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LIBERIA MALARIA PROFILE

I. ABOUT

Launched in 2005, the <u>U.S. President's Malaria Initiative (PMI)</u> supports implementation of malaria prevention and treatment measures as well as cross-cutting interventions. PMI's 2021–2026 strategy, *End Malaria Faster*, envisions a world free of malaria within our generation with the goal of preventing malaria cases, reducing malaria deaths and illness, and eliminating malaria in PMI partner countries. PMI currently supports 27 countries in sub-Saharan Africa and three programs across the Greater Mekong Subregion in Southeast Asia to control and eliminate malaria. Liberia began implementation as a PMI partner country in FY 2008. Please see the latest <u>Liberia Malaria Operational Plan</u> for more information on PMI's approach and investments.

II. CONTEXT

Table 1: General Demographics and Malaria Situation

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Population	5.3 million in 2022 (Source: <u>UNFPA World Population Dashboard</u>)
Population at risk of malaria	Malaria is endemic in Liberia with continuous transmission throughout the year. The entire population is at risk of malaria.
Malaria prevalence	17.7 percent (by RDT) and 10.3 percent (by microscopy) [Source: Liberia Malaria Indicator Survey 2022]
Malaria incidence/1,000 population at risk	160 per 1,000 in general population and 303/1,000 in Under 5 (Health management information system 2022 and population estimate at <u>UNFPA World Population Dashboard</u>)
Peak malaria transmission	April - August and then a steep decline in subsequent months up to December.

STRATIFICATION

The most recent MIS conducted was in 2022 and included both rapid diagnostics test and microscopy. Liberia has not conducted an incidence stratification exercise. The maps below show malaria prevalence by geographic area, among children 6 to 59 months of age tested positive for malaria by microscopy and rapid diagnostic test (RDT), respectively.

PMI and the World Bank together provide technical support covering all 15 counties of Liberia, including all core interventions except IRS. The Global Fund program is national in its approach and overlaps with PMI- and World Bank-supported countries. In addition, the Global

Fund malaria grant covers procurement and distribution of ITNs for mass distribution campaigns. The Global Fund also supports some aspects of malaria case management, especially iCCM, MIP, surveillance, monitoring and evaluation, and supply chain. USAID (including PMI) is working with the MOH to outsource the management of the Central Medical Store from April 2023. The World Bank currently uses performance-based financing to support three counties (Gbarpolu, Rivercess and Sinoe Counties). The other partners providing health funding are Partners in Health and Last Mile Health. Last Mile Health funds iCCM in at least three counties, and Partners in Health funds integrated health services in two counties.

Figure 1: Malaria Prevalence Maps

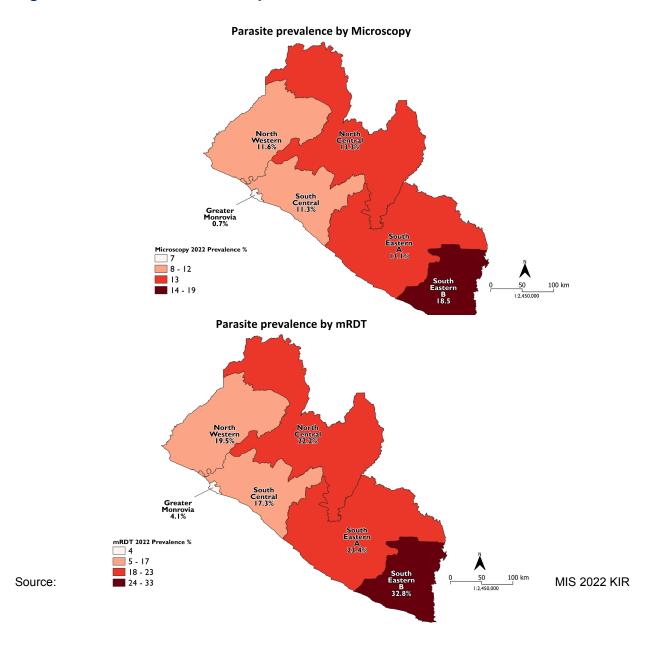
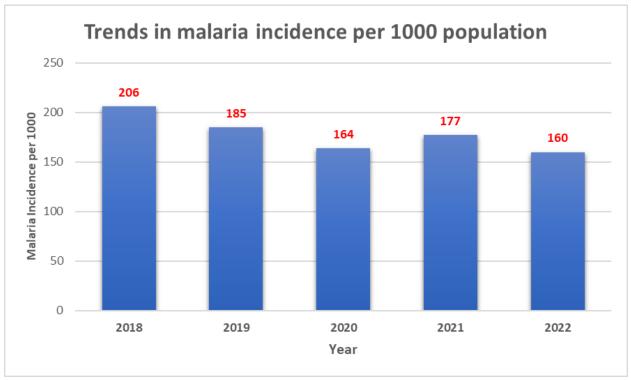


