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## THE GAMBIA 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, <u>End Malaria Faster</u>, 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 3 programs across the Greater Mekong Subregion in Southeast Asia to control and eliminate malaria. The Gambia, one of three new PMI countries, began implementation as a PMI focus country in FY 2023. Please see The Gambia Malaria Operational Plan on PMI.gov for more information on PMI's approach and investments.

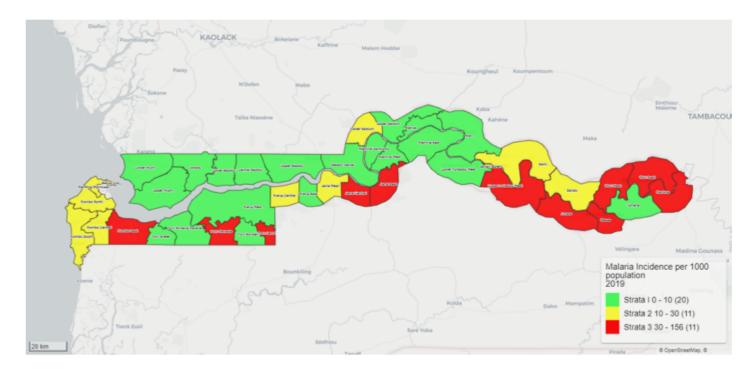
## **II. CONTEXT**

Population	2,619,693 (The Gambia Bureau of Statistics; 2013 Census, projected to 2023)
Population at risk of malaria	2,619,693 (The Gambia Bureau of Statistics; 2013 Census, projected to 2023) The Gambia National Malaria Strategic Plan 2021–2025 declares the entire population at risk for malaria.
Malaria prevalence	0.1 percent in children under the age of five; 0.2 percent in children aged 5–14 years; 0.1 percent pregnant women; 0.2 percent in all household members (The Gambia Malaria Indicator Survey 2017)
Malaria incidence/1,000 population at risk	44 (The Gambia Ministry of Health, District Health Information System-2 [DHIS2] 2022)
Peak malaria transmission	Rainy Season: June–December Peak Transmission: October–December

#### Table 1. General Demographics and Malaria Situation

## **STRATIFICATION**

The Gambia National Malaria Strategic Plan (NMSP), 2021–2025 introduced the concept of stratification, based on World Health Organization (WHO) guidelines modified to suit the local context. Under the plan, there are three strata (very low, low, and moderate) based on epidemiological considerations that determine the appropriate combination of interventions to address the malaria burden at the district level. Figure 1 presents a map illustrating the strata and the number of districts that fall within each. The Gambia planned to implement malaria interventions and strategies adapted to each stratum progressively over the life of the strategic plan, with the aim of achieving zero local cases by 2025. Although the NMSP stratification identified districts falling into the three strata based on 2019 data, districts have shifted from one stratum to another (e.g., from very low to low or low to moderate) based on reported annual cases, including an upsurge in malaria cases in 2022.

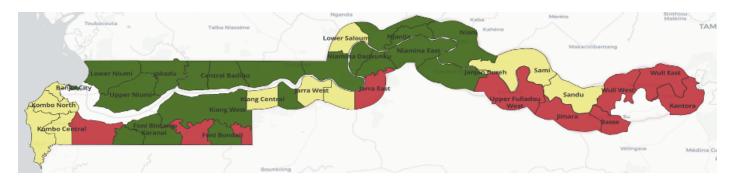


### Figure 1. Stratification Map, Gambia, 2019

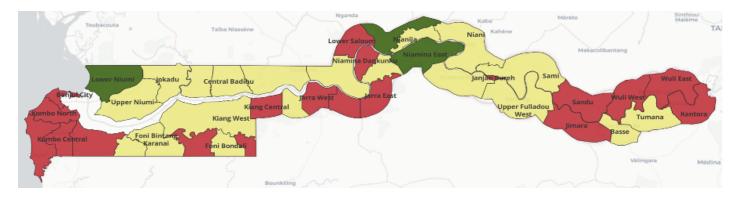
Source: Map produced for The Gambia National Malaria Strategic Plan 2021–2025 with data from The Gambia DHIS2 2019.

## Figure 2. Gambia District Malaria Incidence Maps, 2019 and 2022

#### 2019



2022



Source: Maps produced by The Gambia National Malaria Control Program with data from The Gambia DHIS2.

Malaria Incidence Per 1,000 Population		
Stratum 1 (<11)		
Stratum 2 (11–30)		
Stratum 3 (>30)		

## Table 2. Malaria Parasites and Vectors

Principal malaria parasites	Plasmodium falciparum (>95%) Plasmodium malariae and ovale (<5%)
Principal malaria vectors <sup>1</sup>	Anopheles gambiae s.l. (Anopheles gambiae s.s., Anopheles arabiensis, and Anopheles melas) documented resistance to pyrethroid insecticides (since 2008) and DDT (since 2014)

<sup>1</sup> See the entomological monitoring section of the MOP for more details on vector bionomics and insecticide resistance and the indoor residual spraying section for details on residual efficacy.

