medicines in the blood of the children throughout the period of greatest risk of malaria transmission. This will reduce the risks of both uncomplicated and severe malaria in children, and result in healthier, stronger children able to grow and develop, without the interruption of repeated malaria attacks

In order to best protect the children, SMC has to be complemented with other malaria prevention methods. Children should continue to especially sleeping under LLIN (treated Mosquito nets) every night, to ensure full protection.

6. Are these medicines safe?

These SMC medicine are very safe. It is very rare that children become sick after taking these medicine. But some children can feel a bit sick, have abdominal pain, or skin itching, which these are normal reactions.

However, in case a child becomes really sick after taking the SMC medicines, it is very important that parents report to the nearest health centre to ensure that the child is checked by a health professional.

7. Will children be fully protected?

The SMC medicine are meant to help the child's body to fight off malaria infection; but it is still possible that a child who has taken the SMC drugs gets malaria, especially if the child is not sleeping inside a treated mosquito net every night.

8. What should parents do if the child gets fever?

If a child has fever, and has taken SMC drug in the last 4 weeks before, it is very possible that this fever is NOT malaria. If a child develops fever, parents should bring the child to the nearest health facility to get tested. Fever can be the sign of many other diseases. Only a professional health worker can give the treatment appropriate to the child's condition. Government and other approved public health centres have good quality drugs to treat children.

If the child has malaria as confirmed by malaria test only ACT should be given these are good quality anti-malarial, approved by the government.

9. Why is it that SMC is for only children?

Children under five years are the most vulnerable to malaria and likely to die from severe malaria. Their growth and development are most affected by repeated attacks of malaria and the development of anaemia, which explains why they are targeted for the SMC intervention.

10. Who will deliver the intervention?

Community Role Model care givers (RMCGs) will deliver the intervention. They will receive appropriate training before the intervention begins and will be supervised by the appropriate staff within the health system.

11. How will the intervention be delivered?

Before the project was developed, local communities were consulted on what they thought would be the most acceptable method of delivery. The community Role Model Care-Givers will distribute the SMC drugs at fixed points and house to house.

12. What are the success factors for the SMC project

The SMC project will be successful if all children aged 3-59 months receive the full course over a period of 3-days every month for four months at the peak period of the rainy season.

13. Will people in the community be able to choose whether or not to take part in the intervention?

No child will be given the medicine without the approval of the parent or guardian. The SMC intervention provides individual protection for each child, but it is important that the majority of children aged 3-59 months take the medicine for the intervention to be most successful in reducing malaria in the community.

Parent and guardian are expected to bring their children to be given the SMC medicine either at the distribution points or at home.

Bring your children under five years to collect and use SMC medicine to protect them from malaria during the rainy season. SMC is safe and effective.

Join the community effort for SMC.

Seasonal Malaria Chemoprevention Project (SMC)

Sokoto and Zamfara States

Questions & Answers

UNITAID ACCESS SMC malaria consortium CRS

8.13 SMC FAQs in Hausa

Shirin sessional malaria chemoprevention (SMC) wato maganin kare yara daga zazzabin cizon sauro da damina, itace hanya mafi inganci domin kare yara daga zazzabin cizon sauro a garuruwan da suka kusanci sahara a inda cutar zazzabin cizon sauro tafi yaduwa a cikin watanni hudu. Wadannan garuruwa sun hada da Sokoto, Zamfara da wasu jahohin arewacin Najeriya. SMC shirin ne da ya kunshi bayar da maganin zazzabin cizon sauro ga yara kanana 'yan wata 3 zuwa wata 59 har tsahon kwanaki uku duk bayan wata daya a cikin watanni hudu na damina.

1. Lokacin da kuma wajen da za'a gudanar da shirin bayar da magani na SMC.

Za'a gudanar da shirin SMC a kananan hukumomi goma a cikin shekarar 2015. Kananan hukumomin da za'a gudanar da aikin sune 1) Gada, 2)Goronyo, 3) Gudu, 4) Gwadabawa, 5) Ilela, 6) Isa, 7) sabon Birni, 8) Tangaza, 9) Wamakko, 10) Wurno.

A Jahar zamfara kuma za'a gudanar da shirin ne a wadan nan kananan hukumomi 1) Bakura, 2) Birnin Magaji, 3)Bungudu, 4) Kauran Namoda, 5) Shinkafi, 6) Talata Mafara, 7) Zurmi.

2. Wane maganin zazzabin cizon sauro za'ayi amfani dashi?

Hukumar lafiya ta duniya (WHO) tayi umarni da ayi amfani da amodiaquine (AQ) da sulphadoxine/ pyrimethemine (SP), wadan da bincike ya tabbatar da ingancin su kuma basu da wata illa a kasashen Afirika ta yamma, kamar su Nigeria,Senegal, Mali, Gambia da Burkina- faso.

3. Shin wadan nan magungunan na kariya daga zazzabin cizon sauro daidai suke da magungunan da ake sha lokacin da ake fama da cutar zazzabin cizon sauron?

A'a. maganin SMC anayin amfani dashi ne domin bada kariya daga zazzabin cizon sauro, kuma ba'a badashi ga yaran da suke fama da zazzabin cizon sauron. Yaran dake fama da zazzabi sai an gwada su idan gwaji ya nanu suna da zazzabin cizon sauro, to sai a basu maganin ACT wanda yake dauke da Artemisinin – lumefantrine. Kada a bada maganin SMC ga yaran da suke zazzabin cizon sauro.

4. Saunawa ya kamata kananan yaran su sha wannan maganin?

Wannan magani ana bada shi duk wata, har tsahon wata huda na lokacin damina. A duk lokacin da za'a bayar da maganin na SMC za'a dauki tsahon kwana uku ana bawa yara, ranar farko yaron zai sha maganin a gaban masu bada maganin sannan su duba shi; daga nan kuma sai mahaifiyar yaron ta karbi ragowar maganin na sauran ranaku biyun da suka rage domin ta bashi a gida idan lokacin shan maganin yayi.

Maganin **ba'a bawa yaron da bashi da lafiya** wanda yake zazzabin cizon sauro ko wata cuta ta daban.

Yana da mahimman ci iyaye su tabbata yaran su, sun sha wannan maginin a bisa ka'ida a yayin basu a gida domin samun kyakkyawar kariya. A duk lokacin da yaro ya sha maganin zai samu kariya daga zazzabin cizon sauro na tsahon kwana ashirin da takwas.

5. Menene Amfanin SMC?

Ana bawa yara maganin SMC ne domin a tabbatar da sun samu isashshen maganin zazzabin cizon sauro a cikin jinin su a lokacin da akafi yawan kamuwa da zazzabin cizon sauro.

Hakan yana ragewa kananun yara hadarin kamuwa da zazzabin cizon sauro mai tsanani ko mara tsanani, sannan yaran zasu tashi cikin koshin lafiya, kuzari da kwarin jiki ba tare da sun kamu da matsala ta zazzabin cizon sauro ba.

Domin samun cikakkiyar kariya daga zazzabin cizon sauro, a tabbata a lokacin da ake bada maganin na SMC yara suna kwana a cikin sange wato gidan sauro mai magani a kowa ne dare. Sauran hanyoyin kariya daga zazzabin cizon sauro kamar kwana cikin sange zasu taimaka wajan samun moriyar wannan shirin na SMC wanda zai samar da cikakkiyar kariya daga zazzabin cizon sauro. Domin indan shirin yayi nasara, al'uma zasu cigaba gaba daya.

6. Shin maganin SMC basu da wata illa?

Maganin SMC bashi da wata illa. Yana da wahala a samu yaron da zai kamu da wata cuta bayan ya sha maganin, saidai wasu lokuta akan samu yaran da suke yin ciwon ciki ko jikin su yayi kaykayi amma wannan ba wata matsala bace, kawai yanayi ne na yadda jiki ya karbi maganin.

Haka kuma a duk lokacin da yaro ya sha wannan magani na SMC sannan ya kamu da wata rashin lafiya, sai ayi gaggawar kaishi asibiti mafi kusa inda zai samu kulawa daga kwararrun ma'aikatan lafiya.

7. To yaran za su sami cikakkiyar kariya?

Shi wannan magani na SMC yana taimakawa jikin kananan yara wajan fada da kwayoyin cutar zazzabin cizon sauro ne; amma yana iya faruwa yaron da ya sha maganin ya iya samun ciwon zazzabin cizon sauro musamman idan baya kwana a cikin sange wato gidan sauro mai magani a koda yaushe.

8. Me yakamata iyaye su yi idan yaron su ya kamu da zazzabi?

Idan yaro ya kamu da zazzabi acikin sati hudu da shan maganin SMC, wannan zazzabi ba zazzabin cizon sauro bane. Idan yaro ya fara zazzabi, sai a nemi ma'aikacin lafiya dake wannan garin domin a kaishi asibiti mafi kusa sannan ayi masa gwajin zazzabin cizon sauro. Zazzabi alama ce ta cututtuka da yawa, kuma sai kwararren ma'aikacin lafiya shine zai iya bada maganin da yafi dacewa da yaron. Asibitin gwamnatin da sauran guraren bada magani ingantattu suna da magunguna masu kyau da zasu bawa yaran ku.

Idan yaro yana zazzabin cizon sauro ACT shine maganin da ya dace domin yafi inganci da nagarta sannan kuma shine wanda hukuma ta amince da ayi amfani dashi.

9. Me yasa maganin sai yara kawai za a kare?

Yara 'yan kasa da shekara biyar sunfi hadarin kamuwa da zazzabin cizon sauro, kuma sune sukafi saurin mutuwa idan zazzabin cizon sauro ya kama su.

Zazzabin cizon sauro yana kawo matsala a wajan girman kananan yara, kuma yana iya kawo musu ciwon yunwa. Wannan shi yasa akayi maganin SMC domin yara kawai

10. Su waye zasu gudanar da wannan shirin?

Community role model care givers wato ma'aikatan lafiya dake zaune a garuruwan ku sune zasu gudanar da shirin bada maganin. Za'a basu koyarwar da ta dace domin gudanar da aikin kafin ranar da za'a fara aikin. Sannan kuma jami'an lafiya ne zasu saka idanu domin samun nasarar shirin.

11. Yaya za'a gudanar da shirin bada maganin?

Dama tun kafin a kirkiro wannan shirin saida aka nemi shawarar jama'ar gari akan yadda za'a gudanar da aikin bada maganin cikin nasara. 'Yan kungiyar Community role model care giver (RMCGs) sune zasu raba maganin a gurare na musamman sannan kuma zasu shiga gida-gida.

12. Menene nasarar wannan shirin na SMC a jahar Sokoto?

Nasarar shirin SMC` shine a tabbatar da kowane yaro dan wata 3 zuwa wata 59 ya karbi wannan maganin, kuma ya sha na tsahon kwana uku, ko wane wata har tsawon wata hudu na damuna.

13. Mutanen gari suna da dama ta zabin ko su yarda da wannan shirin na SMC ko kuma su ki yarda dashi?

Babu yaron da za a baiwa maganin ba tare da yardar iyayen sa ko marikin shi ba. Shirin SMC na baiwa kowane yaro kariya ne a karan kansa, sai dai yana da matukar muhimmanci ya kasance mafi yawancin yaran da suke watanni 3 zuwa 59 sun sami shan maganin domin shirin ya fi cimma nasarar kakkabe zazzabin cizon sauro a garin.

Ana fatan iyaye da masu rike da yara za su kawo diyan na su domin a basu maganin na kariyar zazzabin cizon sauro lokacin damina ko dai a wurin da ake badawa ko kuma a gidajen su.

Call to Action in Hausa

Shirin bayar da maganin kare yara daga zazzabin cizon sauro da damina

a Jahar Sokoto

Questions & Answers

Please provide Hausa Translation

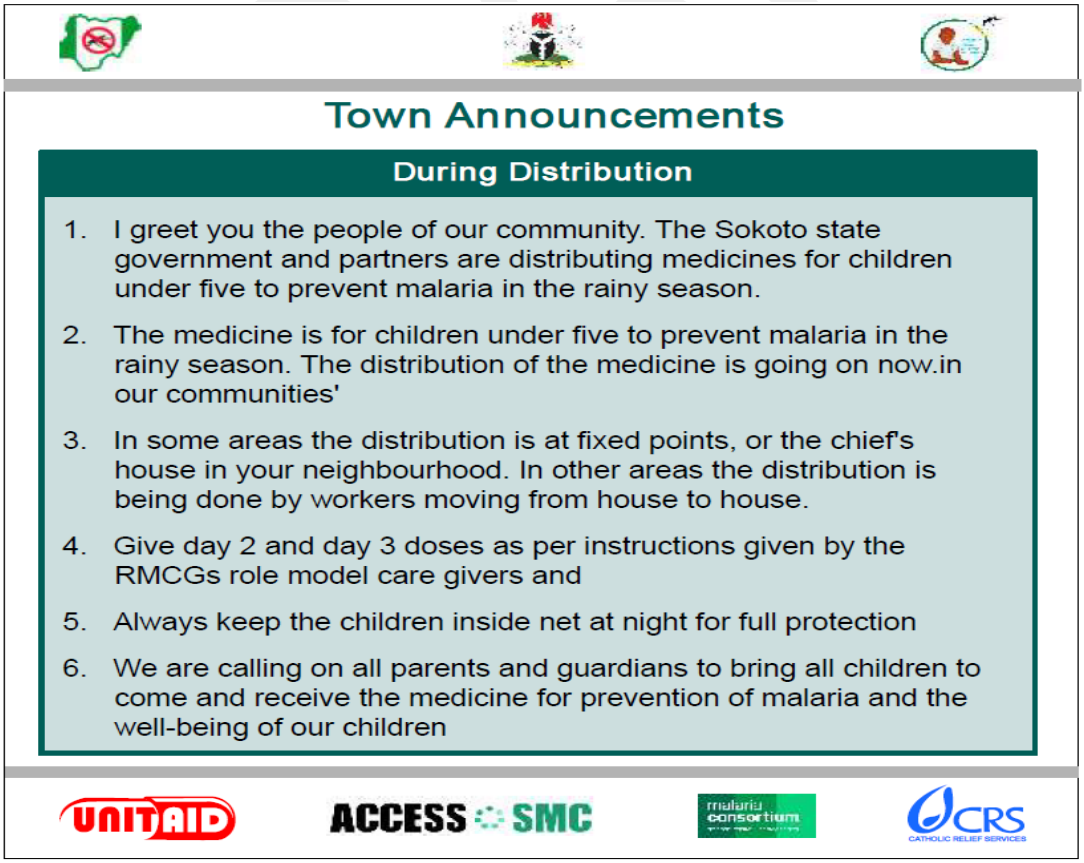
8.14 SMC Town Announcement in English

Seasonal Malaria Chemoprevention Project (SMC)
Sokoto State

Town Announcements

2 Days Before Distiribution

1. I greet you the people of our community. The Sokoto state government and partners are going to start the distribution of medicines for children under five to prevent malaria in the rainy season. The distribution will start in the next two days.
2. In some areas the distribution will be at fixed points, or the chief's house in your neighbourhood. In other areas it will be done by worker moving from house to house.
3. We are calling on all parents and guardians to bring all children to come and receive the medicine for prevention of malaria and the well-being of our children



Town Announcements

During Distribution

1. I greet you the people of our community. The Sokoto state government and partners are distributing medicines for children under five to prevent malaria in the rainy season.
2. The medicine is for children under five to prevent malaria in the rainy season. The distribution of the medicine is going on now.in our communities'
3. In some areas the distribution is at fixed points, or the chief's house in your neighbourhood. In other areas the distribution is being done by workers moving from house to house.
4. Give day 2 and day 3 doses as per instructions given by the RMCGs role model care givers and
5. Always keep the children inside net at night for full protection
6. We are calling on all parents and guardians to bring all children to come and receive the medicine for prevention of malaria and the well-being of our children