Figure 2 below shows the variation in malaria annual incidence per 1,000 population from 206 in 2018 to 164 in 2020 and to 160 in 2022.

Figure 2: Malaria Incidence



Source: HMIS and UNFPA

Table 2: Malaria Parasites and Vectors

Principal Malaria Parasites	Plasmodium falciparum (Pf) at 95 percent.
Principal Malaria Vectors*	Anopheles gambiae s.l. (76 percent) and An. funestus s.l (24%).

^{*} See Entomological Monitoring section of the Malaria Operational Plan for more details on vector bionomics and insecticide resistance

COUNTRY HEALTH SYSTEM

Liberia is administratively divided into 15 counties and 136 administrative districts. The country is, however, demarcated into 93 health districts for operational purposes. The Liberia health care delivery system is organized into three tiers: 1) Primary level consisting of the community health program and clinics; 2) Secondary level consisting health centers, district and county hospitals; and 3) Tertiary level consisting of regional and referral hospitals, such as the John F. Kennedy Hospital in Monrovia and Jackson F. Doe Hospital in Nimba County. Health clinics are the primary care unit of the health system and are meant to have at least two professional

staff: a nurse and a certified midwife. With catchment areas 10 kilometers in diameter, clinics typically serve populations of 3,500 to 12,000, and are mandated to be open eight hours a day, five days a week. Clinics are intended for outpatient care, and their beds are for clinical observations only. Patients requiring further supervised care are referred to health centers or hospitals. Health centers provide larger catchment populations of around 25,000 to 40,000 with secondary care, focusing on maternal and child health care. These centers are open 24 hours a day, seven days a week and are meant to have up to 40 beds, laboratory diagnostics, and services for severe medical and obstetric care. In addition to secondary care, hospitals have outpatient departments, which provide surrounding residents with primary health care services.

Integrated Community Case Management (iCCM) interventions are implemented through the Ministry of Health (MOH) National Community Health Program (NCHP). The NCHP is implemented by two cadres of community resource persons. The community health assistants (CHAs) provide services in hard-to-reach communities beyond 5 km from the health facilities in rural and remote areas in 14 counties (with the exception of Montserrado County), where health infrastructure is not accessible and malaria transmission is high. CHAs are supervised by community health service supervisors (CHSSs) whose role is to support CHAs through monitoring and supervision, as well as helping to ensure CHAs have the resources (including commodities) and information needed for their role. National policy states that CHSSs should spend 80% of their time supporting CHAs in their communities, and 20% supporting CHA-related activities at health centers, such as documenting referrals and following up on counter-referrals. The community health promoters (CHPs) serve communities within five kilometers of a health facility. The strategic use of CHAs in malaria prevention and case management at the community level bridges the existing health system gaps as well as ensures a continuum of care for the most vulnerable and hard-to-reach populations. In March 2023, the revised NCHP Policy and NCHP Strategy (2023 - 2031) documents were launched. In the revised policy, CHAs shall provide preventive, promotive care to all within the community and curative and diagnostic services for all children under five years of age as well as children 6–13 years of age (for malaria services only) in far and hard-to-reach communities (beyond 5km).