## COUNTRY HEALTH SYSTEM

The Gambia Ministry of Health (MOH) manages and oversees the health system in the country with its nine directorates. The nine directorates include:

- Directorate of Health Services
- Planning and Information
- Nursing Services
- Public Health Services
- Health Promotion and Information
- National Public Health Laboratory Services
- Human Resources for Health
- Health Research
- Health Promotion and Education

The MOH is led by a minister and a permanent secretary. Directors of each of the directorates report to the permanent secretary. These directorates, with guidance from the executive leadership, set direction; align other internal and external stakeholders with that direction; mobilize and manage resources; set standards; and direct, manage, and monitor the implementation of all health programs in the country.

At the regional level, the regional health directorate teams are responsible for managing and supporting the health system in seven regions that each include primary and secondary health care facilities and their staff. These teams report to the permanent secretary through the Directorate of Health Services. The regional health directorates are responsible for the day-to-day administration, provision, management and supervision of health services, including the primary and secondary health facilities in their respective regions.

The Gambian government is the main health service provider in the country. However, there are a small number of private facilities, primarily located in urban areas (approximately 39 facilities, representing less than 10 percent of total facilities).

In 2010, the MOH adopted the DHIS2 to record and track health service data at the district and community level. The regional health directorates enter the data, and the MOH does a quarterly data quality check. All public and private health facilities are required to report data monthly into the DHIS2.

The National Health Policy and the Health Sector Strategic Plan, which are anchored by the The Gambia National Development Plan, guide the health sector. All of these documents share the overarching goal of improving health care access and quality in the country and thereby reduce morbidity and mortality rates.

The MOH is working to address challenges that hinder health policy implementation and high achievement, including weakened institutional memory, the effects of high population growth, inadequate financial and logistical support, a weak health information system, uncoordinated donor support, a shortage of adequately and appropriately trained health staff, a high staff attrition rate, and a lack of an efficient and effective patient referral system.

## **OTHER CONTEXTUAL INFORMATION**

The Gambia's geographic location, climate, vegetation, and challenging socioeconomic factors (e.g., poverty, low literacy, and growing population) are relevant contextual factors that must be considered in efforts to control disease, improve health outcomes, and increase the quality of life and longevity for Gambians.

The Gambia, which is situated in the Sahelian zone of West Africa, has a total area of 11,300 square kilometers and a major river that runs from east to west, dividing the country in two strips of land approximately 25–50 kilometers wide and 300 kilometers long. Apart from its coastline, where The Gambia borders the Atlantic Ocean, it is bordered on the north, south, and east by Senegal.

The climate of The Gambia is tropical, with two distinct dry and rainy seasons. The dry season usually starts in November and ends around May. The shorter wet season lasts from June to October, with August being the wettest month of the year. The annual precipitation in most parts of the country ranges from 850 to 1,200 millimeters; the Atlantic coast region experiencing the most rainfall, followed by the southeast. Average temperatures range from 18–30°C during the dry season to 23–33°C during the wet season. During the dry season, the relative humidity is about 68 percent in the coastal region and 41 percent inland; during the wet season, the relative humidity is generally about 77 percent throughout the country.

The country is predominantly a low plateau, decreasing in altitude closer to the Atlantic Ocean. Flood plains and freshwater swamps cover a large area of the country, particularly in the Central River Region and parts of the Lower River Region and North Bank Region. The River Gambia is fringed by freshwater mangrove swamps in the eastern half of the country and saltwater in the western half, which provide perfect breeding sites for the malaria vector. In the inland areas extending from central Gambia to the eastern border, the River Gambia is lined with tropical forest.

The overall male literacy rate in The Gambia is 63.9 percent; and the overall female literacy is 47.6 percent. The literacy rate among women aged 15–24 years is 63 percent. The population projection for 2023, based on the latest census taken in 2013, is 2,776,326, with a growth rate of 2.5 percent and a total fertility rate of 4.5. Fifty-eight percent of the population is urban and population density is 274 people per square kilometer. Life expectancy at birth is about 64 years.

The NMSP states that a significant proportion of the population in The Gambia reside in close proximity to a fixed health facility. Health services have been extended to rural areas. Over 40 percent of rural villages have access to services through a community health worker. The 2019–2020 Demographic and Health Survey finds that 26 percent of women are concerned about the distance to a health facility, and 27 percent are concerned about paying for health services.

The country is served with an appreciable (over 2,700 kilometers) network of roads—only 35 percent of which is paved. Roads in and around Banjul are mostly paved. Unpaved roads are largely impassable during the rainy season. The road network is being improved, particularly north of the River Gambia. Communication within the country has also improved. Access to mobile cellular telephones has grown in recent years, with the number of mobile cellular subscriptions estimated to be 74/100 inhabitants in 2022.

With a per capita gross domestic product (GDP) of US\$840 in 2022, the World Bank classifies The Gambia as a fragile, low-income economy. Poverty was expected to have increased to 20.3 percent by 2022 from 18.4 percent in 2021, using the international poverty line of \$2.15 (in 2017 purchasing power parity). The sharp increase in poverty is largely due to weaker growth in per-capita GDP and high prices eroding the purchasing power of households.

