The following document is an abbreviated malaria operational plan. The principles guiding development of this document—country-led, inclusive, consultative with a broad audience, and transparent —are consistent with best practices that the U.S. President's Malaria Initiative (PMI) has instituted since its inception. While an in-depth background of malaria in this country can be found in the detailed FY 2018 malaria operational plan on pmi.gov, this abbreviated document provides a high-level overview of PMI's program in this country, including key strategic updates, country data and progress updates, and a detailed list of activities to be supported with FY 2019 U.S. Government PMI funding.

This abbreviated malaria operational plan has been approved by the U.S. Global Malaria Coordinator and reflects collaborative discussions with the national malaria control programs and partners in country. The final funding available to support the plan outlined here is pending final FY 2019 appropriation. If any further changes are made to this plan it will be reflected in a revised posting.

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U.S. PRESIDENT'S MALARIA INITIATIVE

PRESIDENT'S MALARIA INITIATIVE

Democratic Republic of the Congo

Abbreviated Malaria Operational Plan FY 2019

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ABBREVIATIONS AND ACRONYMS

ACT	Artemisinin-based combination therapy
aMOP	Abbreviated Malaria Operational Plan
ANC	Antenatal care
CHW	Community health worker
DHS	Demographic and Health Survey
DRC	Democratic Republic of the Congo
EUV	End-use verification
FY	Fiscal year
Global Fund	Global Fund to Fight AIDS, Tuberculosis, and Malaria
IPTp	Intermittent preventive treatment for pregnant women
ITN	Insecticide-treated mosquito net
MICS	Multiple Indicator Cluster Survey
MOP	Malaria Operational Plan
NMCP	National Malaria Control Program
NSP	National Malaria Strategic Plan
PMI	U.S. President's Malaria Initiative
RDQA	Routine data quality assessment
RHIS	Routine health information system
SBCC	Social and behavior change communication
USAID	U.S. Agency for International Development

I. INTRODUCTION

This fiscal year (FY) 2019 abbreviated Malaria Operational Plan (aMOP) presents an implementation plan for the Democratic Republic of the Congo (DRC), based on the strategies of the U.S. President's Malaria Initiative (PMI) and the National Malaria Control Program (NMCP), building on investments made by PMI and other partners to improve and expand malaria-related services. It was developed in consultation with the NMCP and with the participation of national and international partners involved in malaria prevention and control in the country. The FY 2018 Malaria Operational Plan (MOP)[1] contains a more detailed and comprehensive description of the malaria situation in the DRC, country health system structure, Ministry of Health organization, and PMI's progress through September 2017. This aMOP describes critical changes/updates to overall NMCP and PMI strategic approaches, as well as newly proposed activities under each technical area to be supported with FY 2019 funds.

II. OVERVIEW OF PMI IN THE DRC

DRC began implementation as a PMI focus country in FY 2011. The proposed FY 2019 PMI budget for the DRC is $44 million.

This FY 2019 aMOP supports NMCP strategies and activities outlined in the current National Malaria Control Strategic Plan (NSP) 2016-2020. The 2016-2020 NSP introduced the stratification of health zones into four distinct strata based on parasite prevalence as measured by the 2013-2014 Demographic and Health Survey (DHS), which is the most recent national household survey data point. High-impact interventions are still delivered in a uniform approach across the four strata.

In late 2015, the DRC underwent territorial reform, subdividing the country's former 11 provinces into 26 new provinces. Many of the new provinces are still building and establishing their infrastructure, systems, and human resource capacity.

PMI targets its interventions and support based on negotiations and coordination with the NMCP and other principal donors, including the Global Fund to Fight AIDS, Tuberculosis, and Malaria (Global Fund) and the U.K. Department for International Development. This process was undertaken in 2016 to ensure a more rational distribution of donor support across the country, maximize reach of donor support, and eliminate overlap of donors within provinces. PMI is now supporting core malaria interventions—distribution of insecticide treated nets (ITNs), case management, intermittent preventive treatment in pregnancy (IPTp)—in nine contiguous provinces (178 health zones) located in the southeastern part of the country, out of a total 26 provinces and 516 health zones nationwide. This geographic focus brings PMI's interventions into alignment with USAID's Country Development Cooperation Strategy for DRC, which focuses on these same geographic areas. The Global Fund covers 16 provinces in the north and west, and the U.K. Department for International Development covers the province of Kasai in the center. In addition to the other major malaria donors, PMI coordinates with other U.S. Government programs to maximize impact and support the DRC's health system in a holistic way. Key areas of collaboration within the USAID/DRC Health Office include supply chain management, monitoring and evaluation, integrated community case management, and social and behavior change communication (SBCC).