Malaria case management and malaria prevention services are integrated into the healthcare delivery system. Clinics, health centers, and communities primarily use malaria RDTs for malaria diagnosis. Hospitals and some health centers have the capacity to perform malaria microscopy although, due to frequent reagent stockouts and occasional lack of electricity, these facilities mostly rely on mRDTs for malaria diagnosis. In 2022, 95 percent of all malaria cases were confirmed by either mRDT or microscopy. To increase access to malaria services, prompt diagnosis and effective treatment, private pharmacies and medicine stores have also been targeted for the roll-out of malaria case management using the Malaria Private Sector Strategy 2022-2025 (see additional information below).

In 2016, Liberia adopted the 2012 World Health Organization (WHO) intermittent preventive treatment for pregnant women (IPTp) policy that recommends IPTp-sulfadoxine-pyrimethamine (SP) to be given as directly observed therapy for all pregnant women beginning in their second trimester at each scheduled antenatal care (ANC) visit until the time of delivery, provided that the doses are given at least one month apart. The 2022 Antenatal Care Protocol and National Malaria Control: Malaria in Pregnancy (MIP) guidelines encourage pregnant women to seek IPTp at 13 weeks of gestation and continue every month throughout their pregnancy. These guidelines were harmonized across all MIP and case management-related documents, including national pre-service curriculum, in-service community training materials, social and behavior change module materials, and surveillance, monitoring, and evaluation tools, and were revised for nationwide use.

The National Malaria Control Program (NMCP) took responsibility for and assumed the lead coordination role for the decentralization of malaria control and prevention activities throughout the country by gradually devolving implementation responsibilities to the county health teams. This coordination role includes all health partners, donors, and private-sector stakeholders. Malaria control and prevention activities in Liberia follow the principle of the "three ones":

- One national malaria control coordinating authority where implementation is a country-led process.
- One comprehensive plan for malaria control, including costed work plans.
- One country-level monitoring and evaluation framework.

The Liberia Ministry of Health implements a national health supply chain system that delivers health products and collects logistics management information to inform quantification and quarterly resupply of commodities. The national health supply chain system has three levels with health products flowing through the Central Medical Store to the 13 county depots, 36 hospitals, and over 140 health facilities in two counties (Montserrado and Margibi), through an outsourced system currently funded by the Global Fund to Fight AIDS, Tuberculosis, and Malaria (Global Fund) to the World Food Program. From the county depots, health products are delivered directly to about 400 health facilities in the other 13 counties. The CHAs are supplied by the CHSSs from the linked health facilities. The paper-based supply chain data from the health facilities is entered into the electronic logistics management information system (e-LMIS) on a quarterly basis by the district health teams for review by the county health teams. The county health teams validate the supply chain data in e-LMIS before publishing them for use on a guarterly basis. The published data are further reviewed at the central level by various teams in the Department of Pharmaceutical Services, and used to inform health products requisition approvals and resupply decisions via the Central Medical Store to the county depots and health facilities.

National HMIS

Liberia has a fully integrated computerized HMIS based on data collected manually from health facilities through the county health teams that serves all departments (including inpatient) and programs, including malaria care and treatment and distribution of nets at ANC visits and institutional deliveries. Private health care facilities are also expected to report. The MOH Health Monitoring, Evaluation and Research Unit team manages the HMIS. The national Health Information System uses information and communication technology, including data confidentiality and security, at an affordable cost to the Government of Liberia. Two core data sources feed into the Health Information System: the routine surveillance data from all levels of the health system (including the community) and the population-based (survey) data. The MOH has several Health Information subsystems collecting data stored into MOH servers from health facilities. The HMIS (which includes the Community-Based Information System) stores its data on the DHIS2 server. Other subsystems managing data outside DHIS2 include:

- Human Resources Information Systems
- Logistics Management Information Systems
- Financial Management Information Systems
- Laboratory Information Systems
- Disease Surveillance Information Systems

The NPHIL staff produce Integrated Disease Surveillance and Response (IDSR) Epidemiology bulletin and quarterly health service bulletins to disseminate information to stakeholders by emails and through the websites.