The Gambia has worked for many years to provide an extensive public health care system that provides comprehensive, affordable services. In 1988, a drug revolving fund was begun as a cost-recovery program, part of the National Health Development Program. This introduced user fees as a form of health financing. The Bamako Initiative was introduced in 1993 as a strategy to further develop the cost-recovery program. In 2014, The Gambian government and the MOH, with support from multilateral partners, introduced results-based financing. Despite this series of program initiatives, overall health expenditures have been rising, partially due to the country's commitment to universal health coverage. The health financing situation reveals a high level of dependence on donor support for health systems management (41 percent) and household out-of-pocket expenditures (24 percent), with no available social health insurance options.

The Gambian government is currently working to create a social health insurance plan that would reduce out-of-pocket expenditures on health services and improve overall health care delivery. In 2021, the country passed the National Health Insurance Scheme, which will help address household needs. The great need for health insurance is illustrated by the 2019–2020 Demographic and Health Survey finding that the health insurance coverage rate is low, with only 3 percent of women and 4 percent of men aged 15–49 having any type of health insurance.

# **III. NMCP STRATEGIC PLAN**

The Gambia NMSP covers the period of 2021–2025 with two goals:

- 1. Attain zero malaria deaths in all regions of the country; and
- 2. Achieve zero indigenous malaria transmission in all regions of the country.

These goals will be accomplished through six objectives organized by major malaria intervention area:

- **Objective 1:** By 2025, all malaria cases at all levels receive prompt diagnosis and effective treatment according to the national guidelines.
- **Objective 2:** To achieve at least 90 percent coverage of appropriate preventive interventions for all populations at risk of malaria in all transmission strata by 2025.
- **Objective 3:** At least 90 percent of the population at risk are protected with effective malaria preventive therapies.
- **Objective 4:** By 2025, at least 90 percent of the population have appropriate knowledge, practice, and use of malaria prevention and management services.
- **Objective 5:** By 2025, strengthen malaria surveillance, monitoring, and evaluation and operational research systems at all levels to improve decision making for program performance.
- **Objective 6:** By 2025, strengthen malaria program management and partnership capacities at all levels for the optimal implementation of interventions to achieve elimination.

The strategic plan outlines key strategies and activities for each objective in line with the vision, mission, and broad guiding principles.

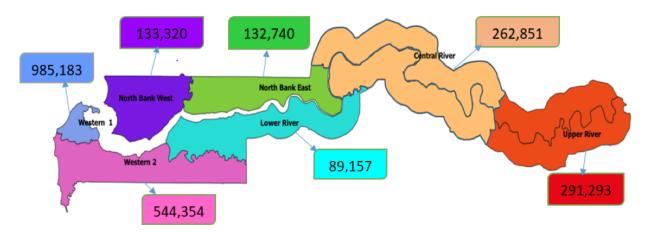
#### Vision: A Malaria Free Gambia

**Mission:** Ensure universal and equitable access for the population at risk to malaria prevention and treatment interventions in line with the national health policy.

## The Eight Guiding Principles

- 1. Universal access for the population at risk
- 2. Client satisfaction
- 3. Equitable access
- 4. Evidence-based and results-oriented management
- 5. Socioeconomically inclusive and equitable
- 6. Inclusive and coordinated partnership
- 7. Country ownership and leadership
- 8. Accountability

As previously stated, the objectives of the malaria program are implemented within the MOH's structure and The Gambia's health sector. The overall coordinator of the program, NMCP, sits directly under the Directorate of Health Services and is supported by that and others with mandates related to malaria control, including the directorates of nursing services, public health, laboratory services, and health promotion. The regional health directorates support malaria control implementation in the seven health regions, two of which are primarily urban (Western Region One and Western Region Two), serving almost 60 percent of the population, and five of which are rural, serving about 40 percent of the population.





Source: National Malaria Control Program/National Malaria Strategic Plan 2021–2025, The Gambia Population Map for 2021 extrapolated from The Gambia Census 2013.

The Gambia health care delivery system is structured into a hierarchical, three-tiered system;

- **Primary:** Village health services, health posts, community clinics, and minor health centers;
- Secondary: Major health centers and regional hospitals; and
- Tertiary: General, teaching and specialized hospitals.

The primary level provides primary health care through a platform of universal coverage. The primary health care roadmap and strategy are implemented by village health services, community clinics, and minor health centers. Village health services are delivered by village health workers (VHWs) and traditional birth companions. They are supported by community health nurses (CHNs) and work together to bring health care closer to Gambians. CHNs are roving nurses assigned to demarcated geographic areas, called circuits, for outreach visits. CHNs also support and supervise VHWs who reside and work in their circuits. VHWs provide basic primary health care services (such as malaria diagnosis and treatment) in their homesteads, or sometimes at nearby health posts, or via home visits. CHNs and VHWs also provide health education and communication services as part of their job duties or in the

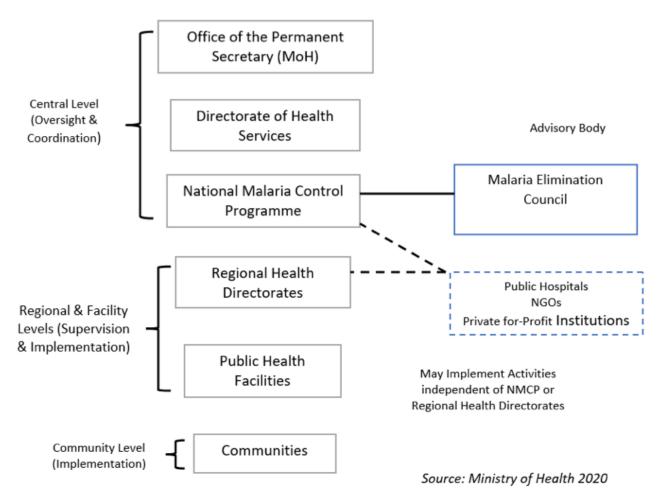
context of a campaign or special health event, such as a campaign to promote the hanging of insecticide-treated mosquito nets ITNs).