[1] https://www.pmi.gov/docs/default-source/default-document-library/malaria-operational-plans/fy-2018/fy-2018-democratic-republic-of-the-congo-malaria-operational-plan.pdf?sfvrsn=5

Figure 1: Provincial Stratification Based on Malaria Parasite Prevalence, DRC-DHS 2013-14

Strata	Parasite Prevalence	Main Determinant	Provinces	Percent of Population
I.	≤5%	Mountain zone – hypo-endemic	Nord Kivu	8%
II.	6-30%	Equatorial and tropical zones – meso-endemic	Kwango, Kwilu, Sud Kivu, Mongala, Sud Ubangi, Mai Ndombe, Equateur, Tshuapa, Kongo Central, Tshopo, Haut Katanga, Haut Lomami, Kasaï, Kasaï Orientale, and Sankuru	55%
III.	> 30%	Tropical zone – hyper-endemic	Nord Ubangi, Bas Uele, Haut Uele, Ituri, Maniema, Lualaba, Kasai Central, Tanganyika, and Lomami	27%
IV.	8.1%	Urban context, with variations from city center to the periphery	Kinshasa	10%

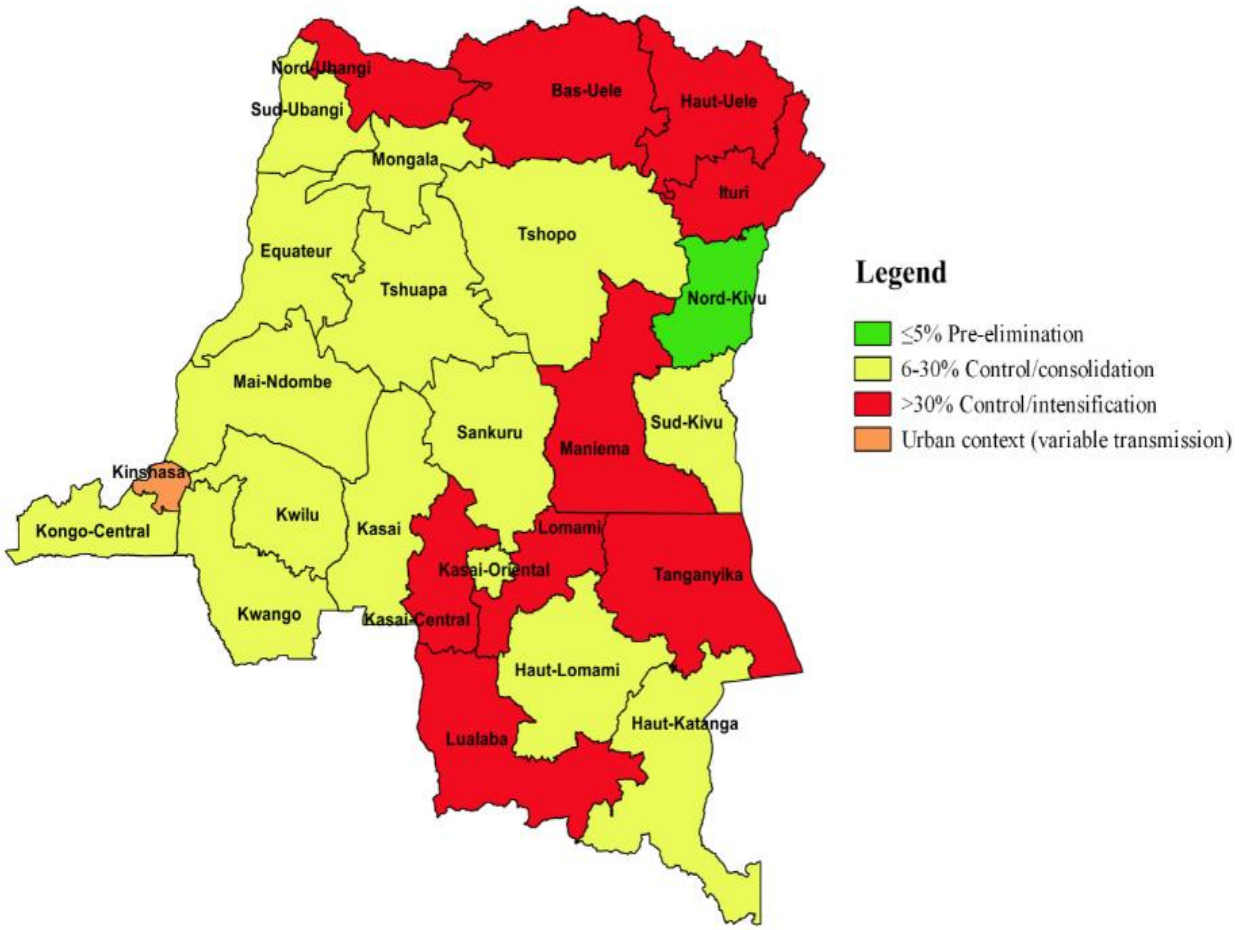
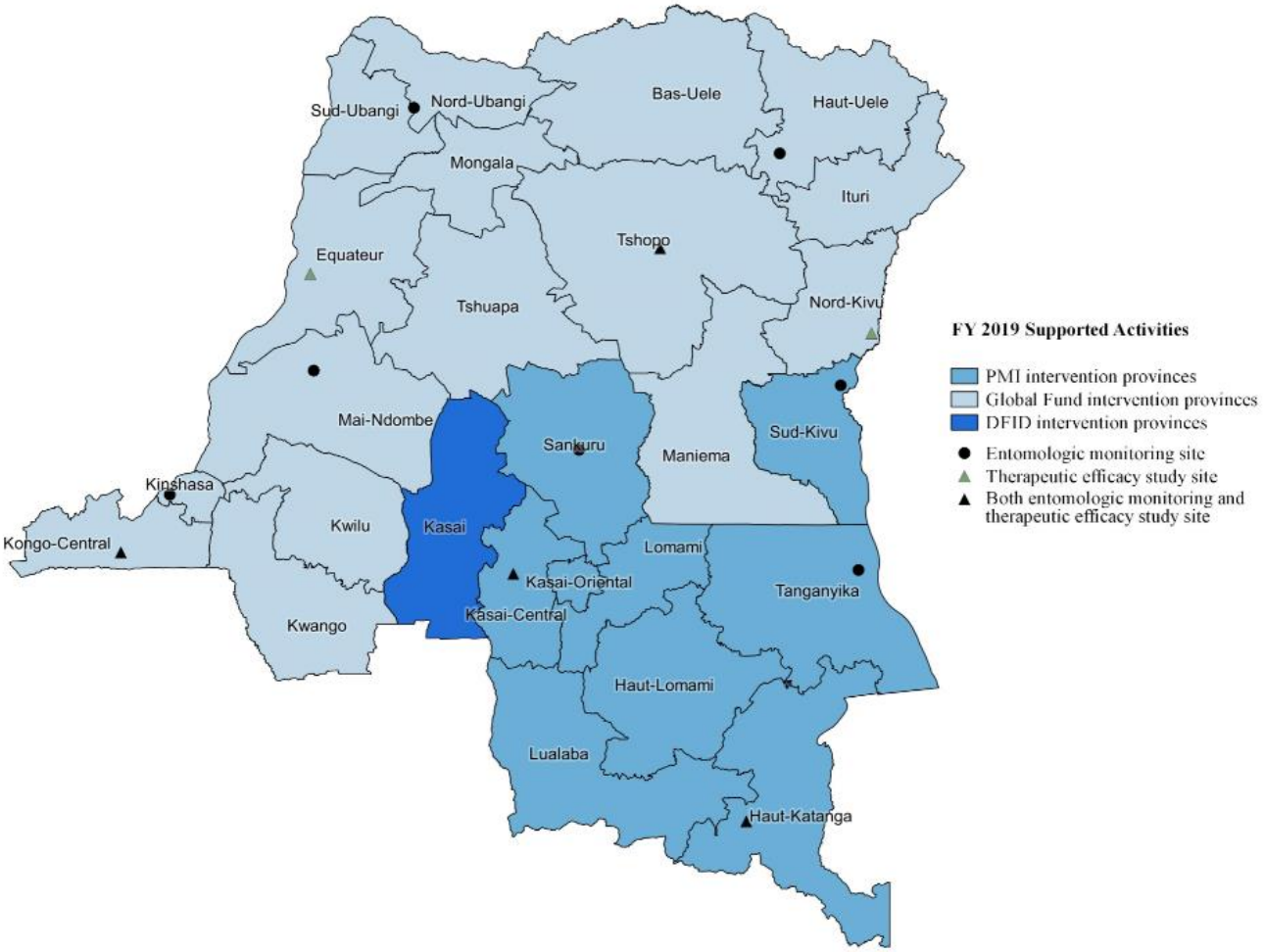


Figure 2: Geographic Distribution of FY 2019 PMI-Supported Activities



III. STRATEGY UPDATES

The Ministry of Health is conducting a midterm review of the National Health Development Plan 2016-2020. The NMCP and its partners are also planning a midterm review of the 2016-2020 NSP starting in July/August 2018. PMI-supported national surveys, including the Multiple Indicator Cluster Survey (MICS) with malaria biomarkers and the health facility-based Service Provision Assessment, will provide important data to inform these reviews. Data from both surveys should be available in late 2018/early 2019. Until those reviews are complete, there are no major strategy updates with respect to the NMCP and its key interventions.