8.15 SMC Town Announcement in Hausa

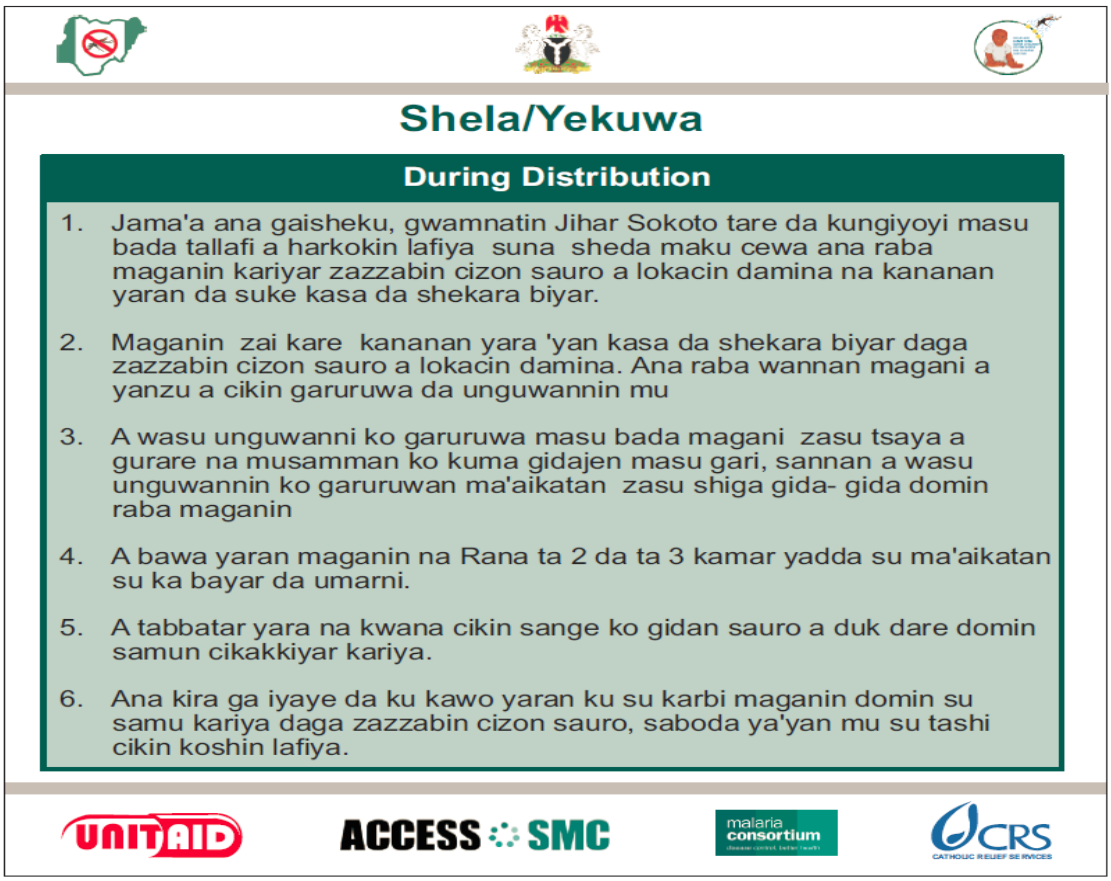
MAGANIN KARE YARA DAGA ZAZZABI CIZON SAURO LOKACIN DAMINA
Sokoto State

Shela/Yekuwa

kwana 2 kafin fará rabon magani

1. Assailaimalakun. Jama'a na gaisheku, ina sanar daku gwamnatin Jihar Sokoto tare da kungiyoyi masu bada tallafi a harkokin lafiya suna sheda maku cewa za'a fara raba maganin da zai kare yara kanana dagazazzabin cizon sauro a lokacin damina. Za'a fará rabon nan da kwanaki biyu masu zuwa.
2. A wasu sassan masu bada magani zasu tsaya a gurare na musamman ko kuma gidajen masu gari,sannan a wasu sassan ma'aikatan zasu shiga gida- gida domin raba maganin.
3. Ana kira ga iyaye da ku kawo yaran ku su karbi maganin domin su samu kariya daga zazzabin cizon sauro, saboda ya'yan mu su tashi cikin koshin lafiya.

UNITAID ACCESS SMC malaria consortium CRS CATHOLIC RELIEF SERVICES



Shela/Yekuwa

During Distribution

1. Jama'a ana gaisheku, gwamnatin Jihar Sokoto tare da kungiyoyi masu bada tallafi a harkokin lafiya suna sheda maku cewa ana raba maganin kariyar zazzabin cizon sauro a lokacin damina na kananan yaran da suke kasa da shekara biyar.
2. Maganin zai kare kananan yara 'yan kasa da shekara biyar daga zazzabin cizon sauro a lokacin damina. Ana raba wannan magani a yanzu a cikin garuruwa da unguwannin mu
3. A wasu unguwanni ko garuruwa masu bada magani zasu tsaya a gurare na musamman ko kuma gidajen masu gari, sannan a wasu unguwannin ko garuruwan ma'aikatan zasu shiga gida- gida domin raba maganin
4. A bawa yaran maganin na Rana ta 2 da ta 3 kamar yadda su ma'aikatan su ka bayar da umarni.
5. A tabbatar yara na kwana cikin sange ko gidan sauro a duk dare domin samun cikakkiyar kariya.
6. Ana kira ga iyaye da ku kawo yaran ku su karbi maganin domin su samu kariya daga zazzabin cizon sauro, saboda ya'yan mu su tashi cikin koshin lafiya.

UNITAID ACCESS SMC malaria consortium CRS CATHOLIC RELIEF SERVICES

8.16 SMC Information for Traditional and Religious Leaders in English

Seasonal Malaria Chemoprevention Project
Sokoto and Zamfara States

Information
for
Traditional and Religious Leaders

Community leaders talking to community members

Malaria is a major cause of illness and deaths in Nigeria. Children under 5 years are more vulnerable to the malaria. The government at all level in Nigeria are working with partners and the community leaders to prevent and control malaria. Sokoto&Zamfara States in collaboration with partners are implementing a new intervention to prevent malaria in children during the rainy season. The intervention is known as seasonal malaria chemoprevention (SMC).

What is Seasonal malaria chemoprevention?

Seasonal malaria chemoprevention (SMC) is an effective method to prevent malaria in children in the Sahel region where the peak of malaria transmission season is about four months. Sahel region includes Sokoto and Zamfara state along with other states in northern Nigeria.

SMC consists of administering a 3-day anti-malaria medication to children aged 3-59 months, for 4 times, at one month interval, during the rainy season.

Protecting our Children From Malaria is the responsibility of all:
Community Leaders, Play Your Part.

UNITAID ACCESS SMC malaria consortium CRS

What are the benefits of SMC?

The SMC medicines help prevent malaria in children.Malaria is a serious disease that can kill children in just a few days; repeated attacks of malaria also impede the children's growth. Children who do not get sick with malaria have better health, and grow and develop stronger

In order to have the full benefits, SMC has to be complemented with other malaria prevention methods. Children should continue to especially sleeping under LLIN (treated Mosquito nets) every night, to ensure full protection.

When and where the SMC project is being implemented?

In Sokoto state, the SMC intervention will cover 10 local government areas (LGAs) in 2015.The LGAs are as follows Gada, 2) Goronyo, 3) Gudu, 4) Gwadabawa, 5) Ilela, 6) Isa, 7) Sabon Birnin, 8) Tangaza, 9) Wamakko, 10) Wurno

In Zamfara State the LGAs for the project are as follows 1) Bakura, 2) Brinin Magaji, 3) Bungudu, 4) Kauran Namoda, 5) Shinkafi, 6) Talata Mafara, 7) Zurmi.

How often will the children have to take the drug?

The drug will be given monthly, over 4 months during the peak of rainy season. One full treatment of the SMC medicine for 3 days: on the first day, the child will be given the medicine on the spot by the role model care givers, and observed. The mother will receive the 2 other doses, and give to the child one dose every day at home for the 2 following days.

Role Model Care Givers will pass house-to-house, others will be positioned at fixed locations to dispense the medicines.

Mothers and fathers are expected to bring their children, aged 3 months to 5 years old, to receive these drugs to help them avoid malaria during the rainy season.

Role of Traditional and Religious Leaders

As traditional or religious leader:

- Support Government, CBOs and Development Partners' effort to train and mobilize qualified manpower for SMC activities in your community
- Join other leaders to mobilize community members to provide additional support and conducive work environment to carry out the work of SMC in your community
- Inform local populations about the SMC campagn, the free distribution of the medcines, the distribution points services , and opportunities for better care.
- Act as a role model for SMC. Bring your children and encourage your community members to bring their children out to get the SMC medicine
- Hold community meetings to promote SMC
- Praise and thank volunteers for their help and commitment to support the health and growth of our children.

Protecting our Children From Malaria is the responsibility of all: Community Leaders, Play Your Part.

UNITAID ACCESS SMC malaria consortium CRS

8.17 SMC Information for Traditional and Religious Leaders in Hausa

Shirin bayar da maganin kare yara daga zazzabin cizon sauro da damina
a Jahar Sokoto da Zamfara

Bayani ga Shugabanin Alumma' da na Addini

Menene Ma'anar maganin kare yara daga zazzabin cizon sauro lokacin damina SMC?

Shirin sessional malaria chemoprevention (SMC) wato maganin kare yara daga zazzabin cizon sauro a lokacin damina, itace hanya mafi inganci da za'a kare yara daga zazzabin cizon sauro a garuruwan da suka kusanci sahara, inda cutar zaazabin cizon sauro tafi yaduwa a cikin watanni hudu.

Wadan nan garuruwa sun hada da Sokoto da wasu Jihohi na arewacin Nijiriya.

SMC shirin ne da ya kunshi bayar da maganin zazzabin cizon sauro ga kananu yara 'yan wata 3 zuwa wata 59 har na tsahon kwanaki uku, a duk bayan wata daya a cikin watanni hudu na damina.

Menene amfanin Maganin SMC?

Ana bawa yara maganin SMC ne domin a tabbatar da sun samu isashshen maganin zazzabin cizon sauro a cikin jinin su a lokacin da akafi yawan kamuwa da zazzabin cizon sauro.

Hakan yana ragewa kananan yara hadarin kamuwa da zazzabin cizon sauro mai tsanani ko mara tsanani, sannan yaran zasu tashi cikin koshin lafiya, kuzari da kwarin jiki batare da sun kamu da matsala ta zazzabin cizon sauro ba.

UNITAID ACCESS SMC malaria consortium CRS

Domin samun cikakkiyar nasara, Sauran hanyoyin kariya daga zazzabin cizon sauro zasu taimaka wajan samun nassarar wannan shirin na SMC. Ya kamata yara suci gabada kwana a cikin Sange (gidan sauro mai magani) a kullun. Domin samun cikakkiyar kariya.

A ina ne wajenda lokacin da za'a gudanar da shirin bayar da magani na SMC?

A Jahar Sokoto, za'a gudanar da shirin SMC a kananan hukumomi goma a cikin shekarar 2015. Kananan hukumomin da za'a gudanar da aikin sune 1) Gada, 2)Goronyo, 3) Gudu, 4) Gwadabawa, 5) Ilela, 6) Isa, 7) sabon Birni, 8) Tangaza, 9) Wamakko, 10) Wurno.

A Jahar zamfara kuma za'a gudanar da shirin ne a wadan nan kananan hukumomi 1) Bakura, 2) Birnin Magaji, 3)Bungudu, 4) Kauran Namoda, 5) Shinkafi, 6) Talata Mafara, 7) Zurmi.

Saunawa ya kamata kananan yara su sha wannan maganin?

Wannan magani ana bada shi sau daya duk wata, har tsahon wata huda na lokacin damuna. A duk lokacin da za'a bayar da maganin na SMC za'a dauki tsahon kwana uku ana bawa yara:A Rana ta farko yaro zai sha maganin a gaban masu bada maganin sannan su duba shi. Daga nan kuma sai mahaifiyar yaron ta karbi ragowar maganin na sauran ranaku biyun da suka rage domin ta bashi a gida.

Yan kungiyar Role Model Care Givers zasu raba maganin a gidaje, wasu ma'aikatan zasu tsaya a gurare na musamman dominraba maganin.

Ana son iyaye maza ko mata su kawo yaran su 'yan wata uku zuwa shekara 5 domin kabar maganin da zai basu kariya daga zazzabin cizon sauro a lokacin damina.

Gudummuwar shagabanin gargajiya da na addini

A matsayin shugaba na gargajiya ko na addini zasu taimakawa gwmnati, kungiyoyi da sauran masu tallafawa cigaban al'umma wajan samar da mutanen da suka dace domin gudanar da aiyukan SMC a garurunwan su.

- Hada kai da sauran shugabanni domin samun hadin kan jamma'a da bada gudunmowa wajan gudanar da ayyukan SMC a garuruwan ku

- A sanar da jamma'ar gari akan shirin SMC da inda za'a bada magani da kuma irin abubuwan da za'a gudanar a wajen da kuma moriyar da za'a samu ta ingantattaciyar lafiya.
- A nuna yabawa da godiya ga irin aiyukan da 'yan kungiyar sa kai (volunteers) sukeyi domin tamakawa shirin SMC.

8.18 SMC Information for Traditional and Religious Leaders in Ajamee

شزن بير د مغين كرى يار دغ زززبن ثرون سورو د
دمنا

بيان دغ شغنن غرغجيا دن أددين أ جحر سوكوت د
زمفر

Seasonal malaria chemoprevention (SMC)

SMC

سو نو ب کمت قند ذ بار سـ ستا وذ ذ ما هد ذ؟

ا ذ گ لوکتن ذ ر آ ار ذ هتن ن ویتن هتن آن تشرسو هـ
ر آ طوک تون 0 ـ تگـ و ذ، حز تون و ذ حظ ن لوکتن ذهن
ذهتن گتسرب هـ هتورکـارزون ذ کرگ ر : گون آگـ آن نوکـار
غوز هتن ن گون کی تذ تسـ ک رتی ذوص ذ آ ا قـ ر ک
تش وکـار و زی ش هتن آهتن هص تذ ما هتی سرتن سـ ذتش
اغذ

تین ژیار Model CareGiver

زس ر ز هتن ا عذجذ، وس ژ ا کتن زس تن ا غ ز ی ن
هرتهص ذوص ر ز هتن
ذوص گرتن هتن ذ ز ی بس گتا ذ ع ز ز ز ی ن ـ ت ـ ور
آلوگـ تین ذی5 آن سر ی ژیی مز کو ما ذ س کاوکـ تی س و
عتن و ذ آ گ ذ وتس ی گر

حظ ن شرو غ تین غ ر غ ط ذ ر ا آذ ص

ا ظ ن ژیا ذ ن غ ر غ ط ـ گو ن آذ ص زس ژ ط ک و غ وتن ذ
ا غ ز ور و س ا(ژ ی ظ ـ ی ذ س ور ن هص ظ ذ و تن ا ا آ و ،
حز س ا هر ه ذ ظ تن ذس ک ذا ی ذ وص غ ز ر ذ ژ ک ن

- بذ ذ جطآ ک ن حظ ن سر هص ذ وص ن ظ ژ ظ تن سـ ور ن ذ حظ ط ک
  اغ ز ر ی ک 5 SMC ک ذ غ ز ر وحن غ ظ ف و
- ا ن گه ذهص ر آ بذ ژ ذ ()ص ن ر آ ک ن غ ر جطآ ر سـ ور ا
  ژ ی ظ ژ ر تسر ظ ذ ر ا ف و ی ن گه ذ وحن ا غ ز ر ا ذ ا ت ن و
  ظ ژ ـ
- ی ـ سر ک و () گ سر ا ن ژ ظ ژ ر ذ ژ ک ن ا ن ذ ف و ـ ژ ف و ذ ی ن
  ه ر ن گ ط گ ذ وص
  SMC