Secondary-level facilities provide a quality, affordable package of care, including comprehensive emergency obstetric and newborn care services and minimum surgical interventions.

Tertiary-care facilities manage patients that need specialized care. They provide more complex surgical interventions.

Most of the health sector is government mandated and operated. Private sector health care provision is limited, with only 39 facilities, both for-profit and nonprofit, mostly located in the greater Banjul area and the west coast regions. Regulation of the private sector and nongovernmental health care providers remains a challenge. However, the MOH has put a mechanism in place to license all private and nongovernmental health facilities and their personnel.





The MOH, through NMCP and in collaboration with partners, achieved a significant reduction in the malaria burden over the last decade. A 2020 review of the malaria program recommended improving program performance and reorienting the program with a new focus on malaria elimination. The new NMSP was developed based on the findings of the review and anchored in WHO's Global Malaria Technical Strategy 2016–2030 and Framework for Malaria Elimination.

Consequently, the major addition to the NMSP is a stratification of districts by malaria burden with an appropriately tailored package of interventions for each stratum: very low (districts with malaria incidence of 1–10 per 1,000 population), low (11–30 per 1,000), and moderate (31–157 per 1,000). NMCP will invest in impactful burden-reduction interventions in settings with higher transmission levels (moderate and low), while advancing malaria elimination in settings with lower transmission (very low).

# Table 3. Operational Malaria Stratification in The Gambia, by Cases per 1,000 Populationand by District

Strat	um	Cases per 1,000 Population	Districts	
1	Very low	1–10	Upper Niumi, Lower Niumi, Jokadu, Upper Badibu, Sabach Sanjal, Lower Badibu, Central Badibu, Kiang West, Kiang East, Nianija, Upper Saloum, Niamina West, Niamina East, Niani, Niamina Dankunku, Lower Fulladou West, Foni Bintang Karanai, Foni Bondali, and Foni Brefet	20
2	Low	11–30	Janjanbureh, Lower Saloum, Sami, Jarra West, Kiang Central, Sandu, Banjul City, Kanifing Municipality, Kombo North, Kombo Central, and Kombo South	11
3	Moderate	31–156	Upper Fulladou West, West Jarra Central, Jarra East, Jimara, Kaantora, Wuli East, Wuli West, Foni Jarrol, Foni Kansala, Kombo East, and Tumana	11
Total districts				42

Source: The Gambia National Malaria Control Program with data from The Gambia DHIS2, 2019.

NMCP is developing and refining policies, guidelines, training materials, and job aids to accommodate the new approach required for districts identified in stratum 1 (low malaria transmission) and districts that graduate to stratum 1 over time.

The six key objectives in the NMSP must adapt and take the new stratification into account (see Table 4). NMCP has also developed a step-wise schedule of goals for each stratum, progressing over the life of the strategic plan (see Table 5).

# Table 4. The Gambia National Malaria Strategic Plan 2021–2025, Key MalariaInterventions by Stratum

Stratum 1	<ul> <li>Case-based surveillance, including notification of malaria cases, case and foci investigations conducted, and response initiated</li> <li>Universal coverage of ITNs and IPTp</li> <li>SBC-focused on active community participation in elimination activities</li> <li>Routine weekly and monthly reporting through the HMIS to complement case-based surveillance approach</li> <li>Cross-border coordination of activities and data with Senegal</li> </ul>
Stratum 2	<ul> <li>Universal coverage of ITNs, IPTp, and case management</li> <li>Seasonal malaria chemoprevention</li> <li>Indoor residual spraying</li> <li>SBC focused on individuals and communities to ensure positive uptake of preventive interventions and early treatment seeking to receive correct and prompt malaria services</li> <li>Weekly integrated disease reporting and monthly routine reporting in the HMIS</li> </ul>
Stratum 3	<ul> <li>Universal coverage of ITNs, IPTp, and case management</li> <li>Seasonal malaria chemoprevention</li> <li>Indoor residual spraying</li> <li>SBC to promote the uptake of all recommended malaria interventions</li> <li>Routine monthly reporting in the HMIS</li> </ul>

Source: The Gambia National Malaria Control Program, National Malaria Strategic Plan 2021–2025. IPTp: intermittent preventive treatment for pregnant women; HMIS: health management information system; ITN: insecticide-treated net; SBC: social and behavior change.

