PMI | U.S. PRESIDENT'S MALARIA INITIATIVE

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This FY 2021 Malaria Operational Plan has been approved by the U.S. Global Malaria Coordinator and reflects collaborative discussions with national malaria control programs and other partners. Funding available to support outlined plans is pending final FY 2021 appropriation. Any updates will be reflected in revised postings.

U.S. PRESIDENT'S MALARIA INITIATIVE

Burkina Faso

Malaria Operational Plan FY 2021

The U.S. President's Malaria Initiative (PMI)—led by the U.S. Agency for International Development (USAID) and implemented together with the U.S. Centers for Disease Control and Prevention (CDC)—delivers cost-effective, lifesaving malaria interventions alongside catalytic technical and operational assistance to support Burkina Faso to end malaria. PMI has been a proud partner of Burkina Faso since 2017, helping to decrease child death rates through investments totaling nearly $75 million.

The proposed PMI fiscal year (FY) 2021 planning budget for Burkina Faso is $24 million. This Malaria Operational Plan (MOP) summary outlines planned PMI activities in Burkina Faso for FY 2021. See accompanying **FY 2021 Budget Tables** (Tables 1 and 2) for activities and budget amounts, available on pmi.gov. Developed in consultation with the *Programme National de Lutte Contre le Paludisme* (PNLP) and key stakeholders, proposed activities reflect national and PMI strategies, draw on best-available data, and align with the country context and health system. Proposed PMI investments support and build on those made by the Government of Burkina Faso as well as other donors and partners. See **Annex A: Gap Analysis Tables** for information on commodities.

To accelerate the journey to self-reliance, PMI developed a programmatic inventory to assess the strengths and persistent challenges of Burkina Faso program. See **MOP FY 2020 Burkina Faso, Annex B: Program Inventory.** The activities proposed in this MOP are tailored to draw on strengths and foster improvements.

Since the FY 2020 MOP was developed, the following new data, updated policy and/or strategic priorities relevant for the FY 2021 MOP have become available:

- A draft malaria national strategic plan, covering calendar years 2021-2025 has been developed and served as the basis for prioritizing activities outlined in this MOP.

- PMI, in consultation with the PNLP and other development partners, plan to focus some key activities in three health regions: Centre Est, Centre Ouest, and Sud Ouest (19 districts). PMI support will cover seasonal malaria chemoprevention, service delivery interventions, community health, and health systems strengthening in these regions, while still supporting other activities through nationwide support.

For more information about the malaria situation, malaria control progress, and intervention-specific data in Burkina Faso, please refer to the FY 2020 MOPs available on pmi.gov.

Annex A. Gap Analysis Tables

Insecticide-treated Mosquito Net (ITN) Gap Analysis			
Calendar Year	**2020**	**2021**	**2022**
Total population [1]	21,478,529	22,144,363	22,830,838
Total targeted population [2] for mass campaign 2022	0	0	28,892,733
Continuous Distribution Needs			
Channel #1: ANC ITNs [3]	931,838	932,956	934,076
Channel #2: EPI ITNs [4]	861,615	872,041	882,592
Estimated total consumption	1,793,453	1,804,997	1,816,668
Estimated total need for continuous channels (including 3 months buffer stock) [4]	1,793,453	2,256,246	2,270,835
Mass Campaign Distribution Needs			
2022 mass distribution campaign(s)	0	0	16,051,518
Estimated total need for campaigns	0	0	16,051,518
Total ITN Need: Routine and Campaign	**1,793,453**	**2,256,246**	**18,322,353**
Partner Contributions			
ITNs carried over from previous year	858,182	851,083	940,687
ITNs from MOH	0	0	0
ITNs from Global Fund	1,786,354	1,780,950	17,604,940
ITNs from other donors	0	0	0
ITNs planned with PMI funding[5]	0	564,900	1,210,600
Total ITNs Available	**2,644,536**	**3,196,933**	**19,756,227**
Total ITN Surplus (Gap)	**851,083**	**940,687**	**1,433,874**

[1] *Total Targeted Population:* Demographic Projections - INSD (Institut National de la Statistique et de la Démographie) 2011-2020 and 2021-2022, with population growth rate of 3.1%.