ص ی ی ی آ ظ ذ ر ظ ط ذ SMC؟

ظ ی ن ا ن ن و ک ن SMC ذ وص ن ا ت ن ر ذ س ه ط ا ی ظ ی ن
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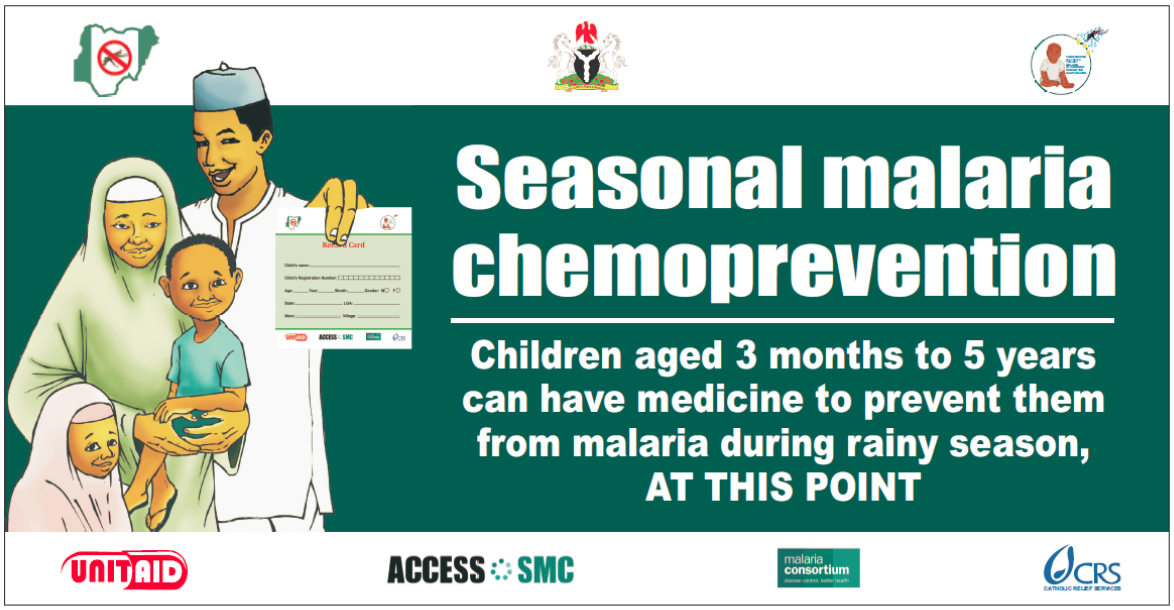
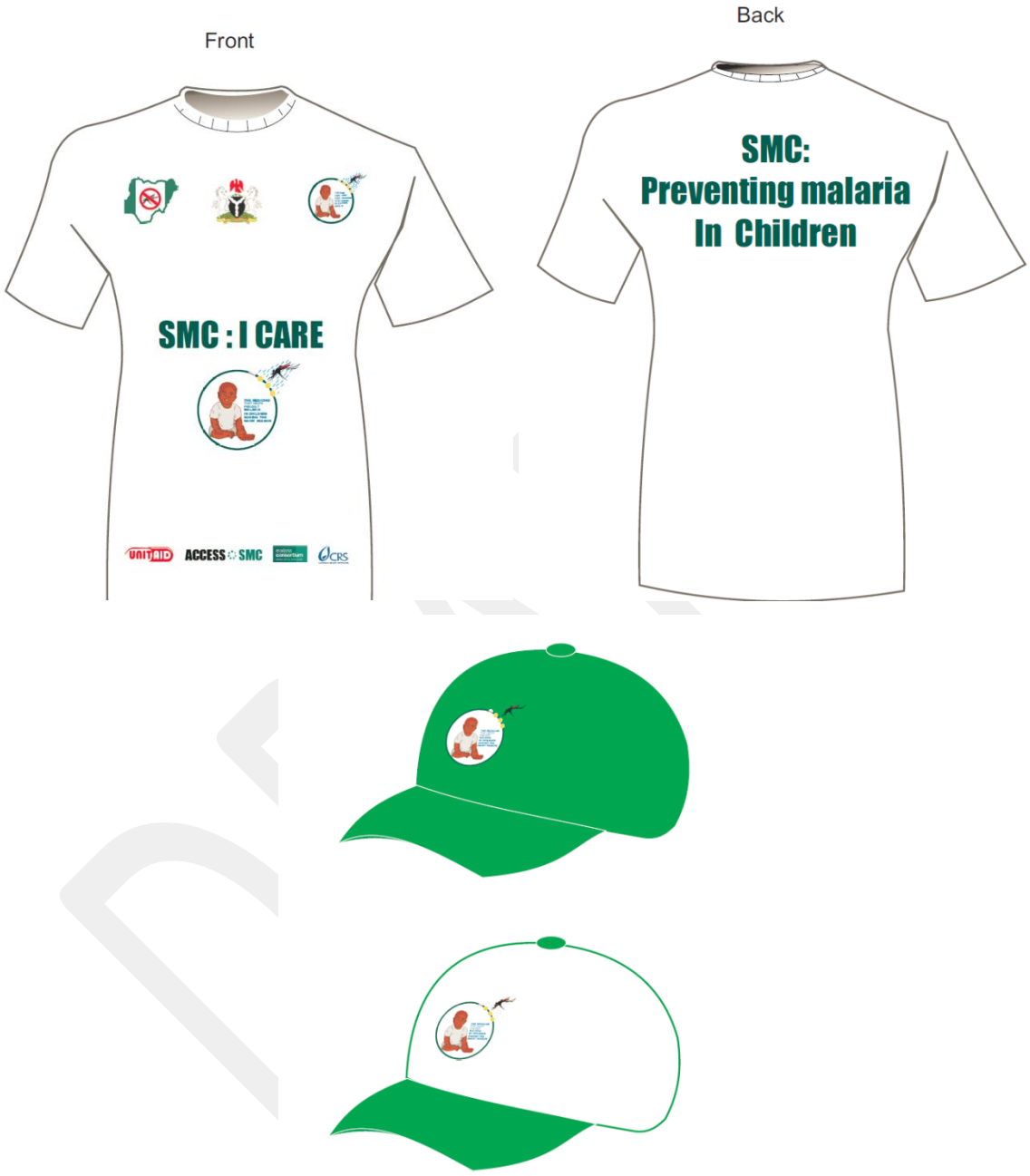
8.19 SMC Banner



8.20 SMC T-Shirt and Hat



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disease control, better health

CRS
CATHOLIC RELIEF SERVICES

ACCESS SMC
Achieving catalytic expansion of seasonal malaria chemoprevention in the Sahel

Seasonal Malaria Chemoprevention

Community Health Worker Resource Manual

June 2015

malaria consortium
disease control, better health

This manual was prepared by Malaria Consortium thanks to funding from UNITAID under the ACCESS-SMC project. The views expressed do not necessarily reflect those of UNITAID.

ACCESS-SMC is a UNITAID-funded project, led by Malaria Consortium in partnership with Catholic Relief Services, which is supporting National Malaria Control Programs to scale up access to seasonal malaria chemoprevention (SMC) to save children's lives across seven countries in the Sahel. By demonstrating the feasibility and impact of SMC at scale, ACCESS-SMC will promote the intervention's wider adoption.

For further information visit www.access-smc.org and www.unitaid.org.

About this Resource Manual

This **Community Health Worker Resource Manual** is intended is intended as a resource for Community Health Workers responsible for administering SMC drugs to children under 5 . It contains the essential background information on SMC which will be trained in each module, as well as sample SMC forms, worksheets and scenarios which will be used during training activities. It is designed to be written on and used after training as a reference tool.

Acknowledgements

This SMC Resource Manual and supplemental training materials were prepared by Malaria Consortium and made possible through funding by UNITAID under the ACCESS-SMC project. The views expressed do not necessarily reflect those of UNITAID.

The following individuals and organizations are duly acknowledged for their contributions to this manual:

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Acronyms

ACT	Artemisinin-based Combination Therapy
ADR	Adverse Drug Reaction
AE	Adverse Event
AL	artemether / lumefantrine
AQ	amodiaquine
CHW	Community Health Worker
CRS	Catholic Relief Services
DHA-PPQ	dihydroartemisinin / piperaquine
DOT	Directly Observed Therapy
HF	Health Facility
HFW	Health Facility Worker
IPC	Interpersonal Communication
IPTp	Intermittent Preventive Treatment in pregnancy
LLIN	Long Lasting Insecticidal Net
MFP	Malaria Focal Person
MOH	Ministry of Health
MS	Medical Store
MT	Master Trainer
NGO	Non-Government Organization
NMCP	National Malaria Control Programme
NT	National Trainer
PV	Pharmacovigilance
RDT	Rapid Diagnostic Test for malaria
SAE	Serious Adverse Event
SMC	Seasonal Malaria Chemoprevention
SP	sulfadoxine / pyrimethamine
TOT	Training of Trainers
WHO	World Health Organization

Table of Contents

CORE SMC MODULES

CHW Resource Manual

Core SMC Module 1: Introduction to Training

1.1 Learning Objectives

Learning objectives for Core SMC Training

At the end of the Core SMC Training, participants will be able to:

- Explain what SMC is and which children are eligible to receive SMC drugs.
- Describe how SMC will be implemented and when.
- State why SMC is important and advocate for SMC in the community.
- Describe the CHW team roles and responsibilities for the selected delivery methods.
- Know when and how to requisition SP and AQ before each cycle.
- Know how to store SP and AQ safely during each five-day distribution period.
- Manage and record SMC drug accountability correctly.
- Determine whether children are eligible to receive SP and AQ.
- State which children should NOT receive SP and AQ.
- Refer sick children and children with fever to the nearest health facility to be tested for malaria.
- Identify the correct dose of SP and AQ for both age groups of eligible children.
- Demonstrate how to administer SP and AQ correctly under DOT.
- Record the child's information and dose correctly on the *SMC Register* and *SMC Tally Sheets.*
- Complete the child's *SMC Record Card* correctly and give it to the caregiver to record 2 doses of AQ at home.
- Use the *SMC Job Aid* to give information and deliver key SMC messages to the child's caregiver.
- Counsel caregivers when to return for the next course and encourage them to adhere to the 3-day SMC regimen each cycle.
- Recognize possible side effects of SP and AQ and refer.
- Complete the *SMC Referral Form* correctly.

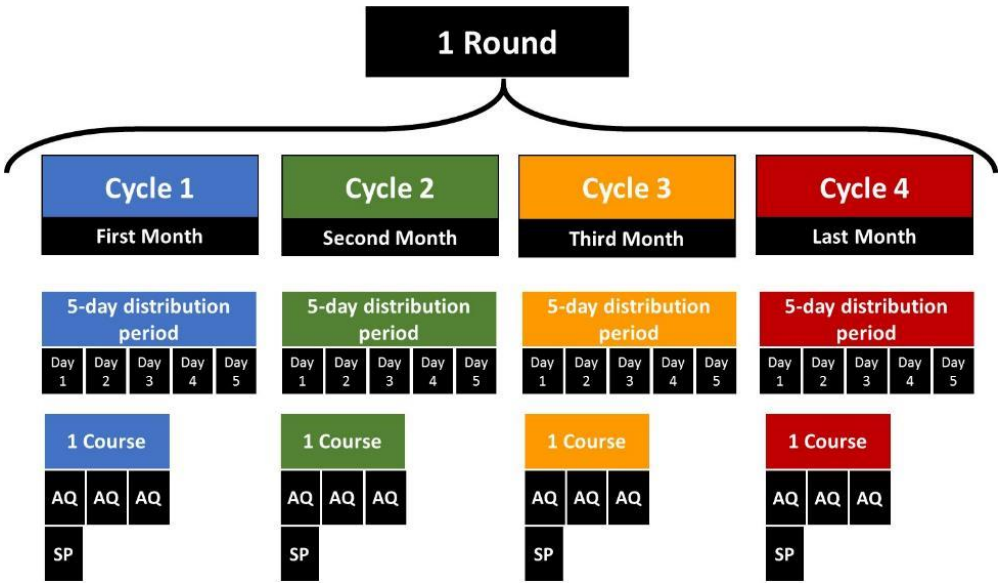
1.2 Core SMC 2-DAY Training Schedule

Duration	Module
DAY ONE	
60 min	1—Introduction to Training
60 min	2—Introduction to SMC
90 min	3—Preparing for Each Cycle of SMC Delivery
60 min	LUNCH
2.5 hours	4—Administering SP and AQ Safely
DAY TWO	
2.5 hours	5—Referral and Pharmacovigilance
60 min	6—Reporting and Follow-Up during Each Cycle
60 min	LUNCH
3 hours	7—SMC Practice and Close of Training

Core SMC Module 2: Introduction to SMC

2.1 SMC Glossary

- **SMC—Seasonal Malaria Chemoprevention** is the intermittent administration of full preventive treatment courses of an antimalarial medicines given during the rainy season to prevent malaria. The objective of SMC is to maintain therapeutic antimalarial medicine concentrations in the blood throughout the period of greatest malarial risk.
- **SMC Drugs—**1 dose of sulfadoxine / pyrimethamine (SP) and 3 doses of amodiaquine (AQ) given each month for 4 months to children between the ages of 3 to 59 months.
- **SMC Round—**one transmission season consisting of 4 cycles.
- **SMC Cycle—**a 1 month interval between each course of SMC drugs. There are 4 cycles in each round.
- **SMC Distribution Period —**the number of days within each cycle when SP and AQ are distributed to eligible children.
- **SMC Course—**a period of 3 days in which a full course of SP and AQ is given. Each child should take 1 course of SMC drugs each cycle.
- **Door-to-Door delivery—**drugs distributed by CHWs in the child's home.
- **Fixed-Point delivery**—central location where SMC drugs are delivered by CHWs.



2.2 SMC Frequently Asked Questions

What is Seasonal Malaria Chemoprevention (SMC)?

SMC is defined by the WHO as the intermittent administration of full treatment courses of an antimalarial medicine during the malaria season to prevent malarial illness by maintaining therapeutic antimalarial medicine concentrations in the blood throughout the period of greatest malarial risk.1

What are the expected benefits of SMC?

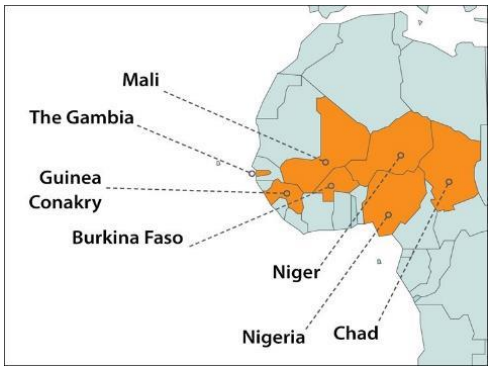
The objective of giving SMC medicines is to maintain an adequate level of anti-malarial medicine concentrations in the blood in order to kill the malaria parasite during the high malaria season. This intervention should be done in combination with other malaria prevention methods, especially sleeping inside an LLIN every night.

Where is SMC effective?

SMC is effective in areas where malaria transmission lasts less than 4 months. SMC is recommended in areas of highly seasonal malaria transmission throughout the Sahel sub-region.

What is ACCESS-SMC?

ACCESS-SMC is a 3-year project funded by UNITAID and led by Malaria Consortium in partnership with Catholic Relief Services (CRS), which is supporting NMCPs to scale up access to SMC across the Sahel to save children's lives. ACCESS-SMC will provide up to 30 million SMC treatments annually to 7.5 million children aged 3 to 59 months in Burkina Faso, Chad, Guinea, Mali, Niger, Nigeria, and The Gambia.



When are SP and AQ given?

A complete treatment course of **sulfadoxine–pyrimethamine (SP)** plus **amodiaquine (AQ)** should be given to children aged 3–59 months at monthly intervals, beginning at the start of the transmission season (rainy season), up to a maximum of 4 doses during the malaria transmission season. The dose of SP and AQ is dependent on the age of the child. There are 2 doses:

- 3 to <12 months
- 12 to 59 months.

[1] WHO Seasonal malaria chemoprevention with sulfadoxine–pyrimethamine plus amodiaquine in children: A Field Guide, July 2013.

Eligible children will be given the following recommended dosing schedule:

- **SP** (sulfadoxine / pyrimethamine) is given **once every month for 4 months** under Direct Observed Therapy (DOT).
- **AQ** (amodiaquine) is given **once a day for 3 consecutive days every month for 4 months.** The first dose is given under DOT and the 2nd and 3rd doses are given to the mother to give to her child daily at home.

The single dose of SP is given on the first day of each cycle at the same time as the first dose of AQ.

SP only requires one dose per month to be fully effective, but AQ has to be taken daily for three days to be fully effective.

Which children are eligible for SMC?

Children under five are the most vulnerable to malaria illness and likely to die from severe infection. Their growth and development are most affected by repeated attacks of malaria and the development of anaemia. SMC is indicated for healthy children between the ages of 3 to 59 months.

Which children are NOT eligible for SMC?

SMC drugs should NOT be given to children:

- Allergic to sulfa medication such as cotrimoxazole (Septrin, or Bactrim)
- Allergic to either SP or AQ
- Who are severely ill
- With a fever
- Who have received a dose of either SP or AQ during the past 28 days
- Who are currently taking a sulfa medication such as cotrimoxazole (Septrin, or Bactrim)
- Who are unable to take oral medication
- Who are HIV-positive child receiving cotrimoxazole prophylaxis

How safe are SMC medicines?

SP and AQ are safe and well tolerated when used at the recommended doses and regimens.

Core SMC Module 3: Preparing for Each Cycle of SMC Delivery

3.1 Roles and Responsibilities for SMC

CHW Roles and Responsibilities for SMC

Preparing for each cycle

- ❑ Attend and participate in SMC training.
- ❑ Prepare for each cycle by ensure all the items in the SMC Kit are complete.
- ❑ Pick up drug packets of SP and AQ at the health facility at the beginning of each day of each SMC distribution period.
- ❑ Count the number of drug packets received at the health facility and record the number obtained on the Drug Accountability and Reconciliation section of the *SMC Tally Sheet* at the beginning of each day of each SMC distribution period.

Administering SP and AQ

- ❑ Work collaboratively with other CHWs in the SMC delivery team.
- ❑ Use the *SMC Job Aid* to determine whether the child is well and eligible for SP and AQ.
- ❑ Administer SP and AQ only to eligible children.
- ❑ Give the correct dose of SP and AQ to the child based on the child's age.
- ❑ Observe the child for 30 minutes after giving SP and AQ.
- ❑ Give a second dose of SP and AQ if the child vomits within 30 minutes on Day 1.
- ❑ Give a second dose of AQ if the child vomits within 30 minutes on Day 2 or 3.