# Table 5. Pathway to Progress toward Malaria Elimination Across The Gambia:National Malaria Strategic Plan 2021–2025

2021–2022	2023–2024	2025
<ul> <li>Ensure case-based surveillance in stratum 1</li> <li>Ensure universal malaria intervention coverage in stratum 2</li> <li>Achieve zero malaria indigenous cases in stratum 1</li> <li>Eliminate malaria active foci in stratum 1</li> <li>Reduce malaria active foci in strata 2 and 3</li> </ul>	<ul> <li>Ensure case-based surveillance in strata 1 and 2</li> <li>Ensure universal malaria intervention coverage in stratum 3</li> <li>Achieve zero malaria indigenous cases in stratum 2</li> <li>Prevent malaria reintroduction in stratum 1</li> <li>Eliminate malaria foci in stratum 1</li> <li>Reduce malaria active foci in stratum 3</li> </ul>	<ul> <li>Ensure case-based surveillance in all three strata</li> <li>Achieve malaria indigenous cases to less than one case per 1,000 population in stratum 3</li> <li>Prevent malaria reintroduction in strata 1 and 2</li> <li>Eliminate malaria active foci in stratum 3</li> <li>Ensure universal malaria intervention coverage in stratum 3</li> </ul>

Source: The Gambia National Malaria Control Program, National Malaria Strategic Plan 2021–2025.)

## **Malaria Elimination**

NMCP defines malaria elimination as the interruption of local transmission (reduction to zero incidence of indigenous cases) of a specified malaria parasite in a defined geographic area as a result of deliberate activities. The objective of a malaria surveillance system in the elimination phase is to detect all malaria infections and ensure radical cure to prevent further transmission. NMCP plans to accomplish this through active case detection, case investigation, and foci investigation and response, using the 1-3-7 approach. Deployment of the 1-3-7 approach involves participation from all levels of the health system: national (MOH/NMCP), regional (regional health directorate), health facility, and community health service. The community level of the health system will play a vital role in malaria case-based detection and response. CHNs and VHWs will assist in identifying and investigating cases, and will serve as a liaison between higher-level health officials and the community. CHNs and VHWs will be leaders in communicating to and orienting the community on the steps involved in 1-3-7.

## **Cross-Border Initiative**

The sixth objective of the NMSP is to strengthen The Gambia's cross-border relationship with Senegal. Six of The Gambia's seven regions share a border with Senegal. The countries share borders on three sides in The Gambia—north, east, and south. The two countries have illustrated their motivation and commitment to make progress on malaria transmission reduction and elimination together through decisive actions. In 2018, the two ministries of health signed a memorandum of understanding that created a legal framework for collaboration in malaria planning, information sharing, and programs, called *The Senegambia Initiative in the Border Regions*. The initiative includes 11 overarching commitments pledged by both countries:

- 1. Coordination and cooperation;
- 2. Resource mobilization;
- 3. Identification of focal points;
- 4. Information sharing;
- 5. Interaction;
- 6. Harmonization;
- 7. Indoor residual spraying;
- 8. Facilitation;
- 9. Authorization;
- 10. Sharing experiences; and
- 11. Data sharing.

Under the auspices of the memorandum, the countries have successfully carried out two synchronized ITN distribution campaigns in border areas, in 2019 and 2022, including geo-mapping and data sharing. The two countries also performed a home-based detect/test/treat/refer exercise during high malaria transmission season in three Gambian

border districts in 2019. Originally from Senegal, *Prise en charge à domicile* (PECADOM and PECADOM Plus, which includes screening and treatment for malaria and additional health interventions such as acute respiratory infection and diarrhea) is one of Senegal's approaches to bringing health care closer to the community. The PECADOM plus Senegambia border objectives involve bringing the approach to the Senegambia border to:

- Strengthen the PECADOM Plus strategy in the villages bordering Senegal inside The Gambia; and
- Support NMCP in monitoring and coordinating the implementation of the cross-border malaria control plan.

Finally, Senegal and The Gambia have begun working on surveillance and response activities for malaria elimination. The countries plan to synchronize standard operating procedures and data collection tools and reporting systems. Strong cross-border collaboration with neighboring countries, especially Senegal, is crucial for the attainment of The Gambia's elimination goal.

# IV. KEY MALARIA DATA

## **EVOLUTION OF KEY SURVEY-BASED MALARIA INDICATORS**

Indicator	2017 MIS	2018 MICS	2019–2020 DHS
% of households with at least one ITN	79%	82%	77%
% of households with at least one ITN for every two people	38%	46%	36%
% of population with access to an ITN	65%	71%	61%
% of population that slept under an ITN the previous night	57%	53%	38%
% of children under the age of five who slept under an ITN the previous night	62%	56%	44%
% of pregnant women who slept under an ITN the previous night	69%	52%	44%
% of children under the age of five with a fever in the last two weeks for whom advice or treatment was sought		57%	64%
% of children under the age of five with a fever in the last two weeks who had a finger or heel stick	n/a	27%	27%
% of children receiving an ACT among children under the age of five with a fever in the last two weeks who received any antimalarial drug		40%	54%
% of women who attended four ANC visits during their last pregnancy		76%	79%
% of women who received three or more doses of IPTp during their last pregnancy in the last two years	43%	37.5%	52%