Malaria Private Sector Engagement Strategy

Private health facilities represent 37 percent of the national healthcare market and this representation increases to 80 percent in urban areas and provides approximately 30 percent of healthcare services. The private health facilities constitute the private-not-for-profit (faith-based, concessions) and private-for-profit. The majority of the private-for-profit health facilities are concentrated in urban areas and in the three counties of Montserrado, Margibi, and Nimba. While efforts have been made to engage the private sector, the country has not implemented a comprehensive strategy to address malaria control in the private sector. In 2021, the NMCP worked with development partners and malaria stakeholders in the public and private sector to develop the first Malaria Private Sector Engagement (PSE) Strategy 2022-2025 and aligned its goal and objectives with the malaria National Strategic Plan 2021-2025 and with the goals presented in the Ministry of Health's Private Sector Engagement Strategy, 2021.

The malaria PSE strategy aims at: ensuring that all Liberians have access to quality malaria prevention and care; ensuring that the NMCP has access to timely, accurate and complete data regarding malaria testing and treatment to inform decision-making; and reducing the risk of drug resistance in Liberia. The strategy addresses the current challenges of adherence to national treatment guidelines, reporting of private sector data to the NMCP, and the continued availability of non-approved antimalarial medicines on the market.

OTHER CONTEXTUAL INFORMATION

Health sector financing relies heavily on donor funding. The national health care system is inaccessible or difficult to access for about 29 percent of Liberians and 60 percent of the rural Liberian population because bad road conditions limit access for poor rural communities (Source: Liberia National Malaria Strategic Plan 2021–2025). Resources to support malaria control in Liberia are mainly from PMI and the Global Fund, and at a certain level the World Bank. The Government of Liberia's contribution beyond human resources is minimal. Health worker deployment and retention in the hard-to-reach areas is also a challenge. The CHA program is a donor-driven program with limited government funding, limiting program scale up to reach the unreachable in some rural communities. There is ongoing need for staff training/retraining and/or mentoring at all levels of the health care system in order to deliver quality services and gather quality routine surveillance data. Malaria control in Liberia still suffers from supply chain management challenges resulting in frequent stockouts of malaria commodities. Ensuring timely and adequate commodity distribution to health facilities has been a major reason for frequent stockouts at service delivery points. The continued use of the push system at county level has led to both overstocking and understocking of malaria commodities across different health facilities. Stockouts of antimalarial medicines and commodities adversely impact malaria control efforts. There are looming health threats due to diseases of epidemic potential (Ebola Virus Disease, Lassa Fever, and COVID-19); and there is a relatively large and yet insufficient health workforce that requires substantial investments, skills upgrading, and motivation for optimum performance (Source: Liberia National Malaria Strategic Plan 2021–2025).

III. NMCP STRATEGIC PLAN

The goal of the Liberia National Strategic Plan (NSP) 2021–2025 is to reduce malaria burden by 75 percent (11 percent overall prevalence) compared to 2016 (45 percent prevalence) by 2025, with the following objectives:

- 1) Reduce malaria mortality rates by at least 75 percent (43/100,000 population) compared to 2016 (172/100,000 population).
- 2) Reduce malaria case incidence by at least 75 percent (95/1,000 population) compared to 2016 (380/1,000 population).

- 3) Promote and maintain a culture of evidence-based decision-making to achieve malaria program performance at all levels.
- 4) Strengthen and maintain capacity for program management, coordination, and partnership to achieve malaria program performance at all levels.

Based on the current malaria epidemiological profile and recent routine surveillance data, to achieve the vision of a healthier Liberia with no malaria deaths, malaria control efforts will be focused on:

- Strengthening parasitological diagnosis with an mRDT or microscopy, prompt treatment with effective artemisinin-based combination therapies (ACTs) at all levels (including community) and improving coverage with IPTp3+.
- Intensifying social and behavior change communication.
- Sustaining coverage with insecticide-treated mosquito nets (ITNs) in areas of high coverage while focusing on achieving universal access to ITNs as well as improving use and care for the nets.
- Reintroducing indoor residual spraying (IRS) with environmental compliance components.

To align with existing national and global strategies and technical direction to drive acceleration towards attainment of malaria pre-elimination, the next NSP will additionally focus on:

- Galvanizing political will nationally and globally to reduce malaria deaths.
- Using strategic information to drive impact.
- Applying a coordinated country response.
- Development of a sustainable financing mechanism for malaria.
- Implementing best global guidance, policies, and strategies.
- Making malaria a multi-sectoral disease of social and economic importance.
- Applying a gender lens to malaria control and prevention interventions.
- Improved surveillance, monitoring and evaluation, as well as stratification by malaria burden, required to optimize the implementation of malaria interventions.