DRC is facing a number of important challenges with the potential to negatively impact health activities throughout the country, including PMI-supported activities:

- In May 2018, an outbreak of the Ebola virus disease emerged in Equateur Province in the northwest of the country. It was the ninth recorded outbreak in the DRC. For the first time, Ebola virus disease reached a provincial capital (Mbandaka), posing a potential risk for a rapid spread of the disease. The Ministry of Health and donor community, including the U.S. Government,

worked urgently to contain the disease, including administering a vaccine to front-line health workers, contacts of confirmed cases, and contacts of contacts. Although not a PMI-supported province, PMI and the Global Fund both worked with the NMCP to ensure adherence to best practices of malaria case management in the context of a highly infectious and pathogenic disease (i.e., presumptive treatment to minimize risk of contamination through blood). Donors also worked to ensure the availability of malaria commodities in the affected health zones. While this outbreak was contained relatively quickly, the risk of another outbreak is always present.

- Presidential elections are planned for December 2018 and some opposition parties, civil society organizations, and churches are already contesting the process which, for the first time, will use electronic voting machines. These elections pose potential risks for civil unrest which may negatively impact the implementation of PMI activities.

- There are recurrent conflicts involving different ethnic and rebel groups in the central and eastern parts of the country, including in PMI-supported provinces. Those conflicts have created a humanitarian crisis, including destruction and looting of health facilities, and have a major impact on access to health services. In addition, the ongoing insecurity has limited the PMI team's ability to conduct site visits to oversee malaria activities in those provinces.

IV. DATA UPDATES AND EVIDENCE OF PROGRESS

There are no specific data updates that have emerged in the last year. Data collection for the MICS and Service Provision Assessment is ongoing as of June 2018 and preliminary results should be available by late 2018.