[2] *Total Targeted Population for 2022 mass campaign:* For 2016 mass campaign, the total population from the household census was 23,522,250 with 23.58% increase compared to the projected population (19,034,397). In 2019 mass campaign, the percentage increase recorded from the household census compared to the projected population was 29.23%. This situation has impacted the previous mass campaigns with shortage of ITNs and adjustment of the quantities required by household in order to cover all the households registered. To avoid this situation for the planned 2022 mass campaign, the quantification committee including PSM, together with the RBM consultant, have decided to consider the various percentage increases recorded during the last two mass campaigns and use the average percentage increase (26.55%) for the projection of the 2022 mass campaign population target. So, the 2022 population target is estimated by applying the average percentage increase (26.55%) to the demographic projection for 2022 (22,830,838).

[3] *ANC ITNs:* The forecast of ITNs for pregnant women attending ANC is based on the number of women received at the health facilities for ANC1 from HMIS database. From years 2017 to 2018 and from 2018 to 2019, the percentage increase in number of women attended ANC1 were - 0.203% and 0.45%, respectively. For 2020 and 2022 the quantification committee members agreed to use the average increase of 0.12% from 2017 to 2018 and from 2018 to 2019. Three types of ITNs (standard, PBO and IG2) are distributed in the routine channels according to the zones. The proportions of the three ITNs are similar to the ITNs distributed through EPI with 4.8% in standard; 11.2% in PBO; and 14.0% in IG2.

[4] *EPI ITNs:* The forecast of ITNs for children under one year of age is based on the number of live births at the health facilities (from HMIS reports). The percentage increase in number of live births at the health facilities from years 2017 to 2018 and from 2018 to 2019 (estimated), were 1.21% and 6.94%, respectively, with an average increase of 4.82%. But, the quantification committee members agreed to maintain percentage increase between 2017 and 2018, which is 1.21%, for the projection for 2020 and 2022 because the high increase in 2019 data could be caused by the 2019 mass campaign. Since 3 types of ITNs are distributed through EPI channels for children one year of age from 2019, the projection of the ITNs for 2020 and 2022 has also considered the 3 types of ITNs: 74.8% of total ITNs distributed through EPI in 2019 are standard ITN; 11.2% in PBO; and 14.0% in IG2. These proportions for the 3 types of ITNs will be maintained from 2020 to 2022.

[5] ITN quantities include additional ITN procurement using existing pipeline.

[6] Since the ITN is bulky, the quantification committee decided to consider only 3 months buffer stock for 2021 and 2022 for total ITN needs in routine distribution.

Sulfadoxine-Pyrimethamine (SP) Gap Analysis			
Calendar Year	**2020**	**2021**	**2022**
Total population at risk [1]	21,478,529	22,144,363	22,830,838
SP Needs			
Total number of pregnant women [2]	931,838	932,956	934,076
Number of doses per pregnant woman [3]	4	4	4
Total SP Need (in treatments) (including 6 months buffer stock) [4]	**3,727,352**	**5,597,737**	**5,604,455**
Partner Contributions			
SP carried over from previous years	3,989,273	4,131,621	2,392,592
SP from Government	3,869,700	3,858,708	5,228,585
Total SP Available	**7,858,973**	**7,990,329**	**7,621,177**
Total SP Surplus (Gap)	**4,131,621**	**2,392,592**	**2,016,722**

[1] *Total Population at Risk:* Demographic Projections - INSD (lnstitut National de la Statistique et de la Démographie) 2011-2020 and 2021-2022 with population growth rate of 3.1%.
[2] *Total number of pregnant women:* The forecast is based on number of women received at the health facilities for ANC1 because the number of pregnant women attending ANC2 to ANC4 is very low (HMIS reports). From 2017 to 2018 and from 2018 to 2019 (estimated), the percentage increase in number of women attended ANC1 are -0.203% and 0.45%, respectively. For 2020 and 2022, the quantification committee members agreed to use the average increase between 2017-2018 and 2018-2019 (estimated) which is 0.12%.
[3] *Number of doses per pregnant woman:* Each pregnant woman will receive 4 doses, according to the NMCP guidelines for malaria prevention and case management. For the forecast of SP doses, the quantification committee decided to consider all the women attending ANC1 eligible to receive 4 doses of SP during their pregnancy. However, the pregnant women will each receive SP doses in their first and subsequent ANC visits accordingly.
[4] *Total SP Need (in treatments)* is the annual estimated consumption plus 6 months buffer stock for 2021 and 2022.