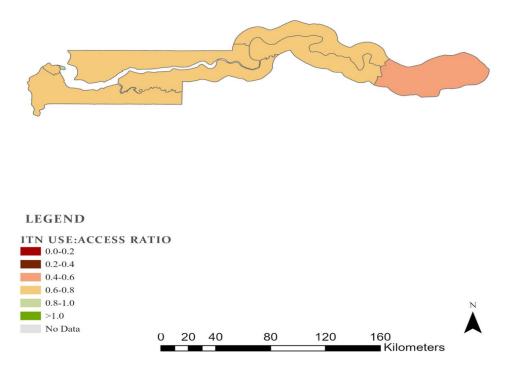
### **Table 6. Key Survey Indicators**

Under-five mortality rate per 1,000 live births	n/a	57	56
% of children under the age of five with parasitemia by microscopy	.1%	n/a	n/a
% of children under the age of five with parasitemia by RDT	4%	n/a	4%

Sources: The Gambia Demographic and Health Survey (DHS) 2019–2020; The Gambia Multiple Indicator Cluster Survey (MICS) 2018; The Gambia Malaria Indicator Survey (MIS) 2017. ACT: artemisinin-based combination therapy; ANC: antenatal care; IPTp: intermittent preventive treatment for pregnant women; ITN: insecticide-treated net; RDT: rapid diagnostic test.

In Gambia, the use-to-access ratio remains moderate to low throughout the country. Children under five are prioritized for ITN use in households that have some but not enough ITNs; also prioritized are women of reproductive age. School-age children have the lowest ITN use rates when households have insufficient ITNs. These differences level out somewhat in households that do have enough ITNs, but not for adolescent boys. The use-to-access ratio is lowest among wealthier households and the same for urban and rural areas.

#### Figure 5. ITN Use-to-Access Ratio Map





# Table 7. Evolution of Key Malaria Indicators Reported through Routine SurveillanceSystems

Indicator	2018	2019	2020	2021	2022
# of all-cause patient consultations	1,604,698	1,733,451	1,542,645	1,640,715	1,712,413
# of suspect malaria cases <sup>1</sup>	735,680	600,255	533,896	611,122	739,189
# of patients receiving diagnostic test for malaria <sup>2</sup>	735,680	600,255	533,896	611,122	739,189
Total # of malaria cases <sup>3</sup>	88,654	52,767	72,301	74,089	110,998
# of confirmed cases <sup>4</sup>	88,654	52,767	72,301	74,089	110,998
# of presumed cases <sup>5</sup>	0	0	0	0	0
% of malaria cases confirmed <sup>6</sup>	100%	100%	100%	100%	100%
Test positivity rate 7	13.6%	9.3%	14.0%	12.6%	16.4%
Total # malaria cases in children under the age of five <sup>8</sup>	11,070	5,257	6,385	7,327	12,419
% of cases in children under the age of five <sup>9</sup>	12%	10%	9%	10%	11%
Total # of severe cases <sup>10</sup>	2,390	1,650	2,253	2,082	2,884
Total # of malaria deaths <sup>11</sup>	60	41	73	42	62
# of facilities reporting <sup>12</sup>	867	1,787	1,764	1,940	2,091
% of data completeness <sup>13</sup>	39%	79%	77%	81%	84%

<sup>1</sup> Number of patients presenting with signs or symptoms possibly due to malaria ("suspect malaria cases' are all cases tested for malaria). <sup>2</sup> RDT or microscopy, all ages, outpatient and inpatient. <sup>3</sup> Total reported malaria cases; all ages, outpatient and inpatient, confirmed and unconfirmed cases. <sup>4</sup> Diagnostically confirmed; all ages, outpatient and inpatient. <sup>5</sup> Clinical/presumed/unconfirmed, all ages, outpatient and inpatient. <sup>6</sup> Numbe of confirmed cases divided by the total number of cases; <sup>7</sup> Confirmed cases divided by the number of patients receiving a diagnostic test for malaria (RDT or microscopy). <sup>8</sup> Outpatient and inpatient, confirmed and unconfirmed. <sup>9</sup> Total number of cases in children under five divided by the total number of cases. <sup>10</sup> "Severe cases" are not reported to HMIS but are determined by cases "hospitalized with malaria"). <sup>11</sup> All ages, outpatient and inpatient, confirmed and unconfirmed. <sup>12</sup> Total number of health facilities reporting data into the HMIS/DHIS2 system that year. <sup>13</sup> Number of monthly reports from health facilities divided by the number of health facility reports expected (average for the calendar year).

#### Table 8. Disaggregated Community-Level Data

Indicator	2019	2020	2021	2022
# of patients receiving diagnostic test for malaria from a CHW	2,346	3,353	1,667	1,737
Total # of malaria cases reported by CHWs <sup>1</sup>	253	1,170	445	253
% of CHW reported cases (among total malaria cases) <sup>2</sup>	0.5%	1.6%	0.6%	0.2%

<sup>1</sup> Includes all ages, confirmed and unconfirmed. <sup>2</sup> Total number of malaria cases reported by CHWs divided by the total number of malaria cases in the previous table. CHW: community health worker.