Figure 3: Malaria Prevalence by Province, DHS 2013-14

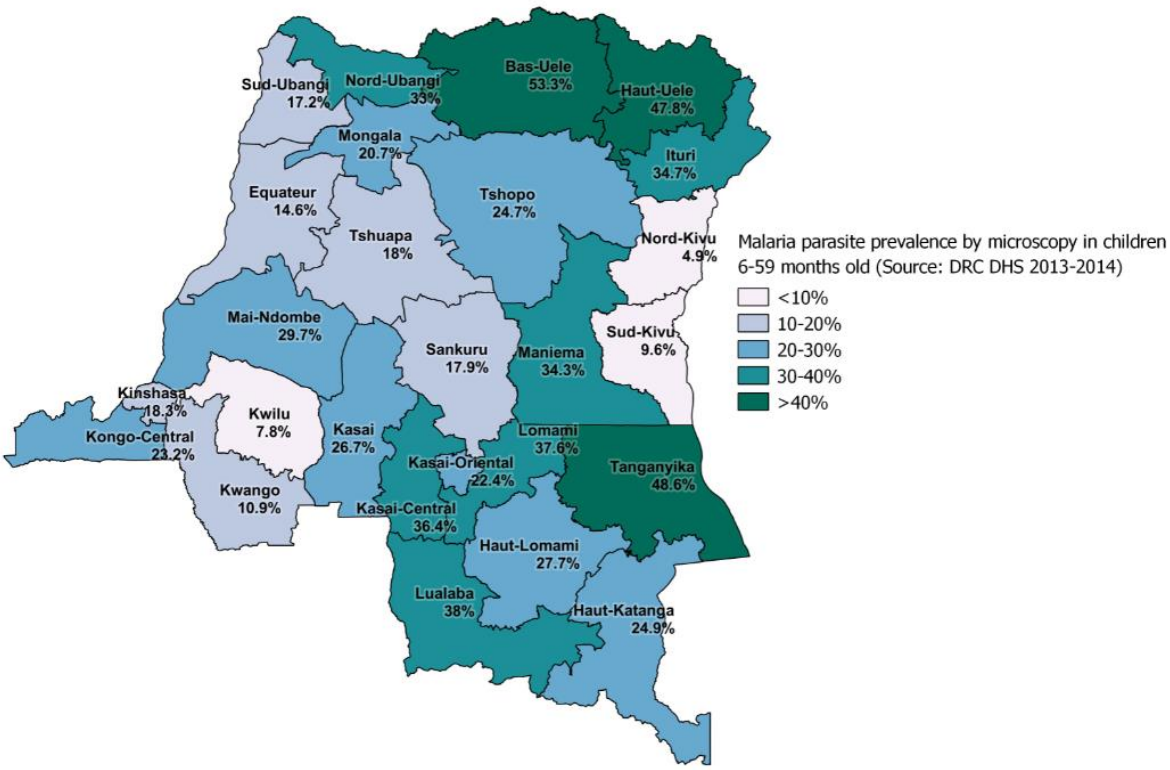


Table 1: Evolution of Key Survey-Based Malaria Indicators in DRC from 2007 to 2014

Indicator	2007 DHS	2010 MICS	2013-14 DHS	NMCP 2020 Targets
% Households with at least one ITN	9	51	70	>90
% Population with access to an ITN	N/A	N/A	47	>90
% Children under five years of age who slept under an ITN the previous night	6	38	56	>80
% Pregnant women who slept under an ITN the previous night	7	43	60	>80
% Population that slept under an ITN the previous night	N/A	N/A	50	>80
% Children under five years of age with fever in the last two weeks for whom advice or treatment was sought	N/A	N/A	55	N/A
% Children under five years of age with fever in the last two weeks who had a finger or heel stick	N/A	17	19	>80
% Children receiving ACTs among children under five years of age with fever in the last two weeks who received any antimalarial drugs*	N/A	N/A	N/A	>80
% Women who received two or more doses of IPTp during their last pregnancy in the last two years	5	21	14	>60
% Women who received three or more doses of IPTp during their last pregnancy in the last two years*	N/A	N/A	N/A	>30
Under-5 mortality rate per 1,000 live births	148	158	104	N/A
% Children under five years of age with parasitemia (by microscopy, if done)	N/A	N/A	23	N/A
% Children under five years of age with parasitemia (by rapid diagnostic test, if done)	N/A	N/A	31	N/A

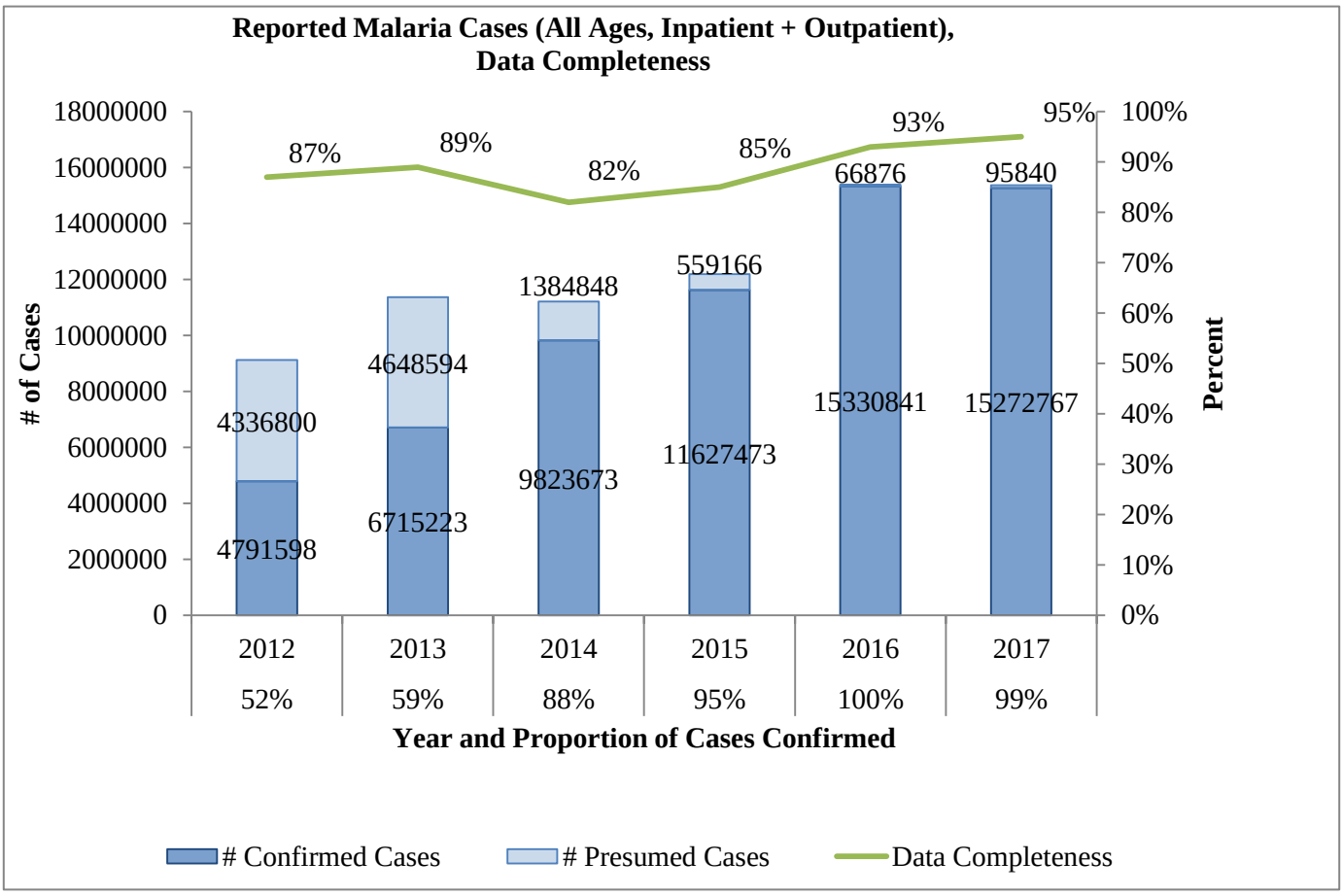
* These indicators were added subsequent to the DRC's national surveys