Seasonal Malaria Chemoprevention (SMC) Gap Analysis			
Calendar Year	**2020**	**2021**	**2022**
SMC drug (SP+AQ) Needs			
PMI-targeted population for SMC (3 months - 9 years) [1]	3,836,434	3,958,529	4,081,243
Population targeted for SMC (3-11 months)	644,455	664,433	685,030
Population targeted for SMC (12-59 months)	3,191,979	3,294,096	3,396,213
Total SP+AQ Needs (3-11 months) including 15% buffer stock [2]	**3,097,603**	**3,174,350**	**3,272,755**
Total SP+AQ Needs (12-59 months) including 15% buffer stock [3]	**16,028,566**	**16,235,855**	**16,739,166**
Total SP+AQ Needs (3-59 months) including 15% buffer stock	**19,126,169**	**19,410,204**	**20,011,921**
Partner Contributions (to PMI target population if not entire area at risk)			
SP+AQ carried over from previous year	2,305,307	0	0
SP+AQ from Global Fund*	2,757,306	9,039,931	9,320,169
SP+AQ from Malaria Consortium**	6,738,000	23,078,361	23,793,788
SP+AQ planned with PMI funding	2,460,000	4,126,216	4,254,129
Total SP+AQ Available	**14,260,613**	**36,244,508**	**37,368,086**
Total SP+AQ Surplus (Gap)	**-4,865,556**	**16,834,304**	**17,356,165**

[1] *Population targeted for SMC (3 months-9 years):* Number of children 3 months - 9 years living in the SMC-targeted districts (Demographic Projections - Institut National de la Statistique et de la Démographie 2011-2020). Population growth rate is 3.1%. All 70 districts are covered by SMC. For the districts in Centre region and the following districts (Do and Dafra), the 2019 household census data for mass campaign were considered because of non-estimated population in those districts.

[2] *Total SP+AQ Needs for SMC (3-11 months):* Burkina Faso decided on the basis of the stratification of malaria data to extend the SMC to children from 5 to 9 years old in areas with a high incidence of malaria from 2021 with 3, 4, or 5 cycles depending on the areas. Average target increase between cycles 1-2, 2-3, 3-4, and 4-5 according to malaria incidence areas is 3% which was used to forecast the number of SP+AQ treatments needed for the second, third, fourth, and fifth cycles from 2021, assuming that this trend will continue in 2022. 15% of buffer stock was used to mitigate any losses.

[3] *Total SP+AQ Needs for SMC (12-59 months):* Burkina Faso decided on the basis of the stratification of malaria data to extend the SMC to children from 5 to 9 years old in zones with a high incidence of malaria from year 2021 with 3, 4, or 5 cycles depending on the areas. For these targets, 5% average increase was considered between cycles 1-2, 2-3, 3-4, and 4-5, to take into account children who would have more than 59 months but remain in the target (new entries at each round and no exit before the end of the campaign). This adjusted average percentage increase was used to project the number of SP+AQ treatments needed for the second, third, fourth, and fifth cycles according to the areas with malaria incidence from year 2021, with the assumption that this trend will continue in 2022. 15% of buffer stock was used to compensate for losses.

Note: Total SP+AQ Needs for SMC (5-9 years): Burkina Faso decided on the basis of the stratification of malaria data to extend the SMC to children from 5 to 9 years old in areas with a high incidence of malaria from 2021 with 3, 4, or 5 cycles depending on the areas. For this target, 5% average target increase between cycles 1-2, 2-3, 3-4, and 4-5, is considered to take into account children who would have more than 9 years but remain in the target (new entries at each round and no exit before the end of the campaign). This adjusted average percentage increase was used to forecast the number of SP+AQ treatments needed for the second, third, fourth, and fifth cycles according to malaria incidence areas from 2021, with the assumption that this trend will continue in 2022. 15% of buffer stock was used to compensate for losses. Due to the fact that there is no SP+AQ presentation for the age group 5-9 years, this group will use a combination of 2-11 months and 12-59 months blister pack for their treatment.