IV. KEY MALARIA DATA

EVOLUTION OF KEY SURVEY-BASED MALARIA INDICATORS

In the Liberia Malaria Indicator Survey (MIS) 2022, 53 percent of pregnant women 15 to 49 years of age and 50 percent of children under 5 years of age slept under an ITN the night before the survey. The IPTp3+ coverage has increased from 40 percent (DHS, 2019) to 63 percent (MIS, 2022). The proportion of children under 5 years of age with a fever in the last two weeks for whom advice or treatment was sought decreased from 81 percent in 2019 to 60 percent in 2022 (DHS, 2019; MIS, 2022). There was also a decrease in the percentage of children under five years of age with fever who took any antimalarial ACTs; from 81 percent in 2019 to 77 percent in 2022.

Table 3: Key Survey Indicators

Indicator	MIS 2011	DHS 2013	MIS 2016	DHS 2019	MIS 2022*
% of Households with at least one ITN	50%	55%	62%	55%	72%
% of Households with at least one ITN for every two people	17%	22%	25%	25%	33%
% of Population with access to an ITN	31%	37%	42%	40%	52%
% of Population that slept under an ITN the previous night	32%	32%	39%	39%	57%
% of Children under five years of age who slept under an ITN the previous night	37%	38%	44%	44%	50%
% of Pregnant women who slept under an ITN the previous night	39%	37%	40%	47%	53%
% of Children under five years of age with a fever in the last two weeks for whom advice or treatment was sought	60%	71%	78%	81%	60%
% of Children under five years of age with a fever in the last two weeks who had a finger or heel stick	33%	42%	50%	40%	45%
% of Children receiving an ACT among children under five years of age with a fever in the last two weeks who received any antimalarial drug	70%	43%	81%	81%	77%
% of Women who attended 4 ANC visits during their last pregnancy	70%	43%	81%	81%	N/A
% of Women who received three or more doses of IPTp during their last pregnancy in the last two years	N/A	N/A	22%	40%	63%
Mortality rate per 1,000 live births among children under five years of age	N/A	94	N/A	93	N/A
% of Children under five years of age with parasitemia by microscopy	28%	N/A	N/A	N/A	10%
% of Children under five years of age with parasitemia by RDT	45%	N/A	45%	N/A	18%

^{*} MIS 2022 Key Indicator Result.

ANC: antenatal care; ACT: artemisinin-based combination therapy; ITN: insecticide-treated mosquito net; IPTp: intermittent preventive treatment during pregnancy; RDT: rapid diagnostic test.

Liberia has a low net access of 40 percent or less in the last two surveys (MIS 2016; DHS 2019), but has a high net use:access ratio—95 percent in MIS 2016 and 98 percent in DHS 2019.

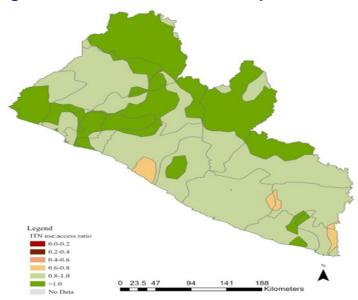


Figure 3. ITN Use: Access Ratio Map

Source: ITN Access and Use Report

Liberia malaria control has made a substantial positive impact from 2017 to 2022 (Table 4). High malaria testing rates among suspected malaria cases at health facilities are observed, for example in 2022, 95 percent of the over 1.4 million suspected malaria cases benefited from a malaria diagnostic test (using mRDT or microscopy). During the last four consecutive years, Liberia recorded less than a million new malaria cases per year at the health facilities and in the community. From 2018 to 2022, the confirmed malaria cases decreased from 994,849 to 787,247 cases, which represents a 21 percent reduction. The number of reported malaria deaths decreased in the general population from 565 in 2018 to 394 in 2022, representing a reduction of 30 percent (171/565) in five years.