Referring children who are NOT eligible or are sick

- ❑ Refer children who are not eligible for SMC to the nearest health facility and complete the referral form.
- ❑ Refer children with fever to the health facility to be tested for malaria and appropriate treatment for fever.
- ❑ Refer children with adverse drug reactions to the nearest health facility and complete the referral form.
- ❑ Refer all sick children to the health facility, including those who may become very sick after taking SMC medicines.

Completing the SMC Recording Form

- ❑ Accurately record each course of SP and AQ delivered with the child's name, age, and date on the *SMC Register.*
- ❑ Accurately complete the *SMC Tally Sheet.*
- ❑ Tally the number of SP and AQ doses given to each child based on age.
- ❑ Tally the number of repeat doses of SP and AQ gives to children who vomit the first does within 30 minutes.
- ❑ Tally the number of children referred to the health facility.
- ❑ Accurately complete the *SMC Referral Form* when referring children to the health facility.
- ❑ Accurately complete in the *SMC Record Card* for each child and give the card to the caregiver with the correct instructions.
- ❑ Count the number of remaining packets and loose tablets of SP and AQ at the end of each cycle and record them on the *SMC Tally Sheet.*
- ❑ Submit *SMC Tally Sheets* to the health facility at the end of each day of the distribution period.

Giving advice to the child's caregiver

- ❑ Give the caregiver correct information about SMC in a timely and polite manner.
- ❑ Give the caregiver the second and third doses of AQ to take home and explain how to give 1 tablet each day.
- ❑ Advise the caregiver how to give the child SMC medicine to avoid vomiting or spitting the medicine.
- ❑ Advise the caregiver what to do if the child vomits at home when taking the second or third dose of AQ.
- ❑ Give the caregiver the *SMC Record Card* explain how to record two doses of AQ given and when to return with the child for the next SMC cycle.
- ❑ Use the *SMC Job Aid* to inform the caregiver when to visit the health facility.
- ❑ Use the *SMC Job Aid* to inform the caregiver about prevention of malaria.

Supervisor Roles and Responsibilities for SMC

- ❑ Attend and successfully complete SMC Supervisor Training.
- ❑ Support CHWs to be well prepared before each SMC cycle.
- ❑ Conduct CHW supervision visits during each day of the distribution period during each of the 4 SMC cycles.
- ❑ Use the *CHW Competency Checklist* to observe CHW teams during the distribution period to ensure SMC medicines are delivered safely.
- ❑ Support and mentor CHWs to ensure they conduct themselves respectfully, ask questions in the right manner and follow the *SMC Job Aid* correctly.
- ❑ Conduct spot checks with a select number of caregivers of children receiving SMC medicines to determine :
    - o If the correct dose and quantity to SMC medicines was given.
    - o If the caregiver understands the messages given by the CHW.
    - o If the *SMC Record Card* was completed correctly.
    - o If any household or child was missed during the distribution period and ensure CHWs return to administer SP and AQ to eligible children.
- ❑ Review the *SMC Register* and *SMC Tally Sheet* with the CHWs to resolve any discrepancies.
- ❑ Check and verify the accountability of SMC medicines and supplies.
- ❑ Complete the *CHW Competency Checklist for SMC* for each CHW team and give them feedback on their performance during each SMC cycle.
- ❑ Help the CHWs to find assigned households.
- ❑ Provide support to CHWs to solve problems through active dialogue.
- ❑ Help resolve problems encountered during SMC delivery.
- ❑ Complete the *Supervisor End-of Cycle Report* in a timely manner at the end of each cycle.

Health Facility Worker Roles and Responsibilities for SMC

- ❑ Provide case management of fever to children who are referred to the health facility by CHWs.
- ❑ Perform RDTs accurately and read results to determine if children with fever have malaria.
- ❑ Treat children who test positive for malaria with artemether/lumefantrine (AL).
- ❑ Give SP and AQ to children who test negative for malaria and assess for other causes of fever.
- ❑ Record each treatment of SP and AQ delivered with the child's name, age, dose and date.
- ❑ Track SMC drug accountability and reconciliation.
- ❑ Counsel mothers about giving AQ at home, and when to bring the child to the health facility if side effects develop.
- ❑ Manage children with AEs and SAEs and complete the National Pharmacovigilance Form.
- ❑ Refer children with SAEs to a regional hospital if they cannot be managed at the health facility.

3.2 Key Take Aways for the Community

- SMC medicines help to prevent malaria during the rainy season.
- Children need to take 4 full courses of SP and AQ to be protected during the 4 months of the rainy season.
- Children need to finish each 3-day course of SMC drugs every cycle.
- SMC medicines are **preventive**:

What is SMC?

- SMC drugs protect children against malaria.
    - They help to prevent healthy children aged 3 months to 5 years old from getting sick with malaria.
    - They are not for treating children who are sick with malaria.
- SP and AQ is given to children aged 3–59 months, who are healthy.
- SMC drugs should not be used to treat children when they are sick.
- Each eligible child should receive a full SMC course:
    - 3-day treatment
    - four times at 1-month intervals, during the rainy season
- Each child 3 months-5 years must finish the 3-day complete course to be protected for 4 weeks.
- Parents should not interchange or share SMC drugs with other children.
- If children get sick after taking SP and AQ, take the child to the health facility immediately.

What will happen on the days of SMC distribution?

- SMC drugs will be distributed by community health workers.
- The child will get one dose of SP and the first dose of AQ.
- Children need to wait 30 minutes after the dose of SP and AQ.
- Caregivers will get 2 tablets of AQ to give the child the following 2 days at home.
- It is important for caregivers to give children the daily dose of AQ at home on the 2nd and 3rd day in order for the child to be fully protected.
- These drugs are very safe, but not nice-tasting; it is better to mix them with sugar for the children to swallow more easily.

SMC drugs are preventive; they are NOT for children sick with malaria

- It is rare that children become sick after taking SP and AQ.
- Some children can develop skin itching or stomach pain after taking SP or AQ.
- If the child becomes very sick after SMC, they should go to the health facility immediately.

Children still need to sleep inside an LLIN every night to avoid malaria

- SMC drugs are meant to help other prevention methods such as LLINs (Long Lasting Insecticide Treated Nets).
- Even if the children take SMC for 4 months, they can still get malaria if they don't sleep under a net every night.
- Parents should ensure that all children sleep inside an LLIN, every night, to avoid being bitten by mosquitoes which carry malaria.
- Cleaning the compound from stagnant water will also reduce the number of mosquitoes.

If the child has fever, go to the health facility immediately

- Not all fevers are malaria; fever only shows that the chid is sick.
- If your child has fever, bring the child immediately to the health facility.
- The child should be tested to know if it is malaria, before taking any drug.
- Public health facilities have tests and good quality drugs to treat children.

3.3 Delivery Methods

One or both of the following delivery methods will be selected to deliver SP and AQ to children in the community.

- **Fixed-Point Delivery—** A system of giving SMC drugs at an agreed fixed location where caregivers bring their children each month.
- **Door-to-door Delivery—** A system of giving SMC drugs by which CHWs go from door-to-door each month, visiting families to give SP and AQ to eligible children under 5.

The selection of delivery method will depend on the size of the community and distance between homes.

ESTIMATED	Fixed-Point	Door-to-Door
Size of community	Larger	Smaller
Time taken per child	7 minutes	30 to 90 minutes per household depending on the number of eligible children in the household
Number of households per day	-	4 to 10
Number of CHWs	3	2
No of children seen per day	48 per day (8 per hour)	30 to 35
Distance for child's caregiver to travel	1-2 kilometres	None
Distance for the CHW team to travel	From CHW home to HF to collect drugs From HF to Fixed Point location From Fixed Point to HF to return drugs From HF to CHW home	From CHW home to HF to collect drugs From HF to community households From community household to HF to return drugs From HF to CHW home

WORKSHEET: SMC Distribution Plan

1. **What are the planned dates of the first SMC distribution cycle?**

2. **What are the names of the village leaders, Imams and other important persons?**

3. **Where is the most suitable location for the fixed delivery?**

4. **Where are the households located?**

5. **Who will be the person in the village responsible for informing the community about the time and location of SMC at the fixed site?**

6. **Who will be the person in the village responsible for mobilizing the community to attend?**

7. **How many children ages 3 to 59 months are in each household in the area?**

8. **What is the best time of day to visit households?**

9. **Where will you get water?**

10. **Where will you get tables, chairs and mats?**

11. **Who will help control the crowds and take care of children waiting the 30 minutes?**

3.4 SMC Drug Requisition Process

SMC Drug Requisition Process for CHWs

At the beginning of **EACH** day of the distribution period, CHWs will go to the heath facility to collect the drug packets to administer that day.

The Health Facility In-Charge will distribute drug packets to each CHW Team Lead based on the calculated numbers.

It is important that the CHW Team Lead carefully count the drug packets for each age group with the HFW to ensure the numbers are correct.

While counting the drug packets, inspect them to ensure none are damaged or broken.

Record the total number of drug packets obtained for each age group on the bottom of the *SMC Tally Sheet*.

Managing drug stock outs

If during the course of the day, it appears as though there will not be enough drug packets for the children who are waiting to be seen, the CHW Team Lead or Supervisor should go to the health facility to obtain more drug packets.

The number of additional drug packets should be added to the *SMC Tally Sheet* under number of packets obtained.

MOCK SMC Tally Sheet Drug Accountability and Reconciliation

DRUG ACCOUNTABILITY and RECONCILIATION							
		1 Opening balance	2 Total received	3 Quantity used	4 Total wasted or lost	5 Total remaining	6 Observations
		A	B	C	D	(A+B) – (C+D)	
3 -<12 mo	Complete packets						
	SP tablets						
	AQ tablets						
12-59 mo	Complete packets						
	SP tablets						
	AQ tablets						

Storage of SMC drugs at health facilities and in communities

- SMC drug packets should be stored in a locked cabinet or drug box.
- The key to the lock should be held by persons who have been trained to administer SP and AQ.
- The cabinet or drug box should be kept clean and dry, away from windows or direct sunlight.
- Label the cabinet or drug box, **for SMC Only**.

3.5 Items in the SMC Kit

- ❑ Plastic Drug Box
- ❑ SMC Child Register (1 per team)
- ❑ SMC Tally Sheet (1 per day for each team)
- ❑ SMC Record Cards
- ❑ SMC Referral Forms
- ❑ SMC Job Aid (1 per team)
- ❑ Apron (1 for each CHW)
- ❑ Spoons (4)
- ❑ Soap (1)
- ❑ Cups (3)
- ❑ Notebook (1)
- ❑ Pens (2)
- ❑ Pencil (1)
- ❑ Plastic folder for forms (1)

3.6 What to do to Prepare for Each Day of Fixed-Point Delivery

- ❑ Ensure the community has been mobilized to the dates and location of SMC delivery.
- ❑ Check the contents of the SMC kit to ensure you have all the necessary forms and items.
- ❑ Obtain drug packets from the health facility and record total number of packets received on the *SMC Tally Sheet*.
- ❑ Ensure you have enough drug packets of both age groups for the distribution period.
- ❑ Ensure you have all the necessary forms and items in the SMC Kit.
- ❑ Introduce yourself to the village leaders and verify that the residents have been informed and reminded of the days, time and place of SMC distribution.
- ❑ Remind the village leaders of the purpose of SMC and the ages of children that are eligible to get SMC (3 to 59 months).
    - If there are children in the community who are less than 3 months; they will be eligible for SMC when they become 3 months.
    - If a child is 10 or 11 months at the first cycle, they will get an infant packet this cycle and a child packet at the next cycle.
    - If the child is 59 months during the first cycle, they will be eligible to get all 4 cycles this year, but will not be eligible for SMC next year.
    - Children need to be observed for 30 minutes after taking SP and AQ to make sure they don't vomit it up.
    - Children who vomit the SP and AQ within 30 minutes on Day 1 will get a second dose of SP and AQ.
    - Caregivers should go to the CHWs home if children vomit AQ within 30 minutes on Day 2 or Day 3 to get a second dose.
- ❑ Ask the village leaders to identify a place to administer SP and AQ to eligible children.
- ❑ Ask the village leaders to provide tables and chairs or mats for people to sit in a place with sufficient shade/shelter from rain.
- ❑ Put up the *SMC Banner* and arrange table and chair and mats.
- ❑ Set up a table to crush and mix tablets and administer the drugs and record doses.
- ❑ Set up a location to counsel caregivers and have children wait for 30 minutes after taking the medicine.
- ❑ Ask for help to control crowds and ensuring the queue is followed
- ❑ Obtain a supply of water and a place to wash spoons and cups used for medicines.
- ❑ Complete the information at the top of the *SMC Register*.
- ❑ Assemble caregivers and children ages 3 to 59 months.

3.7 What to do to Prepare for Each Day of Door-to-Door Delivery

- ❑ Ensure the community has been mobilized to the dates and location of SMC delivery.
- ❑ Check the contents of the SMC kit to ensure you have all the necessary forms and items.
- ❑ Obtain drug packets from the health facility and record total number of packets received on the *SMC Tally Sheet*.
- ❑ Ensure you have enough drug packets of both age groups for the day.
- ❑ Introduce yourself to head of household.
- ❑ Explain the purpose of SMC and the ages of children that are eligible to get SMC (3 to 59 months).
    - If there are children in the community who are less than 3 months; they will be eligible for SMC when they become 3 months.
    - If a child is 10 or 11 months at the first cycle, they get an infant packet this cycle and a child cycle during the next cycle.
    - If the child is 59 months during the first cycle they will be eligible to get all 4 cycles this year, but will not be eligible for SMC next year.
    - Children need to be observed for 30 minutes after taking SP and AQ to make sure they don't vomit it up.
    - Children who vomit the SP and AQ within 30 minutes on Day 1 will get a second dose of SP and AQ.
    - Caregivers should go to the CHWs home if children vomit AQ within 30 minutes on Day 2 or Day 3 to get a second dose.
- ❑ Ask the head of household to identify a place to administer SP and AQ to eligible children.
- ❑ Set up a table to crush and mix tablets and administer the drugs and record doses.
- ❑ Set up a location to counsel caregivers and have children wait for 30 minutes after taking the medicine.
- ❑ Ask caregivers to bring water usually used for the child to drink.
- ❑ Complete the information at the top of the *SMC Register*.
- ❑ Assemble children ages 3 to 59 months.

Core SMC Module 4: Administering SP and AQ Safely

4.1 Eligibility Criteria for SMC

SMC is indicated for **healthy children between the ages of 3 to 59 months.**

Children under five are the most vulnerable to malaria.

SP and AQ should NOT be given to children:

- who are **allergic to sulfa medication** such as cotrimoxazole (Septrin, or Bactrim)
- who are **allergic to either SP or AQ**
- who are **severely ill**
- with a **fever**
- have **received a dose of either SP or AQ during the past 28 days**
- who are **currently taking a sulfa medication** such as cotrimoxazole (Septrin, or Bactrim)
- who are **unable to take oral medication**
- who are **HIV-positive and receiving cotrimoxazole** prophylaxis

4.2 Steps for Determining SMC Eligibility

STEP 1: ASK the child's age:

- → Assemble children 3 to 59 months and their caregivers.
- → Record the household number, name of head of household and caregiver's name in the *SMC Register*.
- → Ask each child's name and age.
- → Record the child's name, age and sex in the *SMC Register*.

STEP 2: ASK about allergies:

- → Use the *SMC Job Aid* to determine if each child is eligible to take SP and AQ by asking the child's caregiver the following questions:
  - *Does the child have any allergies?*
  - *Has the child ever taken SMC medicines before?*
  - *Has the child ever had a drug reaction to amodiaquine (AQ) or SP, such as a severe rash, swelling or difficulty breathing?*
  - *Does the child have any allergies to drugs such as sulfa or cotrimoxazole, (Bactrim or Septrin)?*
  - *Did the child become sick after the last course of SP and AQ?*

STEP 3: ASK about fever or sickness:

- → Use the *SMC Job Aid* to ask the child's caregiver the following questions:
  - *Is the child sick?*
  - *Does the child have a fever?*

Step 4: ASK about other medicines the child is taking:

- → Use the *SMC Job Aid* to ask the child's caregiver the following questions:
  - *Has the child taken any medicines in the last 28 days?*
  - *What medicines has the child taken in the past month?*
- → If possible, ask to see the packets of medicine to confirm what the child has taken.