Rapid Diagnostic Test (RDT) Gap Analysis			
Calendar Year	**2020**	**2021**	**2022**
RDT Needs			
Total country population	21,478,529	22,144,363	22,830,839
Population at risk for malaria [1]	21,478,529	22,144,363	22,830,839
PMI-targeted at-risk population	21,478,529	22,144,363	22,830,839
Total number of projected fever cases [2]	19,227,317	20,257,902	21,141,146
Percent of fever cases tested with an RDT [3]	100%	100%	100%
Total RDT Needs [4] (including 6 months buffer stock from 2021)	**19,227,317**	**30,386,852**	**31,711,719**
Partner Contributions (to PMI target population if not entire area at risk)*			
RDTs carried over from previous year	2,973,019	6,330,702	0
RDTs from Government	0	2,228,369	2,325,526
RDTs from Global Fund	9,585,000	12,762,760	11,379,004
RDTs planned with PMI funding	13,000,000	7,000,000	7,000,000
Total RDTs Available	**25,558,019**	**28,321,831**	**20,704,530**
Total RDT Surplus (Gap)	**6,330,702**	**-2,065,022**	**-11,007,189**

[1] *Total country population and population at risk of malaria:* Demographic Projections - INSD (lnstitut National de la Statistique et de la Démographie) 2011-2020 and 2021-2022, with population growth rate of 3.1%.

[2] From 2017 to 2018 the number of fever cases recorded has increased by 6.36% and 13.94% from 2018 to 2019, with an average percentage increase of 10.15% between the 3 years. For 2020 forecast, the quantification committee used 2017-2018 percentage increase (6.36%) because the percentage increase between 2018 and 2019 was atypical. Taking into account, all the interventions (ITN mass campaign 2019, IRS, SMC based on the malaria stratification, initiative of malaria elimination in the Sahel) with improving the respect of the treatment guidelines, the quantification committee had a consensus to reduce by 1.0 point each year the percentage increase applied for 2020. (5.36% increase from 2020 to 2021 and 4.46% increase from 2021 to 2022).

[3] *Percentage of fever cases tested with an RDT:* 100% of fever cases expected at the health facilities and at the community level.

[4] *Total RDT Needs:* 6 months buffer stock is considered in 2021 and 2022 total needs.

Artemisinin-based Combination Therapy (ACT) Gap Analysis			
Calendar Year	**2020**	**2021**	**2022**
ACT Needs			
Total country population	21,478,529	22,144,363	22,830,839
Population at risk for malaria	21,478,529	22,144,363	22,830,839
PMI-targeted at-risk population [1]	21,478,529	22,144,363	22,830,839
Total projected number of malaria cases [2]	12,645,130	12,763,995	12,820,156
Total ACT Needs [3] (including 6 months buffer stock from 2021)	**12,645,130**	**19,145,992**	**19,230,234**
Partner Contributions (to PMI target population if not entire area at risk) [1]			
ACTs carried over from previous year	5,290,116	4,745,006	0
ACTs from Government	0	2,519,526	2,503,799
ACTs from Global Fund	6,100,020	4,062,378	4,015,196
ACTs from other donors	0	0	0
ACTs planned with PMI funding	6,000,000	6,000,000	6,000,000
Total ACTs Available	**17,390,136**	**17,326,910**	**12,518,995**
Total ACT Surplus (Gap)	**4,745,006**	**-1,819,081**	**-6,711,239**

[1] *Total country population and population at risk of malaria:* Demographic Projections - INSD (lnstitut National de la Statistique et de la Démographie) 2011-2020 and 2021-2022, with population growth rate of 3.1%.
[2] *Total projected number of malaria cases:* The forecast of number of malaria cases for 2020 is based on the average increase between 2017-2018 and 2018-2019 (1.44%). With the various preventive interventions and improved compliance with the treatment guidelines, the quantification committee has decided to consider a reduction of 0.50 on this average increase (1.44%) from 2021-2022.
[3] *Total ACT Needs:* Forecasted annual consumption plus 6 months of buffer stock for 2021 and 2022.
Note: *It is planned in the NMCP strategic plan a change in un-complicated malaria treatment regimen from 2022 by switching from AL to DHA-PPQ due to therapeutic efficacity issue with AL.*