### Table 9. Elimination Context: Policy and Scope

Malaria Policy and Implementation	Response		
1. Is malaria elimination part of the current malaria strategy?	Yes		
2. Are individual malaria cases investigated? If yes, please note whether this occurs nationally or subnationally.	The National Malaria Strategic Plan 2021–2025 includes plans for subnational elimination within the life of the plan. NMCP produced malaria surveillance guidelines in March 2022, which includes guidance on malaria case-based investigation and response.		
3. Are foci investigated? If yes, please note whether this occurs nationally or subnationally.	The National Malaria Strategic Plan 2021–2025 includes plans for subnational elimination during the life of the plan. NMCP's malaria surveillance guidelines (March 2022) inclu subnational foci investigations.		
Elimination scope	2020	2021	2022
4. Total number of districts in the country (admin 2)	42	42	42
5. Number of districts that have been verified as having eliminated malaria? <sup>1</sup>	0	0	0
6. Among districts <i>not</i> verified as having eliminated malaria, how many districts are targeted for elimination efforts?	20	20	20
6A. Among districts targeted for elimination efforts, how many have active elimination activities? <sup>2</sup>	0	0	0

<sup>1</sup>Malaria elimination is the interruption of local transmission, that is, no local malaria cases for three years. This refers to NMP-led subnational verification only. It is not referring to "elimination certification," which can only be granted by WHO for an entire country. <sup>2</sup> Elimination activities include but are not limited to reactive ITN and/or IRS, reactive case detection, reactive or focal drug administration, procurement and/or strategies for single dose primaquine for *P. falciparum* or radical cure primaquine for *P. vivax*, SBC for hard-to-reach or migrant populations, case investigation, and foci classification.

## **V. Other Implementation Information**

#### Table 10. Summary of Completed Therapeutic Efficacy Studies

Year	Site	Treatment arm(s)	Efficacy (PCR-corrected adequate clinical and parasitological result) for Each Drug at Each Site
2021–2022	Basse (Eastern)	Artemether- lumefantrine	Adequate clinical and parasitological response ranging from 96.1 to 100%
2021–2022	Brikama (Western)	Artemether- lumefantrine	Adequate clinical and parasitological response ranging from 96.1 to 100%
2022–2022	Kuntaur (Central)	Dihydroartemisinin- piperaquine	Adequate clinical and parasitological response ranging from 96.1 to 100%

# **VI. Key Policies**

Table 11. Policies in The Gambia				
National Strategic Plan (2021–2025)				
National SM&E Plan (March 2023)				
National Digital Health Strategy Not developed but The Gambia plans to develop one in the future.				
National Social Behavior Change/Communication Strategy (September 2020)				
National Supply Chain Strategy/Master Plan Gambia National Medicines Policy 2022–2025 (June 2022) Gambia National Medicines Policy Strategic Plan 2022–2025 (April 2022)				
National Vector Control Strategy and/or Integrated Vector Management Plan Integrated Vector Management Strategic Plan (2023–2030) Insecticide Resistance Monitoring and Management Plan (2021–2025)				
Malaria Case Management Policy (March 2023)				
What is/are the first-line treatment(s) for uncomplicated <i>P. falciparum</i> malaria*?	AL			
What is/are the second-line treatment(s) for uncomplicated <i>P. falciparum</i> malaria*?	Dihydroartemisinin-piperaquine			
What is/are the first-line treatment(s) for uncomplicated <i>P. vivax</i> malaria?	n/a			
What is the first-line treatment for severe malaria?	Artesunate injection; quinine injection			
In pregnancy, what is the current first-line treatment for uncomplicated <i>P. falciparum</i> malaria in the first trimester?	AL			
In subnational elimination areas	Single low-dose primaquine with the final dose of AL or DHA/PPQ for all patients except where contraindicated—including pregnant women, infants under 6 months of age, and women breastfeeding infants under 6 months of age; G6PD not required before giving primaquine.			
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? 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)	Updated with the fourth edition of the National Guidelines for the Treatment of Malaria in The Gambia, March 2023			
In pregnancy, what is/are the first-line treatment(s) for uncomplicated <i>P. falciparum</i> malaria in the second and third trimesters?	AL			

What is/are the first-line treatment(s) for <i>P. vivax</i> malaria during pregnancy?	N/A. NMCP does not have specific guidance for treatment of <i>P. vivax</i> malaria during pregnancy.		
In pregnancy, what is the first-line treatment for severe malaria?	Artesunate injection		
Is prereferral treatment of severe disease recommended at peripheral health facilities? If so, with what drug(s)?	Artesunate; artemether if artesunate is not available		
Is prereferral treatment of severe disease with rectal artesunate recommended for community health workers?	Yes, for children under the age of six		
Community Health Policy (iCCM 2020–2024)			
What is the # of CHWs currently providing iCCM?	940		
What is the country's target for the number of CHWs providing iCCM?	940		
What percent of the country's target is met?	754 trained, 222 yet to be trained; approximately 80% trained by December 2022		
Does the country have a policy that enables the routine, regular payment of salaries/stipends for CHWs?	No, The Gambia does not have a policy on routine, regular payment of village health workers since they are considered volunteers. However, despite not receiving a salary, a stipend and incentives are provided to them in practice. The Global Fund Health Systems Strengthening Grant currently supports \$10 per month, disbursed quarterly. Partners also cover their event attendance costs and sometimes provide nonmonetary incentives (e.g., t-shirts and bicycles) to increase their visibility and facilitate their work.		
Do CHWs have the authority to test and treat all ages for malaria?	Yes		
Prevention of Malaria in Pregnancy Policy (March 20	023)		
At what gestational age is the first dose of IPTp-SP to be given to pregnant women according to the national guidelines for malaria and MCH?	Starting at 16 weeks per the national MIP guidelines		
Do the national ANC guidelines reflect the WHO 2016 recommendation of eight 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, national guidelines recommend eight ANC contacts; the guidelines do not mention an additional contact between 13 and 16 weeks.		
What is the status of training ANC providers on the WHO recommended eight or more contacts?	Completed training		
Have HMIS/DHIS2 and ANC registers been updated to include eight or more contacts?	Yes		