Step 5: Exclude or refer children who are not eligible:

- ➞ If the child has an allergy to AQ, SP, or sulfa medicines such as cotrimoxazole, (Bactrim or Septrin), exclude the child from participating in SMC and tell the caregiver the child is not eligible to get SMC medicines because of allergies. Do NOT give a *SMC Record Card*.
- ➞ If the child became sick immediately after the last course of SP and AQ, refer the child to the health facility to be evaluated for possible side effects. Do NOT give the next course of SP and AQ.
  - Complete the SMC *Referral Form.*
- ➞ If the child is sick or has a fever, advise the caregiver to go to the health facility for a blood test for malaria:
  - Complete the *SMC Referral Form* and give it to the caregiver to take to the health facility.
  - Complete the front of the *SMC Record Card* and give it to the child's caregiver. Tell the caregiver to bring the child and the *SMC Record Card* to the next cycle.
  - Tell the caregiver that if the child does NOT have malaria, the child will be eligible to get for SP and AQ.
- ➞ If the child has taken AQ, SP or cotrimoxazole, exclude child from this cycle and tell the caregiver the child can get SMC medicines at the next cycle.
  - Complete the front of the *SMC Record Card* and give it to the child's caregiver. Tell the caregiver to come back in 28 days for the next SMC cycle.
- ➞ Record the reason why the child is not eligible or was not given SP and AQ in the *SMC Register*.
  - S = Sick and Referred
  - R = Refused
  - E = Excluded for another reason
- ➞ If the child is eligible, select the appropriate dose packet for the child.

4.3 Using the SMC Job Aid to Determine Eligibility

The SMC Job Aid:

The *SMC Job Aid* is a tool to help CHWs to:

1. Determine a child's eligibility for SMC
2. Complete the *SMC Record Card* and *SMC Register*
3. Administer SMC by DOT
4. Give information to the caregiver about giving AQ at home
5. Give health messages on prevention of malaria

This section addresses how to use the *SMC Job Aid* to determine SMC eligibility:

STEP 1: ASK the child's name, sex and age:

ASK	Record in the *SMC Register*	Mark in *SMC Tally Sheet*
1. What is the child's name?	Name of the child	---
2. Is the child a boy or a girl?	Tick M or F	---
3. How old is the child?	Write the child's age in years and months If the child is younger than 3 months or older than 59 months: Tick column **"E" for "Excluded"** in the corresponding cycle	---
STOP if child is older than 59 months. Child is not eligible for SMC. **Children who are 59 months at Cycle 1 may continue SMC for all 4 cycles, but will not be eligible for SMC the following year.** **STOP if child is younger than 3 months. Child may return when 3 months old.**		

STEP 2: ASK about allergies?

ASK all questions	Record in the *SMC Register*	Mark in *SMC Tally Sheet*
4. Does the child have any allergies? **5. Has the child ever had a drug reaction to amodiaquine (AQ) or SP, such as a severe rash, swelling or difficulty breathing?** **6. Does the child have any allergies to drugs such as sulfa or cotrimoxazole, (Bactrim or Septrin)?** **7. Did the child become sick after the last course of SP and AQ?**	If the child is allergic to SP or AQ, or if the child has a confirmed adverse drug reaction to SP or AQ: Tick column **"E" for "Excluded"** under the corresponding cycle Write in red letters next to name **"NEVER give SMC drugs"**	if caregiver answered YES to any question: Fill in the **"not eligible"** for the correct age range: • 3 to <12 months • 12 to 59 months
STOP if the child has an allergy to SP or AQ. Child is NOT eligible for SMC. **REFER all children with possible side-effects from previous cycle.**		

STEP 3: ASK about fever or sickness:

ASK all questions	Record in the *SMC Register*	Mark in *SMC Tally Sheet*
8. Is the child sick? **9. Does the child have a fever?**	If caregiver answered YES to any question: Tick column **"S" for "Sick and Referred"** under the corresponding cycle.	If caregiver answered YES to any question: Fill in the **"not eligible"** for the correct age range: • 3 to <12 months • 12 to 59 months
STOP if the child is sick or has a fever. NO SMC today. **Refer to the nearest health facility to be evaluated and tested for malaria.** **Give caregiver the *SMC Record Card* and *SMC Referral Form*.**		

STEP 4: ASK about other medicines the child is taking:

ASK all questions	Record in the *SMC Register*	Mark in *SMC Tally Sheet*
10. Has the child taken any medicines in the last 28 days? **11. What medicines has the child taken in the past month?**	If caregiver answered YES and is taking an antiretroviral: Tick column **"E" for "Excluded"** under the corresponding cycle.	If caregiver answered YES and is taking an antiretroviral: Fill in the **"not eligible"** for the correct age range: • 3 to <12 months • 12 to 59 months
STOP if the child has had SP or AQ in past 28 days. NO SMC today. **Give caregiver the *SMC Record Card*. Child may return next cycle.**		

WORKSHEET: Determining Eligibility

Which of the following children are eligible for SP and AQ?

	YES	NO	What will you do?
1. The child is 5 months old and healthy.			
2. The child is 59 months old and healthy.			
3. The child is 2 months old and healthy.			
4. The child is 14 months and has a fever.			
5. The child is 2 years and has a danger sign and is not breastfeeding or drinking.			
6. The child is 3 years and is taking cotrimoxazole.			
7. The child is 4 years and has had swelling and rash after taking amodiaquine.			
8. The child is 1 year and has had a reaction after taking Bactrim and was not able to breathe.			
9. The child is 2 years and was treated for malaria with amodiaquine within the past month.			
10. The child is 4 years and was treated for malaria with AL within the past month.			
11. The child is 6 years and was treated for malaria with amodiaquine within the past month.			

ROLE PLAY: Determining Eligibility Scenarios

Scenario 1

- The child is a **boy**.
- He is **8 months old.**
- He does **not have fever**.
- He is **not sick** and **does not have any allergies**.
- He has **not taken any medicines** in the past month.

Scenario 2

- The child is a **girl**.
- She is **3 years old**.
- She **does not have fever**.
- She is **not sick** and **does not have any allergies**.
- She is HIV-positive and **taking cotrimoxazole.**

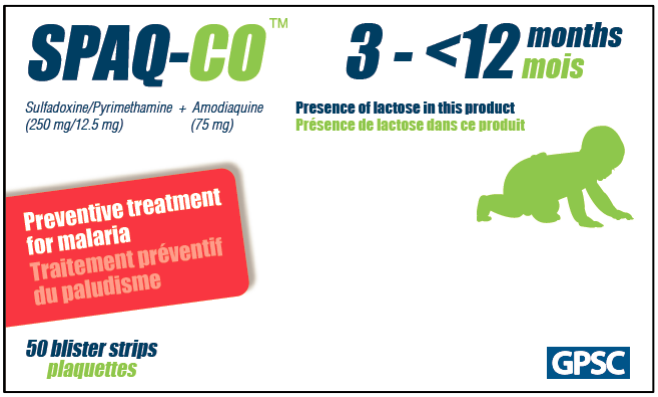
Scenario 3

- The child is a **boy.**
- He is **4 years old**.
- He **has a fever** but does not appear to be very sick.
- He **does not have any allergies**.
- He **has not taken any medicines** for the fever.

4.4 Steps for Administering SP and AQ to Eligible Children

1. If the child is eligible, select the appropriate dose packet for the child:

3 to <12 months (3 months to less than 12 months):



12 to 59 months (12 months up to 59 months):

2. Remove the **tablets of SP and AQ from the packet**.

3. Give the remaining **2 tablets of AQ to the caregiver.**
4. Show the caregiver how to **crush the tablets and mix with clean water**:
   - Place the tablets in the cup and crush with the back of the spoon.
   - Mix with a small amount of clean water until dissolved.
   - Add sugar, if available.
5. To avoid vomiting, both tablets should be crushed to a powder and mixed with a little water and sugar.

6. **Sit the child upright and use a small spoon or cup** to give the drugs slowly to avoid spitting and vomiting.
    - Do not force the child to swallow the medicine by holding the child's head and neck back and pinching their nose.
7. Ensure all the medicine is swallowed.
8. If the child can swallow the tablets, give clean water to swallow and observe the child swallow both tablets.
9. **Observe the child for 30 minutes** to ensure the child does not vomit or spit up the medicine.
10. If the child vomits during the 30 minutes, repeat dose of SP and AQ (only once).
11. **Record drug administration** in the *SMC Register:*
    - Tick column **"A"** for **"Administered"** under the corresponding cycle.
12. Record drug administration in the *SMC Tally Sheet:*
    - Under number of children who received SP and AQ. Fill 1 circle per child for each child who was administered SP and AQ for the correct age range:
        - 3 to <12 months
        - 12 to 59 months
13. **Wash the cup and spoon** before using it again on another child.
14. Complete the *SMC Child Record Card* and give to the caregiver.

4.5 The SMC Register

The *SMC Register* is a log book which CHWs use to record and track the children seen each cycle. It is used to record if the child received SP and AQ each cycle, or if not given, the reason for non-administration.

Instructions for completing the SMC Register

The following essential information is recorded on the top of the *SMC Register:*

Date: Record the date this page of the *SMC Register* is being completed. Record as DD/MM/YYYY.

Register number: This is the number assigned to each *SMC Register* and CHW Team.

Cycle Dates: Record the dates of the distribution period.

Region: Record the location where SMC is being delivered.

District: Record the location where SMC is being delivered.

Village: Record the name of the village where SMC is being delivered.

Health Facility: Record the name of the nearest health facility where children will be referred.

CHW Names: Record names of community health drug distributors.

The following information is recorded for each child:

Column 1: This is the **child number** that is copied along with the Register Number to the *SMC Record Card* and *SMC Referral Form*. This number is used to find the child when they return for next cycle.

Column 2: Record the **number of the household where the child resides**. This can be used to find the child for follow-up purposes if needed.

Column 3: Record the **name of the head of household** where the child resides.

Column 4: Record the **name of the child's principal caregiver.**

Column 5: Record the **child's FULL name**.

Column 6: Record the **child's age in years and months**.

Column 7: Record the **child's gender.** Circle the letter

M = male

F = female

Column 8: For each cycle **place a tick mark under the letter that applies**:

A = Administered. Child was administered SP and AQ by DOT the first day.

S = Sick and Referred. Child is sick, has a danger signs, or has a fever and is referred to the health facility for evaluation.

R = Refused. The child was not given medicine because the family refused.

E = Excluded for another reason. The child was not given SP and AQ because:

- the child has a known allergy to SP or AQ;
- the child is taking Septrin, cotrimoxazole of SP;
- the child has taken SP or AQ in the past month;
- the child had a serious side effect from previous doses of SP and AQ;
- the child is not between 3 to 59 months.

After each cycle, the *SMC Register* will remain at the health facility and after each round (end of the fourth cycle).

Example:

1	2	3	4	5	6		7	8											
Child No.	**House No.**	**Name of head of household**	**Name of child's caregiver**	**Name of child**	**Age**		**Gender**	**A = Administered S = Sick and Referred R = Refused E = Excluded for another reason**											
								Cycle 1				**Cycle 2**				**Cycle 3**			
					Yr.	**Mo**	**M F**	**A**	**S**	**R**	**E**	**A**	**S**	**R**	**E**	**A**	**S**	**R**	**E**
0001	*12*	*Abdulla Muhammad*	*Uwemi*	*Abdulla Lawale*	*3*	*6*	(M) F	✓				✓				✓			
0002	*14*	*Buhari Bashir*	*Bello*	*Buhari Binta*	*0*	*8*	M (F)		✓			✓						✓	

ACCESS SMC

MOCK SMC Register

Date :	_ _ / _ _ / _ _ _ _	Register N°	_____/____	Cycle 1 Dates:	Cycle 2 Dates:	Cycle 3 Dates:	Cycle 4 Dates:

Region:		District:		Village:		Health Facility:	

Names of CHWs:	1	2

1	2	3	4	5	6		7		8											
Child No.	House No.	Name of head of household	Name of child's caregiver	Name of child	Age		Gender M=male F=female		A = Administered S = Sick and Referred R = Refused E = Excluded for another reason											
									Cycle 1				Cycle 2				Cycle 3				Cycle 4			
					Yr.	Mo	M	F	A	S	R	E	A	S	R	E	A	S	R	E	A	S	R	E
0001							M	F																
0002							M	F																
0003							M	F																
0004							M	F																
0005							M	F																
0006							M	F																

WORKSHEET: Completing the SMC Register

Complete the Mock SMC Register with the following information:

Child One:

- Cycle 1
- Child number 0001
- House number 55
- Child's father is Muhammad. Caregiver is Linda
- Child' name is Binta
- 8 month old girl
- Binta is eligible for the first cycle of SMC and was administered her first dose of SP and AQ

Child Two:

- Cycle 1
- Child number 0002
- House number 23
- Child's father is Bashir. Caregiver is Uwani
- Child' name is Lawali
- 20 month old boy
- Lawali is sick with fever and was referred to the health facility

Child Three:

- Cycle 1
- Child number 0003
- House number 73
- Child's father is Habib. Caregiver is Bello
- Hawa'u is a 3 year old girl.
- Her caregiver said she gets rash with cotrimoxazole. (She has an allergy to Bactrim / Septrin).

Child Four:

- Cycle 2
- Child number 0004
- House number 60
- Child's father is Taminu. Caregiver is Salma
- Abubakar is a 4 year old boy
- His caregiver, Salma, said he did not have any side effects or problems from the AQ he took at home
- Abubakar was administered SP and AQ in the first cycle and second cycle

Child Five

- Cycle 2
- Child number 0001 (Binta)
- Binta's father, Muhammad, has refused SP and SMC because she vomited too much after the first cycle

4.6 The SMC Tally Sheet

The purpose of the *SMC Tally Sheet* is to track the number of children seen, the number of children eligible for SMC, and the number of doses of SP and AQ administered to each age group during each day of the distribution period.

The *SMC Tally Sheet* helps to predict the number of children and to ensure CHWs have enough packets for the following day.

Use a new SMC *Tally Sheet* each day of the distribution period. At the end of each day, tally the number of drug packets used and the number of packets remaining. Return any unused packets along with the *SMC Tally Sheet* to the Health Facility.

Serious adverse events are not recorded on this form.

The *SMC Tally Sheet* should be summarized on a daily basis. At the end of each distribution period, all *SMC Tally Sheets* will be sent to be entered into a central database.

Instructions for completing the SMC Tally Sheet:

1. Complete the top portion of the form.
2. Write the name of CHWs who will complete the form.
3. Tick the current SMC cycle:
    - Cycle 1, 2, 3, or 4
4. Tick the current day of the distribution period:
    - D1, D2, D3, D4
5. Fill in the circle for each eligible child who is given SP and AQ by age:
    - 3 to 12 months or 12 to 59 months
6. Fill in the circle for each child who is NOT eligible for SMC this cycle by age:
    - Allergy to SP, sulfa drugs or AQ
    - Side effect after last cycle
    - Fever or sick
    - Received a dose of either SP or AQ during the past 28 days
    - Currently taking a sulfa medication such as cotrimoxazole (Septrin, or Bactrim)
    - Unable to take oral medication
    - HIV-positive and receiving cotrimoxazole

7. Fill in the circle for each child who is given a second dose of SP and AQ by age.
8. At the end of each day, tally the number of filled circles in each column. Use the numbers on the left to help you.
9. Write the total number of filled in circles at the bottom of each column.
10. Write the total number of drug packets given by age:
    - Total number of children who received SP and AQ
    - Total number of children NOT eligible
    - Total number of children requiring re-dosing
    - Total number of children seen

WORKSHEET: Completing the SMC Tally Sheet

Tally the number of children seen based on the completed Mock *SMC Tally Sheet* on the following page.

1. **How many children received SP and AQ?**
    a. How many were 3 to <12 months?
    b. How many were 12 to 59 months?
2. **How many children in total were not eligible and did not receive SP and AQ?**
    a. How many were 3 to <12 months?
    b. How many were 12 to 59 months?
3. **How many children received a second dose of SP and AQ?**
    a. How many were 3 to <12 months?
    b. How many were 12 to 59 months?
4. **How many children in total were seen on this day?**

ACCESS SMC

MOCK SMC Tally Sheet

SEASONAL MALARIA CHEMOPREVENTION TALLY SHEET

Tally Sheet N°: ..... **Region:** **District:**

Health Facility: ..... **Village:** .....