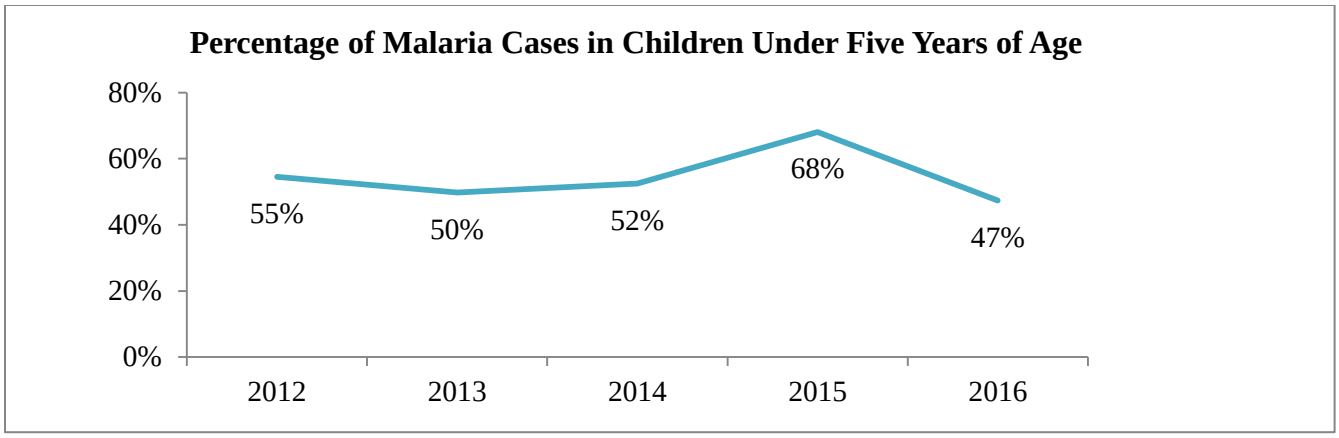
Table 2: Evolution of Key Malaria Indicators Reported Through Routine Surveillance Systems in the DRC, 2012-2017

	2012	2013	2014	2015	2016	2017
Total # Cases[1]	9,128,398	11,363,817	11,134,217	12,186,639	15,397,717	15,368,607
# Confirmed Cases[2]	4,791,598	6,715,223	9,823,673	11,627,473	15,330,841	15,272,767
# Presumed Cases[3]	4,336,800	4,648,594	1,384,848	559,166	66,876	95,840
Total # <5 Cases[4]	4,978,042	5,651,553	5,877,247	8,294,504	7,292,929	8,341,928
Total # Malaria Deaths[5]	21,601	30,918	25,502	39,054	33,997	27,458
Data Completeness[6]	87%	89%	82%	85%	93%	95%
Test Positivity Rate[7]	63%	66%	68%	71%	72%	72%

[1] Total number of reported malaria cases. All ages, outpatient, inpatient, confirmed and unconfirmed cases.
[2] Total diagnostically confirmed cases. All ages, outpatient, inpatient.
[3] Total clinical/presumed/unconfirmed cases. All ages, outpatient, inpatient.
[4] Total number of under 5 cases. Outpatient, inpatient, confirmed, and unconfirmed.
[5] All ages, outpatient, inpatient, confirmed, and unconfirmed.
[6] Number of monthly reports received from health facilities/number of health facility reports expected (i.e., number of facilities expected to report multiplied by the number of months considered).
[7] Number of confirmed cases/number patients receiving a diagnostic test (rapid diagnostic or microscopy).