Are ANC/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 six months prior?	Single months
Is ANC/IPTp provided by facility staff conducting ANC outreach to communities?	Yes, community health nurses conduct ANC 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?	Currently, NMCP does not have a policy on c-IPTp provided by CHWs

AL: artemether-lumefantrine; ANC: antenatal care; iCMM: integrated community case management; c-IPTp: IPTp delivered at the community level; CHW: community health worker; DHA-PPQ: dihydroartemisinin-piperaquine; DHIS2: District Health Information System-2; G6PD: glucose-6-phosphate dehydrogenase; HMIS: Health management information system; IPTp: intermittent preventive treatment for pregnant women; MIP: malaria in pregnancy; MOH: Ministry of Health; NMCP: National Malaria Control Program; SP: sulfadoxine-pyrimethamine; WHO: World Health Organization.

# **VII. PARTNER LANDSCAPE**

The MOH and NMCP are working closely together and with partners to control and ultimately eliminate malaria through its fourth-generation malaria strategic plan for 2021–2024.

Since 2004, the Global Fund for AIDS, Tuberculosis and Malaria (Global Fund) has been The Gambia's primary malaria donor. The MOH currently has a three-year malaria grant for approximately \$19.1 million, which concludes in mid-2024. The Global Fund provides a full range of financial support for all malaria priority intervention and cross-cutting areas in all seven regions. (See specific areas of support outlined in Table 12.) The malaria program also benefits from a health systems strengthening grant focused on making health systems in The Gambia more sustainable and resilient. NMCP and partners are currently working together to apply for the follow-on Global Fund grant cycle seven.

Other important strategic donors that have provided financial, program, and technical support to The Gambia over recent years include the Bill & Melinda Gates Foundation, World Health Organization, and the United Nations Children's Fund (UNICEF). Representatives from these partners participate in technical working groups, planning meetings, and other malaria events in support of the program. Table 12 also lists the planned financial contributions of the The Gambian government for 2021–2025. As mentioned above, MOH staff from various directorates collaborate and coordinate with NMCP on intersectional issues such as primary health care, child health visits/immunization, and healthy pregnancies.

PMI will coordinate closely with NMCP and other partners to ensure complementarity of support for implementation of the 2021–2025 NMSP. PMI will provide financial and technical support in strategic areas that are not currently being supported or that could be enhanced or expanded to other geographic areas, such as case-based surveillance in designated elimination areas, entomological surveillance, a plan for *Anopheles stephensi* monitoring,

cross-border coordination and data sharing, an IPTp community pilot, SBC strategy revision, ITNs for routine distribution, and support for revitalization of national-level technical working group meetings.

### Table 12. Partner Landscape

Partner	Key Technical Interventions	Geographic Coverage	Funding Amount or In-kind Contribution	Time Frame
Global Fund to Fight AIDS, Tuberculosis and Malaria	<ul> <li>Case management (prompt diagnosis and effective treatment)</li> <li>Integrated vector control (use of ITNs and indoor residual spraying)</li> <li>Specific prevention interventions (IPTp and seasonal malaria chemoprevention)</li> <li>Advocacy, social mobilization, and behavioral change communication</li> <li>Surveillance, monitoring, and evaluation; operational research</li> <li>Program management (coordination, grant management, pharmaceutical supply chain management, and cross-border collaboration)</li> </ul>	<ul> <li>National support</li> <li>All 7 regions support</li> </ul>	\$19,100,000	Current grant covers 2021 to mid-2024
Government of The Gambia			\$247,585 \$297,102 \$359,493 \$904,179 \$904,179	2021 2022 2023 2024 2025
World Health Organization			\$40,000 \$40,000	2021 2022
United Nations Children's Fund			\$100,000	2021 2022
Bill & Melinda Gates Foundation	<ul> <li>Strengthen surveillance systems</li> <li>Ensure synchronization of malaria interventions</li> <li>Develop and promote use of standardized guidelines</li> <li>Support border entomological surveillance</li> </ul>	<ul> <li>National support</li> <li>Border regions support</li> </ul>	\$50,000 \$100,000 \$143,000	2021 2022 2023

Rotary International	<ul> <li>Support for national level communications and malaria advocacy including radio and television malaria events</li> <li>Provide expertise in malaria SBC for special campaign events: such as ITN campaigns, pediatric and antenatal clinic events reaching out to pregnant women, mothers and caregivers with dramas on malaria awareness and SBC</li> </ul>	<ul> <li>National support</li> <li>Border regions support</li> <li>Community support</li> </ul>		2018 2019 2020 2021 2022
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ITN: insecticide-treated net; IPTp: intermittent preventive treatment for pregnant women; SBC: social and behavior change