CHW name: [1] [2]

SMC CYCLE: ■ Cycle 1 ☐ Cycle 2 ☐ Cycle 3 ☐ Cycle 4 ☐ D1 ■ D2 ☐ D3 ☐ D4

	Number of children who received SP and AQ: *Fill 1 circle per child*			**Number of children NOT eligible for SMC:** *Fill 1 circle for each child present at distribution point but did not receive SP and AQ*		**Number of children given a second dose of SP and AQ:** *Fill 1 circle for each child given an additional dose of SP and AQ*	
	3 to <12 months	**12 to 59 months**		**3 to <12 months**	**12 to 59 months**	**3 to <12 months**	**12 to 59 months**
5	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
10	●●●●●	●●●●●	●●●●●	●●○○○	●●●●●	●●●●●	●●●●●
15	●●●●●	●●●●●	●●●●●	○○○○○	●●●●○	●●●○○	●●●●●
20	●●●●●	●●●●●	●●●○○	○○○○○	○○○○○	○○○○○	●○○○○
25	●●●●●	●●●●●	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
30	●●●●●	●●●●●	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
35	●●●●●	●●●●●	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
40	●●○○○	●●●●●	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
45	○○○○○	●●●●●	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
50	○○○○○	●●●●●	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
55	○○○○○	●●●●●	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
60	○○○○○	●●●●●	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
65	○○○○○	●●●●●	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
70	○○○○○	●●●●●	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
75	○○○○○	●●●●●	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
80	○○○○○	●●●●●	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
85	○○○○○	●●●●●	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
90	○○○○○	●●●●●	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
95	○○○○○	●●●●●	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
100	○○○○○	●●●●●	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
	Total =	**Total =**		**Total =**	**Total =**	**Total =**	**Total =**

DRUG PACKETS ADMINISTERED EACH DAY

Number of children who received SP+AQ:	3 to <12 months:		12 to 59 months:	
Number of children NOT eligible:	3 to <12 months:		12 to 59 months:	
Number of children requiring 2nd dose of SP+AQ:	3 to <12 months:		12 to 59 months:	
Total number of children seen:				

4.7 The SMC Record Card

The ***SMC Child Record Card*** is given to the caregiver of children eligible to get SP and AQ. It is used to keep a record of the date of each dose of SP and AQ given to the child. It also records the name, age and sex of the child and the child's Register number.

The *SMC Record* Card helps:

- Families have a record of which child received SMC drugs to prevent malaria each year.
- If the child is sick and is taken to the health facility, to show what drugs the child has received.
- The caregiver mark when the 2nd and 3rd dose of AQ are given at home each cycle.
- To easily find the child in the *SMC Register* on subsequent visits, using the registration number.

Which children will receive an *SMC Record Card*?

- All children between the ages of 3 and 59 months who do NOT have an allergy to AQ, SP or sulfa drugs such as cotrimoxazole.
- Some children may not get SMC drugs the first cycle because of fever, illness or because they have taken AQ or SP in the past month. These children **will get the *SMC Record Card*** to bring for the next SMC cycle.

When should the *SMC Record Card* be completed?

- After asking the eligibility questions.
- After administering SP and AQ DOT.
- After giving AQ doses at home.

What will you do with the *SMC Record Card* once it is completed?

- Give it to the caregiver with instructions where to place a tick mark for the 2nd and 3rd dose of AQ given at home.
- Ask the aregiver to bring the *SMC Record Card* with the child for the next SMC cycle in 28 days.

ACCESS SMC

MOCK SMC Record Card

Child's name:_____

Child's Registration Number:_____

Age: Year:_____**Month:**_____**Gender: M F**

Region: _____**District:**_____

Village:_____

Year	Cycle	SMC Course	Date
2015	1	1st dose of SP and AQ	_ _ / _ _ / _ _ _ _
			Tick mark
		2nd dose of AQ	
		3rd dose of AQ	
	2	1st dose of SP and AQ	_ _ / _ _ / _ _ _ _
			Tick mark
		2nd dose of AQ	
		3rd dose of AQ	
	3	1st dose of SP and AQ	_ _ / _ _ / _ _ _ _
			Tick mark
		2nd dose of AQ	
		3rd dose of AQ	
	4	1st dose of SP and AQ	_ _ / _ _ / _ _ _ _
			Tick mark
		2nd dose of AQ	
		3rd dose of AQ	

WORKSHEET: Completing the SMC Record Card

Complete the Mock *SMC Record Card* with the following information:

Abubakar is a 4 year old boy.

His first cycle of SP and AQ was 1 July, 2015.

His two doses of AQ at home were 2 and 3 July, 2015.

His second cycle of SP and AQ was 2 August, 2015.

His two doses of AQ at home were 3 and 4 August, 2015.

His third cycle of SP and AQ was 4 September, 2015.

His two doses of AQ at home were 5 and 6 September, 2015.

His fourth cycle of SP and AQ was 3 October, 2015.

His two doses of AQ at home were 4 and 5 October, 2015.

4.8 Communicating with the Caregiver During Each Cycle

1. Explain that **SP and AQ protect children against malaria** by reducing the risk for malaria attacks during the rainy season.
    - These medicines help healthy children aged 3 months to 5 years old from getting sick with malaria.
    - These medicines are not for treating children who are sick with malaria.
2. Show the caregiver the remaining tablets of AQ in the blister packet and **show her how to give 1 tablet each day for the next 2 days**.
3. Give the completed *Child Record Card* to the caregiver and show her where to put the tick mark for the second and third dose.
4. Tell the caregiver to **bring the *SMC Record Card* to the next cycle distribution point.**
5. Explain it is best to give the AQ tablets in the morning after the child has eaten.
6. Tell the caregiver **if child vomits the Day-2 AQ** within 30 minutes of giving the medicine, she should give the Day-3 AQ. She should go to the house of the CHW or the health facility to get a replacement dose.
7. Explain to the caregiver that giving the medicine solution slowly, without forcing the child, helps to reduce vomiting.
8. Explain the child will be protected for 28 days (4 weeks) only if the full 3-day course of medicines is taken.
9. Advise not to share or interchange medicines with other children.
10. Explain to the caregiver to be aware of **possible side effects** such as:
    - skin rash
    - stomach ache or diarrhoea
    - weakness
    - yellowing of eyes
    - problems with balance
11. Advise the caregiver to **take the child to the health facility immediately** if the child is sick just after taking SMC medicines or has a side effect.

12. Explain to the caregiver:

- It is best to give the AQ tablets in the morning after the child has eaten.
- If the child has fever, take the child to the health facility immediately for a blood test for malaria.
- To take the child's *Record Card* with her if she goes to the health facility.
- Do not take the child to a Patent Medicine Vendor (PMV) or private practitioner.
- Do not to give traditional medicines as they may interfere with the SMC medicines.
- Only accept medicines for malaria from the health facility.
- Sleep every night inside an insecticide treated net.

13. Remind the caregiver about the next SMC cycle in 28 days and to bring the child's *SMC Record Card*.

4.9 Administering SP and AQ

ROLE PLAY: Administering SMC Drugs Scenarios

Instructions

1. Greet the caregiver
2. Determine eligibility
3. Select the correct packet of SMC drugs
4. Complete the *SMC Register, SMC Tally Sheet, and SMC Record Card.*
5. Administer dose of SP and AQ
6. Show caregiver how to give AQ at home
7. Counsel caregiver using the *SMC Job Aid*
8. Give the caregiver the *Record Card* and explain when to return

Scenario Child One

- Today's date is 30 July, 2015.
- This is the first cycle of SMC at a fixed-point distribution location in your community.
- The child is an 18 month boy.
- He appears to be healthy.
- He does not have allergies.
- He is not sick and does not have a fever.
- He has not taken any medicines in the past 28 days.

Scenario Child Two

- Today's date is 25 August 2015.
- This is the second cycle of SMC at a fixed-point distribution location in your community.
- The first cycle was 22, 23, and 24 July, 2015.
- The child is a 4 year girl.
- She appears to be healthy.
- She does not have allergies.
- She is not sick and does not have a fever.
- She has not taken any medicines in the past 28 days.
- She vomits the medicine 10 minutes after you give SP and AQ.

Core SMC Module 5: Referral & Pharmacovigilance

5.1 Referral of Children During SMC Delivery

It is important for CHWs to know where the nearest health facility is for referrals. There are 3 reasons children seen during SMC should be referred to the health facility:

1. The child is sick
2. The child has a fever
3. The child has had a possible severe adverse reaction to SMC drugs:
   - After the previous cycle of SMC
   - Child was given SMC drugs today and had side-effects

Referral of the sick child

A child who is sick should NOT get SMC drugs until they are better. These children should be referred to the nearest health facility to determine the cause of their illness and be treated by a health facility worker.

Referral of the child with fever

A child who has a fever should NOT get SMC drugs until it is determined that they do not have malaria. These children need to be tested for malaria with an RDT or with microscopy.

If children with fever **test positive** for malaria, they must be treated with a 3-day course of ACTs. They can return the next cycle for SMC drugs.

Children with confirmed malaria should be treated with the correct dose for their age and weight with **arthemeter / lumefantrine** (AL) 20/120 mg. In the absence of arthemeter / lumefantrine, **dihydroartemisinin and piperaquine** (DHA-PPQ) 40 mg/320 mg. can be used as alternative first-line treatment for uncomplicated malaria.

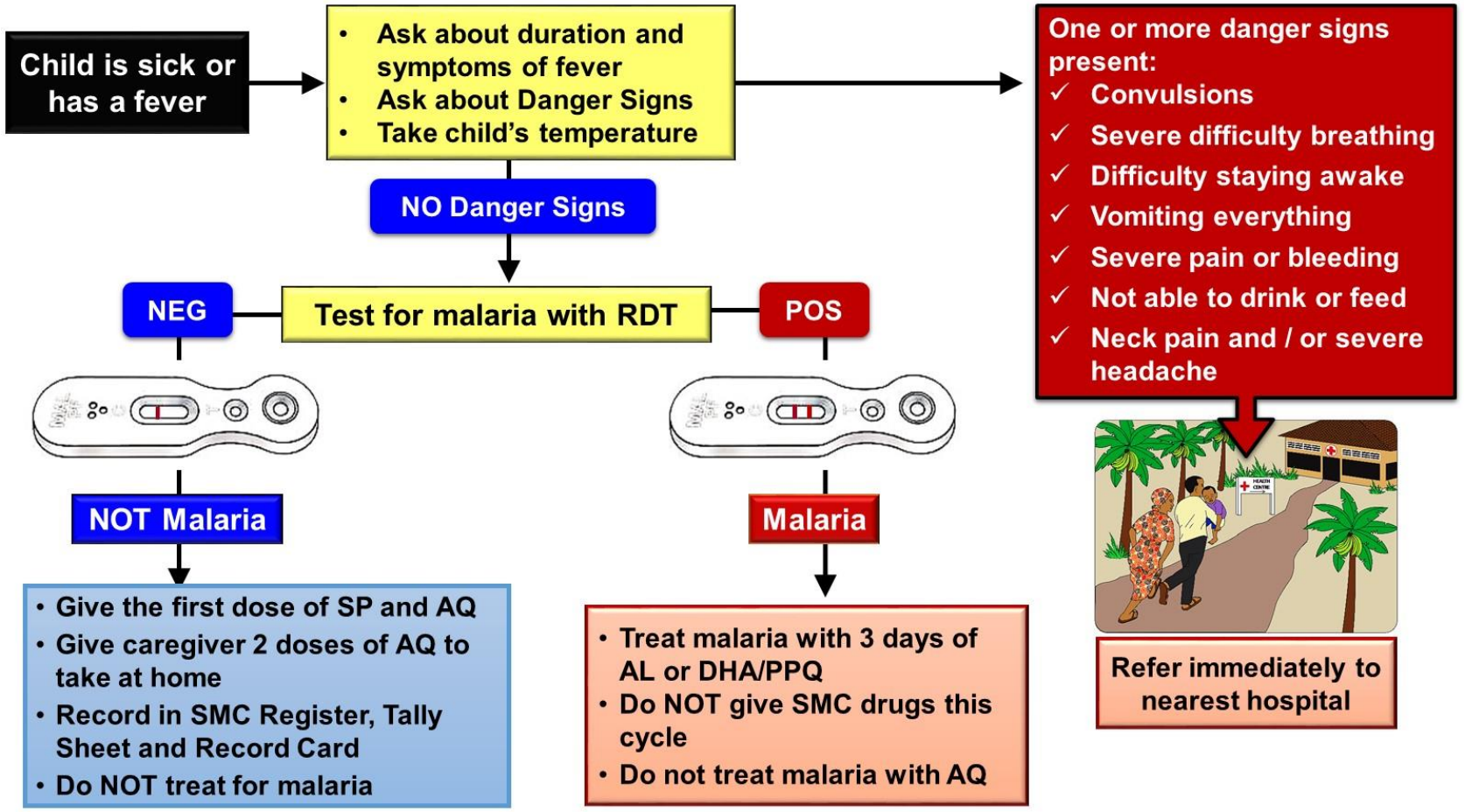
Children with confirmed uncomplicated malaria **should NOT get SMC drugs or be treated for malaria with SP or AQ** as it will not cure the child.

If children with fever **test negative** for malaria the cause of their fever must be investigated by a health facility worker. These children should also get SP and AQ at the health facility and their information should be recorded on the *SMC Register* and *SMC Tally Sheet*, and *SMC Record Card*. The caregiver should be given the 2 daily doses of AQ to take at home.

When referring a child with fever it is important to communicate to caregivers:

- Not all fevers are malaria
- Only a malaria test can confirm if malaria parasites are in the blood.
- Malaria drugs obtained from shops or pharmacies or traditional sources may not be the right ones.

Assessment of fever algorithm



SMC referral process

When the CHW refers a child to the health facility, the *SMC Referral Form* must be completed. The *SMC Referral Form* is used to track the number of children referred and the reasons they are referred.

In most countries the *SMC Referral Form* is carbonized in triplicate and perforated. When the CHW refers a child to the health facility, they will complete the top portion of the *SMC Referral Form* and give the 2nd and 3rd copy of the referral form to the child's caregiver to give to the health facility. The caregiver will keep the bottom copy to use for follow-up with the health facility or CHW.

The **top portion** of the form will be completed by the **CHW** and should include:

- Child's name, gender and age
- Register number and Child number
- Date of referral (DD/MM/YYYY)
- Name of nearest health facility
- Reason for referral: sick, fever, side effect previous cycle or side effect after SMC today
- Name and signature of the CHW

The health facility worker will review the reason for referral, examine the child and provide the needed care and treatment. When the child is ready to be sent home, the **health facility worker** will complete the **bottom portion** of the form which includes the actions taken at the health facility:

- Sick child was evaluated to determine cause of illness
- Diagnosis of the sick child and what treatment the child received
- If the sick child was admitted to the health facility or hospital for severe illness
- Child with fever was tested for malaria
- RDT result
- If child with fever was admitted to health facility or hospital for severe malaria:
    - Child with positive RDT test was treated with ACT
    - Name and dose of ACT
- Child with negative RDT was given SP and AQ this cycle
- Child was evaluated for possible adverse drug reaction to SP and AQ
- National PV Form was completed for children evaluated for side effects
- Child was admitted to health facility or hospital for adverse drug reaction
- Outcome of health facility intervention

The HFW will sign and date the form and tear off the 3rd copy at the perforation and give it to the caregiver. Instruct the child's caregiver to give the perforated copy to the CHW.

Archive the 2nd copy of the *SMC Referral Form* at the health facility.

ACCESS SMC

MOCK SMC Referral Form

To be completed by CHWs:

Name of Child:		**Age:**	**Gender: M F**
Register Number:		**Child Number:**	
Region & District::		**Village:**	
Date of referral: _ _ / _ _ / _ _ _ _		**Name of HF referred to:**	
Reason for referral:	☐ Sick ☐ Fever	☐ Side effect previous cycle	☐ Side effect after SMC drugs today

Name of CHW:_____ **Signature:**_____

To be completed by Health Facility Worker:

Date child was evaluated: _ _ / _ _ / _ _ _ _	**Name of health facility:**

Sick child:

1. Child was evaluated to determine cause of illness: ☐ YES ☐ NO
2. Diagnosis: _____
3. Child was treated: ☐ YES ☐ NO
4. Name and dose of treatment: _____
5. Child admitted to health facility or referred to hospital for severe illness: ☐ YES ☐ NO

Child with fever:

6. Child was tested for malaria: ☐ YES ☐ NO
7. RDT result: ☐ Positive ☐ Negative
8. Child admitted to health facility or referred to hospital for severe malaria: ☐ YES ☐ NO
9. Child with confirmed positive malaria test was treated with ACT: ☐ YES ☐ NO
10. Name and dose of ACT: _____
11. Child with negative RDT was given SP and AQ this cycle: ☐ YES ☐ NO

Child with AE or SAE:

12. Child was evaluated for possible adverse drug reaction to SP and AQ: ☐ YES ☐ NO
13. National PV Form was completed: ☐ YES ☐ NO
14. Child admitted to health facility or referred to hospital for SAE: ☐ YES ☐ NO

Outcome:

Name of in-charge: _____ **Signature:** _____ **Date:** _____

WORKSHEET: Determining Need for Referral

Tick YES if the child should be referred to the health facility.

Tick NO if the child should NOT be referred to the health facility.

	YES Referral	NO Referral
1. The caregiver states the child had a fever.		
2. The child has a rash on his chest.		
3. The child is 6 years old.		
4. The child is very weak and tired.		
5. The child is taking cotrimoxazole (Bactrim).		
6. The child is healthy now but had a side effect after the last cycle.		
7. The child is crying.		
8. The child has vomiting and diarrhoea.		
9. The child is not eating or breastfeeding.		
10. The child has taken an antimalarial in the past month.		

5.3 Safety of SMC Drugs

SP and AQ are safe and well tolerated when used at the recommended doses and regimens.