Figures 4 and 5: Trends in Key Malaria Indicators Reported in Routine Surveillance Systems





V. NEW OR EXPANDED ACTIVITIES AND KEY CHANGES

1. Vector control

a. Entomologic monitoring and insecticide resistance management

No new activities or significant changes are proposed in this aMOP. It is important to note that insecticide resistance monitoring results show widespread resistance to permethrin and increasing resistance to deltamethrin and alpha-cypermethrin in the DRC. PMI DRC has been requiring either deltamethrin or alpha-cypermethrin for ITN procurements since 2017. In light of these data, the NMCP has initiated discussions with its partners regarding the role of piperonyl butoxide or insecticide synergist combination nets for optimal control of malaria cases and the management of insecticide resistance. PMI will continue to discuss with the NMCP how to best use insecticide resistance monitoring data to guide ITN procurement decisions. Building on work begun in 2017 on pyrethroid resistance intensity and chlorfenapyr susceptibility, further work will be done with FY 2019 funds to understand the effect of piperonyl butoxide on pyrethroid resistance. PMI will continue to participate in these discussions and consider local and global evidence to formulate sound advice to the NMCP and guide program implementation.

b. Insecticide-treated nets

No new activities or significant changes are proposed in this aMOP, although the timeline for previously planned activities has shifted. In 2017, the NMCP planned ITN mass distribution campaigns in eight provinces, including five with support from the Global Fund and three with support from PMI. However, only two campaigns were completed in 2017 (one Global Fund and one PMI). The remaining six have been shifted to 2018. In addition, 8 new provinces have been planned for 2018 (5 Global Fund and 3 PMI) bringing the total number of provinces to 14 for 2018.

With FY 2019 funds, PMI will support a mass distribution campaign in Kasai Central Province. PMI will also continue to support ITN durability monitoring, but will begin a new round of monitoring in two provinces with mass campaigns in 2020 (likely Kongo Central, Kinshasa, and/or Kasai Central). The current monitoring activity, which will end in 2019, compares two different brands of ITNs in similar socioeconomic and environmental contexts. Due to the size of the DRC, as well as the country's diversity with respect to the environment, ecology, and populations/cultures, PMI and partners would benefit from a more complete picture of how ITNs wear in the field under various conditions.

c. Indoor residual spraying

PMI does not support indoor residual spraying in the DRC.

2. Malaria in pregnancy

No new activities or significant changes are proposed. The rollout of the new IPTp policy and antenatal care (ANC) guidelines will be prioritized in 2019. Discussions are taking place with the National Reproduction Health Program and the NMCP to incorporate the new World Health Organization ANC recommendations into DRC's national ANC and malaria in pregnancy strategy. PMI, its implementing partners, and the World Health Organization are actively involved in this process. PMI will support the national programs with the updating of the guidelines, dissemination, and rollout.

3. Drug-based prevention

a. Seasonal malaria chemoprevention

PMI does not support seasonal malaria chemoprevention in the DRC.

4. Case management

In preparing the FY 2019 aMOP, the PMI team identified key strategic areas to focus on during discussions with the NMCP, implementing partners, other donors, and stakeholders in the field. This resulted in the changes to PMI's approach to case management activities described below.

PMI has recognized a need to focus more support on community-level service delivery through community care sites. Through discussions with the NMCP, implementing partners, and other donors, it has become clear that a population of children, adolescents, and adults is going without proper diagnosis and treatment for malaria and could easily be served by community health workers (CHWs) in their own communities. The National Guide for Implementation of Community Care Sites (2016) defines the package of services to include referral of severe malaria cases and treatment of uncomplicated malaria cases in children under five years of age. It also allows that treatment of malaria in children over five years of age and adults can be provided as needed. PMI initially adopted the under-five approach to be consistent with the integrated management of childhood illness guidelines in country, but now recognizes that a significant opportunity to impact malaria morbidity and mortality is being missed. The provinces supported by the Global Fund have already adopted community-based treatment for all ages, and PMI proposes to harmonize its approach by eliminating age limits for malaria community case management. With this expansion, treatment for women of reproductive age will need to be considered in terms of assessing potential for pregnancy and referring to a health facility as needed since CHWs will not be trained in treatment for pregnant women. Both health promotion and case management workers (*relais communaitaire)* will be trained in the prevention of malaria in pregnancy through ITN use and ANC attendance to receive IPTp.