Table 4: Evolution of Key Malaria Indicators Reported through Routine Surveillance Systems

Indicator	2018	2019	2020	2021	2022
# of All-cause patient consultations	4,105,602	3,757,933	3,249,427	3,357,389	2,472,261
# of Suspect malaria cases1	1,924,414	1,638,798	1,473,349	1,616,919	1,499,337
# of Patients receiving diagnostic test for malaria ²	1,628,353	1,512,843	1,378,699	1,537,453	1,424,157

Total # of malaria cases ³	1,290,910	1,041,800	922,163	994,411	865,311
# of Confirmed cases ⁴	994,849	915,854	827,513	914,945	787,247
# of Presumed cases ⁵	296,061	125,955	94,650	79,466	78,064
% of Malaria cases confirmed ⁶	77%	87%	89%	90%	91%
Test positivity rate ⁷	61%	60%	60%	60%	55%
Total # of children under five years of age malaria cases ⁸	514,991	405,082	349,195	324,065	294,478
% of Cases in children under five years of age ⁹	39%	38%	37%	20%	34%
Total # of severe cases ¹⁰	210,979	190,783	159,405	77,076	71,547
Total # of malaria deaths ¹¹	565	439	363	300	394
# of Facilities reporting ¹²	9,756	10,332	10,716	9,072	9,703
% of Data completeness ¹³	79%	78%	77%	80%	98%

¹ Number of patients presenting with signs or symptoms possibly due to malaria (e.g., fever or history of fever, anemia, all tested for malaria);

Currently, only children under 5 years of age can be tested and treated in the community. The National Community Health Program recently updated their guidelines to allow for the testing and treatment of malaria for children up to 13 years old. However, training on the expanded age range has not yet started and is not currently being implemented. Available data disaggregated by data source (health facility and community) are reported in Table 5 below. In 2022, the community health worker (CHW) contribution represented 11 percent of all confirmed malaria cases (adults and children). Of the total malaria cases reported among children under five, 5 percent (16,466 out of 349,195) were from CHWs in 2020, 27 percent (86,514 out of 324,065) were from CHWs in 2021, and 38 percent (112,559 out of 294,478) in 2022.

² RDT or microscopy, all ages, outpatient and inpatient;

³ Total reported malaria cases; all ages, outpatient and inpatient, confirmed and unconfirmed cases;

⁴ Diagnostically confirmed; all ages, outpatient and inpatient;

⁵ Clinical/presumed/unconfirmed; all ages, outpatient and inpatient;

⁶ # of confirmed cases divided by total # of cases;

⁷ Confirmed cases divided by # of patients receiving a diagnostic test for malaria (RDT or microscopy):

⁸ Outpatient and inpatient, confirmed and unconfirmed:

⁹ Total # of children under five years of age cases divided by total # of cases;

¹⁰ "Severe cases" (hospitalized with malaria, treated as severe malaria);

¹¹ All ages, outpatient, inpatient, confirmed, and unconfirmed;

¹² Total # of health facilities reporting data into the HMIS/DHIS2 system that year;

¹³ # of monthly reports from health facilities divided by # of health facility reports expected (average for the calendar year).

Table 5: Disaggregated Community-Level Data

Indicator	2020	2021	2022
# of Patients receiving diagnostic test for malaria from a CHW	N/A	N/A	N/A
Total # of of malaria cases reported by CHWs ^{1*}	16,466	86,514	112,559
% of CHW reported cases (among total malaria cases)2*	3%	12%	11%

¹ Includes all ages, confirmed and unconfirmed.

V. OTHER IMPLEMENTATION INFORMATION

Results of Durability Monitoring

Liberia conducted its first net durability study from April 2018 to April 2021 following the 2018 ITN campaign. Net durability risk factors were remarkably similar across the two study sites. The overall campaign net attrition rate was lower in Lofa than in Grand Gedeh (44 percent versus 59 percent) and the nets in Grand Gedeh exhibited overall poorer net physical integrity. At the 36-month follow-up period, survivorship of DuraNet ITNs in Grand Gedeh (70 percent, estimated median survival: 4.0 years) and Lofa (77 percent, estimated median survival: 4.6 years) were similar.