To minimize the risk for overdosing, it is recommended that SP and AQ **not** be given for SMC to children who received either drug or a combination containing one of the drugs in the past 28 days.

SP and AQ should **not** be given for SMC to children with a history of allergy to sulfa-based drugs (such as cotrimoxazole, Bactrim, Septrin), or to amodiaquine.

SMC with SP and AQ is not recommended for children with HIV receiving cotrimoxazole prophylaxis against opportunistic infections.

What is pharmacovigilance?

Drugs can have both desirable and undesirable effects. No drug is absolutely safe for everyone at all times[2]. In order to ensure continued safety of SP and AQ, and all medicines, it is important to be aware of their potential side effects, monitor children, and immediately report any side effects to the health facility worker so that they can be evaluated and managed appropriately.

Pharmacovigilance is defined as a method of collecting, detecting, assessing, monitoring, reporting and preventing serious side effects of pharmaceutical medicines.

When caregivers return for the next cycle, it is important for CHWs and HFWs to always ask whether the child had any problems after the last cycle of SP and AQ.

[2] Ibid.

What is an Adverse Event (AE)?

An adverse event (AE) is sometimes called a side effect. AEs can be mild and go away or they can be serious and life threatening and are then called SAEs or Serious Adverse Events. Side effects do not always occur immediately after taking the drug.

An adverse event can be defined as a reaction caused by the drug given at normal doses which was not intended. It can include an allergic reaction, mild side effect, an unintended reaction when used with another drug or food, or a reaction from suddenly stopping the drug. The precise definitions of an adverse event are:

- Any event associated with the use of a drug in humans, whether or not considered related.[3]
- A harmful and unintended response to a drug when given at the correct dose, route and frequency.[4]
- Any untoward (unexpected) medical occurrence in a patient administered a pharmaceutical product and which does not necessarily have a causal relationship with the treatment. Any unfavourable or unintended symptom or disease (including laboratory findings temporally associated with use of a medicinal product), which may or may not be considered to be related to the medicinal product.[5]

Common Adverse Events seen with SP and AQ

The following mild to moderate AEs or side effects have been reported in children and adults taking SP and AQ either separately or together. If they occur, they are likely to go away in a few hours.

Children with following common side-effects which last more than a few hours should be referred to the health facility: A child who experiences the following symptoms should be referred to the health facility to be evaluated:

- **Skin rash or itching for more than 2 days.**
- **Severe vomiting (3 or more times per day) for more than 2 days**
- **Diarrhoea (3 or more watery stools per day) for more than 2 days**
- **Weakness for more than 2 days**
- **No appetite for more than 2 days**
- **Any difficulties running or playing**
- **Yellowing of the eyes**

It is important to note that having any of these symptoms after taking SP and AQ does not necessarily mean it is a reaction to SP or AQ. This is why it is important to report all possible side effects to the health facility so they can be evaluated to determine if SP or AQ is the cause of the reaction.

[3] Title 21 Code of Federal Regulations. -Food and Drug Administration Drugs for Human Use. Part 314.80
[4] International Conference on Harmonization. E6 Good Clinical Practice.
[5] WHO Seasonal malaria chemoprevention with sulfadoxine–pyrimethamine plus amodiaquine in children: A Field Guide, July 2013.

What is a Serious Adverse Event (SAE)?

A Serious Adverse Event (SAE) is any untoward medical occurrence in response to a drug that at any dose:

- is life-threatening;
- requires or prolongs hospitalization;
- results in disability or incapacity;
- results in congenital abnormality or birth defect;
- results in death; or
- may require intervention to prevent one of the outcomes listed above[6].

Rare Serious Adverse Events seen with SP and AQ:

Those SAEs likely to be associated with SP include:

- **Severe allergic reaction (Anaphylactic shock)**
- **Severe generalized rash or blistering of the skin (Steven–Johnson syndrome)**

Those SAEs likely to be associated with AQ include:

- **Severe low white blood cells (Agranulocytosis)**
- **Movement disorders (Extrapyramidal syndrome)**
- **Yellowing of the eyes (Hepatotoxicity, jaundice, liver failure)**
- **Severe weakness prostration or pale skin (Aplastic anaemia)**

It should be noted that these rare serious adverse events associated with AQ were seen in people who took AQ weekly for prophylactic use. Such events have not been reported with use of AQ as part of SMC.

[6] Ibid.

5.4 Prevention and Management of SAEs

Guidelines for CHWs

SMC drugs should **NEVER** be given to children who:

- Are allergic to sulfa medication such as cotrimoxazole (Septrin, or Bactrim).
- Are allergic to either SP or AQ.
- Have had a confirmed Adverse Drug Reaction to SMC drugs at any time.

1. Always ask the caregiver the following questions at the beginning of the first cycle:
   - *Does the child have any allergies?*
   - *Has the child ever taken SMC medicines before?*
   - *Has the child ever had a drug reaction to amodiaquine (AQ) or SP, such as a severe rash, swelling or difficulty breathing?*
   - *Does the child have any allergies to drugs such as sulfa or cotrimoxazole, (Bactrim or Septrin)?*
2. Do NOT give SMC drugs to children who answer yes to any of the questions.
3. If the child has an allergy to SP, AQ or sulfa drugs such as cotrimoxazole or Bactrim, write in the *SMC Register* in red "Allergy NEVER give SMC drugs."
4. When caregivers return for the next cycle, it is important to always ask whether the child had any problems after the last cycle of SP and AQ.
   - *Did the child have any problems or become sick after the last course of SP and AQ?*
5. If the caregiver mentions the child had **vomiting, diarrhoea, abdominal pain, weakness or rash;** ask:
   - *How long did the symptoms last?*
   - *Did the child go to the health facility?*
   - *Did the child receive treatment?*
6. **Refer** all children with possible side effects to the health facility to be evaluated:
   - **Skin rash or itching for more than 2 days.**
   - **Severe vomiting (3 or more times per day) for more than 2 days**
   - **Diarrhoea (3 or more watery stools per day) for more than 2 days**
   - **Weakness for more than 2 days**
   - **No appetite for more than 2 days**
   - **Any difficulties running or playing**

- **Yellowing of the eyes**

7. Complete the *SMC Referral Form* and give it to the caregiver with instructions as to why it is important to go to the health facility.

Minimizing side-effects during SMC delivery

- Exclude sick children from taking SMC drugs.
- Train CHWs and community members to advise mothers that SMC is preventive, not curative.
- All sick children must be referred to the health facility.
- Ask about any allergies especially to sulfa drugs.
- Ask if child has taken any drugs containing, SP, sulfa or amodiaquine in the last month.
- Advise not to use these drugs for treatment during SMC administration
- Train health personnel, community health workers and caregivers to be aware of side effects and report adverse events.
- Always crush SP and AQ tablets completely to a powder and mix well with a little clean water and sugar. Avoid giving any large and undissolved pieces of tablets to prevent chocking.
- Give the entire mixture of medicine slowly.

Core SMC Module 6: Reporting and Follow-Up during Each Cycle

6.1 Drug Accountability and Reconciliation Process

At the beginning of each day of the distribution period, CHWs will go to the heath facility to collect the drug packets to administer that day. It is important that the CHW carefully count the packets with the HFW to ensure the number are correct.

CHWs will use the bottom portion of the SMC *Tally Sheet* for drug accountability and reconciliation to record the number of packets and loose tablets they receive.

At the end of each day of the distribution period, CHWs will count the number of packets administered to each age group using the *SMC Tally Sheet* and will calculate remaining balance.

Because a few children will need to be re-dosed with SP and AQ after vomiting, a certain number of drug packets will need to be broken and additional tablets of AQ will remain. The CHW Team Lead will keep a small quantity of loose AQ tablets during the distribution period, and up to 3 days after the last day of the distribution period, to have available if the child vomits the Day 2 or Day 3 dose of AQ.

Returning drug packets to the health facility at the end of each day

1. The CHW Team Lead will bring all the remaining drug packets along with the *completed SMC Tally Sheet* to the health facility and the end of each distribution day.
2. Health Facility In-Charge will inspect all the returned complete and broken packets to ensure they are not damaged.
3. The CHW Team Lead and Health Facility In-Charge will count the number of packets remaining (complete and incomplete) and sign the bottom of the *SMC Tally Sheet*.

Instructions for completing the Drug Accountability and Reconciliation section on the SMC Tally Sheet

DRUG ACCOUNTABILITY and RECONCILIATION							
		1 Opening balance	2 Total received	3 Quantity used	4 Total wasted or lost	5 Total remaining	6 Observations
		A	B	C	D	(A+B) – (C+D)	
3 -<12 mo	Complete packets						
	SP tablets						
	AQ tablets						
>12-59 mo	Complete packets						
	SP tablets						
	AQ tablets						

1. **Under the column "Opening balance" CHWs will enter:**
   - Total number of complete drug packets for each age group (1 SP tablet plus 3 AQ tablets) which remained from the previous day.
   - Total number of SP loose tablets which remained from the previous day.
   - Total number of AQ loose tablets which remained from the previous day.
   - If it is the first day of the cycle, enter zero (0)

2. **Under the column "Total drugs received" (packets and loose tablets) CHWs will enter:**
   - Total number of complete drug packets for each age group (1 SP tablet plus 3 AQ tablets) received from the health facility.
   - Total number of SP loose tablets received from the health facility.
   - Total number of AQ loose tablets received from the health facility.

3. **Under the column "Quantity used" CHWs will enter:**
   - Total number of completed drug packets used for each age group. This includes the dose of SP and AQ administered to the child and two tablets of AQ given to the caregiver.
   - Total number of additional tables of SP and AQ administered as a second dose. This includes drug packets which needed to be broken to administer a second dose of SP and AQ.

4. **Under the column "Total tablets wasted or lost" CHWs will enter:**
    - Total number of tablets which were damaged, contaminated, spit out or broken.

5. **Under the column "Total quantity remaining" CHWs will enter:**
    - Total number of complete drug packets for each age group which are left over at the end of the day and which will be returned to the health facility at the end of the day.
    - Total number of SP and AQ loose tablets returned to the health facility at the end of the day.
    - Subtract the total from columns 4 and 5 from the total of columns 1 and 2.

6. **Under the column "Observations" CHWs will enter:**
    - Any comments or notes regarding the drug packets or tablets.

WORKSHEET: Completing the Drug Accountability and Reconciliation Section of the SMC Tally Sheet

Complete the drug accountability and reconciliation section of the *SMC Tally Sheet (on the next page)* using the following scenarios:

1	On the 3rd day of the cycle you had an **OPENING BALANCE** from yesterday of: • **38** complete packets of 3 to 12 age group • **4** SP tablets of the 3 to 12 age group • **18** AQ tablets of the 3 to 12 age group • **16** complete packets of 12 to 59 age group • **6** SP tablets of the 12 to 59 age group • **26** AQ tablets of the 12 to 59 age group
2	You **RECEIVE FROM THE HEALTH FACILITY**: • **50** complete packets of 3 to 12 age group • **0** SP tablets of the 3 to 12 age group • **10** AQ tablets of the 3 to 12 age group • **125** complete packets of 12 to 59 age group • **2** SP tablets of the 12 to 59 age group • **12** AQ tablets of the 12 to 59 age group
3	You **USE:** • **53** complete packets to 3 to 12 age group • **1** SP tablets of the 3 to 12 age group • **1** AQ tablets of the 3 to 12 age group • **85** complete packets to 12 to 59 age group • **4** SP tablets of the 12 to 59 age group • **4** AQ tablets of the 12 to 59 age group
4	You **WASTED or LOST**: • **5** complete packets to 3 to 12 age group • **2** SP tablets of the 3 to 12 age group • **5** AQ tablets of the 3 to 12 age group • **8** complete packets to 12 to 59 age group • **1** SP tablets of the 12 to 59 age group • **7** AQ tablets of the 12 to 59 age group

How many packets do you have remaining in each age group?

MOCK Drug Accountability and Reconciliation Section of the SMC Tally Sheet

DRUG ACCOUNTABILITY and RECONCILIATION							
		1 Opening balance	2 Total received	3 Quantity used	4 Total wasted or lost	5 Total remaining	6 Observations
		A	B	C	D	(A+B) – (C+D)	
3 -<12 mo	Complete packets						
	SP loose tablets						
	AQ loose tablets						
>12-59 mo	Complete packets						
	SP loose tablets						
	AQ loose tablets						

Core SMC Module 7: SMC Practice and Close of Training

7.1 CHW Competency Assessment

Competencies are a set of knowledge, skills, abilities, and attitudes that help define a standard level of job performance. Competencies help to:

- Define the essential functions of a role or job.
- Identify the behaviours required to be successful in a job so that CHWs know what is expected of them.
- Identify areas of strengths and those that need improvement over time.
- Observe for specific behaviours which can be used to give supportive feedback during supportive supervision.
- Drive performance improvement of all levels in a health system.

In order to ensure the safety of children receiving SMC drugs, CHWs and HFWs competencies will be assessed during SMC training and during the SMC distribution period.

Trainers and supervisors will observe the skills and performance of CHWs and HFWs using the *SMC Competency Checklist*. SMC Supervisors will use the checklist during support supervision visits to assess how well CHWs apply the skills learned during training and how much they improve after each cycle of SMC.

Since CHW responsibilities are divided among a team, competencies will be evaluated only for the individual skills each CHW is responsible for.

Instructions for completing the CHW Competency Checklist for SMC

1. Complete all the information on the top of the first page.
2. Write the names of all of the CHW team members on the last page.
3. Observe the CHW team performing the competency skills; either during training or during administration of SMC in the community.
4. If the CHW Team does not have the opportunity to perform the skill, you can ask the CHWs to show you the skill.
5. Put a tick mark in the coloured box for skill level the CHW Team achieved:

   Green = Very Good: CHW can do the skill very well.

   Yellow = OK: CHW can do the skill satisfactorily.

   Orange = NOT Good: CHW is not able to do the skill well and needs further mentoring.

6. Write comments in the comment section as needed.
7. Give praise for tasks that were completed well and encourage the CHW Team to continue them.
8. Give feedback for tasks that were not performed well and provide coaching and additional training as needed.
9. Explain that the CHW Supervisor will be observing the CHW again during the each cycle of SMC and will expect them to perform the task correctly.
10. Provide encouragement and thank the CHW for volunteering to deliver SMC drugs in the community.
11. Sign and date the form and ask each CHW to sign and date.

CHW Competency Checklist for SMC

CHW Name	**1**	**2**	
Region & District:		**Village:**	
Supervisor name		**Date:**	

SKILL	Very Good	OK	NOT Good	Comments
1. CHW is prepared and has all the required materials to deliver SMC: o Sufficient drug packets of SP and AQ for both age groups o *SMC Register* and *SMC Tally Sheet* o *SMC Referral Forms* o *SMC Record Cards* o *SMC Job Aid* o Cups, spoons, sugar, and pen				
2. CHW gives the caregiver information about SMC.				
3. CHW uses the *SMC Job Aid* to explain to the caregiver that SMC is administered on 4 monthly occasions during the rainy season.				
4. CHW obtains the child's name and age.				
5. CHW asks the caregiver if the child has ever taken SMC medicines before.				
6. CHW asks the caregiver if the child has ever had a drug reaction to amodiaquine (AQ) or SP, such as a severe rash, swelling or difficulty breathing.				
7. CHW asks the caregiver if the child has any allergies to drugs such as sulfa or cotrimoxazole, (Bactrim or Septrin).				
8. On the 2nd 3rd and 4th cycles, the CHW asks the caregiver if the child became sick after the last course of SP and AQ.				
9. CHW does NOT give SP and AQ to children: o Who are younger than 3 months o Who are older than 5 years o Who have had a side effect reaction to sulfa medicines, or SP, or AQ? o Who became sick after the last course of SP and AQ o Who have fever o Who are sick				

SKILL	Very Good	OK	NOT Good	Comments
○ Who have taken a dose of SP or AQ in the past month (28 days) ○ Who are currently taking cotrimoxazole or Septrin or Bactrim				
10. CHW refers all sick children and children with fever to the nearest health facility and completes the *SMC Referral Form* correctly.				
11. CHW records information correctly in the *SMC Register* and *SMC Tally Sheet*.				
12. CHW gives the *SMC Record Card* to caregivers of children who are not eligible for SP and AQ this cycle and explains when to return the next cycle.				
13. CHW gives the right dose of SP and AQ to the child based on the child's age.				
14. CHW keeps the child under observation for 30 minutes after SMC medicine administration.				
15. CHW gives the child another dose of SP and AQ if the child vomits within 30 minutes.				
16. CHW shows the caregiver how to crush AQ tablets and mix with water and sugar, and how to observe the child for 30 minutes.				
17. CHW uses the *SMC Job Aid* to explain to caregiver about potential side effects and to go to the health facility if the child becomes sick after taking SP and AQ.				
18. CHW gives the second and third dose of AQ to the caregiver to take home and explains how to administer the second and third doses of AQ at home and to be adherent.				
19. CHW fills in the *SMC Record Card* correctly and gives it to the caregiver with instructions for how to tick for doses of AQ given at home and to return next month with the *SMC Record Card*.				
20. CHW tells the caregiver to seek treatment at the health facility if the child is sick or has a fever.				
21. CHW rinses spoons and cups used for SMC medicine administration.				