In addition to expanding the target age group for community-based care, PMI recognizes the pressing need to establish new sites in communities that are at least five kilometers from a health center, or otherwise geographically isolated. To that end, PMI will dedicate funds specifically to create new community care sites, including training, supervision, and equipping of CHWs. The basic kit includes secure storage for commodities, a bike, data collection tools, and a flashlight.

Poor health worker adherence to case management guidelines is another longstanding problem and is often attributed to: (1) not training all health workers due to funding constraints (the practice is to train one or two staff per facility and expect them to teach their colleagues); (2) poor quality supervision, including lack of follow-up on recommendations from previous visits; and (3) inadequate financing of the health system, which drives health workers to prioritize services/products that bring in funds. In response, PMI will work with its implementing partners to identify training approaches that favor maximum participation, as well as supervision methods that focus on problem solving. New training and supervision approaches that are implemented will be monitored to ensure adaptive implementation. Improved adherence with current guidelines will also have positive repercussions on the quality of data reported through the District Health Information System 2 (for example, fewer uncomplicated cases being reported as severe).

Existing gaps in the implementation of rectal artesunate for pre-referral treatment will continue to be addressed with FY 2019 funds and use of rectal artesunate will be included in future trainings supported by PMI for peripheral health facilities, as well as at the community level.

5. Crosscutting and other health systems strengthening

a. Pharmaceutical management

No new activities or significant changes are proposed.

b. Social and behavior change communication

With FY 2019 funds, coverage of community health promoters (*relais promotionnel*) will be expanded to increase the impact of SBCC activities. This existing cadre complements the work of CHWs who provide integrated community case management (described above) by focusing on health promotion activities for general hygiene (e.g., handwashing) and specific disease prevention (e.g., net use). This activity will include training and equipment (e.g., bikes, visual aids) to establish community health promoters in additional communities in the nine PMI-supported provinces. This activity will also contribute to establishing community theater groups (*Cellule d'Animation Communautaire)* in health areas to further coordinate community-based health promotion activities.

c. Surveillance, monitoring, and evaluation

Following the anticipated completion of the MICS in the second half of 2018, PMI plans to contribute to the implementation of a DHS in 2020. The expansion of PMI support for zone-level routine health information system (RHIS) strengthening activities is ongoing, with a plan to cover all principal facilities in four health zones (Lubumbashi, Kapolowe, Katana, and Mikalayi) by the end of 2019. A modified routine data quality assessment (RDQA) tool was developed in 2018 and will be used to assess the impact of RHIS strengthening efforts on improving data quality, accuracy, and use at different levels of the health system. The revised RDQA tool will be used to prospectively assess improvements on a quarterly basis, acknowledging that seasonal trends need to be considered as they may impact data accuracy over the course of the year. This approach will be adapted as needed based on the quarterly RDQA results and will serve to guide broader RHIS strengthening activities going forward. Guided by the results of this monitoring, PMI plans to continue to cover one health zone in each of the nine PMI supported provinces for a maximum of two years, and then expand into additional health zones in each province moving forward.

Table 3: Surveillance, Monitoring, and Evaluation Data Sources

Data Source	Survey Activities	Year								
		2012	2013	2014	2015	2016	2017	2018	2019	2020
Household Surveys	DHS		X							(X)
	MICS with Malaria Biomarkers							X		
Health Facility Surveys	Service Provision Assessment							X		
	Service Availability Readiness Assessment			X*						
Malaria Surveillance and Routine System Support	Support to Parallel Malaria Surveillance System [Sentinel Sites]	X*	X*	X*	X*	X*	X*	X*	(X)*	(X)*
	Support to Health Management Information System	X	X	X	X	X	X	X	(X)	(X)
	Support to Integrated Disease Surveillance and Response	X*	X*	X*	X*	X*	X*	X*	(X)*	(X)*
Other Surveys	End-Use Verification		X	X	X	X	X	X	(X)	(X)
	School-Based Malaria							(X)		

* Not funded by PMI.
(X) Planned

d. Operational research

No new activities or significant changes are proposed.

e. Other health systems strengthening

No new activities or significant changes are proposed.

6. Staffing and administration

PMI DRC supports staffing and administration in accordance with PMI policy, as articulated in the FY 2018 MOP.