Table 6. Net Durability Results at 36 Months

Site	Survey round and time since	Attrition wear and tear	Remaining nets in serviceable	Remaining nets hanging over sleeping space (%)		Optimal insecticidal effectiveness in bioassay (%)
	distribution (months)	(%)	condition % (N)		Other	
	First: 4.4	0.0	99.7 (N=380)	34.4	87.4	N/A
Grand	Second: 12.5	1.2	98.9 (N=278)	53.3	73.3	86.7
(Durainet)	Third: 28.7	8.6	96.4 (N=162)	77.3	89.0	53.3
	Fourth: 35.9	10.9	90.5 (N=124)	63.7	67.3	60.0
	First: 4.0	0.0	99.7 (N=379)	29.7	83.6	N/A
Lofa	Second: 12.8	2.9	98.5 (N=263)	48.0	75.5	86.7
(DuraNet)	Third: 28.2	4.0	93.2 (N=221)	67.9	85.4	90.0
	Fourth: 36.1	6.9	88.5 (N=138)	63.6	83.7	83.3

The first and second-line ACTs remain effective in Liberia as documented by the 2017–2018 TES of artemether-lumefantrine (AL) and artesunate-amodiaquine (ASAQ) in patients with uncomplicated malaria. The PCR-corrected adequate clinical and parasitological response to

² Total # of malaria cases reported by CHWs/Total # of malaria cases in the previous table.

^{*} Only children under five years of age can be tested in the community in Liberia. These numbers and proportion represent available data disaggregated by source

ASAQ (95.3 percent) and AL (100 percent) were reported. There is an ongoing TES at two sites to monitor efficacy of AL and ASAQ funded by PMI. Patient enrollment began in September 2022 and is still ongoing at one of the sites.

Table 7: Summary of Completed Therapeutic Efficacy Studies

Year	Sites	PMI Funded Y/N	Treatment Arms	PCR-Corrected ACPR>90%	Location Molecular Resistance Work Completed or Planned
2017-2018	4	No	ASAQ/AL	95.3% (AS/AQ) vs 100% (AL)	Institut Pasteur France

VI. KEY POLICIES

Table 8: Policies in Liberia

National Strategic Plan (2021-2025)					
National Surveillance, Monitoring, and Evaluation	on Plan (2017-2021)				
National Digital Health Strategy: Not available					
National Social Behavior Change/Communication	on Strategy (2021-2025)				
National Supply Chain Strategy/Master Plan (20	23-2028) (under development)				
Liberia Medicines and Health Products Regulate	ory Authority Strategic Plan (2021-2025)				
National Vector Control Strategy and/or Integrate	ted Vector Management Plan (2019-2025)				
National Malaria Case Management Policy (2021-2025)					
What is/are the first-line treatment(s) for uncomplicated <i>P. falciparum</i> malaria*?	Artesunate amodiaquine fixed-dose combination (FDC) in age-appropriate packets.				
What is/are the second-line treatment(s) for uncomplicated <i>P. falciparum</i> malaria*?	Artemether lumefantrine.				
What is the first-line treatment for severe malaria?	Treatment in the preferred order for severe malaria includes parenteral: Artesunate (Intravenous/ Intramuscular [IM]) or Artemether (IM) or Quinine (IM) Note: After three doses of parenteral treatment, the full dose of ACT should be given if the patient can tolerate oral medication.				
In pregnancy, what is the current first-line treatment for uncomplicated <i>P. falciparum</i> malaria in the <u>first trimester</u> ?	First trimester: Oral quinine. However, if oral quinine is not available ACT can be administered with caution to save lives.				
Given the WHO policy change to recommend AL as treatment for uncomplicated malaria in the first trimester, does the MOH plan to update the policy on treatment of MIP in the first trimester?	Yes, the NMCP is planning to update the national treatment guidelines in 2023 and these updates will include a change to provision of AL for treatment of uncomplicated malaria in all trimesters				