ROLE PLAY: SMC Practice Scenarios

Instructions:

- Form groups of three people.
- Each person will take a turn being the "community health worker" the "caregiver" and the "observer."
- There is a different role play scenario for each role play.
- As the "community health worker" use the SMC skills you have learned in training to determine if the child is eligible for SMC. Demonstrate how to administer SP and AQ and record it on the *SMC Register* and *SMC Tally Sheet*.
- As the "observer," use the "CHW Competency Checklist for SMC" to observe the SMC skills of the "community health worker."
- At the end of each role play, the "observer" will provide feedback to the CHW. Limit feedback time to 2 minutes.
- Switch roles and repeat until everyone has had a turn playing all three roles.

For each scenario:

1. Use the *SMC Job Aid* to determine whether the child is eligible to participate in SMC.
2. Complete the Mock *SMC Register* and *SMC Tally Sheet* for each child.
3. If the child needs to be referred, complete the Referral Form.
4. If the child is eligible, select the correct dose of SP and AQ to administer and pretend to mix and give to the child.
5. Use the *SMC Job Aid* to give the caregiver advice about taking AQ at home and when to go to the health facility.

Child Scenario 1:

- Cycle 1
- Boy. 3 years and 7 months old
- Healthy, (not sick, no fever, does not have HIV)
- No allergies to SP or AQ
- Has not taken any medicines in the past month
- Has not participated in SMC before
- Tolerates SP and AQ well and does not vomit

Child Scenario 2:

- Cycle 2
- Girl. 11 months old
- Healthy, (not sick, no fever, does not have HIV)
- No allergies to SP or AQ
- Has not taken any medicines in the past month
- Has not participated in SMC before
- Vomits the first dose of SP and AQ within 30 minutes

Child Scenario 3:

- Cycle 3
- Boy. 3 years old
- Caregiver says the child has had a fever and diarrhoea for 2 days
- No allergies to SP or AQ
- Has not taken any medicines in the past month
- RDT test is negative
- Tolerates SP and AQ well and does not vomit

Role Play Debrief

After you have finished all three role plays, share with each other the answers to the following questions about this experience:

1. ***What did you learn from this practice?***
2. ***What did you do well?***
3. ***What can you improve upon?***

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MOCK SMC Register

Date:	_ _ / _ _ / _ _ _ _	Register N°	_____/____	Cycle 1 Dates:	Cycle 2 Dates:	Cycle 3 Dates:	Cycle 4 Dates:
Region:		District:		Village:		Health Facility:	
Names of CHWs:	1			2			

1	2	3	4	5	6		7	8															
Child No.	House No.	Name of head of household	Name of child's caregiver	Name of child	Age		Gender M=male F=female	A = Administered S = Sick and Referred R = Refused E = Excluded for another reason															
								Cycle 1				Cycle 2				Cycle 3				Cycle 4			
					Yr.	Mo	M F	A	S	R	E	A	S	R	E	A	S	R	E	A	S	R	E
0001							M F																
0002							M F																
0003							M F																
0004							M F																
0005							M F																
0006							M F																

ACCESS SMC

MOCK SMC Tally Sheet

SEASONAL MALARIA CHEMOPREVENTION CAMPAIGN TALLY SHEET

Tally Sheet N°: ..... **Region:** **District:**

Health Facility: ..... **Village:** .....

CHW name: [1] [2]

SMC CYCLE: ☐ Cycle 1 ☐ Cycle 2 ☐ Cycle 3 ☐ Cycle 4 ☐ D1 ☐ D2 ☐ D3 ☐ D4 ☐ D5

	Number of children who received SP and AQ: *Fill 1 circle per child*		Number of children NOT eligible for SMC: *Fill 1 circle for each child present at distribution point but did not receive SP and AQ*		Number of children given a second dose of SP and AQ: *Fill 1 circle for each child given an additional dose of SP and AQ*	
	3 to <12 mos	12 to 59 mos	3 to <12 mos	12 to 59 mos	3 to <12 mos	12 to 59 mos
5	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
10	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
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30	○○○○○	○○○○○ ○○○○○	○○○○○	○○○○○	○○○○○	○○○○○
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	Total =	Total =	Total =	Total =	Total =	Total =

DRUG PACKETS ADMINISTERED

Number of children who received SP+AQ:	3 to <12 mos:		12 to 59 mos:	
Number of children NOT eligible:	3 to <12 mos:		12 to 59 mos:	
Number of children requiring 2nd dose of SP+AQ:	3 to <12 mos:		12 to 59 mos:	
Total number of children seen:				

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MOCK SMC Referral Form

To be completed by CHWs:

Name of Child:			**Age:**	**Gender: M F**
Register Number:			**Child Number:**	
Region and District:			**Village:**	
Date of referral: _ _ / _ _ / _ _ _ _			**Name of HF referred to:**	
Reason for referral:	☐ Sick	☐ Fever	☐ Side effect previous cycle	☐ Side effect after SMC drugs today

Name of CHW:_____ **Signature:**_____

To be completed by Health Facility Worker:

Date child was evaluated: _ _ / _ _ / _ _ _ _	**Name of health facility:**

Sick child:

1. Child was evaluated to determine cause of illness: ☐ YES ☐ NO
2. Diagnosis: _____
3. Child was treated: ☐ YES ☐ NO
4. Name and dose of treatment: _____
5. Child admitted to health facility or referred to hospital for severe illness: ☐ YES ☐ NO

Child with fever:

6. Child was tested for malaria: ☐ YES ☐ NO
7. RDT result: ☐ Positive ☐ Negative
8. Child admitted to health facility or referred to hospital for severe malaria: ☐ YES ☐ NO
9. Child with confirmed positive malaria test was treated with ACT: ☐ YES ☐ NO
10. Name and dose of ACT: _____
11. Child with negative RDT was given SP and AQ this cycle: ☐ YES ☐ NO

Child with AE or SAE:

12. Child was evaluated for possible adverse drug reaction to SP and AQ: ☐ YES ☐ NO
13. National PV Form was completed: ☐ YES ☐ NO
14. Child admitted to health facility or referred to hospital for SAE: ☐ YES ☐ NO

Outcome:

Name of in-charge: _____ **Signature:** _____ **Date:** _____

7.2 Core SMC Training Evaluation Form

Training location:
Date:
Trainer Name(s):

Please answer all questions as completely as possible. Your feedback is vital to help us improve the training. Circle the number which corresponds with your level of agreement to each statement.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. I can describe the purpose and activities of SMC.	**5**	**4**	**3**	**2**	**1**
2. I know what my responsibilities are for SMC.	**5**	**4**	**3**	**2**	**1**
3. I understand what SMC is and can explain it to others.	**5**	**4**	**3**	**2**	**1**
4. I can list which children are not eligible for SMC.	**5**	**4**	**3**	**2**	**1**
5. I feel confident I can deliver SMC safely to eligible children under 5 in my community.	**5**	**4**	**3**	**2**	**1**
6. I know how to requisition SMC drugs at the beginning of each cycle.	**5**	**4**	**3**	**2**	**1**
7. I know how to manage the accountability and reconciliation of SMC drugs during each day of the distribution period.	**5**	**4**	**3**	**2**	**1**
8. I which questions to ask the caregiver at the beginning of each cycle.	**5**	**4**	**3**	**2**	**1**
9. I feel confident I can complete all of the *SMC Register* correctly.	**5**	**4**	**3**	**2**	**1**
10. I feel confident I can complete all of the *SMC Tally Sheet* correctly.	**5**	**4**	**3**	**2**	**1**
11. I feel confident I can complete the *SMC Referral Form* correctly.	**5**	**4**	**3**	**2**	**1**
12. I know how to use the *SMC Job Aid* with caregivers.	**5**	**4**	**3**	**2**	**1**
13. I know which children should be referred to the health facility.	**5**	**4**	**3**	**2**	**1**
14. The *Resource Manual* was well designed and easy to understand.	**5**	**4**	**3**	**2**	**1**
15. The *SMC Job Aid* was easy to follow.	**5**	**4**	**3**	**2**	**1**
16. The Trainer(s) was knowledgeable about the training	**5**	**4**	**3**	**2**	**1**

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
content.					
17. The Trainer(s) kept me attentive and involved.	5	4	3	2	1
18. There was enough time to accomplish all of the training activities.	5	4	3	2	1
19. The Trainer(s) was organized and well prepared.	5	4	3	2	1
20. The training room was comfortable with enough space to practice training activities.	5	4	3	2	1

21. What did you <u>like best</u> about this Training?

22. What did you <u>like least</u> about this Training?

23. What was <u>easy</u> for you to learn?

24. What did you find <u>difficult to learn</u> in this Training?

25. How could this TOT be <u>improved</u>?

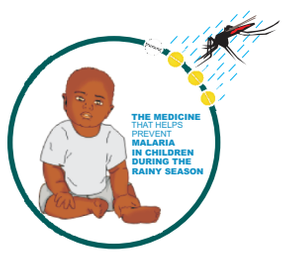
26. Do you have any other comments about the Training?

SMC Job Aid

1. GREET:

2. INFORM:

- SMC medicines protect children against malaria by reducing the risk for malaria attacks during the rainy season.
- These medicines are preventive: They help healthy children aged 3 months to 5 years old from getting sick with malaria.
- They are not for treating children who are sick with malaria.



3. SET-UP:

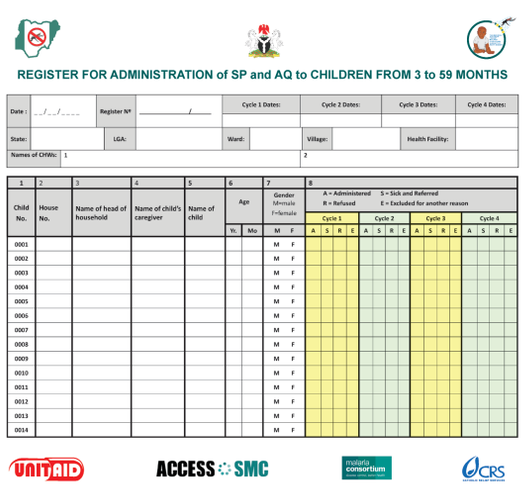
- Ask for a place to sit.
- Ask to bring water for the children.
- Assemble children ages 3-59 months.
- Complete the information at the top of the SMC Register and SMC Tally Sheet.

4. ASK and write in the SMC Register:

- Name of the child: _____
- Is the child a Boy or a Girl?

☐ BOY

☐ GIL



- How old is the child?

☐ 3 to < 12 months

☐ 12 to 59 months

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5. ASK questions to determine if the child can take the SMC medicines:

- Does the child have any allergies?
- Has the child ever had a drug reaction to amodiaquine (AQ)?
- Has the child ever had a drug reaction to SP or medicines containing sulfa such as cotrimoxazole (Bactrim or Septrin) such as rash, swelling or difficulty breathing?

☐ NO

☐ YES

If allergy, NEVER give SP and AQ.
Do NOT give Record Card

STOP HERE

- Did the child become sick after the last course of SP and AQ?

☐ NO

☐ YES

NO SMC medicines today.
Give Record Card
and Referral Form

STOP HERE

- Is the child sick? Does the child have a fever?
- Has the child taken any medicines in the last 28 days (4 weeks)?
- Does this medicine contain either: AQ, or sulfa such as SP or cotrimoxazole (Bactrim or Septrin)?

☐ NO

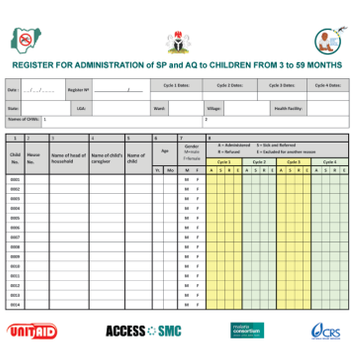
Select SMC medicines pack for the child's age

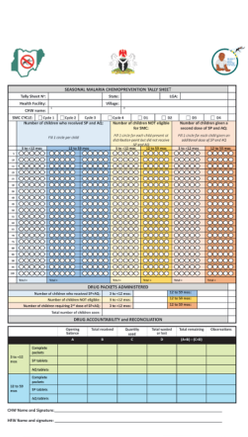
☐ YES

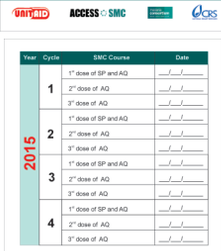
NO SMC medicines today.
Give Record Card

6. FILL IN the SMC Register, SMC Tally Sheet and SMC Record Card:

- Explain to the child's caregiver to keep the card and bring it for next SMC medicine distribution.

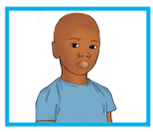






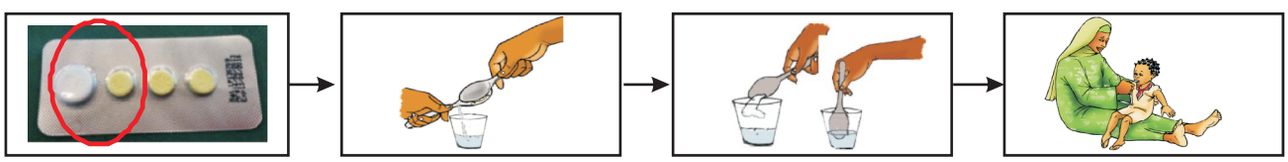
7. CHOOSE:

☐ 3 to < 12 months



☐ 12 to 59 months

8. ADMINISTER 1 tablet of SP and 1 tablet of AQ:



Take the first 2 pills | Crush the tablets to a powder | Mix with clean water & sugar | Administer slowly with a spoon

- Complete all the information on the SMC Record Card and give it to child's caregiver.

9. WAIT 30 minutes:

- Ask the child's caregiver to make the child sit quietly for 30 minutes.
- If the child vomits, give another tablet of SP and AQ.

10. EXPLAIN to the Caregiver:

- Give 1 tablet tomorrow morning and 1 tablet after tomorrow.
- Crush, mix and give medicine slowly after breakfast.
- If child vomits day 2 medicine within 30 minutes, give Day 3 medicine and then go to the RMC to get a replacement dose.
- Mark the SMC Record Card each time you give a SMC tablet to the child.
- Do not share medicines with other children. Each child who is given the medicines today has to finish the course to be protected for 28 days.
- Bring the child back in 28 days for the next cycle of SMC and bring the SMC Record Card.

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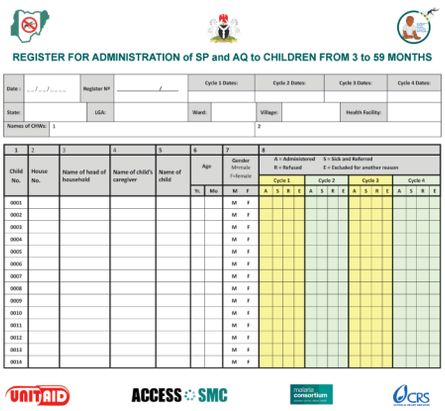
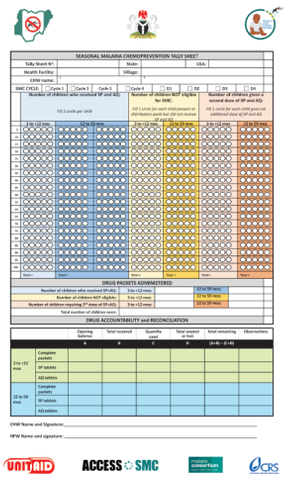
11. COMPLETE the remaining information on the SMC Register and SMC Tally Sheet:


REGISTER FOR ADMINISTRATION of SP and AQ to CHILDREN FROM 3 to 59 MONTHS


SEASONAL MALARIA CHEMOPREVENTION TALLY SHEET

12. ADVISE to the Caregiver:

- If the child gets very sick after taking SP and AQ, take the child to the health facility.
- If the child has vomiting stomach pain or a rash that does not go away after 2 days, take the child to the health facility.

If child si sick or has fever → Visit the RMCG → Go to the nearest health facility for a test

Not all fevers are malaria

- Do NOT take the child to a chemist or private practitioner.
- If the child gets sick with fever at any time, do NOT give any anti-malaria medicine yourself, please go only to the health facility for a malaria test.
- Only accept medicines for malaria with green leaf or good medicines from the health facility. Do not to give traditional medicines as they may interfere with the SMC medicine.
- A child taking SMC medicine scan still get malaria if not sleeping under a net every night.
- Parents should ensure that all children sleep under LLIN, every night, to avoid being bitten by mosquitoes that carry malaria.

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