Injectable Artesunate Gap Analysis			
Calendar Year	**2020**	**2021**	**2022**
Injectable Artesunate Needs			
Projected number of severe cases [1]	564,228	563,109	562,135
Projected # of severe cases among children	288,416	291,415	294,446
Projected # of severe cases pregnant women	31,056	29,385	27,804
Projected # of severe cases among adults (excluding pregnant women)	244,756	242,308	239,885
Artesunate Injectable Needs			
Children under five years (4 ampoules per case)	1,153,663	1,165,661	1,177,784
Pregnant women (12 ampoules per case)	372,674	352,624	333,653
Population over 5 years excluding pregnant women (8 ampoules per case)	1,958,046	1,938,465	1,919,081
Total Injectable Artesunate Vials Needs [2]	**3,484,382**	**3,456,750**	**3,430,517**
Total Artesunate Injectable Needs [3] (including 6 months buffer stock)	**3,484,382**	**5,185,125**	**5,145,776**
Partner Contributions			
Injectable vials carried over from previous year	382,412	1,729,241	864,187
Injectable vials from Government	0	622,214	686,102
Injectable vials from Global Fund	3,731,211	3,697,858	3,500,000
Injectable vials from other donors	0	0	0
Injectable vials planned with PMI funding [4]	1,100,000	0	1,000,000
Total Injectable Artesunate Vials Available	**5,213,623**	**6,049,312**	**6,050,289**
Total Injectable Artesunate Vials Surplus (Gap)	**1,729,241**	**864,187**	**904,514**

[1]
• *Projected number of severe cases:* Sum of the projected # of severe cases among children, pregnant women, and adults (excluding pregnant women).
• *Projected # of severe cases among children:* Based on the percentage increase of 1.04% observed between 2017-2018 applied for each year of the forecast period
• *Projected # of severe cases among pregnant women:* Based on the average percentage decrease observed between 2017-2018 and 2018-2019 for severe malaria cases among pregnant women (5.38%) applied for each year of the forecast period.
• *Projected # of severe cases among adults (excluding pregnant women):* Based on the average percentage decrease of severe malaria in adults cases between 2017-2018 and 2018-2019 (1%) applied for each year of the forecast period.
[2] *Number of ampoules for severe malaria treatment:* The number of ampouls for each group are based on National Treatment Guidelines (4 ampouls for children under five years, 12 ampouls for pregnant women, and 8 ampouls for adult [excluding pregnant women]).
[3] *Total injectable artesunate needs:* Forecasted annual consumption plus 6 months of buffer stock for 2021 and 2022.
[4] Quantities include additional injectable artesunate procurement using existing pipeline.

Artesunate Suppository Gap Analysis			
Calendar Year	**2020**	**2021**	**2022**
Artesunate Suppository Needs			
Number of severe cases expected to require pre-referral dose at community level [1]	43,262	43,712	44,167
National coverage [2]	10.24%	47.39%	47.39%
Number of severe cases targeted expected to require pre-referral at community level	4,432	20,715	20,931
Average number of artesunate 100 mg suppository for severe pre-referral malaria treatment for children under five years of age	1.50	1.50	1.50
Total Artesunate Suppository Needs [3] (including 3 months buffer stock)	**6,648**	**38,841**	**39,245**
Partner Contributions			
Artesunate suppositories carried over from previous year	0	2,652	0
Artesunate suppositories from Government	0	0	0
Artesunate suppositories from Global Fund	0	0	0
Artesunate suppositories from other donors	0	0	0
Artesunate suppositories planned with PMI funding	9,300	36,189	39,300
Total Artesunate Suppositories Available	**9,300**	**38,841**	**39,300**
Total Artesunate Suppositories Surplus (Gap)	**2,652**	**0**	**55**

[1] *Number of severe cases expected to require pre-referral dose at community level:* Based on 2017 and 2018 data, the number of severe cases expected among children under 5 years of age to require pre-referral dose at community level represents 15% of the total cases of severe malaria in children under 5 years of age. Number of severe malaria cases among children under 5 years of age is derived from 2017, 2018 reports (HMIS). Projections of number of severe malaria cases required pre-referral treatment are based on the percentage increase rate of 1.04% observed between 2017-2018 and applied to each projection year.

[2] *National coverage:* In 2019 and 2020 the pre-referral treatment is implemented in the 4 districts of Sahel region and 6 districts of North-Central region. In 2021 and 2022, the pre-referral treatment will be extended to 25 districts of another 4 regions. The total number of severe malaria cases in 2020, with pre-referral treatment will represent around 10.24% of total number of severe malaria cases requiring pre-referral treatment, and from 2021 to 2022, this number will represent 47.39% of the total number of severe malaria requiring pre-referral treatment.

[3] *Total artesunate suppository needs:* Forecasted annual consumption plus 3 months of buffer stock for 2021 and 2022 (due to pilot implementation and the product lifetime of 24 months).