And if so, what is the status of this policy change and implementation of the new policy? (please include any plans for training providers on the new policy)	of pregnancy. The NMCP plans to prioritize updating treatment guidelines and training materials prior to formally updating policy documents, noting that policy changes often face significant delays in receiving final approval.				
In pregnancy, what is/are the first-line treatment(s) for uncomplicated <i>P. falciparum</i> malaria in the second and third trimesters?	Drug of choice is ACT first line (AL FDC) or oral quinine where ACT is not available. Note: First dose of ACT must be administered as directly observed treatment.				
In pregnancy, what is the first-line treatment for severe malaria?	Parenteral artesunate is the first-line therapy Artemether and quinine injectable can be used in cases where artesunate injectable are not available.				
Is pre-referral treatment of severe disease recommended at peripheral health facilities? If so, with what drug(s)?	In the case where the health care worker/facility cannot manage severe malaria, one of the following should be provided: Rectal Artesunate for children 6 months–6 years of age. IM Artemether or Artesunate for adults or children >5 of age (and children <6 of age where rectal Artesunate is not available) or IM Quinine where Injectable Artemether and Artesunate are not available.				
Is pre-referral treatment of severe disease with rectal artesunate recommended for community health workers?	Yes				
Community Health Policy (2023-2032)					
What is the # of CHWs currently providing iCCM?	4,491				
What is the country's target for the number of CHWs providing iCCM?	CHA: 5,600 (2030 target)				
What percent of the country's target is met?	80%				
Does the country have a policy that enables the routine, regular payment of salaries/stipends for CHWs?	Yes				
Do CHWs have the authority to test and treat all ages for malaria?	No (but NCHP Policy allows for treatment for children up to age 13 for malaria only)				
Prevention of Malaria in Pregnancy Policy Guidelines (no policy)					
At what gestational age is the first dose of IPTp- Sulfadoxine-pyrimethamine to be given to pregnant women according to the national guidelines for malaria and MCH?	2nd trimester (as early as 13 weeks)				

Do the national ANC guidelines reflect the WHO 2016 recommendation of 8 ANC scheduled contacts (plus one additional contact for early initiation of IPTp at 13-16 weeks)? If not, how many ANC contacts are recommended?	Yes, the National ANC Protocol (April 2022) recommends 8 ANC contacts beginning at 12 weeks.
What is the status of training ANC providers on the WHO recommended 8+ contacts?	Most health workers have been trained.
Have HMIS/DHIS2 and ANC registers been updated to include 8+ contacts?	No
Are IPTp data collected as single months where the January 2022 data represent the number of doses administered in January 2022, or cohort data, representing the cumulative data from pregnancies which began 6 months prior?	The ANC Register is cohort data but HMIS data is summarized and reported on a monthly basis.
Is ANC/IPTp provided by facility staff conducting ANC outreach to communities?	Yes, in the eight government-to government counties as part of the Expanded Program on Immunization outreach.
Can CHWs deliver IPTp and if so, which specific cadres and beginning with which dose? How many districts are targeted for c-IPTp implementation?	The NCHP Policy allows CHAs and trained traditional midwives to provide IPTp for the prevention of malaria in pregnancy in the community. However, this activity is not currently being implemented.

^{*}In 2022, NMCP made a decision to change from ASAQ to AL as first line treatment.

ACT: Artemisinin-based Combination Therapy; ANC: antenatal care; CHA: community health assistants; CHW: community health worker; HMIS: health management information system; iCCM: integrated community case management; IPTp: integrated preventive treatment during pregnancy; NCHP: National Community Health Program; NMCP: National Malaria Control Program.

VII. PARTNER LANDSCAPE

Figure 4. Partners Direct Technical Support Landscape as of 2023



Table 9: Partner Landscape

Partner	Key technical interventions	Geographic coverage	Funding amount or in-kind contribution	Time frame
Global Fund	 Vector control (ITNs) Entomological surveillance Case management (Training and supportive supervision) SME National program management support Procurement and Supply Management (ACTs and artesunate injectables) 	 National mass distribution ITN campaign Nationwide distribution of malaria commodities. Support NMCP staff 	TBD	June 2024 (current grant)
Government of Liberia	All malaria interventionsStaffing for program and health facility management	National	TBD	Ongoing
World Bank	Malaria interventions integrated with maternal and child health programs	Gbarpolu, River Cess, and Sinoe Counties	TBD	Ongoing